A WHOLE DELIVERY MEASURE OF COMPREHENSIVE SOCIAL SERVICE PROVISION

Heather Larkin

ABSTRACT Various forces contribute to increasingly integrated social service delivery. In addition to an economic interest in creative responses that maximize resources, providers incorporate new knowledge to improve outcomes. For example, research on adverse childhood experiences (ACE) calls for movement beyond piecemeal interventions and fragmented services. In fact, research integration has served as an alternative tactic to Integral Theory that engages mainstream providers, policymakers, and researchers to consider comprehensive, whole-person service provision. The Restorative Integral Support (RIS) model, developed at the Committee on the Shelterless (COTS) to respond to ACE and other trauma, involves the intentional development of social networks within which evidence-supported interventions and emerging practices are integrated and brought to research. RIS highlights the role of leadership and policies/systems to facilitate social supports mobilizing resilience and recovery to enhance service impact. Recognizing that social service practice and theory developments can be advanced by creating and refining research measures, the Whole Delivery Measure (WDM) is offered as a multidimensional scale that captures ingredients involved in comprehensive, whole-person service delivery—leadership, culture, and systemic design. In addition to assessing the extent to which service providers are RISing, a WDM is key to determining results. For example, outcomes research using existing scales that measure only one or two quadrants (e.g., individual behaviors and systemic structures) without taking other quadrants into account is likely to find mixed results on "integration."

KEY WORDS social service; substance abuse; service integration; whole-person approach

Extensive research on adverse childhood experiences (ACE) demonstrates strong correlations between earlier life adversity and the development of substance abuse as well as smoking and other health risk behaviors, depression, and serious health problems (Felitti et al., 1998). Higher rates of ACEs are often associated with co-occurring health risks, including substance abuse, that tend to be treated with piecemeal approaches (Larkin & Records, 2007). Substance abuse is a good example of a problem that cuts across populations and affects every facet of a person's life (Abbott, 2002; Cornelius, 2002). Mental health, medical, family, vocational, housing, and other problems frequently need to be addressed as part of treatment (DiLorenzo et al., 2001; D'Aunno & Vaughn, 1995; Friedmann et al., 1999; Friedmann et al., 2001). Yet, while service integration has been suggested as one way to meet the diverse needs of people with substance abuse problems (Durkin, 2002; Delany et al., 2003; Friedmann et al., 1999; Friedmann et al., 2001; Kraft & Dickinson, 1997), the amount of additional on-site services for substance abusers has decreased (Etheridge et al., 1995; Etheridge et al., 1997; Fletcher et al., 2003). Recognizing that substance abuse can be both a consequence of ACEs and related problems and lead to other serious conditions, fragmented services contribute to a lack of comprehensiveness in substance abuse treatment, which is problematic.

Correspondence: Heather Larkin, School of Social Welfare, State University of New York, 135 Western Avenue, Albany, NY 12222. *E-mail*: HLarkin@albany.edu.

Mental health, substance abuse, medical, and other social services continue to be organized as separate systems of care supported by different funding streams. People with substance abuse problems are among those client populations who find it challenging to navigate these fragmented systems of care and consequently find themselves poorly served and having difficulty achieving positive outcomes, leading to calls for service integration (Durkin, 2002; Friedmann et al., 1999; Kraft & Dickinson, 1997). An ability to measure collaborative and integrative activities is especially important for programs serving substance-abusing clients. Furthermore, both practice and theory developments in social services can be advanced by creating and refining measures in social work research.

The purpose of this article is to develop the construct of service integration from an integral perspective and present findings representing an early step in development of a service integration scale. Implications and next steps toward a Whole Delivery Measure (WDM) will be addressed. Creation of the Early Scale began by building on existing literature to define activities associated with service integration and highlighting calls for collaboration and integration within substance abuse treatment agencies. The Early Scale was created as part of a larger study exploring the influence of organizational and target population characteristics on collaboration and integration activities within substance abuse treatment organizations. We examined studies of collaborative activities between criminal justice and substance abuse treatment agencies (Fletcher et al., 2009; Lehman et al., 2009) as well as those between core and supportive services within substance abuse treatment systems (Delany et al., 2008). The current study explores collaboration and integration within community-based outpatient substance abuse treatment settings in the state of Maryland (Larkin, 2010).

The Early Scale distinguishes informal collaboration activities (information-sharing, communication, cooperation, and coordination across agencies) and formal integration activities (associated with greater degrees of collaboration and consolidation, including written agreements or shared policies and oversight). The ultimate goal is to develop a complex measure that captures key aspects of organizational movements through increasing levels of service integration. This requires a multi-dimensional construct that can integrate prior work. It is therefore crucial to provide the necessary conceptual background that defines the construct of integration. Integral Theory (Wilber, 1995, 2000, 2006) is a fully integrated theory, emerging out of meta-perspectival awareness, now applied across professions and around the world (Esbjörns-Hargens, 2009). Integral Theory (Wilber, 2000) usefully transcends and includes commonly used theories, has been applied to human service organizations, and supports a sophisticated approach to research in social services (Larkin, 2006; Larkin, 2006a; Larkin et al., 2012; Larkin et al., 2012; Robbins, Chatterjee et al., 2004). Having a measure of integration will help in evaluating the degree to which substance abuse treatment, and other programs responding to ACE consequences, are bringing together services in order to better facilitate a comprehensive, whole person approach toward resolving multiple problems.

The Study of Collaboration and Integration

The child welfare field has already begun to emphasize services research, and service linkage is highlighted as an important way to address the multiple needs of children and families (Darlington et al., 2005; Darlington & Feeney, 2008; Foster et al., 2008; Green et al., 2008; Marsh et al., 2006; McCurdy & Daro, 2001; Ryan et al., 2006; Walter & Petr, 2000). King and Meyer (2006) articulate a framework for understanding coordination and service integration for families of children with disabilities that includes administrative functions, service planning, and linking client families to specific services. Internationally, there has been attention to integration of all child welfare services (Gardner, 2006). There is also a movement to treat the substance abuse problems of parents involved with the child welfare system (Carlson, 2006; Smith & Mogro-Wilson, 2007). Research demonstrates that family re-unification is facilitated by integrated service programming that attends to co-occurring problem resolution (Marsh et al, 2006; Ryan et al, 2006).

