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Testing an Integrated Model of Help Seeking with Ethnically Diverse Primary Care Patients

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Testing an Integrated Model of Help Seeking with Ethnically Diverse Primary Care Patients

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by

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Abstract

Structural and attitudinal barriers prevent many individuals from accessing professional mental health services and often times lead to the premature termination of treatment. Although research findings suggest that the integration of mental health services in primary care can increase access to services and reduce stigma for typically underserved populations, dropout occurs at high rates. The current study aims to: (1) identify correlates of attitudinal and structural barriers in a primary care setting, and (2) test the ability of the Integrated Model of Seeking Help (IMoSH) to predict follow-up for behavioral health visits. In particular, it was hypothesized that attitudinal barriers would predict behavioral intentions to return to a recommended appointment. On the other hand, structural barriers would better predict dropout for patients who had greater intentions of returning to their behavioral health appointment. Participants ($N = 100$) were recruited from two primary care clinics. During their initial contact with behavioral health services, patients rated their perceptions of attitudinal and structural barriers to treatment continuation, perceived need, and intention to return for a follow-up appointment. Electronic medical records indicated that 50% of patients attended their recommended follow-up appointment. Correlational analyses did not identify any significant correlates of attitudinal barriers. However, Spanish language preference was related to the endorsement of more structural barriers. Findings from a path analysis testing the IMoSH's ability to predict follow-up demonstrated that neither attitudinal barriers or structural barriers predicted behavioral intentions or follow-up, and structural barriers did not moderate the relation between behavioral intentions and follow-up attendance. Post hoc analyses revealed that a model including perceived need was able to predict follow-up attendance. The preliminary results of this study can help mental health

service providers identify where efforts should be placed during patients' first visits in order to increase treatment engagement and improve continuity of care.

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¡Si se puede!

Dedication

I dedicate this dissertation to my family. To my parents, Gonzalo and Belen, you instilled in me the drive to go farther than I ever imagined in my academic pursuits. My achievements were made possible only because of your sacrifices. To my sister, Maria Elena, you are my inspiration. Although you are no longer with us, you have lit a fire within me and I take each day as a blessing. To my brother, Raymond, thank you for staying connected even though there were hundreds of miles between us. Lastly, I want to thank my partner, Juventino. You have been there every step of the way. Your support has meant so much to me and I am excited to see where life takes us.

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Testing an Integrated Model of Help Seeking with Ethnically Diverse Primary Care Patients

The underutilization of professional mental health services continues to be a main public health concern. Although the lifetime prevalence of a mental disorder in the United States is as high as 47% (Kessler et al., 2007), epidemiological studies have found that a significant proportion of individuals meeting criteria for mental disorders do not receive mental health treatment. For example, findings from the National Comorbidity Study – Replication (NCS-R) revealed that of those with a DSM-IV disorder, only 41% sought any kind of treatment in the past year, with only 22% of those who sought treatment having received services from mental health professionals (Wang et al., 2005).

In addition to this gap between service utilization and need, delays in seeking treatment occur at high rates. Although about 80% of individuals with a mental disorder eventually make treatment contact in their lifetime, this contact occurs about 11 years after the onset of the disorder (Wang, Berglund, Olfson, & Kessler, 2004). In many cases of untreated mental illness, symptoms can become more severe, resistant to treatment, and may re-occur or co-occur with the development of an additional mental disorder (Post & Weiss, 1998). In light of this evidence, increasing the treatment of psychological problems sooner after the onset of a disorder would help relieve the burden associated with failures or delays in seeking treatment.

Even after initiating treatment, patients and clients often unilaterally decide to end treatment prematurely. Olfson and colleagues (2009) examined predictors of dropout using data from the NCS-R. Although a limitation of the study includes participants' retrospective recall of early termination, this study examined dropout among various health sectors. They found that after the first two visits to a health care provider in the medical or mental health specialty sectors, the probability of dropout increased, suggesting that the initial visits for mental health treatment

are crucial for evaluating patients' perceptions of services and barriers. In addition, the authors suggest that because the likelihood of dropout decreases when services are accessed from multiple sectors, integrated primary care clinics may be a promising setting in which to attain and complete mental health treatment (Olfson, Mojtabai, Sampson, Hwang, & Kessler, 2009).

Increasing Access to Mental Health Services with IBHC

Recent efforts to increase access to mental health services have targeted the primary care setting. One model in particular, the integrated behavioral health care model (IBHC) places mental health care professionals in the primary care setting where approximately 16 to 24% of individuals meet diagnostic criteria for depression (Mitchell, Vaze, & Rao, 2009). Integrated clinics vary in their degree of integration, with the most highly integrated clinics enlisting mental health providers as key players in interprofessional teams of patient care. Settings such as these also share resources including medical records, patient exam rooms, and other ancillary services such as interpreters. The IBHC model aims to increase access to services for patients with mental health needs who encounter numerous barriers to treatment, both structural and attitudinal. For example, providing services in the same exam room as their medical visit can be less stigmatizing to individuals than visits conducted in a separate room or those held at a specialty clinic for mental health services. Same-day 30-minute appointments eliminate the need to schedule services for a different day or to prolong treatment, thereby reducing the barriers that patients would normally encounter in a traditional mental health setting. For example, scheduling an appointment on a different day might require a patient to take additional time off work or find childcare.

Unlike the traditional mental health care setting, the initial contact of services for IBHC does not rely on the autonomous decision-making of the individual patient. Mental health

services within the IBHC model are provided through warm-handoffs from primary care providers. In other words, the medical provider is the gatekeeper of behavioral health services and initiates services on behalf of the patient. Thus, it is possible that a provider identifies a behavioral health concern, but the patient has little to no perceived need for behavioral health services. In contrast, follow-up appointments for behavioral health services are recommended by a behavioral health consultant (BHC) and the decision to schedule and attend the recommended appointment is entirely at the discretion of the patient. For this reason, the initiation of services makes IBHC a unique setting in which to study the continued use of services.

Very little research has examined predictors of help seeking in IBHC. Two studies in particular have examined demographic and mental health status as predictors of follow-up attendance in IBHC (Anastasia, Hernandez Rodriguez, & Bridges, 2013; Anastasia, Larey, & Bridges, 2015). These studies found no significant predictors of premature termination for child patients; however, for adult patients, younger age and private insurance were associated with increased odds of attendance at follow-up appointments. Instead, most of the research on continued service utilization and help seeking in general has been conducted in traditional mental health settings. Several predictors of help seeking and dropout have been identified in the literature and are described below.

Demographic Variables

Basic sociodemographic characteristics have been identified by empirical studies as predictors of professional mental health service use (e.g., Vasiliadis, Tempier, Lesage, & Kates, 2009). An examination of data from the initial National Comorbidity Survey (NCS) conducted in 1990-1992, and the follow-up NCS-R conducted in 2001-2003, found that adults over the age of 24, who were non-Hispanic White, unmarried, and female were more likely to use

professional services for emotional problems than their demographic counterparts (Kessler et al., 2005). In terms of predicting treatment dropout, research has similarly found that adults who are younger, racial and ethnic minorities, uninsured, and unemployed are more likely to dropout from treatment (Olfson et al., 2009).

Acculturation

The process of acculturation is described as a bidirectional interaction between two cultural groups. This exchange between the dominant culture and the minority culture results in varying degrees of contact (Berry, 2001). In the case of Mexican immigrants, for example, acculturation would take the form of adopting the dominant U.S. culture, while the term enculturation would refer to maintaining one's Mexican cultural heritage. Throughout the process of acculturation, individuals may take on cultural elements of the larger society as evidenced by behavioral shifts (e.g., using the dominant language, participation in activities of the dominant culture) and the acquirement of values held by the dominant culture (e.g., individualistic values).

The majority of research has shown that acculturation to the US culture is positively related to help seeking attitudes and behaviors (David, 2010; Kilinc & Granello, 2003; Kung, 2003; Luu, Leung, & Nash, 2009; Miville & Constantine, 2006; Mo, Mak, & Kwan, 2006; Obasi & Leong, 2009; Zhang & Dixon, 2003). For example, using data from the Chinese American Psychiatric Epidemiological Study, researchers found that higher levels of acculturation significantly predicted an increase in odds (Odds Ratio = 1.52) of seeking professional mental health services (Kung, 2003). Overall, individuals born in the U.S., with greater English proficiency, and those living in the U.S. for more years tend to use professional mental health services at greater rates and tend to have more positive attitudes toward professional

psychological services than their recent immigrant counterparts with limited English proficiency (Mo et al., 2006). Although attitudinal differences about the acceptability of mental health services may partially explain these findings, it is likely linguistic barriers and a lack of familiarity with local services are significant barriers to mental health service utilization for non-English speaking immigrants.

Research examining specific cultural values and help seeking has found that greater adherence to values of emotional self-control, humility, filial piety, collectivism, and family recognition through achievement are related to more negative help-seeking attitudes and decreased behavioral intentions to seek help (e.g., Kim & Lee, 2014; Soorkia, Snelgar, & Swami, 2011; Wong, Wang, & Maffini, 2014). Asian Americans who adhere strongly to these cultural values may find it especially difficult to assert themselves and their needs to mental health professionals. In addition, values related to familism are related to an increase of informal help seeking (e.g., religious leaders, folk healers, and self-help groups), but not formal help seeking among Latinos in the United States (Villatoro, Morales, & Mays, 2014).

Attitudinal Barriers

Some studies have examined attitudinal (i.e., intrinsic) variables that might explain why individuals do not seek needed mental healthcare. Research shows sociocultural norms about the acceptability of mental health help seeking plays a role in predicting attitudes toward professional mental health services and behavioral intentions to seek help. Studies that examine help seeking norms have focused on the influence of close social networks (e.g., Kim & Park, 2009). For example, researchers found negative family and friend norms about help seeking are related to lower intentions to seek help for mental health difficulties (Barksdale & Molock, 2009). In terms of actual service utilization, among a sample of Latinos, social perceived need

(i.e., encouragement from a family member or friend to seek services) was related to increased odds of mental health service use, including specialty and informal services (Villatoro et al., 2014)

Another important intrinsic barrier to consider is adherence to traditional gender roles. Overall, adherence to masculine gender norms is negatively related to help seeking behavior and attitudes among men (Berger, Addis, Green, Mackowiak, & Goldberg, 2013; McKelley & Rochlen, 2010). Adherence to masculine norms has also been positively related to self-stigma, or concern about threats to self-esteem, when seeking counseling. For example, men who experience more public- and self-stigma have reported less acceptability of the expression of emotional or psychological difficulties and more expectations of self-sufficiency (Hammer, Vogel, & Heimerdinger-Edwards, 2003).

