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Application of the Transtheoretical model to Behavioral Health Professionals' Readiness to Practice Integrated Primary Care

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APPLICATION OF THE TRANSTHEORETICAL MODEL TO BEHAVIORAL HEALTH PROFESSIONALS' READINESS TO PRACTICE INTEGRATED PRIMARY CARE

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ABSTRACT

Integrated primary care (IPC) has received substantial support with its demonstrated ability to improve access to care, quality of care and health outcomes. Although the benefits of IPC are clear, the integration process has met barriers. One barrier is limited understanding of behavioral health professionals' (BHP) attitudes towards IPC. Better understanding could allow us to improve BHP training and motivation for IPC practice. This study aimed to develop Transtheoretical Model (TTM) measures to assess BHP attitudes toward and readiness to practice IPC using split-half cross-validation procedures. The sample consisted of 319 licensed and practicing BHPs with a stage distribution of Precontemplation 50.6%, Contemplation 2.8%, Preparation 1.6%, Action 6.0%, and Maintenance 39.0%. Exploratory principal components analyses yielded a 2-factor (Pros α=.90; Cons α=.83) 16-item scale for the decisional balance (DCBL) measure, a 1-factor 5-item scale for the self-efficacy (SE) measure (α=.93) and a 2-factor 12-item scale for the IPC Behavior measure (Consultation/Practice Management α=.915; Intervention/Knowledge α=.891). Confirmatory analyses replicated the hypothesized scale structures for DCBL (CFI=.89, AASR=.05, loadings.51-.81), SE (CFI=.90, AASR=.03, loadings .60-.90) and IPC Behavior (CFI=.934, AASR= .04, loadings .63-.91). MANOVA results by stage of change replicated hypothesized patterns for each construct Wilk's Λ= .55, $F(15, 834.09)= 13.55, p<.001$, multivariate η^2=.18. Follow-up tests found significant stage group differences, accounting for between 7% and 41% of the variance. This study demonstrated the applicability of the TTM to this new and increasingly important area; both measures demonstrated good internal and external validity.

Future research should explore these measures longitudinally and investigate methods to improve training to increase BHP readiness to practice IPC.

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CHAPTER 1

INTRODUCTION

Over the past decade, professionals in both the physical health and mental health communities have developed a strong interest in the integration of behavioral services into primary care practice. Integrating behavioral health care into primary care is a notion that has been proposed and adopted by many as a means to better meet the behavioral health and overall health care needs of patients (Brenson, Devers, & Burton 2011; Interprofessional Education Collaborative Expert Panel 2011; Hunter & Goodie, 2010). Integrated Primary Care (IPC) is the integration of behavioral health services and primary care medical services, provided together, onsite and in collaboration by both behavioral health professionals (BHP) and primary care providers (PCP) (Hunter, Goodie, Oordt, Dobmeyer, 2009). Many have adopted the model of IPC particularly because primary care is the main treatment venue for behavioral and mental health problems (Kroekne &Mangelsdorff, 1989).

Research has clearly demonstrated that the majority of symptoms reported in primary care settings are the result of psychosocial problems and/or from lifestyle behaviors affecting both physical and mental health of patients (Kroeneke &Mangelsdorff, 1989). Many of these concerns could be addressed with the help of behavioral health services. Additionally, most patients do not seek out specialty mental health services due to stigma and wanting care in one setting, therefore, IPC provides population-based care to a larger percentage of patients (Blount, 1998;

Bridges, Goldberg, Evans & Sharpe, 1991; Byrd, O'Donohue& Cummings, 2005;Strosahl, 2005).

IPC has many advantages over the traditional models of separate medical care and specialized mental health care, including its ability to offer increased access to care, decrease medical utilization and costs, and reduce stigma (Brenson, Devers, & Burton 2011; Byrd, O'Donohue & Cummings, 2005). By integrating primary care, more evidenced-based treatment options have become available and the quality of care has been enhanced. The evidence clearly demonstrates a dire need for the integration of behavioral health care into primary care practice. However, despite clear evidence of this urgent need, the process of integrating care has been confronted by myriad barriers. One notable barrier to IPC is the gap between IPC practice and the training of Primary Care Providers (PCPs) and BHP with traditional models of training. Traditional BHP training models do not typically prepare the BHP for fast-paced, team-oriented, multidisciplinary, population-based medical environments. This training gap leaves many BHPs unprepared for IPC practice. There is a need to better understand the readiness of the BHP to practice IPC, and to specifically gain a better understanding of their attitudes, facilitators and perceived barriers to practicing IPC. Furthermore, training programs need to reassess their role in this new environment and adapt their traditional training methods to better prepare BHPs for IPC practice.

CHAPTER 2

REVIEW OF LITERATURE

Integrated Primary Care

Integratedprimary care (IPC)incorporates behavioral health professionals (BHPs) working collaboratively as part of primary care teams (Collins, Hewson, Munger, Wade, 2010). IPC has been defined many times by leading researchers in the field, however, for the purposes of this study, integrated primary care is defined as: "BHPs working within and as a part of a primary care medical team, providing patient care with primary care providers (MD, DO, PA, NP) through the integration of behavioral health services with medical services for prevention and intervention" (adapted from Hunter, Goodie, Oordt, &Dobmeyer, 2009). Many of the IPC treatment models have been designed based on recommendations from the Affordable Care Act (ACA), which has supported the transformation of the health care system by enhancing primary care practice through the use of Patient Centered Medical Homes (PCMH) (Brenson, Devers & Burton, 2011; Interprofessional Education Collaborative Expert Panel, 2011).

The aim of the PCMH is to offer patient-centered, collaborative, team-based care that is coordinated and tracked over time to enhance quality of care and improve safety practices (Brenson, Devers & Burton, 2011; Cubic, Mance, Turgesen&Lamanna, 2012; Interprofessional Education Collaborative Expert Panel 2011; Nash, McKay, Vogel & Masters, 2012). Often IPC is practiced with the

Primary Care Behavioral Health (PCBH) model, where care is provided with the behavioral health provider acting as part of the primary care team (e.g. consultative role), typically with one treatment plan and commonly a shared medical record (Blount, 2003; Blount, Schoenbaum, Kathol et al., 2007; Hunter, Goodie, Oordt, & Dobmeyer, 2009; Strosahl, 2005). In this model, the majority of the behavioral health services are provided by the BHP, however, PCPs and other staff need to be familiar with assessment and interventions, and may also learn to briefly treat behavioral health problems. Some treatments in this model are aimed at disease-specific patient populations. For example, those with diabetes or depression may have specific care plans, protocols, or team-provided care, including educational and group components (Hunter & Goodie, 2010). The BHP is often responsible for the on-going behavioral health training of staff to help improve screening and referral procedures for behavioral health services. This is important, as PCPs will need to differentiate between patients who may or may not need behavioral health services. Moreover, PCPs will need to provide interventions in a limited amount of time (e.g. 2 to 3 minutes) to encourage patients to see BHPs, or to motivate patients to follow prescription or care plans. Research has demonstrated support for a range of integrated and collaborative primary care models, but particularly for integrated primary care models (Brenson, Devers, & Burton 2011; Bray, 2010; O'Donohue, Byrd, Cummings & Henderson, 2005).

Benefits of Integrated Primary Care

The support for PCMH and integrated primary care is of the utmost importance since it has been clearly demonstrated that referral programs to specialty mental health

services have been ineffective (Blount, 1998; Robinson &Strosahl, 2009). Of about 40% of patients referred to specialty mental health from primary care, only about 10% of patients show up for appointments (LaBrie, LaPlante, Peller et al., 2007). Most patients will not seek care at separate behavioral health centers, in effect leaving the majority of people with limited or no access to behavioral health care (Brenson, Devers, & Burton, 2011;Bridges, Goldberg, Evans & Sharpe, 1991; Strosahl, 2005).

Many patients tend to present to medical professionals for behavioral needs because there is less stigma associated with being treated by medical professionals, and often patients do not view their symptoms as being "mental health" concerns (Byrd, O'Donohue& Cummings, 2005; Robinson & Strosahl, 2009). Additionally, medical professionals are often more convenient and sometimes more trusted. Patient surveys have shown that most clients want "one stop shopping" with behavioral health services in the same location, and in the same time frame, as all of their other health care services (Strosahl, 2005, p. 17). With the overlap between behavioral health problems and physical health problems, primary care offers more options for comprehensive treatment including psychotropic medications, education, and brief, evidenced-based behavioral interventions (Hunter & Goodie, 2010). In addition, it is less expensive for consumers to pay for primary care, as opposed to the benefits coverage (or lack thereof) for specialty mental health services (Blount, Shoenbaum, Kathol, Rollman, Thomas,O'Donohue et al., 2007).

There are also many cultural differences in the willingness to seek mental health care, with some cultures having more stigma associated with mental health services (Bray, 2010). Primary care patients tend to include more individuals who are

ethnically diverse, older and male, compared to the patients typically treated in specialty mental health settings (Strosahl, 2005). Locating behavioral health services in primary care improves access to care by minimizing stigma, potentially leading to more equity in healthcare and the ability to reach more vulnerable or at-risk populations (Blount, 2003; Bray, 2010). A primary care practice will typically deliver at least one medical service to 80% of the community on an annual basis as compared to behavioral health systems which may treat only 3-7% of the population (Strosahl, 2005). These facts highlight that integrating behavioral health service into primary care can offer an efficient way of ensuring people have greater access to needed mental health services (Collins, Hewson, Munger& Wade, 2010).

Many studies on healthcare utilization patterns have demonstrated that about 70% of primary care visits are driven by psychosocial factors, but not necessarily by diagnosable mental health disorders (Blount, 2003; Kroeneke & Mangelsdorff, 1989; Robinson & Strosahl, 2009; Strosahl, 2005). Although patients often present with physical complaints, data suggests that underlying substance use or mental health issues are contributing to the reason for the medical visits. For example, Kroenke & Mangelsdorff (1989) conducted a retrospective chart review of 1,000 patients that were treated at the Internal Medicine Clinic at the Brooke Army Medical Center (primary care for veteran and active duty patients) to better define incidence, etiology and outcome of the most common symptoms presented in primary care. They found that the 10 most common presenting symptoms, which accounted for about 40% of all visits to primary care were: chest pain, fatigue, dizziness, headache, edema, back pain, dyspnea, insomnia, abdominal pain, and numbness (Kroenke &Mangelsdorff, 1989).

In addition, they demonstrated that only about 16% of the symptoms reported were found to have an organic cause and 10% were determined to be psychological, with the remaining 75% of symptoms left with an unknown etiology. That 75% of symptoms with unknown etiology were believed to be related to psychosocial factors. Others have also suggested that about 60–70% of visits to primary care either reflect psychological issues manifested with physical symptoms, or patients have psychological and lifestyle problems that are interfering with medical problems and/or treatment (e.g. non-compliance) (Cummings, O'Donohue, Cummings, 2009, p.34; Fries, Koop & Beadle, 1993). Somatoform disorders and presentations are also more prevalent in primary care (Nash, McKay, Vogel & Masters, 2012). It is clear that psychosocial factors exacerbate the number of visits to primary care. Additionally, psychiatric conditions increase utilization of primary care services.

Collins, Hewison, Munger and Wade (2010) estimated that 26.2% of Americans, 18 and older, suffer from a diagnosable mental disorder in a given year, with half of these cases beginning between the ages of 14-24 years. Of these disorders, the most common tend to be misuse of alcohol, major depression and generalized anxiety disorder (deGruy, 1997; VonKorff & Simon, 1996). Yet, the majority of patients with psychological disorders receive care more often from their PCP than from specialty mental health providers. In addition, 80% of all psychotropic medications in the US are prescribed by non-psychiatric providers (i.e. primary care providers) (Cummings, O'Donohue, Cummings, 2009). Furthermore, psychological illness has been found to be associated with levels of functional impairment comparable to, or more severe than, patients with other medical conditions such as

chronic obstructive pulmonary disease (COPD), diabetes, coronary artery disease (CAD), hypertension and arthritis (Katon & Seelig, 2008; Spitzer, Kroenke, Linzer et al., 1995; VonKorff & Simon, 1996; Wells, Stewart, Hays et al., 1989). Given the fact that many patients do not view their symptoms as mental health concerns and that both clinical and subclinical psychological problems are more likely to be treated in medical settings, by integrating care, services can be provided where treatment is already being sought with greater potential for earlier intervention and improved outcomes (Byrd, O'Donohue, Cummings, 2005).

In addition to the high rates of mental disorders, behaviors related to chronic diseases are also a major concern for primary care. Currently, more than 75% of health care costs are due to chronic conditions (CDC, 2009). Although various disease states (i.e. heart disease, cancer) are the most commonly cited reasons for death and disability, the root causes of most of these problems are related to behavioral risk factors based on lifestyle (CDC, 2009). Chronic diseases are not only among the most common and costly problems, they are among the most preventable, with tobacco use and obesity being the leading causes of preventable deaths respectively (CDC, 2009). Given these statistics, it is very important to address the psychosocial and behavioral concerns of chronic illness since most patients in primary care could benefit from health behavior change. Despite encouragement from physicians to make necessary lifestyle changes, most patients do not make these changes based only on suggestions from medical providers (Blount, 2003; Blount & Miller, 2009). IPC, with the inclusion of BHPs, offers another way to address this gap in treatment.

Many primary care patients present with reported physical distress as opposed to emotional distress. In addition, many of the reported symptoms are often less severe than those seen in specialty mental health settings, making it even more challenging to appropriately diagnose these patients (deGruy, 1997). It has been estimated that about 70-75% of patients with depression present with physical complaints as the reason to seek health care and they do not believe behavioral health services will relieve their problems (Blount, Shoenbaum, Kathol, Rollman, Thomas, O'Donohue et al., 2007; deGruy, 1997). Additionally, some physical disorders increase the risk of behavioral health disorders (Kessler, 2009; Unutzer, Schoenbaum, Katon et al., 2009). However, while comorbidity is a list of concurrent diagnoses, it does not adequately account for the interaction between these diagnoses. While challenging, it is important to properly diagnose mental health problems, because without doing so both the physical and mental health status of patients can deteriorate, leading to more health care utilization, higher costs, and increases in dissatisfaction with care for both patients and providers. Primary care cannot adequately be practiced without addressing mental and behavioral health concerns, thus supporting the increased inclusion of BHPs as an important enhancement to the primary care setting.

Addressing behavioral health concerns in primary care leads to reduction in rates of morbidity and mortality and an increase in the cost-effectiveness of care (Blount, Shoenbaum, Kathol, Rollman, Thomas, O'Donohue et al., 2007). As mentioned above, lifestyle behavioral factors (e.g., tobacco use, diet, inactivity, alcohol) are among the major contributors to premature death, accounting for about half of all deaths (CDC, 2009). These factors are commonly addressed in primary

medical care, yet they are not always effectively managed. Adding to health care costs, mental health patients tend to utilize general health care at a disproportionately higher rate than those without any mental health concerns, almost at a 2:1 utilization rate (deGruy, 1997; LaBrie et al., 2007). When patients do not have their mental health needs addressed in treatment, it creates a "revolving door" or excess of medical utilization and can leave providers and patients dissatisfied with higher costs of medical care (Strosahl, 2005).

Collaborative and integrated care research has been conducted since the 1960s and recent evidence has accumulated supporting the benefits of IPC (Brenson, Devers, & Burton, 2011, Bray, 2010; O'Donohue, Byrd, Cummings & Henderson, 2005). Studies have supported a range of collaborative care models with integrated care models providing the best opportunity to reach the largest percentage of patients (Blount, 2003; Byrd, O'Donohue, Cummings, 2005; Robinson & Strosahl, 2009). Additionally, many other positive outcomes of IPC have been demonstrated such as: maintaining improvement of symptoms and well-being (Brown & Schulberg, 1998; Boudreau, Capoccia, Sullivan et al., 2002; Katon, Von Korff, Lin et al., 1997; Bryan, Morrow, Kanzler &Appolonio, 2009), improved treatment compliance (Blount, 2003; Katon, Von Korff, Lin et al., 1997), patient and provider satisfaction (Cubic, Mance, Turgesen & Lamanna, 2012; Reiss-Brennan, Briot, Savitz, Cannon &Staheli, 2010), cost-effectiveness (or medical cost offset) (Cummings, O'Donohue& Cummings, 2009; Weeks, Gottlieb, Nyweide at al., 2010), and improved work attendance and performance (Wang, Simon, Avron et al., 2007). Finally, many studies support the

ACA initiative for PCMH and highlight the effect integration has on the reduction of fragmented and inadequate care of mental health problems in primary care patients.

Provider Benefits to IPC

Despite the availability of evidence-based behavioral interventions, behavioral counseling and health behavior interventions are underutilized in traditional health care settings (Elder, Ayala, Harris, 1999). The skills and training of BHPs can help to meet behavioral health needs in primary care particularly for the prevention and management of chronic disease and mental health concerns through behavioral health interventions (Robinson & Strosahl, 2009). By integrating BHPs into primary care, more time can become available for physicians to attend to the medical needs of patients and BHPs will have more access to patients. Thus, PCPs, BHPs, and medical patients alike benefit from this integration of behavioral health into primary care practices.

The most notable benefit of IPC practice for BHPs is the aforementioned access to a much larger number of patients compared to specialty mental health care. This is especially true of the model of IPC that includes onsite collaboration, the use of the "warm-handoff", brief sessions and shorter treatment plans. Another benefit of working in an integrated care environment is that allows BHPs to enhance their understanding of the interaction of behavioral and physical health, allowing them to utilize a more comprehensive biopsychosocial model of care with an increased holistic view of the client (Strosahl, 2005). Additionally, they have the opportunity to learn about pharmacology, and specifically about psychopharmacology, allowing them to improve their collaboration with PCPs on appropriate treatments for patients (e.g.

psychotropic vs. behavioral or combination) (O'Donohue , Cummings & Cummings, 2009). Finally, the collaboration amongst PCP and BHP professionals and working as part of an interdisciplinary team can be a welcome experience for many BHPs who are used to working in individual environments (O'Donohue, Cummings & Cummings, 2009).

