

## Integrating Behavioral Health Services Into a University Health Center: Patient and Provider Satisfaction

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The goals of this study were to (a) describe an Integrated Behavioral Health Care (IBHC) program within a university health center and (b) assess provider and patient acceptability and satisfaction with the IBHC program, including behavioral health screening and clinical services of integrated behavioral health providers (BHPs). Fifteen providers (nine primary care providers and six nurses) and 79 patients (75% female, 65% Caucasian) completed program ratings in 2010. Providers completed an anonymous web-based questionnaire that assessed satisfaction with and acceptability of behavioral health screening and the IBHC program featuring integrated BHPs. Patients completed an anonymous web-based questionnaire that assessed program satisfaction and comfort with BHPs. Providers reported that behavioral health screening stimulated new conversations about behavioral health concerns, the BHPs provided clinically useful services, and patients benefited from the IBHC program. Patients reported satisfaction with behavioral health services and reported a willingness to meet again with BHPs. Providers and patients found the IBHC program beneficial to clinical care. Use of integrated BHPs can help university health centers support regular screening for mental and behavioral health issues. Care integration increases access to needed mental health treatment.

*Keywords:* integrated behavioral health care, integrated primary care, mental health care

Integrated behavioral health care (IBHC), in which primary care providers (PCPs) and behavioral health providers (BHPs) collaborate to provide coordinated care, is an emerging model of patient care. Over the past decade, research has identified IBHC as a clinically effective and cost-effective method for improving clinical

outcomes within primary care settings (Blount et al., 2007; Bryan, Morrow, & Appolonio, 2009; Cigrang, Dobbmeyer, Becknell, Roa-Navarrete, & Yerian, 2006; Goodie, Isler, Hunger, & Peterson, 2009). Typically, this research has focused on integrating mental and behavioral health care within adult primary care set-

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tings, such as private family medicine practices, academic medical center primary care clinics, and primary care services offered within the Veterans Health Administration or Federal Qualified Centers. However, there is little research examining IBHC in university health clinics.

University health centers share many features with standard primary care settings. For example, university health centers tend to offer ambulatory care and other basic medical services to a wide range of patients (Christmas, 1995). These clinics tend to be students' first option when seeking medical care in nonemergency situations. University health centers may coordinate referrals to off-campus specialists as necessary. Thus, in terms of services offered and general approach to care, university health centers and primary care clinics are quite similar. Nevertheless, compared with typical primary care practices, university health clinics are somewhat unique in that they generally serve a restricted age range (i.e., 18–24 years of age) for a limited period of time (i.e., academic semesters) that has predictable elevations in stress/illness as a result of the increased workload that occurs toward the end of the semester. In addition, a majority of students are developmentally just beginning to take care of themselves while continuing to maintain significant ties to their parents, sometimes limiting their financial resources and ability to travel off campus for additional specialty services. Another caveat is that most university health clinics provide services to students using a general health fee that is wrapped into their tuition, eliminating difficulties with insurance claims (Mills, Gold, & Curran, 1996).

The lack of research examining the integration of mental health services into university health clinics is surprising because of the alarming rates of mental health issues on college campuses (American College Health Association [ACHA], 2010a; Mowbray et al., 2006) and the fact that most college students with clinically significant psychological distress do not receive mental health treatment (Rosenthal & Wilson, 2008). For instance, only 15% of students with moderately severe to severe depression or past-month suicidal ideation received any mental health care (Garlow et al., 2008). A recent ACHA white paper (2010b) argued for the integration of campus medical and counsel-

ing clinics, given the great potential for integrated care to increase treatment access, enhance clinical outcomes, and improve patient satisfaction.

