

Integrating Mental Health Services into Primary HIV Care for Women: The Whole Life Project

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SYNOPSIS

The high rate of mental health problems in HIV-infected women jeopardizes the health of this vulnerable population, and constitutes a mandate for integrating mental health services into HIV primary care. The Whole Life project—a collaboration of the departments of Psychiatry and Obstetrics/Gynecology at the University of Miami School of Medicine—successfully integrated mental health services into primary HIV care for women. This article describes the conceptual framework of the integration, implementation strategies, effects of the service integration, and lessons learned. Funded by the Health Resources and Services Administration (HRSA) as a Special Program of National Significance (SPNS), Whole Life efforts have been sustained beyond the demonstration funding period as a result of the changes brought about in organizational structures, service delivery, and the providers' conceptualization of health for HIV-infected women.

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Between 1991 and 1995, the number of women diagnosed with acquired immunodeficiency syndrome (AIDS) increased by 63%, more than any other group affected by AIDS.¹ An estimated 191,000 women have HIV/AIDS, nearly 19% of all cases.² While services for HIV-infected women have evolved from those for gay men, or from pediatric models emphasizing perinatal HIV transmission,³ these service models have little trans portability to women. Complex and gender-specific medical, psychosocial, and relationship factors complicate HIV-infected women's needs for care, and pediatric models may not be responsive to women's overall needs.

Women with HIV represent the poorest and most disenfranchised sectors of society—racial and ethnic minorities in urban inner cities disproportionately affected by poverty, crime, and social disorganization.⁴ Co-occurring psychiatric disorders, substance abuse, and interpersonal violence are endemic. In addition to medical care, psychosocial counseling, and case management services, HIV-infected women need access to mental health services, substance abuse treatment, and protective intervention from violence/abuse. Optimum care consists of women-centered service system models integrating a continuum of mental health, substance abuse, and trauma-related services with HIV primary care, specialty obstetrical and gynecologic services, psychosocial counseling, case management services for entitlement benefits, and concrete services for unmet basic human needs. Such systems can promote service access and utilization, treatment adherence, and reduction of morbidity and mortality.

To be successful, service delivery systems attempting to meet the needs of HIV-infected women should specify the conceptual framework or assumptions underlying the program model. Such an organizing framework facilitates coherent definition of effective treatments and interventions, allocation of resources and skills of multiple provider disciplines, determination of caseload volume and intensity of care, and linkage of the services provided to anticipated outcomes.⁵

The Whole Life project at the University of Miami/Jackson Memorial Medical Center (UM/JMMC) demonstrates such integration of mental health into primary care services. This article focuses on the Whole Life implementation process at the organizational level, and its effect on a primary care system for HIV-infected women, as well as lessons learned from this effort. The resulting clinical services and patient assessment protocol are described elsewhere.⁶

MENTAL HEALTH, SUBSTANCE ABUSE, AND ABUSE PROBLEMS IN PRIMARY CARE

Integration of mental health into health services is based on epidemiologic evidence that psychiatric disorders are over-represented in primary care,⁷ particularly mood and anxiety disorders and alcohol abuse/dependence.⁸ Between 40% and 50% of patients with diagnosable psychiatric disorders are treated by general medical providers.^{7,9} Women are more likely than men to have at least one or more psychiatric disorders, particularly mood or anxiety disorders.¹⁰ High rates for major depression, generalized anxiety and panic disorders, alcohol abuse/dependence, and lifetime sexual assault are reported in obstetrical and gynecological settings.¹¹

Rates for psychiatric disorders among HIV-infected women are higher than for their non-infected counterparts in primary care. The rate for any psychiatric disorder has been found to be as high as 53%.¹² Major depressive disorders range from 15% among pregnant women¹³ to 18% in those not pregnant.¹⁴ Anxiety disorders are documented in nearly 11% of HIV-infected women,¹⁵ and posttraumatic stress disorder (PTSD) affects as high as 35% of HIV-infected women.¹⁶ Substance abuse disorders are also quite high, with estimates ranging from 25% to 66% among HIV-infected women.^{13,17} These studies demonstrate the prevalence only of frank psychiatric disorders; sub-clinical mental health problems are substantially higher. Standardized symptom checklists or epidemiological measures show an even greater prevalence of mental health problems, with moderate to severe depression affecting 42% of HIV-infected women.¹⁸

