

INTEGRATING BEHAVIORAL HEALTH CARE INTO HIV/AIDS CARE CLINICS IN PUERTO RICO*

INTEGRANDO SALUD CONDUCTUAL EN CLÍNICAS DE CUIDADO DE VIH/SIDA EN PUERTO RICO

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ABSTRACT

People living with HIV/AIDS (PLWHA) are more likely to have mental health needs than the general population. Integrating behavioral health services in the primary care scenario has the potential to improve the physical and psychological well-being of PLWHA. However, this integration requires addressing fundamental issues, such as clinicians training, the development of new administrative processes, and addressing infrastructure issues. We describe the Primary Care Psychology Program (PCPP) in Puerto Rico created to address the mental health needs of PLWHA. PCPP provides care in a multidisciplinary and collaborative manner that focuses on HIV, uses behavioral measures to drive clinical decisions, and provides evidence-based treatments. In addition, the article presents preliminary findings from a retrospective chart review that evidenced improvements of CD4 counts, viral load, and depressive symptoms among PLWHA. We conclude that the primary care behavioral health model has the potential to address the complexities in HIV-care and improve the quality of life among PLWHA in Puerto Rico.

KEYWORDS: Behavioral Health, Health Psychology, HIV, Hispanic/Latino, Primary Care.

RESUMEN

Las personas que viven con VIH/SIDA (PVVS) pueden experimentar mayores necesidades de salud mental en comparación con la población general. La integración de servicios de salud conductual en cuidado primario tiene el potencial de mejorar el bienestar psicológico y físico de las PVVS. La integración de estos servicios requiere atender retos fundamentales, como la necesidad de adquirir conocimiento nuevo, desarrollo de procesos administrativos, y atender asuntos de infraestructura. En este artículo describimos el Programa de Psicología de Cuidado Primario (PPCP) desarrollado en Puerto Rico con el objetivo de atender las necesidades de salud mental de las PVVS. El PPCP sigue un modelo de cuidado integrado completo que provee atención multidisciplinaria desde una orientación colaborativa enfocada en el VIH, hace uso de instrumentos específicos al VIH que informan las decisiones clínicas, y provee tratamientos basados en evidencia. Se presentan resultados preliminares de una revisión de expediente retrospectiva en donde se evidencia mejoría en CD4, carga viral y síntomas de depresión entre PVVS. El modelo de cuidado integrado de salud conductual en cuidado primario presenta el potencial de atender las complejidades en el cuidado del VIH y mejorar la calidad de vida de las PVVS en Puerto Rico.

PALABRAS CLAVE: Cuidado Primario, Hispanos/Latinos, Psicología de la Salud, Salud Conductual, VIH.

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There are more than 47,000 cumulative HIV/AIDS diagnosed cases in Puerto Rico (Puerto Rico Health Department, 2016). As of December 31, 2015, a total of 20,197 persons were identified as living with HIV not AIDS and AIDS (PLWHA) in Puerto Rico (HIV/AIDS Surveillance Division, PRDOH). The scientific literature has widely documented how people living with HIV/AIDS (PLWHA) are more likely to experience depression and anxiety which impact their quality of life (Pappin, Wouters, & Booyen, 2012; Sawyer, Ayers, & Field, 2010). In light of this, HIV/AIDS standards of care have moved to recommend the inclusion of behavioral health as part of routine health checkups (Substance Abuse and Mental Health Services Administration and Health Resources and Services Administration, 2016). As a result, many service programs began to include behavioral health as part of their day to day clinical flow. At the behavioral level, integrating behavioral health care for the treatment of HIV/AIDS has been associated with increased adherence (Gwadz et al., 2015; Kalichman et al., 2011; Safren et al., 2016) and reduction of stigma (Farber, Shahane, Brown, & Campos, 2014). At the psychological level, the inclusion of behavioral health care has proven effective in important areas such as suicide prevention (Vera et al., 2011) and depression (Butler et al., 2011; Safren et al., 2016; Vera et al., 2010).