Similar to BHPs, PCPs experience a variety of benefits when practicing as part of an integrated primary care team. Arguably, they may even experience more benefits and have even more incentives to integrate care as compared to BHPs. PCPs are currently trained to work in fast paced, collaborative medical environments. Within IPC practice, BHPs are typically brought into the practice allowing PCPs to maintain the environment for which they were trained. By adding a BHP to their practice PCPs benefit from on-site consultation and collaboration that can enhance their comfort and confidence when assessing mental health, substance use and suicide risk for patients (Blount & Miller 2009; Strohsal, 2005). In addition to the mental health guidance they receive, PCPs also benefit from the BHPs' expertise in health behavior change (Bluestein & Cubic, 2009). While many PCPs see the need and recommend that their patients change their behavior, many do not know how to adequately help patients to change, leading to both provider and patient frustration. With the BHP as a role-model and educator, PCPs may increase their knowledge of mental and behavioral health, learn how to better motivate patients, and may even be able to provide brief behavioral interventions with their improved understanding of the basics of behavior change. Furthermore, with the patients' needs being more adequately addressed, the "revolving door" will be less utilized, further reducing

provider burn-out and patient frustration. With more time available and a deeper understanding of the biopsychosocial model of care, PCPs can offer improved safety and quality of care (O'Donohue, Cummings & Cummings, 2009). Clearly, there are numerous benefits to both BHPs and PCPs in adopting an integrated model of primary care.

Barriers to Integrated Primary Care

Barriers to IPC have included reimbursement concerns (e.g. codes for BHP interventions in IPC), lack of electronic medical records, varying confidentiality practices between professions, and lack of finances and practice policies to integrate (e.g. office and medical staff needing to adapt and be able to change practice policies) (Blount & Miller, 2009; Kessler, Stafford & Messier, 2009; O'Donohue , Cummings & Cummings, 2009). However, many researchers argue that the major reason IPC has not become more predominant is due to inadequate training for BHPs, particularly clinical psychologists (Blount & Miller, 2009; Bluestein & Cubic, 2009; O'Donohue, Cummings & Cummings, 2009; Robinson & Strosahl, 2009). Specifically, few mental health providers are trained to work in the primary care setting and neither primary care nor mental health physicians are trained to work as part of an integrated primary care team.

Most BHPs have not had training or experience in a fast-paced, team-oriented, medical environments which is necessary for developing skills that support IPC (O'Donohue, Cummings & Cummings, 2009). Traditional models of graduate training rarely include collaborative experience as part of a multidisciplinary medical team, which can make it challenging to work with physicians in the future. BHPs are trained

as sole specialty providers, with occasional, limited consultation with psychiatrists or physicians. In contrast, in IPC, they can work collaboratively with the physician and may temporarily provide care to a patient who ultimately remains in the physician's care. Moreover, the reimbursement codes and practices for BHPs working within IPC are often not understood or may not exist for use with certain payers. Mental health specialization can also be a barrier to IPC, as many BHPs have spent their careers focused on specific behavioral or mental health concerns such as depression, anxiety, sleep, smoking or diet. Few have been trained to have a broad, generalist understanding of the multitude of behavioral health assessments and interventions that can be useful in primary care settings (Hunter, Goodie, Oordt, Dobmeyer, 2009). The lack of this broad training reduces BHPs' feelings of comfort, readiness and competence to work in IPC. Consequently, improved training is necessary to further develop the skills of the large percentage of BHPs who have not yet developed the competencies to excel in IPC, as well as to prepare future BHPs for these settings. It is essential that the field address these barriers faced by BHPs by offering improved training and more incentives to support movement towards integrated care.

Similar to BHPs, insufficient training is a major barrier to a PCPs ability to work in integrated primary care, with many lacking a basic understanding of behavior change, assessments and interventions for behavioral health concerns (Blount & Miller, 2009; Bluestein & Cubic, 2009). Medical training programs do not prepare physicians to provide brief, behavioral assessments or interventions, despite the fact that this will be a large part of their practice (Bluestein & Cubic, 2009). Without this training background, physicians may be biased and assume these interventions are not

appropriate for primary care practice. Additionally, given their medical training in disease models, as opposed to more inclusive biopsychosocials tress and coping models, many PCPs are over reliant on medications and medical procedures as the first line of treatment for most complaints and may be ignorant of, or even dismissive of, other appropriate behavioral interventions (Strosahl, 2005). The culture and training of PCPs likely assumes that the medical model is the preferred mode for treatment of most patients, despite documented lower rates of patient understanding, readiness, and compliance for such treatments. Without improved training and exposure to IPC, PCPs may be unclear as to how a BHP could help improve their practice, quality of care and patient outcomes more cost effectively. In order for integrated care to be successful, PCPs need to be able to advocate for BHP services with clients. Clearly, enhancing PCPs' understanding of BHP integration will be necessary to support progress towards IPC.

Integrated primary care and its fairly novel treatment delivery options, offers benefits to both PCPs and BHPs in providing broader understanding of patients and potential treatments. It allows them both to provide more comprehensive and better quality care for a larger percentage of patients. BHPs and PCPs may differ in their training and biases that need to be addressed to reduce barriers to providing integrated primary care. However, they share the fact that their different perceptions and biases are most likely attributable to their training backgrounds. In order for IPC to be successful, both PCPs and BHPs need to work on changing the way they practice and developing the skills and competencies necessary for IPC practice (Robinson &Strosahl, 2009; Nash, McKay, Vogel & Masters, 2012). Which of these skills needs

to be changed or gained will vary based on provider role. Overall, it seems BHPs will have to make the most drastic changes to their practice (i.e. environment, pace, length of interventions) in order to successfully provide integrated primary care.

Training Gap for Behavioral Health Professionals

Given the unique nature of IPC, it is essential that behavioral health psychology training programs reassess their role in its future. As Bray (2010) clearly states, "to succeed in the future, we psychologists need to broaden our perspectives to be full partners in the health care system, and we need to identify ourselves as health care providers" (p.361). Many future psychologists will be employed in primary care settings and therefore, psychology, as a field, needs to create a strategic plan for the education and training of future psychologists (Cubic, Mance, Turgesen, &Lamanna, 2012). With the ever changing and quickly evolving healthcare system, it is even more essential for psychology to transform the traditional education and training models in a way that develops highly competent psychologists. These changes to traditional psychology training models will help to develop psychologists trained to be partners in the healthcare system and members of collaborative integrated care teams, as opposed to specialists in mental health.

Based on the present state of our training programs, future primary care psychologists are not currently being adequately trained (Blount & Miller 2009; Bluestein & Cubic, 2009; Cubic, Mance, Turgesen &Lamanna, 2012). Many current psychology training programs do not offer didactics, practicum experiences or core competency training in integrated care. If IPC is taught, it is usually housed within health psychology tracks. However, some argue primary care training should be

present in a generalist track given the nature and broad scope of primary care (Blount & Miller, 2009). With a broader focus and generalist training, programs may better prepare BHPs for roles in primary health care rather than specialty mental health (Bray, 2010). Although health psychology and behavioral medicine training programs may provide training in some of the skills necessary to succeed in IPC settings, they do not yet adequately train students to be independent primary care behavioral providers (O'Donohue, Cummings & Cummings, 2009).

Specifically, some of the skills and competencies necessary for IPC practice include an understanding of: medical literacy, healthcare economics, reimbursement, consultation-liaison skills, chronic disease management, population-based care and general business principles (O'Donohue, Cummings & Cummings, 2009). However, most traditional psychology training programs are still focused primarily on specialty care models and most do not develop these skills for use in IPC settings. In addition, a major core competency for IPC practice is the ability to collaborate successfully with medical providers. However, the culture of traditional psychology training models often excludes training on collaboration with medical professionals and some are even taught to be competitive with physicians (Blount & Miller, 2009; Strosahl, 2005). Another essential component for psychologists to work in integrated care environments includes understanding the implications of health care reform and how to respond to current healthcare trends (Bray, 2010; O'Donohue, Cummings & Cummings, 2009). Yet, it has been shown that many IPC programs fail based on their misunderstanding of the healthcare system, basic health economics and business principles (O'Donohue, Cummings & Cummings, 2009).

BHP training programs need to address the mismatch between IPC treatment model needs (include working in fast-paced, action-oriented, medical environments seeing many patients in 15-30 minute sessions for about 1-4 sessions total) and those of traditional specialty Psychology training models which train BHPs to work as the sole provider in slow-paced, non-medical environments treating patients for the standard 50 minutes, over an average of 8-16 sessions (O'Donohue, Cummings & Cummings, 2009). This training discrepancy leads to a lack of necessary skills and possible inaccurate beliefs, assumptions and biases developed based on training backgrounds. For example, some BHPs may assume patients with significant behavioral health issues cannot overcome problems with brief, team-oriented interventions. Moreover, they often believe the therapeutic relationship is linearly related to both the amount of time spent with a client and outcomes (Strosahl, 2005). Additionally, BHPs may believe it is not possible to assess or treat a patient in 15-30 minutes and that doing so leads to mistakes. Given their traditional training philosophy, many BHPs hold the belief that patients want longer treatment for behavioral health concerns, despite the fact that the average patient participates in 6 to 8 sessions, the drop-out rate in specialty mental health is 50%,and many want brief advice, support and responsibility for managing their own conditions (Strosahl, 2005). Enhanced IPC skills training may improve a BHPs provision of care, even if they do not ultimately choose to work in an IPC setting.

With the high rates of mental health disorders, chronic disease, comorbidity and lifestyle behavior concerns, the evidence clearly demonstrates a need for better integration of behavioral health care into primary care practice. However, despite

clear evidence of this need, the process to integrate care has been slowed due to the need for enhanced provider training models. PCPs alone cannot efficiently or effectively address the array of behavioral and mental health problems that are presenting in primary care. Of particular concern is that physicians lack expertise in behavior change, the range of brief and effective psychological treatments, and the time to provide these interventions (Elder, Ayala, Harris, 1999). In addition, health promotion and prevention tend to require a different skill set and overall attitude than acute care, including motivational skills, understanding patient beliefs and values and attention to societal influences on health behaviors (Maizes, Rakel, Niemiec, 2009). The training and clinical practice of physicians is primarily oriented to acute care treatment rather than prevention (Elder, Ayala, Harris, 1999). Integrating a BHP into practice can help, however, most BHPs are not yet trained to work in the fast-paced, collaborative, medical environment of primary care (Cubic, Mance, Turgesen, & Lamanna, 2012; Nash, McKay, Vogel & Masters, 2012).

The evidence is clear that there is a need to enhance both training programs for new BHPs, as well as for currently practicing BHPs, in order to increase preparedness and skills to work in IPC settings. Understanding BHPs' readiness for IPC practice and motivating BHPs to make this transition can greatly enhance the care of primary care patients. However, at this time the field is limited in its understanding of the attitudes and knowledge of IPC from the perspective of current practicing BHPs (Beehler& Wray, 2012). Moreover, the ACA and the foundations of the PCMH emphasize that a team-based approach to care is essential for improved quality and safety of care (Brenson, Devers, & Burton, 2011). Therefore, there is a need to

improve training for future primary care BHPs for team-based integrated primary care practice and to tailor traditional psychology educational models to meet this need. Thus it is imperative for the field of psychology to address both of these concerns by better understanding, first, BHP readiness to practice IPC, and second, the facilitators and barriers to IPC practice.

Application of the TTM to BHP readiness to practice IPC

Numerous theoretical frameworks have been applied to a variety of behaviors to better understand how to intervene to help people with behavior change. Effective behavior change interventions must be based on strong theoretical foundations using reliable validated measures. One important theoretical framework is the Transtheoretical Model (TTM) of behavior change, an integrative model of intentional behavior change demonstrating when, why and how people change behavior (Prochaska & DiClemente, 1983). Applying the TTM of behavior change to the emerging field of IPC, will lay the foundation for future training and development aimed at increasing the readiness of BHPs to practice IPC. Prior to such training improvements and changes, however, the development of valid and reliable measures to assess BHP's readiness, attitudes and confidence to practice IPC is a necessary first step. Developing measures of the core constructs of the TTM to assess behavioral health provider's readiness to practice integrated primary care will be essential in order to inform training models to help BHPs to progress towards IPC practice. Obviously there is a need for IPC, but in order to implement these practices the field needs BHPs who are ready and willing to move into collaborative IPC settings.

TTM Overview

The Transtheoretical Model (TTM) is an integrative theoretical model of intentional behavior change (Prochaska & DiClemente, 1983). The model describes when, why, and how people change behavior (Prochaska & Velicer, 1997). The central organizing construct for the TTM is the temporal dimension, Stage of Change (Prochaska & DiClemente, 1983), which suggests that change is a process that unfolds over a period of time (Prochaska, Redding, & Evers, 2008). TTM research has found that the process of change involves progress through a series of five stages of change: Precontemplation (not intending to take action in near future, usually the next 6 months), Contemplation (intending to take action in the next 6 months), Preparation (intending to take action within the next 30 days and often including some behavioral steps toward the change), Action (made the overt change to their behavior for less than 6 months), and Maintenance (continued the overt behavior change for longer than 6 months) (Prochaska &Velicer, 1997). The TTM hypothesizes and has produced substantial empirical evidence to suggest that interventions to change behavior that are matched or tailored to the individual's current stage of change are effective (Krebs, Prochaska& Rossi, 2011; Noar, Benac, & Harris, 2007; Prochaska, Redding, & Evers, 2008; Velicer, Norman, Fava & Prochaska, 1999). Movement through these stages varies as some people remain at certain stages for a period of time while others may relapse to earlier stages before their behavior change goals are met (Prochaska, Redding & Evers, 2008).

Another core construct within the TTM is Decisional Balance, which includes the Pros and Cons of behavior change (Velicer, DiClemente, Prochaska, & Brandenberg, 1985). An individual's stage of change is strongly related to that

individual's perceptions of, and corresponding weighting of, the benefits (pros) and the relative costs (cons) of behavior change (Velicer et al., 1985). It has been demonstrated that decisional balance has been especially useful in predicting movement through the stages and in predicting behavior change (Prochaska, 1994; Prochaska, Velicer, Rossi et al., 1994). Furthermore, the cross-sectional relationship between pros and cons and stages of change has been replicated across more than 48 problem areas (Hall & Rossi, 2008). Typically, a crossover pattern is found where the pros increase 1 standard deviation (strong principle) while the cons decrease one half of a standard deviation (weak principle) between individuals in Precontemplationand those in Action (Prochaska, 1994; Prochaska, Velicer, Rossi, et al 1994; Hall & Rossi, 2008).

The Self-efficacy construct describes the situation-specific confidence an individual has to cope with high risk situations (Velicer, DiClemente, Rossi, &Prochaska, 1990). Self-Efficacy is an important factor aiding movement of individuals through all of the stage transitions. Typically in cross-sectional studies, people in the Precontemplation stage report lower confidence than those in the Action or Maintenance stage, demonstrating that self-efficacy generally increases as the stages of change increase (Prochaska, DiClemente, Velicer, Ginpil & Norcross, 1985; Velicer, DiClemente, Rossi & Prochaska, 1990).

The final core construct of the model are the Processes of Change or the covert and overt strategies and techniques people use to alter their experiences and environment and to progress through the different stages of change (Prochaska, Velicer, DiClemente, & Fava, l988; Prochaska, Velicer, DiClemente, Guadagnoli

&Rossi, 1991). While stage of change describes when shifts in intent to adopt a behavior occur, the processes of change are independent variables that describe how people adopt behavior change and are applied in order to move through the stages (Prochaska &Velicer, 1997). Each process is a broad category encompassing techniques and methods that are typically associated with different theoretical orientations (Prochaska, &DiClemente, 1983). Research has shown that successful self-changers utilize different processes at each particular stage of change (Prochaska, Velicer, DiClemente, Guadagnoli, & Rossi, 1991). The TTM posits that there are ten processes of change and these are typically divided into two higher order constructs; experiential and behavioral, each consisting of five processes (Prochaska, Velicer, DiClemente, & Fava, 1988).

Aims

There are no measures based on the TTM for the constructs of Stage of Change, Decisional Balance or Self-Efficacy for BHP readiness to practice integrated primary care. Using the TTM as a guide, this study will conduct a survey to assess BHPs' readiness to practice IPC including measures of the core TTM constructs. Specifically, the aim was to develop TTM measures for the Stage of Change, Decisional Balance and Self-Efficacy for a BHP's readiness to practice integrated primary care. Although highly important to understanding how people change and progress through the Stages of Change, the Processes of Change were not developed for this study, due to concern of participant burn-out. In addition, the study also sought to develop two behavioral measures that could be used for external validation, since no behavioral measures for BHP IPC practice were available. It was

hypothesized that the Decisional Balance and Self-efficacy scales developed in this study would be structurally similar to other TTM based scales. Furthermore, it was hypothesized that the scales would function across the Stage of Change in patterns predicted by the TTM. Specifically, it was hypothesized, based on previous studies using the TTM, that the Pros and Cons would show a typical crossover pattern across the Stages of Change. Additionally, it was hypothesized that Self-Efficacy, as well as IPC BHP behaviors, would show higher endorsement across the Stages of Change. Developing reliable and valid TTM measures applied to BHP readiness to practice IPC will lay the foundation for future development of TTM-based interventions and/or training to help move more BHPs towards IPC practice. This will greatly benefit the majority of patients in primary care and help meet the needs and demands of the current health care system.

CHAPTER 3

METHODOLOGY

Measurement Development

The study followed the sequential approach to measurement development (DeVellis, 2003;Jackson, 1970; Redding, Maddock& Rossi, 2006).

Item Development.

The initial steps in the development of the measures included construct definition followed by a creation of a large pool of items that may be selected for inclusion in the scale (DeVellis, 2003). Initial items for Stage of Change, Decisional Balance, Self-Efficacy and for the two Behavioral measures were guided by current literature on IPC and the TTM, previous scales developed based on the TTM and by consultation with experts in the field of TTM and Integrated Primary Care (IPC). When writing items several factors were considered including intended population, wording, anticipated scale length, response formats and potential response bias (Clark & Watson, 1995; Comrey, 1988; DeVellis, 2003; Lounsbury, Gibson &Saudargas 2006; Noar, 2003; Redding et al., 2006). The writing of items aimed to be clear and concise as well as culturally sensitive by avoiding slang and trendy expressions (Comrey, 1988, Redding et al., 2006). Typically, it is recommended to write about 50% more items than you anticipate including in your final scale (Comrey, 1988; DeVellis, 2003), while limiting overall response burden.

Using the TTM as a guide, the directions and response formats were chosen based on the TTM and previous research. Therefore, a single staging item with multiple response options was developed to assess the Stages of Change and likert scales were used as response options for Decisional Balance, Self-Efficacy, and Behavioral scales.

Formative Research and Expert Review.

Once the initial item pool was generated the final draft of items were reviewed by experts in the TTM and integrated primary care. Experts who reviewed the items helped to maximize the content validity of the scales and highlighted complicated and ambiguous items (DeVellis, 2003; Redding et al., 2006, p.86). In addition to experts, formative research was conducted including cognitive interviews with five behavioral health professionals (BHP) from various training backgrounds. The survey for this study was in a computer-format and each BHP during the cognitive interview went through the survey and gave suggestions for item and direction clarity and layout and response burden of the survey. Items were re-worded, refined, added or dropped based on suggestions from experts and cognitive interviews. These steps led to the development of preliminary measures, Stage of Change, Decisional Balance, Self-Efficacy and the IPC BHP behavioral Skill and Frequency scales which are discussed in more detail below.