Mounting evidence that psychosocial factors influence immune-mediated disease^{19,20} underscores the impact on morbidity that undetected and untreated mental health problems may have on HIV-infected women. In women with CD4 counts of <500 and viral loads of >10,000, chronic depressive symptoms are associated with a greater decline in CD4 counts.²¹ Trauma events account for a significant proportion of variance in the CD4/CD8 ratio. Meeting criteria for PTSD is associated with even greater reduction in the ratio,¹⁶ and abused women show accelerated HIV disease progression.²² The mortality rate for HIV-infected women with chronic depressive symptoms is 54%, but 48% for those with intermittent symptoms, as compared to 21% for those with limited or no depression.²¹ Protease inhibitor regimens are a particular concern in HIV-related morbidity and mortality given the demonstrated influence of mental health-related factors on medication adherence²³ and the potential

for drug-resistant viruses to emerge as a result of non-adherence.²⁴

This nexus of co-occurring psychiatric disorders, substance abuse, and trauma attests to the importance of developing integrated service delivery programs for HIV-infected women. Such systems can contribute to improved consent for HIV testing, early entry into HIV primary health care and prenatal services, more consistent adherence to HIV combination medication therapies and clinical trials, improved access and adherence to zidovudine to prevent perinatal transmission, reduction in HIV-related opportunistic illnesses, and improved longevity and quality of life.

INTEGRATED SERVICE MODELS: DEFINITIONS AND CHARACTERISTICS

Integrated service systems are, necessarily, multifaceted approaches to providing services for patients with complex needs. In services integration, two or more entities develop linkages to improve outcomes for their clients. Combining efforts to serve clients more responsively means that providers from multiple disciplines share referrals, collaborate on case planning, and activate the resources of multiple agencies rather than constraining clients to a single agency or program.^{25,26} In non-integrated systems, services are fragmented, duplicated, and thereby inefficient, costly, and often not in the client's best interests. The merit of integrated services is their ability to serve multi-problem patients in a comprehensive manner; provide greater service accessibility, coordination, continuity, and quality; achieve early intervention and prevention; and reduce duplication, inefficiency, and costs.^{27–29} Services coordination and integration also result in improved client outcomes in numerous domains, including medical adherence, fewer out-of-home placements and hospitalizations, and heightened satisfaction with services.^{28–34}

Systems and services: the need for a dual perspective

Although the terms *services integration* and *systems integration* are often used interchangeably, they have important differences. Further, achieving integrated services requires systems-level changes, and these must often proceed simultaneously with services intervention efforts. *Systems* are broad, problem-focused domains—like the health care system or mental health system, each with its array of inpatient, outpatient, and specialty or community-based facilities. *Services* constitute interventions and programs within specific

settings, whether independent agencies or divisions within large, complex organizations. Systems, as well as networks of services, can be more or less formalized²⁷ and may vary in characteristics such as centralization, cohesiveness, and coordination.^{29,32} *Systems integration* assumes that inter-domain coordination and collaborative planning, programming, resource sharing, communication, or other forms of partnering are administratively sanctioned toward the end of *services integration*. *Delivery* of services occurs through *case level* strategies, with providers collaborating across or within domains to implement a comprehensive care plan for a patient with multiple needs.^{35–37} In this way, a seamless care continuum is created so that patients are largely unaware of, and unaffected by, organizational distinctions.³⁰

Integrated service systems reflect three general characteristics. The first is a shared commitment to holistic, comprehensive care, with patients viewed as having physical, psychological, social, and cultural dimensions within an environment consisting of family, neighborhood, and larger institutions. A collaborative team of providers develops a comprehensive service package that considers all these dimensions and emphasizes prevention and early intervention. Second, integrated systems promote seamless service delivery, such as collocation of services and staff to promote ease of access, fluid provider communication, and client perception of the system as unified and non-redundant. Finally, administrative and programmatic activities reflect integration in several ways—through joint planning and resource and information sharing; effective case referral, service planning, and follow-up procedures; staff support via cross training and team building; sharing case planning with the client; and methods to evaluate the effectiveness of the system as a whole.

THE WHOLE LIFE PROJECT

Conceptual framework

We derived the conceptual framework for Whole Life by first considering the typical mental health service delivery models used in primary care settings—the consultation-liaison psychiatry model, the referral model, and the multidisciplinary team model.

In the consultation-liaison psychiatry model, the primary care provider retains responsibility for treating mental health problems, but uses a psychiatric consultant for differential diagnosis of symptoms and for psychopharmacological treatment.^{38,39} However, consultants are unable to provide continuing patient care due to the restrictions of the consultative role.⁴⁰

The goal in Whole Life was to give primary care providers, who have ongoing patient contact, the skills to monitor subtle HIV-related mental status fluctuations as well as interactions between complex HIV medication regimens and psychopharmacological treatments.

