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# Evaluation of a Behavioral Health Integration Program in a Rural Primary Care Facility

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Evaluation of a Behavioral Health Integration Program  
in a Rural Primary Care Facility

Thesis submitted to  
the Graduate College of  
Marshall University

In partial fulfillment of  
the requirements for the degree of  
Educational Specialist  
in School Psychology

by

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Marshall University

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## ABSTRACT

### Evaluation of a Behavioral Health Integration Program in a Rural Primary Care Facility

By Tina W. Billmeyer

Behavioral or mental health has historically been seen as a separate entity from medical or primary health care. With the increased utility of psychotropic medication, more and more patients are presenting to their primary care provider with behavioral health issues prompting the healthcare field to look for methods to integrate medical and behavioral health services. The current study examined the effectiveness of a pilot program that attempted to integrate services at a rural primary care clinic. The study asked whether participation in the program resulted in improved scores on a questionnaire of perceived health status and whether participating medical providers were satisfied with this integrated model. Results indicated that patient health status scores significantly improved at the conclusion of services. Analysis of qualitative data indicated high levels of provider satisfaction with Behavioral Health Consultation services including the quality of consultations and perceived helpfulness to patients.

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## CHAPTER ONE: BEHAVIORAL HEALTH INTEGRATION

Mental or behavioral health has historically been seen as separate entities in medical care. When behavioral health issues arise, the primary care provider (PCP) would either treat the patient with medication or refer the patient to a mental health specialist. In the 1980's managed behavioral health care organizations were formed in an attempt to manage the rising costs associated mental health specialties (Gray, Brody, & Johnson, 2005). These managed care "carve-outs" prompted the movement of mental health care from inpatient to outpatient services with increased emphasis on brief therapy. There was what seemed to be temporary cost control until a resurgence of costs in the late 1990's. This resurgence coincided with the increased utility of psychotropic medications, prescribed by the PCP.

Use of psychotropic medication had a large impact on the role of the PCP and prompted the return of behavioral health issues to the primary care setting. Data presented by Olfson, Marcus, and Druss (2002) provided a look at the magnitude of the number of patients with mental health issues in primary care. They reported that the number of patients treated for depression tripled from 7.3 patients per thousand in 1987 to 23.3 per thousand in 1997. In that decade the percentage of patients receiving medication doubled from 37.3% to 74.5 % and the percentage of patients receiving treatment from a PCP increased from 68.1% to 87.3%. In essence this was the start of a change in mental health from a specialist system to a PCP system.

There continues to be increased focus on behavioral health issues in primary care. Behavioral health issues range from ADHD, depression, and anxiety to various issues such as smoking cessation and substance abuse. It is often the primary care physician

that is called upon for the medical management and treatment of such disorders. A review of the research has indicated that as much as 50% of all formal mental health care in the United States is delivered by PCPs (Strosahl, 1998). Another study estimated that as many as 70% of primary care visits are somehow related to behavioral health needs (Fries, Koop, & Beadle, 1993). Behavioral health issues do not affect only adults. Studies have estimated that between 14 and 20% of children and adolescents experience significant behavioral health problems (Williams, et al., 2004). It was estimated that 2% of these children were seen by mental health specialists. In contrast, approximately 75% of children with behavioral concerns are seen in a primary care setting.

The data on the prevalence of behavioral health-related issues being seen in primary care settings alone suggests the need for a more appropriate model of service delivery for behavioral health. As primary care practitioners attempt to address behavioral health needs, obstacles continue to appear. Gray et al. (2005) listed the following problems: (a) referral to mental health specialists has become increasingly difficult, (b) PCPs have limited training in the recognition and management of mental health disorders, (c) recognition, assessment, and management of mental disorders are difficult to accomplish in the time frame of a PCP office visit, and (d) mental health care may not be compensated. Additionally, the shortage of mental health providers, stigma attached to mental health, under funding of the public mental health system, and disparate insurance benefits have been cited as reasons for the low number of patients receiving specialty mental health (Williams et al., 2004). These challenges have led primary care practitioners to look for new methods to address the behavioral health needs of their patients.