Measures

All original measures are included in the Appendices.

Demographic, training and practice-related characteristics. Single items assessed age, gender, ethnicity, education, orientation, training background, and IPC training.

Stage of Change.

A single question with multiple response options evaluated participants' stages of change. For this study, the action stage was defined as when a BHP reported that they were currently practicing IPC as defined. Participants were given the following directions and definitions. First, participants were asked, "For this study a Primary Care setting is defined as: "The medical setting where patients receive most of their medical care most often staffed by general practitioner and/or family practice physicians." Next they were asked, "Using this definition, how much of your clinical work occurs in a primary care setting?"

Participants who reported they worked in primary care were then given the following definition, "For this study, Integrated primary care (IPC) is: "Working within and as a part of a primary care medical team, providing patient care with primary care providers (MD, DO, PA, NP) through the integration of behavioral health services with medical services for prevention and intervention." Next, they were asked, "Based on this definition, do you work in an Integrated Primary Care Practice"? For those who reported "yes", they were then asked to select one of the following: 1) I have been working in IPC for less than 6 months, 2) I have been working in IPC for 6 to 12 months 3) I have been working in IPC for 1 to 2 years or 4) I have been working in IPC for more than 2 years.

Participants who reported they did work in primary care but did not work in IPC were given the following statement, "Using the integrated primary care definition above, do you plan to work in Integrated Primary Care (IPC)? " with response options: 1) No, I don't plan to start working in IPC, 2) Yes, I plan to start working in IPC in the

next few years, 3) Yes, I plan to start working in IPC in the next year, 4) Yes, I plan to start working in IPC in the next 6 months or 5) Yes, I plan to start working in IPC in the next 30 days.

Participants who reported they did not work in primary care settings were also given the same definition for IPC and the same response options including: 1) No, I don't plan to start working in IPC, 2) Yes, I plan to start working in IPC in the next few years, 3) Yes, I plan to start working in IPC in the next year, 4) Yes, I plan to start working in IPC in the next 6 months, or 5) Yes, I plan to start working in IPC in the next 30 days.

Based on the TTM (Prochaska &Velicer, 1997), participants who reported they did not plan to practice IPC in the next 6 months were classified into the Precontemplation stage. Contemplation included those who planned on practicing IPC in the next six months. Preparation included those planning to practice IPC in the next 30 days. Action included those who had been practicing IPC for less than six months and Maintenance included those who had been practicing IPC for 6 months or longer.

Decisional Balance Scale.

The final Decisional Balance scale included 24 items to represent the Pros (12) and Cons (12) of practicing integrated primary care. BHPs rated the importance of each item to their IPC decision making on a 5-point likert scale (1 =Not at all important to 5 =Extremely important).

Self-efficacy Scale.

Self-Efficacy items were designed comparably. The aim of the items was to assess a BHP's confidence to practice IPC despite challenging situations. The final

Self-Efficacy scale included 13 items. Participants rated their confidence on a 5-point likert scale (1 = Not at all confident to 5 = very confident).

IPC Behavior Measures

Assessing BHP readiness is novel. There were no established behavioral measures available to assess construct validity. Therefore two brief behavioral measures were developed. A series of 23 items were written to describe the variety of behaviors that behavioral health professionals may do while working in integrated primary care. Respondents rated this item set twice: first rating the frequency of each item within the past month on a 5-point likert scale(1 = Never to 5 = very often) and second, rating their perceived level of skill for each item on a 5-point likert scale(1 = Not at all skilled to 5 = very skilled).

Recruitment and Data Collection Procedures.

All study materials and procedures were approved by the University of Rhode Island Institutional Review Board for human subjects concerns prior to data collection.

The recruitment targeted a sample of licensed behavioral health professionals in the United States. Therefore, a convenience sample was collected aiming to obtain a diverse group of behavioral health professionals including a range of training backgrounds, types of practice, provider specialties and patient populations.

There is moderate agreement in the field on how many subjects are required for proper scale development (DeVellis, 2003). Noar (2003) suggested that a goal of 300 to 500 participants was appropriate for measurement development since this sample size allows the data to be randomly split into halves for exploratory (N=150)

and confirmatory (N=150) analyses. Therefore, this project's goal was to recruit about n=300 behavioral health professionals for the survey sample.

This voluntary, anonymous survey was administered online and recruitment was conducted primarily through list serves including: Society of Behavioral Medicine (SBM) general list as well as SBM's special interest group (SIG) lists, APA Division 12 (Clinical Psychology), APA Division 38 (Health Psychology), APA Division 38 Integrated Primary Care, Association of Behavioral and Cognitive Therapy (ABCT), Association of Contextual and Behavioral Sciences and Collaborate Family Healthcare Association. In addition, the survey link was posted on local school-based list serves including University of Rhode Island's Department of Psychology and Cancer Prevention Research Center. The survey link was also posted on the ABCT Facebook page, and among several doctoral-level colleagues on Facebook. The advantage of the online survey was its ability to reach a large, diverse sample, compared to a paper and pencil survey.

Analyses

Three major steps were conducted for the analysis and development of the TTM measures of behavioral health professional's readiness to practice IPC using split-half cross-validation techniques. First, the BHP sample was randomly split in half to enable exploratory and confirmatory psychometric analyses. The first step examined Decisional Balance, Self–Efficacy, IPC Behavioral Skill and the IPC Behavioral Frequency measures through a series of exploratory analyses. The second step tested and confirmed the best fitting structural model for each of the measures

using EQS version 6.1. The third step used the entire sample again to evaluate hypothesized relationships between each measure and the stages of change.

Exploratory Analyses

Using the exploratory half of the sample, initial descriptive statistics were assessed to understand the normality of the data, individual item performance was evaluated to determine which items could be included in the final scale (Harlow, 2005; Redding et al., 2006). Specifically, item means and standard deviations, along with the frequency of answers for each item were evaluated within the exploratory sample for the Decisional Balance, Self–Efficacy, IPC Behavioral Skill and the IPC Behavioral Frequency scales (Redding et al., 2006). Essentially, the goal of this step in evaluation was to remove items that reduced alpha, did not discriminate well among participants, or did not appropriately represent the breadth of the constructs of interest.

Once initial item analysis was conducted the remaining items for each of the scales was entered into a principal components analysis (PCA) with varimax rotation to determine the number of factors measured by each scale. Varimax (orthogonal) rotation was used, since decisional balance factors were expected to be orthogonal (i.e., uncorrelated) based on previous TTM research (Hall & Rossi, 2008; Harlow, 2005). Several methods can evaluate the number of factors to be retained, however, the two most accurate methods, Parallel Analysis (PA) and Minimum Average Partial (MAP), were used to decide the number of components to retain for the scales (Cattell, 1966; Harlow, 2005; Zwick &Velicer, 1986).

After the number of components to retain was decided, factor loadings were analyzed and those with loadings less than .40, or complexity (i.e., load greater than

.40 on more than one factor) were removed from the scale (Redding et al., 2006). This process was systematic and iterative, with one to two items removed at a time. After any item removal, the process of PCA and item analysis was repeated to assess the new distribution of variance (Floyd & Widaman, 1995). Once items were removed, both scales were evaluated to make sure the remaining items covered the breadth of the construct. Additionally, the internal consistency reliability of each factor was assessed using Cronbach's coefficient Alpha (Cronbach, 1951). Last, an exploratory CFA was conducted as the final exploratory step for scale development (Noar, 2003).

Confirmatory Analyses

Structural equation modeling using confirmatory factor analysis (CFA) with EQS 6.1 (Bentler, 1993) was conducted on the Decisional Balance, Self–Efficacy, IPC Behavioral Skill and the IPC Behavioral Frequency scales in the confirmatory half of the sample. The evaluation of the CFA was done by using several fit indices including: Chi-square, Comparative Fit Index (CFI), Root Means Square Error of Approximation (RMSEA) and Average Absolute Standardized Residual (AASR), factor loadings, and correlations. Chi-square significance test is commonly used to assess the model fit with a non-significant chi-square demonstrating a good fit to the data. However, this statistic is highly influenced by the number of variables in a scale and the sample size and should not be the only method used to assess model fit (Kline, 2005). Chi-Square is valuable, however, as an index when evaluating differences between models and was used for the Decisional Balance scale. CFI ranges from 0 to 1 with values closer to one indicating a better model fit (e.g., .90 is a good fit, .93 is a better fit and .95 is a great fit) (Bentler, 1990). RMSEA values also range 0 to 1 but

for this index it is better to be closer to zero as it is related to the residuals in the model (e.g. RMSEA <.05 is a good fit while RMSEA >.1 is a poor fit) (Bentler, 1990). Similar to RMSEA, AASR ranges from 0 to 1 with estimates closer to zero indicating a better fit to the model (with values less than .06 preferred (Bentler, 1990). If the model appears to be a good fit using these indices, then the next step included evaluation of coefficient Alpha, factor loadings, z-test and standardized factor loadings (effect size estimates). Lastly, consideration of how well the models compared with theoretical predictions was assessed (Noar, 2003).

For the Decisional Balance measure, three confirmatory structural models were compared. Two models were compared for the Self-Efficacy measure. Two models were compared for the IPC Behavior Skill measure and the IPC Behavior Frequency measure. Additionally, a higher order, non-nested model was also conducted for the IPC Behavior Frequency measure following the results of the confirmatory CFA.

External Validation

In order to assess the external validation of the Decisional Balance, Self-Efficacy, and the IPC BHP Behavior (Frequency) scales, each were examined across Stage of Change to examine the functional relationships. Decisional Balance, Self-Efficacy and the IPC BHP Behavior measures were compared across the entire sample.

Specifically, in order to assess this relationship for Decisional Balance, Self Efficacy and the IPC BHP Behavior measures, multivariate analyses of variance (MANOVAs) were conducted, examining mean differences across the Stages of Change groups, using both the traditional and the extended Stage timeframes.

Initial validation of the scales was built on the face and content validity being met based on the assessment by the expert reviewers. Construct validity was demonstrated by replicating the factor structure found in the Exploratory sample in the Confirmatory sample. Following these procedures, external validation of the scales was conducted by assessing known groups validity. This method is guided by previous TTM research. There is not a recommended gold-standard "criterion" to validate the measures against at this point in time. Criterion-related validity was demonstrated with the known groups validity if the scales varied by Stage of Change in the expected patterns. Follow-up ANOVAs with each construct by stages of change were conducted to evaluate expected patterns based on TTM predictions. It was expected to see similar patterns to those from previous studies with the typical cross over pattern of the Pros and Cons and an increase in Self-Efficacy and an increase in IPC behavior frequency across the stages. (Prochaska 1994; Hall & Rossi, 2008; Redding, Maddock & Rossi, 2006).

CHAPTER 4

FINDINGS

Overview

Participants: The overall sample included 319 licensed and currently practicing behavioral health professionals. The sample of 319 was randomly split into n^1=152 and n^2 =167 into two halves for exploratory and confirmatory measurement development. However, sample size differed for each analysis based on how many complete cases were available.

Demographics: The mean age of the sample was 45.75 years (sd =11.7) and ranged from 27 to 80 years old. Of the sample, 64.7 % were female (n=205) and 35.3% were male (n=112). The majority identified as being white 85.9% (n=274). The remainder of the sample identified as Black 1.3%, Hispanic 3.1%, Asian/Pacific islander 3.8%, American Indian/Alaskan Native 0.3%, Other 0.3%, Combination 3.8%, Not reported 1.6%. For educational level, 75.1% of participants reported their highest degree was a PhD. The remainder of the sample reported: 12.6 % PsyD, 0.6%, EdD, 1.6% MD, 3.8% MSW/LCSW/ICSW, 2.5% MA, 0.3% Marriage and Family therapist and 3.5% reported more than one highest degree. General demographic variables are reported in Table 1, BHP practice-related and IPC training-related descriptive variables are reported in Table 2. Table 3 reports additional BHP beliefs and attitudes about primary care practice.

Table 1. General Demographics

Demographics		N	Mean (sd)	Min-Max
Age		319	45.75(11.7)	27-80
Gender			**Frequency**	**Percent**
	Female		205	64.7
	Male		112	35.3
			Frequency	**Percent**
Ethnicity	American Indian/Alaskan Native		1	0.3
	Asian/Pacific Islander		12	3.8
	Black, Not Hispanic		4	1.2
	Hispanic		10	3.1
	White, Not Hispanic		274	85.9
	Other		1	0.3
	combination		12	3.8
	unknown/not reported		5	1.6
Highest level of education*			**Frequency**	**Percent**
	MA		13	4.1
	MS		4	1.3
	PhD		244	76.5
	PsyD		41	12.9
	EdD		2	0.6
	MD		7	2.2
	MSW/LCSW/LICSW		13	4
	Marriage+FamilyTherapist		4	1.3
	Substance Use		1	0.3
	More than one category reported		11	3.4
Training Backgrounds*			**Frequency**	**Percent**
	Behavioral Medicine		183	57.4
	Clinical		279	87.5
	Child / Family		100	31.3
	Counseling		60	18.8
	Developmental		32	10
	Educational		9	2.8
	Evolutionary		4	1.3
	Forensic		20	6.3

	General Mental Health	111	34.8
	Health	132	41.4
	Industrial / Organizational	7	2.2
	Neuropsychological	57	17.9
	Rehabilitation	31	9.7
	School	17	5.3
	Social	6	1.9
	Sports	7	2.2
	Other	29	9.1
	More than one training background	70	21.9
	Behavioral Medicine and/or Health	203	63.6
Primary Orientation - Ranked #1**		**Frequency**	**Percent**
	Behavioral	48	15.1
	Biological	3	0.9
	Biopsychosocial	44	13.8
	Cognitive	6	1.9
	Cognitive Behavioral	128	40.3
	Eclectic	18	5.7
	Humanistic Existential	4	1.3
	Integrative	48	15.1
	Psychodynamic	5	1.6
	Systems	9	2.8
	Other	5	1.6

Note. *Categories were not mutually exclusive. Participants were allowed to "check all that apply". **Participants were asked to rank order their therapeutic orientation.

Table 2. BHP Practice and Integrated Primary Care (IPC) Training Descriptives.

Practice Related Variables		**Frequency**	**Percent**
Work in Primary Care	None	149	46.7
	0-25%	46	14.4
	26-50%	14	4.4
	51-75%	17	5.3
	76-100%	93	29.2
Work in Integrated Primary Care**		**Frequency**	**Percent**
	yes	144	84.7%
	no	26	15.3%
Current Work Setting*		**Frequency**	**Percent**
	OutpatientPrivate	109	34.2
	PrivatePsychiatricHosp	6	1.9
	StateHosp	6	1.9
	Inpatient Medical	27	8.5
	Outpatient Medical	80	25.1
	VA	65	20.5
	Military	12	3.8
	University Hospital	46	14.4
	General Hospital	24	7.5
	Private Hospital	12	3.8
	UniversityCounseling	9	2.8
	CommunityMentalHealth	18	5.6
	Correctional	2	0.6
	CommunityHealth	22	6.9
	Other	1	0.3
	More than one reported	95	29.9
Types of Clients*		**Frequency**	**Percent**
	Children	86	27
	Adolescents	136	42.6
	Adults	294	92.2
	Geriatric	159	49.8

Typical Number of visits/sessions		Frequency	Percent
	1 or less	15	4.7
	2 to 3	34	10.7
	4 to 5	58	18.2
	6 to 7	51	16
	8 to 9	26	8.2
	10 to 11	33	10.3
	12 to 16	42	13.2
	17 to 19	35	11
	20 or more	50	15.7

Training for IPC*		Frequency	Percent
	None	120	37.6
	Certificate program in IPC	14	4.4
	Practica in IPC	36	11.3
	Internship rotation in IPC	73	22.9
	Post-doctoral training in IPC	67	21
	Didactic for IPC	68	21.3
	In vivo training /shadowing	76	23.8
	Healthcare economics	11	3.4
	Consultation (to practice in IPC)	52	16.3
	Conference training course on IPC	67	21
	Psychopharmacology	66	20.7
	Pharmacology	17	5.3
	Practice in PC but not IPC	18	5.6
	Other	11	3.4
	More than one Training in IPC	148	46.4

When training for IPC occurred*		Frequency	Percent
	Graduate School	65	20.4
	Pre-doctoral Internship	84	26.3
	Post-Doctoral Training	85	26.6
	Professional Practice	133	41.7
	Never	96	30.1
	Other	1	0.3

Note. * Categories were not mutually exclusive. Participants were allowed to "check all that apply". **Of those who reported they worked in PC and based on specified definition of IPC.

Table 3.BHP primary care practice beliefs and attitudes.

Primary Care Practice *	**N**	**%**
I regularly collaborate and consult about patients with primary care providers (MD, DO, PA, NP) at my practice.	154	90.6
We treat health behavior change issues (e.g., smoking cessation, weight management).	142	83.5
We treat medical management issues.	137	80.6
We treat medical medication adherence issues.	135	79.4
We use an electronic medical record.	134	78.8
We treat mental health and substance abuse needs.	131	77.1
We use a shared medical record.	126	74.1
My services are a part of the primary care team.	118	69.4
I deliver care in the same clinic offices where patients are seen by the PCPs (e.g., exam rooms).	117	68.8
Administrative staff is shared with medical providers.	113	66.5
I conduct clinical training for medical staff on behavioral health care.	108	63.5
Clients are introduced to me by medical providers anytime throughout the workday (i.e., warm hand-off of a patient).	104	61.2
The typical patient session is 15 to 30 minutes.	73	42.9
We use one treatment plan for patients that are developed collaboratively with medical providers.	48	28.2
BHP positions on IPC when not working in PC **	**N**	**Mean (sd)**
I would consider practicing IPC if reimbursement for my services worked better	172	3.58 (1.2)
I would consider working in IPC if there were job opportunities in my area	170	3.54 (1.3)
There are no current job opportunities for IPC in my area	173	3.21 (1.2)
There is limited training available to learn to practice IPC	173	3.20 (1.2)
I would consider working in IPC if I had more training	171	3.12 (1.2)
I would consider working in IPC after it has become better established	172	2.99 (1.1)
BHP positions on IPC when working in PC but not IPC***	**N**	**Mean (sd)**
Organizational change is slow to transition to IPC	23	3.83 (1.2)
Reimbursement for my services in primary care is not understood	23	3.74 (1.0)
Money is too limited to support IPC now	24	3.50 (1.2)
Reimbursement for my services in primary care is not possible at this time	23	3.17 (1.3)
I typically see patients in primary care for 50 minutes	21	3.00 (1.5)

The Primary Care Providers do not support IPC now	23	2.74 (1.5)
Administrative staff are not supportive of IPC at this time	23	2.74 (1.1)
I follow patients in primary care as I would in a traditional mental health practice	22	2.45 (1.2)
I do not support IPC now	21	1.29 (0.7)

Note. *Included only those who reported working in primary care or integrated primary care practices. ** Included those who do not currently report working in IPC. *** Included only those (n=24) who reported working in primary care but not IPC (Participants scores ranged 1-5 Strongly disagree to Strongly agree).

