

Managed Care, Inter-agency Linkages, and Outpatient Substance Abuse Treatment

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Although treatment of co-occurring behavioral and physical health problems could be facilitated by the linkages between health care providers, it is uncertain how such inter-agency linkages are affected by managed care. We used a sample of 167 service linkages to examine the effects of managed care arrangements on inter-agency communication, coordination, and perceived effectiveness. These linkages were identified based on interviews with 62 outpatient substance abuse treatment units in 2000. Results indicate that frequency of communication and inter-agency coordination are positively related to several managed care arrangements and may moderate the relationships between managed care arrangements and perceived effectiveness.

KEY WORDS: communication; coordination; effectiveness; inter-agency linkages; managed care arrangements.

INTRODUCTION

Between 7 and 10 million individuals have co-occurring mental health and substance abuse problems in the United States of America (Report to Congress on the Treatment and Prevention of Co-Occurring Behavioral Health and Mental Disorders 2002). Millions of these individuals also have co-occurring behavioral health and physical health problems (Cherubin & Spira, 1993; O'Connor, Molde, Henry, Schockcor, & Schoottenfeld, 1992; Stein, Samet, & O'Connor, 1993). It is well known that behavioral health treatment is most effective

when co-morbidities are treated concomitantly (Drake, Mercer-McFadden, Mueser, McHugo, & Bond, 1998; Hubbard et al., 1989; Osher & Drake, 1996). However, integrated services are frequently inaccessible (Calloway & Morrissey, 1998).

Several studies have argued that integrated treatment models that provide a full range of on-site services under the supervision of a single administrative system are the most effective strategies for integrating services (Ahrens, 1998; Bachman, Moggi, Hirsbrunner, Donati, & Brodbeck, 1997; Drake et al., 1998). However, on-site integrated models tend to focus on co-morbid substance abuse and serious mental illness, such as schizophrenia. It remains unclear whether these models are effective for treating clients with minor mental illness and/or physical health problems that co-occur with substance abuse problems. In fact, providing on-site integrated services within a unified administrative structure presents a significant challenge to behavioral health treatment organizations because of their lack of expertise and resources (see also Bird, Lambert, Hartley, Beeson, & Coburn,

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1998; Friedman, Alexander, & D'Annunzio, 1997). This may explain partially why very few fully integrated treatment models exist among providers of behavioral health treatment (Primm et al., 2000).

As an alternative, behavioral health treatment organizations have tried to meet the multiple health needs of their clients through formal or informal linkages with external service providers. Examples of such collaborative service arrangements include joint programs, exclusive service contracts, and ad hoc referrals (D'Annunzio, 1997; Kaluzny, Zuckerman, & Rabiner, 1998). It is assumed that service coordination and communication between various behavioral health treatment organizations, as well as physical health providers may improve clients' access to needed services and increase their positive outcomes (Grella & Gilmore, 2002). In practice, a variety of ideological, organizational, and financial differences have made successful collaboration and service coordination among these agencies difficult to achieve (Bachrach, 1987; Hamilton-Brown, Grella, & Cooper, 2002; Ridgely, Goldman, & Willenbring, 1990; Rosenheck, 1988). More recently, the challenge of service coordination has been exacerbated by the uncertainty associated with managed care penetration in the behavioral health treatment markets.

Some critics have argued that managed care may introduce additional administrative burdens and impose more financial constraints on behavioral health treatment providers (Alexander & Lemak, 1997b; Kirschner & Lachicotte, 2001; Lemak & Alexander, 2001), thus limiting or disrupting their inter-agency relationships. Others point out that the risk assumption of managed care programs encourages the provision of comprehensive services (Christianson, Lurie, Finch, Moscovice, & Hartley, 1992) and therefore may strengthen the coordination and communication between behavioral health treatment organizations and other service providers. Moreover, to the extent that coordinated services are more cost-effective than fragmented services (Institute for Health Policy, 1995), improved coordination and communication among providers in treating behavioral health clients may be encouraged by managed care organizations.