Much of the stigma produced by public perceptions may be due to lack of exposure and familiarity with mental illness and mental health services. Blais and Renshaw (2013) found that previous exposure to mental health treatment moderates the relation between stigma and help seeking intentions. Findings consistently show that this previous experience increases the development of positive attitudes about therapy, help seeking intentions, and, ultimately, help seeking behaviors (Chang, 2008; Kakhnovets, 2011; Kilinc & Granello, 2003). Studies that have attempted to analyze factors related to treatment expectations show that some kinds of expectations might be more important than others. On the one hand, higher expectations about the anticipated utility of treatment predict more positive help seeking attitudes and increased help seeking intentions; however, for actual help seeking behavior, expectations about the anticipated risks of self-disclosure overshadow the anticipated utility of treatment seeking for those experiencing a distressing event (Vogel, Wester, Wei, & Boysen, 2005). Among those who do

access treatment services, expectations about facilitative conditions (e.g., therapist trustworthiness, genuineness, concreteness, acceptance, tolerance, and nurturance) predict future help seeking intentions, while expectations about one's personal commitment and responsibility to engage in the treatment process predicts the actual number of therapy sessions attended (Kakhnovets, 2011).

Stigma about mental illness, and consequently help seeking for such problems, are often perceived as signs of personal weakness that activate threats to one's self-esteem (Nadler, 1987; Nadler, Fisher, & Streufert, 1976). Stigma may also prompt individuals to seek mental health services from a general practitioner rather than a specialty mental health professional among those who perceive physical causes of psychological difficulties (Jorm, 2012).

Structural Barriers

Structural barriers are typically factors beyond an one's personal control that deter help seeking even after a decision to seek help has been made. Consequently, individuals who hold positive attitudes about help seeking and intend to access professional services may encounter structural barriers that prevent actual help seeking behavior. This is especially evident for those with severe mental health disorders (Andrade et al., 2014). For those with mild to moderate clinical disorders, research has shown that attitudinal barriers, like the desire to handle problems on one's own and perceived need, are the most commonly reported barriers to treatment (Andrade et al., 2014).

The research on mental health disparities in underserved communities has identified a number of structural barriers that may contribute to the underutilization of mental health services, including the availability of culturally responsive treatments, lack of bilingual providers, cost of services, and lack of transportation (Bridges, Andrews, & Deen, 2012; U.S.

Department of Health and Human Services, 2001; Garcés, Scarinci, & Harrison, 2006; Griner & Smith, 2006). For those who are undocumented immigrants, the fear of deportation and lack of health insurance also operate as structural barriers to treatment (Bridges et al., 2012).

The underutilization of mental health services occurs at even higher rates for ethnic minority populations compared with White adults in the United States. Alegría and colleagues (2008) found that among adults with a depressive disorder in the past year, 68.7% of Asians, 63.7% of Latinos, and 58.8% of African Americans did not receive treatment compared with 40.2% of non-Latino Whites. The authors argue that these disparities in service utilization are likely due to minority populations encountering more barriers to mental health treatment than their White counterparts. Studies have identified higher rates of poverty, lack of insurance, and significant under-detection of depression among ethnic and racial minority groups as explanations for the disparities found in accessing mental health treatment (Aguilar-Gaxiola et al., 2002; Alegría et al., 2008).

When considering those who do access formal services for mental health concerns, not all turn to mental health professionals for help. In fact, many see the assistance of their medical providers for mental health treatment (Bridges et al., 2012; Kessler & Stafford, 2008; Strosahl, 2005). Only then might medical providers, who act as the gatekeepers for referrals to other specialty services, connect patients to mental health professionals. This pattern of utilization demonstrates individuals' reliance on using services with which they are already familiar while bypassing the need to navigate an additional and complex system of care.

Existing Help-Seeking Models

Although not applied specifically to the seeking of mental health care treatment, several models have been developed to predict the engagement in general health-related behaviors,

including the use of professional services. Among the models developed, the most extensively cited and researched are the theory of planned behavior, the health care utilization model, and the health belief model. The theory of planned behavior, an expansion of the theory of reasoned action, describes how attitudes, subjective norms, and perceived control over a behavior predict help seeking intentions, which in turn lead to help seeking behavior (Ajzen, 1991). For example, individuals who positively evaluate the act of help seeking and experience social pressure to get help are more likely to be engage in a behavior than those who hold negative perceptions about help seeking and those who do not experience pressure from others to engage in a behavior. Furthermore, Ajzen (1991) proposes that intentions will only lead to action if an individual perceives some degree of personal control over the behavior (i.e., self-efficacy).

Strong support for the theory of planned behavior has been found in its ability to predict behavioral intentions; however, the efficacy of the model in its prediction of enacted health behaviors varies across domains of health and may be due to a discrepancy between perceived and actual control (Godin & Kok, 1996). The addition of perceived behavior control serves as a strength to the model because it can now account for instances in which a person may feel ready to engage in a behavior without enacting it. One limitation of this theory is that it does not explain how external barriers and systemic obstacles would make it difficult to seek help. In addition, the theory of planned behavior does not specifically identify how attitudes and beliefs are developed toward a behavior, nor does it identify a trigger or cue that would begin the help seeking process. It may be that subjective norms, or pressure from family and friends, promote the development of perceived need, and thus serve as cues that precedes the need to evaluate one's beliefs about help seeking and one's perceived ability to get help.

Andersen's (1995) model of health care utilization proposes that both individual and contextual factors play a role in predicting health behaviors. In particular, Andersen's model recognizes the influence of enabling resources, predisposing characteristics, and need on health behaviors. One unique characteristic of the health care utilization model is that it explains how the use of health-related services leads to specific outcomes (e.g., health status and satisfaction with services), which in turn influence health behaviors and population characteristics via feedback loops. According to Andersen, this extension allows the model to predict the likelihood of follow-up for referrals and treatment adherence. In addition, the health care utilization model identifies need at the perceived and evaluated level, which assumes that contact with professionals must be made before the use of health services, though this prior contact is not considered a use of services in and of itself.

A review of the research conducted using the health care utilization model shows a lack of reliable findings, most likely a result of inconsistency in the application of variables that define predisposing characteristics and enabling factors (Babitsch, Gohl, & von Lengerke, 2012). For example, predisposing characteristics are defined broadly as demographic variables (e.g., age, gender), social structure (e.g., education, occupation, ethnicity, culture), and health beliefs (e.g., attitudes, knowledge of health and health services, values). Although each of these variables is grouped under predisposing characteristics, they likely influence the use of health services in distinct ways, thereby contributing to variability in results based on what researchers choose to measure in their particular study. In addition, variables used to measure social class can also be considered demographic variables (e.g., ethnicity).

Lastly, the health belief model proposes that the following influences an individual's health behaviors: beliefs of illness severity and susceptibility, and perceptions of the costs and

benefits of receiving services. In addition to these internal factors, other modifying variables have been integrated in the model including demographic characteristics, the perception of illness threat, and the influence of cues to action (e.g., triggers that initiate the help seeking process) (Rosenstock, Strecher, & Becker, 1994). According to the health belief model, perceived susceptibility and seriousness of a disease together lead to the perception of illness threat and this threat, in turn, increases the likelihood that an individual takes health-related action. It is important to note that the model was originally developed to predict the use of preventative health services and not help seeking in the context of illness, making it likely that model variables function differently in the context of mental health treatment.

In terms of its application in research, the health belief model mostly provides a theoretical framework and demonstrates weak predictive validity of future behavior due to variability in study designs and measurement of model constructs (Harrison, Mullen, & Green, 1992). Nonetheless, the model introduces a unique analysis of the costs and benefits of preventative care, in which the benefits of behavior change must outweigh the consequences in order to increase the likelihood of action. Just as the theory of planned behavior accounts for the influence of social norms, the health belief model more clearly identifies these social pressures as cues to action and includes the influence of mass media. In order to more clearly identify the influence of attitudes or perceptions of help seeking, it may prove beneficial to sequence model variables according to their temporal influence and to unpack the attitudinal components inherent in both sociopsychological variables and the perceptions of costs and barriers.

Integrated Model of Help Seeking

In order to develop a more comprehensive model of help seeking, a model was created using the empirical research on professional mental health help seeking, with special attention to

the role of culture. This model, the Integrated Model of Seeking Help (IMoSH; Figure 1) defines help seeking as an individual's attempt to access a professional service for the purpose of receiving treatment for a mental health problem. The help seeking in this model focuses on professional mental health service use, but can be applied to general help seeking behavior, which can include seeking help from informal sources such as friends and family, or other formal services like medical providers. Although many individuals seeking services initially present with mental health concerns to general practitioners who then refer patients to specialty services, this model attempts to identify the mechanisms that increase or decrease the likelihood that an individual directly accesses mental health services. First, the IMoSH describes a process of help seeking from problem recognition to ultimate access. Therefore, variables influencing help seeking are presented in a temporal sequence. Second, the model recognizes that different forces or influences may be acting on the individual at different stages of help seeking to promote or impede the use of services. Third, the model unites basic and applied research by articulating overarching components or factors. Using an inductive approach, several general factors were identified as influential to help seeking: (1) values and norms, (2) problem recognition/perceived need, (3) characteristics of the help, (4) beliefs about the help, and (5) structural barriers. Lastly, the model describes help seeking as a continual decision-making process, which does not end once services are initiated; a feedback loop illustrates this process. Like Andersen's (1995) health care utilization model, the IMoSH has the ability to predict changes in attitudinal barriers based on previous help seeking experience, as well as continued help seeking in the face of new structural barriers. However, this newly proposed model lacks empirical validation.

Values and Norms

Values and norms encompass an individual's cultural belief systems. These cultural beliefs generate attitudes regarding help seeking and shape an individual's perception of the usefulness of mental health services and the costs of seeking this kind of care. Values and norms are unique to the individual, but develop via interactions with the social world. Factors identified as influential are acculturation/enculturation, negative peer/family norms about professional help seeking, and norms regarding gender roles. These values and norms exist prior to an individual's need for help, thereby influencing all steps of the model leading to attitudes towards help seeking, but are not considered critical in influencing the structural barriers that may prevent someone from accessing care. They provide a contextual influence in the help-seeking process.

Problem Recognition and Perceived Need for Help

Theoretically, problem recognition and perceived need appear to be important to initiating intentions to seek help, as demonstrated in the health belief and health care utilization models. Several correlates of perceived need have been identified, including having a diagnosable mental health disorder, severity of symptoms and resulting disability, and comorbidity (see Aoun, Pennebaker, & Wood 2004 for a review).

The IMoSH suggests cultural values and beliefs influence the entire help seeking process, including recognizing a problem and perceiving a need for help. In addition to values and norms, other factors such as the severity of symptoms and personal distress will assist the individual in recognizing that the impairment they experience has reached a threshold that would indicate the need to seek a particular kind of help.

Characteristics of Aid

Once an individual has perceived a need for help, they must choose to seek help from a variety of different sources. Characteristics of aid refer to those factors associated with the use of a particular type of help, in this case professional mental health services. These characteristics include perceptions about the expertise and similarity of the service provider, expectations to reciprocate help, and the centrality of the help as it relates to an individual's abilities. These characteristics are shaped by values and norms and directly influence beliefs about the aid they consider using.

Beliefs about Aid

Characteristics of aid, once taken into account by the help-seeker, then influence an individual's beliefs about the type of aid they consider using. Beliefs about aid involve one's beliefs about the potential for threats to self-esteem, lack of anonymity, stigma associated with the receiving help, and expectations about treatment (e.g., costs and benefits, an individual's responsibilities while in treatment, and the facilitative environment where treatment takes place). These beliefs about aid are proposed to moderate the relation between perceived need and help seeking attitudes about professional mental health services.