### *A Model of Integration*

In efforts to design collaborative care, two general systems of behavioral health integration have been identified: (a) co-locating a specially trained behavioral health care provider in a medical setting, and (b) integrated care involving the training of behavioral health care providers to outreach high medical utilizers (O'Donohue, Cummings, & Ferguson, 2003). In reviewing the literature on co-locating behavioral health specialists in primary care, Gray et al. (2005) found modest effects on referral and treatment, but overall high levels of satisfaction from PCPs. Despite provider satisfaction, co-location of behavioral health services results in continued problems similar to those with referral to outpatient specialists. Co-location is often insufficient and reaches only a small proportion of the patient population that primary care providers identify as needing behavioral health care services (Runyan, Fonseca, & Hunter, 2003). This leaves many primary health care sites exploring alternative forms of integration.

A prominent name in the literature on behavioral health integration is Kirk Strosahl, Ph.D. He has proposed a framework for integration often referred to as the Primary Mental Health Care Model. This model has been utilized by large health care systems including The Group Health Cooperative, Kaiser Permanente, and the United States Air Force (Gray, et al., 2005; Strosahl, 1996). Strosahl's model of integration calls for behaviorally based interventions within the primary care setting (Strosahl, 1996). He proposes that empirically supported, time-limited behavior therapies can be effective with a wide range of mental disorders and psychosocial problems encountered in primary care.



An essential component of his model is the use of behavioral interventions for primary, secondary, and tertiary prevention.

Horizontal and vertical integrative approaches are essential parts of Strosahl's model (Strosahl, 1998). A horizontal approach attempts to provide a general response to the diverse needs of primary care patients. The goal is to provide a large volume of brief, targeted psychosocial services. A vertical integration approach involves providing targeted, specialized behavioral health services to a well-defined population (e.g., patients diagnosed with depression). By maximizing both horizontal and vertical integration, Strosahl proposes that integrated care can achieve several goals including the following (O'Donohue, Cummings, & Ferguson, 2003):

- 1) improving the recognition of behavioral health needs
- 2) improving collaborative care and management of patients with psychosocial issues in primary care
- 3) providing an internal resource for PCP to help address a patient's psychosocial concerns or behavioral health issues without referring to a specialty mental health clinic
- 4) providing immediate access to behavioral health consultants with rapid feedback
- 5) improving the fit between the care patients seek in primary care and the services delivered
- 6) preventing more serious health problems through early recognition and intervention

7) triaging into more intensive specialty health care by the behavioral health consultant

Strosahl (1998) considers his model unique because its primary purpose is two-fold. The main focus is to provide direct consultative services to primary care providers, secondly as needed the behavioral health consultant (BHC) engages in comanagement (with the primary care provider) of patients who require more intensive services. The model is consistent with the philosophy of primary care intervention which involves early identification of problems, quick resolution, long-term prevention, and wellness. The behavioral health consultant is seen as part of the primary care team. It is a consultation model in which the behavioral health consultant helps develop and support the interventions of the PCP.

There are core components of Strosahl's integration model (Strosahl, 2001). Consultations and targeted interventions are designed to be part of the first level of care for patients with behavioral health needs. Visits are to be brief (15 to 30 minutes), limited in number, and provided in the same area where medical services are delivered. He proposes that patient contacts can occur in the examination rooms as a way to make the service appear as a routine part of the medical service. The goal is to remove the stigma associated with behavioral health services. Characteristics of the Primary Mental Health Care model are presented in Table 1.

Table 1.

Characteristics of the Primary Mental Health Care Model

Dimension	Characteristics
BHC's Role	<ul style="list-style-type: none"> <li>-BHC seen as part of primary care healthcare team</li> <li>-BHC referred to as a behavioral specialist, not “psychotherapist” or mental health provider</li> <li>-BHC shares knowledge, provides options and collaborates with patients on healthcare decisions</li> <li>-PCP retains primary responsibility for care</li> </ul>
Referral Structure	<ul style="list-style-type: none"> <li>-Patient referred by PCP for suspected behavioral need or condition</li> </ul>
Session Structure	<ul style="list-style-type: none"> <li>-15 to 30 minute visits</li> <li>-Limited number of visits (typical cases 2 to 5 visits)</li> </ul>
Assessment Structure	<ul style="list-style-type: none"> <li>-Brief assessment focused on presenting problem</li> <li>-Emphasis on functional status</li> </ul>
Intervention Structure	<ul style="list-style-type: none"> <li>-Lower intensity, longer interval between sessions</li> <li>-Visits conveniently timed around PCP visits</li> <li>- Long-term follow-up care reserved for high-risk cases</li> </ul>
Intervention Methods	<ul style="list-style-type: none"> <li>-Simple, specific behavioral or cognitive interventions</li> <li>-Interventions can be supported by PC clinic in ongoing care</li> <li>-Patient education and self-management used frequently</li> <li>-Emphasis on home-based practice to promote change</li> <li>-May involve PCP in visits with patient; always work with PCP to reinforce BHC's interventions and vice versa</li> <li>-Refer to specialty care if indicated</li> </ul>
Documentation and Feedback to PCP	<ul style="list-style-type: none"> <li>-Brief notes documented in primary medical record only</li> <li>-Same day feedback (typically verbal) to PCP</li> </ul>