The stage of change distribution for the sample was as follows using a traditional Stage of Change timeframe: Precontemplation 53.5%, Contemplation 1.3%, Preparation 0.3%, Action 3.5% and Maintenance 41.5%. Since the Preparation stage included only one participant, it was merged with the Contemplation stage for all remaining analyses. A second set of Stage of Change timeframes was evaluated, given the unique nature of this behavioral criterion (practicing integrated primary care based on definition) and the possibility that potential employment could take longer to accomplish since it is often based on criteria outside of participants' control. The second Stage of Change timeframe utilized an extended timeframe of six months per stage with Precontemplation including both those who did not plan to practice IPC and those who did not plan to practice in the next few years, Contemplation included those who planned to practice in the next year, Preparation those who planned in the next 6 months, Action those who had been practicing for 12 months or less and Maintenance those who had been practicing for 12 months or longer. The extended Stage of Change distribution was: Precontemplation 50.6%, Contemplation 2.8%, Preparation 1.6%, Action 6.0% and Maintenance 39.0%. Table 4 reports demographics and the extended Stage of Change by traditional Stage of Change.

Table 4. Demographics and Extended Stage of Change by Traditional Stage of Change.

Variable by Stage	**PC**		**C/PR**		**A**		**M**	
Gender	N	**%**	N	**%**	N	**%**	N	**%**
Female	107	52.2%	4	2.0%	8	3.9%	86	42.0%
Male	62	55.9%	1	0.9%	3	2.7%	45	40.5%
	PC		**C/PR**		**A**		**M**	
Ethnicity	N	**%**	N	**%**	N	**%**	N	**%**
American Indian/Alaskan Native	1	100%	0	0.0%	0	0.0%	0	0.0%
Asian/Pacific Islander	7	58.3%	0	0.0%	0	0.0%	5	41.7%
Black, Not Hispanic	0	0.0%	0	0.0%	1	25.0%	3	75.0%
Hispanic	2	20.0%	0	0.0%	0	0.0%	8	80.0%
White, Not Hispanic	150	54.9%	5	1.8%	9	3.3%	109	39.9%
Other	0	0.0%	0	0.0%	0	0.0%	1	100%
combination	8	66.7%	0	0.0%	0	0.0%	4	33.3%
unknown/not reported	2	40.0%	0	0.0%	1	20.0%	2	40.0%
	PC		**C/PR**		**A**		**M**	
Highest level of education*	N	**%**	N	**%**	N	**%**	N	**%**
MA	5	62.5%	0	0.0%	0	0.0%	3	37.5%
PhD	132	55.7%	4	1.7%	6	2.5%	95	40.1%
PsyD	19	47.5%	0	0.0%	3	7.5%	18	45.0%
EdD	1	50.0%	0	0.0%	0	0.0%	1	50.0%
MD	3	60.0%	0	0.0%	0	0.0%	2	40.0%
MSW/LCSW/LICSW	4	33.3%	1	8.3%	0	0.0%	7	58.3%
Marriage+Famiy Therapist	0	0.0%	0	0.0%	1	100%	0	0.0%
More than one reported	5	45.5%	0	0.0%	1	9.1%	5	45.5%
	PC		**C/PR**		**A**		**M**	
Primary Orientation-Ranked #1	N	**%**	N	**%**	N	**%**	N	**%**

Behavioral	15	31.2%	1	2.1%	2	4.2%	30	62.5%
Biological	3	100%	0	0.0%	0	0.0%	0	0.0%
Biopsychosocial	18	40.9%	0	0.0%	3	6.8%	23	52.3%
Cognitive	5	83.3%	0	0.0%	0	0.0%	1	16.7%
Cognitive Behavioral	75	59.1%	2	1.6%	3	2.4%	47	37.0%
Eclectic	10	55.6%	1	5.6%	1	5.6%	6	33.3%
Humanistic Existential	4	100%	0	0.0%	0	0.0%	0	0.0%
Integrative	28	58.3%	1	2.1%	2	4.2%	17	35.4%
Psychodynamic	2	40.0%	0	0.0%	0	0.0%	3	60.0%
Systems	6	66.7%	0	0.0%	0	0.0%	3	33.3%
Other	4	80.0%	0	0.0%	0	0.0%	1	20.0%

	PC		**C/PR**		**A**		**M**	
IPC Staging Extended*	N	**%**	N	**%**	N	**%**	N	**%**
PC	161	100%	0	0.0%	0	0.0%	0	0.0%
C	9	100%	0	0.0%	0	0.0%	0	0.0%
PR	0	0.0%	5	100.0%	0	0.0%	0	0.0%
A	0	0.0%	0	0.0%	11	57.9%	8	42.1%
M	0	0.0%	0	0.0%	0	0.0%	124	100%

Note. *Chi-Square significantly different $p<.01$.

Exploratory Procedure.

Decisional Balance Scale. All twenty-four decisional balance items were included in the initial exploratory principal component analysis (PCA). PCA with varimax rotation on the 24 X 24 matrix of item intercorrelations was conducted to determine the factor structure of the decisional balance measure. A total of six PCAs were conducted, reducing the pool of 24 items to 16, representing the pros and cons of practicing integrated primary care. Both MAP and parallel analysis indicated a two-component solution, equally representing the pros and cons with 8-item scales. All items loadings were .59 or greater, and the internal consistency was good for both the pros ($\alpha = .903$) and cons ($\alpha = .833$). The two factors accounted for 54.37 % of the total variance. Lastly, a final exploratory CFA was conducted on the DCBL scale with a two factor uncorrelated model demonstrating the best fit to the data $\chi^2 (104) = 199.513$, $p < .01$, CFI=.901, AASR= .058, RMSEA=.082. The Decisional Balance scale exploratory factor loadings and final items are shown in Table 5.

Table 5.Exploratory Factor Loadings and Reliability Analysis for Decisional Balance

Pros and Cons Items	Factor Loadings	Mean (s*d*)
Pros		
Treating common mental health concerns in primary care can be cost effective	0.842	3.93 (1.1)
Patients would have better access to behavioral health care	0.839	4.32 (0.9)
Patients would experience better health outcomes	0.817	4.34 (0.9)
Delivering mental health services in primary care reduces stigma	0.795	4.15 (1.0)
Patients appreciate having all their treatment providers in one place	0.761	4.16 (1.1)
Working as a part of a health care team is appealing	0.747	4.29 (1.0)
Shared office space can enhance the collaboration between medical and behavioral providers	0.715	3.92 (1.2)
Physician support of treatment plans (eg exercise prescriptions daily activity logs) can increase patient adherence	0.685	4.03 (1.0)
Cons		
Patient rapport can be limited by shorter appointments	0.804	2.67 (1.2)
Patient assessments and sessions can be too short	0.743	2.90 (1.3)
Losing the solitary decision making power is difficult to accept	0.721	1.83 (1.0)
Practicing under the lead of physicians can be unfair	0.700	2.43 (1.2)
My training in primary care settings is limited	0.675	2.26 (1.2)
Primary care settings are not conducive to behavioral treatment plans	0.606	1.79 (1.0)
I am not familiar with population based behavior change strategies	0.589	1.83 (1.0)
I would have to change my practice techniques to fit medical settings	0.585	2.38 (1.2)

Note. Exploratory alphas were: Pros $\alpha = .903$ and Cons $\alpha = .833$.

Self Efficacy Scale. All thirteen self-efficacy items were included in the preliminary exploratory principal component analysis (PCA). A total of seven PCAs were conducted and the final five-item scale was represented by one component supported by both MAP and PA. The 5-item Self-Efficacy scale accounted for 59.28% of the total variance. All item loadings were .71 or greater, and the internal consistency was good ($\alpha = .83$).A final exploratory CFA was conducted on scale $\chi^2(5) = 34.849$, $p < .01$, CFI=.89, AASR= .04, RMSEA=.21. The Self Efficacy scale exploratory PCA factor loadings for the final items are shown in Table 6.

Table 6.Exploratory Factor Loadings and Reliability Analysis for Self-Efficacy

Self-Efficacy Items	Factor Loading	Mean (*sd*)
When I have to adjust the way I practice to fit primary care	0.872	3.34 (1.2)
When the client base is different from my typical practice	0.792	3.27 (1.2)
When the pace of the day is fast	0.747	3.74 (1.1)
When patient contact time is limited	0.718	3.10 (1.2)
When providers disagree about treatment strategies	0.709	2.91 (1.2)

Note. Exploratory alpha $\alpha = .89$.

IPC Behavior Skill Scale. All twenty-three IPC Behavior Skill items were included in the initial exploratory principal component analysis (PCA). PCA with varimax rotation on the 23 X 23 matrix of item intercorrelations was conducted to determine the factor structure of the IPC BHP Skill measure. A total of seven PCAs were conducted and the final eight-item scale was represented by one component supported by both MAP and PA. The 8-item IPC BHP Skill scale accounted for 56.20% of the total variance. All item loadings were .68 or greater, and the internal consistency was good ($\alpha = .89$). A final exploratory CFA was conducted on scale χ^2 (20) = 82.259, $p < .01$, CFI=.89, AASR= .04, RMSEA=.15. The IPC Behavior Skill scale exploratory PCA factor loadings for the final items are shown in Table 7.

Table 7. Exploratory Factor Loadings and Reliability Analysis for IPC Behavior Skill Measure.

IPC Behavior Skills Items	Factor Loading	Mean (*sd*)
Complete initial patient consultation in 30 minutes or less	0.732	3.95 (1.0)
Follow a patient for 3-4 sessions or less	0.746	4.06 (1.0)
Discuss medication adherence for disease management	0.705	4.32 (0.9)
Apply health psychology and or behavioral medicine concepts and interventions	0.829	4.38 (1.0)
Educate patients about their medical disorder and advise self-management strategies	0.817	4.17 (1.1)
Use health risk appraisal tools	0.749	3.35 (1.3)
Accept walk-in patient(s) (aka warm hand off) from medical staff	0.682	4.27 (1.0)
Share medical appointments with medical staff	0.726	3.95 (1.2)

Note. Exploratory alpha $\alpha = .885$.

IPC Behavior Frequency Scale. All twenty-three IPC Behavior Frequency items were included in the initial exploratory principal component analysis (PCA). PCA with varimax rotation on the 23 X 23 matrix of item intercorrelations was conducted to determine the factor structure of the IPC BHP Frequency measure. A total of five PCAs were conducted, reducing the pool of 23 items to 12, representing the Consultation/Practice Management and Intervention/Knowledge constructs of integrated primary care practice. Both MAP and parallel analysis indicated a two-component solution, equally representing the Consultation/Practice Management and Intervention/Knowledge with 6-item scales. All items loadings were .62 or greater, and the internal consistencies were good for both the Consultation/Practice Management ($\alpha = .915$) and Intervention/Knowledge ($\alpha = .891$). The two factors accounted for 69.41% of the total variance. A final exploratory CFA was conducted on the IPC Behavior Frequency scale with a two factor correlated model demonstrating the best fit to the data $\chi^2 (53) = 110.73$, $p < .01$, CFI=.95, AASR= .04, RMSEA=.09. The IPC BHP Frequency scale exploratory PCA factor loadings and final items are shown in Table 8.

Table 8. Exploratory Factor Loadings and Reliability Analysis for IPC Behavior Frequency Measure.

IPC Behavior Frequency Items	Factor Loadings	Mean (s*d*)
IPC Behavior 1 (Consultation and Practice Management)		
Accept walk-in patient(s) (aka warm hand off) from medical staff	0.872	2.93 (1.6)
Schedule patient visits within existing medical services process	0.851	3.18 (1.7)
Share medical appointments with medical staff	0.829	2.65 (1.6)
Consult in person about patient case with medical staff (eg curbside)	0.794	3.56 (1.5)
Complete initial patient consultation in 30 minutes or less	0.743	3.02 (1.3)
Follow a patient for 3-4 sessions or less	0.700	3.55 (1.2)
IPC Behavior 2 (Intervention and Knowledge)		
Educate patients about their medical disorder and advise self-management strategies	0.877	4.00 (1.3)
Discuss medication adherence for disease management	0.841	4.02 (1.1)
Show understanding of relationship between medical and psychological processes	0.818	4.36 (0.9)
Apply health psychology and or behavioral medicine concepts and interventions	0.770	4.21 (1.1)
Provide and encourage patients with health education and information	0.701	4.30 (0.9)
Show knowledge of psychotropic medicines and adherence strategies	0.615	3.91 (1.0)

Note. Exploratory alphas were: IPC Behavior 1 $\alpha = .915$ and IPC Behavior 2 $\alpha = .891$

Confirmatory Procedure.

Following the exploratory procedures, cross-validation of the exploratory factor structure was replicated in the confirmatory sample. Only participants in data split n^2=167 were included in confirmatory analyses. Specifically, only cases with complete data for each of the scales were used in confirmatory analyses.

Decisional Balance Models. During the process of CFA, several nested models were compared to evaluate the factor structure. Based on the exploratory results and from previous TTM studies, three models were tested for decisional balance: (1) null model, (2) two-factor uncorrelated decisional balance model and (3) two-factor correlated decisional balance model (Prochaska, 1994; Hall & Rossi, 2008). The best fitting models proved to be both the two-factor correlated model, χ^2 (103) = 220.269, p< .001, CFI=.89, AASR= .005, RMSEA=.08, and the two factor uncorrelated model, χ^2 (104) = 232.088, p< .001, CFI=.88, AASR= .08, RMSEA=.09. A χ^2 difference test comparing the correlated and uncorrelated models was significant, χ^2 (1) = 11.824, p< .001. Given the significant χ^2 difference test result, the two-factor correlated decisional balance model was the best fitting model. Coefficient alpha's for the 8-item Pros and Cons scales were α=.89 and α=.84, respectively, and the correlation between the Pros and Cons scales was -.31. All factor loadings were adequate to good and ranged from .51 to .81. The two-factor correlated model including items and factor loadings is shown in Figure 1. Fit indices for the three comparison models can be viewed in table 9.

Figure 1. Confirmatory Decisional Balance CFA model.

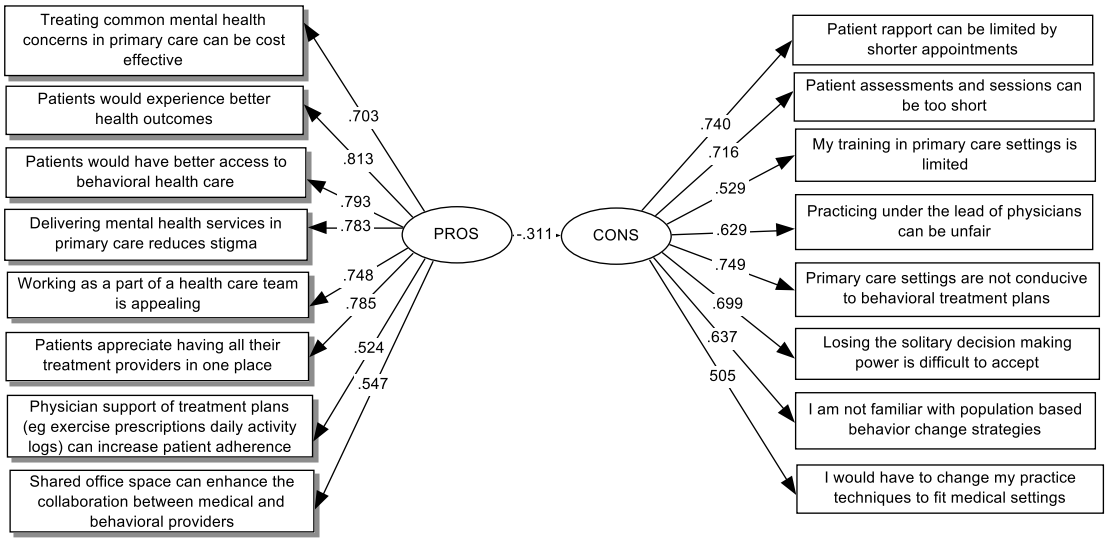


Table 9. Fit indices for Tested Decisional Balance Confirmatory Models.

Model	$\chi 2$	df	χ^2/df ratio	AIC	RMSEA	CFI	GFI	AASR
Model 1: Null Model	1205.699*	120	10.05	965.7				
Model 2: Uncorrelated Two Factor Model	220.269*	103	2.14	24.09	0.09	0.88	0.85	0.08
Model 3: Correlated Two factor Model	232.088*	104	2.23	14.3	0.09	0.89	0.85	0.05

Note: N=153, $\chi 2$ = chi square; df = degrees of freedom; AIC= Akaike's information criterion. *p<.001.

Self-Efficacy Models. Based on previous TTM research as well as the exploratory analyses the models tested for the Self-Efficacy CFA were (1) null model and (2) One- factor model. The best fitting model was the one factor model, χ^2 (5) = 43.952, p< .001, CFI=.90, AASR= .04, RMSEA=.22. Coefficient alpha for the scale was α=.86 and factor loadings were adequate to good ranging from .62 to .90. The one-factor Self-efficacy model including items and factor loadings is shown in Figure 2. Fit indices for the comparison models are shown in Table 10.

Figure 2. Confirmatory Self-Efficacy CFA model.