Structural Barriers

Barriers to the utilization of mental health services are often categorized as structural/logistical in nature or attitudinal and intrinsic to the individual. Structural barriers typically include those factors that restrict individuals from services and are related to characteristics of the health care system. According to the IMoSH model, intrinsic and structural barriers influence the access of services in temporally different ways. First, intrinsic barriers exert their influence on attitudes about help seeking, but not help seeking behaviors directly.

Second, extrinsic barriers deter help seeking behaviors only after positive attitudes about help seeking have been established. In order to test this sequence of intrinsic or extrinsic barriers at certain points in the help seeking process, studies could examine service use in contexts where structural barriers are reduced and those where structural barriers are high. For example, one would expect to find that individuals who are referred to behavioral health services in integrated primary cares settings and yet do not use services may hold negative attitudes about seeking mental health treatment. Assessing specific reasons for not accessing services in a low structural barriers setting could provide support for the hypothesis that addressing structural barriers without discussion of negative attitudes would be ineffective.

Study Overview and Hypothesis

Broadly speaking, the current study was intended to provide initial empirical support for the IMoSH in a sample of primary care patients referred for integrated behavioral health care services. The study took advantage of an existing partnership between the university and a local Federally Qualified Health Center that offers integrated services. Because patients receiving initial same-day behavioral health appointments in these clinics do not initiate behavioral health services on their own, their attendance for a follow-up visit (which is an entirely independent decision) can be predicted by a set of baseline attitudinal and structural variables.

The first aim of the current study was to identify correlates of attitudinal and structural barriers in an IBHC setting where access to services, via the integration of mental health professionals in primary care, aims to reduce barriers to treatment. Based on previous help seeking literature examining treatment dropout, the following variables were identified as predictors of treatment follow-up: age, ethnicity, and insurance status. In order to move beyond the basic identification of sociodemographic predictors of follow-up and test the integrated

model of help seeking (IMoSH), the current study also examined whether these variables, in addition to perceived need, therapeutic alliance, and history of behavioral health services use, related to the endorsement of attitudinal and structural barriers.

The second aim of this study was to identify whether patient perceptions of structural barriers moderated the relation between treatment intentions and follow-up in IBHC. It was hypothesized that structural barriers would explain more variance in follow-up for individuals who have greater intentions of returning to their follow-up appointment compared with those who report lower intentions of returning..

Method

Participants

The study recruited a sample of 100 primary care patients (see Table 1 for demographic characteristics of the patient sample). All patients were seen at one of two Federally Qualified Health Centers in Northwest Arkansas. To qualify for the study, participants had to be at least 18 years of age, be seen for an initial behavioral health appointment (i.e., their first opportunity to discuss their presenting concern), and must have been recommended a follow-up appointment by their behavioral health consultant (BHC). Participants were provided behavioral health services by one of four clinical psychology doctoral trainees between March 2016 to April 2017. Three of the four doctoral trainees were bilingual (English and Spanish), all were female, one was Latina and the remaining three were non-Hispanic White.

Participants ranged in age from 19 to 74 years old with a mean age of 41.05 years (*SD* = .19). Most participants were female (73%) and Hispanic (65%). About half of participants completed measures in Spanish (54%) and 50% were uninsured. Thirty-three percent of patients had received behavioral health services in the past. In addition, 40% of patients had a

chronic health condition (type II diabetes, hypertension, hypercholesterolemia, asthma, and/or obesity) and 48% were taking a psychotropic medication at the time of their behavioral health visit.

Providers referred patients to behavioral health services for several reasons, the most common reasons being mood difficulties including depression (49.5%), anxiety including panic symptoms (33.3%), assessment (19.0%), stress (13.1%), physical complaints including chronic pain (3.0%), and other difficulties including sleep problems, trauma, self-harm, and grief (6.1%). Global Assessment of Functioning (GAF) scores given to patients by BHCs ranged from 35 – 73 (M = 58.40; SD = 7.18). Finally, 81.0% of patients received a primary diagnosis at their visit. Diagnoses included depressive disorders (41.0%), anxiety disorders (16.0%), bipolar disorders (7.0%), trauma- and stressor-related disorders (6.0%), V-codes (6.0%), and other disorders (5%; psychosis, sleep disorders, substance use disorders, obsessive-compulsive disorders). A total of 19 patients did not receive a mental health diagnosis at their behavioral health session.

In order to become established patients at the FQHC, individuals had to complete an application and provide proof of insurance or financial documents to determine the costs of their medical appointments. Although the FQHC is not a walk-in clinic, if a provider had availability, patients could potentially be seen the same day they applied. Alternatively, patients would need to schedule for the next available appointment, at times a month in advance. Patients cannot apply specifically for behavioral health services at the FQHC and must be seen by a medical provider in order to receive a referral for behavioral health services. Thus, patients could not initiate services to be seen exclusively by a BHC without also being engaged in the medical services provided by the clinic (i.e., dentistry, family medicine, prenatal care, and women's health). In terms of the clinic's presence in the local community, the FQHC has an outreach team

that sets up booths at local events including health fairs, parades, and festivals where they provide preventative screenings and information about the clinic.

Procedures

Patients who were identified by their primary care physician as having a behavioral health concern were referred to a same-day appointment with a BHC, a member of the primary health care team. At the end of their session, patients scheduled their next behavioral health visit with their BHC. For those patients who were recommended a follow-up visit with behavioral health, BHCs provided a description of the study at the end of the session and obtained the verbal consent of patients. At their clinic orientation, patients also provide written consent to release information from their health care visits for research and program evaluation purposes. Data that are not collected as part of patient's routine behavioral health visit were explicitly described in consent form materials. The approximate time needed to complete study measures was 15 minutes. Once patients completed the self-report questionnaire, they were compensated with five dollars and were instructed to return to the front office to scheduled any necessary follow-up appointment with their providers. Nine participants declined to schedule a follow-up appointment for behavioral health services. The executive director of the FQHC and the university Institutional Review Board approved study procedures.

Patients who met study criteria and provided verbal consent were given study measures in their preferred language (English or Spanish) by their BHC. The BHC allowed the patient to complete the study in private, except when in need of assistance with reading study measures, and in the same room in which the behavioral health session took place. Two strategies were employed to control for limited reading ability. Sixteen participants elected to use iPads programmed with the capability to administer study measures in a written and audio format.

Those participants that used the iPads to complete self-report measures were given a "how-to" overview of navigating through items of the questionnaire and were provided with a demonstration on activating the audio functions of items and responses. Data were not collected on the number of participants that used iPads and required use of the audio descriptions due to low literacy. When study measures underwent a revision in January 2017, use of the iPads was discontinued and BHCs provided patients with the option of assisting them with completing study measures. A total of seven participants asked BHCs to read questionnaire items and responses to them due to limited literacy. BHCs culled medical records for demographic information and other health-related information at a later time.

Measures

Given the fast-paced nature of primary care, brief measures were selected and created to assess the variables studied. Over time, it was noted that participants often declined to participate in the study due to time constraints. In response to these concerns, significant modifications took place for original study measures. Thus, information below will refer to Phase 1 and Phase 2 of data collection. Phase 1 will refer to data collection using original study measures, which occurred between March 2016 and June 2016. Phase 2 of data collection will refer to the use of modified study measures that were used from January 2017 to April 2017. At that time, the number of questionnaires and items was reduced and incorporated into routine assessments conducted for all patients of the FQHC. Below is a description of the original and modified study measures.

Demographic Information. BHCs extracted patient demographic information from electronic medical records after the initial behavioral health visit. Demographic variables collected included age, sex, ethnicity, insurance status, use of psychotropic medication, chronic

health conditions (type II diabetes, hypertension, hypercholesterolemia, asthma, and/or obesity), and history of behavioral health service use. Reason for referral, GAF scores, primary diagnosis, primary intervention, and the use of an interpreter were examined by reviewing the behavioral health visit note.

Global Distress. Patients completed the A Collaborative Outcomes Resource Network (ACORN; Brown, 2011) questionnaire at the end of their session. The adult version of the ACORN used in Phase 1 of data collection is an 18-item self-report measure with 14 items that ask patients to identify the frequency with which they experienced the following symptoms in the last two weeks: anxiety, mood difficulties, interpersonal problems, sleep difficulties, alcohol and drug use, and functional impairment (see Appendix A). The 14 psychiatric distress items of the ACORN are scored on a 5-point Likert scale, from 0 (*Never*) to 4 (*Very often*). Items are then averaged to form a global distress score.

Brown (2011) has indicated the cutoff score for identifying those in the clinical range is 1.5 and the mean score for clinical samples at intake is 2.1 (SD = 0.8). In addition, coefficient alpha ranges between .83 – .92 in clinical samples. Cronbach's alpha in the current study was excellent (α = .93).

Therapeutic Alliance. The last four items of the ACORN assess therapeutic alliance from the patient's perspective (see Appendix A). These items ask patients the degree to which they discussed things that were important to them during their visit, felt understood by their therapist, thought the session was helpful, and confidence in working well with the therapist. Responses are scored on a 5-point Likert scale from 0 (*Do not agree*) to 4 (*Agree*) and items are averaged to form a therapeutic alliance score. Cronbach's alpha for this measure could not be computed due to lack of variance in three of the four items. As a result, the ACORN alliance

measure was replaced with three new alliance items for Phase 2 of data collection: "I am satisfied with my appointment," "I found it easy to talk about my problems with the therapist," and "The therapist gave me useful information and tips for how to manage my problems" (see Appendix B). Internal consistency for the new alliance scale was good (α = .86). Eighteen participants completed the ACORN using the original 4-item measure while 77 completed the new 3-item measure of alliance.

Structural and Attitudinal Barriers. Patients were asked to rate their agreement with eight statements relating to barriers that might prevent them from coming back to their follow-up appointment (see Appendix C). Each statement was rated on a 5-point Likert scale from 0 (*Do not agree*) to 4 (*Agree*). The measure was influenced by items from the NCS-R and was edited to reflect the barriers most patients would encounter in the primary care setting. Three items described attitudinal barriers: "I would prefer to address the problem on my own, without the help of the therapist" (stoicism), "I am concerned about what others will think of me if I come back to another appointment" (stigma), and "I do not think I have a problem" (problem recognition). An additional five items assessed structural barriers: "I am concerned about how much money it will cost to pay for my next appointment" (financial), "I think I will not be able to get off work for my next appointment" (work), "I think I will not be able to get transportation for my next appointment" (transportation), "I think I will not be able to find childcare for my next appointment" (childcare), and "I would not want to use an interpreter for my next appointment" (interpreter use). Items for the set of barriers were averaged to form an attitudinal score and a structural barriers score, with higher scores indicating more perceived barriers in each category.

Cronbach's alpha for the 3-item attitudinal barriers scale was .64. Cronbach's alpha for the structural barriers scale was .68. Despite these low internal consistency reliability coefficients, the scales were not designed to be internally consistent but rather to reflect the number of barriers each participant faced.