In the referral model, the mental health provider assumes primary responsibility for mental health services, maintaining frequent contact with the primary medical care provider.⁴¹ This model assumes patients are willing and able to accept referral, a fact that makes it unsuitable for women with HIV who frequently are overwhelmed by stigma and by competing demands from multiple health care and social service providers. For patients who are depressed or distrustful, these demands may add to the stressor burden and exceed reasonable expectations for care.⁴⁰ For Whole Life, co-locating mental health services in the primary care clinic reduced this service burden.

In the multidisciplinary team model, mental health and primary care providers share responsibility—either brief or ongoing—for mental health evaluation and treatment, the goal being decreased fragmentation of services.⁴² However, in practice, emotionally-laden patient concerns typically default to the mental health provider(s), even if the patient feels more comfortable disclosing such problems to the primary care provider.⁴⁰ Whole Life transmitted knowledge and skills about mental health problems to all primary care providers, both medical and psychosocial, so that all providers became portals to comprehensive mental health services on site.

Thus, traditional mental health service delivery models in primary care do not adequately address the complex needs of HIV-infected women; hence the need for the integration of these service systems as addressed by Whole Life. Structurally, Whole Life blended elements from the three typical mental health service delivery models in primary care settings, and employed interventions designed to change organizational and interorganizational *structures* and *behavior* at the systems level. Further, the actual *process* of building collaborative systems occurred in a phased manner, with particular interactions occurring in each phase.^{26,43} Our efforts were guided by the Developmental Model,⁴⁴ a collaboration-building model that holds that successful collaborations proceed through predictable phases including: (1) problem setting, which identifies collaborators and acknowledges their shared concerns; (2) direction setting, wherein collaborators build a shared interpretation of the collaboration outcomes by articulating a common statement of the problem, individual and organizational values/philosophies, and

resource needs; and (3) structuring, in which the common values and goals of the inter-organizational group are translated into new sets of organizational roles, policies, and procedures.^{43,44}

Implementing the Whole Life model

Whole Life is a woman-centered, family-focused demonstration project that integrates, at a single site, comprehensive mental health services with primary HIV medical care, obstetrical and gynecological care, and case management and social services. The core collaborators providing co-located and concurrent services are the University of Miami/Jackson Memorial Medical Center (UM/JMMC) departments of Psychiatry and Behavioral Sciences (Psychiatry) and Obstetrics and Gynecology (Ob/Gyn).

The primary care domain into which mental health services have been integrated consists of the Prenatal Immunology and Special Immunology Gynecology clinics of Ob/Gyn. These specialty prenatal and postpartum clinics provide medical, psychosocial, and case management services and research for HIV-infected women and children. They serve virtually all of the HIV-infected pregnant women in Miami, and provide ongoing primary HIV care to women who are not pregnant. Advanced practice nurses provide perinatal and primary care services with attending faculty physician backup. Psychosocial services (including social work and case management) are provided by master's- and bachelor's-level social workers and counselors. Each patient is assigned a primary care provider, a psychosocial counselor, and a case manager. Providers are matched to patients according to language and cultural similarity. Annually, the program serves about 600 HIV-infected women, of whom about 160 are pregnant.

Psychiatry, through the Whole Life demonstration grant funding, provided project leadership and organization, a multi-disciplinary on-site specialty HIV mental health provider team, closely linked outpatient and inpatient psychiatric services, clinical mental health supervision and consultation, an intensive mental health training program for primary care providers, and a multi-tiered evaluation component.

Services integration goals and objectives. The organizational intervention goal was to alter the conceptual framework of Ob/Gyn providers—so that mental health was seen as integral to health—in order to restructure HIV primary care delivery to incorporate mental health-related services. At the systems level, this was achieved through the following objectives: (1) developing formal, administrative linkages between

Psychiatry and Ob/Gyn and other appropriate entities; (2) developing a formal philosophy for the service integration; and (3) implementing management structures to expand the roles of psychosocial and primary care providers to include discipline-appropriate mental health services. At the services level, the objectives were: (1) providing an on-site specialty mental health liaison team in Ob/Gyn clinics; (2) conducting clinical supervision and specialty training in mental health for Ob/Gyn providers as well as cross-training to Psychiatry providers in HIV-related primary care and perinatal services; (3) implementing routine, systematic screening for patient mental health problems; (4) developing multi-disciplinary treatment planning and case staffing; and (5) incorporating into patients' clinic charts documentation suitable for outcomes evaluation for all mental health-related services. Two objectives not directly related to implementation included maintaining an evaluation component and establishing resources for program sustainability beyond the funded demonstration period.