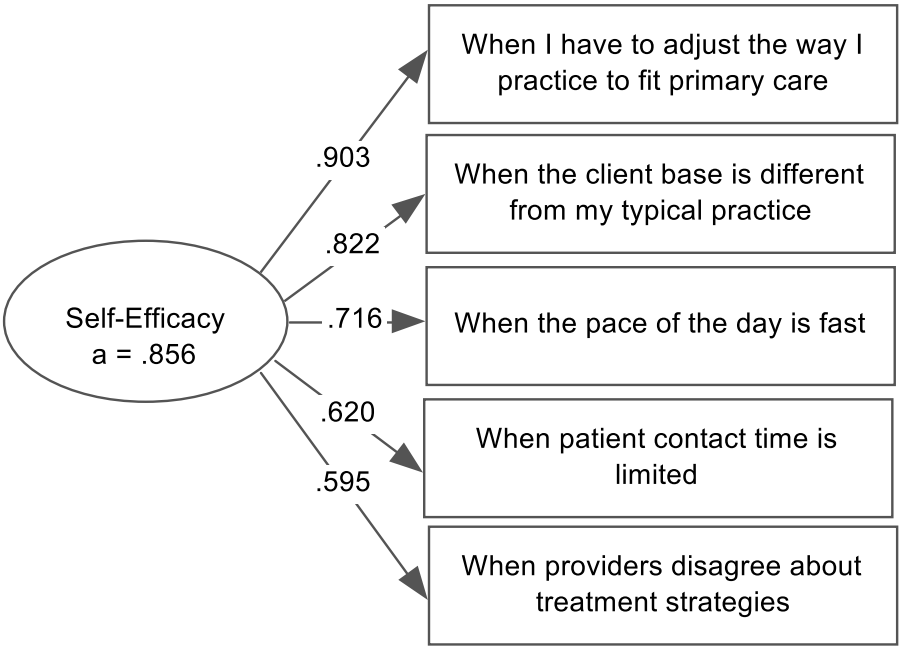


Table 10. Fit indices for Tested Self-Efficacy Confirmatory Models

Model	$\chi 2$	df	χ^2/df ratio	AIC	RMSEA	CFI	GFI	AASR
Model 1: Null Model	390.473*	10	39.05	370.473				
Model 2: One Factor Model	43.952*	5	8.79	33.95	0.22	0.898	0.899	0.04

Note: N=160, $\chi 2$ = chi square; df = degrees of freedom; AIC= Akaike's information criterion. *p<.001.

IPC Behavior Skill Models. Guided by the exploratory results from this scale, the following models were tested for the IPC BHP Skill scale (1) null model and (2) One- factor model. The best fitting model was the one factor model, χ^2 (20) = 134.65, p< .001, CFI=.84, AASR= .05, RMSEA=.20. Coefficient alpha for the scale was α=.90 and factor loadings were adequate to good ranging from .57 to .84. The one-factor IPC BHP Skill model including items and factor loadings is shown in Figure 3. Fit indices for the comparison models are shown in Table 11.

Figure 3. Confirmatory IPC Behavior Skill CFA model.

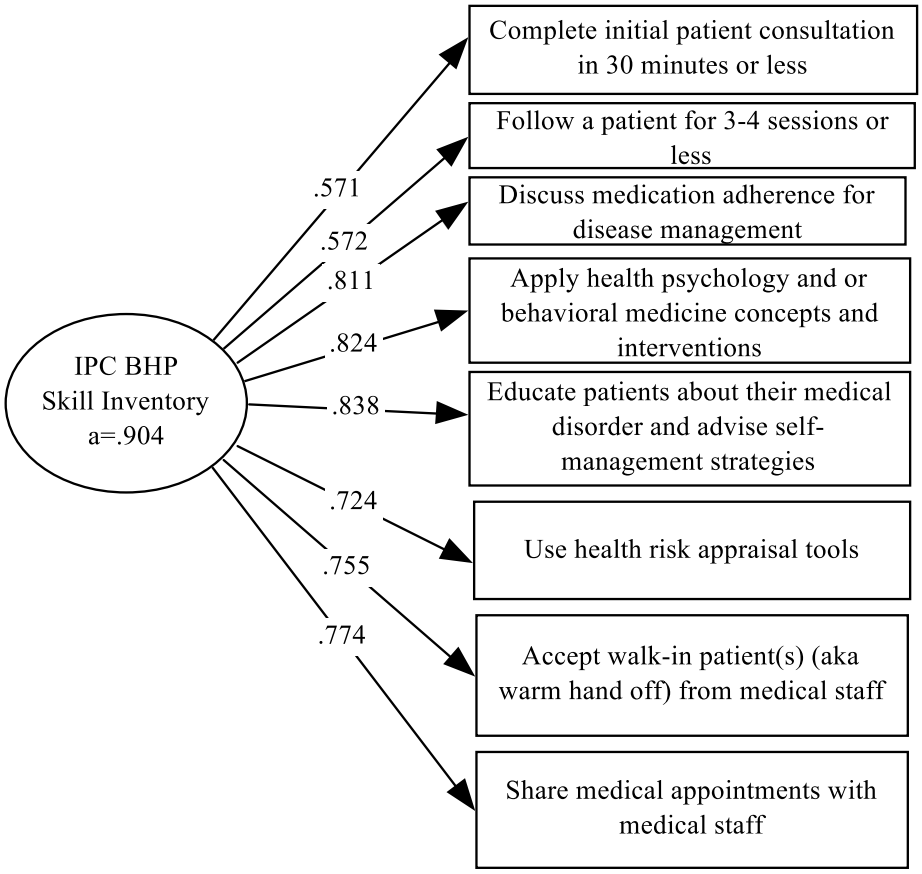


Table 11. Fit indices for Tested IPC Behavior Skill Measure Confirmatory Models

Model	$\chi 2$	df	χ^2/df ratio	AIC	RMSEA	CFI	GFI	AASR
Model 1: Null Model	765.00	28	27.32	709.00				
Model 2: One Factor Model	134.65	20	6.73	94.65	0.2	0.84	0.815	0.05

Note: N=151, $\chi 2$ = chi square; df = degrees of freedom; AIC= Akaike's information criterion. *p<.001.

IPC Behavior Frequency Scale. Guided by the exploratory results from this scale, the following models were tested for the IPC BHP Frequency scale (1) null model and (2) two-factor correlated model. The best fitting model was the two-factor correlated model, χ^2 (53) = 145.31, p< .001, CFI=.934, AASR= .04, RMSEA=.11. Coefficient alpha for both the Consultation/Practice Management (α = .914) and Intervention/Knowledge (α = .916) scales was excellent. Factor loadings were also good ranging from .63 to .91. The two-factor IPC BHP Frequency model including items and factor loadings is shown in Figure 4. Fit indices for the comparison models are shown in Table 12. The two-factor measurement model was in good condition based on the fit indices and it was decided to assess the existence of a conceptual higher order model (Kline, 2005). Similar to items, there may be a common factor that accounts for the covariance among measurement model factors. A higher-order factor would be suggested by similar magnitude of correlations across the measurement model factors (Kline, 2005). Given the high correlation on the two-factor correlated model, it was suggesting a higher order general behavior construct which was named the Integrated Primary Care Behavior higher order factor. Of course, these models can have identifiability problems with the limitation of only two lower-order factors, however, it is presented in figure 4 as a conceptual model (Kline, 2005).

Figure 4. Confirmatory IPC Behavior Frequency CFA model

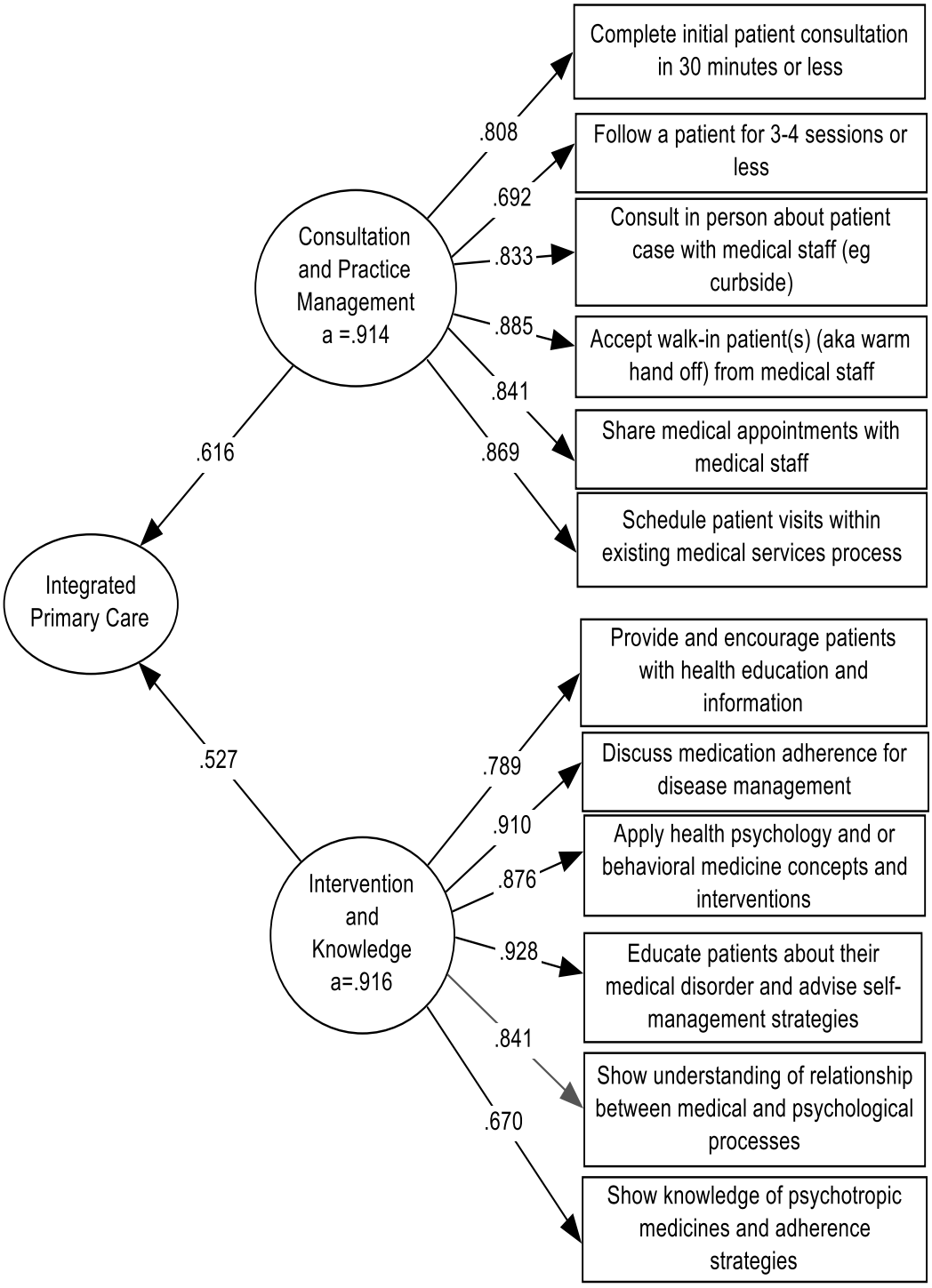


Table 12. Fit indices for Tested IPC Behavior Frequency Measure Confirmatory Models

Model	$\chi 2$	df	χ^2/df ratio	AIC	RMSEA	CFI	GFI	AASR
Model 1: Null Model	1359.53	66	20.60	1227.53				
Model 2: Correlated Two Factor Model**	145.31*	53	2.74	39.31	0.11	0.93	0.86	0.04
Model 3: Higher Order Model with Two Factors	193.27*	54	3.58	85.27	0.13	0.89	0.83	0.18

Note: N=147, $\chi 2$ = chi square; df = degrees of freedom; AIC= Akaike's information criterion. *p<.001. **r = .673.

External Validation.

In order to assess the external validity of the Decisional Balance, Self-Efficacy, and the IPC BHP Behavior Scales, each were assessed across Stage of Change to examine the functional relationships. Decisional Balance, Self-Efficacy and the BHP Behavior Scales were compared across the entire sample

A MANOVA was conducted to determine if the Pros, Cons and Self-efficacy, Consultation/Practice Management and Intervention/Knowledge scales differed by traditional Stage of Change. As predicted, there was a significant main effect for Stage of Change, Wilk's $\Lambda = .55$, $F(15, 834.09) = 13.55$, $p < .001$, multivariate $\eta^2 = .18$. The follow up ANOVA and Tukey test found that the Pros significantly differed by stage, $F(3, 306) = 8.05$, $p < .001$, $\eta^2 = .07$. Precontemplators reported significantly lower Pros than those in Maintenance. The ANOVA for the Cons was also significant, $F(3, 306) = 17.44$, $p < .001$, $\eta^2 = .15$. Precontemplators reported significantly higher Cons as compared to those in Action or Maintenance. Also, the ANOVA for Self-efficacy was also significant, $F(3, 306) = 7.60$, $p < .001$, $\eta^2 = .07$. Precontemplators reported significantly lower confidence to practice IPC in challenging scenarios compared to those in Maintenance. The ANOVA for the Consultation/Practice Management was also significant, $F(3, 306) = 70.45$, $p < .001$, $\eta^2 = .41$.Precontemplators reported significantly less use of the specified behaviors as compared to those in Action and Maintenance. In addition, Contemplators reported significantly lower frequency of these behaviors compared to those in Maintenance. Lastly, the ANOVA for the Intervention/Knowledge was also significant, $F(3, 306) = 13.390$, $p < .001$, $\eta^2 = .12$. Precontemplators reported significantly less use of the specified behaviors compared

to those in Maintenance. Raw score scale means and standard deviations for each scale by traditional stage of change are given in Table 13. Figure 5 demonstrates the T-scores for the Pros, Cons and Self-efficacy by the traditional stage of change. Figure 6 demonstrates the T-scores for the IPC Behavior Frequency Scales by traditional stage of change.

Table 13. Raw score means and standard deviations of Decisional Balance, Self-Efficacy and IPC Behavior Frequency Scales by Traditional Stage of Change.

	Traditional Stage of Change (combined)				Follow up ANOVA	
	PC (n=164)	**C/PR (n=5)**	**A (n=10)**	**M (n=131)**	**F**	**η^2**
Pros	31.63 (6.5)	29.40 (12.1)	35.90 (1.9)	34.76 (5.1)	8.048	0.073
Cons	20.35 (6.1)	20.60 (9.3)	13.90 (4.7)	15.56 (5.9)	17.438	0.146
SE	14.80 (4.5)	18.60 (1.8)	16.60 (3.7)	17.22 (4.7)	7.598	0.069
C/PM	14.21 (6.4)	16.00 (6.1)	23.70 (5.0)	23.92 (5.0)	70.453	0.409
I/K	22.40 (5.9)	24.20 (10.2)	26.40 (3.8)	26.18 (4.0)	13.39	0.116

Note. SE= Self-efficacy, C/PM = Consultation/Practice Management, I/K = Intervention Knowledge.

Figure 5.Pros, Cons, and Self-Efficacy by IPC traditional Stage of Change

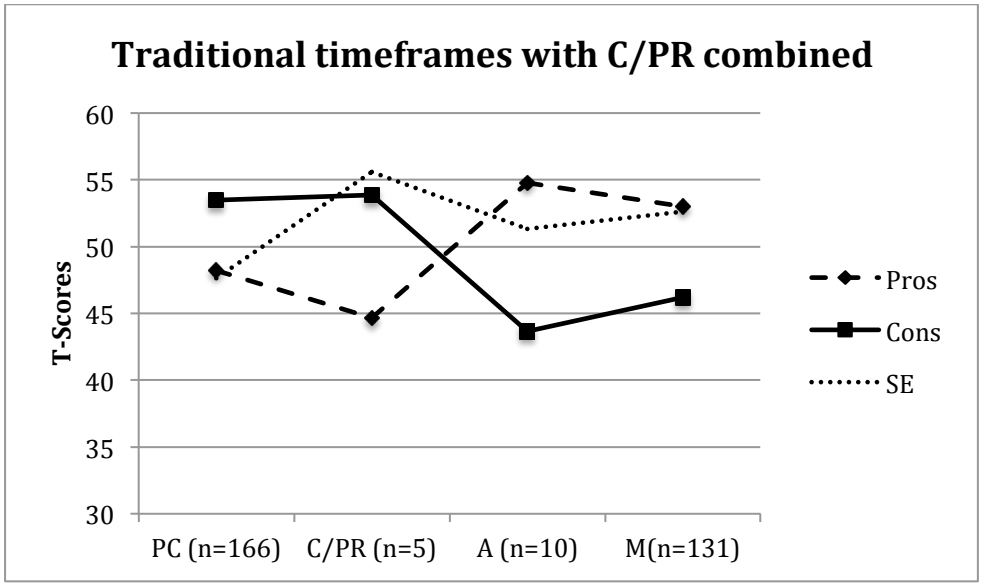
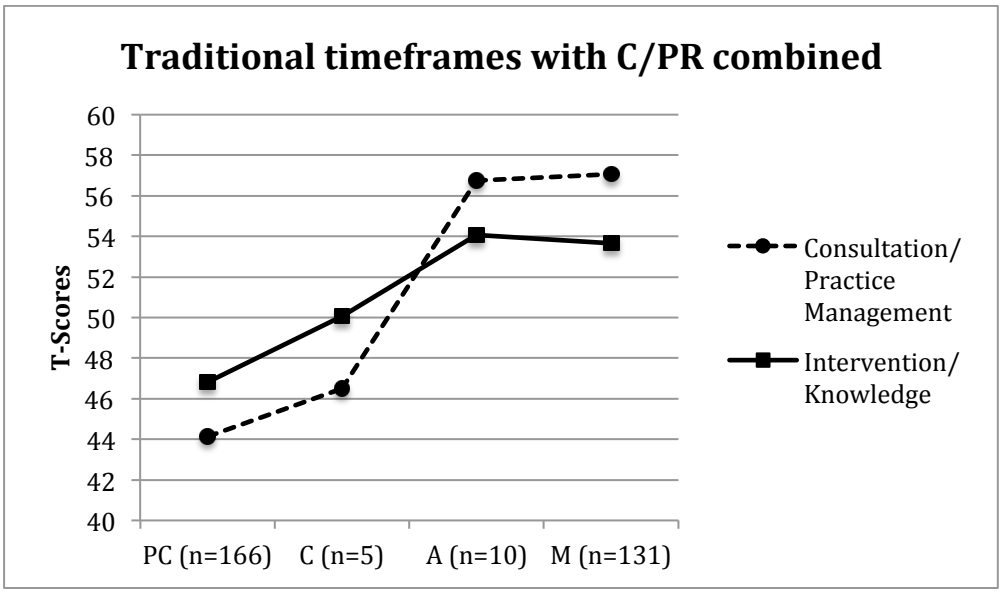


Figure 6.IPC Behavioral Frequency (Consultation/Practice Management and Intervention/Knowledge) by IPC traditional Stage of Change.



A second MANOVA was conducted to determine if the Pros, Cons and Self-efficacy, Consultation/Practice Management and Intervention/Knowledge scales differed utilizing the extended Stage of Change. As expected, there was a significant main effect for Stage of Change, Wilk's $\Lambda = .54$, $F(20, 999.25) = 10.35$, $p<.001$, multivariate $\eta^2=.15$. The follow up ANOVA and Tukey tests found that the Pros ($F(4, 305) = 7.05$, $p<.001$, $\eta^2=.09$), Cons ($F(4, 305) = 12.86$, $p<.001$, $\eta^2=.14$), Self-Efficacy ($F(4, 305) = 6.61$, $p<.001$, $\eta^2=.08$), Consultation/Practice Management ($F(4, 305) = 54.08$, $p<.001$, $\eta^2=.42$) and the Intervention/Knowledge ($F(4, 305) = 10.61$, $p<.001$, $\eta^2=.12$) scales each significantly differed by extended Stage of Change.