In this paper, we investigate how managed care arrangements affect the inter-agency relationships of outpatient substance abuse treatment units (OSATs) with primary care and mental health care agencies, focusing on the quality of transaction

processes and perceived effectiveness. Specifically, five questions are examined: (1) Do managed care arrangements increase the frequency of communication between OSATs and primary care and mental health providers? (2) Do managed care arrangements increase coordination between OSATs and primary care and mental health providers? (3) Do managed care arrangements positively influence how OSATs perceive the effectiveness of their relationships with primary care and mental health providers? (4) Does frequency of communication moderate the effects of managed care arrangements on perceived effectiveness? And, (5) does inter-agency coordination moderate the effects of managed care arrangements on perceived effectiveness?

Much research is available concerning the intra-agency effects of managed care. For example, managed care appears to be associated with a reduction in inpatient behavioral health treatment (Galanter, Keller, Dermatis, & Egelko, 2000), an increase in outpatient service (Rohrer, Rohland, Westermann, Knott, & Zwick, 1999), and greater administrative burden as perceived by OSAT directors (Alexander & Lemak, 1997a). However, none of these studies have considered the impact of managed care on the inter-agency linkages between OSATs and other health service providers. Thus, this study will have two immediate implications. First, for OSATs and their partner agencies, our findings would indicate possible advantages or threats that managed care arrangements may pose to their ongoing relationships. Second, for managed care organizations, our study would inform them of strategies to enhance the inter-agency linkages between OSATs and primary care and mental health agencies in treating substance abuse individuals, particularly those with co-occurring disorders.

METHODS

Data

The unit of analysis in this study is the linkage of an OSAT with either a primary health provider or a mental health provider. The sample consisted of 167 such linkages. These linkages were identified based on interviews with 62 OSATs that were selected using stratified random sampling from a nationally representative sample that participated in the National Drug Abuse Treatment Services Study (NDATSS) in 1999. The sample was stratified into

three categories based on the level of OSAT managed care involvement as measured by the proportion of each agency's total revenue and client caseload derived from managed care contracts. If an agency reported having no managed care contracts, it was placed in the "none" category. For agencies that reported managed care contracts, a median score was created by using the following three questions to create the remaining categories, "some" and "a lot" "How many managed care arrangements did your unit participate in (both private and public)?" "What percentage of your unit's clients were covered under managed care arrangements (both private and public)?" and "What percentage of the total revenue came from contractual managed care arrangements?"

Our survey was administered in 2000 by a telephone interview with the OSAT's unit director or a similarly knowledgeable person. To assess the OSAT's inter-agency linkages with other health service providers, we first asked the respondent to nominate as many as three primary care facilities and three mental health agencies that were most important in providing services to the OSAT clients. Respondents were then asked to evaluate the nature of those relationships in terms of transaction processes and perceived effectiveness. Thus, unlike existing studies that examine the overall external relationships of behavioral health providers, we have unique information that allows us to explore and compare each of the inter-agency relations that an OSAT had in relation to managed care arrangements. In addition to such detailed inter-agency data, we also collected information on each OSAT's organizational structure, staffing patterns, client attributes, and service configurations.

Measures

Our interest was in examining how managed care arrangements affected the quality of inter-agency linkages as perceived by OSATs. The quality of linkages was conceptualized along three dimensions. Two of the dimensions, frequency of communication and inter-agency coordination, reflected the quality of transactions between agencies. The third dimension, perceived effectiveness, reflected relational outcomes.

Frequency of communication was measured with the question "How frequently does your program communicate with the other program?"

Answers to this question were coded on a five-point Likert scale with 5 = At least once a day, 4 = At least once a week, 3 = At least once a month, 2 = Less than once a month, and 1 = Never in the past 6 months.

Inter-agency coordination was conceptualized as the extent that OSATs and their linkage partners coordinated direct services, such as providing and/or receiving case summaries and follow-up contacts. Inter-agency coordination was operationalized as the mean of each OSAT's responses to nine questions about coordinated direct services, all measured on a five-point Likert scale. Those nine questions are listed in the Appendix.