Implementation strategy. Implementation activities focused on each objective. Strategies 1–3 addressed systems-level objectives; strategies 4–8 addressed services-level objectives.

1. Linkages. Early in program conceptualization, formal administrative systems linkages were formed between Psychiatry and Ob/Gyn. The first was a letter of commitment and collaboration from the Ob/Gyn chief of service. Next, the program plan and budget for Whole Life specified new roles for provider staff, implementation procedures and protocols, and allocation of shared budgetary resources. To assure sufficient administrative authority for implementing the services integration, the Ob/Gyn chief of service appointed two Psychiatry collaborators to Ob/Gyn clinic roles: the principal investigator became clinical director of the Ob/Gyn psychosocial component, and the project coordinator became the clinical social worker supervisor. Further tangible evidence of Ob/Gyn administrative support was the provision of office space for the Whole Life project director, project coordinator, psychiatric nurse practitioner, and data manager.

In addition to the core integration of Psychiatry and Ob/Gyn, Whole Life included an extended network of primary care and mental health-related services. In the Department of Pediatrics, these included the Pediatric Immunology and Adolescent Special Immunology divisions of the UM/JMMC Department of Pediatrics (already linked with Ob/Gyn for HIV screening and primary care for infants born to infected women), and the HIV Developmental Services

division (for infancy/early childhood developmental evaluations and intervention services, school placements, and structured parent training). Department of Psychiatry linkages included inpatient and outpatient mental health resources of the UM/JMMC (the adult outpatient Behavioral Immunology/HIV Clinic, the Child and Adolescent Psychiatry division, inpatient and emergency psychiatric care, detox and addiction treatment, and the inpatient maternal addiction program for pregnant substance abusing women) and the UM Center for Family Studies, a family therapy research and training program. Community-based linkages included in-home family support services, emergency shelter from domestic violence, a special needs HIV child care center, and the Barry University School of Social Work. The Table outlines the program's integrated and linked services.

2. Philosophy. Two strategies were used to establish consensus about ideology in an integrated system,²⁶ and build a shared view of the collaboration.⁴⁴ First, at the systems level, program directors of the collaborating entities developed a formal statement of philosophy to incorporate mental health as integral to health, and to emphasize the gender-specific and family-focused needs of women. This philosophy was infused in documents and materials in both Ob/Gyn and Psychiatry (such as grant applications, service descriptions, and patient brochures). Second, the Ob/Gyn chief of service publicly and formally defined mental health services as a standard of care, and quality improvement benchmarks were amended to reflect this standard.

3. Ob/Gyn provider role enhancement and related management structures. Given the complexity and intensity of needed mental health services—early detection, supportive and psychotherapeutic counseling, psychiatric and neuropsychiatric treatment—as well as the scarcity of available resources, the system and service roles and capacities of relevant Ob/Gyn personnel (psychosocial counselors and case managers) needed to be enhanced. These providers were consulted about the day-to-day demands of their positions, and helped determine their needs for mental health service protocols and staff development. These consultations also provided information about the formal and informal leaders in this group, their attitudes and beliefs about mental health-related problems, and their openness to change.

A key structural change was revising the job descriptions of Ob/Gyn psychosocial staff to include discipline-appropriate mental health-related responsibilities. Job descriptions of staff with master's degrees in social work or counseling were changed to include screen-