Similar to the differences seen using the traditional staging, Precontemplators reported significantly lower endorsement of the Pros, higher endorsement of the Cons, lower confidence and less frequency of the use of IPC behaviors as compared to those in Maintenance. Precontemplators also reported significantly higher endorsement of the Cons and lower frequency of the use of Consultation/Practice Management behaviors as compared to those in Action. Lastly, Contemplators and those in Preparation reported significantly lower frequency of use of IPC Consultation/Practice Management behaviors as compared to those in Maintenance. Raw score scale means and standard deviations for each scale by extended Stage of Change are given in Table 14. Figure 7 demonstrates the T-scores for the Pros, Cons and Self-efficacy by the extended Stage of Change. Figure 8 demonstrates the T-scores for the Behavioral Frequency Scales by the extended Stage of Change.

Table 14. Raw score means and standard deviations of Decisional Balance, Self-Efficacy and IPC Behavioral Frequency Scales by Extended Stage of Change.

	Extended Stage of Change					Follow Up	
	PC (n=156)	**C (n=8)**	**PR (n=5)**	**A (n=18)**	**M (n=123)**	**F**	**η^2**
Pros	31.42 (6.5)	35.75 (4.0)	29.40 (12.1)	35.33 (2.6)	34.76 (5.2)	7.054	0.085
Cons	20.38 (6.2)	19.75 (3.3)	20.60 (9.3)	15.22 (5.0)	15.47 (5.9)	12.863	0.144
SE	14.65 (4.5)	17.62 (4.6)	18.60 (1.8)	16.61 (4.3)	17.26 (4.7)	6.605	0.080
C/PM	14.03 (6.5)	17.88 (5.3)	16.00 (6.2)	23.94 (3.9)	23.90 (5.1)	54.076	0.415
I/K	22.28 (5.9)	24.75 (5.1)	24.20 (10.2)	25.44 (4.4)	26.30 (3.9)	10.610	0.122

Note. SE= Self-efficacy, C/PM = Consultation/Practice Management, I/K = Intervention Knowledge.

Figure 7.Pros, Cons, and Self-Efficacy by IPC extended Stage of Change

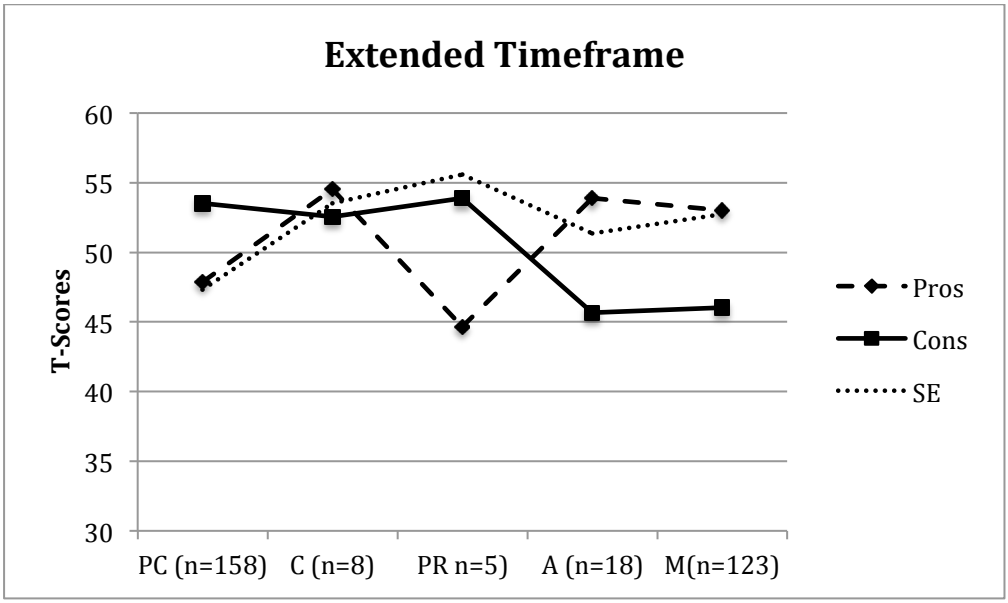
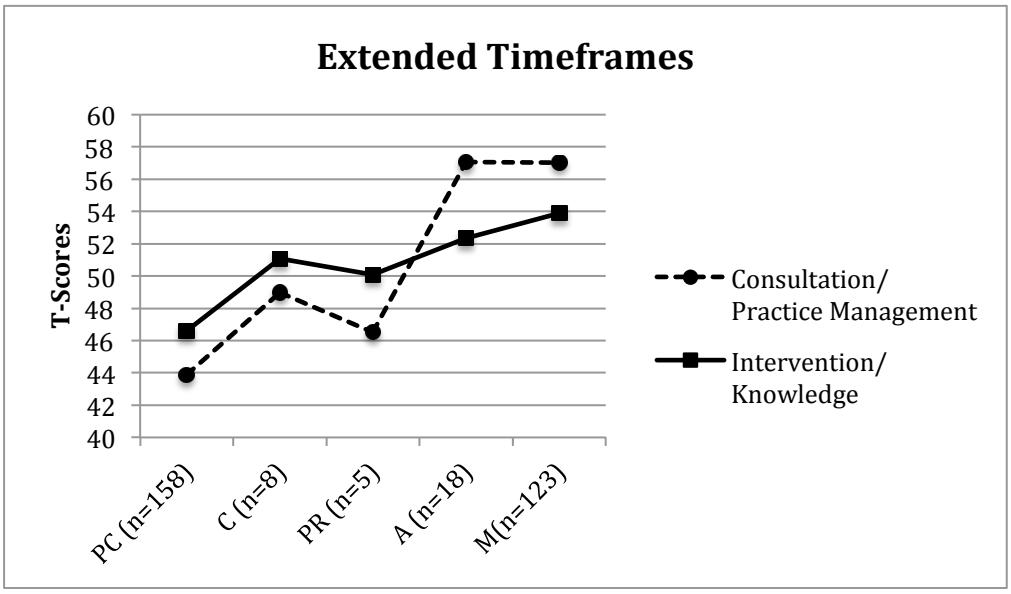


Figure 8.IPC Behavioral Frequency (Consultation/Practice Management and Intervention/Knowledge) by IPC extended Stage of Change



Pearson correlations including Pros, Cons, Self-efficacy, and the BHP Frequency Scales (Consultation/Practice Management and Intervention/Knowledge) showed significant relationships between each of the constructs and the BHP inventories. Table 15 shows the correlations, which ranged from small (r= .17) between Intervention/Knowledge and Self-efficacy to high (r= .57) between the two IPC Behavioral Frequency scales.

Table 15. Correlations Among Decisional Balance, Self-Efficacy,

Consultation/Practice Management and Intervention/Knowledge Scales.

	Consultation/ Practice Management	Intervention/ Knowledge	Pros	Cons	Self-Efficacy
Consultation/ Practice Management	1	.570**	.370**	-.384**	.282**
Intervention/ Knowledge		1	.293**	-.352**	.171**
Pros			1	-.147**	.405**
Cons				1	-.317**
Self-Efficacy					1

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

CHAPTER 5

CONCLUSION

This is the first study to develop and validate Stage of Change, Decisional Balance and Self-Efficacy TTM measures for BHP readiness to practice Integrated Primary Care (IPC). Study results support the application of these constructs to this unique field of study. Exploratory analyses for the Decisional Balance and Self-Efficacy measures demonstrated factor structures consistent with those found in other TTM measures and indicated good model fit. Confirmatory analyses with comparison and evaluation of alternative structural models for each construct revealed that the structures of these measures were confirmed in the split half analyses. In addition, the measures showed good internal validity and adequate external validity. The measures were succinct yet inclusive, offering good breadth of content, reliability, and validity. This study demonstrated initial development and validation for the Stage of Change, Decisional Balance and Self-Efficacy measures of BHP readiness to practice IPC. In addition, it provided initial development of two IPC behavioral measures (Skill and Frequency) that may prove useful for training purposes. With further development these scales may be useful for training tools for BHPs in IPC, assessing outcomes for IPC practice, and as external validation tools for future studies utilizing the TTM measures for readiness to practice IPC.

The TTM theory has traditionally been applied to help understand health behavior change (Prochaska & Velicer, 1997). However, more recently, the model has

been applied to new and emerging areas of change including readiness to prepare for disasters and increased storms (CPRC Seagrant) and readiness for sustainable transportation (CPRC Grant). The model has also been applied to provider populations including Physician readiness for counseling smokers (Park, DePue, Goldstein, Niaura, Harlow, Willey et al., 2003). The results of this study, therefore add to the growing evidence supporting the utility of the TTM. Specifically, this study demonstrated support for the application of the TTM to a novel area of behavior change, readiness to practice IPC among BHPs.

Demographic, training and practice-related characteristics.

The licensed BHP sample for this study was recruited and selected in such a way that the majority reported having a doctoral degree (about 90%). Additionally, 63.6% of the sample reported having training in health or behavioral medicine. Moreover, 40.3% reported their primary orientation was Cognitive Behavioral, with another 15.1% reporting Behavioral, and 13.8% reporting Biopsychosocial. These characteristics are important in that they describe this provider sample as highly educated, health trained, and behaviorally oriented. Given this background, this sample is likely to be more informed about IPC and specifically to the benefits of having BHPs in primary care. This sample may also be biased towards the benefits of IPC as evidenced by the high endorsement of the majority of the Pros (benefits) of practicing IPC. Sampling bias may have played a role as BHPs who volunteered to complete the survey were likely more motivated, knowledgeable and or interested in the topic of IPC. Social desirability may also have contributed to the high endorsement of the pros of IPC despite the lack of plans to practice IPC. Future

studies will need to compare the attitudes endorsed in the sample with other more representative samples that include a larger percentage of Masters level providers as well as providers with more diverse training backgrounds and therapeutic orientations.

Interestingly, only 37.6% of the sample reported having no training in IPC. This is not likely to be representative of the behavioral health community, given the health-trained background of these BHPs. However, despite having some IPC training, only 20.4% reported any IPC training through their graduate programs. In addition, only 3.4% of the sample reported training in healthcare economics. These facts highlight the need for training programs to address these gaps in order to better prepare BHPs for their role in IPC, as well as to better meet the needs of the current healthcare system.

Of the participants who reported working in primary care (integrated and non-integrated based on the given definition), 90.6% reported regular collaboration with PCP providers. However, only 28.2% of this group reported using one treatment plan developed collaboratively with medical providers. This figure is surprising considering IPC (collaborative care) models usually specify including one treatment plan targeting the patient's needs (Hunter, Goodie, Oordt & Dobmeyer, 2009). In future studies, it would be important to explore how invested medical providers are in the IPC model. Also useful would be some assessment of medical providers' interest in collaboratively developing treatment plans. Another surprising fact was that only 42.9% of those practicing in primary care reported that the typical patient session was 15-30 minutes. Most IPC models include brief patient sessions (typically 15-30 minutes). Based on these results, brief sessions do not happen as frequently as is

described in the IPC literature. It would be interesting to explore if this reflects the training bias of BHPs who are most often trained to complete sessions in 50 minutes, compared to the IPC model of 15-30 minute sessions. If this is the case, then it would further demonstrate the need for changes or improvements to the current training for BHPs to practice IPC.

Stage of Change.

The Stage of Change measure for assessing BHPs readiness to practice IPC was based on the traditional health behavior application of TTM. However, for the field of IPC there is not yet a specific behavioral criterion for Action that is agreed upon. Therefore, a general behavioral target of "practicing IPC" (i.e. working in IPC practice based on this specific definition) was agreed upon for use in this study. As the field develops and emerges, the definition of IPC and the behavioral criteria for Stage of Change may need adjustment, and then development of an updated Stage of Change measure may be indicated. However, with the field of IPC being in its relative infancy, as well as with concern of burden to participants, a simple one item staging question was utilized for the Stage of Change measure.

The majority of the sample was categorized in either the Precontemplation (n=170, 53.3%)or Maintenance (n=132, 41.4%) Stages of Change using the traditional stage of change timeframes. Therefore one limitation of this single item stage measure was the imbalance in the representation across all the Stages of Change. Future research should seek to understand if this reflects the true distribution of Stages of Change for practicing IPC among BHPs. This will determine how well this convenience sample represents the various stages of change for BHPs. Of note, the

Precontemplation stage included participants who reported never planning to practice IPC (n=114, 35.8% of the sample) in addition to participants who reported planning to practice IPC in the next few years (n=47, 14.8%). Differences between these groups may be important to better understand readiness to practice IPC.

It was hypothesized that the timeframes utilized in TTM traditional health behaviors may not be as applicable to this unique behavior given the fact that some aspects of the behavior change may be out of the provider's control. For example, a BHP may be planning to practice IPC, however, there may be no positions available in the providers area. Another example is when a BHP is hired to practice IPC but they may not have a start date in the next 30 days. Due to factors such as these, it was suggested to test other possible timeframes. Therefore, the extended timeframes Stage of Change was developed and tested in this sample as a comparison to the traditional Stage of Change. Overall, these results suggest there was no significant benefit to extending the traditional Stage of Change timeframes, as evidenced by the comparable MANOVA results with both Stage measures.

Decisional Balance.

The present study was able to replicate numerous TTM studies demonstrating a two-factor Decisional Balance model representing the Pros and Cons of behavior change (Hall & Rossi, 2008;Prochaska et al., 1994). Specifically, results were consistent with prior results showing that the Pros and Cons were nearly orthogonal, and the scales showed good internal consistency. The exploratory and confirmatory analyses supported the two-factor structure, however, the exploratory analyses demonstrated support for the more parsimonious model, the two factor uncorrelated

model, while the confirmatory model demonstrated support for the two-factor correlated model.

These results suggest that, like other studies utilizing the TTM, these participants discriminated between benefits and barriers involved in making the decision to practice IPC. Interestingly, the Pros scale developed in this study contained items that primarily represented benefits to patients of an IPC (e.g. "Patients would experience better health outcomes", "Patients would have better access to care", "Delivering mental health services in primary care reduces stigma") and to the practice itself (e.g. "Treating common mental health concerns in primary care can be cost effective"). The remaining items focused on collaboration between providers. On the other hand, the Cons scale appeared to represent more breadth including costs to the BHP (e.g. "I would have to change my practice techniques to fit medical settings", "Practicing under the lead of physicians can be unfair"), patients ("Patient assessments and sessions can be too short"), biases of training background(e.g. "Patient rapport can be limited by shorter appointments") and lack of training (e.g. "I am not familiar with population based behavior change strategies", "My training in primary care settings is limited"). Future work in this area may seek to include additional benefits specific to the BHP to enhance and broaden the content of the scale. Additionally, these scales may benefit from tailoring to meet the needs of Physician (or PCP) readiness to practice IPC. In the future, it would be ideal to have one scale that could be utilized with both BHPs and PCPs instead of separate measures for each.

As hypothesized, a MANOVA conducted on the Pros and Cons scales revealed that individuals in various stages of readiness to practice IPC differed significantly in

their weighting of the costs and benefits of IPC. Overall, BHPs in earlier stages of change rated the Cons as more important to their decisions regarding practicing IPC as compared to the Pros. BHPs in later stages reported the opposite pattern, with a higher rating of the Pros of IPC as compared to the Cons.

This study demonstrated that the Pros and Cons of practicing IPC varied by Stage of Change in this sample, accounting for about 7% and 15% of the variance respectively. This result is consistent with TTM predictions, supporting the external validity of the Decisional Balance instrument. The significant differences in the Pros and Cons of practicing IPC across the five stages of change showed a pattern consistent with TTM predictions as shown in Figure 5.

In many previous studies, a characteristic pattern of an increase in the Pros and a decrease in the Cons with a crossover in Contemplation or Preparation has been found for decisional balance (Prochaska et al., 1994; Hall & Rossi, 2008). The strong and weak principles for decisional balance and the Stages of Change state that the pros increase by one standard deviation, while the cons decrease by one half of a standard deviation between Precontemplation and Action (Prochaska, 1994). In the current study, the Pros increased by just over 0.5 standard deviation, however, the Cons decreased by almost one full standard deviation between Precontemplation and Maintenance. All of the Pros items used in this study had relatively high endorsement levels with item means ranging from 3.92 – 4.34. Further investigation into the "benefits" of practicing IPC in this population may lead to better measures of the Pros of IPC and provide results more comparable to previous studies. Additionally, by further understanding the benefits (Pros) that may be specific to BHPs as opposed to

benefits to the patient, these measures may have increased utility in understanding BHPs readiness to practice IPC. Furthermore, a sample with a better distribution of participants in each stage (particularly pre-action stages) might yield more typical results with regard to the Pros and Cons and Stage of Change.

Self-Efficacy.

This study developed and confirmed a general one-factor model for the self-efficacy measure for readiness to practice IPC in this sample of BHPs. These results replicate the underlying structure found in previous studies utilizing TTM self-efficacy measures (Velicer, DiClemente, Rossi, & Prochaska, 1990).Self-efficacy varied across stage of change consistent with TTM predictions(Prochaska, DiClemente, Velicer, Ginpil & Norcross, 1985; Velicer, DiClemente, Rossi & Prochaska, 1990). As expected, participants' confidence to practice IPC was lower for participants in the earlier stages of change and higher for those in the later stages. These results support the use of this measure for assessing self-efficacy in a BHP sample and also support intervening to increase confidence to practice IPC as an essential target for training programs.

Other self-efficacy measures developed based on the TTM have often provided a hierarchical model of self-efficacy with second order factors present as well. The present study aimed to develop a brief measure, which would potentially offer more utility in the future as well as to avoid over burdening the sample during assessment. Only thirteen items were included for the measurement development of this measure. Future studies that could expand on the current results may want to include additional items that may further represent Self-efficacy to practice IPC despite difficult

scenarios. Doing so may provide additional support for the use of the TTM-based measure as well as provide more guidance elucidating potential barriers to practicing IPC.

IPC Behavior Measures.

The field of IPC and specifically BHP readiness for IPC, lacks the availability of a current, "gold standard" measure to be utilized as a means of establishing criterion-related validity for the newly developed TTM scales. Therefore, given the lack of a well-established measure of BHP behavior in IPC practice, two IPC Behavior measures (IPC Behavior Skill and IPC Behavior Frequency) were developed as tools for assessing criterion-related validity and to act as behavioral outcome measures.