Homelessness is another field exploring service linkages and integration to facilitate access. For ex-

ample, Continuum of Care is a community-based model that organizes and distributes housing and services to meet the needs of people experiencing homelessness (Goodfellow & Parish, 2000; Wong et al., 2006). In addition, the recognition that homeless people with complex and co-occurring disorders are especially challenged to find their way through uncoordinated systems (Hambrick & Rog, 2000; Rosenheck, 2000) has led to the development of a systems integration model known as ACCESS (Access to Community Care and Effective Services and Supports) (Rosenheck, et al., 2002). Homeless services researchers continue to explore the effectiveness of integration activities, including the role of frontline staff and agency processes (Rosenheck, 2001; Rosenheck et al., 2002; Rowe et al., 1998). An empirical example of Restorative Integral Support (RIS) demonstrates how the Committee on the Shelterless (COTS), an award-winning agency in Petaluma, California, integrates research-informed interventions for a comprehensive, whole person approach (Larkin et al., 2012).

Recognition that substance abuse treatment services do not adequately meet the needs of the criminal justice population has also led to exploration of service delivery mechanisms associated with collaborative and integration activities in prisons, drug courts, and community corrections agencies (Fletcher et al., 2009; Lehman et al., 2009; Mumola & Karberg, 2006; Taxman et al., 2007). Fletcher and colleagues (2009) have developed an interagency activity measure based on Konrad's (1996) systems integration model. This measure clarifies the types of collaborative and integration activities within criminal justice agencies and demonstrates that service integration varies by correctional setting type. This measure has also been used to explore collaborative activities between different types of correctional settings (prisons, jails, and community corrections) and substance abuse treatment agencies (Lehman et al., 2009).

Some attempts at substance abuse service integration have been made out of a desire to improve recovery outcomes for people with co-occurring disorders and remove service delivery obstacles contributing to relapse (Barreira et al., 2000; Kraft & Dickinson, 1997). One study showed that on-site health services facilitated medical care within substance abuse treatment (Friedmann et al., 2001). Research on substance abuse treatment service delivery also shows that supportive services are more likely to be found in programs with a wide foundation of core services, older publicly owned programs, and programs serving more diverse, non-white, and female clients. Programs with a greater number of staff certified in substance abuse treatment were less likely to offer additional supportive services (Delany et al., 2008).

There is a need for knowledge of collaborative activities and service integration within substance abuse treatment agencies that seek to treat the whole person. When substance-abusing clients are offered a service package that addresses multiple needs, they are more likely to stay in treatment and achieve better recovery and functional outcomes (Ducharme et al, 2007). Yet, agency support services have decreased even as substance abuse problems have become more severe and complex (Etheridge et al., 1995; Etheridge et al., 1997; Fletcher et al., 2003; Friedmann et al., 1999). This points to the need for research to better understand and address dynamics involved in substance abuse treatment, providing a way to intervene with service systems to facilitate whole person response strategies.

Conceptual Framework

Lacking a clear definition or framework of integrated service models, discussion of collaborative and integrated service delivery is often confused (Hambrick & Rog, 2000). Longoria (2005) points out that interorganizational collaboration has become a popular idea influencing policy and practice, yet there is a need for critical thinking to define the term and its meaning, as well as action to implement and evaluate the outcomes of service linkages. In fact, there continues to be a gap in research on collaborative activities and service integration, with discussion of service linkage and integration calling for research and evidence of effectiveness (Bailey & Koney, 1996; Dennis et al., 2000; Foster et al., 2008; Gil de Gibaja, 2001; Lehman et al., 2009; Mizrahi & Rosenthal, 2001; Schofield & Amodeo, 1999; Reilly, 2001; Walter & Petr, 2000).

A conceptual framework and definition facilitates carrying out and researching collaborative activities and the development of integrated service models. It is important to note previous attempts that are specific to service integration. Horwath and Morrison (2007) engage in an in-depth exploration of collaborative partnerships and integrated services, demonstrating a continuum from low to high levels of collaboration as well as ingredients involved in collaborative child welfare activities. These authors point out that processes attending to relationships within social networks are just as important as decisions about the organization of service structures (Horwath & Morrison, 2007). Axelsson and Axelsson (2006) provide a conceptual framework as a practical guide for public health managers and researchers. This framework includes simultaneous attention to both the intensity of agreements and adjustments among staff within and across agencies (termed *horizontal integration*) and hierarchical management decisions about service mechanisms (termed *vertical integration*). These authors provide examples of combinations of horizontal and vertical integration within public health agencies (Axelsson & Axelsson, 2006).

A great diversity of service integration initiatives within human service agencies have emerged from a perspective that cares about the best ways to serve multi-problem clients, improving access to services and continuity of care (Marquart & Konrad, 1996). Konrad (1996) created a definition of services integration based on observable activities, discussing organizational relationships along degrees of formality. This model describes integration within human service agencies in terms of specific activities involved with different levels of integration. Level 1 is Information Sharing and Communication, Level 2 entails Cooperation and Coordination, Level 3 is Collaboration, Level 4 is labeled Consolidation, and Level 5 is Integration (Konrad, 1996). Distinguishing between service integration and systems integration, Dennis and colleagues (2000) further clarify the Konrad (1996) model as a continuum of systems integration that involves the interaction and merging of organizational structures. Service integration, on the other hand, takes place on the frontlines (Dennis et al., 2000).

