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Improving The Acceptability Of Internet-Based Cognitive-Behavioral Therapy Among Black Americans

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IMPROVING THE ACCEPTABILITY OF INTERNET-BASED COGNITIVE-BEHAVIORAL THERAPY AMONG BLACK AMERICANS

by

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Under the Direction of Page L. Anderson, PhD

ABSTRACT

The purpose of this study was to examine: (a) whether a treatment rationale increases the acceptability of internet-based cognitive behavioral therapies (iCBT) among Black individuals and (b) the influence of authority on attitudes toward iCBT. Participants (*N*=268) were randomly assigned to receive a treatment rationale or not. Participants completed a measure of barriers to psychological treatment and acceptability toward iCBT. Participants additionally rated their likelihood of using iCBT if endorsed by a health professional or spiritual leader. Results did not indicate a difference in acceptability between those who did or did not receive a treatment rationale, however, provision of the rationale improved acceptability for those reporting few barriers to treatment. Furthermore, participants indicated greater likelihood of using iCBT when endorsed by a health professional compared to a spiritual leader. This study provides evidence for strategies for improving the appeal of internet-based mental health treatments among Black Americans.

INDEX WORDS: Black American, iCBT, Telehealth, Acceptability, Treatment rationale, Mental health barriers

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DEDICATION

To my dear friends, family, lab mates, and colleagues whose unending support over the years have made this project possible. I could not have made it this far without you.

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LIST OF ABBREVIATIONS

iCBT	Internet-based cognitive behavioral therapy
TA-iCBT	Therapist-assisted internet-based cognitive behavioral therapy

1 INTRODUCTION

Despite recent gains in mental health consciousness and resources, many Black Americans who could benefit from mental health treatment do not seek it. Various barriers to treatment seeking have been well documented among communities of color, ranging from prohibitive costs and transportation (Mojtabai et al., 2011), to mental health stigma and a lack of faith in treatment efficacy (Andrade et al., 2014; Ayalon & Alvidrez, 2007; Gaston, Earl, Nisanci, & Glomb, 2016; M. T. Williams, Domanico, Marques, Leblanc, & Turkheimer, 2012). Within the past two decades, there has been an influx in the creation, validation, and dissemination of internet-based mental health interventions aimed at overcoming these barriers (Kumar, Sattar, Bseiso, Khan, & Rutkofsky, 2017). Internet-based cognitive-behavioral therapies (iCBT) are both cost-effective and convenient (Gerhards et al., 2010; Hedman et al., 2011) and can incorporate live video, text, and app-based functions. Despite convincing evidence demonstrating the efficacy of digital treatments for a variety of mental disorders (Andrews et al., 2018; Hedman, Ljótsson, & Lindefors, 2012), there remains underutilization of these modes of treatment by the general public (Waller & Gilbody, 2009). This is especially concerning for Black communities, who disproportionately face barriers to treatment and may stand to benefit the most from these types of interventions. Unfortunately, our ability to increase the utilization of iCBT among Black Americans is limited by the extreme dearth of literature examining the appeal of internet-based programs within the Black community (Jonassaint et al., 2017).

This study is the first comprehensive examination of Black American attitudes towards the acceptability of internet-based cognitive behavioral therapy. It is also the first experimental study to examine whether providing a treatment rationale for iCBT, which is well known to improve attitudes towards face-to-face cognitive behavioral therapy, influences attitudes toward

iCBT and treatment seeking behavior among Black Americans. It should be noted that the terms "Black", "Black American", and "African American" are used interchangeably to denote individuals that self-identify as such, as used by the U.S. Census (U.S. Office of Management and Budget, 1997).

1.1 Defining iCBT

Internet-delivered mental health treatments are a form of *telehealth,* which is the use of electronics and telecommunications technology to facilitate long-distance clinical health care (Center for Connected Health Policy [CCHP], 2017). According to the Center for Connected Health Policy, the majority of telehealth services are delivered in four different modalities: (i) *live video,* which is synchronous, real-time communication through a videoconferencing service (e.g., Zoom™), (ii) *store-and-forward,* which is an asynchronous transmission of recorded health information that is reviewed and acted upon outside of real-time (e.g., email, health portal), (iii) *remote patient monitoring,* which involves patient-specific health data that is generally collected and transmitted through the use of an at-hand device (e.g., Fitbit™, scale), and (iv) *mHealth,* which is the collective category for all forms of health practice and education services supported by mobile technology (e.g., smartphones, tablet computers; CCHP, 2017). An iCBT program can take the form of any or all of these modalities and can be completed independently or with therapist assistance.

iCBT is cognitive-behavioral therapy delivered via the internet or other digital medium; also known as computerized or electronic CBT (cCBT/eCBT; Van Den Berg, Shapiro, Bickerstaffe, & Cavanagh, 2004). These interventions are text-based and simulate online bibliotherapy, often with the inclusion of video clips, audio files, and multimedia elements. iCBT programs generally comprise 6-15 modules, which are chapters corresponding to sessions in

face-to-face therapy. These modules may be self-guided, or include minimal therapist involvement such as feedback on homework assignments (Andersson, Cuijpers, Carlbring, Riper, & Hedman, 2014). Given its ability to be accessed anytime and within the privacy of a user's home, iCBT can circumvent many barriers to face-to-face mental health treatment.

1.2 Efficacy of iCBT

Among internet-delivered mental health treatments, iCBT has the most empirical support. Significant improvement in symptoms has been demonstrated for a wide range of mental illnesses, including depression (Hedman et al., 2012), posttraumatic stress disorder (Hobfoll, Blais, Stevens, Walt, & Gengler, 2016), social anxiety disorder (Gershkovich, Herbert, Forman, & Glassman, 2015), and panic disorder (Fogliati et al., 2016). A meta-analysis of randomized controlled trials testing the efficacy of iCBT compared to both wait-list, active control, and treatment as usual (N = 64), reported medium-to-large Hedge's g effect sizes for the treatment of major depressive disorder (g = 0.67, CI 0.51−0.81), generalized anxiety disorder (g = 0.70, CI 0.39 –1.0), social anxiety disorder (g = 0.92, CI 0.75 –1.1), and panic disorder (g = 1.31, CI 0.85 –1.8), with a large overall effect size of 0.80 (95% CI 0.68–0.92) for the efficacy of iCBT compared to controls across the four major disorders (Andrews et al., 2018).

There is great potential for iCBT to circumvent barriers to treatment. People benefit from iCBT when paired with therapist support or used alone, although the magnitude of effect is higher for programs with therapist assistance (Johansson & Andersson, 2012). iCBT is effective in primary care settings where patients seek traditional mental health treatment (Hobbs, Joubert, Mahoney, & Andrews, 2018; Hobbs, Mahoney, & Andrews, 2017; Newby, Mewton, Williams, & Andrews, 2014). Those who use therapist-assisted or self-guided iCBT report a high degree of user satisfaction and in many cases experience symptom improvement comparable to patients

receiving traditional face-to-face psychotherapy (Andrews et al., 2018; Hedman et al., 2012; Van Ballegooijen et al., 2014).

1.3 The Acceptability and Utilization of iCBT

Despite evidence of its efficacy, iCBT is a widely underutilized method of treatment (Carper, McHugh, & Barlow, 2013; Hennemann, Beutel, & Zwerenz, 2017; Kaltenthaler et al., 2008; Waller & Gilbody, 2009). Although nationally representative epidemiological data are lacking, estimates based on smaller samples indicate that anywhere from 1% to 10% of mental health consumers have used an internet-based mental health intervention (Klein & Cook, 2010; Mitchell & Gordon, 2007; Neal, Campbell, Williams, Liu, & Nussbaumer, 2011; Soucy, Owens, Hadjistavropoulos, Dirkse, & Dear, 2016). Although clinicians cite concerns over treatment of more complex health problems and data security as reasons for their own lack of adoption of iCBT in routine care (Gun, Titov, & Andrews, 2011; Hennemann et al., 2017), less is known about how potential treatment-seekers feel about internet-delivered cognitive behavioral therapies.

In general, scientists interested in understanding users' feelings toward iCBT use the term "acceptability", but this construct has been operationalized in a variety of ways, which impedes progress in this area of research. In two randomized controlled trials assessing the comparative efficacy of clinician-guided versus self-guided iCBT, acceptability was operationalized as treatment satisfaction/engagement (Fogliati et al., 2016; Gershkovich, Herbert, Forman, Schumacher, & Fischer, 2017). Acceptability (i.e. treatment satisfaction/engagement) of iCBT was excellent in these studies, consistently 80% or higher. However, as noted by Schröder et al. (2015), such methodology does not include treatment satisfaction ratings from participants who did not complete treatment, which may lead researchers to overestimate satisfaction with iCBT.

Other researchers operationalize acceptability using measures of treatment-seeking attitudes and "willingness" to use iCBT (Ebert et al., 2015; Mitchell & Gordon, 2007; Mohr, Siddique, et al., 2010). Results from these studies have been more sobering. For example, among a sample of primary care patients (N = 492) who indicated interest in psychological or behavioral intervention, 36.4% reported they "would consider" an internet intervention, but only 11.6% reported they were "definitely interested" (Mohr, Siddique, et al., 2010). Similarly, in a survey of undergraduate students' willingness to use therapist-assisted iCBT, 16% of the "nonclinic" participants (i.e., not currently seeking counseling services) and 34% of the "clinic" participants (i.e., currently seeking counseling services) found iCBT to be an acceptable form of treatment (Travers & Benton, 2014). Unfortunately, several studies used one item to assess acceptability (e.g., "Would you consider computerized treatment for mental health treatment"; Mohr, Siddique, et al., 2010; Travers & Benton, 2014), which, although face-valid, may not have adequate construct validity or reliability. The heterogeneity in the operationalization of acceptability and the methodology used to assess it make it difficult to draw conclusions from the literature. Compounding this problem (and relevant to the current project) is the fact that few studies explicitly examine minority attitudes towards iCBT (Choi, Sharpe, Li, & Hunt, 2015; Jonassaint et al., 2017), and no comprehensive study has assessed attitudes towards iCBT among Black Americans in particular, leaving a critical gap in the literature regarding how ethnic minority individuals feel towards iCBT.

1.4 Measuring the Acceptability of iCBT

Very few valid scales have been developed to measure the construct of acceptability for internet-based treatments (Kaltenthaler et al., 2008), with two recent exceptions. The *Acceptability of Therapist-Assisted, Internet Based Treatment of Anxiety Survey* (ATAIBTA;

Travers & Benton, 2014) measures the acceptability of internet-based treatments that include therapist support ranging from check-ins to homework guidance. This scale was developed using university undergraduates (N = 334) of an unreported racial/ethnic makeup. Sixty-five percent of their sample were actively engaged with or planning to use mental health services, whereas the remaining 35% were solicited from the student body at large. All items were face-valid (e.g., "Reduced costs as compared to an office visit") and closely paralleled items used in a similar survey conducted in Australia (Andrews, Cuijpers, Craske, McEvoy, & Titov, 2010). The *Attitudes towards Psychological Online Interventions* scale (APOI; Schröder et al., 2015) was developed using German-speaking participants who reported mild to moderate depression (N = 1013) recruited from outpatient clinics, online health forums, and health insurance referrals. Using an initial set of 35 items, Schröder et al. (2015) performed both exploratory and confirmatory factor analyses to identify clustering of latent constructs, resulting in 16 items comprising four distinct subscales: "Skepticism and Perception of Risk", "Confidence in Effectiveness", "Technologization Threat", and "Anonymity Benefits". The APOI can be generally applied to all forms of internet-delivered psychotherapeutic interventions. Both measures examine attitudes and opinions regarding online forms of treatment compared to face-to-face treatment.