In Puerto Rico, Ryan White Part B/ADAP Program is a critical piece of the Puerto Rico Department of Health's (PRDOH) HIV-services delivery system. Funds and resources allocated for the Ryan White Part B/ADAP Program help to support a system of nine regional HIV-specific primary care centers known as Transmissible Diseases Prevention and Treatment Centers (CPTET) by its acronym in Spanish. During the year 2016, these PRDOH CPTETs provided at least one direct medical service to 5,244 unduplicated enrolled persons with HIV as evidenced by their data base. Most of these

clinics in Puerto Rico function as the primary contact between the patient and the healthcare system.

During the past decade, behavioral health care has embedded itself in the provision of primary care services (Collins, Levis Hewson, Munger, & Wade, 2010; Dobbins, Thomas, Melton, & Lee, 2016). This model of services has been called integrated primary care or Primary care behavioral health. Primary care is defined as, "The provision of integrated, accessible healthcare services by clinicians who are accountable for addressing a large majority of personal health care needs, developing a sustained partnership with patients, and practicing in the context of family and community" (Institute of Medicine (US) Committee on the Future of Primary Care, 1994, p. 16). Understanding this definition, behavioral health has integrated into primary care as psychology and other clinical professions grow in their understanding of health as a biological, psychological, and social phenomenon. As part of these emerging models, primary care behavioral health has distinguished itself as a model to effectively manage the prevention and promotion of overall health among individuals and families (Barrett & Chang, 2016; Butler et al., 2011; Hill, 2015; Safren et al., 2016). Primary care behavioral health refers to the inclusion of behavioral care services in the usual clinical flow of a primary care practice (Peek, 2013). That is, when a patient arrives at its primary physician for a health checkup, he or she will receive some form of behavioral health care. This integration serves many functions, including among its most important, early identification of behavioral, psychological, and emotional issues as well as the behavioral management of medical conditions.

As primary care behavioral health programs proliferate, there is developing evidence of their benefits at the cost reduction level (Blount et al., 2007), patients'

satisfaction with services (Ede et al., 2015), and provider satisfaction (Miller-Matero et al., 2016). The integration of behavioral health care into medical services has also proven effective for the management of chronic health conditions, such as, HIV/AIDS, cardiovascular diseases, cancer and diabetes (Fisher & Dickinson, 2014; Martínez-González, Berchtold, Ullman, Busato, & Egger, 2014). Chronic illnesses seem to benefit from this model where the behavioral component of such illnesses is central to their management (Di Benedetto et al., 2014; Linardakis et al., 2015).

This manuscript will describe primary care behavioral health program implemented in Puerto Rico as well as preliminary quantitative data supporting its role addressing, viral load, CD4, and depressive symptoms among PLWHA on the island.

METHOD

In the following section, we will briefly describe the Primary Care Psychology Program (PCPP) as an example of a primary care behavioral health program. A brief account of PCPP's history is discussed first, followed by a description of its main components. The description of PCPP components is done within the conceptual framework of primary care. That is, the article describes how the components of the PCPP fit within the primary care service model definition. The procedures section will describe preliminary quantitative data gathered through a retrospective chart review study. The retrospective chart review was used to assess the preliminary outcomes of PCPP's ability to address physical and psychological needs (i.e. CD4, viral load and depressive symptoms) among HIV-positive CPTET patients.

Development of the Primary Care Psychology Program

The Primary Care Psychology Program (PCPP) is part of the Ponce Health Sciences University. It was created with the main goal of addressing the mental health needs of

PLWHA. PCPP started its operations in the year 2001 as a "co-located" service, where psychologists shared the same physical space, but maintained separate records, schedule, and their treatment plan was independent of that of the physician. In 2008, the program changed the model for the provision of services from co-located to fully integrated through a primary care behavioral health approach. In a fully integrated model, psychologists share the same physical space, use the same record and schedule system, and work on the same treatment plan as the physician. In 2010, through funds from the Ryan White Part B Program at the Puerto Rico Health Department, PCPP incorporated its clinical psychologists throughout 8 CPTET's across Puerto Rico. The program also serves as training site for advanced practicum students and pre-doctoral interns in clinical psychology.

