Impact of Continuity of Care on Recurrence of Homelessness Following an Acute Psychiatric Episode

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1990s were SMHA staff and commissioners of the 1970s and 1980s who also participated in the increased dependence on Medicaid. In most cases, this industry functions outside the control of the public system. It has different values and has confronted the public system with a less-is-better, profit-is-good, and short-term-treatment mentality.

So my paranoid fantasies of the 1980s about the SMHAs financial dependence on Medicaid turned out to be at least partially true. The growth of Medicaid costs for acute inpatient services has become a substantial issue, SMHAs have increasingly lost control of the benefits paid through the Medicaid system, and further fragmentation of the system seems inevitable.

References

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of the most seriously mentally ill individuals referred to extended acute care units in Philadelphia had used a homeless shelter within a four-year period (Rothbard, Kuno, Culhane, and Averyt, 1996). More than 80 percent of those individuals were hospitalized both in the year prior to and following their initial homeless episode. Clearly, mental health problems influence the stability of housing, which in turn can precipitate a cycle of homelessness and hospitalization.

In the field of mental health services research, successful transition from hospital to community agencies has been thought to be one of the essential conditions needed to enhance stable community living (Axelrod and Wetzler, 1989; Bogin, Anish, Taub, and Kline, 1984; Kanter, 1991; Solomon, Gordon, and Davis, 1984; Tessler, Willis, and Guzman, 1986). A limited number of studies have found a positive relationship between timely service provision after discharge from an inpatient episode and stable community living (Stickney, Hall, and Gardner, 1980; Tessler, 1985). However, it remains unclear whether connection to aftercare services reduces the recurrence of homelessness among mentally ill people who have used the homeless shelter system.

The purpose of our study was twofold. First, we wanted to determine the percentage of homeless adults with mental illness who are promptly connected to aftercare services following a psychiatric inpatient discharge. Second, we wanted to examine whether persons who have experienced an acute psychiatric episode and had been homeless in the past were less likely to become homeless again if they received prompt aftercare services.

Background

Research on mental health service utilization has shown that people who are homeless and have a serious mental illness use a more limited number of mental health services than do nonhomeless people (Caton, 1995; Morse and others, 1992). Homeless mentally ill people rely heavily on inpatient services in particular while outpatient services are vastly underutilized, given the level of need within the population (Koegel and others, 1994; North and Smith, 1993; Padgett, Strenning, and Andrews, 1990). Evidence on the effectiveness of continuity of care after an inpatient episode for homeless mentally ill people is scarce (Toomey, First, Rife, and Belcher, 1989).

Studies on homeless people have suggested a typology of homelessness that includes transitional, episodic, and chronic homelessness (Kuhn and Culhane, 1996; Rossi, 1989) depending on the number and length of shelter stays. Cluster analyses of homeless mentally ill people have shown a wide array of groupings based on demographics, diagnosis, and service utilization patterns (Mowbray, Bybee, and Cohen, 1993). However, so far, research on the impact of mental health services for homeless persons has not distinguished between people who use the shelter system repeatedly for short periods of time and people who use the system once for a more extended period. The difference between people who have a single stay and people with multi-

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...plete shelter stays could be an important factor in delivering mental health services and assessing the effects of those services.

Despite a scarcity of empirical evidence, policymakers and service providers are working under the assumption that continuity of care is an important factor in enhancing the stability and community tenure for all homeless mentally ill people alike. Currently, the Homeless Branch of the Center for Mental Health Services, a federal agency, is funding a five-year national demonstration program to "identify and evaluate promising approaches to systems integration for homeless people with serious mental illness, particularly those with substance abuse disorders" (Policy Research Associates, 1995, p. 1). The Access to Community Care and Effective Services and Supports (ACCESS) Program is based on the assumption that continuity of care and thorough service integration will reduce homelessness for people enrolled in ACCESS programs.

Methodology

There were two research hypotheses in this study: (1) Homeless mentally ill people who receive an aftercare service within 30 days of discharge from an inpatient hospitalization are less likely to become homeless again in the following year. (2) Timely aftercare services have a more significant effect on preventing homelessness among single stayers than among multiple stayers.

The study population (N = 150) was drawn from all shelter users who had recorded stays in the Philadelphia emergency shelter system between July 1, 1991, and June 30, 1992, and had a psychiatric inpatient hospitalization within 180 days after their initial shelter stay. Based on the pattern of shelter use prior to hospitalization, subjects were divided into two groups. The majority (n = 96) of the sample had only one stay in the shelter system prior to an indexed hospitalization. These homeless individuals are referred to as "single stayers." The rest (n = 54) used the shelter system repeatedly, with several stays in the shelter system before their hospitalization episode and are referred to as "multiple stayers."