Table. Integrated and linked Whole Life services

<i>Organization/ Department</i>	<i>Department/Division</i>	<i>Services</i>
University of Miami Psychiatry & Behavioral Sciences	Whole Life Specialty Mental Health Liaison Team	Co-located psychiatric evaluation, treatment, and co-management of patient care in the HIV primary care clinics
	Behavioral Immunology Clinic	Linked outpatient adult HIV mental health clinic for intensive psychiatric and neuropsychiatric services
	Child & Adolescent Psychiatry	Linked outpatient child and adolescent HIV mental health service for more infected children and youth of HIV mothers
	Addiction Recovery Program	Linked detox, inpatient and outpatient substance abuse treatment; inpatient maternal addiction program
	Inpatient Units	Linked adult psychiatric inpatient unit
	Psychiatric Emergency Room	Linked crisis intervention, crisis stabilization, triage
UM Obstetrics & Gynecology	Center for Family Studies	Staff training in family therapy
	Prenatal Immunology Clinic Special Immunology Gyn Clinic	HIV primary care and perinatal care for HIV infected women, psychosocial services, case management, family planning, patient education, patient support groups, access to HIV clinical trials
UM Department of Pediatrics	Pediatric Immunology Clinic Adolescent Special Immunology	HIV primary care for HIV infected children and adolescents, psychosocial and case management services, patient support groups
	HIV Developmental Services	Linked HIV developmental services, parenting education classes
Community agencies	Children's Home Society	Linked in-home family support services; HIV child day care; respite care; permanency planning; foster care
	Safespace Shelters (Miami-Dade County)	Linked domestic violence shelter
Barry University	School of Social Work	External evaluation

ing patients for mental health problems, conducting initial mental health assessments and service plans, collaborating with psychiatric providers as needed, and providing relevant counseling. Case manager positions were changed to include identifying and mobilizing mental health programs and agencies, understanding eligibility and admission requirements for mental health treatment and service programs, and facilitating effective mental health referrals.

4. Specialty mental health liaison team. Because patient screening by the Ob/Gyn psychosocial providers revealed severe and complex mental health problems in the population, Psychiatry provided an on-site specialty mental health services liaison team. This also served as a way to share resources and further reduce

service barriers. The team, which included a part-time attending psychiatrist, psychology post-doctoral fellows, and a licensed clinical social worker, conducted in-depth evaluations, provided psychopharmacologic and psychotherapeutic treatment, and co-managed integrated mental health and health services with the primary care and psychosocial providers. This co-management of patients occurred not only in the outpatient HIV prenatal and primary care clinics, but also in the obstetrical or psychiatric inpatient units when needed. In addition, a full-time psychiatric nurse practitioner who worked within the Ob/Gyn nurse office suite was an integral member of the nurse primary care team, attended all pre-clinic and patient care planning meetings, and served as the day-to-day liaison between Psychiatry and Ob/Gyn. Because her

primary affiliation was with Psychiatry, she could facilitate efficient and effective referrals to the psychiatric emergency room and inpatient units as required, thus reducing difficult system barriers in accessing urgent and emergency services.

5. Clinical activities: supervision, clinical consultation, and training. Whole Life implemented several structures toward building shared interpretations of patient mental health services needs among collaborators, while simultaneously enhancing provider roles and skills in routine mental health service delivery. First, weekly individual and group clinical supervision was provided to the Ob/Gyn psychosocial staff by a psychologist and two senior clinical social workers from Psychiatry. Individual patient cases were carefully reviewed and supervisory feedback given to enhance provider knowledge and skills. Second, clinical medical consultation was provided to the Ob/Gyn primary care providers by the attending psychiatrist and the psychiatric nurse practitioner. This occurred in both the clinic and in individual discussions, and was vital for patient co-management and attention to potential medication interactions from HIV treatment regimens and psychopharmacologic agents, particularly during pregnancy. Third, monthly didactic presentations were provided by psychiatry and psychology faculty—as well as an intensive 20-week family therapy practicum—for formal training in mental health problems such as depression, HIV-related neuropsychiatric and neurodevelopmental conditions, suicide management, management of the violent/disruptive patient, and domestic violence.

6. Mental health screening. Routine mental health screening as part of care for patients with chronic medical illness enables providers to identify mental health problems early, determine their extent and severity, provide for accurate diagnosis and treatment within the context of primary care, and facilitate appropriate referrals,^{45–47} especially for patients who otherwise would not spontaneously discuss their symptoms.^{48,49} In Whole Life, such screening is an important element of integrated services delivery. Role enhancement, skills development, and clinical supervision enabled Ob/Gyn psychosocial providers to incorporate validated mental health screening questionnaires into the intake function of the primary care clinics.⁶ When a potential need for mental health services was indicated, using established cut points as risk indicators, immediate on-site linkage was made to the Whole Life psychiatric nurse practitioner and specialty mental health liaison team for comprehensive clinical assessment and evaluation to determine problem onset, history and severity of symptoms, and urgency of intervention.