Similar to other primary care settings, IBHC in university health centers can provide an avenue to address many of the obstacles to treatment access for college students. For instance, a higher proportion of students use campus health clinics than campus mental health clinics (79% vs. 10% in one recent study; Eisenberg, Golberstein & Gollust, 2007), and many students feel more comfortable seeing PCPs than therapists (ACHA, 2010b). Moreover, because many mental health issues cause physical symptoms, many students seek evaluation at health clinics first (ACHA, 2010b). The few studies examining IBHC within university health settings have reported numerous benefits, including increased accessibility of mental/behavioral health care, increased referral follow-through, and higher quality patient care (Masters, Stillman, Browning & Davis, 2005; Tucker, Sloan, Vance, & Brownson, 2008; Westheimer & Steinley-Bumgarner, 2008).

Besides clinical outcomes, another vital component in the process of evaluating a new program of service, and whether others should consider implementing such a program within college health, is obtaining feedback from the "consumers" involved in the program (Gallo et al., 2004; Reiss-Brennan, Briot, Daumit, & Ford, 2006; Runyan, Fonseca, & Hunter, 2003). For IBHC, primary consumers include PCPs and patients. A lack of acceptability and/or satisfaction among the PCPs with the various components of the IBHC program would ultimately sabotage the program because of (a) the pivotal role PCPs have within IBHC (i.e., referring patients to BHPs) and (b) the focus all IBHC programs have on increasing collaboration between PCPs and BHPs. Similarly, it is extremely important that the patients are satisfied with clinical services provided by a new program, otherwise patients may not remain engaged or comply with treatment recommendations, which could compromise treatment success. Patient satisfaction is an important outcome measure that identifies problems with health care (Sitzia & Wood, 1997) and is associated with treatment adherence and provider/program selection (Fitzpatrick, 1991).

Preliminary studies have begun to examine patient and provider opinions about IBHC within the college health setting. Tucker et al. (2008) examined an international student's experience of the Integrated Health Program at the University of Texas at Austin using a case study design and found his overall experience to be positive. Westheimer and Steinley-Bumgarner (2008) examined provider behaviors, opinions, and experiences during the integration process of IBHC within the same university and found PCPs ascribed a high level of value to the collaborative effort integrated BHPs could provide in helping with a diverse number of conditions. However, neither of these studies provided a sound understanding of patient or provider satisfaction with the IBHC program and its various components.

Two studies have examined the use of screening questionnaires designed to increase discussion of mental and behavioral health issues during university health center visits. In a pilot study, Cowan and Morewitz (1995) found that use of a screening questionnaire prompted discussion of psychosocial concerns that may not have otherwise come up. However, this study did not use a validated screening measure or examine provider or patient satisfaction with use of the screening measure. Alschuler, Hoodin, and Byrd (2008) examined provider and patient satisfaction with the integration of a screening questionnaire for behavioral health issues in a college health center. They found that patients who were randomly assigned to fill out the screening questionnaire reported it helped them discuss concerns with their providers and they would like its use to continue in the future. The providers reported that they also found the screening questionnaire helpful and would be happy to collaborate with integrated BHPs on-site. Although this study provided preliminary evidence toward patient and provider satisfaction with IBHC, it focused on integrating the screening measure and it did not involve the actual integration of BHPs, which is a fundamental component of IBHC programs.

In sum, IBHC is an emerging approach to health care that can increase access to mental and behavioral health care while reducing the burden on PCPs and specialty mental health centers. University health centers are an opportune setting in which to implement the IBHC model. However, despite the importance of en-

suring provider and patient acceptability and satisfaction when implementing new clinical programs, little research has examined these factors with respect to IBHC in university health centers. Therefore, the purpose of this study was to collect feedback from PCPs and patients to assess the acceptability and satisfaction with all aspects of integrating an IBHC program at Syracuse University, which included the implementation of a behavioral health screening questionnaire as well as the integration of several BHPs. It was expected that PCPs and patients would indicate a high level of satisfaction and acceptability with all aspects of the program.