1.5 Acceptability of iCBT among Black Americans and other Ethnic Minorities

Little is known about how acceptable iCBT is to people who self-identify as Black or African American. The vast majority of studies (97%) included in a recent meta-analysis of randomized controlled trials investigating the efficacy and acceptability of iCBT (Andrews et al., 2018) failed to report the racial/ethnic make-up of their sample at all. Of the two studies that did report racial/ethnic demographics, both indicated a low number of Black participants (N = 3,

Rosso et al., 2017; 2017; *N* = 0, Choi et al., 2015). This is unsurprising as previous researchers have noted both the underreporting and underrepresentation of racial/ethnic demographics in treatment studies of social anxiety (Johnson & Anderson, 2016). Similarly, qualitative studies on user experiences with iCBT for depression and anxiety do not report the ethnic/racial background of participants (Knowles et al., 2014). As a result, there is a critical gap in the literature on the acceptability of iCBT. Participants who have used iCBT acknowledge its benefits over face-to-face CBT in alleviating traditional barriers to treatment such as convenience, cost, and privacy (Andrews et al., 2018, 2010), but the vast majority of these participants are White (see Mohr, Siddique, et al., 2010, for exception). This distinction is important because communities of color report more barriers to treatment than White Americans, (Mohr, Ho, et al., 2010) especially stigma, which is commonly cited as a barrier to treatment among Black Americans (Alvidrez, Snowden, & Kaiser, 2008; Nadeem et al., 2007). iCBT has the potential to overcome stigma (Andrews et al., 2010), and logistical barriers, such as transportation and resource scarcity, because of the privacy and accessibility afforded with this technology. However, this link has yet to be established among a Black sample, as no study to my knowledge has examined the relationship between attitudes of acceptability toward iCBT and barriers to mental health treatment in general.

One of the few studies explicitly investigating the acceptability of computer delivered treatments among ethnically diverse backgrounds was conducted by Choi and colleagues (2015). The researchers surveyed attitudes of Chinese Australians and Caucasian Australians. Consistent with prior research, Chinese participants reported more perceived barriers (i.e., stigma, lack of motivation, transport difficulties, and cost) to both face-to-face and internet-based treatment compared to their Caucasian counterparts but reported significantly fewer perceived

barriers for internet treatment than for face-to-face treatment. Both groups, however, *preferred* face-to-face treatment. Like previous studies (see Mohr, Siddique, et al., 2010; Travers & Benton, 2014), the authors reported that there was low interest in using internet treatment; 37% reported they "possibly" would use Internet treatment and 16% said they "definitely would."

One study explicitly compared the efficacy of and engagement with iCBT between Black and White Americans (Jonassaint et al., 2017). Black and White participants were randomly assigned to receive iCBT with an integrated collaborative care component, with or without an internet support group. The researchers found that compared to White participants, Black participants were less likely to start and complete iCBT. There was, however, a trend ($p = .06$) showing that Black participants who completed iCBT reported greater decreases in self-reported depression and anxiety compared to White participants.

Overall, these studies lend growing support to the idea that internet-based mental health strategies may be of unique benefit to ethnic minority populations. Evidence indicates that iCBT is perceived to alleviate some of the traditional barriers to mental health treatment. However, this benefit is mitigated by general reluctance to use the treatment modality compared to face-to-face treatment as evidenced by comparably lower rates of engaging with the intervention. Improving the acceptability of iCBT among Black/African Americans has the potential to increase its uptake, completion, and benefit among a community that has had limited access to evidence-based treatments (Stockdale, Lagomasino, Siddique, McGuire, & Miranda, 2008).

1.6 Theoretical Models to Improve Acceptability of iCBT among Black Americans

The Unified Theory of Acceptance and Use of Technology (Venkatesh, Morris, Davis, & Davis, 2003) identifies four positive predictors of behavioral intention - one of the strongest indicators of acceptability towards a novel technology. These predictors are: (i) performance

expectancy (individual's perception that technology will be beneficial), (ii) effort expectancy (expected ease of use), (iii) social influence (attitudes of relevant others toward using technology), and (iv) facilitating conditions (instrumental and organization resources as conditions of use). Empirical research shows that performance expectancy has the greatest impact on eHealth acceptance (Dünnebeil, Sunyaev, Blohm, Leimeister, & Krcmar, 2012; Li, Talaei-Khoei, Seale, Ray, & MacIntyre, 2013). Three studies found that providing a video demonstration of iCBT significantly increased participants' feelings of credibility, expectancy-for-improvement, and likelihood of using iCBT among those reporting depressive symptoms, citing strong effect sizes (d = .65; Ebert et al., 2015; r = -.56; Mitchell & Gordon, 2007; η^2p = 0.21; Soucy et al., 2016). Casey, Joy, & Clough (2013) found that even presenting a brief, text-based educational component improved participant ratings of likelihood of using e-mental health services in the future. Although promising, there are limitations to this literature due to the samples used (small sample of undergraduate students; Mitchell and Gordon, 2007, primary care patients; Ebert et al., 2015, or people visiting an iCBT website; Soucy et al., 2016). Additionally, Casey et al. (2013) did not measure the mental health status of their sample. All these studies used samples that were already seeking some form of treatment and none of them included Black Americans. It is therefore unknown how the general population (that is largely inexperienced with treatment) or African Americans, feel toward iCBT.

In addition to providing psychoeducation to Black treatment-seekers to increase acceptability of iCBT, another avenue may be identifying a trusted institution that is associated with caregiving and coping among Black Americans: the Church. The majority of Black Americans in the U.S. (87%) belong to a religious group (Pew Research Center, 2009), and people within the Black community frequently use religious-based coping mechanisms

(Chapman & Steger, 2010; Lukachko, Myer, & Hankerson, 2015; Snowden, 2001). Seeking informal advice and treatment for mental illness from clergy is both common and encouraged for many Black Americans (Avent, Cashwell, & Brown-Jeffy, 2015; Blank, Mahmood, Fox, & Guterbock, 2002; Taylor, Chatters, & Levin, 2004). Therefore, it may be possible to leverage the trusted authority of spiritual leaders and clergy persons to increase the acceptability of iCBT.

Similarly, we know that Black Americans often visit their primary care physicians as their immediate link to healthcare (Schappert & Burt, 2006). In a national cross-section sample of Black households, Neighbors (1985) found that slightly less than half of the Black respondents (N = 1,322) sought some form of professional assistance for mental health problems. A further breakdown indicated that 21.9% sought out hospital emergency rooms, 22.3% sought physicians, and 18.9% turned to ministers as the most frequently contacted resource. Only 8% of distressed respondents who sought professional help used social services, 4% went to mental health centers, and 5% contacted a psychiatrist or psychologist. Similarly, results from the National Survey of American Life indicated that African Americans and Caribbean Blacks who sought professional assistance for mental health problems used general medical care almost as much as specialty mental health care (Neighbors et al., 2007). This in conjunction with recent research supporting the effectiveness of general practitioners prescribing iCBT (Hobbs et al., 2018; Newby, Mewton, & Andrews, 2017; A. D. Williams & Andrews, 2013) presents a unique opportunity for improving treatment dissemination and access. Acknowledging common help-seeking avenues used by Black Americans and employing these forms of authority may improve the uptake and utilization of iCBT in a way that direct contact with traditional mental health professionals cannot.

In conclusion, the body of literature regarding internet-based cognitive behavioral therapies demonstrates that iCBT has the potential to increase access to mental health treatment and to circumvent well-documented barriers to treatment including cost, lack of convenience, and stigma. However, previous research on the acceptability of iCBT has largely focused on treatment satisfaction among predominantly White samples who were willing to engage with the treatment. This leaves a critical gap in knowledge regarding the acceptability of iCBT among minority populations and Black Americans in particular; a population uniquely poised to benefit from the advantages espoused by using iCBT. The present research aims to assess attitudes towards iCBT among Black Americans and experimentally examine whether a variable known to improve treatment-seeking attitudes towards cognitive-behavioral therapy affects treatment-seeking attitudes towards iCBT. A treatment rationale may improve acceptability of iCBT, as a description of the treatment modality will inform Black participants of the purported benefits of iCBT. Thus, I expect that those who report greater concerns about stigma and other barriers to treatment will show a stronger sense of positive appraisal for the utility of iCBT. The results from this research could identify culturally appropriate and actionable strategies for improving attitudes towards iCBT among Black Americans.

1.7 Present Study

The present study uses an experimental design to examine whether a treatment rationale increases the self-reported acceptability of iCBT among Black Americans. For the current study, *acceptability* was defined as a set of cognitively based, positive attitudes towards these interventions (Schröder et al., 2015). This contrasts with previous studies defining acceptability as a construct of treatment satisfaction. Participants were randomly assigned to receive a

treatment rationale for iCBT or a brief description of iCBT. Based on prior literature, I hypothesized the following:

H (1): Participants who receive a treatment rationale will report greater acceptability of iCBT compared to those who do not receive a rationale.

H (2): Participants' self-reported barriers to mental health treatment will be positively related to acceptability of iCBT.

H (3): Participants' self-reported barriers to mental health treatment will moderate the effect of a treatment rationale such that there will be a stronger positive relation between receiving a rationale and acceptability of iCBT for those reporting more barriers relative to less barriers to treatment.

H (4): Participants will report a greater likelihood of using an iCBT program if recommended by a spiritual authority or if prescribed by a health professional as compared to no recommendation.

2 METHODS

2.1 Participants

Participants were self-identified Black/African American adults (N = 268). Undergraduate participants (n = 139) were recruited from the Georgia State University Psychology Research and Testing Site (SONA) and received course credit for their participation. Community participants (n = 129) were recruited in public places throughout the city of Atlanta, GA (e.g., parks) and had the opportunity to enter a raffle with a 1 in 30 chance of winning a $25 Amazon gift card. The participants ranged in age from 18 to 85 (M = 27.59, SD = 13.58), were predominantly female (67%) and highly educated (70% have some college education). Table 1 shows participants' demographic characteristics.

A power analysis was conducted to determine the sample size needed to detect an effect of receiving a treatment rationale on attitudes towards iCBT. Previous research shows a large effect of providing a psychoeducational rationale on participants' expectation of the effectiveness of internet-based cognitive-behavioral therapy (Cohen's *d* =.65; Ebert et al., 2015; Pearson's *r* = -.56; Mitchell & Gordon, 2007). However, because the current study uses text to present a treatment rationale instead of video (Ebert et al., 2015) a more conservative effect size was adopted. Using a small-to-moderate effect size ($\eta^2 = 0.03$), the power analysis indicated that a sample size of $N = 260$ would be sufficiently powered (.80) to test the hypotheses (see 3.1 Descriptive Statistics for exclusion criteria).