As noted, this model of integration has been utilized by large health care systems. Professionals involved in the integration program for the Air Force Medical System looked at effectiveness of this model by focusing on satisfaction of PCPs and patients (Runyan et. al, 2003). Satisfaction surveys were given to all patients seen by the BHC

for one month (n=76) and to PCPs working in the pilot clinics (n=34). This study found high rates of satisfaction from both patients and PCPs.

## CHAPTER TWO: NATURE AND SCOPE OF CURRENT STUDY

### *Program Description*

E.A. Hawse Health Center is a non-profit federally qualified health center located in the eastern side of Hardy County in the rural Eastern Panhandle section of West Virginia. The center provides medical, dental, and behavioral health services. The mission of E.A. Hawse is to provide comprehensive health care services to all people. The center began with medical services and expanded to add dental care. As the need for behavioral health services became clear, services were expanded to include a school-based mental health program. As the number of patients seen at E.A. Hawse steadily increased, demands for additional behavioral health services also increased. Specifically, the primary care providers expressed concern about their patients needing more comprehensive care to include services to address behavioral health needs. Prior to an integration project, school aged children and their families were referred to the center's school-based mental health program or to specialists in the area. PCP's felt that there was still a large portion of patients being underserved, and this prompted the center to explore behavioral health integration.

The behavioral health integration pilot program was implemented at E.A. Hawse as a 1 year trial, beginning 11/1/04 and continuing through 11/1/05. A State grant was obtained to provide funding for the pilot program. After reviewing the literature on behavioral health and primary care integration, administrators at E.A. Hawse and members from the West Virginia Primary Care Association opted to implement the behavioral health consultation model proposed by Kirk Strosahl, Ph.D. The model

followed the core characteristics described by Strosahl and colleagues as previously outlined in the literature review.

At the time of the pilot program, the primary care provider staff employed at E.A. Hawse consisted of four medical doctors, 3 specializing in family practice and the other specializing in gynecology, a physician's assistant, and a family nurse practitioner. The family nurse practitioner ended her contract with the center prior to the completion of the behavioral health integration pilot. Additionally, professional staff included a licensed clinical social worker and licensed social worker. A licensed psychologist was hired for the Behavioral Health Consultant (BHC) position. As part of the integration model, training of the BHC and medical providers was conducted by Kirk Strosahl, Ph. D. at the beginning of the pilot year. In addition, two on-site training sessions by Dr. Strosahl were held with the BHC as well as ongoing program consultation via telephone.

### *Purpose*

The purpose of the current study was as an evaluation of the effectiveness of the behavioral health integration program implemented at E.A. Hawse. Two primary questions are addressed in this study: 1) Did participation in the BHC program result in improved scores on a questionnaire of perceived health status, and 2) Did provider satisfaction with the BHC program increase at the end of the pilot year?

### *Participants*

Regarding the question of health status, participants in this study included patients at E.A. Hawse Health Center who were identified by their primary health care provider as having a behavioral health need (e.g., depression, anxiety, chronic pain, diabetes for which lifestyle changes would be beneficial) between the time span of 11/1/04 and

11/1/05. Any patient seen by a provider at E.A. Hawse had a chance of being referred to the BHC depending on the patient's presenting problems. For the purposes of this study, only patients who returned for follow-up visits with the BHC were included. Several patients did not return for a second visit for various reasons (e.g., financial concerns, lack of perceived need, time factors). There were also patients who presented as in a state of crisis. In such cases, it was not always appropriate or possible to complete a DUKE questionnaire. Thus, the two requirements for participation in this study included repeat visits with the BHC and DUKE questionnaires completed at the onset and outset of services.