Perceptions of Mental Health Services. The Attitudes toward Seeking Professional Psychological Help – Shortened Form (ATSPPH-SF; Fischer & Farina, 1995) was used to measure patients' perceptions of professional mental health services for psychological problems. The measure is a 10-item version of Fischer and Turner's (1970) original 29-item ATSPHH measure. Items are scored on a 4-point Likert rating scale ranging from 0 (*Disagree*) to 3 (*Agree*) with higher total scores indicating more positive attitudes about professional psychological services. The authors report a reliability coefficient of .84 for the shortened measure, which correlated at a .87 with the original version of the ATSPPH. Ramos-Sanchez and Atkinson (2009) created a Spanish version of the measure that they used with a Mexican-American sample.

In order to assess patients' perceptions about behavioral health services in particular, items were rephrased to refer to behavioral health services and behavioral health specialists (see Appendix D). Examples of items include "I would want to get behavioral health services if I were worried or upset for a long period of time," and "There is something admirable in the attitude of a person who is willing to cope with his or her conflicts and fears without resorting to professional help." Eighteen participants completed the ATSPHH-SF for behavioral health services. Due to time constraints for patients, this measure was ultimately removed from study procedures for Phase 2 of data collection.

Acculturation. The Short Acculturation Scale for Hispanics (SASH; Marin, Sabogal, Marin, Otero-Sabogal, & Perez-Stable, 1987) is a unidimensional measure of acculturation (see Appendix E). The SASH consists of 12 items measuring three factors: language use, media preference, and ethnic social relations. Language and media use factors are rated on a 5-point Likert scale ranging from 1 (*Only Spanish*) to 5 (*Only English*). The rating scale for ethnic social relations ranges from 1 (*All Latinos/Hispanics*) to 5 (*All Americans*). Examples of items from the language factor are: "What languages do you usually speak at home?" and "In which language do you usually think?" Examples of items from the media preference factor include: "In what language(s) are the TV programs you usually watch?" and "In what language(s) are the radio programs you usually listen to?" An overall average score is obtained from the 12 items ranging from 1 to 5, with scores below 2.99 indicating low acculturation to Anglo society and scores above 2.99 identifying those who are highly acculturated. The authors of the measure report an internal consistency of.92 for overall acculturation, .90 for language use, .86 for media preference, and .78 for ethnic social relations in a sample of Hispanics and non-Hispanic Whites (Marin et al., 1987). This measure has been translated into Spanish by the authors and validated for use with Mexican Americans and Central Americans. Eighteen participants completed this measure before it was removed for Phase 2 of data collection.

Intention to Follow-Up. Participants were asked one question about their intention to follow-up with their recommended appointment. This question asked, "How likely are you to come back to your next behavioral health appointment?" and was rated on a 5-point Likert scale ranging from 0 (*Not at all likely*) to 4 (*Very likely*). The Phase 2 version of this item was rephrased into a statement: "I intend to come back for another appointment." Participants rated their agreement from 0 (*Do not agree*) to 4 (*Agree*).

Follow-up Attendance. Behavioral health consultants gathered information about follow-up attendance from patient electronic medical records. Follow-up attendance was coded dichotomously (0 = No; 1 = Yes). Follow-up appointments that were rescheduled and attended were coded as successful follow-ups. Patients who declined a recommended follow-up or did not show for their appointment as scheduled were coded as unsuccessful follow-ups.

Statistical Analyses

Descriptive statistics were computed for the overall sample. Preliminary analyses were conducted to assess for missingness and assumptions of normality and linearity. In addition, chi-square analyses and independent sample's t-tests were computed to explore demographic differences among study variables. For the first aim of the study, Pearson product-moment and point-biserial correlations were computed to test the relations between sociodemographic predictors, therapeutic alliance, perceived need (i.e., global distress), diagnostic status, history of behavioral health services, and attitudinal and structural barriers. For the second aim of the study, a path analysis model was estimated to assess the moderation of structural barriers upon the relation between behavioral intentions and follow-up (see Figure 2). Path analyses were conducted using SPSS Amos software, version 21.0.0. Overall model fit was evaluated with absolute fit indices (chi-square statistic [χ^2], root mean square error of approximation [RMSEA]), and an incremental fit index (comparative fit index [CFI]). CFI values greater than .95 and RMSEA values less than .06 are indicative of good model fit (Hu & Bentler, 1999).

All study variables contained 5% or less missing data, except for items from the ATSPPH-SF (perceptions of behavioral health services) and SASH (acculturation) measures. Because the ATSPPH-SF and SASH were ultimately removed from Phase 2 of data collection, the responses from the 18 patients who completed these measures were not included in any

statistical analyses. As previously described, two different versions of the therapeutic alliance measure were administered. Since items from the two versions were rated on the same scale, responses from the two measures were combined to compute one variable. Of note, the therapeutic alliance variable demonstrated excessive negative skewness and kurtosis. To address this, the variable was transformed using a logarithmic and reflected transformation (Tabachnick & Fidell, 2006). After the transformation, skewness and kurtosis were reduced, but remained significant. For ease of interpretation, the non-transformed therapeutic alliance was entered into correlational analyses and in explorations of demographic differences.

Results

Preliminary Analyses

Chi-square analyses with dichotomous variables showed Hispanic patients were significantly less likely to attend follow-up appointments compared with their non-Hispanic White counterparts, $\chi^2(1) = 9.89$, $p < .01$. In particular, 38.5% of Hispanics attended their follow-up appointment compared with 71.4% of non-Hispanic Whites. As expected, Hispanics (83.1%) were significantly more likely to complete study measures in Spanish compared with Whites (0.0%), $\chi^2(1) = 63.21$, $p < .001$. Ethnicity was also related to insurance status, such that Hispanics were less likely to be insured compared with non-Hispanic White patients, $\chi^2(1) = 15.87$, $p < .001$. While 77.1% of non-Hispanic Whites had public or private medical insurance, only 35.4% of Hispanics reported having medical insurance. Hispanics were also less likely to be taking psychotropic medications compared with non-Hispanic Whites, $\chi^2(1) = 6.77$, $p < .01$, (38.5% Hispanics vs. 65.7% non-Hispanic Whites). There was a trend for Hispanics to be less likely to receive a mental health diagnosis, $\chi^2(1) = 3.81$, $p = .05$. In particular, 75.4% of

Hispanics received an Axis I diagnosis at their behavioral health visit compared with 91.4% of non-Hispanic Whites.

Overall, women were significantly more likely to have used behavioral health services in the past, compared with men, $\chi^2(1) = 8.02$, $p < .01$. Of the 33 patients who received behavioral health services in the past, 90.9% were female and 9.1% were male. Regarding language differences, those whose primary language was Spanish tended to be less likely to attend their follow-up appointment than those who primary language was English , $\chi^2(1) = 4.03$, $p = .05$. The majority of patients who attended their follow-up appointment preferred to English (56.0%) while 44.0% preferred Spanish. A preference for Spanish was significantly related to insurance coverage, $\chi^2(1) = 16.1$, $p = .001$, the use of psychotropic medications, $\chi^2(1) = 5.65$, $p = .02$, and receiving a psychiatric diagnosis, $\chi^2(1) = 5.88$, $p = .02$. Rates of insurance coverage, use of psychotropic medication, and diagnoses were similar to those broken down by ethnicity.

When comparing ethnic groups on GAF scores, an independent samples t-test revealed Hispanics had significantly higher GAF scores ($M = 60.43$, $SD = 6.25$) than their non-Hispanic White counterparts ($M = 54.63$, $SD = 7.37$), $t(98) = -4.16$, $p < .001$. Comparisons based on language revealed that patients whose language preference was Spanish also had higher GAF scores compared with those whose language preference was English, $t(98) = -3.23$, $p < .01$.

In terms of those who endorsed higher concerns about barriers for their next appointment (*Somewhat agreed* or *Agreed* were dummy-coded coded as a positive endorsement of a barrier), about 39% of patients were worried about the cost of services, 13% reported a barrier related to their work schedule, 11% believed they would have difficulty finding transportation, 9% believed they would have trouble finding childcare, about 44% did not want to use an interpreter at their next visit, 16% were concerned about what others would think if they returned, about

17% reported that they did not have a problem, and about 16% stated they wanted to handle their problem on their own.

Analyses comparing patients from Phase 1 to those who completed Phase 2 study measures showed no significant differences in measures of GAF, global distress, attitudinal barriers, structural barriers, intention to follow-up, and actual follow-up. However, there was a significant difference in mean alliance scores between Phase 1 and Phase 2 patients, $t(93) = 3.38$, $p < .001$. The mean alliance reported by Phase 1 participants ($M = 3.99$, $SD = 0.06$) was higher than that of Phase 2 participants ($M = 3.74$, $SD = 0.64$).

Aim 1: Identify Correlates of Attitudinal and Structural Barriers

Aim 1 was examined by exploring correlations among sociodemographic variables (age, gender, language, ethnicity, insurance status, diagnostic status, medication use, history of behavioral health services, chronic health condition), information obtained at the behavioral health visit (GAF, therapeutic alliance, perceived need), and scores on the Attitudinal Barriers Scale and the Structural Barriers Scale (Table 2). No significant relations were found with the Attitudinal Barriers Scale (all p-values > .05). Therapeutic alliance demonstrated a trend towards significance ($r = -.18$, $p < .10$) such that as alliance increased, endorsement of attitudinal barriers decreased. In addition, there was a noticeable pattern, although non-significant, between past behavioral health service use and attitudinal barriers ($r = .18$, $p < .10$). A separate correlational analysis was conducted with the Structural Barriers Scale. The only significant relation that emerged was with language preference. Patients whose primary language was Spanish were more likely to endorse structural barriers that would prevent them from coming to their follow-up appointment ($r = .20$, $p < .05$).

Moreover, sociodemographic, therapeutic alliance, and global distress variables were not significant correlates of individual barrier items (all *p*-values > .05). However, some patterns trending toward statistical significance did emerge: a Work Barrier association with diagnostic status ($r = -.19$, $p = .06$), an Interpreter Barrier association with use of behavioral services in the past ($r = .18$, $p = .08$) and therapeutic alliance ($r = .18$, $p = .08$), a Stigma Barrier association with use of behavioral health services in the past ($r = .19$, $p = .06$), and a Stoicism Barrier association with therapeutic alliance ($r = -.20$, $p = .05$).

Aim 2: Path Analysis Predicting Follow-Up Attendance

In order to test the hypothesis that structural barriers would moderate the relation between intention and follow-up attendance, a path analysis model was tested (Figure 2). The model tested included three exogenous variables: attitudinal barriers, structural barriers, and an interaction between structural barriers and behavioral intentions. The three barrier variables were covaried in the model tested. Behavioral intentions and follow-up attendance were entered into the model as endogenous variables. Of note, the path from attitudinal barriers variable to follow-up attendance was not estimated in order to remain consistent to the proposed causal relationships in the IMoSH model. A total of 19 parameters were estimated. The maximum-likelihood chi-square and goodness-of-fit indices for the model indicated a very good fit to the data, $\chi^2(1) = 0.28$, $p = .60$, CFI = 1.00, RMSEA = 0.00 (90% CI = .00 - .22).