2.2 Measures

Participants completed a survey developed and hosted on the *Qualtrics* online survey platform. The survey included the following measures:

2.2.1 Treatment Acceptability

Attitudes Toward Psychological Online Interventions Scale (APOI; Schröder et al., 2015) is a 16-item validated measure of attitudes toward online psychological interventions that, for the purposes of the current project, was modified to reference therapist-assisted iCBT. The APOI comprises four subscales measuring attitudes towards psychological online interventions: (i) "Skepticism and Perception of Risk", which measures negative attitudes concerning the efficacy and security of a psychological online intervention, (ii) "Confidence in Effectiveness", which measures positive attitudes concerning the utility and credibility of a psychological online intervention, (iii) "Technologization Threat", which measures negative attitudes towards the lack of personal contact and remote nature of the intervention, and "Anonymity Benefits", which measures positive attitudes related to increased privacy. Participants rate their agreement with

each item (e.g., “I have the feeling that iCBT can help me.”) on a 5-point Likert scale (1 = Totally agree to 5 = Totally disagree). Positively valenced items are reversed coded. Total scores range from 16-80 with higher scores indicating more positive attitudes towards iCBT. The APOI demonstrated strong overall internal consistency (α = .77) in a sample of 1013 participants (Schröder et al., 2015). The APOI was used as the primary measure for acceptability of iCBT and demonstrated excellent internal consistency in the present sample (α = .89; see Appendix A).

2.2.2 Barriers to Treatment

Perceived Barriers to Psychological Treatment Scale (PBPT; Mohr, Ho, et al., 2010b, see Appendix B). The PBPT is a self-report measure of the extent to which participants perceive barriers to seeking mental health treatment. It comprises 25-items (e.g., “concerns about being judged”) divided into eight subscales (25 items, α = .71–.89). The “stigma” subscale measures discomfort with seeking psychological treatment due to fears of judgement from others and oneself, “lack of motivation” measures treatment-oriented focus and the pursuit of goals, “emotional concerns” assesses respondents’ anticipation of negative emotions during therapy, “negative evaluations of therapy” indexes respondents’ beliefs about the efficacy of therapy, “misfit of therapy to needs” includes the idea that therapy is an unjustifiable luxury, or a poor match for one’s needs, “time constraints” includes barriers related to competing demands, “participation restriction” includes physical and logistical barriers to treatment, and “availability of services” includes items related to general accessibility and awareness of resources. In addition to the overall total score, the “stigma”, “participation restrictions”, and “availability of services” subscales were assessed separately, as they measure barriers discussed in the literature that iCBT may reduce. Past research indicated that participants who identified as African American or Latino/a reported greater scores on these subscales compared to White participants

(Mohr, Ho, et al., 2010). Responses are scored on a 5-point Likert scale (1 = Not difficult at all to 5 = Impossible) and summed to create a total score (ranging from 25 – 125) where higher scores indicate greater difficulty in accessing treatment.

The developers of this questionnaire suggest that if any item is rated as "extremely difficult" or "impossible", then that particular barrier is significant enough that the respective subscale can be labelled as a "substantial barrier", regardless of the scores on other items of the subscale (Mohr, Hart, & Marmar, 2006). The PBPT was validated on a large sample of primary care patients (*N*= 658) representing a diverse ethnic demographic, and the measure and its subscales demonstrate good to excellent reliability (α = .71-.89; Mohr, Ho, et al., 2010). The PBPT demonstrated excellent internal consistency in the present sample (α = .92). The PBPT was used to measure barriers to mental health treatment and as a moderator of the relation between receiving a psychoeducational rationale and attitudes towards iCBT.

Demographics Questionnaire. A 22-item demographics questionnaire was developed for the current study using items from the Standardized Data Set from the Center for Collegiate Mental Health at Penn State University (CCMH, 2017; see Appendix C). These questions were developed with input from over 100 college counseling centers in the U.S. describing approximately 150,000 university students seeking mental health treatment.

Depression, Anxiety, and Stress Scale—21 Item (DASS-21; S. H. Lovibond & Lovibond, 1993; see Appendix D). The DASS-21 is a validated measure of mental illness that comprises three subscales: depression, anxiety, and stress. Participants rate each item on a 4-point Likert scale (0 = Never to 3 = Always). Sum scores are computed by adding the scores across items and multiplying by 2. Scores for the total DASS-21 scale range between 0 and 126, with higher scores indicating more distress or impairment. Scores for each subscale are determined by

summing the scores for the relevant 7 items and multiplying by 2 (range: 0 – 42).The DASS-21 demonstrates strong convergent validity with both the Beck Anxiety Inventory (BAI; r = .81) and Beck Depression Inventory (BDI; r = .74) indicating satisfactory ability to discriminate between both anxiety and depressive symptoms (P. F. Lovibond & Lovibond, 1995). The DASS-21 was normed on a non-clinical sample (N = 717), and subsequent research has supported the validity and reliability of the DASS-21 across racial groups, including among African-Americans (subscales: α = .81-.88; Norton, 2007). The DASS-21 demonstrated excellent internal consistency in the present sample (α = .92). The DASS-21 is positively correlated with rates of treatment-seeking (Magaard, Seeralan, Schulz, & Brütt, 2017).

Sheehan Disability Scale (SDS; Sheehan, 1983; see Appendix E). The SDS is a brief, well-validated measure of disability and impairment due to mental illness symptoms (Leon, Olfson, & Portera, 1997). It assesses impairment in the domains of work/school, social/leisure, and family/home. Participants indicate their current impairment on an 11-point scale (0 = Not at all to 10 = Extremely). Each subscale can be scored independently or combined into a single total sum score representing a global impairment rating, ranging from 0-30, with higher scores indicative of more severe functional impairment. Subscale scores greater than 5 suggest impairment in that subscale area. Research has demonstrated the reliability of the SDS (α = .89; Leon et al., 1997) and supported its validity among both African-Americans and Caribbean Blacks (D. R. Williams et al., 2007). The SDS demonstrated excellent internal consistency in the present sample (α = .92). The SDS assesses general impairment among participants recruited for the present study and is a secondary indicator for the impact of illness.

Mental Health Treatment Experience. Participants' experience using both face-to-face and internet-based mental health services will be measured using a series of Likert-type self-

report items developed for this study (e.g., “Have you ever received face-to-face psychotherapy or counseling?”, “If so, how helpful were these services”). Questions will solicit information regarding both past and current experiences with mental health treatment (see Appendix F.1 and F.2).

2.3 Procedure

Community participants were recruited by undergraduate and graduate research assistants canvassing the Atlanta metropolitan area. Undergraduate student participants using the Psychology Participant Pool (SONA) were provided access to the survey link to complete the study at their leisure on their own personal web-enabled devices.

All data were collected online and initially stored using the Qualtrics secure hosting servers. Following exportation, records were stored on secured, password-protected servers. This study was conducted in compliance with the university Institutional Review Board.

Following informed consent, all participants were randomly assigned to receive a treatment rationale for iCBT or no rationale using a native function of Qualtrics surveys that implements an automatic randomization sequence that allocates participants evenly across conditions. Participants completed the demographics questionnaire, followed by the mental health symptomatology (DASS-21), disability (SDS), perceived barriers to treatment (PBPT) measures, and prior history of mental health treatment-seeking. Participants then read about iCBT, the content of which varied according to whether the participant was assigned to receive a treatment rationale or not (described below).

Participants then reported any prior use of online-based mental health services. Participants subsequently completed the measure of attitudes towards iCBT (APOI) and afterwards reported their likelihood of using iCBT if recommended/prescribed by an authority

figure or not. All participants were then presented with information regarding enrollment in the primary raffle and awarding of compensation.

2.3.1 Treatment Rationale

Participants assigned to receive the treatment rationale for iCBT were provided with a description of internet-delivered cognitive-behavioral therapies, a brief summary of research evidence supporting the efficacy of such treatments, and a Frequently Asked Questions (FAQ) section regarding the utility, appropriateness, and accessibility of iCBT programs (See Appendix G.1 for details). The treatment rationale uses evidence-based persuasion techniques as outlined by Cialdini (2006), including leveraging the appeal of authority figures (rationale is presented by an expert in mental health treatment and a licensed clinical psychologist) and social proof (assuring the reader that iCBT programs are used and effective). An explanation of technical language (e.g., iCBT) was also incorporated, as it has been shown to increase confidence in psychotherapy (Constantino, Ametrano, & Greenberg, 2012). After being provided the treatment rationale, each participant answered three questions about iCBT which served as a manipulation check ensuring that participants understood the treatment rationale.

Participants not assigned to receive a rationale were provided a definition of internet-delivered, cognitive-behavioral therapies (See Appendix G.2 for details).

Table 1 Participant Characteristics

Demographics		Total *n* = 268 (%)
Age	Mean Age (*SD)*	27.59 (13.58)
Sex	Male	87 (32.5)
	Female	180 (67.2)
	Did not disclose	1 (0.4)
Sexual Identity	Heterosexual	222 (82.8)
	Lesbian	4 (1.5)
	Gay	12 (4.5)
	Bisexual	18 (6.7)
	Questioning	4 (1.5)
	Self-Identify	6 (2.2)
	Did not disclose	2 (0.7)
Current Education Status	Freshman / First year	74 (27.6)
	Sophomore	38 (14.2)
	Junior	34 (12.7)
	Senior	30 (11.2)
	Graduate / Professional degree	6 (2.2)
	High school student taking college classes	1 (0.4)
	Non-degree student	3 (1.1)
	Non-student	81 (30.2)
	Other	1 (0.4)
Treatment History	Received face-to-face psychotherapy	80 (30.3)
	Has not received face-to-face psychotherapy	183 (68.3)
	Did not disclose	4 (1.5)
	Used an online mental health program	4 (1.3)
	Did not use an online mental health program	258 (95.7)
	Did not disclose	8 (3.0)
Religiosity/Spirituality	Very important	122 (45.5)

	Important	74 (27.6)
	Neutral	47 (17.5)
	Unimportant	17 (6.3)
	Very unimportant	5 (1.9)
	Did not disclose	3 (1.1)
Relationship Status	Single	172 (64.2)
	Serious dating or committed relationship	57 (21.3)
	Civil union, domestic partnership or equivalent	2 (0.7)
	Married	17 (6.3)
	Separated	4 (1.5)
	Divorced	13 (4.9)
	Widowed	1 (0.4)
	Did not disclose	2 (0.7)

3 RESULTS

3.1 Descriptive Statistics

Participants who did not answer all three questions of the treatment rationale manipulation check correctly (n = 41) or who completed the survey under 5 minutes (n = 1) were excluded from data analyses. A total of 42 participants were excluded for these reasons, resulting in a sample of N = 268.

Participants' scores on the *Attitudes Toward Psychological Online Interventions Scale* ranged from 33 to 80 (M = 50.67, SD = 6.27). Less than half the sample (44.6%) indicated they would "likely" or "definitely" use an iCBT. Responses to the *Depression, Anxiety, and Stress Scale – 21* indicated that participants endorsed elevated yet subclinical levels of mental health symptoms (M = 49.90, SD = 21.06*)* based on the suggested cutoff of 60 for severe mental illness (S. H. Lovibond & Lovibond, 1993). At the subscale level, participants reported experiencing moderate levels of depression (M = 17.08, SD = 8.58), and anxiety (M = 14.47, SD = 7.13) and mild levels of stress (M = 18.08, SD = 7.92). Responses to the *Sheehan Disability Scale* indicated minimal impairment due to mental illness across the domains of work/school, social/leisure, and family/home (M = 7.52, SD = 8.58). See Table 2 for full descriptive statistics and intercorrelations. Lastly, participants scored an average of 42.71 (SD = 15.08) on the *Perceived Barriers to Psychological Treatment Scale*. Each item was then classified as a "substantial barrier" (i.e. "extremely difficult" or "impossible") or not. As shown in Table 3, responses to the *Perceived Barriers to Psychological Treatment Scale* indicated that 59.9% of participants endorsed at least one substantial barrier, 43.5% endorsed at least two substantial barriers, and 31.6% of participants endorsed three or more substantial barriers to psychological treatment. As shown in Table 4, "cost of psychotherapy" was the most frequently endorsed substantial barrier

to treatment (39.2% of participants) and “illness making it hard to leave home” was the least frequently reported with only 2.2% of respondents endorsing this item.