A total of 63 participants were included in this study. Ages of patients ranged from 13 to 81 years. The average age of participants was 36 years and the median age was 33 years. Patients had to participate in follow up visits with the BHC. The number of visits for patients ranged from 2 to 12 with the average being 3.7 visits and the median being 3.

Regarding the question of provider satisfaction, the five medical providers at E.A. Hawse served as participants. At the onset of the program, six providers were employed, but one terminated her position prior to the completion of this study.

### *Method*

#### *Health Status*

In order to examine patient health status, the DUKE Health Profile was utilized. The DUKE is a 17-item self-administered or interviewer-administered questionnaire developed and validated in the primary care setting to measure patient-reported health-related quality of life (i.e. functional health status) during a one-week time period

(Parkerson, 2002). The 17 items are used separately and combined to make up six scales including the following: physical health, mental health, social health, general health, perceived health, and self-esteem. For the purposes of this study, the general health scale was analyzed. The general health scale represents combined physical, mental, and social health by averaging the scores for those three scales. It was felt by the medical staff that this would provide the best measure of overall health status.

The DUKE was given to each patient during every visit. The current study looked at the patient's General Health Status score on the DUKE completed at their first visit with the BHC and the same score on the DUKE completed during their last visit with the BHC. Pre- and post- scores were analyzed using a 2-tailed t-test of dependent means or paired samples.

#### *Provider Satisfaction*

A Medical Provider Satisfaction Survey was developed at the onset of the program. The survey consisted of questions that ask for ratings on various components of the medical providers' perceived ability and confidence to handle issues involving mental disorders, psychosocial concerns, and need for behavioral change. The survey also examined providers' satisfaction with behavioral health consultation services. Ratings were performed using a Likert scale. The survey was given to medical providers (n=6) at approximately two weeks after the start of the pilot program. This time was chosen to allow PCPs to become familiar with the concepts of the program and to allow brief involvement with the BHC. Surveys were distributed to PCPs at the end of the pilot year for completion (n=5; one provider was no longer employed). Given the varied nature of the survey questions, responses were analyzed qualitatively.



### *Statement of Hypotheses*

It was hypothesized that patient health status scores, as measured by the general health scale of the DUKE, will change from the first patient visit to the last patient visit as a result of participating in the Behavioral Health Consultation program. Additionally, it was hypothesized that primary care provider satisfaction would increase by the end of the pilot program.

## CHAPTER THREE: RESULTS

### *Health Status*

After collecting data, a 2-tailed t-test of dependent means was conducted to determine the significance of the initial and final scores from the general health scale of the DUKE. Results of this study supported the nondirectional hypothesis reflecting a statistically significant difference between the means of the pre-test scores (mean = 40.1429, SD=18.02) and post-test scores (mean = 49.5238, SD=19.63);  $t = -4.173$ ,  $p < 9.53 \times 10^{-5}$ . The level of significance was highly indicative of participation in the BHC program resulting in improved health status scores.

### *Provider Satisfaction*

Responses on the provider satisfaction survey at the onset and end of the pilot program were analyzed qualitatively. Specifically, only questions that examined the providers' perception of their own ability to recognize and address patient behavioral health needs and questions that examined overall satisfaction and effectiveness of the BHC program were analyzed. The first question asked, "How satisfied are you with the ability of the medical team to address the needs of patients with mental disorders, addictions, and other psychosocial problems?" At onset, 60% of providers responded pretty satisfied, while the remaining providers responded slightly and somewhat satisfied. At the end of the program, satisfaction ratings on this question had increased to 80% responding pretty satisfied. The next question asked, "How effective are you the provider at addressing such issues as mental disorders, addictions, and other psychosocial problems?" There was little change in responses when comparing pre- and post- surveys.

One provider's rating increased from not effective at all to somewhat effective. The remaining providers had pre- and post- ratings of somewhat effective.