Components of the Primary Care Psychology Program

The PCPP is conceptualized and practiced as fully integrated into the continuum of integration (Blount, 2003; Gatchel & Oordt, 2003). At the clinical level, this means that the clinical psychology staff shares the same treatment goals with the medical, nursing, and case management staff. As such, interventions are performed alongside other healthcare professionals. For example, when a patient's immunological status deteriorates, medical staff can evaluate the biological reasons for this change, and behavioral health staff (i.e. clinical psychologist) can evaluate any emotional contributors to this change. In this way, all providers are working on the same goal and need of the patient using their respective areas of expertise. Some of the strategies used to engage in this integration include brief case discussions, dual consultations, and constant communication with health staff. At the clinical level, integration also entails being available to staff for consultation and training. Sometimes health professionals wish to understand specific psychological issues in more depth. Consultation and training help all

health staff be more cognizant and prepared to manage the emotional and behavioral issues of their patients.

Integration is also manifested at the administrative level. Administrators from PCPP and the Puerto Rico Health Department's Ryan White Part B Program are in constant communication and perform joint tasks such as monitoring visits at the clinics, meeting with other administrative staff, and developing new initiatives such as training. Clinicians on their part are expected to participate in staff meetings at their clinics, and be integrated into their Quality Committees, where they discuss the clinic's progress towards performance measures. Having this level of integration ensures a clinical minded administration and administratively minded clinicians.

Conceptually, the PCPP can be categorized as primary care, in that it is population based. PCPP strives to capture the totality of patients with an HIV/AIDS diagnosis seen at the clinics. This is done primarily through screening measures. Screening includes the administration of The Patient Health Questionnaire (PHQ-9) (Kroenke, Spitzer, & Williams, 2001), Generalized Anxiety Disorder Assessment (GAD-7) (Spitzer, Kroenke, Williams, & Löwe, 2006), Drug Abuse Screening Test (DAST) (Skinner, 1982), and the Fagerstrom Test for Nicotine Dependence (FTND) (Heatherton, Kozlowski, Frecker, & Fagerström, 1991) by one of our behavioral health providers (i.e. clinical psychologist). Screening by a behavioral health provider serves many purposes including, normalizing the view of the psychologist as part of the health team, decreasing the stigma associated with mental health interventions, detecting subtle disturbances that may be missed by the screening measures, and enhancing the possibility of follow up visits when deemed necessary.

The PCPP can also be described as primary care for its approach to treatment.

Similar to primary medical care, patients receive screening, diagnosis, and the first line of treatment intervention, if needed. Screening focuses on the most common psychological and behavioral issues. Some of the most common clinical findings are issues with adherence to treatment, stigma, depression, anxiety, and family or social issues. The patient can access services through screening assessments, referral by another health professional at the clinic, or directly approaching the psychologist for a consultation. After an initial evaluation, if a patient displays symptoms related to a psychological or behavioral matter, a short-term, evidence based treatment is initiated. If symptoms do not recede, or in cases where conditions merit more intense treatment, patients are referred to specialty care at an outpatient or inpatient clinic.

PCPP bases its interventions on four main evidence-based treatment models: Cognitive Behavioral Therapy (CBT), Acceptance and Commitment Therapy (ACT), Solution Focused Therapy (SFT), and Motivational Interviewing (MI). Clinicians then choose the model most suitable to their patients' needs.

To illustrate how one of the integrated primary care interventions look, we will discuss the case of Johana (fictional name). Johana is a 22-year-old woman diagnosed with HIV and an Intellectual Developmental Disorder. Her primary caretaker is her grandmother who has many health conditions. Johana had not been taking her HIV medications but reported to the physician (Dr. A.) that she was taking them as prescribed. This proved frustrating to Dr. A. who had grown increasingly reprimanding in his approach. Dr. A. decided to ask the behavioral health provider (Dr. B.), to see Johana. After a brief interview, Dr. B. learned Johana had difficulties understanding and managing schedules, due in part to her intellectual challenges. She also discovered Johana had experienced some traumatic events during her adolescence. She

discussed the findings with Dr. A. along with recommendations about how to best approach questions related to adherence. During her visits, Dr. B. helped Johana identify and implement common helpful strategies, such as the use of alarm clocks and pill dispensers, to gain better control of her medication taking habits. Dr. B. also decided to engage a neighbor and an aunt in implementing other strategies for her wellbeing such as learning to read and to drive. Meanwhile, along with the medical case manager, Dr. B. communicates periodically with the pharmacy to make sure the patient is picking up her medications when the time comes. These interventions take place alongside Johana's visits to the CPTET for blood samples and medical checkups. Interventions are brief (i.e. 30-minute sessions) and focused on keeping Johana healthy and adherent to treatment. Dr. B. used a solution focused approach to help Johana identify her own strengths and competencies to be healthy. She also integrated family and neighbors who can be a great source of support for her and her grandmother.