Perceived effectiveness was conceptualized as the productivity, value, and overall satisfaction of a given linkage from the perspective of the OSAT (Van de Ven & Ferry, 1980). Specifically, perceived effectiveness was indicated as the mean response of each OSAT to the following three questions: "To what extent do you feel the relationship between your program and the other program is productive?" "To what extent is the time and effort spent in developing and maintaining the relationship with the other program worthwhile?" and "To what extent are staff in your program satisfied with the relationship with the other program?" Answers to these questions were coded on a five-point Likert scale from 0 to 4 with 0 = NO EXTENT, 1 = A LITTLE EXTENT, 2 = SOME EXTENT, 3 = GREAT EXTENT, and 4 = VERY GREAT EXTENT.

Several different aspects of managed care have been explored in the literature, including level of managed care involvement (based on the percentage of revenue from managed care or the percentage of clients covered by managed care programs), diversity of managed care contracts, and stringency of managed care oversight procedures (e.g., Alexander & Lemak, 1997b). The focus of this study was on managed care arrangements that might have direct relevance to an OSAT's inter-agency linkages. Specifically, four mutually exclusive, dichotomous variables were constructed to indicate the degree to which an inter-agency linkage between an OSAT and each of its external service providers was due to the requirement of managed care plans, or the degree of "managedness."

The four variables were (1) linkages due to managed care mandates (MCM), (2) linkages due to managed care panel (MCP), (3) the OSAT's participation in managed care (MC) and (4) no managed care arrangements. MCM was measured by the

OSAT's yes or no response to the statement, "Your program's relationship with the other program exists because it is required by a managed care organization." A linkage was considered to be due to a managed care panel (MCP) if the linked agency was on the OSAT's managed care panel, but the linkage was not mandated by a managed care organization. MC was measured based on whether an OSAT reported revenues from managed care plans, but in lieu of a mandate or its linkage partner being on the same managed care panel. The last variable, no managed care, indicated that the OSAT was not part of any managed care plan. This variable was used as the suppressed category in the regression analysis.

We also included several other variables in the analysis as covariates because they might affect the inter-agency linkages of OSATs. Those variables were the percentage of clients served by a given linkage partner, the geographic proximity between each OSAT and the linked agency, the duration of a linkage, and the auspice of the OSAT, measured by whether or not the OSAT a subsidiary of a parent organization.

As the percentage of clients served by a linked partner increases, issues such as client care and payment would require greater communication and coordination among the involved agencies. Geographic proximity facilitates both communication and coordination between agencies. Agencies with long-standing relationships are also likely to communicate frequently, to coordinate services, and to perceive their relationships as being effective. Finally, given that the organizational structure of free-standing OSATs differ from OSATs that are affiliated with parent organizations, it is possible that communication, coordination, and perceived effectiveness will vary by auspice.

Analyses

Given that the 167 linkages used in this study were identified by respondents from 62 OSATs, the linkages were inter-related and clustered within OSATs. This violated the assumption of independent observations in ordinary least squares regression analysis and may bias the estimation of regression coefficients. To account for the within-cluster correlations in the sample, generalized estimating equations (GEE) were used in the estimation of coefficients. GEE separates the effects of within-cluster correlations from the estimation of regres-

sion coefficients to produce consistent estimates of parameters (Zeger & Liange, 1992).

To test the first three research questions, the main effects of managed care arrangements, along with other covariates, were included to see if they were significantly correlated with the three dependent variables—frequency of communication, inter-agency coordination, and perceived effectiveness. Whether managed care arrangements positively or negatively affect the quality of inter-agency linkages, the linkage might be more positively perceived by the OSAT if there were increased inter-agency communication and coordination. We examined the potential moderating effects of communication and coordination on perceived effectiveness by including the interaction terms between indicators of managed care arrangements and communication and coordination in two separate models. Testing the moderating effects in separate models was to avoid potential bias that could be caused by multicollinearity.

RESULTS

The distribution and frequency of variables used in this study are shown in Table 1. OSATs reported communicating with their linked mental health and primary care agencies slightly more than once a month on average (mean = 3.32), but they reported relatively low levels of inter-agency coordination (mean = 1.83, for a range from 0 to 4). On average, an OSAT reported that their linkages were effective to some extent (mean = 2.52, for a range of 0–4).