## Method

### Our Integrated Behavioral Health Primary Care Program

We developed our IBHC program by adapting a common model of integrated health care called the Primary Mental Health Care model described by Strosahl (1998). Syracuse University Health Services (SUHS), which serves approximately 9,038 patients per year, collaborated with the Syracuse University doctoral program in clinical psychology to integrate three to five advanced doctoral students as BHPs per academic year (for additional information regarding this type of collaborative effort, see Masters et al., 2005). The BHPs provided clinical services 20–35 hours per week as part of an Advanced Practicum course. Working under the supervision of a licensed psychologist and an onsite medical provider, the BHPs saw approximately 152 students per semester for various presenting problems (e.g., insomnia, depressive symptoms). BHPs acted as consultants to the PCPs, seeing patients for brief sessions (i.e., one to three sessions lasting approximately 15–30 minutes each; Strosahl, 1998). The average number of sessions per patient was 1.43 ( $SD = 0.83$ , range 1–5) for the Spring, 2010 semester and 1.61 ( $SD = 0.97$ , range 1–6) for the Fall, 2010 semester.

In this IBHC model, the PCP ultimately maintains responsibility for patient management throughout the course of treatment. Nonetheless, the PCPs can utilize the BHPs in several ways: (a) to conduct further assessment of behavioral health issues; (b) to provide brief in-

terventions for patients reporting mild-moderate mental health symptomatology, behavioral health issues (e.g., sleep problems), or symptoms associated with chronic disease; (c) to triage patients reporting more severe mental health symptoms to more specialized services; and (d) to provide crisis assessment. BHPs maintain an open access schedule, keeping at least 15 minutes free between half-hour appointments to allow PCPs to walk patients down for same-day visits. Assessments and patient progress notes are shared among the team via verbal and/or written communications within the electronic medical record. Therefore, this IBHC model is strikingly different from the colocation of specialty mental health services within a university health clinic, which often continues to maintain separate medical records, provide more intensive treatment (i.e., a higher number of sessions, longer sessions), see patients for more severe symptomatology, and is often unable to accommodate same-day noncrisis appointments.

To help facilitate referrals and to follow national recommendations regarding screening for depression and at-risk alcohol use among young adults (American Academy of Pediatrics, 2001; Nimalasuriya, Compton, Guillory & Prevention Practice Committee of the American College of Preventive Medicine, 2009; U.S. Preventive Services Task Force, 2009), we implemented a screening tool as part of our IBHC program. Specifically, all students seen by PCPs for any reason were screened for the following symptoms: (a) depression and suicidal ideation with the Patient Health Questionnaire-9 (PHQ-9; Spitzer, Kroenke & Williams, 1999); (b) at-risk alcohol use with the Alcohol Use Disorders Identification Test-Consumption (AUDIT-C; Saunders, Aasland, Babor, de la Fuente & Grant, 1993); (c) sleep problems with two items from the Insomnia Severity Index (ISI; Bastien, Vallières & Morin, 2002); and (d) tobacco use with three items to assess smoking habits. Students were given the screening tool by nurses as they waited for the medical providers following the nurse obtaining vital signs. The screening tool clearly describes the purpose of the questionnaire, the confidentiality of the information, and that the items ask about symptoms unrelated to any current acute illness (e.g., cold, flu).

## Procedure

This study was approved by the Syracuse University Institutional Review Board. To obtain the provider satisfaction data, we sent three recruitment emails, one week apart, to all PCPs and nurses working at the university health clinic over a 4-week period during the Spring semester of 2010. The email provided a brief description of the study and linked the provider to an anonymous web-based questionnaire. After providing informed consent, participants provided information on whether they were a PCP (MD, NP) or nurse and filled out a provider satisfaction survey. Providers were not given any compensation for participation.

To obtain the patient satisfaction data, we obtained a list of all students who had at least one session with an integrated BHP during the Spring (i.e., January 15 to May 15, 2010) or Fall semester in 2010 (i.e., August 15 to December 15, 2010) by pulling a list of all patients who were included in the electronic medical record as having the specific encounter code used only by the BHPs to identify behavioral health visits. Then, email addresses were located using the publicly available student email address directory. In addition, basic demographics of all IBHC patients were obtained from a tracking database maintained by the BHPs. We sent three recruitment emails, approximately 3–4 weeks apart, to each identified patient at the end of each semester to their university-provided email address to ask them to participate in an anonymous web-based patient satisfaction survey. After completing informed consent, participants completed the questionnaire. As an incentive, participants were offered a chance to win one of 12 \$25 gift cards to an online retailer.