The remaining questions examined satisfaction and effectiveness of the BHC program. One question asked "how helpful have the behavioral health consultations been for your patients?" At the end of the program, 100% had responded that consultations were very to extremely helpful. Two provider responses had increased from somewhat to very helpful while the remaining provider responses did not show change from onset to end. The next question asked providers to rate the quality of the consultation services. At the end of services, 60% rated the quality of services as good and 40% rate the quality as excellent. Little change was noted from the onset of services. The next question asked "how satisfied are you with having BHC services in your clinic?" Sixty percent responded very satisfied and 40% responded completely satisfied with no change pre/post. The final question that was examined asked whether or not the provider would recommend to other medical colleagues that they adopt this BHC model in their practice. There was no change when comparing responses at onset and end, with 60% responding that they would probably recommend the model and 40% responding that they would definitely recommend the model.

## CHAPTER FOUR: SUMMARY AND DISCUSSION

In summary, the current study examined the effectiveness of a behavioral health integration program implemented at E.A. Hawse Health Center. Specifically, two questions were addressed with regards to the implementation of this program. The first question examined whether participation in BHC services resulted in changes in patients' scores on a questionnaire of perceived health status. Results indicated a significant improvement in health status scores obtained from patients' first to the patients' last visit with the BHC.

The second question examined provider satisfaction with the program. Overall results indicated that providers felt fairly satisfied with both their own and their medical team's ability to address behavioral health needs of patients. Results also suggested high levels of satisfaction with BHC services including the quality of consultations and perceived helpfulness to patients. Providers at this clinic would recommend this model of integration to colleagues. It was noted that the level of change in provider perceptions was minimal from the onset of the program to the end. This was likely attributed to the high ratings of satisfaction at onset. The medical providers were instrumental in seeking out participation in an integration program, and thus at onset they were very excited about the program which was reflected in their ratings. Throughout the program, provider feedback indicated that the accessibility and quick response time of the BHC were key components to its success. Providers also reported that the ease of referral to the BHC helped save them time when dealing with patients with complex behavioral needs.

Although this study yielded positive results of the program, as an evaluation there are several limitations to this evaluation. Let's first look at changes that could have resulted in a more effective program evaluation. One of the most important aspects of a program evaluation is formulation of an objective research question and location of instruments that appropriately and specifically measure the variables set forth in the research question. At the onset of this program, the research question was more generally stated to look at how patients and providers were impacted by BHC services. Additionally, the instruments selected for use in this pilot program (i.e., DUKE Health Profile, Medical Provider Satisfaction Survey) were predetermined by Dr. Strosahl and had been utilized in other integration programs. It was felt that these instruments were not the most effective in lending themselves to answer the posed questions. As a positive, the DUKE measured how a participant was feeling on that particular visit or what he/she was doing at that time eliminating some of the systematic biases associated with pre- and post- testing. For example, practice and fatigue effects should have had little impact on results of patient health status scores. However, the questionnaire did not provide specific information on symptom reduction, medication usage, or other factors that would objectively indicate improved health status. The design of the Satisfaction Survey was flawed in that it did not consistently measure the same content, and the available responses varied to such a degree that it was difficult to quantitatively analyze the survey data. For example, the survey attempted to assess various factors including provider perception of their own ability to handle behavioral health issues, provider effectiveness, satisfaction with BHC services, and satisfaction with aspects of the consultant (e.g., rating timeliness of feedback, quality of service, access). For the current

study, each individual question on the satisfaction survey could have been analyzed quantitatively to determine pre- and post- changes, but it was felt that because of the high level of satisfaction at onset the quantitative analysis would not have reflected changes that did occur. The qualitative analysis provided a look at the providers' thoughts and opinions of the program.

Another flaw with the current study relative to examining patient health status was the lack of a control group. Participants in the study included only patients who returned to see the BHC, but there was no data on those that were referred and did not show for appointments or who did not return for their follow up visits. There was a large portion of patients who did not follow up with BHC referrals. The lack of a control group poses the question of their health status and whether improvements resulted without participation in the BHC program. Non participating patients could have easily been recruited to serve as a control group to help determine the actual impact of the treatment.