Integral Theory (Wilber, 2000) helpfully presents the notion that there are multiple dimensions involved in service integration, which can be viewed from first-person, second-person, and third-person (singular and plural) perspectives. Collectives are made up of individuals. This is represented by the concept of the quadrants, with the upper quadrants denoting the individual and the lower quadrants corresponding to the collective (see Esbjorn-Hargens, 2009). The Right-Hand quadrants depict third-person perspectives—individual behaviors (Upper-Right quadrant) and systemic interactions (Lower-Right quadrant). Konrad's (1996) informal activities describe Upper-Right individual behaviors taking place on the frontlines of service, while formal activities involve observable Lower-Right quadrant policies and procedures set forth within systems. Integral Theory (Wilber, 2000) points out that informal engagement in observable Upper-Right collaboration and integration activities are likely an expression of the individual's Upper-Left awareness, including values, particularly if these observable behaviors are not supported by the policies or culture of the collective. The Lower-Left quadrant depicts the culture, or climate, of the organization, which involves intersubjective shared meanings—individual members, including their internal awareness and values, make up the social networks that share meanings and values within the organization. The shared values of the organizational culture tend to be reflected in the observable Lower-Right policies and procedures. At the same time, leadership plays an important role in drawing like-minded people to work in the agency, setting an example and tone for the climate, and designing policies and procedures that shape agency cultures (Larkin, 2006; Larkin et al., 2012).

Integral Theory (Wilber, 2000) also integrates research demonstrating that individuals develop along multiple lines, with all of us possessing unique strengths and capacities. Each developmental stage transcends and includes the previous stage, increasing one's overall awareness through the developmental process. The developmental capacities of staff members shape programs. For this reason, as leaders and members join or leave, organizations can change drastically. If staff members value collaboration and/or integration (Left-

Hand quadrants), the informal activities (Upper-Right behaviors) described by Konrad (1996)—and related activities—are likely to emerge as a reflection of individual awareness and shared values within social networks. When leaders value collaboration and/or integration, and especially when the culture shares this value, formal policies and procedures are likely to be put in place. Full integration takes place when leadership, culture (involving developmental awareness of staff members), and policies are aligned to implement integration. Thus, Integral Theory (Wilber, 2000) includes attention to relationships and processes (Lower-Left quadrant) as well as systemic arrangements (Lower-Right quadrant) and individual activities (Upper-Right quadrant) while also bringing attention to the role of individual consciousness (Upper-Left quadrant). Individuals develop levels of awareness that involve increasing capacities for caring and compassion. Organizational integration, on the other hand, is dependent upon the combination of leadership, culture (involving social networks of members with their own developmental awareness), and policies/systemic design. Thus, it is important to clarify distinctions between quadrants and levels in the study of service integration.

Konrad's (1996) model serves as a starting point for a measure of service integration, used in the Early Scale, because it grows out of existing literature and offers easily measurable activities. The current study builds upon previous research using this model to measure interagency activity between criminal justice and substance abuse treatment settings (Fletcher et al., 2009; Lehman et al., 2009). In the current study, the activities defined by Konrad (1996) inform the Early Scale to begin measuring collaborative and integration activities within substance abuse treatment agencies. These range from informal communication and information sharing to more formal linkage arrangements to complete service integration. The continuum from informal to formal begins to shift once inter-agency collaboration takes place, with consolidation becoming more formal and potentially leading to integration (Larkin, 2010).

Interdependence is the salient dimension in the Early Scale. Informal activities are represented by observable behaviors (Upper-Right quadrant), while formality involves the creation of policies and procedures (Lower-Right quadrant) to expedite cooperation. The Early Scale measures these formal and informal activities. The specific activities representing each of the first four levels articulated by Konrad (1996) are included in the Early Scale used in the current study. Because full integration was not manifesting in substance abuse treatment agencies when the study was conducted, activities representing full integration are not in the Early Scale.

Methods

Data Source

The data for this study were drawn from the population of substance abuse treatment programs in the state of Maryland. A listing of substance abuse treatment programs was obtained through the Office of the Director of the Maryland Alcohol and Drug Abuse Administration. The office provided mailing labels for the administrators of all programs in the state of Maryland. A package was prepared and mailed to all program administrators. The package contained a letter inviting them to participate in the research, a university Institutional Review Board approved informed consent statement, a letter of support from the director of the state Alcohol and Drug Abuse Administration and a short questionnaire which asked questions on treatment modality (residential, outpatient, methadone maintenance), location (urban, rural, suburban) and ownership (public, private). From this information, programs that reported being administrative offices only and programs that indicated that they provided only assessment and evaluation or detoxification only were removed from the list. The final listing included 305 programs. The administrators of these programs were sent an e-mail with a hyperlink to the online survey. 153 of the 305 identified programs responded, representing a response rate of 50.2%. The majority of the programs were outpatient drug free programs (n = 93), followed by residential programs (n = 47), and methadone maintenance programs (n = 13) (Larkin, 2010). Because of the small number of methadone programs in the sample, they were not included in the current analysis. This article is based

on data from the outpatient and residential programs, representing a total of 140 programs.

Data Collection Instrument

The questionnaire included 13 items that were designed to measure the first four levels of Konrad's (1996) systems integration model. The following three statements were designed to measure Information Sharing and Communication:

- We give or receive educational presentations.
- We share information on services.
- We hold joint staffing/case reporting/treatment consultation.

Two statements were developed to measure Cooperation and Coordination:

- We have systematic referral and follow-up for treatment and support services.
- We coordinate policies and procedures to accommodate each other's requirements.

The following five statements were designed to measure Collaboration:

- We have written protocols for sharing client information systems.
- We have developed joint policy and procedures manuals.
- Our organizations have uniform eligibility requirements.
- We have written agreements providing space for services.
- We have developed written agreements for training staff.

Three statements were developed to measure Consolidation:

- We share administrative oversight with these programs.
- We share budgetary oversight with these programs.
- Our organizations have pooled funding.

The program administrators were asked to name the top three organizations with which they had the most important relationships in serving the target population. They then were asked to indicate which activities they engaged in with each organization (Larkin, 2010). Because of the large number of missing data for the responses to organizations #2 and #3, we limited the analysis to the activities listed for organization #1.