## Participants

All PCPs ( $n = 9$ , two physician and seven nurse practitioners) and nurses ( $n = 10$ ) working in the university health clinic were eligible to complete the provider satisfaction questionnaire. Fifteen participants (nine PCPs and six nurses) did so, yielding a 79% (100% for PCPs and 60% for nurses) response rate. Because of the small number of providers at the clinic and the need to maintain their anonymity to encourage higher response rates and candid respond-



ing, we did not collect demographics from the participants.

A total of 303 (175 Spring semester, 128 Fall semester) unique IBHC patients were identified using the electronic medical record. A total of 27 (23 from Spring semester and four from Fall semester) had recruitment emails returned because of a nonexistent address error likely resulting from the fact that the student left the university for some reason (e.g., graduation). Of the remaining participants who were eligible ( $n = 276$ ), 79 participants (32 Spring semester, 47 Fall semester) completed the patient satisfaction survey, resulting in an overall 29% response rate ( $n = 152$ , 21% for Spring semester and  $n = 124$ , 38% for Fall semester). The majority of the participants were female ( $n = 59$ , 75%), white ( $n = 51$ , 65%), and not Hispanic or Latino ( $n = 72$ , 91%). To understand the representativeness of our sample, Table 1 presents the demographics for those who participated in the study and for the total sample of patients ( $n = 303$ ) who saw a BHP during the Spring and Fall semesters of 2010. Because the patient satisfaction survey was anonymous, we were unable to test for demographic differences between responders and nonresponders.

## Measures

**Provider satisfaction questionnaire.** Participants rated their level of agreement with 18 statements about the acceptability and useful-

ness of each component of the IBHC program on a Likert scale that ranged from *strongly disagree* (1) to *neutral* (3) to *strongly agree* (5). The 18 items (see Table 2) were generated by the first and fourth author and focused on each element of the IBHC program implemented. For several items, the participant could choose "not applicable" because of the lack of relevance of the statement to nurses versus PCPs and vice versa. Cronbach's alpha for the scale was .80.

**Patient satisfaction questionnaire.** Participants answered five demographic questions (i.e., age, sex, race, ethnicity, and class in school), and three yes/no questions (i.e., whether they remembered filling out the screening measure, whether their PCP discussed one of the topics on the screening measure with them, and whether they met with an integrated BHP). Those who remembered filling out the screening measure and meeting with the integrated BHP completed an additional six statements (see Table 3) which asked participants to rate their level of satisfaction, comfort, or willingness on a Likert scale that ranged from (1) *extremely unsatisfied/uncomfortable/unwilling* to (3) *neutral* to (5) *extremely satisfied/comfortable/willing* on a variety of elements associated with the IBHC program. These items were generated by the first and fourth author. For those participants who completed the Likert portion of the questionnaire, Cronbach's alpha for those six items was .75.

Table 1  
*Demographics of Survey Participants and All IBHC Patients*

|                    | Participant Demographics |           |          |      | All IBHC Patients |           |          |      |
|--------------------|--------------------------|-----------|----------|------|-------------------|-----------|----------|------|
|                    | <i>M</i>                 | <i>SD</i> | <i>n</i> | %    | <i>M</i>          | <i>SD</i> | <i>n</i> | %    |
| Age                | 30.0                     | 3.8       | 79       |      | 21.7              | 4.1       | 303      |      |
| Males              |                          |           | 20       | 25.3 |                   |           | 121      | 40.0 |
| Hispanic or Latino |                          |           | 7        | 8.9  |                   |           | 22       | 7.3  |
| Race <sup>a</sup>  |                          |           |          |      |                   |           |          |      |
| White              |                          |           | 51       | 64.6 |                   |           | 201      | 66.3 |
| Black              |                          |           | 7        | 8.9  |                   |           | 34       | 11.2 |
| Asian              |                          |           | 10       | 12.7 |                   |           | 24       | 7.9  |
| Other              |                          |           | 10       | 12.7 |                   |           | 44       | 14.5 |
| Class <sup>b</sup> |                          |           |          |      |                   |           |          |      |
| Freshman           |                          |           | 4        | 5.1  |                   |           | 55       | 18.2 |
| Sophomore          |                          |           | 22       | 27.8 |                   |           | 55       | 18.2 |
| Junior             |                          |           | 17       | 21.5 |                   |           | 47       | 15.5 |
| Senior             |                          |           | 9        | 11.4 |                   |           | 67       | 22.1 |
| Graduate Student   |                          |           | 27       | 34.2 |                   |           | 75       | 24.8 |