There were 24 linkages (14%) due to mandates and 55 (33%) due to managed care panels. Fifty linkages (30%) consisted of OSATs that participated in managed care other than mandates or panels, and 38 linkages (23%) involved OSATs that had no managed care involvement. On average, about 15% of OSAT clients received mental health or primary care services from the linked agency. Fifteen percent of the linkages (or 24 linkages) involved OSATs located in the same or an adjacent building as their linked agency. The average duration of a linkage was between 5 and 10 years. One hundred four linkages (62%) were formed by OSATs that were a subsidiary of a parent organization whereas 63(38%) were formed by free-standing OSATs.

Table 2 presents the bivariate correlations among study variables. There appeared to be several

Table 1. Descriptive Attributes of Inter-Agency Linkages ($N = 167$)

Variables	Mean	SD	%
Frequency of Communication	3.32	1.12	–
Inter-agency Coordination	1.83	.98	–
Perceived Effectiveness	2.52	.73	–
Linkage due to Mandates (MCM)	–	–	–
Yes			14
No			86
Linkage due to Panel (MCP)	–	–	–
Yes			33
No			67
OSAT participation in Managed Care (MC)	–	–	–
Yes			30
No			70
Participation in Managed Care	–	–	–
Yes			77
No			23
Percentage clients served by linked provider	15.39	18.20	–
Average duration of linkage (years)	5–10	–	–
Proximity (in the same or adjacent building)	–	–	–
Yes			15
No			85
Auspice of OSAT	–	–	–
Free-standing			38
Subsidiary of a parent organization			62

significant correlations between indicators of managed care arrangements and the three dependent variables. Linkages mandated by managed care organizations (MCM) had a positive relationship with frequency of communication ($r = .20$, $p < .01$). Linkages due to managed care panel (MCP) was positively correlated with both inter-agency coordination ($r = .23$, $p < .01$), and perceived effectiveness ($r = .13$, $p < .05$). The OSAT's managed care participation (MC) was negatively related to perceived effectiveness ($r = -.20$, $p < .05$). Several covariates also showed significant correlations with the dependent variables. Notably, percentage of cli-

ents served by the linked agency and proximity of the linked agency were positively correlated with frequency of communication, inter-agency coordination, and perceived effectiveness of the linkage. On the other hand, OSAT auspice was negatively correlated with all three dependent variables and two of these correlations were statistically significant.

Table 3 shows the multivariate models that were set up to assess the direct effects of managed care on communication, coordination, and perceived effectiveness. Because of the relative small size of the sample that limits the statistical power of the analysis, we report all coefficients that are significant

Table 2. Bivariate Correlations Between Study Variables

	1	2	3	4	5	6	7	8	9	10	11
1. Frequency of communication	1.000										
2. Inter-agency coordination	.528	1.000									
3. Perceived effectiveness	.425	.503	1.000								
4. Linkage due to MC mandate	.205	.066	.084	1.000							
5. Linkage due to MC panel	.089	.232	.127	-.200	1.000						
6. OSAT participation in MC	-.069	.022	-.195	-.268	-.562	1.000					
7. No managed care	-.193	-.305	.040	-.222	-.467	-.355	1.000				
8. % clients served by linked partner	.287	.189	.299	.083	.105	-.066	-.059	1.000			
9. Proximity of linked partner	.326	.186	.227	.075	.100	.066	-.183	.371	1.000		
10. Duration of linkage	.190	.054	.070	.091	-.013	.081	-.081	.100	.008	1.000	
11. Auspice of OSAT	-.188	-.143	-.282	.069	-.005	.028	-.039	-.210	-.251	-.079	1.000

Table 3. Effects of Managed Care Arrangements on Frequency of Communication, Inter-Agency Coordination, and Perceived Effectiveness (N = 167)

	Frequency of Communication		Inter-agency Coordination		Perceived Effectiveness	
	<i>b</i>	SE	<i>b</i>	SE	<i>b</i>	SE
Linkage due to Mandates (MCM)	.014 ⁺	.009	.074 ⁺	.039	.028	.030
Linkage due to Managed Care Panel (MCP)	.009	.006	.068**	.024	-.000	.030
OSAT participation in Managed Care (MC)	.004	.005	.026	.022	-.017	.016
% Clients Served by Linkage Partner	.000	.000	.019	.000	.001 ⁺	.001
Geographic Proximity Linkage Partner	.012	.008	.001	.020	.017	.011
Duration of Linkage	.004	.003	.004	.008	.004	.017
Auspice of OSAT	-.011	.010	-.035	.024	-.056	.039
(Constant)	2.9916	.6263	1.8900	.1884	2.3390	.3262

⁺*p* < .10; **p* < .05; ***p* < .01.

at *p* < .10. Further, as a linear function was specified in the GEE models, all the reported beta coefficients are in the original metric of the dependent variable—that is, the coefficients could be interpreted as a 1 unit change in the independent variable resulting in a “b” unit change in the dependent variable, where “b” is the coefficient.