Description of the Treatment Organizations

Table 1 contains descriptive data on the 140 treatment organizations contained in the study. Two-thirds of the reporting organizations were outpatient programs (66.4%) and one-third were residential programs (33.6%). When compared against a number of background factors, the outpatient and residential programs differed significantly on ownership and client capacity. The residential programs were significantly more likely to be private non-profit as compared to the outpatient facilities (53.2% vs. 36.6%) whereas the outpatient programs were more likely to be private for-profit as compared to the residential facilities (31.2% vs. 8.5%). With regard to client capacity, as to be expected, the residential programs were significantly smaller than the outpatient programs. Eighty percent (80%) of the residential programs had a capacity of 50 or fewer clients compared to 25% of the outpatient programs. Differences by program age, geographic location, budget size, and number of paid staff were not statistically significant.

	Total Sample (N = 140)		Residential (N = 47)		Outpatient (N = 93)	
	N	%	N	%	N	%
Program Age						
1 – 5 years	25	17.9	12	25.5	13	14.0
6 – 15 years	41	29.3	9	19.1	32	34.4
16 – 25 years	37	26.4	12	25.5	25	26.9
26+ years	37	26.4	14	29.8	23	24.7
Ownership*						
Public	48	34.3	18	38.3	30	32.3
Private for-profit	33	23.6	4	8.5	29	31.2
Private non-profit	59	42.1	25	53.2	34	36.6
Geographic location						
Urban	39	28.1	11	23.4	28	30.4
Suburban	62	44.6	18	38.3	44	47.8
Rural	38	27.3	18	38.3	20	21.7
Budget size						
≤ $500,000	93	66.4	33	70.2	60	64.5
$600,000 – $1 million	21	15.0	4	8.5	17	18.3
$1 million +	26	18.6	10	21.3	16	17.2
Number of Paid Staff						
1 – 5	36	25.7	13	27.7	23	24.7
6 – 15	54	38.6	15	31.9	39	41.9
16 – 25	18	12.9	7	14.9	11	11.8
26+	32	22.9	12	25.5	20	21.5
Client Capacity**						
<20	25	17.9	16	34.0	X9	9.7
21 – 50	36	25.7	22	46.8	14	15.1
51 – 100	33	23.6	8	17.0	25	26.9
101 – 150	13	9.3	1	2.1	12	12.9
151 >	33	23.6	0	0.0	33	35.5
* X^2 = 9.190; d.f. = 2 $P \leq .01$						
** X^2 = 44.492; d.f. = 4 $P \leq .0$						

Table 1. Organization variables by program modality.

Developing the Early Scale

The 13 items listed above that were designed to capture the activities defined by Konrad were subjected to an exploratory, principle component, varimax rotated, factor analysis. The results of this analysis are contained in Table 2. As can be seen from this table, two significant factors were extracted in the total sample. The first

	Total Sample (N = 140)	Residential (N = 47)	Outpatient (N = 93)
FACTOR 1: Informal – cooperation and coordination			
1. We have systematic referral and follow-up for treatment and support services	0.741	0.770	0.756
2. We coordinate policies and procedures to accommodate each other's requirements	0.650	0.578	0.652
3. We share information on services	0.595	0.502	0.653
4. We hold joint staffing/case reporting/treatment consultation	0.557	0.765	0.327
FACTOR 2: Formal – collaboration and consultation			
1. We have developed written agreements for training staff	0.729	0.677	0.719
2. Our organizations have pooled funding	0.684	0.767	0.632
3. We have written agreements providing space for services	0.642	0.293	0.791
4. Our organizations have uniform eligibility requirements	0.584	0.717	0.528
5. We share administrative oversight with these programs	0.552	0.621	0.543
6. We share budgetary oversight with these programs	0.525	0.647	0.489

Table 2. Factor loadings of early scale items by modality.

factor represents items that reflect the first two levels of Konrad's model: "information sharing and communication" as well as "cooperation and coordination." We defined this factor as "informal staff activities—cooperation and coordination." The second factor comprises eight items that reflect Konrad's third and fourth level of integration. These items represent greater degrees of collaboration and consolidation. We labeled this factor as "formal policies and system design—collaboration and consultation." We repeated the factor analysis on the residential programs and outpatient programs separately. The findings for the residential programs were similar to the total sample with the exception that the item "we have written agreements providing space for services" failed to load on the second factor. The findings for the factor analysis conducted on the outpatient programs were also similar to the findings from the total sample with two exceptions. On the first factor, the item "we hold joint staffing/case reporting/treatment consultation" did not load significantly on factor 1 and the item "we share budgetary oversight with these programs" did not load significantly on factor 2.

	Total Sample (N = 140)	Residential (N = 47)	Outpatient (N = 93)
	%	%	%
FACTOR 1			
1. We have systematic referral and follow-up for treatment and support services	38.6	38.3	38.7
2. We coordinate policies and procedures to accommodate each other's requirements	35.0	29.8	37.6
3. We share information on services	70.7	70.2	71.0
4. We hold joint staffing/case reporting/treatment consultation	36.4	38.3	35.5
FACTOR 2			
1. We have developed written agreements for training staff	55.0	57.4	53.8
2. Our organizations have pooled funding	26.4	25.5	26.9
3. We have written agreements providing space for services	39.3	31.9	43.0
4. Our organizations have uniform eligibility requirements	50.7	46.8	52.7
5. We share administrative oversight with these programs	40.7	34.0	44.1
6. We share budgetary oversight with these programs	27.1	31.9	24.7

Table 3. Frequency of early scale items by modality type.

Table 3 contains the percentage of agencies that responded positively to the systems integration items. For the first factor, cooperation and coordination, the findings for the residential facilities and the outpatient facilities are very similar. In both cases, the item "we share information on services" was endorsed by over 70% of the reporting organizations. For factor 2, collaboration and consultation, the findings again are quite similar between the residential facilities and the outpatient facilities. For both types of facilities, over half of the organizations report that they "have developed written agreements for training staff" (57.4% and 53.8%). On the low end, only about a quarter of the agencies report that their "organizations have pooled funding" (25.5% and 26.9%). In general, the findings in Table 3 show that the residential and outpatient organizations are quite similar in reporting activities that are less structured as well as structured.