<sup>a</sup> One participant left race unknown. <sup>b</sup> Four patients' class was unknown.

Table 2  
*Provider Ratings of IBHC Acceptability and Satisfaction*

| Item  | PCPs     |               |       | Nurses   |               |       |
|---|----------|---------------|-------|----------|---------------|-------|
|   | <i>n</i> | <i>M (SD)</i> | Range | <i>n</i> | <i>M (SD)</i> | Range |
| Rate your level of agreement with the implementation of regular screening at SUHS for       |          |               |       |          |               |       |
| a) Depression   | 9        | 4.7 (0.5)     | 4–5   | 6        | 4.7 (0.5)     | 4–5   |
| b) Sleep problems   | 9        | 4.3 (1.0)     | 2–5   | 6        | 4.7 (0.5)     | 4–5   |
| c) Tobacco use  | 9        | 4.2 (0.7)     | 3–5   | 6        | 4.6 (0.5)     | 4–5   |
| d) Alcohol misuse   | 9        | 4.7 (0.5)     | 4–5   | 6        | 4.7 (0.5)     | 4–5   |
| The items that assessed the problem below were useful in my clinical practice               |          |               |       |          |               |       |
| a) Depressed mood   | 9        | 4.4 (0.5)     | 4–5   | 2        | 4.0 (1.4)     | 3–5   |
| b) Sleep problems   | 9        | 3.9 (0.9)     | 2–5   | 1        | 5.0 (0.0)     | 5     |
| c) Tobacco use  | 9        | 3.4 (0.7)     | 3–5   | 1        | 5.0 (0.0)     | 5     |
| d) Alcohol consumption  | 9        | 3.8 (1.0)     | 2–5   | 2        | 4.5 (0.7)     | 4–5   |
| The screening measure   |          |               |       |          |               |       |
| Took too much time away from clinical duties  | 9        | 2.9 (0.8)     | 2–4   | 6        | 2.5 (0.8)     | 1–3   |
| Was difficult to score and interpret  | 9        | 2.6 (1.2)     | 1–4   | 5        | 3.0 (0.7)     | 2–4   |
| Helped stimulate discussion of topics that would not have come up during patient visits     | 9        | 4.3 (0.7)     | 3–5   | 1        | 5.0 (0.0)     | 5     |
| A majority of my patients felt comfortable answering the questions on the screening measure | 9        | 4.3 (1.0)     | 2–5   | 6        | 3.8 (0.8)     | 3–5   |
| The BHPs  |          |               |       |          |               |       |
| Were useful within my clinical practice   | 9        | 4.7 (0.5)     | 4–5   | 3        | 4.7 (0.6)     | 4–5   |
| Became part of our primary care team  | 9        | 4.1 (0.6)     | 3–5   | 6        | 3.8 (1.0)     | 3–5   |
| Benefited my patients   | 9        | 4.8 (0.4)     | 4–5   | 2        | 5.0 (0.0)     | 5     |
| Helped my patients receive treatment more quickly   | 9        | 4.8 (0.4)     | 4–5   | 6        | 5.0 (0.0)     | 5     |
| I would recommend this service to other colleagues  | 9        | 4.4 (0.7)     | 3–5   | 6        | 4.1 (1.0)     | 3–5   |
| I would like the integrated behavioral health service to continue                           | 9        | 4.7 (0.5)     | 4–5   | 6        | 4.7 (0.5)     | 4–5   |

Note. The *ns* vary because some providers chose “Not Applicable” for a response.