The unstandardized and standardized path coefficients for the model are summarized in Table 3. Overall, none of the paths predicting behavioral intentions or follow-up attendance reached statistical significance. Altogether, attitudinal barriers, structural barriers, and the interaction between structural barriers and behavioral intentions explained 2.8% of the variance

in behavioral intentions. Intentions to follow-up, structural barriers, and their interaction explained 4.9% of the variance in follow-up attendance.

Post Hoc Analyses

Since attitudinal and structural barriers were unable to predict behavioral intentions or follow-up, post hoc analyses were conducted in an attempt to test the predictive power of other variables not included in the original path analysis. Two variables were chosen as additional predictors of behavioral intentions and follow-up based on the help seeking literature and the IMoSH's description of psychological and environmental process that influence help seeking. First, therapeutic alliance was added to the model as a variable that captures an important aspect of the behavioral health visit that may influence one's decision to return to a follow-up session. In addition, correlational analyses revealed therapeutic alliance was significantly correlated with intention to follow-up ($r = .29$, $p < .01$). The second addition to the original model was perceived need for services. This factor was created with two observed variables: GAF and the ACORN global distress score. These variables represent measures of clinical symptomology that do not rely strictly on the patient's perception of a problem. For example, GAF is assessed using the BHC's determination of functional impairment. In the case of global distress, although the ACORN is a self-report measure, cut-offs are established to identify patients with clinically significant symptoms. GAF and global distress were both significantly correlated with actual follow-up attendance ($r = -.27$, $p < .01$; $r = .24$, $p < .05$).

The post hoc structural equation model is presented in Figure 3. Results revealed that the model including therapeutic alliance and perceived need fit the data well $\chi^2(13) = 15.91$, $p = .25$. This result is supported by other goodness-of-fit indices that suggest a good fit of the model to the obtained data: CFI = 0.99, RMSEA = 0.05 (90% CI = .00 - .12). The predictor variables

together explained 3.8% of the variability in behavioral intentions and the overall model explained 22.2% of the variability in follow-up attendance.

The unstandardized and standardized path coefficients for the post hoc model are summarized in Table 4. In particular, attitudinal and structural barriers remained non-significant predictors of behavioral intentions (p-values > .05). Similarly, structural barriers, behavioral intentions, and their interaction term did not predict follow-up attendance (p-values > .05). The perceived need factor and therapeutic alliance did not predict behavioral intentions, and therapeutic alliance and behavioral intentions failed to significantly predict actual follow-up (all p-values > .05). Lastly, perceived need significantly and positively predicted follow-up attendance, such that the more patients evidenced a perceived need for services as demonstrated by lower GAF scores ($\beta = -.66$) and higher global distress scores ($\beta = .60$), the more likely they were to have attended their follow-up appointment ($\beta = .41$, $p < .01$).

Given the significant differences evidenced between Hispanics and non-Hispanics on a number of study variables, including follow-up attendance (Hispanics were less likely to attend their follow-up appointment), correlations among the study variables were examined separately by ethnicity (see Table 5). A comparison of the original correlations (Table 2) with those conducted by ethnicity revealed that the negative relation between therapeutic alliance and attitudinal barriers became significant, but only for Hispanic patients ($r = -.34$, $p < .01$). In addition, the positive relation between therapeutic alliance and intentions to follow-up remained significant for Hispanic patients only ($r = .36$, $p < .01$). Similarly, the relation between global distress and follow-up attendance was significant for Hispanics ($r = .25$, $p = .04$), but not for Whites.

Discussion

Most of the literature on mental health treatment seeking and dropout has focused on demographic variables that predict follow-up attendance in the traditional mental healthcare setting. The need to expand our understanding of help seeking, as well as continued utilization of services, is growing with the expansion of mental health providers in innovative settings. Primary care is one such setting, for which further examination of continuity of care is needed. Only one study has attempted to predict follow-up among adults referred to behavioral health services and researchers found older individuals and those with insurance coverage were most likely to follow-up (Anastasia, Larey, & Bridges, 2015). What has been missing is an attempt to identify psychosocial factors that prevent individuals from returning to a follow-up appointment for behavioral health services in primary care. To address this gap in the literature, this study used self-report measures as well as information from the behavioral health visit to identify variables that have yet to be examined among a diverse patient population. First, the current study aimed to identify predictors of attitudinal and structural barriers to treatment follow-up in a primary care setting (Aim 1). Second, this study utilized a theoretical model of help-seeking (IMoSH) to predict behavioral intentions and follow-up for behavioral health services (Aim 2).

Correlates of Barriers

Regarding Aim 1, no significant correlates of attitudinal or structural barriers were found in this study. Overall the sample demonstrated a low perception of barriers that would affect their ability to attend another appointment (Table 6). The inability to identify many sociodemographic variables or psychological processes that were linked to the endorsement of attitudinal or structural barriers may be explained by characteristics of the study sample and characteristics of the setting in which help was accessed.

Previous research would predict a change in negative help seeking attitudes based on previous help seeking behavior (Chang, 2008; Kakhnovets, 2011; Kilinc & Granello, 2003); however, in this study a history of behavioral health service use in the past did not relate significantly to attitudinal barriers. It is possible patients in this study experienced a change in attitudinal barriers during their session and the data collected captured patients' altered perceptions of help seeking attitudes instead of initial attitudes. We could then consider those patients who were new to behavioral health services equivalent to those who had previous behavioral health experiences by the end of their first session. In addition, men in this study did not report higher perceptions of attitudinal barriers, as previous research would indicate (Berger et al., 2013; Hammer et al., 2003). It is important to note that more women (69.8%) than men (30.2%) tend to access behavioral health services in the primary care clinics were data collection took place (Bridges, Andrews, Villalobos, Pastrana, Cavell, & Gomez, 2014). This study sample was comprised of an even greater percentage of women (73.0%). Since gender was not directly associated with attitudinal barriers, these results confirm the IMoSH's proposal that the effects of demographic variables may be mediated by other psychological processes which were not measured in this study (e.g., adherence to traditional gender role norms like masculinity for men).

Regarding characteristics of the setting, the primary care clinics function as Federally Qualified Health Centers (FQHCs), which aim to serve individuals in the community from low socioeconomic backgrounds. Several existing strategies are in place to decrease the financial barriers that patients would otherwise experience. Sliding fee scales are used to help patients afford medical services and health insurance is not required to receive care. Appointment costs for these patients would range from 20 to 40 dollars. Consequently, behavioral health services

are also subject to these clinic protocols. Furthermore, the reduction in financial barriers extends to the use of clinical psychology doctoral trainees who serve as behavioral health consultants (BHCs). Patients who receive behavioral health services from doctoral trainees are not charged for their visits regardless of insurance status and income. Although student clinicians saw all participants in this study, the concerns patients had about the cost of one's follow-up appointment were greater than most of the other structural barriers. The highest rated concern was a preference to not use an interpreter at the next visit. Results indicate that BHCs should review these two specific concerns especially for those who are uninsured and whose primary language is not English.

Inquiring about employment status would also shed light on concerns about scheduling the next appointment around work schedules. In addition, concerns about finding childcare would likely depend on one's marital status, employment status, time of the year (e.g., young children being home from school during the summer), and ability to pay for childcare. It is also possible that concerns related to finding time to leave work to come to a follow-up appointment are attenuated by behavioral health visits that are typically scheduled two to four weeks apart. Thus, a patient's experience with behavioral health sessions (15 to 30 minutes) and knowledge about the ability to schedule a follow-up with their medical provider on the same day would likely alleviate some of the concerns patients might have regarding scheduling.

All in all, depending on the level of integration with mental health, primary care settings have the potential to withstand several structural barriers present in the typical use of specialty mental health services. Of course, caution should be taken when interpreting the low levels of endorsement of structural barriers at the FQHCs involved in this study. Future steps should be taken to identify correlates of attitudinal and structural barriers in other integrated settings

including the Veteran's Health System, obstetrics-gynecology clinics, family medicine clinics, and school-based mental health, which all operate differently. Future studies can also examine whether barriers identified increase with lower levels of integration between primary and mental health services.

Predicting Behavioral Intentions and Follow-Up

The original hypothesized model analyzing the latter half of the IMoSH proved unsuccessful at predicting intentions and follow-up attendance. In particular, this study hypothesized that structural barriers would serve as a moderator of the relation between behavioral intentions and follow-up such that structural barriers would dampen the strength of the relation between intentions and follow-up and this would be particularly true of those with greater intentions of returning to their follow-up appointment. Although the model provided a good fit to the data, it did little to explain who would actually return for behavioral health services. Most importantly, the model did not reveal a clear link between attitudes, intentions, and behaviors as proposed by the theory of reasoned action (Ajzen, 1991). The relationship between intention and behavior has been the subject of numerous reviews in social psychology. A review of several meta-analyses on this relation found that intentions explained approximately 28% of the variance in future behaviors (Sheeran, 2002). Researchers have attempted to identify other psychological processes lacking in the theory of reasoned action that might better explain this gap (van Hooft, Born, Taris, van der Flier, & Blonk, 2005). The IMoSH proposes that it is the perception of environmental barriers that prevent intentions from turning into actions.

In an attempt to identify other social and psychological process that might have a more meaningful relation to intentions and follow-up attendance, post hoc analyses explored a model with therapeutic alliance and perceived need. Structural equation modeling revealed a model that

fit the data well and which identified perceived need as a significant predictor of follow-up attendance.

The contribution of perceived need in the post hoc model has many implications for determining who is most likely to return to their follow-up appointment. The IMoSH model conceptualizes problem recognition and perceived need as critical components that initiate the help seeking decision-making process and which set the stage for the development of positive or negative attitudes. In integrated behavioral health care settings, the decision making process occurs with little initial input from patients as they are evaluated first by their medical providers as being in need of a behavioral health referral, and then by BHCs who determine whether a patient is in need of additional behavioral health sessions. Although patients do not initiate the help seeking process, their control lies in the option to decline the referral, schedule a behavioral health follow-up appointment, and attend their follow-up appointment. In addition, the findings from the post hoc model highlight the difference between the endorsement of symptoms and behavioral health concerns, and one's labeling of these symptoms and concerns as a difficulty. There are several examples of clinical presentations that might result in a discrepancy between need as evaluated by others and need as perceived by the patient (e.g., substance use problems, developmental disorders, psychosis, personality disorders). Above all, the post hoc model seems to suggest that, even among those who hold positive attitudes about help seeking, it is in fact their significant functional impairment that motivates them to seek help.

Limitations and Future Directions

The results of this study should be interpreted with limitations in mind, the most evident of which is the change in study procedures. Participants were initially asked to complete more comprehensive measures that assessed acculturation and attitudes about seeking professional

mental health services. Unfortunately, the time constraints imposed by the setting led to modifications that either eliminated or consolidated measures. Of the many lessons learned, a significant one involves the implementation of evaluation research in primary care settings, the difficulties of which might be the reason why there is a need for more studies exploring the effectiveness of integrated behavioral health care. The setting requires brief measures and enough compensation for patients to make their participation worth their time. Once patients are seen for their behavioral health session, an extended period of time has already passed as they wait to be seen for their medical appointment. As a result, an additional request to stay after their behavioral health visit to participate in a study is often quite burdensome, especially if their behavioral health visit was not planned. In order to facilitate the collection of data in the primary care setting, it is recommended that researchers capitalize on the time spent in waiting rooms.