3.2 Data Analysis

Multiple regression analyses were conducted using IBM SPSS v.25 with the additional Hayes PROCESS macro software add-on (Hayes, 2012). PROCESS is a well-established statistical tool used to conduct a variety of complex moderation and mediation regression analyses. PROCESS automatically mean centers the predictor variables (to reduce threat of multi-collinearity; Aiken & West, 1991), dummy codes categorical moderators, and creates the respective interaction terms for the model while providing the conditional effects of the predictor on the outcome variable needed for conducting simple slope analyses.

Preliminary analyses were run to determine if assumptions for running an unbiased regression model were met. A Kolmogorov-Smirnov test was used to test for normality in distribution of the standardized residuals of the predictor variable (rationale yes, no) on dependent variable (acceptability of iCBT). Ratings of acceptability of iCBT significantly deviated from normality for both participants who received the treatment rationale, $D(196) = 0.12$, $p = .001$, and those who did not, $D(137) = 0.24$, $p < .001$. Levene’s test indicated equality of variances $F(1, 231) = 2.41$, $p = .12$. PROCESS analyses were run using bootstrapping with replacement ($n = 5000$), as it creates an empirical distribution that compensates for potential issues of normality in distribution (Efron & Tibshirani, 1994).

Ten data points with relatively high distance (i.e., studentized residual >2.5) were identified as potential outliers, but because none demonstrated significant leverage (i.e. <.5) or undue influence (DFBETA < 1; Bollen & Jackman, 1990, p. 267), they were included in the final analyses.

Lastly, as both community and student participants were randomly allocated in equal proportions to both treatment rationale conditions, all subsequent analyses were collapsed across groups.

3.3 Relation between receiving a treatment rationale and attitudes towards iCBT

An independent samples t-test was conducted to test the hypothesis (H1) that participants who receive a treatment rationale will report greater acceptability of iCBT compared to those who do not receive a treatment rationale. Unexpectedly, there was no significant difference between those participants who received a treatment rationale (M = 51.49, SD = 6.52) and those who did not (M = 50.22, SD = 5.93), $t(231) = -1.55$, $p = .12$, $d = 0.20$.

3.4 Relation between barriers to psychotherapy and attitudes towards iCBT

Pearson's r correlations were conducted to test the hypothesis (H2) that the number of self-reported barriers to mental health treatment would be positively related to acceptability of iCBT. Contrary to hypotheses, there was no relation between attitudes towards iCBT and barriers to psychological treatment, $r(219) = -.09$, $p = .18$, including the subscales of stigma, $r(231) = -.08$, $p = .21$, participant restrictions $r(231) = -.08$, $p = .24$, or availability of services, $r(231) = -.01$, $p = .91$.

3.5 Do barriers to treatment moderate the relation between receiving a treatment rationale and attitudes towards iCBT?

Multiple regression was conducted to test the hypothesis (H3) that barriers to treatment moderates the relation between receiving a treatment rationale and attitudes towards iCBT such that there would be a stronger positive relation between receiving a rationale and acceptability for those reporting more barriers relative to less barriers to treatment.

Receiving a treatment rationale and overall barriers to treatment were entered in the first step of the regression analysis. In the second step, the interaction term between treatment rationale and overall barriers was entered, and, as hypothesized, accounted for a significant proportion of variance in acceptability above and beyond the main effects, ΔR^2=.05, F(1, 214) = 12.77, p <.001, b = -.19, 95% CI [-.29, -.08], t(214) = -3.57, p < .001, indicating significant moderation. The relation between receiving the treatment rationale and acceptability toward iCBT was similarly moderated by stigma-related barriers, whose interaction accounted for a significant proportion of variance, ΔR^2=.05, F(1, 226) = 15.87, p <.001, b = -.53, 95% CI [-.79, -.27], t(226) = -3.98, p < .001. Unexpectedly, however, simple slope analyses (unstandardized beta coefficients) revealed that there was a significant difference in attitudes of acceptability between those who received or did not receive a treatment rationale at low levels (1 *SD* below mean) of overall barriers to treatment, b = 4.29, 95% CI [2.00, 6.58], t(214) = 3.69, p = <.001, such that those who did receive the rationale reported greater favorability. There was neither a significant difference in acceptability between participants who received (or not) a rationale at average (at the mean), b = 1.48, 95% CI [-.18, 3.13], t(214) = 1.76, p = .08, nor high levels (1 *SD* above mean) of overall barriers to treatment b = -1.34, 95% CI [-3.58, .90], t(214) = -1.18, p = .24 (see Figure 1). A similar pattern emerged related to stigma as there was a significant difference in attitudes of acceptability between participants who received (or not) a rationale at low levels (1 *SD* below mean) of stigma, b = 4.14, 95% CI [1.89, 6.38], t(226) = 3.64, p = <.001, but neither a significant difference in acceptability between those who did or did not receive a rationale at average (at mean), b = 1.56, 95% CI [-.08, 3.19], t(226) = 1.88, p = .06, nor high levels (1 *SD* above mean) of stigma, b = -1.38, 95% CI [-3.37, .60], t(226) = -1.37, p = .17 (see Figure 2). In other words, participants who endorsed low levels of either overall or stigma-

related barriers to treatment reported more favorable attitudes towards iCBT after receiving a treatment rationale, but not at average or high levels.

In contrast, neither participant restrictions, ΔR^2=.01, $F(1, 226) = 1.75$, $p = .19$, (see Figure 3), nor availability of services, ΔR^2=.02, $F(1, 226) = 2.58$, $p = .11$, (see Figure 4), moderated the relation between receiving a treatment rationale and acceptability toward iCBT.

3.6 Likelihood of using therapist-assisted iCBT when endorsed by a health professional, a spiritual leader, or no authority figure.

Repeated measures ANOVA was conducted to examine the hypothesis (H4) that participants would report a greater likelihood of using an iCBT program if recommended by a spiritual authority figure or if prescribed by a health professional relative to no endorsement by an authority figure. Mauchly's test, $\chi^2(2) = 10.26$, $p = .006$, indicated a violation of sphericity, therefore a Greenhouse-Geisser correction was applied ($\varepsilon = 0.96$). Results indicated a significant main effect for type of authority, $F(1.92, 468.62) = 23.09$, $p < .001$, $\eta p^2 = .09$ (see Table 5 for means and standard deviations). Bonferroni-corrected pairwise comparisons showed that participants reported that they were more likely to use iCBT if prescribed by a physician than if referred by a religious figure (*M* difference = .36, $p < .001$) or in the absence of an endorsement by an authority figure (*M* difference = .32, $p < .001$), with no difference in likelihood of use if referred by a spiritual leader or in the absence of an endorsement by an authority figure (*M* difference = .04, $p > .05$).

Table 2 Means, Standard Deviations, and Correlations between Acceptability of iCBT and Indicators of Mental Health Symptomatology, Disability, and Perceived Barriers to Treatment

Variable	1	2	3	4
1. APOI	(.89)			
2. DASS	-0.09	(.92)		
3. SDS	0.01	0.60**	(.92)	
4. PBPT	-0.09	0.61**	0.43**	(.92)
M	50.67	49.90	7.52	42.71
SD	6.27	21.06	8.58	15.08

Note. $N = 219 – 237$ depending on the pattern of data missingness. Entries on the main diagonal are Cronbach's alpha. APOI = Attitudes Towards Psychological Online Interventions; DASS = Depression, Anxiety, & Stress Scale - 21 item; SDS = Sheehan Disability Scale, PBPT = Perceived Barriers to Psychological Treatment
**$p < .001$.

Table 3 Participants who endorse facing "Substantial Barriers" to Mental Health Treatment

Number of Barriers	*n (*% Endorsed)
0	95 (40.1)
1	39 (16.5)
2	28 (11.8)
3	19 (8.0)
4	15 (6.3)
5	8 (3.4)
6	8 (3.4)
7	4 (1.7)
8	3 (1.3)
9	2 (.8)
≥10	16 (6.7)

Note. *N* = 237. Barriers rated as “extremely difficult” or “impossible are classified as "substantial barriers" (Mohr, Hart, & Marmar, 2006).

Table 4 Participant endorsed "Substantial Barriers" to Mental Health Treatment

Barrier	*n* (% Endorsed)
1. Cost of psychotherapy	105 (39.2)
2. Interference from daily responsibilities	49 (18.3)
3. Don't know how to find counselor/therapist	43 (16.0)
4. Difficulties getting time off work	38 (14.2)
5. Being seen while emotional	34 (12.7)
6. Discomfort talking to someone I don't know	32 (11.9)
7. My problems are not bad enough	31 (11.6)
8. Problems with transportation	29 (10.8)
9. Lack of available counseling/psychotherapy	29 (10.8)
10. Concerns about documentation in insurance	27 (10.1)
11. Concerns about being judged	24 (9.0)
12. Lack of energy or motivation	21 (7.8)
13. Difficulty motivating self	19 (7.1)
14. Counseling means I can't solve problems myself	19 (7.1)
15. Stigma of family/friends knowing	18 (6.7)
16. Would not expect counseling to be helpful	17 (6.3)
17. Attending counseling would feel self-indulgent	16 (6.0)
18. Concerns about upsetting feelings in counseling	16 (6.0)
19. Counselor would not care about me	15 (5.6)
20. Distrust counselors	13 (4.9)
21. Talking about problems makes them worse	12 (4.5)
22. Difficulty walking or getting around	9 (3.4)
23. Bad experiences with counselors	9 (3.4)
24. Physical symptoms (fatigue, pain, breathing problems)	8 (3.0)
25. Illness making it hard to leave home	6 (2.2)

Note. $N = 268$. Barriers rated as “extremely difficult” or “impossible are classified as "substantial" (Mohr, Hart, & Marmar, 2006). Percentages do not total 100% as participants may rate more than one barrier as being “substantial”.