**Data Analytic Plan**

Because of the descriptive nature of the objectives of this study, our data analytic plan focused primarily on examining distributions and calculating the frequencies, modes, means, and standard deviations of individual survey items.

**Results**

**Provider Satisfaction**

As shown in Table 2, both PCPs and nurses reported a high level of support for regular implementation of the screening measure across all four screening domains and reported that

patients were comfortable answering the questions on the screening measure. Providers strongly agreed that the screening measure helped stimulate discussion on topics that would not have come up during the visit otherwise. There was a greater level of variability yielding average (i.e., means ranging from 2.5–3.0) and modal responses within the neutral range for the two items assessing whether the screening measure took too much time away from other clinical duties and was difficult to score and interpret.

PCPs and nurses considered the integrated BHPs a part of the primary care team and felt the IBHC program helped patients receive treatment more quickly. PCPs perceived that pa-

Table 3  
*Patient Ratings of IBHC Satisfaction and Acceptability*

| Item   | <i>n</i> | Mode | <i>M</i> | <i>SD</i> | Range |
|--|----------|------|----------|-----------|-------|
| Rate your overall level of satisfaction with the visit(s) you had at University Health Service   | 79       | 4.0  | 3.4      | 1.1       | 1–5   |
| Rate your level of comfort filling out the screening questionnaire during your visit   | 66       | 4.0  | 3.5      | 1.1       | 1–5   |
| Rate your level of satisfaction with the service you were provided during the visits with the integrated behavioral health provider              | 52       | 4.0  | 3.4      | 1.2       | 1–5   |
| Rate your level of willingness meet with one of those providers again if something else or that issue continued                                  | 52       | 4.0  | 3.4      | 1.4       | 1–5   |
| Rate your level of comfort meeting with them at University Health Service rather than some other location on campus (e.g., SU Counseling Center) | 52       | 3.0  | 3.6      | 1.0       | 2–5   |
| Rate your level of comfort with the length of the meetings (i.e., typically less than 40 minutes) with the integrated behavioral health provider | 52       | 4.0  | 3.7      | 0.9       | 2–5   |

tients benefited from seeing the BHPs. Both PCPs and nurses would recommend this service to other colleagues within college health and would like IBHC to continue in the future.

### Patient Satisfaction

Results of the satisfaction assessment indicate that a majority of the sample of patients were satisfied with their overall care at SUHS (see Table 3). A number of students did not remember filling out the screening questionnaire ( $n = 13$ , 17%) or meeting with a BHP ( $n = 26$ , 33%), so they did not rate their satisfaction or report on those elements of the IBHC program in Table 3. Of those who remembered completing the questionnaire, the majority reported that they talked to the medical provider about a topic on the screening measure ( $n = 57$ , 86%). Of those who remembered meeting with a BHP, the majority reported that they felt that the BHP helped them with the topic that they discussed ( $n = 38$ , 73%).

As shown in Table 3, overall participants reported a general level of comfort filling out the screening measure, were satisfied with the service provided by the integrated BHP, and would be willing to seek help from the BHP again if necessary. Although the average response was within a level of agreement

( $M = 3.6$ ), there was a greater level of variability when it came to having the service within the university health setting as compared with a specialty mental health clinic on campus, with a mode of 3.0 indicating a neutral response.

### Discussion

As expected, this study found that PCPs, nurses, and patients reported positive experiences with the two major components of the IBHC program: the implementation of a behavioral health screening assessment and the integration of BHPs into the university health center. The results provide further evidence that this model of care can be used on college campuses with success in terms of provider and patient satisfaction.