Procedure

After Institutional Review Board (IRB) approval from Ponce Health Sciences University, we identified charts that met the following criteria: 1) be an individual diagnosed with HIV; 2) be seen for the first time at the immunology clinics during 2012 by the PCPP; and 3) the medical record had at least 2 depression measures completed using the PHQ-9 (during the first visit and a subsequent visit); 2 subsequent measures of viral load through patient's lab results; and 2 subsequent measures of CD4 count through patient's lab results. We used a sub-sample of 64 HIV-positive cases that received three visits with the PCPP psychologist from January 1, 2012 to December 31, 2012. The time between visits for an individual patient ranged between three to four months. Sixty-two percent of the cases identified were male and 38% female. Most of the patients were between the ages of 45 to 64 (57%). Ninety-

two percent met criteria to live under the federal level of poverty and most had no private insurance, but relied on the government health plan (81%).

Data were analyzed using SPSS V22.0 ("IBM SPSS Statistics for Windows," 2013). Categorical variables were analyzed with the Friedman test for non-parametric samples. Quantitative continuous data were compared using Paired Sample t-test. P-values < 0.05 were considered statistically significant. In addition, we analyzed the Cohen Index to measure the effect size.

RESULTS

CD4 Count

We assessed changes in CD4 among HIV-positive participants of the PCPP between a first, second, and last visit. There was a statistically significant difference between the CD4 count on the first visit ($M = 429.89$), second visit ($M = 544.72$) and last visits ($M = 504.84$) of treatment with the PCPP, $\chi^2(2, N = 61) = 15.095$, $p < .01$. The Kendall coefficient of concordance was .12. The CD4 count between the first and last session was statistically significant, $p < 0.01$, and between the second and last visit, $p = 0.02$. However, the difference in CD4 count between the first and second visit was not statistically significant $p < 0.23$. Thus, results suggest improvement of CD4 count among HIV-positive participants in our sample after receiving services at the PCPP.

Viral Load

To assess changes on viral load we used a Friedman test to compare changes on the first visit ($M = 67,749.67$), second visit ($M = 38,149.72$), and last visit ($M = 4,221.56$). The changes in viral load were statistically significant which suggest some improvement after the integration of PCPP to the treatment, $\chi^2(2, N = 64) = 33.33$, $p < 0.01$. Similar to the CD4 count, viral load was statistically significant between the first and last visit, $p < 0.01$, and between the second

and last visit, $p = 0.02$. However, viral load differences between the first and second visit were not statistically significant, $p = 0.11$. Results suggest that, after integrating PCPP to the medical care offered at the CPTET's, HIV-positive participants in our sample were able to significantly reduce their viral load.

Depressive Symptoms

We evaluated changes in depressive symptoms between the first and last visit to the PCPP. On average, participants experienced less depressive symptoms during the last visit ($M = 6.29$, $SD = 5.796$), than during the first visit ($M = 10.18$, $SD = 7.282$), $t(16) = 2.12$, $p = .05$. Cohen effect size index for changes in depressive symptoms was moderate ($d = .51$). Thus, results suggest that PCPP treatment was effective in decreasing depressive symptoms in our sample of HIV-positive patients.

DISCUSSION

PLWHA experience multiple challenges that range from physical to mental health needs. Behavioral health care providers at the primary care scenario are crucial to address PLWHA mental health needs and improve their quality of life. As suggested by our results, the primary care behavioral health model followed by PCPP, shows its potential to address depressive symptoms. Decreasing depressive symptomatology has the potential to positively affect other areas of treatment such as adherence. The increase in CD4 levels between the first and the last visit to PCPP, may suggest behavioral health plays a role in the immune system. Similarly, with the decrease in viral load observed between the first and last visits. There were no significant changes on CD4 or viral load between first and second visit, which could be related to the time-frame needed (of three to six months) to reach significant and stable changes (U.S. Department of Health and Human Services, 2014). Participants in this study were able to decrease depressive symptoms after three visits with the PCPP,

which may highlight the importance of behavioral health services for PLWHA.