Table 5 Likelihood of Using TA-iCBT by Authority Endorsement

	M	*SD*	*N*
Would you use a therapist-assisted iCBT program to improve your life (e.g. reduce stress, anxiety, depression)?	3.29	1.12	245
Would you use a therapist-assisted iCBT program to improve your life (e.g., reduce stress, anxiety, depression) if it were prescribed by a **health professional**?	3.62	1.13	245
Would you use a therapist-assisted iCBT program to improve your life (e.g., reduce stress, anxiety, depression) if it were recommended by a **spiritual leader** (e.g. pastor, rabbi, imam)?	3.26	1.16	245

Note. Higher scores on this questionnaire item reflect greater likelihood of using TA-iCBT (i.e. 1 = "Would definitely not use", 5 = "Would definitely use")

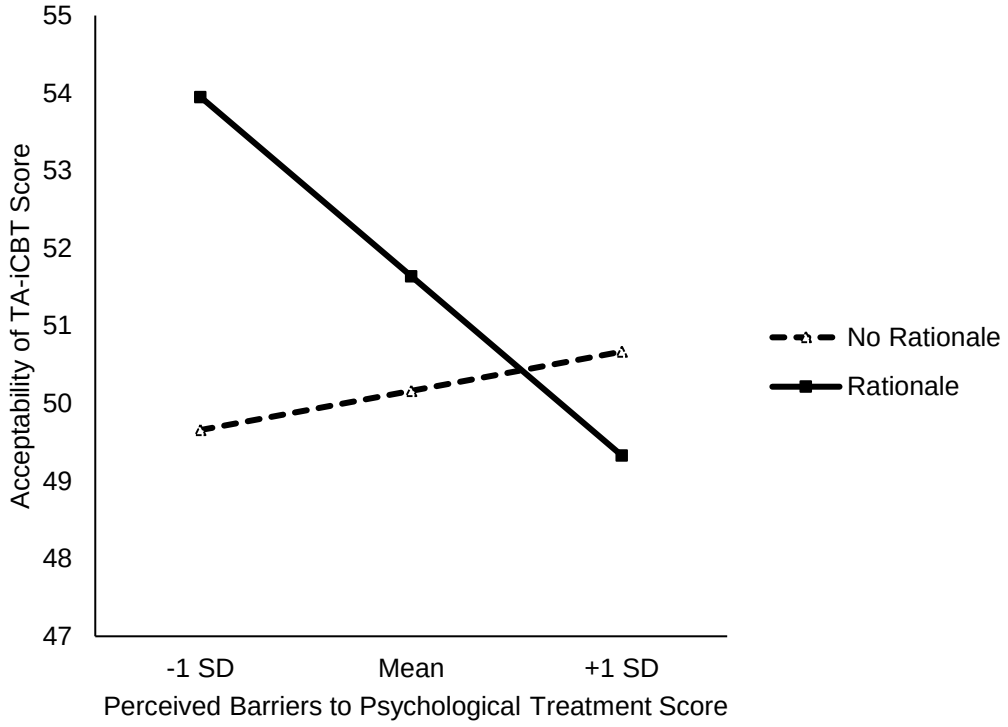

Figure 1 Line graph indicating that overall barriers to psychological treatment moderates the relationship between treatment rationale and acceptability toward therapist-assisted iCBT

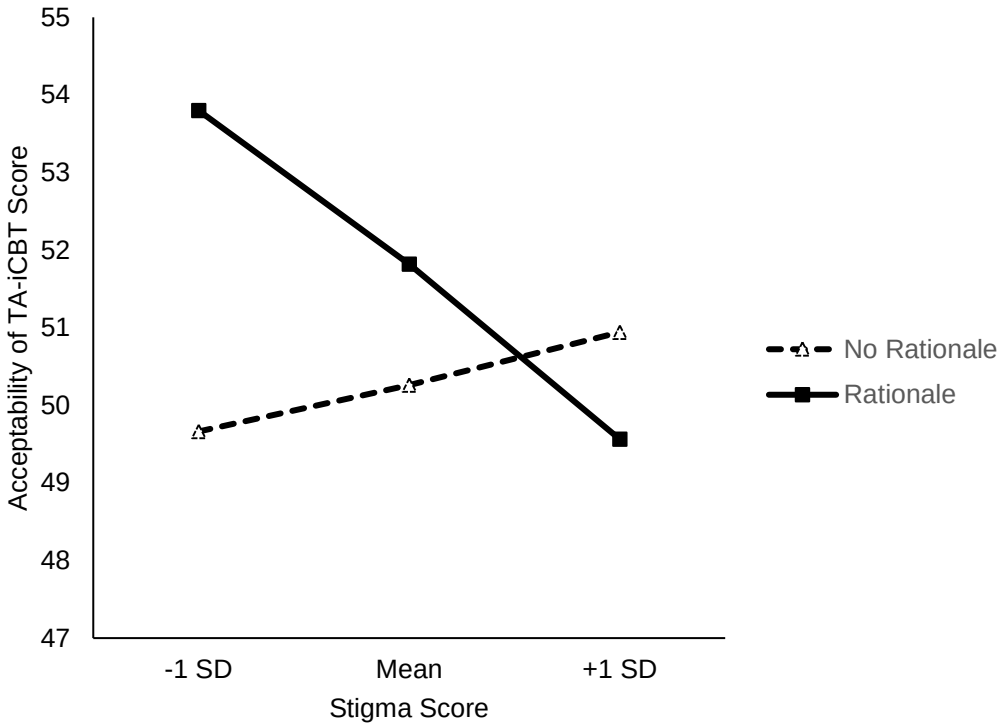

Figure 2 Line graph indicating that stigma significantly moderates the relationship between treatment rationale and acceptability toward therapist-assisted iCBT

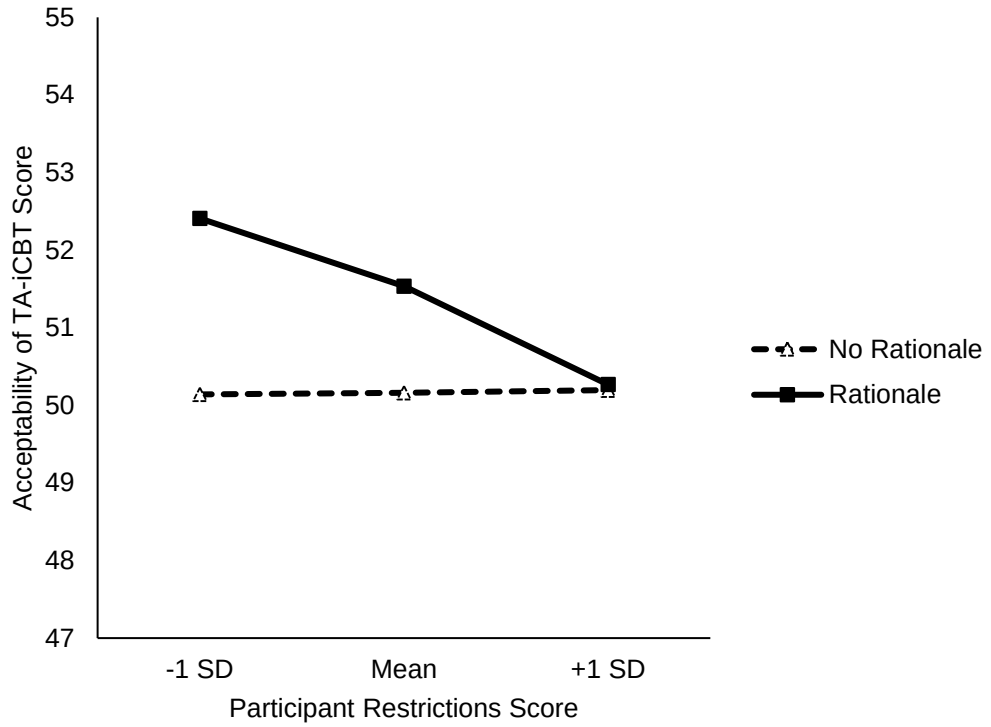

*Figure 3 Line graph indicating that participant restrictions does **not** moderate the relationship between treatment rationale and acceptability toward therapist-assisted iCBT*

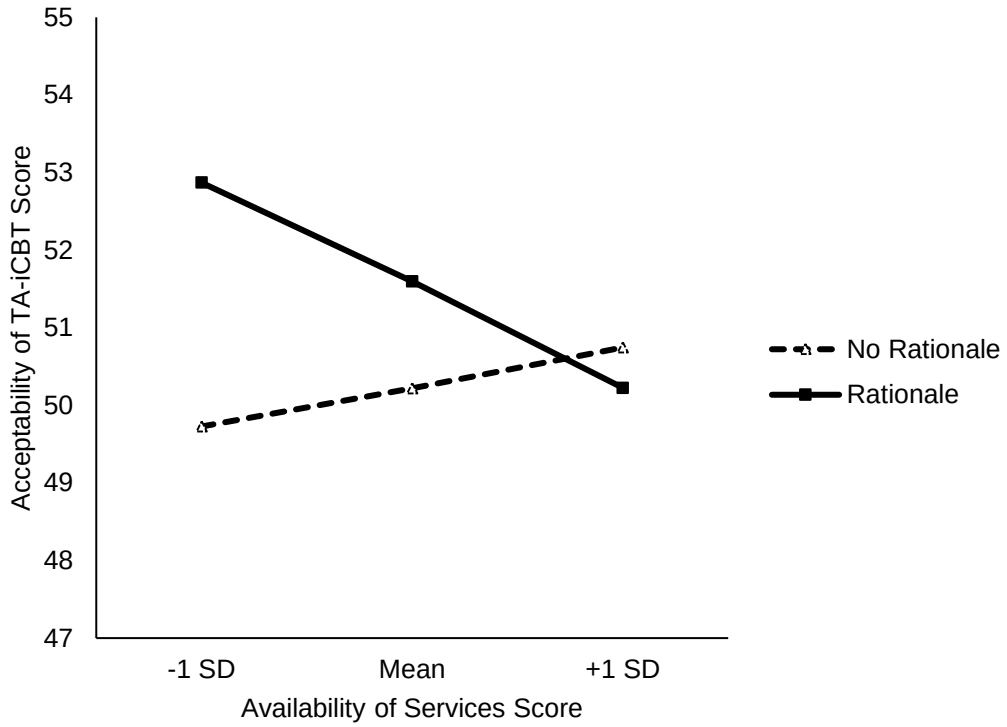

Figure 4 Line graph indicating that availability of services does ***not*** *moderate the relationship between treatment rationale and acceptability toward therapist-assisted iCBT*

4 DISCUSSION

The purpose of this study was to examine attitudes towards internet-based cognitive behavioral therapies and barriers to psychological interventions among Black/African Americans. The study experimentally evaluated whether attitudes towards iCBT could be improved by providing a treatment rationale and whether barriers to treatment moderated the relation between receiving a rationale and attitudes towards iCBT. The influence of various authority figures on attitudes toward iCBT was also examined. In general, the results of this study did not support the hypotheses that a treatment rationale would improve acceptability toward iCBT nor that there would be a direct positive relation between barriers to treatment and acceptability. However, the hypothesis that barriers to treatment would moderate the relation between a treatment rationale and acceptability was supported, although in an unanticipated direction. Additionally, results partially supported the hypothesis that the endorsement of a spiritual leader or health professional would increase the likelihood of using iCBT compared to no endorsement at all, but only when prescribed by a health professional.

Unexpectedly, there was no significant difference in attitudes between participants who did or did not receive a treatment rationale for the intervention. These findings contradict previous studies, which have demonstrated the positive impact of presenting a treatment rationale or psychoeducation on participants' feelings of credibility, expectancy-for-improvement, and likelihood of using iCBT (Ebert et al., 2015; Mitchell & Gordon, 2007; Soucy et al., 2016). One reason for this null result may be the construction of the treatment rationale itself. The length of the presented rationale was approximately 800 words. Some research has indicated that although rationale content is important, length does matter, with shorter

descriptions (approximately 250 words) more effective for enhancing expectations of therapeutic success (Horvath, 1990).

Inconsistent with hypotheses, there was not a significant positive relation between barriers to treatment and attitudes towards therapist-assisted iCBT. This lack of relation is surprising, given the oft-touted benefits of using iCBT to circumvent attitudinal and logistical barriers such as stigma, cost, and treatment availability. Indeed, participants frequently endorse advantages of iCBT in reducing stigma, lack of motivation, availability, and cost of treatment (Choi et al., 2012; Travers & Benton, 2014), despite expressing an overall preference for face-to-face therapy over internet-based therapy.