Similar to past research (Alschuler et al., 2008; Cowan & Morewitz, 1995), this study found that providers indicated that having brief screening items to assess sleep problems, depression, alcohol use, and tobacco use was helpful to their clinical practice. In addition, the assessment items reportedly helped stimulate discussions with patients about topics that would not have otherwise been discussed. Alschuler and colleagues (2008) found a similar result such that those providers whose patients

were randomly assigned to fill out a mental health questionnaire discussed those issues with their patients more than those providers whose patients were not assigned to fill out the questionnaire. Not only did providers perceive the screening questionnaire as having a high level of utility within their clinical practice, but the patients also reportedly were comfortable with filling out the questionnaire during their appointments.

Our findings highlight the importance of selecting an appropriate screening questionnaire that can be completed and scored quickly. A common concern among providers when discussing the implementation of regular screening for mental health issues is the time involved in integrating the screen within the clinical appointment (Thomas, Waxmonsky, McGinnis, & Barry, 2006). Within this study, a majority of the providers and nurses reported responses within the neutral range when asked about whether the screening measure took time away from other clinical duties. This is not surprising as the questionnaire obviously does add time to the patient visit, as noted in prior research (Alschuler et al., 2008). The typical patient appointment at this clinic is only 15 minutes, so allocating 1–2 minutes to review the screen with the patient would reduce the time left to focus on the patient's presenting complaint. The fact that providers endorsed a modal response within the neutral range suggests that the screening can be incorporated without a significant negative impact. One study on behavioral health screening found that using a measure that includes areas specific to college students (e.g., academic stress, risky sexual behavior) improved detection of students struggling with adjustment issues compared to a more general screening measure (Alschuler, Hoodin, & Byrd, 2009). However, the benefit of added sensitivity from a college-specific screening measure may not offset the cost of greater administration and scoring time. As completion time increases, the rate of compliance with screening may decrease.

Another element that was identified within this study was the importance of not only designing the screening questionnaire to be easily comprehended by patients but to make sure it is easily scored and interpreted by providers. Most providers did not indicate difficulty scoring or interpreting the screen. However, anecdotally

there were some problems with patients incorrectly self-scoring the PHQ-9; this may have led to some confusion or the need for providers to double-check or recalculate scores. The screening tool was later modified to discourage patients from totaling their own scores. To maximize screening coverage and efficiency, it is important to select brief, user-friendly, validated measures that are easy to score and interpret (Kirkcaldy & Tynes, 2006).

As university health centers work toward improving the identification and treatment of mental health issues as well as implementing recommended screening guidelines for depression, suicidal ideation, tobacco use, and alcohol misuse, this study suggests that an IBHC program may be one way to effectively accomplish this while maintaining provider and patient satisfaction. A previous study of behavioral health screening in university health centers found that screening increased discussion of behavioral health issues among patients and PCPs (Alschuler et al., 2008). However, PCPs reported that they did not have the time or the expertise to adequately address behavioral health issues with patients, but they were open to collaborating with BHPs. Likewise, our results suggest high willingness to refer patients to BHPs to improve attention to behavioral health issues. Thus, the IBHC program can help PCPs deal with positive screens by providing the integrated BHPs, who are trained to assess mental health issues and provide brief treatment on-site or facilitate a referral to a specialty mental health clinic.

Regarding the integrated BHPs component of the IBHC program, PCPs also strongly indicated that their patients benefited from the services provided by the BHPs. The providers felt that having the integrated BHPs helped patients receive treatment faster (compared to referring them to specialty mental health) and that the BHPs functioned as part of the overall care team. All of the providers reported that they would strongly recommend the IBHC to other colleagues working in college health. Taken together, these results indicate satisfaction among the medical providers, which is essential for the success of IBHC. Strong buy-in on the part of PCPs is needed to sustain the implementation of a new clinical program like IBHC, which requires procedural changes and additional effort (i.e., reviewing screens, referring



patients to BHPs). Acceptability among the nurses is also important, as they were the ones responsible for offering patients the behavioral health screens in our IBHC program.