Table 4 contains an assessment of the scalability of the items contained in each factor. In Factor 1 the overall scale reliability is alpha = 0.587, showing a low but acceptable alpha. The four items contained in this scale each correlate moderately with the total scale. The overall reliability score for the second factor (alpha = 0.729) shows a much stronger reliability. The eight items contained in the scale are fairly highly correlated with the total scale.

	r
FACTOR 1	
1. We have systematic referral and follow-up for treatment and support services	0.317
2. We coordinate policies and procedures to accommodate each other's requirements	0.452
3. We share information on services	0.332
4. We hold joint staffing/case reporting/treatment consultation	0.374
alpha = .587	
FACTOR 2	
1. We have developed written agreements for training staff	0.440
2. Our organizations have pooled funding	0.516
3. We have written agreements providing space for services	0.468
4. Our organizations have uniform eligibility requirements	0.470
5. We share administrative oversight with these programs	0.360
6. We share budgetary oversight with these programs	0.445
alpha = .729	

Table 4. Corrected Item—total correlation and internal consistency (total sample, N = 140).

Discussion

Summary of Findings

Various forces contribute to more integrated practice approaches within social service agencies, particularly in substance abuse treatment settings. In addition to an economic interest in creative responses that maximize resources, providers incorporate new knowledge to improve outcomes. For example, research on adverse childhood experiences (ACE) calls for movement beyond piecemeal interventions and fragmented services (Larkin & Records, 2007). Substance abuse treatment providers have long recognized the influence of substance abuse problems on mental health, housing, job stability, family dynamics, health challenges, and other issues. This has led to a concern about the way in which service system designs can facilitate or impede recovery (Kraft & Dickinson, 1997). The current study responds to the call for service integration by exploring empirical responses to items reflecting Konrad's (1996) model of service integration and pointing to next steps in measurement.

The Early Scale supports social workers in assessing whether a substance abuse treatment agency provides little to no integration, informal service integration activities, or formal service integration activi-

ties. The Early Scale does not test levels of integration but does assess categories of observable collaborative and integrative staff and activities defined as informal and formal, which can be mapped to the Upper-Right and Lower-Right quadrants. The development of the Early Scale contributes to the growing call for service integration by providing a way for social service providers to assess specific collaborative and integrative activities while pointing to the need for a more multidimensional measure to address the research gap in service integration.

Over half of the organizations surveyed reported that they have developed written agreements for training staff with an organization with which they had an important relationship in serving the target population. Residential and outpatient substance abuse treatment agencies were similar in their reports of both informal (frontline staff activities [Upper-Right quadrant]) and formal (policies and systems design [Lower-Right quadrant]) service integration activities. These findings suggest that services in residential and outpatient substance abuse treatment organizations are being re-arranged in response to the complex needs of people with substance abuse problems. Staff persons are engaging in both informal and formal activities to accomplish this goal. A quarter of agencies reported that they have pooled agency funding to provide integrated activities. Thus, some agencies are finding ways to fund integrated services together.

Implications for Practice and Theory

Providers serving substance abusing and other multi-problem populations can benefit from tools to support their attention to systems of care and their ability to engage in organizational interventions in support of client recovery. Service integration can allow clients to spend more time on recovery than navigating fragmented services (Kraft & Dickinson, 1997). An ability to assess integration activities is a beginning step that can help social service providers and agency directors explore whether formal or informal collaborative and integrative activities support client recovery as well as the impact of policies on specific activities. Yet, if current fragmented organizational arrangements are not adequately serving multi-problem client groups most in need of supports, there is a need for a multidimensional measurement scale that captures all of the ingredients involved in service integration—leadership, culture, and systemic design. A Whole Delivery Measure would facilitate practice and research of comprehensive and streamlined services that support the whole person, advancing theoretical developments.

The Early Scale's ability to distinguish formal versus informal integration may be helpful information to incorporate into supervision and staff development, which leads to new questions and next steps. If the Early Scale reveals that an agency has formal systemic policies (Lower-Right quadrant) without informal integration activities (Upper-Right quadrant), this suggests that organizational members may not be carrying out integrated service delivery in spite of policies calling for more integration. It is possible, for example, that even services offered at the same site may not be well integrated with one another (Larkin, 2010). Leaders may want to explore ways to enhance their own development to influence organizational social networks in a way that supports more informal integration activities—especially to meet the goal of formal integration policies and procedures. Restorative Integral Support (RIS), for example, emphasizes the importance of leadership and policies that promote self-care/development practices for the staff who provide the relationship-building and role modeling that creates the culture within which services are integrated (Larkin et al., 2012). Integral Theory (Wilber, 2000, 2006) helps explain that the combination of various kinds of reflective and health-oriented practices across lines of development can have a synergistic effect to mobilize overall consciousness development. One's capacity to love and include expands along with awareness and identity (see Wilber, 2006). It may also be helpful to notice when the organizational members begin moving toward informal integration before formal integration is in place. In this case, organizational leaders can consider ways in which policies and procedures can formalize service integration in support of staff concerns.

The Early Scale was developed from broad, objective behavioral activities set forth by Konrad (1996).

There may be other activities falling within each category that were not captured in the measure. Additionally, the instrument itself does not assess organizational culture or the developmental capacity of leaders, which tend to be reflected in a range of behaviors beyond the interactions labeled here as formal, informal, or non-integrative activities. While the Early Scale measures activities, we do not know what levels of awareness and inter-subjective processes those activities reflect. Furthermore, while we can differentiate informal and formal activities labeled as collaborative and integrative, we are not able to use Konrad's model to distinguish levels of integration. Integral Theory (2000) points out that rule-oriented, competitive, collaborative, and integrative activities are Upper-Right quadrant behaviors associated with Upper-Left quadrant levels of consciousness development. The Early Scale therefore reveals the need for a more refined and multi-dimensional conceptual understanding of service integration.

