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Article

Service costs for women with co-occurring disorders and trauma

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Abstract

Several aspects of costs related to health care and other service use at 6-month follow-up are presented for women with co-occurring mental health and substance abuse disorders with histories of physical and/or sexual abuse receiving comprehensive, integrated, trauma-informed and consumer/survivor/recovering person-involved interventions ($n = 1023$) or usual care ($n = 983$) in a nine-site quasi-experimental study. Results show that, controlling for pre-baseline use, there are no significant differences in total costs between participants in the intervention condition and those in the usual care comparison condition, either from a governmental (avg. $13,500) or Medicaid reimbursement perspectives (avg. just over $10,000). When combined with clinical outcomes analyzed in other works in this issue by Cocozza et al. (2005) and Morrissey et al. (2005), which favored the intervention sites, these cost findings indicate that the treatment intervention services are cost-effective as compared with the usual care received by women at the comparison sites.

Keywords: Cost analysis; Cost-effectiveness; Trauma; Mental health; Substance abuse

1. Introduction

Recent research highlights the increasing prevalence and concern about violence against women, especially those with co-occurring mental health and substance abuse disorders (Gil-Rivas et al., 1996; Golding, 1999; Jennings, 1997; Najavits, Weiss, & Shaw, 1997). Women with this constellation of problems are often faced with an equally complex set of needs, many of which have gone unmet. The services that women do receive tend to be more fragmented, more institutionally based, and much less comprehensive than what is necessary (Harris, 1994).

While it is well documented that women who have experienced trauma are higher users of services in the health-care setting (Bergman & Brismar, 1991; Koss, Koss, & Woodruff, 1991; McCauley et al., 1995), much less is known about their service use patterns in other service arenas and their total service costs (Newmann, Greenley, Sweeney, & Van Dien, 1998; Yodanis, Godenzi, & Stanko, 2000). This article attempts to understand these service measures and how they may change through the introduction of comprehensive, integrated, trauma-informed and consumer/survivor/recovering person (CSR)-involved intervention services using data collected through the Women, Co-Occurring Disorders, and Violence Study (WCDVS) described in more detail elsewhere (McHugo et al., 2005). This SAMHSA-funded multi-site demonstration was designed to alter these service use patterns while enhancing access to integrated treatment and support for women with histories of interpersonal violence and co-occurring disorders.

Given the current era of fiscal restraint in health care spending, this article examines service costs to complement the previous work on clinical outcomes (Cocozza et al., 2005; Morrissey et al., 2005) in an effort to determine the cost-effectiveness of providing comprehensive integrated, trauma-informed, and CSR-involved services for this target

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population. This research is very relevant to improving best practices in this area and is supported by the existing literature revealing how little is known about trauma-based services available to women in terms of their effectiveness and costs.

There is some support in the literature for the notion that costs of care are higher for abuse survivors than for those without abuse histories (Bergman and Brismar, 1991; Bryer, Nelson, Baker Miller, & Krol, 1987; Carmen, Rieker, and Mills, 1984; Kernic, Wolf, & Holt 2000; McCauley et al., 1995; Newmann et al., 1998; Wisner, Gilmer, Saltsman, & Zink, 1999). In one study of men and women with severe mental illness, Newmann and colleagues (1998) discovered that, controlling for gender, age, and Medicaid status, clients with sexual abuse histories had significantly higher service use costs compared to those without abuse histories. Interestingly, physical abuse histories were not associated with significantly higher costs of care. Wisner and colleagues (1999) compared charges from the perspective of a large private health insurance plan for women who were victims of intimate partner violence vs. a sample of randomly selected women from the same plan. They found a difference of $1775 (1994 dollars) in average charges, although this difference was not explained by higher rates of emergency room use, because no higher rates of use were found. The authors did find higher costs only for general clinic ambulatory visits, mental health clinic visits, out-of-pocket referrals, and affiliate visits external to the plan.

Any cost analysis must first specify the perspective from which resource consumption or costs will be assessed. The reason is that costs may vary depending upon who pays. Often it is instructive to assess costs from multiple perspectives. Here, costs related to services use are examined from two perspectives: total government payments and a narrower Medicaid reimbursement perspective. The total government approach asks the question "how much would it cost to serve women enrolled in the study if we included all health, housing, and criminal justice services that could be provided or paid for by government agencies at all levels (federal, state, county, municipal)?"; this approach has been used elsewhere in the literature (e.g., Fenton, Hoch, Herrell, Mosher, & Dixon, 2002). The Medicaid perspective asks the question "how much would it cost to serve women enrolled in the study if all health services were provided or paid for by a Medicaid program?" This approach examines only costs that are reasonably expected to be covered by a typical Medicaid program; thus, some of the service costs reported in the all-government approach are not included in the Medicaid analysis (e.g., jail and shelter costs).

It is important to note what this study does not do: we do not examine expenditures from the perspective of the participating treatment providers, as have other authors in this area (e.g., French & McGeary, 1997). In an earlier report (Dalton, Domino, Nadlicki, Stewart, & Morrissey, 2003), we assessed the start-up costs of provider agencies in developing or enhancing the array of core services called for by the WCDVS initiative. In examining five selected study sites, we found that start-up costs for agencies participating in the intervention condition ranged from $0.6 million to $1.2 million for the initial 2-year period depending upon whether sites were located in urban or rural locales, single or multiple participating agencies, and predominantly residential or outpatient-based service settings.

Further, we do *not* examine the operating costs of participating agencies in delivering services to enrolled women. While an analysis of operating costs would certainly address questions about additional resources that may be needed to provide enhanced services, it would not allow us to address the cost of services that are outside of the domain of the participating agencies (e.g., the jail). We explicitly chose the total government and Medicaid perspectives in order to examine policy-relevant questions that stem from the use of a broader range of services.

In this study we attempt to model the opportunity costs of services, defined as the value of whatever is given up in order to devote resources to each service, in as much as they are reflected in the average reimbursement rates we append to the service measures as unit costs. This is in contrast to an accounting perspective or the actual value of all the inputs to service provision (e.g., the rental value of office space, the exact salary and benefits to staff), used by some authors (e.g., Anderson, Bowland, Cartwright, & Bassin, 1998). In addition to the range of services examined, different perspectives would assign different unit costs to the services reported. For example, if Medicaid reimburses a provider agency $50 for one unit of a hypothetical service, but the agency incurs $60 of expenses in providing that service, the Medicaid perspective would use the $50 unit cost, while the agency perspective would assign the service a $60 unit cost; in reality, the agency costs could be higher or lower than the government costs, and this difference likely varies by the type of service and even by each study site. Determining the actual cost to each agency using the accounting perspective is itself a costly and difficult process and not feasible nor desirable for this analysis. We do not present results from a societal cost perspective, as is generally recommended (e.g., Gold et al., 1996) because measures of labor market participation, externalities stemming from reduced use of illicit substances and other important aspects of societal costs (French, Salomé, Sindelar, & McLellan, 2002) were not available for this analysis, which focuses on service costs.

Based on these considerations, this paper seeks to answer the following research questions:

1. Do women in the intervention condition have larger total service costs than women in the comparison condition when assessed from Medicaid and total government perspectives?
2. How do women in the two study conditions differ with regard to costs of services internal and external to the study interventions?