

**THE IMPACT OF DEINSTITUTIONALIZING
PSYCHIATRIC SERVICES ON THE ACCESSING
OF MENTAL HEALTH SERVICES BY PEOPLE WITH
HIGHER LEVELS OF PSYCHOLOGICAL DISTRESS**

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ABSTRACT

Even though the policy of deinstitutionalization of mental health services purports to improve access to community-based services, there is a paucity of research that evaluates the impact of this policy on the general community. The research in this study builds on an empirical analysis of 40 years of the process of deinstitutionalization of mental health services in Canada (Sealy & Whitehead, 2004). An experimental design is simulated through the use of a derived construct—earlier vs. later deinstitutionalization—in order to test whether the policy of deinstitutionalization has achieved the goal of improving the accessing of mental health services by people with increased levels of psychological distress, while taking into consideration various social correlates. Data about the accessing of mental health services were obtained in the National Population Health Survey (Statistics Canada, 1996, 2001). Results identify that provinces that implemented deinstitutionalization earlier show improved access of community mental health services and fewer social inequalities of access. Nevertheless, the majority of people who have higher levels of psychological distress have not accessed mental health services.

BACKGROUND

Even though the policy of deinstitutionalization of psychiatric services purports that many people with mental illness can be effectively treated in their home communities if they have access to local mental health services, rigorous study at the level of the community has not evaluated whether this policy aggravates or improves the accessing of these services. The controversy over the impact of the policy has continued throughout its 40 years of implementation. Many researchers have noted that deinstitutionalization is associated with improved levels of social support, functioning, and quality of life (Davidson et al., 2001; Lamb & Bachrach, 2001; Leff, Dayson, Gooch, Thornicroft, & Wills, 1996; Mechanic 1986, 1987; Mechanic & Rocheffort 1990; Pescosolido, Wright & Lutfey, 1999), as well as decreased perceptions of psychological distress (Sealy & Whitehead, in press). Nevertheless, critics continue to suggest that community-based mental health services lack universal access and comprehensiveness and fail to provide continuity

of care to individual clients over time, due to a multitude of clinical, social and economic factors (Bachrach, 1978, 1983, 1986, 1989, 1992; Lamb & Bachrach, 2001; McCubbin, 1994; Mechanic, 1986, 1987, 1997; Mechanic & Rochefort, 1990; Wasylenki, Goering, & MacNaughton, 1992). Health and Welfare Canada (1988) contends that the process of deinstitutionalization has not been implemented in a "consistent and logical way" (p. 21). Thus, it has been argued, the closing of beds in hospitals has not led to the strengthening of community resources for the mentally ill. Some sectors of the population have experienced barriers that interfere with their access to mental health services.

One aspect of the debate on the effectiveness of deinstitutionalization arises from the failure to empirically test the impact of this policy on the population. A more inclusive research approach would evaluate deinstitutionalization using population-based data, moving beyond clinical samples of discharged psychiatric patients and people who have accessed outpatient mental health services to include people who may have higher levels of psychological distress, yet have not accessed mental health services. The Epidemiological Catchment Area (Regier et al., 1984), the Mental Health Supplement to the Ontario Health Survey (Offord et al., 1996) and the National Comorbidity Study (Kessler et al., 1994) have identified that the prevalence of mental illness in the general population is significantly higher than the rate of people who access mental health services. A major assumption of the policy of deinstitutionalization is that funds will be reallocated from regional psychiatric hospitals toward the augmentation of community-based mental health services. If the policy is effective, many people with varying levels of psychological distress will have increased opportunities to access mental health services in their local community.