Similarly, satisfaction and acceptability were high among patients. Patients who were seen by BHPs reported feeling comfortable with the services received and were willing to be seen again should the service be needed in the future. These results corroborate Westheimer and Steinley-Bumgarner's (2008) finding that patients were accepting of referrals to BHPs. Patients may like the convenience of being seen quickly by BHPs in health centers. In the case of BHPs having open access schedules, patients can be seen immediately after their PCP visit, which eliminates the need for scheduling another appointment or returning to the health center; in contrast, specialty mental health centers may have long (e.g., up to 2–3 weeks) wait times (Mowbray et al., 2006). Also, health centers carry less stigma compared with specialty mental health settings. On average, the patients were comfortable seeking services at the university health center, but there was a greater level of variability suggesting some individual differences as to the comfort of seeking those services at a specialty mental health clinic.

### Limitations

Interpretation of the findings should take into account the limitations of the study. First, although slightly higher than that found in other research using similar methodology (Shih & Fan, 2009), our response rate for the patient satisfaction survey was 29%. The response rate may be improved by contacting patients soon after their final IBHC visit instead of at the end of each semester, which is generally a busy time for students. Second, a significant proportion of the patients did not remember completing the screening questionnaire or meeting with a BHP. Patients may not have remembered completing the screening questionnaire because it was a brief (i.e., 2–3 minutes) activity and/or because their health center visit was up to four months before completing the satisfaction survey. It is possible that the students who did not remember meeting with a BHP had a more neutral experience than the students who remembered the program. Thus, the satisfaction ratings could be artificially elevated because of this lack of data.

It is also possible, however, that these students did not remember the meeting with the BHP because they simply considered the components of the IBHC part of standard medical care. Authors have noted that primary care has become the “de facto mental health care system” (Kessler & Stafford, 2008, p. 9), so these students may have expected to discuss behavioral health problems during their visit and may not have perceived the BHP as different from a regular medical provider.

Third, patient data were obtained via anonymous self-report. Though this method of data collection was necessary because of the scope of this study, it prohibited collection of identifying information, including diagnostic information. The ability to compare satisfaction across diagnostic categories would have provided beneficial information, including whether patients with more severe diagnoses (e.g., major depressive disorder vs. adjustment disorder with depressed mood) had equally positive experiences with the program. In addition, the satisfaction ratings are limited to only those patients who were seen by an integrated BHP. Future research should compare satisfaction between patients seen within IBHC and patients seen within standard care (i.e., the PCP provides any treatment for behavioral health concerns or makes a referral to specialty mental health). Fourth, the provider and patient satisfaction measures were created specifically for this study. The limited range of response options (1–5) may contribute to restricted range/variability and ceiling effects. These limitations should not be ignored when considering the generalizability of the study.

Finally, the scope of this study did not allow us to obtain information on the clinical outcomes associated with the IBHC program. Although providers reported that patients benefited from meeting with BHPs, their perceptions were based solely on behavioral observations of and/or self-report from patients, not on clinical outcome data. Future research should evaluate the clinical effectiveness of interventions delivered by integrated BHPs. From an IBHC perspective, other markers of success that are worthy of future study include increased access to mental/behavioral health services, improved identification of mental/behavioral health issues through screening, increased referral uptake (i.e., BHPs referral attendance compared to spe-

cialty mental health referral attendance) attributable to colocation and “warm hand-offs,” improved provider communication (e.g., between BHPs and PCPs), reduced burden on specialty mental health centers from patients with sub-threshold or mild symptoms, and reduced burden on PCPs from repeat visits because of psychosocial issues.

## Conclusions

In summary, providers and patients indicated a high level of satisfaction with this IBHC program. Accordingly, providers are likely to refer patients to BHPs, and patients are likely to engage in brief treatment within the IBHC program. Given the increasing demand on university primary care clinics to address the mental health needs of students, IBHC offers a promising method whereby to address this need. Particularly in light of data that indicate that most college students do not seek needed mental health treatment (Rosenthal & Wilson, 2008), the finding that IBHC patients would feel comfortable seeing a BHP again in the future is a positive step toward making mental health care more accessible to patients who need treatment.

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