Another limitation is related to the development of the barrier questionnaire. A more thorough study in the future might allow patients to identify their own perceived barriers to follow-up without using a prepopulated list of barriers. The qualitative analysis of open-ended responses would increase our ability to account for unknown variables in this study that might better explain behavioral intentions and predict follow-up. The mere observation of the rate at which patients self-report structural versus attitudinal barriers on their own, or a combination of both, would be informative.

Moreover, the current study utilized a sample of individuals that were successfully able to access services. The fact that the current sample was already involved in the help seeking process (for medical services) likely means that they had the resources and the motivation necessary to overcome structural and attitudinal barriers. Furthermore, given that 67% of patients in this study had never received behavioral health services in the past presents an important question: Did

their familiarity with accessing medical services in the same clinic impact the kinds of barriers they perceived for behavioral health services? In other words, are barriers for behavioral health services different from those that exist for medical services? It would also be helpful for future research efforts to monitor the barriers endorsed by individuals after a second behavioral health visit to examine whether perceptions of barriers change over time with repeated successful access of services. Furthermore, the IMoSH was not developed to specifically predict help seeking in IBHC settings. Instead, the model attempts to delineate the general help seeking process. Accordingly, the IMoSH is in need of testing in settings outside of primary care. Such tests of the model may highlight its usefulness in other settings where patients initiate the help seeking process.

Finally, it is important to consider the ethnic diversity of the current sample. Several studies conducted in integrated behavioral health care settings are comprised of primarily White non-Hispanic patients (e.g., Bryan et al., 2012; Funderburk, Fielder, DeMartini, & Flynn, 2012; Ray-Sannerud et al., 2012). The majority of patients in the current study identified as Hispanic (65%). Several cultural factors have been identified by the previous literature as essential cultural values that are related to relationship building and treatment engagement: respeto (respect), confianza (trust), and personalismo (warmth and friendliness; Añez, Silva, Paris, & Bedregal, 2008; Santiago-Rivera, Arredondo, & Gallardo-Cooper, 2002). It is recommended that future research studies assess the direct impact of these cultural values on behavioral intentions and follow-up attendance. Based on the results of such a study, the IMoSH might require a modification to extend the influence of cultural factors beyond the development of positive or negative attitudes and to help seeking behaviors.

Conclusion

The current study was the first to test the Integrated Model of Seeking Help (IMoSH). The IMoSH was used to test the relative influence of attitudinal and structural barriers on help seeking for behavioral health services. Findings demonstrated that among a diverse sample of primary care patients, perceived need explained the most variance in follow-up attendance. Further, patients appeared to report few barriers to returning to their behavioral health appointments. More research is needed to identify other psychological and social variables that might directly impact intentions to seek help and actual help seeking behavior that might not be mediated through attitudinal or structural barriers.

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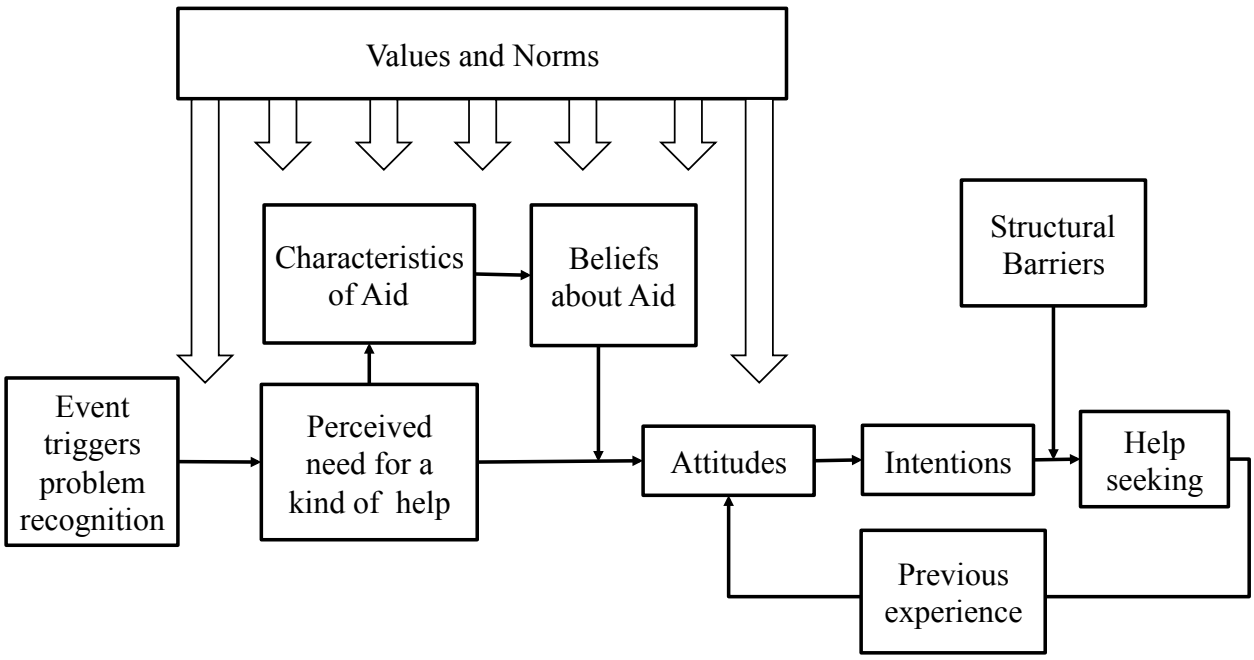

Figure 1. Integrated Model of Seeking Help

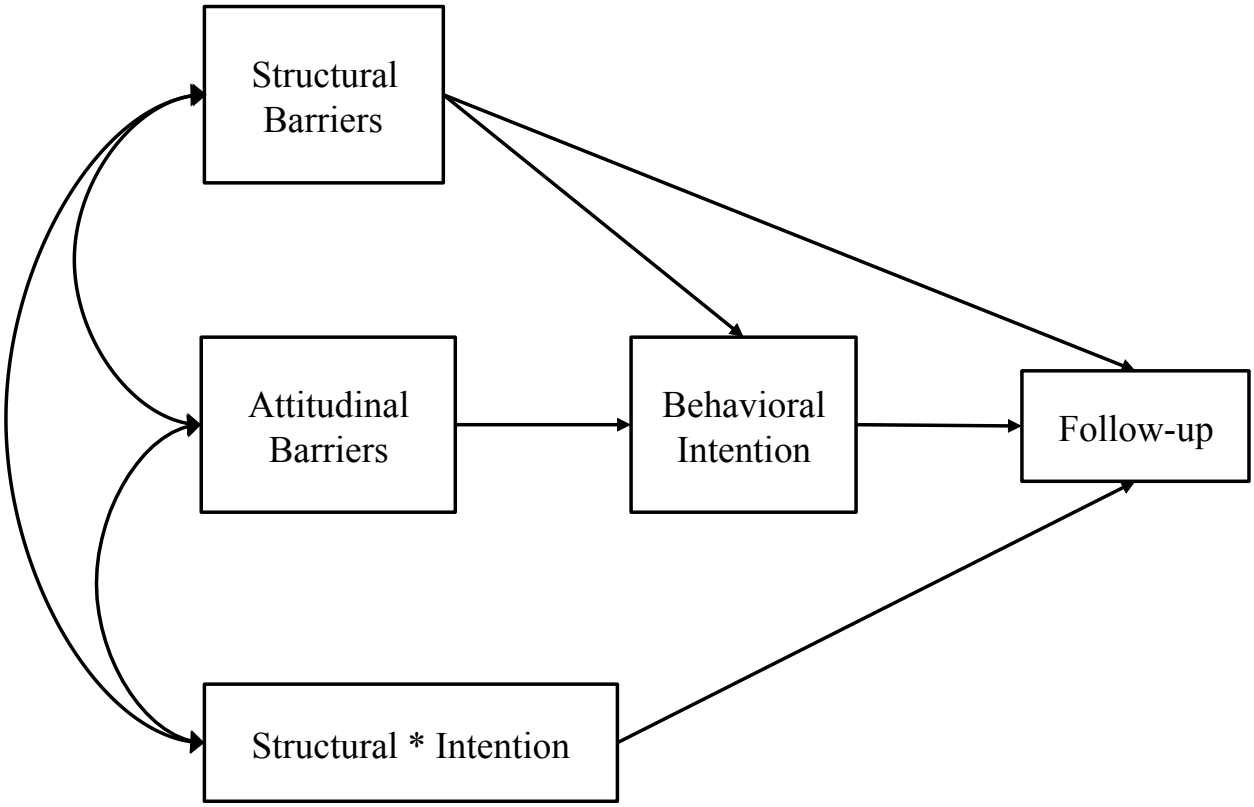

Figure 2. Path analysis model predicting session follow-up. CFI = 1; RMSEA = 0; chi-square = 0.28; degrees of freedom = 1; p = .60.