Research Implications

For future research, the Early Scale can assess organizational activities in the direction of service integration. This will begin the study of whether informal and formal service integration activities are associated with enhanced access to services, especially for multi-problem population groups. The measure of formal and informal service integration activities can also be a step in connecting type of integration activities to agency outcomes as well as exploring whether formal, informal, or the combination of these activities contribute to better outcomes. Of note, however, outcomes research on informal Upper-Right behaviors or formal Lower-Right quadrant policies that does not take other quadrants into account is likely to find mixed results on "integration." In order to assess whether more integrated services produce better outcomes, there is a need to increase the practice and conceptual understanding of integration (Larkin, 2010). A Whole Delivery Measure (WDM) would include and transcend the Early Scale by assessing leadership capacity and social bonding in addition to informal and formal integrative activities. This would allow for a more nuanced understanding of service integration and the influence on agency outcomes, including whether more integrated agencies are better able to support client recovery. If integration leads to better outcomes, we may want to support agency leaders in self-development as well as offering a practice framework for integration.

A first step in creating a WDM could involve combining the Early Scale with a measure of leadership development (see Cook-Greuter, 1999) in program directors and a measure of the emotional and social well-being of staff—the Mental Health Continuum Short Form (MHC-SF; Keyes, 2007). Next, integral concepts would be applied to expand upon types of formal and informal activities (i.e., behaviors reflective of a greater spectrum of consciousness development) as well as types of social networks within which services are integrated (i.e., characterizing the healthy expression of traditional, competitive, collaborative, and integral networks within agencies). It is recommended that the WDM be tested and developed in other types of social service agencies beyond substance abuse treatment so that it can be refined for use by any agency serving people experiencing multiple problems. Focus groups would strengthen understanding of the social networks associated with staff emotional and social well-being, providing a qualitative complement to this measure. The MHC-SF could also be used as a quantitative measure of service outcomes in conjunction with focus groups among those served.

Given the increasing call for service integration, and the research gap in this area, the Early Scale is an important step leading to a WDM that facilitates research on service integration to advance the theory and practice of comprehensive, whole person supports. This will help assess and improve service access for multi-problem populations, allow for a more nuanced understanding of the impact of service integration on outcomes, and strengthen practice and research on integration.

Conclusion

This article presented the Early Scale, which measures formal and informal service integration activities within substance abuse treatment agencies in the State of Maryland, and calls for a WDM to further practice and research on service integration. The Early Scale distinguishes formal and informal service integration activities in residential and outpatient substance abuse treatment programs. A multi-dimensional measure of integration is needed to carry out research on comprehensive, whole-person supports for people experiencing multiple problems. The Early Scale can be combined with proposed measures of leadership development and healthy social networks. The article recommends supplementing the combined quantitative measures with qualitative data revealed through staff focus groups to create the WDM. The WDM can be tested and developed within a range of social service agencies assisting people experiencing multiple and complex problems associated with the accumulation of early adversity. While each agency identifies its own expected outcomes, the measurement of emotional and social well-being is likely to be useful in assessing the impact and results of comprehensive, whole-person supports upon those served.

Acknowledgements

John Records, Executive Director, Center for Post-Trauma Wellness, and co-director of the National Center for Excellence in Homeless Services, offered ongoing support. Joseph J. Shields, Ph.D., Associate Professor, the Catholic University of America, carried out the statistical analysis, wrote much of the methodology section, and provided editing support for earlier (non-integral) versions of this article. Peter J. Delany, Ph.D., U.S. Public Health Service, Assistant Surgeon General of the United States, contributed Konrad's (1996) model. The current article re-analyzes data collected for a dissertation directed by Dr. Shields and reviewed by Dr. Delany (Larkin, 2010). Dennis McCracken, Ph.D., helpfully introduced the work of Corey Keyes (2007), and we participated in discussions related to the development of a Whole Delivery Measure with a sub-committee of the National Child Care Transformation Movement group led by Matt Obert, L.C.S.W., Director of Operations at Chaddock (affiliate of the National Child Traumatic Stress Network, funded by SAMHSA).

REFERENCES

Abbott, A.A. (2002). Health care challenges created by substance abuse: The whole is definitely bigger than the sum of its parts. *Health & Social Work, 27*(3), 162-166.

Cook-Greuter, S. (1999). Retrieved April 1, 2013, from http://www.cook-greuter.com/Publications.htm.

Delany, P.J., Shields, J.J., & Flynn, P.M. (2003). Patient and program factors in obtaining wrap-around services. *Journal of Substance Abuse Treatment, 25*, 165-175. DOI:10.1016/S0740-5472(03)00126-0

Delany, P.J., Shields, J.J., & Roberts, D.L. (2008). Program and client characteristics as predictors of the availability of social support services in community-based substance abuse treatment programs. *Journal of Behavioral Health Services & Research, 36*(4) 450-464.

Axelsson, R., Axelsson, S.B. (2006). Integration and collaboration in public health—a conceptual framework. *International Journal of Health Planning and Management, 21*, 75-88. DOI: 10.1002/hpm.826

Bailey, D. & Koney, K.M. (1996). Interorganizational community-based collaboratives: A strategic response to shape the social work agenda. *Social Work, 41*(6), 602-611.

Barreira, P., Espey, B., Fishbein, R., Moran, D., & Flannery, R.B. (2000). Linking substance abuse and serious mental illness service delivery systems: Initiating a statewide collaborative. *The Journal of Behavioral Health Services & Research, 27*(1), 107-113. DOI: 10.1007/BF02287808

Carlson, B. (2006). Best practices in the treatment of substance abusing women in the child welfare system. *Journal of Social Work Practice in the Addictions, 6*, 97-115. DOI:10.1300/J160v06n03_08

Cornelius, L.J. (2002). Defining substance abusers using

a prism: What you see is what you get. *Health & Social Work, 27*(3), 234-237.

D'Aunno, T. & Vaughn, T.E. (1995). An organizational analysis of service patterns in outpatient drug abuse treatment units. *Journal of Substance Abuse, 7*, 27-42. DOI: 10.1016/0899-3289(95)90304-6

Darlington, Y., Feeney, J.A., & Rixon, K. (2005). Interagency collaboration between child protection and mental health services: Practices, attitudes, and barriers. *Child Abuse & Neglect, 29*(10), 1085-1098. DOI: 10.1016/j.chiabu.2005.04.005

Darlington, Y. & Feeney, J.A. (2008). Collaboration between mental health and child protection services: Professionals' perceptions of best practice. *Children and Youth Services Review, 30*(2), 187-198. DOI: 10.1016/j.childyouth.2007.09.005

Dennis, D.L., Steadman, H.J., & Cocozza, J.J. (2000). The impact of federal systems integration initiatives on services for mentally ill homeless persons. *Mental Health Services Research, 2*(3), 165-174. DOI: 10.1023/A:1010193810937

DiLorenzo, P., Johnson, R., & Bussey, M. (2001). The role of spirituality in the recovery process. *Child Welfare, 80*(2), 257-273.