7. Case staffing and treatment planning. A weekly meeting served to develop multi-disciplinary treatment plans for patients needing mental health services and to further the shared interpretation of the new organizational roles and policies among collaborators. Because patients typically utilize medical, psychosocial, and case management services from multiple providers, in these 90-minute conferences up to 25 providers in the collaborating network contributed information toward a comprehensive assessment for developing a structured treatment plan. Case summaries were prepared in advance, with responsibility for the lead presentation rotated without regard to provider role or status. In this way, the knowledge and skills of each provider discipline were recognized equally. The resulting services and treatment plan for the patient and family included a listing of the problem areas identified by the team, the level of intensity/urgency of services needed, identification of the provider(s) to be involved, and the anticipated goals and outcomes that these services would produce in improving mental health symptoms, behaviors, and health-related functioning. Finally, a date for follow-up reassessment by the team was scheduled for a future case conference. Whole Life case staffing and treatment planning thus achieved services integration in a manner that facilitated linking systems.

8. Documentation and patient charting. The patient record-keeping system is an important organizational change target for integrated services. In Whole Life, structured documentation of mental health problems, needs, and services in the patient chart accomplished several aims: establishing priorities for patients' mental health service needs; providing Ob/Gyn staff with opportunities to conduct systematic mental health screening and assessment; and, converting the clinical record into a retrievable computerized database for outcome evaluation of mental health-related services.

To implement this strategy, front-line Ob/Gyn psychosocial providers (case managers, clinical social workers, and psychologists) were trained, through supervision and instruction, in the mental health components of Whole Life (e.g., rationale and methods of screening, multi-disciplinary assessment, service planning, and conjoint intervention). The purpose was to impart an appreciation of the value of these components for clinical assessment of patients' mental health service needs. Additional formal training focused on the skills staff needed to modify their clinical interview styles to incorporate the structured, interview-based forms for collecting clinical information. This assured that clinical assessment information, typically recorded as notes, instead would be gathered in a

standardized and consistent manner, and be retrievable for outcomes analyses later.

Effects of the services integration

The Whole Life services integration project had several major effects on the Ob/Gyn clinical care system for HIV-infected women. These included the following: enhanced mental health-related knowledge and skills by primary care providers; early identification of patient mental health problems; comprehensive and multi-disciplinary evaluation and case planning; co-located primary care and routine mental health services with linkages to more intensive mental health care; patient co-management by primary care and mental health providers; and improved primary care caseload management. By facilitating utilization of mental health services by HIV-infected women, Whole Life aims to improve patient outcomes—reduced distress, improved mental health functioning, enhanced health-related behaviors (particularly appointment-keeping and medical regimen adherence), and reduced HIV disease progression and perinatal transmission.⁵

In addition to these systems- and service-level effects, Whole Life documented the following: (1) the extent of need for mental health services in this population; (2) the complexity of co-morbid mental health problems and their relevance for primary care caseload management; and (3) the importance of a continuum of mental health services in primary care.

Extent of need for mental health services. The Whole Life routine screening—as part of patient intake—provided early identification of potential mental health problems. Screening of all new patients, from February 1998 to October 1999, revealed that 25% suffered from depression, and 48% evidenced some type of mental health disorder, as measured by the Brief Symptom Inventory,⁵⁰ an instrument with high predictive validity for psychiatric disorders. More than 30% evidenced posttraumatic stress syndrome, and 15% had frank PTSD, as measured by a modified version of the PRIME-MD⁷, a widely-used instrument for diagnosing mental health disorders in primary care. Nearly 45% of the women reported being assaulted physically or sexually. One third of the women reported using drugs and/or alcohol to the point of needing substance abuse treatment services. These findings attest to the undetected mental health problems of HIV-infected women, and emphasize that routine screening provides an opportunity for early identification and treatment in primary care settings.

Complexity of co-morbid mental health problems: relevance for primary care caseload management. Mental health data provided by screening are vital for predicting the demand for services, the level and intensity needed, and the provider-staffing plan for meeting those demands given the escalating HIV epidemic among women. Screening findings indicated that approximately one-third of patients function well. Coping skills and social support are adequate, they do not use alcohol and/or drugs, nor do they have a serious mental disorder or violence-related problem. Nearly 40% of the women screened showed the need for more intensive mental health services. Their coping skills and social support are fragile and unstable. Problems such as adjustment reactions, a single depressive episode, and bereavement with minor complications are typical. Finally, about 30% of the patients have a chronic and severe psychiatric illness, particularly depression, PTSDs, and substance abuse. Many exhibit symptoms of psychosis such as hallucinations and delusions, while a few are frankly psychotic. Suicidal thoughts are prevalent and suicidal acts are not uncommon. This high-need group also includes those with disorders of the brain and central nervous system caused by HIV disease, chronic drug and alcohol abuse, or other medical and biologic problems.