Whether or not someone accesses mental health services can be influenced by social factors and their perceived levels of psychological distress. Lieberman, Forbes, Uttaro, and Sarkis (1996) identify that the majority of clients and their families access mental health services in order to discover practical solutions to problems, to learn about mental illness and the side effects of medications, and to have an opportunity to talk to others about similar experiences. Awad, Voruganti, and Heslegrave (1997) and Clayer, Bookless, Air, and McFarlane (1998) suggest that people seek help for their psychiatric disorders when their symptoms and disabilities interfere with their daily functioning. Hoyt, Conger, Gaffney, and Weihs (1997) support this view, especially if people have received mental health services in the past.

Pescosolido (1992) views the process of accessing mental health services from a more sociological perspective; she identifies the aspects of social agency within the process of seeking help. People need to "learn about, come to understand, and attempt to handle difficulties" (p. 1096). Rational choice within the concept of agency can be bounded by structural and normative constraints. She contends that people must consciously think through problems "when cultural routines do not produce effective solutions" (p. 1107) and that people "shape and are shaped by their networks of social support" (p. 1109). When they decide to seek services, they must then make a decision about the types of services they desire.

Researchers argue that there are social inequities with respect to experiencing psychological distress and the decision to access mental health services, based on people's socioeconomic status, sex, structure of the family, geographical location, and status as an immigrant (Badawi, Kramer & Eaton, 1996; Beiser, 1988a, 1988b; Beiser & Edwards, 1994; Fox, Blank, Rovnyak, & Barnett, 2001; Health and Welfare Canada, 1988, 1990;

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Hoyt et al., 1997; Kessler et al., 1994; Lin, Goering, Offord, Campbell, & Boyle, 1996; Offord et al., 1996; Pescosolido, 1992; Regier et al., 1984; Strole & Millman, 1998). Those with lower levels of education and income are less likely to access mental health services, usually due to a lack of knowledge of mental illness and its possible treatments. They are also often unaware of the need or are reticent to access mental health services at lower levels of symptoms (Badawi et al., 1996; Fox et al., 2001; Lewis et al., 1991). Beiser (1988a, 1988b) suggests that immigrants are less likely to access mental health services because of stigma. Strole and Millman (1998) note that older women are less likely, while Badawi et al. (1996) suggest that single parents, divorced, and widowed people are more likely to access mental health services.

A lack of knowledge, stigma, and the overall unavailability of services might prevent people, especially men, in rural areas from accessing mental health services (Bachrach, 1983, 1986; Beiser, 1988a, b; Clayer et al., 1998; Fox et al., 2001; Health and Welfare Canada, 1990; Hoyt et al. (1997); Lin et al., 1996; Mueser, Bond, Drake, & Resnick, 1998). Bachrach (1983, 1986, 1992) and Mueser et al. (1998) suggest that people in urban areas with psychological distress may not access mental health services because of homelessness, inadequate levels of social support, stigma, and issues related to their socio-economic status. In contrast, people with psychological distress in rural areas may be unable to access mental health services because there is not the critical mass to justify the service or because of an insufficient number of clinicians. Many rural areas have difficulty recruiting and retaining mental health professionals. Thus, the probability of a population using mental health services is a function of their accessibility and fit within the values of the local culture.

Deinstitutionalization of psychiatric services is a process that has two principal components: reduced reliance on inpatient psychiatric hospitals and expansion of community-based outpatient services for people with mental illness. One confounding variable often ignored in the research evaluating the accessing of mental health services is the stage the region is in relative to the implementation of deinstitutionalization. Based on standardized provincial data of inpatient days in psychiatric hospitals, inpatient units in general hospitals, and per capita expenditures on mental health services per province, Sealy and Whitehead (2004) empirically identify that the process of deinstitutionalization of psychiatric services has been implemented over the past 40 years, but in varying degrees and varying time intervals throughout Canada. They argue that evaluations of deinstitutionalization must take into consideration the stage in the process of deinstitutionalization, as well as other social variables, in order to make meaningful comparisons between regions. Evaluation research on the policy of deinstitutionalization must also move beyond the clinical samples of people who seek treatment to include samples of people who may have higher levels of psychological distress, yet have not accessed mental health services.