Two types of secondary data were used for this study: (1) mental health and substance abuse data from the Pennsylvania Medicaid Management Information System, Patient Census Information System for Pennsylvania state hospitals, and the Philadelphia County Reporting System for community mental health services; and (2) information on shelter use and outreach contacts from the Philadelphia Office of Emergency Shelter and Services registry, stay, and contact files. Variables collected from these data sets included personal identifiers, demographics, services, and diagnoses. All outpatient services and hospitalizations were collected for the year before and after the indexed hospitalization. Aftercare outpatient services included outpatient therapy, partial hospitalization, case management, intensive care management, and social and vocational rehabilitation. Once the data set was created, all identifiers were deleted.
The indexed event was the first hospitalization following a shelter admission. A successful connection to aftercare services was defined as the receipt of outpatient services within 30 days of discharge from the indexed hospitalization (Solomon, Gordon, and Davis, 1984). Prior homelessness was defined as a stay in the shelter system before the indexed hospitalization. A post-homelessness episode was defined as either an admission to the shelter system or a recorded contact with an outreach team in month 2 to month 12 after discharge from the indexed hospitalization.

The dependent variables in this study were single or multiple shelter stays, receipt of prompt aftercare services, and recurrence of a homeless episode within a year after the indexed hospitalization. Chi-square statistics were used to examine statistically significant differences between the dependent variables based on the following independent categorical variables: gender, race, receipt of Supplemental Security Income, diagnosis of schizophrenia or major affective disorder, psychiatric or substance abuse hospitalization or ambulatory service contact in the year prior to the indexed hospitalization. A t-test was used to analyze differences in the continuous variables such as age, length of stay of the indexed hospitalization, length of the initial shelter stay, and length of time from initial shelter stay to the indexed hospitalization.

Results

Results are presented in three tables, for single and multiple stayers.

Characteristics of Single Versus Multiple Stayers. Table 1 compares demographic, mental health service use, and homeless shelter use patterns between the single versus multiple stayers. No significant difference was found in demographic characteristics and use of mental health services between the two groups. The total number of days in shelter was not statistically significantly different between the groups (43 days for the multiple stayers and 61 days for the single stayers) with multiple stayers revisiting the shelters three to four times on average prior to their indexed hospitalizations. The number of days from initial shelter stay to the indexed hospitalization was significantly different between the two groups ($p < .0001$). Single stayers went from first shelter admission to indexed hospitalization in half the time (47 days) of multiple stayers (105 days). In the period following discharge from the indexed hospitalization, multiple stayers were more likely to return to the shelter than the single stayers ($p < .005$).

Characteristics Associated with Receipt of Aftercare Services. Table 2 divides single and multiple stayers into those who were successfully connected to aftercare services and those who were not within each stayer group. Among the single stayers, 42 percent received outpatient services of some type within 30 days of discharge from their indexed hospitalizations. This is almost identical to the percentage (41 percent) of multiple stayers who received outpatient services in the same time frame.

Table 1. Demographic Characteristics, Mental Health Services Use, and Homeless Shelter Use by Single Stayers and Multiple Stayers

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Single Stayers (n = 56)</th>
<th>Multiple Stayers (n = 54)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>47 percent</td>
<td>37 percent</td>
<td>ns</td>
</tr>
<tr>
<td>African American</td>
<td>80 percent</td>
<td>83 percent</td>
<td>ns</td>
</tr>
<tr>
<td>Mean age (SD) in years</td>
<td>34 (8.7)</td>
<td>32 (8.7)</td>
<td>nsb</td>
</tr>
<tr>
<td>Supplemental Income</td>
<td>42 percent</td>
<td>33 percent</td>
<td>ns</td>
</tr>
<tr>
<td>Diagnoses of schizophrenia or major affective disorder</td>
<td>68 percent</td>
<td>64 percent</td>
<td>ns</td>
</tr>
<tr>
<td>Mental health services use in the year prior to indexed hospitalization</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Psychiatric hospitalization</td>
<td>40 percent</td>
<td>32 percent</td>
<td>ns</td>
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<tr>
<td>Substance abuse hospitalization</td>
<td>28 percent</td>
<td>30 percent</td>
<td>ns</td>
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<tr>
<td>Any type of ambulatory service contact</td>
<td>57 percent</td>
<td>46 percent</td>
<td>ns</td>
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<tr>
<td>Indexed hospitalization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean length of stay (SD) in days</td>
<td>26.6 (56.4)</td>
<td>24.8 (28.6)</td>
<td>ns</td>
</tr>
<tr>
<td>Homeless shelter stay</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Mean length of initial stay (SD) in days</td>
<td>61.4 (73.9)</td>
<td>16.5 (29.8)</td>
<td>.0001*</td>
</tr>
<tr>
<td>Mean days from initial shelter stay to indexed hospitalization (SD) in days</td>
<td>47.2 (50.9)</td>
<td>105.2 (48.2)</td>
<td>.0001*</td>
</tr>
<tr>
<td>Homeless episode one year following discharge</td>
<td>34 percent</td>
<td>59 percent</td>
<td>.003*</td>
</tr>
</tbody>
</table>

Note: Nonsignificance (ns) is at the p < .05 level.