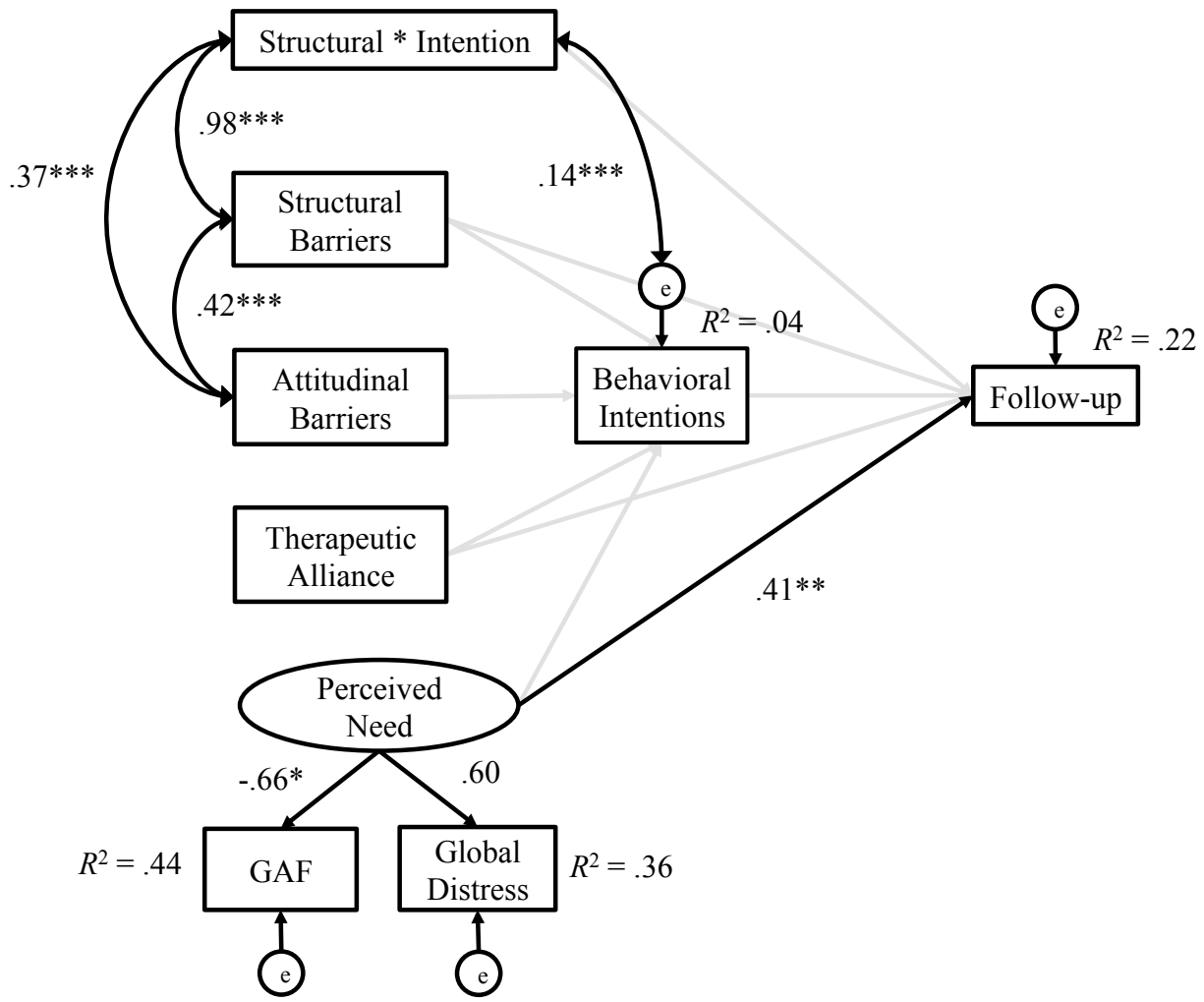

Figure 3. Post hoc model of barriers, perceived need, and therapeutic alliance predicting behavioral intentions and follow-up attendance with standardized coefficients. CFI = .99; RMSEA = .05; chi-square = 15.91; degrees of freedom = 13; $p = .25$.
*$p < .05$. **$p < .01$. ***$p < .001$.

Table 1

Demographic Statistics (N = 100)

Variable	*M* (*SD*) or N (%)	Range
Age, in years	41.05 (13.15)	19 – 74
Gender		
Female	73 (73.0%)	
Male	27 (27.0%)	
Language, preferred		
English	46 (46.0%)	
Spanish	54 (54.0%)	
Ethnicity		
Hispanic	65 (65.0%)	
Non-Hispanic	35 (35.0%)	
Insurance		
Uninsured	50 (50.0%)	
Medicaid	31 (31.0%)	
Private/Other	19 (19.0%)	
Past behavioral health visits	33 (33.0%)	
Chronic health condition	40 (40.0%)	
Taking psychotropic medication	48 (48.0%)	
Mental health diagnosis		
No diagnosis	19 (19.0%)	
Depressive disorder	41 (41.0%)	
Anxiety disorder	16 (16.0%)	
Bipolar and related disorder	7 (7.0%)	
Trauma- and stressor related disorder	6 (6.0%)	
V-codes	6 (6.0%)	
Other	5 (5.0%)	
GAF	58.40 (7.18)	35 – 73
Global distress	2.29 (0.91)	0 – 3.83
Therapeutic alliance	3.78 (0.58)	0.33 – 4.00
Follow-up (Yes or No)	50 (50.0%)	
As scheduled[a]	43 (43.0%)	
Rescheduled[a]	7 (7.0%)	
No-show[b]	41 (41.0%)	
Declined follow-up[b]	9 (9.0%)	

Note. GAF = Global Assessment of Functioning
[a]Coded as 1 (Yes) for successful follow-up.
[b]Coded as 0 (No) for unsuccessful follow-up.

Table 2

Correlations of Predictors, Barriers, Intention, and Follow-up

Variables	1	2	3	4	5	6	7	8	9	10	11
1. Gender	—										
2. Age	.04	—									
3. Ethnicity	-.02	-.05	—								
4. Language	.07	.11	.80***	—							
5. Insurance	.07	.06	-.40***	-.40***	—						
6. Past BH visits	.28**	.00	.07	.09	.06	—					
7. Chronic health condition	-.01	.43***	-.09	.02	.20*	-.01	—				
8. Diagnosis	.17	-.09	-.20†	-.24*	.18†	.07	-.13	—			
9. GAF	.01	-.09	.39***	.31**	-.16	-.01	-.18†	-.31**	—		
10. Global Distress	.08	-.05	-.30**	-.31**	.12	.08	-.01	.38***	-.40***	—	
11. Therapeutic Alliance	-.01	.15	.02	.06	.06	-.10	.22*	.03	-.00	-.04	—
12. Attitudinal barriers	.03	-.11	.02	.03	-.05	.18†	-.07	-.02	-.07	-.02	-.18†
13. Structural barriers	-.07	-.07	.10	.20*	-.03	.05	.08	-.09	-.03	.08	.07
14. Intention to F/U	-.16	.12	-.21*	-.19†	.07	.04	-.02	-.04	.00	.03	.29**
15. Attended F/U	-.07	.11	-.31**	-.20*	.00	-.02	-.08	.08	-.27**	.24*	-.01

Note. Gender was coded 0 (*male*), 1 (*female*). Ethnicity was coded 0 (*Non-Hispanic*), 1 (*Hispanic*). Language was coded 0 (*English*), 1 (*Spanish*). Insurance was coded 0 (*uninsured*), 1 (*insured*). Past BH visits was coded 0 (no), 1 (yes). Diagnosis was coded 0 (*no*), 1 (yes). Attended F/U was coded 0 (no), 1 (*yes*). BH = Behavioral Health; GAF = Global Assessment of Functioning; F/U = Follow-Up.
†$p < .10$; *$p < .05$; **$p < .01$; ***$p<.001$

Table 2 (continued)

Correlations of Predictors, Barriers, Intention, and Follow-up

Variables	12	13	14	15
12. Attitudinal barriers	—			
13. Structural barriers	.42***	—		
14. Intention to F/U	-.15	0.10	—	
15. Attended F/U	-.13	-0.18†	-0.05	—

Note. Gender was coded 0 (*male*), 1 (*female*). Ethnicity was coded 0 (*Non-Hispanic*), 1 (*Hispanic*). Language was coded 0 (*English*), 1 (*Spanish*). Insurance was coded 0 (*uninsured*), 1 (*insured*). Past BH visits was coded 0 (no), 1 (yes). Diagnosis was coded 0 (*no*), 1 (yes). Attended F/U was coded 0 (no), 1 (*yes*). BH = Behavioral Health; GAF = Global Assessment of Functioning; F/U = Follow-Up.
†$p < .10$; *$p < .05$; **$p < .01$; ***$p<.001$

Table 3

Unstandardized and Standardized Parameter Estimates for Barriers Model Predicting Follow-Up for Behavioral Health Services

Model			*B*	*β*	*SE*	*CR*	*p*
Attitudinal Barriers	→	Behavioral Intentions	-.111	-.185	.067	-1.657	.097
Structural Barriers	→	Behavioral Intentions	.058	.090	.072	.806	.420
Behavioral Intentions	→	Follow-Up	-.136	-.169	.116	-1.174	.240
Structural Barriers	→	Follow-Up	-.499	-.962	.355	-1.406	.160
Structural*Intention	→	Follow-Up	.108	.798	.094	1.151	.250

Note. Structural*Intention represents the interaction variable created by multiplying the mean scores for Structural Barriers with the mean scores of Behavioral Intentions.

Table 4

Unstandardized and Standardized Parameter Estimates for Post Hoc Model Predicting Follow-Up for Behavioral Health Services

Model			*B*	*β*	*SE*	*CR*	*p*
Attitudinal Barriers	→	Behavioral Intentions	-.095	-.160	.066	-1.442	.149
Structural Barriers	→	Behavioral Intentions	.048	.075	.071	.676	.499
Therapeutic Alliance	→	Behavioral Intentions	.109	.103	.076	1.426	.154
Perceived Need	→	Behavioral Intentions	-.086	-.076	.110	-.784	.433
Behavioral Intentions	→	Follow-Up	-.087	-.107	..116	-.754	.451
Structural Barriers	→	Follow-Up	-.310	-.595	.341	-.909	.363
Structural*Intention	→	Follow-Up	.055	.402	.090	.607	.544
Therapeutic Alliance	→	Follow-Up	.021	.024	.083	.249	.803
Perceived Need	→	Follow-Up	.381	.410	.146	2.606	.009
GAF	→	Perceived Need	-8.787	-.664	3.578	-2.456	.014
Global Distress	→	Perceived Need	1.000	-.600			

Note. Structural*Intention represents the interaction variable created by multiplying the mean scores for Structural Barriers with the mean scores of Behavioral Intentions. GAF = Global Assessment of Functioning.

Table 5

Correlations of Predictors, Barriers, Intention, and Follow-up as a Function of Ethnicity

Variables	1	2	3	4	5	6	7	8	9	10	11
16. Gender	—	.08	.18	.10	.31*	.05	.13	-.02	.04	-.01	-.05
17. Age	-.03	—	.32**	.13	.03	.36**	-.04	-.05	-.08	.20	-.09
18. Language			—	-.18	.08	.18	-.16	.01	-.14	.12	.02
19. Insurance	-.01	-.12		—	.06	.23	.05	-.01	-.00	.03	-.04
20. Past BH visits	.23	-.03		.19	—	-.03	.05	-.02	.12	.10	.16
21. Chronic health condition	-.12	.55**		.09	.05	—	-.23†	-.08	-.06	.20	.02
22. Diagnosis	.29	-.26		.32†	.19	.08	—	-.24†	.38**	-.02	-.01
23. GAF	.10	-.10		.01	-.07	-.29†	-.33†	—	-.30*	.06	-.08
24. Global Distress	.16	-.04		-.01	.08	.03	.24	-.37*	—	.11	-.07
25. Therapeutic Alliance	-.01	.10		.15	-.16	.25	.15	-.09	-.26	—	-.34**
26. Attitudinal barriers	.19	-.15		-.07	.21	-.23	-.00	-.10	.12	.02	—
27. Structural barriers	-.15	-.52**		.06	.10	-.23	.08	-.29	.18	.18	.46**
28. Intention to F/U	-.10	-.04		.32†	.12	.16	-.05	-.06	-.02	.28	-.19
29. Attended F/U	-.08	.13		-.19	-.02	.07	.03	-.15	-.05	-.18	-.08

Note. Correlations for Hispanic participants (n = 65) are presented above the diagonal, and correlations for non-Hispanic participants (n = 35) are presented below the diagonal. Gender was coded 0 (*male*), 1 (*female*). Language was coded 0 (*English*), 1 (*Spanish*). Insurance was coded 0 (*uninsured*), 1 (*insured*). Past BH visits was coded 0 (no), 1 (yes). Diagnosis was coded 0 (*no*), 1 (yes). Attended F/U was coded 0 (no), 1 (*yes*). BH = Behavioral Health; GAF = Global Assessment of Functioning; F/U = Follow-Up.
†p < .10; *p < .05; **p < .01; ***p<.001