Although the chart review results in this study are encouraging, this study is subject to several limitations. First, as a retrospective chart review and non-randomized study, we were not able to identify multiple factors that could be related to changes in CD4 and viral load. These changes could be related to factors such as new medication, adherence to treatment, among others that were not assessed. Second, we were not able to compare between groups to better understand the effect of the PCPP intervention on PLWHA outcomes.

Lessons

Integration of behavioral health care in the primary care scenario presents challenges at various levels. One of the challenges of behavioral health integration resides at the level of training. Although clinical psychologists have ample training, it cannot be assumed that traditional clinical skills are enough to integrate into medical settings. There is a learning curve for many clinicians entering integrated health settings. Therefore, the initial integration of a psychologist in a health setting must include ample supervision, support, and additional training.

Another lesson is derived from the fact that integration is a group effort. As such, it is important to address the concerns that other professionals may have. For example, worries about confidentiality, record management, and clinical flow. Managing concerns in a timely fashion is not always the task of the clinician. Administrators must be tuned into the feedback and concerns of other healthcare staff and be prepared to offer additional information when necessary. A third lesson stresses the importance of having space for clinicians to share experiences and address clinical and administrative concerns. At PCPP this is done as monthly team meetings where clinical psychologist and trainees from all the

clinics meet. Having clinicians share strategies has been a great source of strength for PCPP. Clinicians can help each other manage some common occurrences that may hinder integration (i.e. how to deal with low rates of referral and improve behavioral health provider and physician communication).

Finally, at the administrative level, we believe having a clinically informed administration can be a great asset to a team. One important example is the creation of effective and efficient clinical forms, and the review of screening measures, among others.

Challenges

The field of primary care behavioral health is rapidly growing. This rapid growth presents itself with growing challenges. One important challenge for service programs is to be able to successfully integrate practice based research to capture treatment effectiveness. Many models of research require a level of strictness that challenge the actual flow of many primary care clinics. Additionally, requirements for service funds and research funds are vastly different. For example, it would be very difficult for an experienced clinician or administrator to access competitive funds for research without ample research experience. This makes it difficult for many programs to access the resources necessary to scientifically prove their effectiveness and disseminate their findings. Future efforts could integrate research initiatives with project administrators and clinicians.

Another important challenge is the adaptation of evidence based models to the primary care context. This includes adapting interventions to the pace, timing, and frequency of visits in primary care settings. Several programs and initiatives exist regarding the provision of primary care behavioral health. The ones with more visibility include those that reached evidence based status. Many of these models share

the following shortcomings: 1) They are focused on a single issue. For example, Screening Brief Intervention and Referral to Treatment (SBIRT) is designed for identification and brief treatment of substance disorders (Agerwala & McCance-Katz, 2013). Behavioral health providers in primary care need to be prepared to deal with a vast range of psychological issues, just as family doctors are prepared to identify and manage a vast range of medical conditions. For this reason, we should strive to meaningfully integrate the need to provide evidence-based treatment for a vast range of mental health problems, with the primary care scenario flow; 2) Many evidence-based treatments do not consider the variability of health systems. Puerto Rico's health system differs in many ways to health systems in the United States and other countries. Although Puerto Rico has participated in federal funding for health, the same conditions for implementation do not apply. One example is the limited authorization of primary care doctors to prescribe common psychotropic medications. Many models of services developed in the US utilize the Primary Care Physician to prescribe the first line of treatment. In Puerto Rico, prescribing privileges for psychotropic treatment are limited for primary care physicians, restricting in many cases access to treatment.

Integration of behavioral health care for HIV-care in the primary care scenario is crucial and its contribution continues to be evidenced widely. Although multiple challenges and limitations have been identified, the PCPP has developed the bases to continue learning and improving the behavioral health care services to the PLWHA in Puerto Rico.

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