According to the analysis, MCM was significantly and positively associated with frequency of communication (*b* = .014, *p* < .10) and inter-agency coordination (*b* = .074, *p* < .10). However, MCM was not significantly associated with whether or not the OSAT perceived the linkage to be effective. MCP was significantly and positively related with

only one of the three dependent variables, i.e., inter-agency coordination (*b* = .068, *p* < .01). MC was not statistically related with any of the dependent variables. Of the covariates, only percentage of clients served by the linked agency showed a significant and positive relationship with perceived effectiveness (*b* = .001, *p* < .10); none of the other covariates were significant in the multivariate analyses.

We further examined the moderating effects on perceived effectiveness and the results are presented in Table 4. Interestingly, with the inclusion of the main effects and interaction terms of frequency of communication and inter-agency coordination, all the coefficients for managed care arrangements

Table 4. The Moderating Effects of Frequency of Communication and Inter-Agency Coordination on the Relationships Between Managed Care Arrangements and Perceived Effectiveness (N = 167)

	Model 1		Model 2	
	<i>b</i>	SE	<i>b</i>	SE
Linkage due to Mandates (MCM)	-.127 ⁺	.072	-.107**	.039
Linkage due to Managed Care Panel (MCP)	-.177	.199	-.208	.155
OSAT participation in Managed Care (MC)	-.064	.064	-.144*	.067
Frequency of Communication	.011	.013	–	–
Inter-agency Coordination	–	–	.002	.022
% Clients Served by Linkage Partner	.001	.001	.002 ⁺	.001
Geographic Proximity of Linkage Partner	-.006	.020	.017	.024
Duration of Linkage	.002	.017	.002	.017
Auspice of OSAT	-.051	.039	-.039	.038
MCM * Frequency of Communication	.039 ⁺	.022	–	–
MCP * Frequency of Communication	.049	.051	–	–
MC * Frequency of Communication	.012	.015	–	–
MCM * Inter-agency Coordination	–	–	.067*	.034
MCP * Inter-agency Coordination	–	–	.094	.067
MC * Inter-agency Coordination	–	–	.060 ⁺	.034
(Constant)	2.3325	.3271	2.3544	.3197

⁺*p* < .10; **p* < .05; ***p* < .01.

became negative and three of them were statistically significant in the analysis. Specifically, managed care mandates (MCM) showed a significant and negative correlation with OSATs' perception of linkage effectiveness in both models. Similarly, OSATs' participation in managed care (MC) displayed a significant and negative relationship with perceived effectiveness in model 2. Furthermore, consistent with our expectations, model 1 indicated that frequency of communication had a positive moderating effect on the association between MCM and perceived effectiveness ($b = .039, p < .10$). None of the other interaction terms in model 1 were significantly associated with perceived effectiveness. Similarly, model 2 shows that MCM interacts with inter-agency coordination to positively affect perceived effectiveness ($b = .067, p < .05$). Also, inter-agency coordination had a significant and positive moderating effect on the relationship between MC and perceived effectiveness ($b = .060, p < .10$).

DISCUSSION

The study was motivated by an increased presence of managed care in the behavioral health market and the concern about how managed care might affect the quality of relationships between behavioral health providers and primary care agencies in treating substance abuse individuals, particularly those with co-occurring substance abuse, mental health, and physical health problems. Findings indicated that certain types of managed care arrangements might facilitate inter-agency communication and coordination. Specifically, OSATs whose linkages with external service providers were

mandated by managed care organizations reported more frequent communication and better coordination with their linked agencies. OSATs also tended to experience better coordination with mental health or primary care agencies that were on the same managed care panel.