Table 5 (continued)

Correlations of Predictors, Barriers, Intention, and Follow-up as a Function of Ethnicity

Variables	12	13	14
1. Gender	-.03	-.20	-.08
2. Age	.15	.15	.08
3. Language	.24†	-.04	.10
4. Insurance	-.01	-.10	-.12
5. Past BH visits	.02	.05	.01
6. Chronic health condition	.24†	-.11	-.21
7. Diagnosis	-.12	-.09	.01
8. GAF	.04	.15	-.18
9. Global Distress	.08	-.04	.25*
10. Therapeutic Alliance	.01	.36**	.13
11. Attitudinal barriers	.40**	-.14	-.15
12. Structural barriers	—	-.01	-.17
13. Intention to F/U	.21	—	-.13
14. Attended F/U	-.15	-.11	—

Note. Gender was coded 0 (*male*), 1 (*female*). Language was coded 0 (*English*), 1 (*Spanish*). Insurance was coded 0 (*uninsured*), 1
Note. Correlations for Hispanic participants (n = 65) are presented above the diagonal, and correlations for non-Hispanic participants (n = 35) are presented below the diagonal. Gender was coded 0 (*male*), 1 (*female*). Language was coded 0 (*English*), 1 (*Spanish*). Insurance was coded 0 (*uninsured*), 1 (*insured*). Past BH visits was coded 0 (no), 1 (yes). Diagnosis was coded 0 (*no*), 1 (yes). Attended F/U was coded 0 (no), 1 (*yes*). BH = Behavioral Health; GAF = Global Assessment of Functioning; F/U = Follow-Up.
†$p < .10$; *$p < .05$; **$p < .01$; ***$p<.001$

Table 6

Descriptive Statistics for Barriers Endorsed

Items	*M* (*SD*)	Range
Attitudinal Barriers		
Concerned about what others will think	0.77 (1.33)	0 – 4.00
Do not think I have a problem	0.94 (1.41)	0 – 4.00
Prefer to address problem on my own	1.02 (1.37)	0 – 4.00
Scale	0.92 (1.04)	0 – 3.33
Structural Barriers		
Concern about cost of next appointment	1.85 (1.32)	0 – 4.00
Will not be able to get time off work	0.81 (0.82)	0 – 4.00
Will not be able to get transportation	0.71 (1.24)	0 – 4.00
Will not be able to find childcare	0.54 (1.11)	0 – 4.00
Would not want to use an interpreter	1.86 (1.90)	0 – 4.00
Scale	1.15 (0.97)	0 – 4.00
All Barriers[a]	1.15 (0.87)	0 – 3.44

[a]Includes all eight barrier items.
Note. Items were scored on a 0 (*Do not agree*) to 4 (*Agree*) scale.

Appendix A

A Collaborative Outcome Resource Network Questionnaire – Phase 1

This brief questionnaire asks about some of the most commonly reported thoughts, feelings and behaviors among adults seeking behavioral health treatment. Please think about the PAST TWO WEEKS and indicate how often each of the following occurred. This will help you and your therapist to plan your treatment and monitor your improvement.

In the past two weeks, how often did you:	**Never**	**Hardly ever**	**Some-times**	**Often**	**Very often**
1. …feel unhappy or sad?	0	1	2	3	4
2. …have little or no energy?	0	1	2	3	4
3. …have a hard time getting along with family, friends or coworkers?	0	1	2	3	4
4. …feel worthless?	0	1	2	3	4
5. …feel no interest in things?	0	1	2	3	4
6. …feel tense or nervous?	0	1	2	3	4
7. …cry easily?	0	1	2	3	4
8. ...have someone express concerns about your alcohol or drug use?	0	1	2	3	4
9. …feel lonely?	0	1	2	3	4
10. …have problems with sleep (too much or too little)?	0	1	2	3	4
11. …feel irritated?	0	1	2	3	4
12. …feel hopeless about the future?	0	1	2	3	4
13. …not able to complete your work or other important daily tasks in a timely manner?	0	1	2	3	4
14. …find yourself daydreaming, worrying, or staring into space?	0	1	2	3	4

Please take a moment to give feedback on your session.	Agree	Some-what agree	Not sure	Some-what disagree	Do not agree
1. I felt that we talked about the things that were important to me.	4	3	2	1	0
2. I felt that the therapist liked and understood me.	4	3	2	1	0
3. I felt that the session was helpful.	4	3	2	1	0
4. I felt confident that the therapist and I worked well together.	4	3	2	1	0

Appendix B

A Collaborative Outcome Resource Network Questionnaire – Phase 2

This brief questionnaire asks about some of the most commonly reported thoughts, feelings and behaviors among adults seeking behavioral health treatment. Please think about the PAST TWO WEEKS and indicate how often each of the following occurred. This will help you and your therapist to plan your treatment and monitor your improvement.

In the past two weeks (14 days), how often did you:	**Never** (0 days)	**Hardly ever** (1 or 2 days)	**Some-times** (3-5 days)	**Often** (6-10 days)	**Very often** (11-14 days)
1. …feel unhappy or sad?	0	1	2	3	4
2. …have little or no energy?	0	1	2	3	4
3. …have a hard time getting along with family, friends or coworkers?	0	1	2	3	4
4. …feel worthless?	0	1	2	3	4
5. …feel no interest in things?	0	1	2	3	4
6. …feel tense or nervous?	0	1	2	3	4
7. …cry easily?	0	1	2	3	4
8. ...have someone express concerns about your alcohol or drug use?	0	1	2	3	4
9. …feel lonely?	0	1	2	3	4
10. …have problems with sleep (too much or too little)?	0	1	2	3	4
11. …feel irritated?	0	1	2	3	4
12. …feel hopeless about the future?	0	1	2	3	4
13. …not able to complete your work or other important daily tasks in a timely manner?	0	1	2	3	4
14. …find yourself daydreaming, worrying, or staring into space?	0	1	2	3	4

Please take a moment to give feedback on your behavioral health session.	Do not agree	Somewhat disagree	Not sure	Somewhat agree	Agree
1. I am satisfied with my appointment.	0	1	2	3	4
2. I found it easy to talk about my problems with the therapist.	0	1	2	3	4
3. The therapist gave me useful information and tips for how to manage my problems.	0	1	2	3	4

Appendix C

Structural Barriers Questionnaire

Please take a moment to think about your NEXT behavioral health session.	Do not agree	Somewhat disagree	Not sure	Somewhat agree	Agree
1. I am concerned about how much money it will cost to pay for my next appointment.	0	1	2	3	4
2. I think I will not be able to get off work for my next appointment.					
3. I think I will not be able to get transportation for my next appointment.	0	1	2	3	4
4. I think I will not be able to find childcare for my next appointment.	0	1	2	3	4
5. I would not want to use an interpreter for my next appointment.	0	1	2	3	4
6. I am concerned about what others will think of me if I come back for another appointment.	0	1	2	3	4
7. I do not think I have a problem.	0	1	2	3	4
8. I would prefer to address this problem on my own, without the help of the therapist.	0	1	2	3	4

Appendix D

Attitudes toward Seeking Behavioral Health Services Questionnaire (Adapted from the Attitudes toward Seeking Professional Psychological Help – Shortened Form; Fischer & Farina, 1995)

Instructions: Answer the following statements using the scale below.

	Disagree	Partly disagree	Partly agree	Agree
1. If I believed I was having a mental breakdown, my first inclination would be to get professional attention.	0	1	2	3
2. The idea of talking about problems with a behavioral health specialist strikes me as a poor way to get rid of emotional conflicts.	0	1	2	3
3. If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in behavioral health services.	0	1	2	3
4. There is something admirable in the attitude of a person who is willing to cope with his or her conflicts and fears without resorting to professional help.	0	1	2	3
5. I would want to get behavioral health services if I were worried or upset for a long period of time.	0	1	2	3
6. I might want to have behavioral health services in the future.	0	1	2	3
7. A person with an emotional problem is not likely to solve it alone; he or she is likely to solve it with professional help.	0	1	2	3
8. Considering the time and expense involved in behavioral health services, it would have doubtful value for a person like me.	0	1	2	3
9. A person should work out his or her own problems; getting behavioral health services would be a last resort.	0	1	2	3
10. Personal and emotional troubles, like many things, tend to work out by themselves.	0	1	2	3

Appendix E

Short Acculturation Rating Scale for Hispanics (Marin, Sabogal, Marin, Otero-Sabogal, & Perez-Stable, 1987)

	Only Spanish	Spanish better than English	Both equally	English better than Spanish	Only English
1. In general, what language(s) do you read and speak?	1	2	3	4	5
2. What was the language(s) you used as a child?	1	2	3	4	5
3. What language(s) do you usually speak at home?	1	2	3	4	5
4. In which language(s) do you usually think?	1	2	3	4	5
5. What language(s) do you usually speak with your friends?	1	2	3	4	5
6. In what language(s) are the TV programs you usually watch?	1	2	3	4	5
7. In what language(s) are the radio programs you usually listen to?	1	2	3	4	5
8. In general, in what language(s) are the movies, TV, and radio programs you prefer to watch and listen to?	1	2	3	4	5

	All Latinos/ Hispanics	More Latinos than Americans	About half and half	More Americans than Latinos	All Americans
9. Your close friends are:	1	2	3	4	5
10. You prefer going to social gatherings/parties at which the people are:	1	2	3	4	5
11. The persons you visit or who visit you are:	1	2	3	4	5
12. If you could choose your children's friends, you would want them to be:	1	2	3	4	5

Appendix F

Institutional Review Board Approval Letter

UNIVERSITY OF ARKANSAS

Office of Research Compliance
Institutional Review Board

November 30, 2015

MEMORANDUM

TO:	Bianca Villalobos Aubrey Dueweke Sarah Bilsky Ana Bridges
FROM:	Ro Windwalker IRB Coordinator
RE:	New Protocol Approval
IRB Protocol #:	15-10-248
Protocol Title:	*Predicting Follow-Up for Behavioral Health Services*
Review Type:	☐ EXEMPT ☒ EXPEDITED ☐ FULL IRB
Approved Project Period:	Start Date: 11/30/2015 Expiration Date: 11/09/2016

Your protocol has been approved by the IRB. Protocols are approved for a maximum period of one year. If you wish to continue the project past the approved project period (see above), you must submit a request, using the form *Continuing Review for IRB Approved Projects*, prior to the expiration date. This form is available from the IRB Coordinator or on the Research Compliance website (https://vpred.uark.edu/units/rscp/index.php). As a courtesy, you will be sent a reminder two months in advance of that date. However, failure to receive a reminder does not negate your obligation to make the request in sufficient time for review and approval. Federal regulations prohibit retroactive approval of continuation. Failure to receive approval to continue the project prior to the expiration date will result in Termination of the protocol approval. The IRB Coordinator can give you guidance on submission times.

This protocol has been approved for 160 participants. If you wish to make *any* modifications in the approved protocol, including enrolling more than this number, you must seek approval *prior to* implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

If you have questions or need any assistance from the IRB, please contact me at 109 MLKG Building, 5-2208, or irb@uark.edu.

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