Importance of a continuum of mental health services in primary care. Three levels of intensity of mental health services are needed for HIV-infected women. Primary care and Ob/Gyn settings can provide access points for all three levels, some as co-located and others as linked services. Basic mental health services that primary care personnel should provide for all patients include routine screening, referral, and case management services. For the one-third of patients who function well, other basic services should include recurring psychosocial assessment, supportive psychotherapeutic interventions (e.g., individual and group counseling), anticipatory guidance (e.g., regarding disclosure), problem solving, transition planning (e.g., for permanency placement following parental death), and case management services.

For the roughly 40% of patients who need more intensive mental health services, a specialty HIV mental health clinical team co-located in the primary care setting is valuable. Enhanced services include clinical assessment of problems identified in screening, psychiatric evaluation, management of psychopharmacological treatment, and basic mental health services. These women are likely to respond to short-term interventions (less than six months).

The 30% of patients with chronic and severe psychiatric illness need intensive treatment and intervention

that is continuous for a year or longer, and require all of the basic and enhanced services. This includes medication to control psychotic behaviors and stabilize mood, access to crisis intervention, inpatient psychiatric treatment and detoxification, and emergency shelter from violence and abuse.

LESSONS LEARNED

In the Whole Life project, multiple and simultaneous interventions helped achieve several properties of services integration. Collaborators were equal partners working toward the common goal of fully integrated primary care and mental health activities. Funding for the services integration was shared and other concrete resources were exchanged even though administrative authority rested with the respective departments/divisions. Providers in each department received cross-training, participated in multidisciplinary case conferences, and assumed co-management of complex, multi-problem patient cases. Information systems were developed that infused mental health-related data and information into both structured medical charts and a computerized patient record database. The implementation process also resulted in lessons that may be useful for other mental health-primary care service integration efforts.

Lesson 1: Change in large, complex organizations requires time, sufficient resources, and a defined, strategic multi-modal intervention.

Given that organizational change requires concurrent change at multiple levels (system or network, agency and service, provider, and consumer), interventions should be of sufficient power and duration to resist the pressures of both external demands on the organizations and the habits and processes of the internal culture. This power is derived from sufficient and continuous time, adequate funding and staff resources, and simultaneously conducting different interventions at the multiple levels targeted for change. Adequate funding and staff resources are particularly important during the start-up phase, when major portions of both may need to be devoted to providing direct patient services, staff supervision, in-service education, and administrative efforts. These resources may be an amalgam of actual dollars, assignment of existing staff, and in-kind support such as volunteers, speakers, office space, or computer supplies.

Whole Life was funded as a service integration demonstration by the Health Resources and Services Administration's (HRSA's) Special Programs of National Significance (SPNS) program for a five-year

period (from 1996 to 2001). Most of the budget, plus in-kind support from Ob/Gyn for three offices, was allocated to the start-up costs of implementing the service integration, \$185,500 per year for each of the five years. Most of these funds (\$103,500 annually) supported the mental health specialty liaison team to the adult and pediatric HIV clinics (a quarter-time psychiatrist, a full-time psychiatric nurse practitioner and licensed clinical social worker, and two psychologists—one full time, one half time). Another \$49,000 annually supported supervision and training (individual and group supervising clinicians, didactic presentations, and family therapy supervisor) to equip Ob/Gyn providers with foundational mental health knowledge and skills. Administrative costs to Ob/Gyn were allocated at \$18,000 per year. While these costs may vary within other services integration efforts—depending on the organizational costs and needs of integration partners during the start-up phase—relative proportions may be similar for clinical services, supervision and training, and administrative costs.

Critical to the integration is a formal strategic plan that defines measurable objectives, time frames, responsibilities, and tangible outcomes. Such plans generate a shared vision and identification with the program by the participants, promote clear conceptualization of the numbers and types of linkages to pursue and the degree of system and organizational change indicated, and define the number and roles of personnel needed to conduct the multi-level, multi-modal interventions required.^{26,51,52} In Whole Life, the intervention methodology afforded by the grant narrative, as well as a shared statement of philosophy, provided this needed blueprint for change.

Lesson 2: Formal structural changes and resource sharing are required at both the administrative and service levels of the collaboration.