We further examined the perceived effectiveness of linkages in relation to managed care arrangements. Although the overall effects of managed care arrangements were not significant (Table 3), two of the indicators appeared to have direct and interactive effects on perceived effectiveness in the analysis (Table 4). Particularly, managed care mandates and OSATs' participation in managed care negatively influenced how OSATs perceived the effectiveness of their linkages with other health service providers. Such negative effects, however, were lessened by increased frequency of communication and improved coordination between OSATs and their linked agencies. Managed care panels, on the other hand, did not show any significant direct or interactive effect on perceived effectiveness.

A visual representation of our results may help interpret these dynamic relationships. As Figure 1 shows, managed care arrangements, in general, have direct and negative impact on perceived effectiveness of inter-agency linkages. They, at the same time, may affect perceived effectiveness positively and indirectly through frequency of communication and inter-agency coordination. These two paths of influence appear to offset each other, thus explaining the lack of an overall effect of managed care arrangements in Table 3. Another important point of the graph is the two positive and interactive effects associated with frequency of communication and inter-agency coordination. Hence, despite the

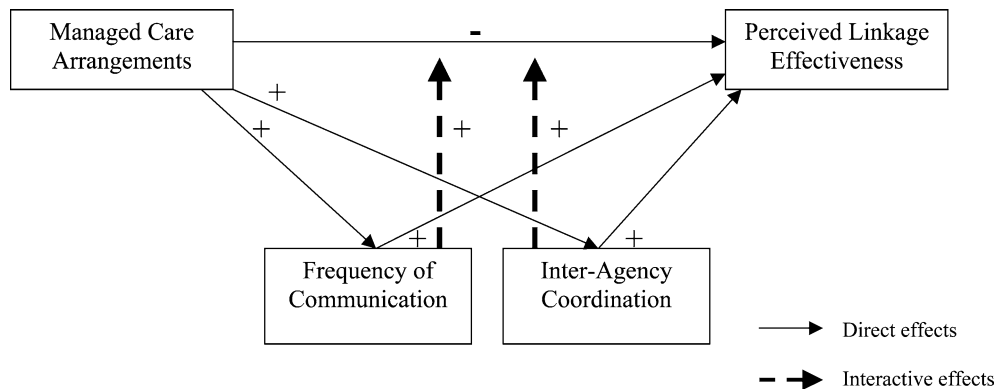


Fig. 1. The direct, indirect, and interactive effects of managed care arrangements on perceived effectiveness of linkages.

threat of managed care arrangements to the perceived effectiveness of inter-agency linkages—particularly mandates that require OSAT to work with a specific external service provider—such negative impact may be either counteracted or mitigated by frequent communication or improved coordination between OSATs and their linked agencies.

It has been documented elsewhere that managed care that many behavioral health leaders are apprehensive about their organization's involvement in managed care (Gabel, 1998). OSAT respondents that we interviewed seemed to resent being forced into a service relationship by managed care organizations and did not rate the relationships as effective as the ones they had established voluntarily. It was possibly because such administrative requirements intervened in the business operation of OSATs, disrupted their existing service and referral networks, and thereby fundamentally threatened the organizational autonomy of these organizations.

Nevertheless, our study also identified conditions under which managed care arrangements might help foster effective inter-agency linkages. In particular, managed care mandates and panels appeared to promote communication and coordination between agencies, which in turn might lead to more effective working relationships between OSATs and mental health and primary care providers. This underscores an important observation of the study that managed care arrangements, *per se*, do not necessarily result in negative or positive perception of linkage effectiveness. Rather, there are other dynamics that must be considered when assessing the impact of managed care, such as the partner agencies' level of communication and coordination, as well as the nature of the arrangement itself.

Several implications can be drawn from these findings. First, managed care organizations need to be prudent in how they help OSATs build a service network to effectively and efficiently treat individuals with substance abuse problems. For example, they can avoid such heavy-handed requirements as mandates and instead rely on the panel approach to encourage formation of service linkages. The latter, as the results showed, may improve inter-agency coordination and ameliorate negative perceptions.