Ducharme, L.J., Mello, H.L., Roman, P.M., Knudsen, H.K., & Johnson, J.A. (2007). Service delivery in substance abuse treatment: Reexamining "comprehensive" care. *Journal of Behavioral Health Services and Research, 34*(2), 121-136. DOI: 10.1007/s11414-007-9061-7

Durkin, E.M. (2002). An organizational analysis of psychosocial and medical services in outpatient drug abuse treatment programs. *The Social Service Review, 76*(3), 406-429. DOI: 10.1086/341182

Esbjörn-Hargens, S. (2009). An overview of Integral Theory: An all-inclusive framework for the 21st century. Integral Institute, *Resource Paper No. 1,* 1-24. Retrieved August 9, 2013, from http://www.dialogue4health.org/pdfs/3_18_09/E_H_Overview-IT.pdf.

Etheridge, R.M., Craddock, S.G., Dunteman, G.H., & Hubbard, R.L. (1995). Treatment services in two national studies of community-based drug abuse treatment programs. *Journal of Substance Abuse, 7*, 9-26. DOI:10.1016/0899-3289(95)90303-8

Etheridge, R.M., Hubbard, R.L., Anderson, J., Craddock, S.G., & Flynn, P. (1997). A treatment structure and program services in the drug abuse treatment outcome study (DATOS). *Psychology of Addictive Behavior, 11*(4), 244-260. DOI: 10.1037/0893-164X.11.4.244

Felitti, V.J., Anda, R.F., Nordenberg, D., Williamson, D.F., Spitz, A.M., Edwards, V., Koss, M.P., & Marks, J.S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study. *American Journal of Preventative Medicine, 14*(4), 354-364.

Fletcher, B.W.; Broome, K.M.; Delany, P.J.; Shields, J.; & Flynn, P.M. (2003). Patient and program factors in obtaining wrap-around services. *Journal of Substance Abuse Treatment, 25,* 165-175.

Fletcher, B.W., Lehman, W.E.K., Wexler, H.K., Melnick, G., Taxman, F.S., & Young, D.W. (2009). Measuring collaboration and integration activities in criminal justice and substance abuse treatment agencies. *Drug and Alcohol Dependence*, 554-564. DOI: 10.1016/j.drugalcdep.2009.01.001

Friedmann, P.D., Alexander, J.A., Jin, L., & D'Aunno, T.A. (1999). On-site primary care and mental health services in outpatient drug abuse treatment units. *The Journal of Behavioral Health Services & Research, 26*(1) 80-94. DOI: 10.1007/BF02287796

Friedmann, P.D., Lemon, S.C., Stein, M.D., Etheridge, R.M., & D'Aunno, T.A. (2001). Linkage to medical services in the drug abuse treatment outcome study. *Medical Care, 39*(3), 284-295. DOI:10.1097/00005650-200103000-00008

Foster, M.E., Stephens, R., Krivelyova, A., & Gamfi, P. (2008). Can systems integration improve mental health outcomes for children and youth? *Children and Youth Services Review, 29*(10), 1301-1319.

Gardner, R. (2006). The challenge of integrating children's services. *Child Abuse Review, 15*, 373-376. DOI: 10.1002/car.966

Gil de Gibaja, M. (2001). An exploratory study of administrative practice in collaboratives. *Administration in Social Work, 25*(2), 39-57.

Goodfellow, M. & Parish, K. (2000). Continuum of care for the rural homeless: Examination of three cas-

es. *Sociological Viewpoints, 16*, 32-45.

Green, B.L., Rockhill, A., & Burris, S. (2008). The role of interagency collaboration for substance abusing families involved with child welfare. *Child Welfare, 87*(1), 29 - 61.

Hambrick, R.S. & Rog, D.R. (2000). The Pursuit of Coordination: The Organizational Dimension in the Response to Homelessness. *Policy Studies Journal, 28*(2), 353-364. DOI: 10.1111/j.1541-0072.2000.tb02035.x

Horwath, J. & Morrison, T. (2007). Collaboration, integration and change in children's services: Critical issues and key ingredients. *Child Abuse & Neglect, 31*, 55-69. DOI:10.1016/j.chiabu.2006.01.007

Keyes, C.L.M. (2007). Promoting and protecting mental health as flourishing: A complementary strategy for improving national mental health. *American Psychologist, 62*(2), 95-108.

King, G. & Meyer, K. (2006). Service integration and co-ordination: A framework of approaches for the delivery of co-ordinated care to children with disabilities and their families. *Child: Care, Health, & Development, 32*(4), 477-492. DOI:10.1111/j.1365-2214.2006.00610.x

Konrad, E.L. (1996). A Multidimensional Framework for Conceptualizing Human Services Integration Initiatives. *New Directions for Evaluation (No. 69)*. San Francisco, CA: Jossey-Bass Publishers.

Kraft, K.M. & Dickinson, J.E. (1997). Partnerships for improved service delivery: The Newark target cities project. *Health & Social Work, 22*(2), 143-148.

Larkin, H. (2006). Integral management and the effective human service organization. *AQAL: Journal of Integral Theory and Practice, 1*(3), 184-203.

Larkin, H. (2006). Social work as an Integral profession. *AQAL: Journal of Integral Theory and Practice, 1*(2), 320–350.

Larkin, H. (2010). *Systems Integration and Substance Abuse Service Delivery*. Saarbruecken, Germany: Lambert Academic Publishing.

Larkin, H., & Records, J. (2007). Adverse childhood experiences: Overview, response strategy, and integral theory. *AQAL: Journal of Integral Theory and Practice*, *2*(3), 1-25.