*Chi-square test was used.

Table 2 presents variables related to successful aftercare connections within single- and multiple-stayer groups. Demographically, there was no significant difference between those who received outpatient services among either the single stayers or the multiple stayers. However, diagnoses, prior psychiatric and substance abuse hospitalization, and prior outpatient services were correlated to the successful connection with outpatient services after the indexed hospitalization. People in both the single- and multiple-stayer groups who received timely outpatient services were more likely to have a diagnosis of schizophrenia or major affective disorder (80 percent of the single stayers, 77 percent of the multiple stayers). Rates of psychiatric hospitalization before the indexed hospitalization were significantly different between those receiving timely services and those who did not receive timely services among the single stayers ($p < .01$), but not among the multiple stayers. Prior substance abuse hospitalization was also significantly different between the two single stayers' groups ($p = .05$). Among the multiple stayers, the difference was not statistically significant.

People in both groups who were already connected to outpatient services were more likely to be successfully connected to outpatient services than those
who were not previously connected. Among the single stayers, 97 percent of those who received services promptly after discharge had been receiving outpatient services before entry into the indexed hospitalizations compared to 29 percent of single stayers who were not successfully connected. For multiple stayers, the difference is only slightly less dramatic. Seventy-seven percent of multiple stayers with prompt aftercare had been receiving outpatient services before their indexed hospitalizations as opposed to 25 percent of nonsuccessfully connected multiple stayers.

**Homelessness.** Table 3 clarifies the relationship between the variables associated with successful connection to aftercare: prior psychiatric and substance abuse hospitalizations and diagnosis, and the dependent variable, post-homelessness. Among the single stayers, the only significant difference between those who were homeless and those who were not was the receipt of outpatient services within thirty days of discharge from their indexed hospitalizations.

Twice as many of the single stayers (49 percent) who avoided post-homelessness were successfully connected to mental health outpatient services as compared to 27 percent of single stayers who became homeless in the follow-up period. There were no significant differences among any of the variables when comparing those who became homeless and those who did not among the multiple stayers.

**Discussion**

Despite literature indicating that homeless mentally ill people have a tendency to underutilize mental health services, this study found that 69 percent of the study population had used some type of mental health outpatient services in the year prior to their indexed hospitalizations. However, outpatient treatment in the past year did not guarantee continuity of care following an inpatient episode. As stated previously, less than half of the sample (41 percent) was successfully connected to aftercare services within thirty days of discharge from their indexed hospitalizations. This was true for both the single-stayer and the multiple-stayer groups.

We found that the single stayers who were connected with outpatient services within thirty days of discharge from an inpatient psychiatric unit were less likely to become homeless again than those who were not connected. Although multiple stayers were successfully connected with aftercare services at the same rate as single stayers, they did not experience a decrease in post-homelessness as a result of the successful connection.

The only diagnoses collected for this study were primary diagnoses of mental illness. Thus, substance abuse hospitalization records were used to indicate a substance abuse comorbid condition, which had, however, a limited effect on the results. There was no significant difference in the percentage of single versus multiple stayers who had substance abuse hospitalizations in the year prior to their indexed hospitalizations. Nor were numbers of substance abuse hospitalizations significantly different between the post-homeless and post-non-homeless among single or multiple stayers. Substance abuse hospitalizations were only significant among single stayers with no prompt aftercare services. They had a higher rate of substance abuse hospitalization within the year prior to their indexed hospitalizations. Substance abuse hospitalization made no difference in the receipt of prompt aftercare among the multiple stayers.