As hypothesized, barriers to treatment did moderate the relation between receiving a treatment rationale and attitudes towards iCBT, although not in the expected manner. Relative to participants who did not receive a treatment rationale, participants who did receive a treatment rationale reported significantly more positive attitudes towards iCBT, but only for those participants endorsing fewer barriers to treatment. At average and high levels of barriers to treatment, there was no difference in attitudes towards iCBT between those who did or did not receive the rationale. When examining specific subscales, ‘stigma’ moderated the relation between receiving a treatment rationale and attitudes towards iCBT. The ‘participant restrictions’ and the ‘availability of services’ subscales were not moderators.

One possible explanation for these unexpected findings is that barriers to traditional mental health treatment may also apply to iCBT. Participants who endorse low levels of treatment barriers may view iCBT more favorably after receiving information about it (i.e., treatment rationale). However, provision of a treatment rationale may not be sufficient to overcome average and high levels of treatment barriers in part because barriers to psychological

treatment that iCBT are thought to overcome may still apply. This may be especially true for attitudinal barriers. For example, stigma-related concerns of "being judged" or "counseling means I can't solve problems myself" may equally hinder participants regardless of whether they are seeking a therapist in person or via the internet. Indeed, previous research has indicated that although Black Americans are more likely to face structural and logistical barriers (e.g. cost and transportation) in the pursuit of therapy (Alegria et al., 2012; Mojtabai, 2005), it is more often the case that attitudinal and evaluative barriers toward psychotherapy prove to be the biggest obstacle. Additionally, Black Americans report that their perceptions of counselors' attitudes are more likely to affect treatment-seeking than financial and logistical barriers (Mojtabai et al., 2011; Sareen et al., 2007). Unfortunately, it is quite possible that attitudinal barriers may apply to both face-to-face and internet-delivered therapy. In other words, even after learning about internet-delivered treatments, one's impression of the benefit of iCBT may be muted by the breadth of pre-existing attitudinal barriers to mental health treatment writ large. This may in turn mitigate the perception of iCBT's logistical benefits of cost and convenience.

Overall, approximately 45% of the participants indicated they would "likely" or "definitely" use iCBT. This is comparable to prior literature reporting that participants (ranging from approximately 35% - 55% of a given sample) would either "possibly" or "definitely" be interested in using iCBT (Choi et al., 2012; Mohr, Siddique, et al., 2010; Travers & Benton, 2014; Wootton, Titov, Dear, Spence, & Kemp, 2011) and better than other studies which have found perceptions of iCBT to be poor or neutral, as evidenced by participant reports of limited intention to use the intervention (Carper et al., 2013; Musiat, Goldstone, & Tarrier, 2014). Similar to previous estimates that have indicated a minority of consumers (approximately 1% - 10%) have used an iCBT (Klein & Cook, 2010; Mitchell & Gordon, 2007; Neal et al., 2011;

Soucy et al., 2016), a negligible proportion of our sample (1.3%) had any experience using iCBT as well. This may depress acceptability toward these interventions, as less familiarity may breed more perception of risk and aversion especially given the more popular option of face-to-face therapy (Mohr, Siddique, et al., 2010; Musiat et al., 2014).

Given the potential role of leveraging culturally salient authority figures to improve attitudes of acceptability toward iCBT among Black Americans, this study hypothesized that that participants would be more likely to consider iCBT if referred by a spiritual leader or prescribed by a health professional as compared to the absence of a referral/prescription by an authority figure. Results indicated that participants' likelihood of using an iCBT program was higher if prescribed by a physician than if recommended by a spiritual leader or no one at all. This is interesting and important as 73.1% of the current sample rated religion as "Important" or "Very important" to them. Studies have shown that church-based mental health promotion initiatives have significant influence on health behaviors among African Americans (Campbell et al., 2007; Peterson, Atwood, & Yates, 2002). Additionally, research has indicated that Black clergy hold more positive attitudes than previously assumed toward making referrals to mental health professionals (secular or otherwise) when member distress is apparent (Payne, 2014; Young, Griffith, & Williams, 2003). For these reasons it may have been anticipated that receiving a recommendation for iCBT from a spiritual leader would have had greater impact on the reported likelihood of using said treatment compared to not receiving an endorsement at all. This surprising finding deserves further investigation.

4.1 Strengths and Limitations

This is the first study to explicitly and comprehensively measure barriers to treatment and attitudes of acceptability (as defined as a set of positive cognitive appraisals for a given

intervention) for non-treatment seeking Black participants. This is important because much of the existing literature that has examined acceptability toward iCBT have used treatment-seeking samples (which may not be as generalizable to the broader population) and very few have recruited Black participants; a community that disproportionately faces barriers to treatment and may stand to benefit from the advantages afforded by iCBT (e.g. cost-savings, accessibility, and reduced stigma).

This study included participants who were students as well as participants from the surrounding community. This is important as it enables confidence in the generalizability of these results for evaluating the relationship between barriers to treatment that are proposed to be mitigated by iCBT and actual public attitudes towards these interventions.

The study used an experimental design that was adequately powered to test hypotheses. This is important for discerning the causal impact of a treatment rationale on attitudes of acceptability for a minority sample and ruling out potential confounding variables. Furthermore, the adequately powered sample allowed for a level of nuanced analysis into the moderating effect of specific barriers on the relation between receiving a rationale and acceptability of iCBT, as well as teasing apart the differential impact of authority figure endorsement on reported likelihood of using iCBT.

One limitation of this study is that over 70% of the participants were college-educated, which is higher than education levels in the general population and may have implications for measuring attitudes toward internet-based mental health treatments as educational attainment has been linked to mental health treatment-seeking (Steele, Dewa, Lin, & Lee, 2007; see Broman, 2012, for evidence of the inverse relationship of education on Black American treatment-seeking).

The treatment rationale was originally designed to be provided to a demographically diverse and varied population and the primary speaker was that of a White clinical psychologist. The lack of cultural-tailoring and cross-racial presentation of the speaker may have impacted acceptability for a Black participant sample. Research shows that among Black Americans, cultural mistrust is associated with negative views and expectations of White mental health providers (Cuevas, O'Brien, & Saha, 2016; Whaley, 2001a, 2001b) and that Black Americans may report more positive expectations of treatment by race-concordant doctors than their White peers (Cabral & Smith, 2011; Malat, Purcell, & van Ryn, 2010).

The use of self-report presents a limitation of the study in that attitudes of acceptability towards iCBT was measured, whereas actual treatment-seeking behavior was not. Researchers have found that even robust levels of *interest* in seeking treatment among a Black population can be discrepant from actual rates of treatment seeking and usage (Diala, Muntaner, Walrath, Nickerson, & Laveist, 2000).

4.2 Implications

As iCBT usage persists at markedly low rates (Klein & Cook, 2010; Mitchell & Gordon, 2007; Neal et al., 2011; Soucy et al., 2016), and communities of color (especially that of the Black community) stand to benefit from the advantages afforded by this treatment modality, it is crucial that we improve our understanding of attitudinal barriers that preclude uptake of iCBT. Such barriers as stigma and lack of faith in treatment efficacy (Andrade et al., 2014; Ayalon & Alvidrez, 2007) as well as negative evaluations of counselor attitudes (Mojtabai et al., 2011; Sareen et al., 2007) have been shown to be primary barriers to mental health treatment. This study provides initial evidence for understanding Black American attitudes toward iCBT and

perceptions of its ability to overcome evaluative and attitudinal barriers that interfere with traditional treatment-seeking.

Furthermore, results support the potential prescriptive authority of medical professionals and the role they can play in improving the acceptability of internet-based treatments to a lay population. Respondents' indication that they would be more likely to use a therapist-assisted iCBT given a prescription by a health professional compared to an endorsement by a spiritual leader or no endorsement at all is illuminating given evidence of the influence of both physicians (Banerjee et al., 2018; Griffith, Ellis, & Allen, 2012) *and* clergy (Campbell et al., 2007; Peterson et al., 2002) in promoting health behaviors among Black Americans. Primary care physicians are often the immediate link to healthcare for Black Americans (Schappert & Burt, 2006) and indeed, research has supported that iCBT is not only efficacious but effective when prescribed in routine clinical care by primary health professionals (Hobbs et al., 2018; Newby et al., 2017; A. D. Williams & Andrews, 2013). Therefore, leveraging the authority of medical professionals presents an opportunity for improving treatment dissemination and access to iCBT.

Surprisingly, results of this study did not support the comparative efficacy of endorsement by a spiritual leader in improving attitudes toward iCBT. This is notable given that our sample highly endorsed the importance of their religious identity (comparable to population estimates; Pew Research Center, 2009), and clergy in the Black religious community are often gatekeepers to broader mental health access via pastoral care and external referrals (Avent et al., 2015; Blank et al., 2002; Taylor, Ellison, Chatters, Levin, & Lincoln, 2000). One might anticipate that spiritual leaders would hold considerable influence in both disseminating information and facilitating the use of iCBT treatments. However, this presumption was not supported by our data as the influence of religious authority figures did not translate as readily to

novel and non-traditional forms of mental health treatment. It is worth noting that the lack of impact on likelihood ratings for iCBT may reflect the broader provision of the treatment rationale by a White clinical psychologist (i.e., health professional) and not by a Black clergyperson which plausibly could have impacted the likelihood ratings as a function of the authority figure making the presentation. Therefore, caution is urged in overly drawing conclusions from this finding.

4.3 Future Directions

The need to increase the diversity and inclusion of minority and underrepresented populations in the literature concerning attitudes and utilization of internet-delivered therapies is paramount. Mental health disparities persist in Black and African American communities (Gaston et al., 2016) and these communities stand to disproportionately benefit from the opportunities afforded through this novel medium. Indeed, 40% of the current sample endorsed cost as a substantial barrier to seeking traditional mental health therapy, and the cost-effectiveness of iCBT has been well-established (Gerhards et al., 2010; Hedman et al., 2011). Furthermore, research has widely supported the efficacy and effectiveness of iCBT interventions in reducing mental health distress for majority populations (Andrews et al., 2018; Hedman et al., 2012) but has largely neglected examining the efficacy and acceptability of these treatments for minority populations, save for select few studies (Choi et al., 2012; Jonassaint et al., 2017). Even less attention has been given to understanding the extent to which communities of color perceive the benefit of internet-delivered therapies in mitigating barriers to therapy such as stigma, lack of faith in treatment, affordability, and convenience. This is a glaring gap in the literature that deserves further investigation.

It would behoove researchers to further invest in the development of acceptance-facilitating interventions for iCBT. One such intervention that has demonstrated promise in the literature is the provision of psychoeducation or treatment rationale to prospective users. In contrast to previous literature, the present study did not demonstrate the utility of providing a treatment rationale in improving attitudes towards iCBT. Therefore researchers are encouraged to carefully control for the ideal length and structure of provided treatment rationales (Horvath, 1990). Key moderators such as attitudinal barriers to treatment, mental health distress, and treatment history, are also poised for further investigation. Additionally, a behavioral measure of intent and use of iCBT would be informative for elucidating the link between attitudes of acceptability and treatment-seeking behavior as the two are not inherently equal (Diala et al., 2000).