Durable organizational change requires structural changes that flow with logical consistency between administrative and service levels. In Whole Life, this logical consistency manifested itself in a written philosophy of integrated mental health care that was translated into measurable quality improvement standards, carried out by adequate staff resources according to systematic clinical protocols, supported by responsible supervisors and clinical consultants, and documented in formal patient records. Resource sharing by both Psychiatry and Ob/Gyn was critical to formalizing the structural changes. Also important is that while shared resources included the obvious ones in collaborative programs (e.g., personnel, budgetary resources, space, equipment, supplies), authority for the mental health

integration was afforded to Psychiatry by the Ob/Gyn chief of service, and this was vital to the success of the project.

Lesson 3: Structural changes will be incomplete if there is insufficient attention to relationships among stakeholders.

Reports and studies of services integration programs reinforce the Whole Life experience that complete implementation of needed structural changes does not occur without the support of frontline providers.⁵¹ Ongoing activities and processes that facilitate engagement and consensus-building among collaborators are crucial to implementation success. These must be relevant to providers and lead them to feel fully included and empowered. In Whole Life, this included regular provider communications via frequent face-to-face meetings of multiple agencies' staff members, case conferences and cross-boundary interdisciplinary teams,²⁸ and encouraging a sense of belonging, shared perceptions, and consensus around problems and solutions, thereby cultivating leadership at all levels.⁵²

Lesson 4: Because change does not occur in a linear fashion, leadership must be flexible.

While a strategic plan is necessary for implementing integrated service systems, change does not necessarily occur in a logical, linear fashion. Different components of organizations have different levels of readiness for change,²⁸ and change also comes about through unplanned processes and events. These serve as spurts in organizational growth, and require time to consolidate before new changes can again be implemented. Consequently, those facilitating the integration must be open to incorporating events that move the process forward, to enhancing the emergence of new leaders, and to modifying planned interventions that prove to be unworkable.

Lesson 5: Sustainability must be planned from the outset.

Sustaining the integration beyond the start-up phase is a goal that must be considered early in the program planning process, even before implementation begins. Reimbursement for mental health-related services for low-income HIV-infected patients receiving public funding can be maximized by defining a continuum of intensity of needed services and appropriate providers, from routine screening to assessment and evaluation, and to outpatient and inpatient treatment as needed. For example, in some states, Medicaid pays for evaluation, therapy, and neuropsychological testing conducted by psychiatrists, but not for psycho-

therapy conducted by psychologists or clinical social workers. However, a Ryan White Title I planning council may pay for psychosocial services provided by psychologists, social workers, and perhaps peer counselors. Another reimbursement alternative may be through state-funded mental health programs, particularly for inpatient, residential, and case management services. Structures and procedures to capture these future resources should be integral to the start-up phase. For example, appointments and visits should be documented, patient charting should be maintained (with patient diagnoses, treatments, and referrals noted), and provider credentials and licenses should be assured.

In the final year of the demonstration period, a plan was developed to shape Whole Life into an institutionalized service with structures and resources that would persist over time. Because of the need revealed by the screening data, a full-time, dedicated mental health clinic for HIV-infected women and families was established at the UM/JMMC (the Healing Place). The specialty consult-liaison mental health team continues to provide co-located and co-managed mental health services in the Ob/Gyn primary care clinics. Providers on this team staff the dedicated clinic, thus providing continuity of care for patients. While the multi-disciplinary case conferences continue, they are now integrated within the weekly pre-clinic meetings of Ob/Gyn, thus are more focused on patient services than on providing mental health knowledge. To support the specialty clinic, a fee-for-service billing mechanism has been established to generate income for Medicaid-eligible patients as well as those eligible for Ryan White Title I services.

CONCLUSION

The Whole Life project demonstrated that principles and methods of services integration implementation strategies can be applied successfully to serve a clinically complex population with profound health, mental health, substance abuse, and social service needs. These efforts have been sustained beyond the project period by capturing new fees for mental health services provided by a dedicated mental health clinic devoted to HIV-infected women and their families. An on-site specialty mental health consult-liaison team continues to provide co-located patient services, with linkages to the dedicated clinic as needed. Patient screening and multi-disciplinary case conferencing also continue. While these structures have now been formally institutionalized, perhaps more durable has been the change in how both Ob/Gyn and Psychiatry

providers more broadly and holistically conceptualize health for HIV-infected women.

The authors thank all of the primary care and mental health providers who contributed to the project described here. This work was funded by Grant number 5 H97 HA 00055 from the Health Resources and Services Administration (HRSA) Special Projects of National Significance (SPNS) Program. The contents of this article are solely the responsibility of the authors and do not necessarily represent the official views of HRSA or the SPNS Program.

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