Items for these measures were originally written to represent BHP behaviors that are more common in IPC practice as compared to general practice. Obviously, some of these behaviors overlap, however, the behaviors included in the scale were those that are often described in the literature as occurring in IPC. For example, some common behaviors discussed in the literature include following patients for 3-4 sessions or less, curbside consultation, accepting walk-in or "warm-handoff" from medical providers, and discussing medication adherence for disease management (Bray, 2010; O'Donohue, Byrd, Cummings & Henderson, 2005). A set of 23 items was developed and included in the final exploratory scale. As described above, BHPs responded to the identical 23 items twice, first rating the frequency of each item within the past month and second, rating their perceived level of skill for each item.

Exploratory and confirmatory analyses resulted in the development of a one-factor, 8-item IPC Behavior Skill scale representing a variety of BHP behaviors

thought to be related to BHP practice. The results from the exploratory split CFA for this scale demonstrated that the data fit the one-factor IPC Behavior Skill model adequately. However, the data did not fit the one-factor IPC Behavior Skill model well for the confirmatory split CFA. Additionally, the variance accounted for in the final PCA for this scale was 56.2%. This was lower in comparison to the two-factor IPC Behavior Frequency scale (which accounted for 69.4% of the variance). Given the fair to poor fit based on the confirmatory CFA for the one-factor IPC Behavior Skill model, the redundancy of items, and the lower percent of variance accounted for, it was decided to use only the IPC Behavior Frequency measure for external validation of the TTM scales. Future studies could further develop this measure and explore why the skill scale did not function as well in this sample. One hypothesis may be that some of the behaviors and skills that are required of BHPs in IPC may overlap with those necessary in traditional mental health practice. This may have resulted in the high rating and endorsement of the behavioral skills despite the fact that BHPs may not feel as skilled with these behaviors if they were to practice in a new integrated setting. Another possibility is that BHPs may feel skilled or report varying levels of skill across readiness, however, they may not have the opportunity to utilize certain behaviors as frequently within their current practice environments.

Exploratory and confirmatory analyses resulted in the development of a two-factor, 12-item IPC Behavior Frequency scale representing a variety of BHP behaviors that occur in IPC settings. The items for these two factors appeared to be distinct in that the first factor included items reflecting collaboration, consultation and practice related variables. The second factor was comprised of behaviors related to specific

interventions conducted in IPC or important areas of knowledge necessary for interventions in IPC. Therefore the two scales were labeled as factor 1 "Consultation/Practice Management" and factor 2 as "Intervention/Knowledge". Results from both the exploratory and confirmatory CFAs demonstrated adequate fit to the two-factor correlated IPC Behavior Frequency model.

Endorsement of the behaviors for the Intervention/Knowledge factor was fairly high. This may be evidence that this scale is more representative of behaviors of BHP providers working in health psychology/behavioral medicine given the large representation of health providers in this sample and it may be less specific to IPC practice. More research into additional behaviors that may represent IPC is warranted especially as models of IPC practice evolve or prove to be more effective. The Consultation/Practice Management items were more evenly endorsed and this factor may provide items with behaviors that are more specific to IPC as opposed to general health psychology related practice behaviors. Interestingly, the least endorsed item for this scale was the frequency of shared medical appointments with medical staff. The literature on IPC often recommends the use of shared medical appointments (SMAs) as a means to improve effective, patient-centered, efficient, equitable healthcare (Nash, McKay, Vogel & Masters, 2012). Future research should further evaluate if this recommendation is occurring in IPC or if this is an area that may be necessary to address in future training for BHP. Another perspective would be that possibly the interpretation of this item was not clear for the participants. Many SMAs are offered in group format where a specific patient group, such as diabetics, are referred and treated by a multidisciplinary team including nutrition, psychology, pharmacy, nursing, etc.

The item may not have represented group SMAs and it may be an important area to explore in the future given its use in IPC.

In hindsight, it may have been useful to include behaviors that typically do not occur in IPC (i.e. 50 minute sessions, following clients for 12 or more sessions, not sharing treatment plans, medical records or office staff) to see if those items produced a scale that would negatively correlate with the other IPC scales to further demonstrate discriminant validity. Additionally, the high internal consistency of the scales suggests that there is likely some redundancy in the item content and therefore may lack some breadth of the construct. Future studies can explore this concern along with assessing if there are other dimensions of IPC practice behaviors that should be included. Overall, the MANOVA results by Stages of Change for this measure demonstrated higher frequency of IPC behaviors when comparing those in the Pre-action stages to those in Action and Maintenance, accounting for 41% (Consultation/Practice Management) and 12% (Intervention/Knowledge) of variance in Stage of Change for IPC. These results coupled with the exploratory and confirmatory results demonstrate good psychometric development and validation for a new measure assessing IPC Behavioral Frequency.

Limitations and Future Directions.

The results of this study were largely consistent with previous measurement development studies applying the TTM to other health related behaviors. However, some limitations of the study should be noted. The results of this study are cross sectional. Therefore, future research should aim to examine how these measures function in longitudinal studies. Another limitation is the lack of a "gold-standard"

external measure. Despite good development of the IPC Behavioral Frequency scale, the scale may be biased due to the self-report nature of the assessment. Future work could objectively assess IPC behaviors using observation by other raters such as providers and/or clients in primary care.

The unequal staging distribution for this sample indicates that future studies will need to establish a more clear representation of the views, attitudes and beliefs for the various Stages of Change among BHPs. Moreover, alternative staging options were not assessed in the study and the Stage of Change measure that was used was limited due to having only one item with multiple response options. Therefore, future studies may also test alternative staging algorithms. More work in the area of Stage of Change will help to further understand the range of attitudes and confidence regarding IPC practice.

Due to concern about response burden, the Processes of Change (POC) were not included in this study despite the exploratory nature of both a new content area as well as a unique sample. Future studies and measurement development should include refinement of the current measures but specifically development and validation of the POC measure. Future studies need to address this notable gap in the development of TTM measures for readiness to practice IPC as the POC are essential in understanding the covert and overt behaviors necessary to guide transition through the Stages of Change.

Furthermore, a larger sample including more diverse BHPs from varying education, training and therapeutic orientation backgrounds would enhance the generalizability of the results from this study. The current study was limited in that it

had a larger representation of Ph.D. level BHPs, as well as more health training than a typical BHP sample. Recruitment for the study was limited due to lack of sufficient funding to incentivize a larger sample of BHPs. Additionally, utilization of listserves was helpful in that it was able to reach a national sample, but was limiting in that only certain listserves allowed recruitment of data for dissertation purposes. Of course, one sample will not be enough for generalization to the entire population of BHPs, thus future research will need to be conducted to validate these measures for use in particular populations. This will be especially important for groups that are underrepresented in this sample (Okazaki & Sue, 1995).

Summary.

In summary, these data demonstrate empirical support for the use of the TTM applied to Behavioral Health Provider's readiness to practice Integrated Primary Care. Specifically, the results showed a good match with the TTM theory and parsimonious models were found demonstrating support for the Decisional Balance, Self-efficacy and IPC Behavioral scales. The results of the present study have important implications for the field of Integrated Primary Care as well as for the Transtheoretical model of behavior change. Specifically, the field of IPC has received significant attention in recent years with growing evidence and support for its utility. With BHP's playing a major role in promoting, training and working in IPC, it is essential to understand attitudes and behaviors of these providers. BHPs, for numerous reasons, are at varying levels of readiness to practice IPC and the measures developed from this study may be useful to help train the future generation of IPC providers. The Transtheoretical model of behavior change provides a framework that allows us to

both describe and to better understand and ability to tailor future training for BHPs to meet the needs of IPC. Future research should examine how well these measures cross validate in BHP trainees. This can provide a foundation for BHP training programs to build upon these findings to enhance IPC training by including assessments of readiness. Future research can expand upon this study to understand the readiness, attitudes and beliefs held by PCPs to practice IPC, particularly since they are integral to the adoption of IPC models.

Cerissa Dissertation Survey

Created:December 20 2011, 12:05 PM
Last Modified: June 04 2012, 7:08 PM
Design Theme: Blue Horizon
Language: English
Button Options: Custom: Start Survey: "Start Survey!" Submit: "Continue"
Disable Browser “Back” Button: False

Behavioral Health Professionals and Integrated Primary Care

Page 1 - Heading

Informed Consent Form

Title of Research Protocol: Application of the Transtheoretical Model to Behavioral Health Professionals’ Readiness to Practice Integrated Primary Care. You have been invited to take part in this research project described below. If you have any questions, please feel free to call CerissaBlaney, MA or Colleen A. Redding, PhD, the people mainly responsible for this study. They may be reached at 401-874-4316. Description of the Project: The purpose of this study is to better understand behavioral health professionals' attitudes towards and readiness for integrated primary care practice. Responses to these items will be collected in an online survey and identifying information will not be asked.

Page 1 - Heading

Enter a question

What will be Done: You are one of 500 Behavioral Health Professionals who will be asked to complete a survey that asks about perceptions, attitudes and behaviors regarding working in integrated primary care practice. To participate, you must be a licensed or license-eligible Behavioral Health Professional, able to read and speak English, and at least 18 years of age. This survey is administered online and should take approximately 15-20 minutes, and you will be entered into a random drawing to win $1000.00 in exchange for your participation. Study Risks or Discomforts: The possible risks or discomforts of this study are minimal.

Page 1 - Heading

Enter a question

Expected Study Benefits: You may not receive any direct benefit from taking part in this study. Taking part in the study, however, may help others like you in the future. Some people may find participation in this research informative and/or personally beneficial. Although there are no direct benefits of this study to you, your answers will help increase our scientific understanding of behavioral health professionals' attitudes towards integrated primary care practice.

Page 1 - Heading

Enter a question

Confidentiality: Participation in this study is completely confidential and anonymous. That means that your answers to all questions are private. Scientific reports will be based on group data and will not identify you or any individual as being in this project. Survey responses to assessment questions will be stored by the secure database of the survey company server (Zoomerang). We will not collect or store IP addresses. Zoomerang makes no effort to identify individual responders by IP address and their privacy practices are reviewed for compliance by TRUSTe. After online data collection is complete, the data will be transferred to a secure server at URI which is firewall protected with restricted access to study personnel only.Decision to Quit at Any Time: Taking part in this study is entirely voluntary and completely up to you. You can refuse to answer any question(s). If you wish, you may discontinue the survey at any time. You need not give any reasons for discontinuation.

Page 1 - Heading

Enter a question

Rights and Complaints: Participation in this study is not expected to be harmful or injurious to you. However, if this study causes you any injury, you should write or call CerissaBlaney, MA or Colleen Redding, PhD, at the University of Rhode Island at (401) 874-4316. Additionally, if you are not satisfied with the way this study is performed, or if you have questions about your rights as a research subject, you may discuss your concerns with Dr. Colleen Redding (401-874-4316). In addition, you may contact the office of the Vice President of Research, 70 Lower College Road, Suite 2, University of Rhode Island, Kingston, RI 02882 (401-874-4328).

Page 1 - Question 1 - Choice - One Answer (Bullets)

You are at least 18 years old. You must be a licensed or a license-eligible Behavioral Health ProfessionalYou have read this Consent Form and your questions have been answered to your satisfaction. You understand that you may ask any additional questions at any time and that your participation in this project is voluntary. Your filling out this survey implies your consent to participate in this study. If you want a copy of this form, please print it out or email the contacts above. Thank you in advance for your time

- ○ I Consent
- ○ I do not Consent [Screen Out]

Page 2 - Heading

Instructions: This survey is designed to better understand behavioral health professionals' attitudes towards and readiness for integrated primary care practice. There are no right or wrong answers. This research project seeks to better understand all the different views of Behavioral Health Professionals, like yourself. You might notice that some items are very similar to each other - this is intentional and we appreciate your patience. All your answers are confidential and important for research purposes.

Description

Page 2 - Question 2 - Choice - One Answer (Bullets)

What is your gender?

- ○ Female
- ○ Male

- ❍ Other

Page 2 - Question 3 - Open Ended - Comments Box

What is your age (in years)?

Page 2 - Question 4 - Choice - One Answer (Bullets)

Do you consider yourself Hispanic or Latino?

- ❍ Yes
- ❍ No

Page 2 - Question 5 - Choice - Multiple Answers (Bullets)

What is your race (check all that apply)?

- ❑ American Indian or Alaska Native
- ❑ Asian
- ❑ Black or African American
- ❑ Native Hawaiian or Other Pacific Islander
- ❑ White or Caucasian
- ❑ Multiracial
- ❑ Other (please specify)

Page 2 - Question 6 - Choice - Multiple Answers (Bullets)

What is the highest professional degree that you have completed? (Check all that apply)

- ❑ M.A.
- ❑ M.S.
- ❑ Ph.D.
- ❑ Psy.D.
- ❑ Ed.D.
- ❑ M.D.
- ❑ MSW/LCSW/LICSW
- ❑ Marriage and Family Therapist
- ❑ Substance Abuse Counselor
- ❑ Other

Page 2 - Question 7 - Open Ended - Comments Box

In what year did you complete your highest professional degree?

Page 3 - Question 8 - Choice - One Answer (Bullets)

Are you licensed to practice psychotherapy in the U.S.?

- ❍ Yes [Skip to 4]
- ❍ No [Skip to 5]

Page 4 - Question 9 - Open Ended - Comments Box

If yes, in what state are you licensed?

Page 4 - Question 10 - Open Ended - Comments Box

If yes, When did you receive your license? (year)

[Skip Unconditionally to 6]

Page 5 - Question 11 - Choice - One Answer (Bullets)

If not licensed, Are you working towards your license?

- ❍ Yes
- ❍ No

Page 5 - Question 12 - Open Ended - Comments Box

If applicable, when is your anticipated license date? (month and year)

[Skip Unconditionally to 6]

Page 6 - Question 13 - Choice - One Answer (Bullets)

How many days per week do you currently provide direct patient care?

- ○ None
- ○ 1 day or less per week
- ○ 2-3 days per week
- ○ 4-5 days per week
- ○ 6 or more days per week

Page 6 - Question 14 - Choice - Multiple Answers (Bullets)

What is/are your current work settings for providing patient care (check all that apply)?

- ☐ Outpatient Private Practice
- ☐ Private Psychiatric Hospital
- ☐ State/County Hospital
- ☐ Inpatient Medical
- ☐ Outpatient Medical
- ☐ VA Medical Center
- ☐ Military Medical Center
- ☐ University Affiliated Hospital
- ☐ General Hospital
- ☐ Private Hospital
- ☐ University Counseling Center
- ☐ Community Mental Health Center
- ☐ Correctional Facility
- ☐ Community Health Center
- ☐ NONE
- ☐ Other, please specify

Page 6 - Question 15 - Choice - Multiple Answers (Bullets)

What types of clients do you typically work with (Check all that apply)?

- ☐ Children
- ☐ Adolescents
- ☐ Adults
- ☐ Geriatric
- ☐ Other

Page 6 - Question 16 - Choice - Multiple Answers (Bullets)

For how many visits/sessions do you typically see patients?

- ☐ 1 or less
- ☐ 2-3
- ☐ 4-5
- ☐ 6-7
- ☐ 8-9

- ❑ 10-11
- ❑ 12 -16
- ❑ 16-20
- ❑ 20+

Page 6 - Question 17 - Ranking Question

How do you describe your primary therapeutic or treatment orientation (Please rank order all that apply)?

	1	2	3	4	5	6	7	8	9	10	11	Don't Know
Behavioral	○1	○2	○3	○4	○5	○6	○7	○8	○9	○10	○11	○Don't Know
Biological	○1	○2	○3	○4	○5	○6	○7	○8	○9	○10	○11	○Don't Know
Biopsychosocial	○1	○2	○3	○4	○5	○6	○7	○8	○9	○10	○11	○Don't Know
Cognitive	○1	○2	○3	○4	○5	○6	○7	○8	○9	○10	○11	○Don't Know
Cognitive Behavioral	○1	○2	○3	○4	○5	○6	○7	○8	○9	○10	○11	○Don't Know
Eclectic	○1	○2	○3	○4	○5	○6	○7	○8	○9	○10	○11	○Don't Know
Humanistic/Existential	○1	○2	○3	○4	○5	○6	○7	○8	○9	○10	○11	○Don't Know
Integrative	○1	○2	○3	○4	○5	○6	○7	○8	○9	○10	○11	○Don't Know
Psychodynamic / Psychoanalytic	○1	○2	○3	○4	○5	○6	○7	○8	○9	○10	○11	○Don't Know
Systems	○1	○2	○3	○4	○5	○6	○7	○8	○9	○10	○11	○Don't Know
Other	○1	○2	○3	○4	○5	○6	○7	○8	○9	○10	○11	○Don't Know

Page 6 - Question 18 - Choice - Multiple Answers (Bullets)

What are your training backgrounds (Check all that apply)?

- ❑ Behavioral Medicine
- ❑ Clinical
- ❑ Child / Family
- ❑ Counseling
- ❑ Developmental
- ❑ Educational
- ❑ Evolutionary
- ❑ Forensic
- ❑ General Mental Health
- ❑ Health
- ❑ Industrial / Organizational
- ❑ Neuropsychological (and behavioral neuropsychological)
- ❑ Rehabilitation
- ❑ School
- ❑ Social
- ❑ Sports
- ❑ Other, please specify

Page 7 - Heading

For this study a Primary Care setting is defined as: “The medical setting where patients receive most of their medical care most often staffed by general practitioner and/or family practice physicians.”

Description

Page 7 - Question 19 - Choice - One Answer (Bullets)

Using this definition, how much of your clinical work currently occurs in a primary care setting?

- ○ None [Skip to 13]
- ○ 0-25% [Skip to 8]
- ○ 26-50% [Skip to 8]
- ○ 51-75% [Skip to 8]
- ○ 76-100% [Skip to 8]

Page 8 - Heading

For this study, Integrated primary care (IPC) is: “Working within and as a part of a primary care medical team, providing patient care with primary care providers (MD, DO, PA, NP) through the integration of behavioral health services with medical services for prevention and intervention.”

Description

Page 8 - Question 20 - Choice - One Answer (Bullets)

Based on this definition, do you work in an Integrated Primary Care Practice?

- ○ Yes [Skip to 9]
- ○ No [Skip to 10]

Page 9 - Question 21 - Choice - One Answer (Bullets)

For how long have you worked in integrated primary care (IPC)?

- ○ I have been working in IPC for less than 6 months.
- ○ I have been working in IPC for 6 to 12 months.
- ○ I have been working in IPC for 1 to 2 years.
- ○ I have been working in IPC for more than 2 years.