Larkin, H., Beckos, B., and Martin, E. (In press). Applied integral methodological pluralism: Designing comprehensive social services program evaluation. In S. Esbjörn-Hargens (Ed.), *Enacting an integral future.* Albany, NY: SUNY Press.

Larkin, H., Beckos, B., and Shields, J. (2012). Mobilizing resilience and recovery in response to adverse childhood experiences (ACE): A restorative integral support (RIS) case study. *Journal of Prevention & Intervention in the Community, 40*(4), 335-346.

Lehman, W.E., Fletcher, B.W., Wexler, H.K., & Melnick, G. (2009). Organizational factors and collaboration and integration activities in criminal justice and drug abuse treatment agencies. *Drug and Alcohol Dependence, 103*, S65-S72. DOI:10.1016/j.drugalcdep.2009.01.004

Longoria, R.A. (2005). Is inter-organizational collaboration always a good thing? *Journal of Sociology and Social Welfare, 32*(3), 123-138.

Marquart, J.M. & Konrad, E.L (Eds). (1996). Evaluating initiatives to integrate human services. New Directions for Evaluation: A Publication of the American Evaluation Association. San Francisco, CA: Jossey-Bass Publishers. DOI:10.1002/ev.1024

Marsh, J.C., Ryan, J.P., Choi, S., & Testa, M.F. (2006). Integrated services for families with multiple problems: Obstacles to family reunification. *Children and Youth Services Review, 28*(9), 1074-1087. DOI: 10.1016/j.childyouth.2005.10.012

McCurdy, K.& Daro, D. (2001). Parent involvement in family support programs: An integrated theory. *Family Relations, 50*(2), 113-121. DOI: 10.1111/j.1741-3729.2001.00113.x

Mizrahi, T. & Rosenthal, B.B. (2001). Complexities of coalition building: Leaders' successes, strategies, struggles, and solutions. *Social Work, 46*(1) 63-78. DOI: 10.1177/104973150101100204

Mumola, C.J. & Karberg, J.C. (2006). Drug use and dependence, state and federal prisoners, 2004. Bureau of Justice Statistics, U.S. Department of Justice, Washington, DC, NCJ Publication No. 21350.

Reilly, T. (2001). Collaboration in action: An uncertain process. *Administration in Social Work, 25*(1), 53-74.

Robbins, S.P.; Chatterjee, P. & Canda, E.R. (2012). *Contemporary human behavior theory: A critical perspective for social work (3rd Edition)*. Boston, MA: Allyn & Bacon.

Rosenheck, R. (2000). Cost-effectiveness of services for mentally ill homeless people: The application of research to policy and practice. *American Journal of Psychiatry, 157*(10), 1563-1570. DOI:10.1176/appi.ajp.157.10.1563

Rosenheck, R.A. (2001). Organizational process: A missing link between research and practice. *Psychiatric Services, 52*(12), 1607-1612. DOI:10.1176/appi.ps.52.12.1607

Rosenheck, R.A., Lam, J., Morrissey, J.P., Calloway, M.O., Stolar, M., Randolph, F., & the ACCESS National Evaluation Team. (2002). Service systems integration and outcomes for mentally ill homeless persons in the ACCESS program. *Psychiatric Services, 53*(8), 958-966. DOI:10.1176/appi.ps.53.8.958

Rowe, M., Hoge, M.A., & Fisk, D. (1998). Services for mentally ill homeless persons: Street-level integration. *American Journal of Orthopsychiatry, 68*(3), 490-496. DOI:10.1037/h0080358

Ryan, J.P., Marsh, J.C., Testa, M.F., & Louderman, R. (2006). Integrating substance abuse treatment and child welfare services: Findings from the Illinois alcohol and other drug abuse waiver demonstration. *Social Work Research, 30*(2), 95-107.

Schofield, R.F., & Amodeo, M. (1999). Interdisciplinary teams in health care and human services settings: Are they effective? *Health & Social Work, 24*(3), 210-219.

Smith, B. & Mogro-Wilson, C. (2007). Multi-level influences on the practice of inter-agency collaboration in child welfare and substance abuse treatment. *Children and Youth Services Review, 29*(5), 545-556. DOI:10.1016/j.childyouth.2006.06.002

Taxman, F.S., Young, D.W., Wiersema, B., Rhodes, A., & Mitchell, S. (2007). The national criminal justice treatment practices survey: Multilevel survey methods and procedures. *Journal of Substance Abuse Treatment, 32*, 225-238. DOI:10.1016/j.jsat.2007.01.002.

Thomas, P. (2004). An Integral Approach to Social Work. *Journal of Human Behavior in the Social Environment.*

Walter, U.M. & Petr, C.G. (2000). A template for family-centered interagency collaboration. *Families in Society: The Journal of Contemporary Human Services, 81*(5), 494.

Wilber, K. (1995). *Sex, ecology, and spirituality: The spirit of evolution*. Boston, MA: Shambhala Publications.

Wilber, K. (2000). *A theory of everything: An integral vision for business, politics, science and spirituality*. Boston, MA: Shanbhala Publications.

Wilber, K. (2006). *Integral spirituality: A startling new role for religion in the modern and postmodern world*. Boston, MA: Integral Books.

Wong, Y.I., Park, J.M., & Nemon, H. (2006). Homeless service delivery in the context of continuum care. *Administration in Social Work, 30*(1), 67-94. DOI:10.1300/J147v30n01_05.

HEATHER LARKIN, Ph.D., is an Assistant Professor at the State University of New York (SUNY) Albany, and co-directs the National Center for Excellence in Homeless Services with John Records. Heather volunteers as consultant on research and education to the Center for Post-Trauma Wellness (www.posttraumawellness.net). She has researched the prevalence of adverse childhood experiences (ACE) and service use among homeless people and co-developed the Restorative Integral Support (RIS) model with John Records. Heather leads the ACE Think Tank and Action Team meetings and works closely with Prevent Child Abuse America and other national agencies to raise awareness of ACE consequences and effective response strategies. She received the 2012 Champion of Character Educator Leadership Award from Sage Colleges in Troy, New York.