The degree of connection between residential instability and psychiatric difficulties may explain the differential effect of successful connection to aftercare services between single and multiple stayers in preventing homelessness. Residential crisis and acute psychiatric episodes among single stayers were highly related. This linkage suggests that psychiatric crises, arising for whatever reason, may be pushing people who are already on the brink of residential instability into homelessness. For single stayers, who are at the margin of residential instability, prompt psychiatric interventions appear to be capable of preventing or delaying further homelessness.
There was a significantly longer time between initial shelter use and an acute psychiatric episode for multiple stayers versus single stayers. Multiple stayers cycled in and out of the shelter system and used the shelter system for shorter time periods per stay, indicating a highly unstable housing situation. For multiple stayers, psychiatric crisis may be only one of many factors causing their homelessness. Other factors that may play a role in residential instability are a lack of family involvement (Belcher, 1991), a childhood history of foster care (Susser, Lin, and Conover, 1991), and substance abuse (Dickey and others, 1996; Hurlburt, Hough, and Wood, 1996), although the results from this study do not include these factors for multiple stayers. The nature of aftercare services offered appears to have a limited effect on improving residential stability. The residential instability in the multiple-stayer group also decreases the likelihood of receiving services on a consistent basis.

Our study has several implications for policies affecting homeless people with severe mental illness. By looking at patterns of shelter usage, this study identified people who need more than prompt mental health aftercare treatment. The multiplicity of needs among single and multiple stayers demands a wide variety of interventions that should include the choice of supportive or supported housing, more intensive case management, appropriate outpatient services, and self-help groups (Morse and others, 1992). Including questions in the discharge planning procedure about individuals' recent use of shelter, both in terms of length of stay and number of stays, would be helpful in designing more appropriate aftercare services for mentally ill shelter users. Despite these findings, there is evidence that in Philadelphia the current system of outpatient treatment can be effective in preventing or delaying homelessness, if services are delivered promptly among people who use shelters for a single long stay.

This study has certain limitations since no random assignment was available to the aftercare versus no-aftercare conditions, which restricted our ability to look at a possible causative relationship between homelessness and continuity of care. Also, the use of secondary data sources did not provide a rich source of client information that might have given a clearer picture of the difference between the single versus the multiple-stayers groups. Also, the use of secondary data limited the ability to describe the quality or the content of the services that were actually being delivered under the rubric of outpatient services.

Furthermore, the connection to outpatient services within thirty days of the indexed hospitalization was a proxy of continuity of care rather than a true measure of uninterrupted, integrated services. It is possible that, among the single stayers, those who actually received services were more predisposed to accept and use them than those who did not connect with the services system. This predisposition may be an underlying predictor of better outcomes, rather than actual service use.

Finally, an expanded time frame would allow for a larger study population and a closer analysis of different types and intensity of the outpatient services offered. Future research focusing on content of services and more specific client information may suggest better methods of intervention that will enable people with serious mental illnesses and histories of residential instability to avoid homelessness altogether.

Conclusion

The usefulness of continuity of care between inpatient and outpatient settings has long been an assumption of those interested in the provision of mental health services in a community setting. There is limited evidence that this assumption is valid for homeless mentally ill people. For people who were relatively stable, with only a single shelter stay before their indexed hospitalizations, this assumption of the value of continuity of care in avoiding future homelessness within the time of the study proved to have some validity. The effectiveness of aftercare and outpatient services in preventing or delaying homelessness appears to be related to prior shelter use patterns. The diversity in the homeless mentally ill population creates a need for more prescriptive treatment varying in type, intensity, and duration of services delivered. Without diverse delivery systems, a portion of the mentally ill population will continue to experience the additional burden of homelessness.

References


Revised Standards and Guidelines for Partial Hospitalization Geriatric Programs

Blake D. Wagner, Daniel A. Plotkin, Paul M. Lefkowitz, Brian M. Block, Judith Lalli

The Standards and Guidelines for Partial Hospitalization established by the American Association for Partial Hospitalization (AAPH) (Casario, Wilner, and Maxey, 1982) was a landmark document in recognizing the modality of treatment known as partial hospitalization. This document, which established parameters for defining partial hospitalization, was far-reaching in its attempt to "guide the establishment of quality treatment programs, and, hopefully, to encourage increased development and funding of the modality" (1982, p. 17).

In 1991, the standards were revised to address the need for clarification of the definition of partial hospitalization programs, and to further delineate the boundaries and unique characteristics of the treatment mode (Block and Lefkowitz, 1991). As partial hospitalization continued to evolve within the context of a continuum of ambulatory behavioral health services, the specialty document Standards and Guidelines for Geriatric Partial Hospitalization was produced in 1993 (Wagner, Plotkin, Lefkowitz, and Block, 1993). In 1995, the Health Care Financing Administration (HCFA) released an updated program memorandum that introduced important changes for geriatric partial hospitalization programs (HCFA, 1995). This document integrates many of the areas covered in the original Standards and Guidelines for Geriatric Partial Hospitalization and gives particular attention to incorporating the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO, 1995) and Medicare (HCFA, 1995) revisions of the partial hospitalization guidelines. Relevant treatment issues for elderly patients, potential problems and special needs, and guidelines for program development, implementation, and evaluation are discussed.

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