Lastly, it could be argued that a deliberate attention to tailoring treatment rationales to a given audience may prove fruitful. Research has demonstrated the efficacy of culturally-tailored mental health interventions for minority populations (Barrera, Castro, Strycker, & Toober, 2013; McCall, Bolton, McCall, & Khairat, 2019; Rathod et al., 2018) but thus far none have been created for Black Americans regarding the use of iCBT. Investigating the potential impact of speaker identity, background, racial-matching, and endorsement on iCBT treatment seeking attitudes deserves further study. Ultimately, for internet treatments to be effectively integrated into routine practice, they will need to achieve ‘‘equivalence in terms of clinical outcomes, efficiency in terms of resource use and costs, and **acceptability** of ‘minimal interventions’ to patients and therapists’’ (Bower & Gilbody, 2005, p. 11). The previous three decades have demonstrated our capacity to design, evaluate, and deploy efficacious internet-based therapies. It

is now time that we devote our efforts to understanding and improving the public's desire to actually use them, especially among underserved and minority communities.

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APPENDICES

Appendix A: Attitudes Towards Psychological Online Interventions (APOI)

The following statements are about **therapist-assisted iCBT programs**, which are structured lessons to improve stress, anxiety, depression, or other mental health problems. Therapist-assisted iCBT is completed online and involves working with a therapist via instant messaging, email, phone, or video chat.

Please state your personal feelings or – if you are not familiar with such interventions from personal experience – please share your expectations with us.

Please rate your attitudes towards **therapist-assisted iCBT*** programs in general.

*Note: complementary version of APOI refers to **self-guided iCBT** throughout questionnaire.

	1 Totally agree	2 Rather agree	3 Not sure	4 Rather disagree	5 Totally disagree
1) Using therapist-assisted iCBT programs, I do not expect long-term effectiveness.	○	○	○	○	○
2) Using therapist-assisted iCBT programs, I do not receive professional support.	○	○	○	○	○
3) It is difficult to implement the suggestions of therapist-assisted iCBT effectively in everyday life.	○	○	○	○	○
4) Therapist-assisted iCBT programs could increase isolation and loneliness.	○	○	○	○	○
5) A therapist-assisted iCBT program can help me to recognize the issues that I have to challenge.	○	○	○	○	○
6) I have the feeling that a therapist-assisted iCBT program can help me.	○	○	○	○	○
7) A therapist-assisted iCBT program can inspire me to better approach my problems.	○	○	○	○	○
8) I believe that the concept of therapist-assisted iCBT programs makes sense.	○	○	○	○	○
9) In crisis situations, a therapist can help me better than a therapist-assisted iCBT program.	○	○	○	○	○
10) I learn skills to better manage my everyday life from a therapist rather than from a therapist-assisted iCBT program.	○	○	○	○	○
11) I am more likely to stay motivated with a therapist than when using a therapist-assisted iCBT program.	○	○	○	○	○

12) I do not understand therapeutic concepts as well with a therapist-assisted iCBT program as I do with a live therapist.	○	○	○	○	○
13) A therapist-assisted iCBT program is more confidential and discreet than visiting a therapist.	○	○	○	○	○
14) By using a therapist-assisted iCBT program, I can reveal my feelings more easily than with a therapist.	○	○	○	○	○
15) I would be more likely to tell my friends that I use a therapist-assisted iCBT program than that I visit a therapist.	○	○	○	○	○
16) By using a therapist-assisted iCBT program, I do not have to fear that someone will find out that I have psychological problems.	○	○	○	○	○

Appendix B: Perceived Barriers to Psychological Treatment Scale (PBPT)

Rate the degree to which different kinds of problems might get in the way of you seeing a counselor or a therapist.

	1 Not difficult at all	2 Slightly difficult	3 Moderately difficult	4 Extremely difficult	5 Impossible
1) Problems with transportation	○	○	○	○	○
2) Cost of psychotherapy	○	○	○	○	○
3) Interference from daily responsibilities	○	○	○	○	○
4) Lack of available counseling/psychotherapy	○	○	○	○	○
5) Don't know how to find counselor/therapist	○	○	○	○	○
6) Difficulties getting time off work	○	○	○	○	○
7) Difficulty walking or getting around	○	○	○	○	○
8) Physical symptoms (fatigue, pain, breathing problems)	○	○	○	○	○
9) Illness making it hard to leave home	○	○	○	○	○
10) Bad experiences with counselors	○	○	○	○	○
11) Distrust counselors	○	○	○	○	○
12) Would not expect counseling to be helpful	○	○	○	○	○

13) Attending counseling would feel self-indulgent	○	○	○	○	○
14) Concerns about upsetting feelings in counseling	○	○	○	○	○
15) Talking about problems makes them worse	○	○	○	○	○
16) Lack of energy or motivation	○	○	○	○	○
17) Difficulty motivating self	○	○	○	○	○
18) Being seen while emotional	○	○	○	○	○
19) My problems are not bad enough	○	○	○	○	○
20) Stigma of family/friends knowing	○	○	○	○	○
21) Discomfort talking to someone I don't know	○	○	○	○	○
22) Concerns about being judged	○	○	○	○	○
23) Counselor would not care about me	○	○	○	○	○
24) Counseling means I can't solve problems myself	○	○	○	○	○
25) Concerns about documentation in insurance	○	○	○	○	○

Appendix C: Demographics Questionnaire

1. What is your age? (in years)

_____

2. What is your gender identity?

- ○ Man
- ○ Woman
- ○ Transgender
- ○ Self-Identify (please specify): _____

3. What was your sex at birth?

- ○ Male
- ○ Female
- ○ Intersex

4. Do you consider yourself to be:

- ○ Heterosexual
- ○ Lesbian
- ○ Gay
- ○ Bisexual
- ○ Questioning
- ○ Self-Identify (please specify): _____

5. People are different in their sexual attraction to other people. Which best describes your current feelings? Are you:

- ○ Only attracted to women
- ○ Mostly attracted to women
- ○ Equally attracted to women and men
- ○ Mostly attracted to men
- ○ Only attracted to men
- ○ Not sure

6. What is your race/ethnicity?

- ○ African American / Black
- ○ American Indian or Alaska Native
- ○ Asian American / Asian
- ○ Hispanic / Latino/a
- ○ Native Hawaiian or Pacific Islander
- ○ Multi-racial
- ○ White
- ○ Self-Identify (please specify): _____

If you would like to, please further describe your racial, cultural, ethnic, or regional identity:

_____

_____

_____

7. What is your country of origin?

_____

8. Relationship status:

- ○ Single
- ○ Serious dating or committed relationship
- ○ Civil union, domestic partnership, or equivalent
- ○ Married
- ○ Separated
- ○ Divorced
- ○ Widowed

9. With whom do you live?

- ☐ Alone
- ☐ Spouse, partner, or significant other
- ☐ Roommate(s)
- ☐ Children
- ☐ Parent(s) or Guardian(s)
- ☐ Family (other)
- ☐ Other (please specify): _____

10. Religious or spiritual preference:

- ○ Agnostic
- ○ Atheist
- ○ Buddhist
- ○ Catholic
- ○ Christian
- ○ Hindu
- ○ Jewish
- ○ Muslim
- ○ No Preference
- ○ Self-Identify (please specify): _____
- ○ Other religious or spiritual preference: _____

11. To what extent does your religious or spiritual preference play an important role in your life?

- ○ Very Important
- ○ Important
- ○ Neutral
- ○ Unimportant
- ○ Very Unimportant

12. Are you currently a student?

- ○ Yes
- ○ No

13. Are you an international student?

- ○ Yes
- ○ No

14. Current academic status:

- ○ Freshman / First year
- ○ Sophomore
- ○ Junior
- ○ Senior
- ○ Graduate / Professional degree student
- ○ Non-student
- ○ High school student taking college classes
- ○ Non-degree student
- ○ Faculty or staff
- ○ Other (please specify): _____

15. Did you transfer from another campus/institution to this school?

- ○ Yes
- ○ No

16. What is the average number of hours you work per week during the school year (paid employment only)?

_____

17. Are you the first person in your family to attend college?

- ○ Yes
- ○ No

18. How would you describe your financial situation right now:

- ○ Always stressful
- ○ Often stressful
- ○ Sometimes stressful
- ○ Rarely stressful
- ○ Never stressful

19. How would you describe your financial situation while growing up:

- ○ Always stressful
- ○ Often stressful
- ○ Sometimes stressful
- ○ Rarely stressful
- ○ Never stressful

20. Do you have any physical disabilities?

- ○ Yes
- ○ No

21. If so, please specify

_____

22. Do you use a smartphone?

- ○ Yes
- ○ No

Appendix D: Depression, Anxiety, and Stress Scale—21 Item (DASS-21)

Please read each statement and click number 0, 1, 2 or 3 to indicate how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement. The rating scale is as follows:

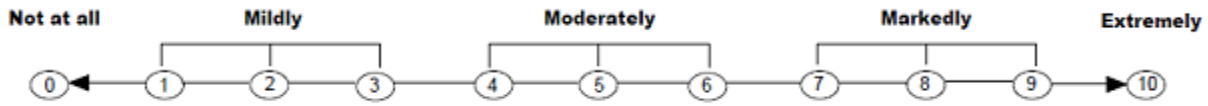
0 Never - Did not apply to me at all
1 Sometimes - Applied to me to some degree, or some of the time
2 Often - Applied to me to a considerable degree, or a good part of time
3 Almost Always - Applied to me very much, or most of the time

	0 Never	1 Sometimes	2 Often	3 Almost Always
1. I found it hard to wind down.	○	○	○	○
2. I was aware of dryness of my mouth.	○	○	○	○
3. I couldn't seem to experience any positive feeling at all.	○	○	○	○
4. I experienced breathing difficulty.	○	○	○	○
5. I found it difficult to work up the initiative to do things.	○	○	○	○
6. I tended to over-react to situations.	○	○	○	○
7. I experienced trembling (e.g., in the hands)	○	○	○	○
8. I felt that I was using a lot of nervous energy.	○	○	○	○

9. I was worried about situations in which I might panic and make a fool of myself.	○	○	○	○
10. I felt that I had nothing to look forward to.	○	○	○	○
11. I found myself getting agitated.	○	○	○	○
12. I found it difficult to relax.	○	○	○	○
13. I felt downhearted and blue.	○	○	○	○
14. I was intolerant of anything that kept me from getting on with what I was doing.	○	○	○	○
15. I felt I was close to panic.	○	○	○	○
16. I was unable to become enthusiastic about anything.	○	○	○	○
17. I felt that I wasn't worth much as a person.	○	○	○	○
18. I felt I was rather touchy.	○	○	○	○
19. I was aware of the action of my heart in the absence of physical exertion.	○	○	○	○
20. I felt scared without any good reason.	○	○	○	○
21. I felt that life was meaningless.	○	○	○	○

Appendix E: Sheehan Disability Scale (SDS)

Instructions: Please mark ONE circle for each scale.



	Not at all 0	1	2	3	4	5	6	7	8	9	Extremely 10
Mental health concerns have disrupted your work/school work.	○	○	○	○	○	○	○	○	○	○	○
Mental health concerns have disrupted your social life/ leisure activities.	○	○	○	○	○	○	○	○	○	○	○
Mental health concerns have disrupted your family life / home responsibilities.	○	○	○	○	○	○	○	○	○	○	○

Appendix F: History of Treatment

Appendix F.1: Face-face Treatment

Face-to-face psychotherapy or counseling involves working with a therapist to treat anxiety, depression, or other mental health problems. This might be done individually or in group therapy.