Page 9 - Question 22 - Choice - Multiple Answers (Bullets)

Please check ALL the statements below that apply to you at your primary care practice:

- ☐ My services are a part of the primary care team.
- ☐ I deliver care in the same clinic offices where patients are seen by the PCPs (e.g., exam rooms).
- ☐ I regularly collaborate and consult about patients with primary care providers (MD, DO, PA, NP) at my practice.
- ☐ The typical patient session is 15 to 30 minutes.
- ☐ We use one treatment plan for patients that are developed collaboratively with medical providers.

- ❑ We use a shared medical record.
- ❑ We use an electronic medical record.
- ❑ Administrative staff is shared with medical providers.
- ❑ Clients are introduced to me by medical providers anytime throughout the workday (i.e., warm hand-off of a patient).
- ❑ We treat mental health and substance abuse needs.
- ❑ We treat health behavior change issues (e.g., smoking cessation, weight management).
- ❑ We treat medical management issues.
- ❑ We treat medical medication adherence issues.
- ❑ I conduct clinical training for medical staff on behavioral health care.

[Skip Unconditionally to 14]

Page 10 - Heading

For this study: Integrated primary care (IPC) is: "Working within and as a part of a primary care medical team, providing patient care with primary care providers (MD, DO, PA, NP) through the integration of behavioral health services with medical services for prevention and intervention."

Description

Page 10 - Question 23 - Choice - One Answer (Bullets)

Using the integrated primary care definition above, do you plan to work in Integrated Primary Care (IPC)?

- ○ No, I don't plan to start working in IPC.
- ○ Yes, I plan to start working in IPC in the next few years.
- ○ Yes, I plan to start working in IPC in the next year.
- ○ Yes, I plan to start working in IPC in the next 6 months.
- ○ Yes, I plan to start working in IPC in the next 30 days.

Page 10 - Question 24 - Choice - Multiple Answers (Bullets)

Please check ALL the statements below that apply to you at your primary care practice:

- ❑ My services are a part of the primary care team.
- ❑ I deliver care in the same clinic offices where patients are seen by the PCPs (e.g., exam rooms).
- ❑ I regularly collaborate and consult about patients with primary care providers (MD, DO, PA, NP) at my practice.
- ❑ The typical patient session is 15 to 30 minutes.
- ❑ We use one treatment plan for patients that are developed collaboratively with medical providers.
- ❑ We use a shared medical record.
- ❑ We use an electronic medical record.
- ❑ Administrative staff is shared with medical providers.
- ❑ Clients are introduced to me by medical providers anytime throughout the workday (i.e., warm hand-off of a patient).
- ❑ We treat mental health and substance abuse needs.

- ❑ We treat health behavior change issues (e.g., smoking cessation, weight management).
- ❑ We treat medical management issues.
- ❑ We treat medical medication adherence issues.
- ❑ I conduct clinical training for medical staff on behavioral health care.

Page 11 - Question 25 - Rating Scale - Matrix

You indicated that you work in primary care but do not work as part an Integrated Primary Care (IPC) practice, we want to know why this is the case. So, please rate your agreement with the following possible reasons (below) using this rating scale:

	Strongly disagree		Somewhat disagree		Neither agree nor disagree		Somewhat agree		Strongly agree	
The Primary Care Providers do not support IPC now.	❍	1	❍	2	❍	3	❍	4	❍	5
Money is too limited to support IPC now.	❍	1	❍	2	❍	3	❍	4	❍	5
I do not support IPC now.	❍	1	❍	2	❍	3	❍	4	❍	5
I typically see patients in primary care for 50 minutes.	❍	1	❍	2	❍	3	❍	4	❍	5
I follow patients in primary care as I would in a traditional mental health practice.	❍	1	❍	2	❍	3	❍	4	❍	5
Organizational change is slow to transition to IPC.	❍	1	❍	2	❍	3	❍	4	❍	5
Administrative staff are not supportive of IPC at this time.	❍	1	❍	2	❍	3	❍	4	❍	5
Reimbursement for my services in primary care is not understood.	❍	1	❍	2	❍	3	❍	4	❍	5
Reimbursement for my services in primary care is not possible at this time.	❍	1	❍	2	❍	3	❍	4	❍	5

Page 12 - Question 26 - Rating Scale - Matrix

Here are some statements that may reflect your position on Integrated Primary Care (IPC). Please rate your agreement with the following statements below using this same scale:

	Strongly disagree		Somewhat disagree		Neither agree nor disagree		Somewhat agree		Strongly agree	
I would consider working in IPC if I had more training.	❍	1	❍	2	❍	3	❍	4	❍	5
There is limited training available to learn to practice IPC.	❍	1	❍	2	❍	3	❍	4	❍	5
There are no current job opportunities for IPC in my area.	❍	1	❍	2	❍	3	❍	4	❍	5
I would consider working in IPC if there were job opportunities in my area	❍	1	❍	2	❍	3	❍	4	❍	5
I would consider working in IPC after it has become better established.	❍	1	❍	2	❍	3	❍	4	❍	5
I would consider practicing IPC if reimbursement for my services worked better.	❍	1	❍	2	❍	3	❍	4	❍	5
I would consider working in IPC if my practice supported the effort.	❍	1	❍	2	❍	3	❍	4	❍	5

[Skip Unconditionally to 14]

Page 13 - Heading

For this Study Integrated primary care (IPC) is “Working within and as a part of a primary care medical team, providing patient care with primary care providers (MD, DO, PA, NP) through the integration of behavioral health services with medical services for prevention and intervention.”

Page 13 - Question 27 - Choice - One Answer (Bullets)

Using this definition, do you plan to work in Integrated Primary Care (IPC)?

- ❍ No, I do not plan to start working in IPC.
- ❍ Yes, I plan to start working in IPC in the next few years.
- ❍ Yes, I plan to start working in IPC in the next year.
- ❍ Yes, I plan to start working in IPC in the next 6 months.
- ❍ Yes, I plan to start working IPC in the next 30 days.

Page 13 - Question 28 - Rating Scale - Matrix

Here are some statements that may reflect your position on Integrated Primary Care (IPC). Please rate your agreement with the following statements below using this same scale:

	Strongly disagree		Somewhat disagree		Neither agree nor disagree		Somewhat agree		Strongly agree	
I would consider working in IPC if I had more training.	❍	1	❍	2	❍	3	❍	4	❍	5
There is limited training available to learn to practice IPC.	❍	1	❍	2	❍	3	❍	4	❍	5
There are no current job opportunities for IPC in my area.	❍	1	❍	2	❍	3	❍	4	❍	5
I would consider working in IPC if there were job opportunities in my area	❍	1	❍	2	❍	3	❍	4	❍	5
I would consider working in IPC after it has become better established.	❍	1	❍	2	❍	3	❍	4	❍	5
I would consider practicing IPC if reimbursement for my services worked better.	❍	1	❍	2	❍	3	❍	4	❍	5

Page 14 - Question 29 - Choice - Multiple Answers (Bullets)

Have you ever received training for Integrated Primary Care (IPC) practice throughout your graduate education or professional career? (Check ALL that apply)?

- ❑ None
- ❑ Certificate Program in IPC
- ❑ Practica in IPC
- ❑ Internship rotation in IPC
- ❑ Post-doctoral training
- ❑ Didactic for IPC
- ❑ In vivo training/shadowing
- ❑ Healthcare Economics
- ❑ Consultation (to practice in IPC)
- ❑ Conference Training Course on IPC (e.g. SBM, APA)
- ❑ Psychopharmacology
- ❑ Pharmacology
- ❑ Practica in Primary Care but not IPC
- ❑ Other, please specify

Page 14 - Question 30 - Choice - Multiple Answers (Bullets)

When did you receive training for work in Integrated Primary Care (IPC)? (Check all that apply)

- ❑ Graduate School
- ❑ Pre-doctoral Internship
- ❑ Post-Doctoral Training
- ❑ Professional Practice
- ❑ Never
- ❑ Other, please specify

Page 15 - Heading

Here are a range of opinions professionals may have about practicing integrated primary care. Please rate how important each of these is to you in your decision whether or not to practice integrated primary care using the following scale (If you disagree with a statement or it doesn't apply to you, please respond “Not important”):

Description

Page 15 - Question 31 - Rating Scale - Matrix

How important are the following in your decision about whether or not to practice integrated primary care?

	Not Important		A little Important		Moderately Important		Very Important		Extremely Important	
Working as a part of a health care team is appealing.	❍	1	❍	2	❍	3	❍	4	❍	5
Collaboration in medical settings can be difficult.	❍	1	❍	2	❍	3	❍	4	❍	5
Physician support of treatment plans (e.g., exercise prescriptions, daily activity logs) can increase patient adherence.	❍	1	❍	2	❍	3	❍	4	❍	5
Reimbursement can be problematic.	❍	1	❍	2	❍	3	❍	4	❍	5
I can learn more about the influence of medical disorders on behavioral health issues.	❍	1	❍	2	❍	3	❍	4	❍	5
My training in primary care settings is limited.	❍	1	❍	2	❍	3	❍	4	❍	5
Shorter sessions allow more patients to be seen.	❍	1	❍	2	❍	3	❍	4	❍	5
Primary care settings can be fast-paced.	❍	1	❍	2	❍	3	❍	4	❍	5
There is good job security in IPC.	❍	1	❍	2	❍	3	❍	4	❍	5
Losing the solitary decision making power is difficult to accept.	❍	1	❍	2	❍	3	❍	4	❍	5
Patients would have better access to behavioral health care.	❍	1	❍	2	❍	3	❍	4	❍	5
I am not familiar with population based behavior change strategies.	❍	1	❍	2	❍	3	❍	4	❍	5
Patients would experience better health outcomes.	❍	1	❍	2	❍	3	❍	4	❍	5
Practicing under the lead of physicians can be unfair.	❍	1	❍	2	❍	3	❍	4	❍	5
Delivering mental health services in primary care reduces stigma.	❍	1	❍	2	❍	3	❍	4	❍	5
I would have to change my practice techniques to fit medical settings.	❍	1	❍	2	❍	3	❍	4	❍	5
Treating common mental health concerns in primary care can be cost effective.	❍	1	❍	2	❍	3	❍	4	❍	5
Primary care settings are not conducive to behavioral treatment plans.	❍	1	❍	2	❍	3	❍	4	❍	5
Screening and brief interventions will provide better care to more patients.	❍	1	❍	2	❍	3	❍	4	❍	5
Patient assessments and sessions can be too short.	❍	1	❍	2	❍	3	❍	4	❍	5
Shared office space can enhance the collaboration between medical and behavioral providers.	❍	1	❍	2	❍	3	❍	4	❍	5
Integrated primary care is just the latest “fad.”	❍	1	❍	2	❍	3	❍	4	❍	5
Patients appreciate having all their treatment providers in one place.	❍	1	❍	2	❍	3	❍	4	❍	5
Patient rapport can be limited by shorter appointments.	❍	1	❍	2	❍	3	❍	4	❍	5

Page 16 - Heading

Here are situations that might make working in integrated primary care more difficult. (If you disagree with a statement or it doesn't apply to you, please respond “Not at all confident”):

Description

Page 16 - Question 32 - Rating Scale - Matrix

Please rate how CONFIDENT you are that you would practice integrated primary care, even in the following situations, using the following response choices:

	Not at allConfident		A LittleConfident		ModeratelyConfident		Very Confident		ExtremelyConfident	
When I have never worked in a primary care setting.	❍	1	❍	2	❍	3	❍	4	❍	5
When training for integrated primary care practice is limited.	❍	1	❍	2	❍	3	❍	4	❍	5
When coding and billing are unclear.	❍	1	❍	2	❍	3	❍	4	❍	5
When financial benefits for me are not clear.	❍	1	❍	2	❍	3	❍	4	❍	5
When patient contact time is limited.	❍	1	❍	2	❍	3	❍	4	❍	5
When the pace of the day is fast.	❍	1	❍	2	❍	3	❍	4	❍	5
When I have limited training in pharmacology.	❍	1	❍	2	❍	3	❍	4	❍	5
When the client base is different from my typical practice.	❍	1	❍	2	❍	3	❍	4	❍	5
When I have to adjust the way I practice to fit primary care.	❍	1	❍	2	❍	3	❍	4	❍	5
When the health care provider(s) undervalue my role.	❍	1	❍	2	❍	3	❍	4	❍	5
When I do not understand the impact of medical disorders on behavioral symptoms.	❍	1	❍	2	❍	3	❍	4	❍	5
When providers disagree about treatment strategies.	❍	1	❍	2	❍	3	❍	4	❍	5
When sharing of clinical information between providers is limited by privacy laws.	❍	1	❍	2	❍	3	❍	4	❍	5

Page 17 - Heading

In this section, you will be asked to rate two things about each of the behaviors listed below: 1) How skilled do you feel to do this? and; 2) How often did you do this in the past month? Please think about your own professional clinical work and answer first HOW SKILLED you feel to do each item and then the next question will ask you to rate HOW OFTEN you do each of the following in a typical month.

Description

Page 17 - Question 33 - Rating Scale - Matrix

Please think about your own professional clinical work and answer HOW SKILLED you feel to do each item.

	Not at allSkilled		Slightly Skilled		SomewhatSkilled		Fairly Skilled		Very Skilled	
Complete initial patient consultation in 30 minutes or less.	❍	1	❍	2	❍	3	❍	4	❍	5
Follow a patient for 3-4 sessions or less.	❍	1	❍	2	❍	3	❍	4	❍	5
Use ehealth, telephone-based and/or home-based interventions	❍	1	❍	2	❍	3	❍	4	❍	5
Use tailored health interventions.	❍	1	❍	2	❍	3	❍	4	❍	5
Provide and encourage patients with health education and information.	❍	1	❍	2	❍	3	❍	4	❍	5
Discuss medication adherence for disease management.	❍	1	❍	2	❍	3	❍	4	❍	5
Apply health psychology and/or behavioral medicine concepts and interventions.	❍	1	❍	2	❍	3	❍	4	❍	5
Educate patients about their medical disorder and advise self-management strategies.	❍	1	❍	2	❍	3	❍	4	❍	5
Use health risk appraisal tools.	❍	1	❍	2	❍	3	❍	4	❍	5
Consult in person about patient case with medical staff (e.g. curbside).	❍	1	❍	2	❍	3	❍	4	❍	5
Accept walk-in patient(s) (a.k.a., warm hand off) from medical staff.	❍	1	❍	2	❍	3	❍	4	❍	5
Share medical appointments with medical staff.	❍	1	❍	2	❍	3	❍	4	❍	5
Schedule patient visits within existing medical services process.	❍	1	❍	2	❍	3	❍	4	❍	5
Focus of the session was on the referral question.	❍	1	❍	2	❍	3	❍	4	❍	5
Provide feedback to referring provider(s) on same day.	❍	1	❍	2	❍	3	❍	4	❍	5
Screen patients for depression, anxiety, and PTSD.	❍	1	❍	2	❍	3	❍	4	❍	5

Screen patients for eating, exercise, and substance use habits.	❍	1	❍	2	❍	3	❍	4	❍ 5
Use brief, culturally appropriate assessments and interventions.	❍	1	❍	2	❍	3	❍	4	❍ 5
Evaluate outcomes of interventions & develop alternative treatments when indicated.	❍	1	❍	2	❍	3	❍	4	❍ 5
Refer patients to care management plans for specific issues (i.e., depression, weight, diabetes management., etc.)	❍	1	❍	2	❍	3	❍	4	❍ 5
Use one treatment plan that includes both behavioral and medical components.	❍	1	❍	2	❍	3	❍	4	❍ 5
Show understanding of relationship between medical and psychological processes.	❍	1	❍	2	❍	3	❍	4	❍ 5
Show knowledge of psychotropic medicines and adherence strategies.	❍	1	❍	2	❍	3	❍	4	❍ 5

Page 18 - Heading

Now, please rate each of these same behaviors in terms of frequency of use.

Description

Page 18 - Question 34 - Rating Scale - Matrix

Please think about your own professional clinical work and then rate HOW OFTEN you do each of the following in a typical month.

	Never		Not Often		Sometimes		Often		Very Often
Complete initial patient consultation in 30 minutes or less.	❍	1	❍	2	❍	3	❍	4	❍ 5
Follow a patient for 3-4 sessions or less.	❍	1	❍	2	❍	3	❍	4	❍ 5
Use ehealth, telephone-based and/or home-based interventions	❍	1	❍	2	❍	3	❍	4	❍ 5
Use tailored health interventions.	❍	1	❍	2	❍	3	❍	4	❍ 5
Provide and encourage patients with health education and information.	❍	1	❍	2	❍	3	❍	4	❍ 5
Discuss medication adherence for disease management.	❍	1	❍	2	❍	3	❍	4	❍ 5
Apply health psychology and/or behavioral medicine concepts and interventions.	❍	1	❍	2	❍	3	❍	4	❍ 5
Educate patients about their medical disorder and advise self-management strategies.	❍	1	❍	2	❍	3	❍	4	❍ 5
Use health risk appraisal tools.	❍	1	❍	2	❍	3	❍	4	❍ 5
Consult in person about patient case with medical staff (e.g. curbside).	❍	1	❍	2	❍	3	❍	4	❍ 5
Accept walk-in patient(s) (a.k.a., warm hand off) from medical staff.	❍	1	❍	2	❍	3	❍	4	❍ 5
Share medical appointments with medical staff.	❍	1	❍	2	❍	3	❍	4	❍ 5
Schedule patient visits within existing medical services process.	❍	1	❍	2	❍	3	❍	4	❍ 5
Focus of the session was on the referral question.	❍	1	❍	2	❍	3	❍	4	❍ 5
Provide feedback to referring provider(s) on same day.	❍	1	❍	2	❍	3	❍	4	❍ 5
Screen patients for depression, anxiety, and PTSD.	❍	1	❍	2	❍	3	❍	4	❍ 5
Screen patients for eating, exercise, and substance use habits.	❍	1	❍	2	❍	3	❍	4	❍ 5
Use brief, culturally appropriate assessments and interventions.	❍	1	❍	2	❍	3	❍	4	❍ 5
Evaluate outcomes of interventions & develop alternative treatments when indicated.	❍	1	❍	2	❍	3	❍	4	❍ 5
Refer patients to care management plans for specific issues (i.e., depression, weight, diabetes management., etc.)	❍	1	❍	2	❍	3	❍	4	❍ 5
Use one treatment plan that includes both behavioral and medical components.	❍	1	❍	2	❍	3	❍	4	❍ 5
Show understanding of relationship between medical and psychological processes.	❍	1	❍	2	❍	3	❍	4	❍ 5
Show knowledge of psychotropic medicines and adherence strategies.	❍	1	❍	2	❍	3	❍	4	❍ 5

Thank You Page

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