As for evaluation of the BHC program overall, there were several factors that made the model weak. One must first recognize that the model was implemented in a rural Appalachian community, and the culture of the community must be considered. There has always been a stigma associated with mental or behavioral health services, and this stigma is strong within a rural community. To diminish the stigma, the model proposed that the consultant be identified as a colleague and not directly addressed as having anything to do with behavioral health. The controversy that was brought about by this practice was whether not identifying behavioral health was somewhat misleading to the patients. There was also the question of patient choice. On one side of the argument,

presented by the BHC model, it was proposed that the provider was requesting the consultation, and thus it should be treated as any other request, such as that for blood work. On the other side, there was concern about the patient being fully informed about the service. When a patient would see the BHC, it would then become clearer that the consultation was for behavioral health and patient reactions varied. There was the concern of how the patients' reactions would affect the relationship with their medical provider. It is unclear how much of an impact stigma had on return rates of patients, but it obviously is something that needs to be considered when implementing this model in the future.

A second barrier, which was identified as very significant, was cost. Feedback from patients indicated that many felt the BHC service was useful, but they often could not afford the extra cost. Cost was particularly important considering that many of the patients were low income and that the service was not covered by all insurances. There was discussion on how to best address the reluctance to pay for the service. The health center did receive grant funding for the pilot program, and thus there was discussion as to whether there should be a charge for the service during the grant period. This brought up the issue of sustainability of the program following the grant period. As part of the guidelines of the grant, it was agreed that patients having Medicaid and Medicare would not be charged for the BHC service. Private pay and those with other insurances would be responsible for payment. It was also decided that for every patient, regardless of payment source, the initial visit would be conducted at no charge. It was hypothesized that patients would attend the first free session and then recognize the value of the service increasing the likelihood of a return visit. However, in actuality it may have been that

patients attended the first appointment, and cost deterred them from returning. The “cost issue” may have significantly affected return rates of patients to the BHC, and as a result eliminated them from the study sample which may have significantly affected overall results.

A third factor to examine is the model of brief therapy itself. The brevity of sessions can be considered both a strength and weakness of the program. Models of integration need to consider brevity because of the fast-paced nature of a primary care setting. Availability of the BHC is important, and if the BHC does not adhere to specific timelines their accessibility decreases. During this program, providers initially voiced concerns that utilizing the BHC would slow them down, but they remarked that they found otherwise. However, the brevity, at least initially, does not allow a behavioral health provider to establish the rapport that is essential in gaining the trust of a patient. In a fast-paced, urban environment, the brevity would likely be more accepted. In the rural culture, a patient may require more time to feel comfortable with a provider in order to reveal personal information that is often vital in understanding behavioral health needs. This community is one that values personal relationships, which in turn may have resulted in resistance by the patients. Once that patient-provider relationship was established the brief sessions would likely be more frequent and effective.

It should also be noted that the grant was not renewed at the end of the pilot year. The primary reason cited for not renewing the grant was the slow progress of the program. Based on implementation of the BHC model in other areas, the goal was for the BHC to see a minimum of 8 patients per day, and the number seen at E.A. Hawse was not near this. A criticism by the program designer was that patients were not being referred



as frequently as they should have been. This included referral of more patients with chronic medical problems that could benefit from behavioral lifestyle changes. Therefore it was felt that the program did not truly reflect what a BHC program could do. In response, the program team at E.A. Hawse disagreed that patients were not being referred but rather it was discussed that there was not a large enough patient base in this small community center with only five medical provider. It was also reiterated that patient choice, which was impacted by the various factors discussed in this summary, dictated the patient load of the BHC.

In conclusion, this study indicated positive changes as a result of the implementation of the BHC program. However, as this discussion has presented, there were several variable that impacted the program, and several changes that could have improved program evaluation. With the increasing demands of cost and time effectiveness placed on both medical and behavioral health providers, there is support for integration. If this study were to be replicated, changes are suggested including a more clear definition of questions to be addressed. Additionally, more appropriate measurements should be selected. These may include measures that assess reduction of symptoms or psychotropic medication use. A control group would provide vital information as to the effectiveness of the program. The model of integration should be adjusted to consider the factors that impact a rural community as previously discussed. Finally, one must recognize that change takes time. Integration of medical and behavioral health services requires a paradigm shift. As the program progressed, there was more talk and acceptance of the BHC program in the community, yet it was still something new and uncertain to patients. One year may not have been sufficient to

develop such a program, and if it were to have continued, more data could have been collected to evaluate effectiveness. Thus longer term studies may yield more pertinent data.

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