Despite the priority given by various funding agencies to inter-agency relationships in recent years, communication and coordination of services have remained a problem in substance abuse treatment, possibly due to the diversity of service organizations involved in the treatment and the lack of

scientifically proven treatment protocols (Kavanagh et al., 2000; Ridgely et al., 1990). It is widely accepted that frequent communication between agencies facilitates inter-organizational relationships (Van de Ven & Walker, 1984), and that both inter-agency communication and inter-agency coordination are necessary to effectively address co-occurring disorders, such as mental illness, substance abuse, and primary health care issues (Grella & Gilmore, 2002). Despite the frequent criticism of managed care, findings of the study suggest that the active involvement of managed care organizations benefit inter-agency relations. Although, the study could not address client outcomes, having effective inter-agency relationships continues to be an important factor for treating co-morbid behavioral and primary health care problems (Grella & Gilmore, 2002).

As with most research, our study is limited in several ways. This study was cross-sectional and as such, the question of causality remains. Also, our data did not include information on treatment or outcomes. Thus, we cannot say definitively how mandated linkages affect client outcomes. It would be useful to examine how effectively services are integrated, in terms of actual treatment outcomes, under varying types of managed care. The data used in this study did not include information on the extent that managed care oversight procedures varied among mandated linkages, linkages formed in the context of managed care panels, and linkages that exist in lieu of a managed care arrangement. Thus, the specific underlying mechanisms that explain why mandated linkages increased communication, coordination, and under certain conditions, perceived effectiveness could not be ascertained from this study. Furthermore, it is important to interpret the findings in light of the continuing change in managed care activities in the behavioral health markets. Anecdotal evidence suggests that significant reduction among managed care organizations in managing outpatient substance abuse care. To what extent such reduction has occurred and how it may affect the inter-agency relationships that OSATs maintain in treating co-morbid clients will require further research.

Findings of the study also raise additional questions for future research. There are a variety of forms and dimensions of managed care other than its "managedness" that might affect inter-agency linkages. These dimensions may include such things as the extent to which it is integrated with or carved-out of medical care, the extent of financial risk borne

by the provider, the extent of financial risk borne by the managed care organization, and whether the manager is a public or a private entity (Ridgley, Mulkern, Giard, & Shern, 2002). It would be useful for policy and program development purposes to assess whether various forms of managed care promote or retard the development of interagency linkages between substance abuse, mental health, and primary care agencies.

It would also be useful to know if the form or intensity of managed care can realistically help integrate behavioral health and primary care services. As we noted earlier in this paper, coordinated services are typically more cost effective than fragmented services (Institute for Health Policy, 1995). Would it be cost effective for managed care organizations to encourage “buying” services rather than “making” them? If so, would it be cost effective for managed care organizations to require frequent communication and inter-agency coordination between participating agencies?

This study focused on the perspective of OSATs. Even if mandated linkages benefit OSATs in all the ways discussed in this paper, it remains an empirical question as to whether or not mandated linkages would benefit mental health agencies in the same ways.

Managed care is only one of many factors that can affect inter-agency behavioral health linkages. Nevertheless, various managed care arrangements have become more common in behavioral health in recent years. The extent to which these arrangements promote effective service is an important policy and practice issue that warrants close attention in the years ahead.

APPENDIX

Inter-Agency Coordination is the mean response of the OSATs to nine different questions about coordinated direct service activities between a given OSAT and a service provider. The questions were:

- (1) “When your clients are served by the other program, how often do you discuss clients in a case conference or joint meeting?”
- (2) “When your clients are served by the other program, how often do you send a written case summary?”
- (3) “When your clients are served by the other program, how often do you send a complete case record?”
- (4) “When your clients are served by the other program, how often do you provide a case summary over the phone/fax?”
- (5) “When your clients are served by the other program, how often do you make a follow-up call to the other program?”
- (6) “When your clients are served by the other program, how often do you receive a written case summary?”
- (7) “When your clients are served by the other program, how often do you receive a complete case record?”
- (8) “When your clients are served by the other program, how often do you receive a case summary over the phone/fax?”
- (9) “When your clients are served by the other program, how often do you receive a follow-up call to the other program?”

The answers were coded from 0–4 with 0 = NEVER, 1 = RARELY, 2 = SOMETIMES, 3 = USUALLY, and 4 = ALWAYS.

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