1. Are you **currently** receiving face-to-face psychotherapy or counseling services?

- ○ Yes
- ○ No

2. If you answered yes, please describe the treatment in 1-2 sentences (e.g. "I see a psychologist every week").

_____

_____

_____

3. How helpful are these services?

- ○ Extremely helpful
- ○ Somewhat helpful
- ○ Neither helpful or harmful
- ○ Somewhat harmful
- ○ Extremely harmful

4. Have you ever received face-to-face psychotherapy or counseling services? (If you are currently in treatment, answer "yes.")

○ Yes

○ No

○ Unsure (please explain): _____

5. If you answered yes or unsure, please briefly describe any face-to-face therapy or counseling you have received in the past. If possible, include how long you were in treatment and when it occurred (e.g. "I saw a counselor every week for about 10 sessions in 2009")

_____

_____

6. How helpful were these services?

○ Extremely helpful

○ Somewhat helpful

○ Neither helpful or harmful

○ Somewhat harmful

○ Extremely harmful

7. Are you currently interested in receiving face-to-face psychotherapy or counseling?

- ○ Extremely interested
- ○ Very interested
- ○ Somewhat interested
- ○ Slightly interested
- ○ Not at all interested
- ○ I'm already in counseling or psychotherapy

8. Would you use face-to face-psychotherapy or counseling to improve your life (e.g. reduce stress, anxiety, depression)?

- ○ Definitely would use
- ○ Would likely use
- ○ Unsure
- ○ Unlikely to use
- ○ Definitely would not use

9. Would you ***consider*** using face-to face-psychotherapy or counseling to improve your life (e.g. reduce stress, anxiety, depression)

- ○ Would definitely consider
- ○ Would likely consider
- ○ Unsure
- ○ Unlikely to consider
- ○ Would definitely not consider

Appendix F.1: Internet-delivered Treatment

1. Are you currently using an online mental health or iCBT program?

○ Yes

○ No

2. If you answered yes, please briefly describe any mental health or iCBT programs that you are currently using. If possible, include how long you have used it and when (e.g. "I have used 'This Way Up' program for anxiety since January 2018).

_____

_____

_____

3. How helpful is this program?

○ Extremely helpful

○ Somewhat helpful

○ Neither helpful nor harmful

○ Somewhat harmful

○ Extremely harmful

4. Have you ever used an online mental health or iCBT program?

○ Yes

○ No

○ Unsure (please describe): _____

5. If you answered yes, please briefly describe any mental health or iCBT programs you have used in the past. If possible, include how long you used it and when (e.g. "I used Joyable for anxiety in 2016. It took about 2 months.").

_____

_____

6. How helpful were these programs?

- ○ Extremely helpful
- ○ Somewhat helpful
- ○ Neither helpful nor harmful
- ○ Somewhat harmful
- ○ Extremely harmful

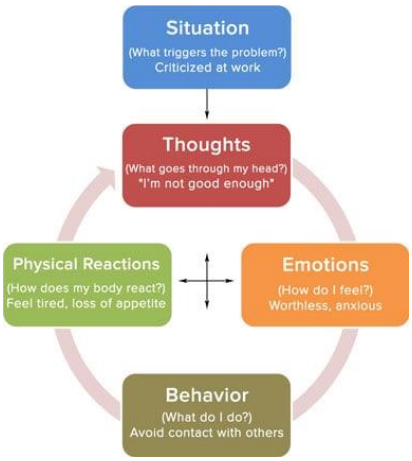
Appendix G: Treatment Rationale

Appendix G.1: iCBT Treatment Rationale

Hi, I'm Dr. Anderson!
I'm a professor in the psychology department at Georgia State University.
As a licensed therapist, I've also spent a long time helping people work through common mental health problems like stress, anxiety, and depression.

One of my areas of research is online psychotherapy programs, or **iCBT**. The "CBT" stands for cognitive behavioral therapy, which research shows helps people reduce stress, anxiety, and depression. Here's how it works: You work with your therapist to set goals for therapy. CBT works by helping you understand and change thoughts, emotions, and behaviors that are keeping you from reaching your goals for therapy. There is a plan each week for what to work on. CBT works best when you practice the things you learn between therapy sessions, and you and your therapist will decide at the end of each session what

you should practice before your next session. CBT is time-limited (typically once a week for about 8 weeks). Traditionally, CBT is done face-to-face, but it can also be done via the internet (iCBT)

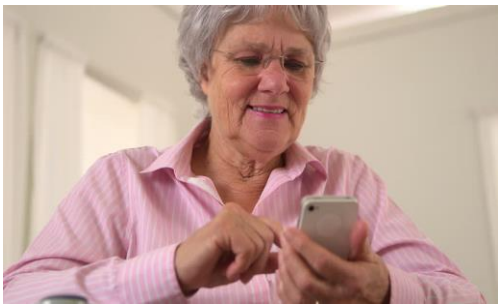


Page Break

iCBT programs are widely used. Millions of people in the U.S. have used online programs and smartphone apps to improve their mental health. These programs are becoming an increasingly integrated part of major healthcare systems.

Page Break

It can be intimidating for anyone to find mental health treatment, and especially hard to find the time to meet with someone face to face. That's one of the major reasons more and more people are deciding to try iCBT programs—you can do them on your own time on your computer or smartphone, so they work on any schedule. In addition to that, the format of CBT is typically easy to deliver online.



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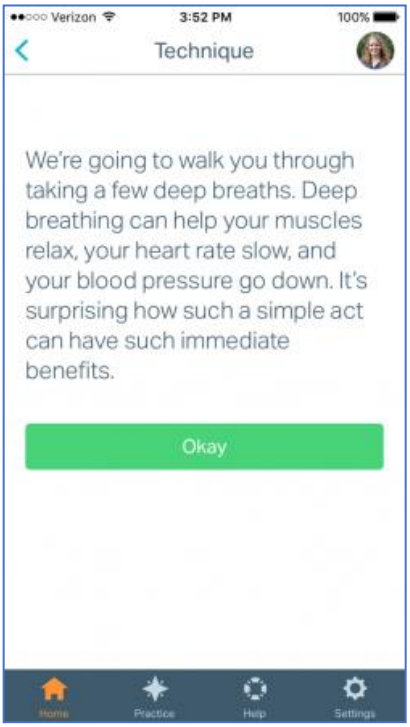
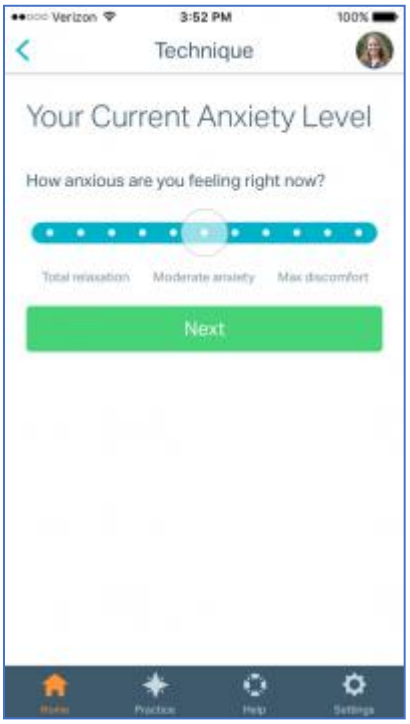

Verizon
3:52 PM
100%
Technique
We're going to walk you through taking a few deep breaths. Deep breathing can help your muscles relax, your heart rate slow, and your blood pressure go down. It's surprising how such a simple act can have such immediate benefits.
Okay
Home
Practice
Help
Settings


Verizon
3:52 PM
100%
Technique
Your Current Anxiety Level
How anxious are you feeling right now?
Total relaxation
Moderate anxiety
Max discomfort
Next
Practice
Help
Settings

So how does iCBT work?

- Treatment typically involves completing a structured set of lessons online or on a smartphone. These are often done week by week.
- Programs are tailored to specific issues like stress, depression, or anxiety. Some have stories about people overcoming these problems as you gain the tools to do it.
- Lessons usually end with a set of goals to complete before starting the next session. These goals help you put the tools you learn about into action, and might involve something like exercising, introducing yourself to someone new, or keeping a journal of thoughts that cause you distress.

- **Self-guided iCBT** programs are completed on your own at your own pace.

- **Therapist-assisted iCBT** programs involve completing lessons online and working with a therapist via instant messaging, email, phone, or video chat.

Page Break

Frequently Asked Questions

How much time does it take? Can I fit it in my schedule?

Lessons typically take 30 minutes to an hour to complete, and can be completed whenever you have the time. This is one of the major advantages of iCBT. Programs that offer real time interaction with a therapist may involve some scheduling.

How much does it cost?

While cost depends on the program, many of them are free. Some college counseling centers also offer free access to programs.

Is there a waiting period?

You can start most programs right away. Again though, this will depend on the program.

Does it really work?

Over a hundred published studies have shown that iCBT improves stress, anxiety, and depression, among other mental health problems. Most people get relief from symptoms and are highly satisfied with these programs after using them.

Page Break

Frequently Asked Questions

What if I try it and decide I want face to face therapy?

You can always switch. Nothing about starting an iCBT program stops you from seeking in-person therapy. Plus, if your program involves contact with a therapist they might be able to help you find someone.

Will I be able to talk to a therapist?

Some programs are self-guided, while others involve interaction with a therapist via instant messaging, email, phone, or video chat.

What if it's hard for me to write out my problems?

One common worry people have about iCBT is that they're afraid they won't be able to express their thoughts in writing. Most of the self-guided programs don't require writing. Therapist-assisted iCBT may offer communication through instant messaging, email, phone or video chat. This might be important to consider when looking for a program that works for you.

Is iCBT right for everyone?

iCBT isn't recommended for problems that pose serious risks to your safety. If you've been having thoughts of suicide or feel unsafe in any other way, you should seek in-person help as soon as possible (we'll give you some resources at the end of this survey). Also, some people just prefer talking to a therapist face to face, which is perfectly fine. However, iCBT is a treatment that works well for many people.

Page Break

Thanks for taking the time to learn about iCBT.
I hope the information was useful for you.
When you're ready, click the next button to complete the rest of the survey.

1.) Recap: True or False?

iCBT programs often use lessons, or modules, that can be completed on your own time using a computer or smartphone.

o True

o False

2.) Recap: True or False?

iCBT programs require meeting face to face with a therapist.

- o True
- o False

3.) Recap: True or False?

Some iCBT programs are completely self-guided, while others involve communication with a therapist via instant messaging, email, phone, or video chat.

- o True
- o False

Appendix G.2: Brief Definition of iCBT

Online mental health programs directly provide treatment for anxiety, depression, and other mental health problems.

Online cognitive behavioral therapy, or **iCBT** programs, are a common tool for addressing mental health problems. The "CBT" stands for cognitive behavioral therapy, which is a form of psychotherapy that works by helping you understand and change thoughts, emotions, and behaviors. iCBT programs might involve completing a structured set of lessons online. At the end of each lesson, programs often give you goals to practice the things you learn between therapy lessons and based on your feedback will decide which lessons will be completed next, or which may need additional practice for full benefit to you.

Self-guided iCBT programs are done independently.

Therapist-assisted iCBT programs involve support from a therapist via text, email, or videoconferencing.