PURPOSE

Bachrach (1978, 1983, 1986, 1989, 1992), Lamb and Bachrach (2001), Mechanic (1986, 1987, 1997) and Wasylenki, Goering, and MacNaughton (1992) identify a concern that many people with higher levels of psychological distress do not access mental health services. The purpose of this study is to empirically test whether the deinstitutionalization of psychiatric services has achieved the goal of improving the access of mental health

services for people with increased levels of psychological distress, while taking into consideration the interactions among the social correlates, social support, and the timing (earlier/later) of the implementation of deinstitutionalization.

Hypothesis

An underlying assumption (program theory) is that the deinstitutionalization of psychiatric services will lead to improved access of community-based mental health services. The question to be addressed is whether these gains are experienced. The hypothesis is that earlier deinstitutionalization will be associated with increased use of mental health services on the part of persons with higher levels of psychological distress.

METHOD

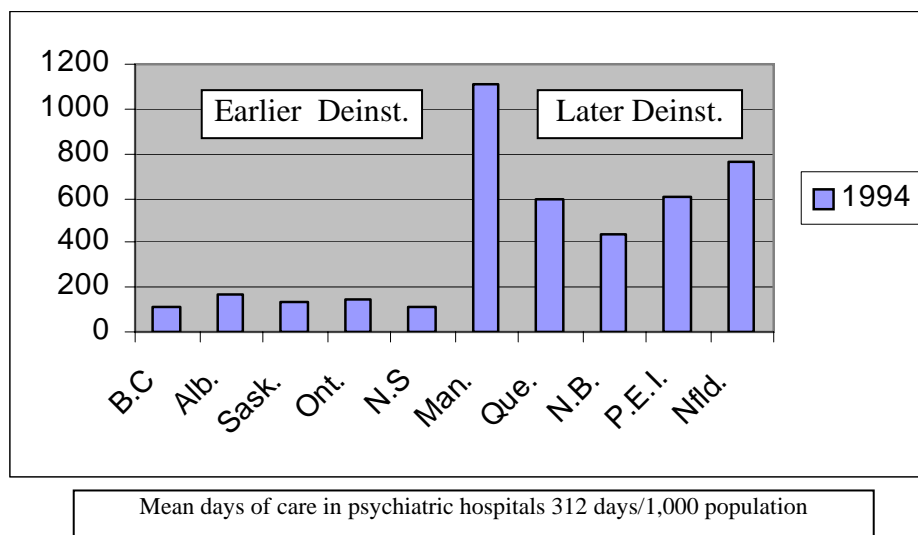
A first step in evaluating the impact of the deinstitutionalization of psychiatric services was to determine whether the policy had been implemented. Sealy and Whitehead (2004) completed an empirical evaluation of this process based on data from the 1960s through the 1990s. They began by reviewing the changes in the rated capacity of operating psychiatric hospitals from 1965 to 1981. They then calculated rates of days of care per 1,000 population in psychiatric hospitals and psychiatric units in general hospitals based on published data in the 1980s and information requested from the Canadian Institute of Health Information (CIHI) for data in the 1990s. Finally, they attempted to calculate per capita information on health care expenditures in psychiatric hospitals and the community for each province. Data on expenditures proved to be a complicated process since many of these data are not published and the authors had to rely on personal communication from the provincial Ministries of Health. Rather than being an aggregate of overall expenditures on hospital-based institutions and community-based mental health services, the available data on expenditures focused mostly on individual institutions and providers of services. Thus, a limitation of these data is that findings had to be categorized either by the province or by the researchers, leaving the data open to interpretation regarding the definition of institutional versus community-based mental health services. Based on these data, Sealy and Whitehead (2004) established that there was unequal implementation of the policy of deinstitutionalization in Canada. Most provinces went through a process of transinstitutionalization whereby monies from the closure of beds in psychiatric hospitals were diverted to expand the number of psychiatric beds in general hospitals. Expenditures for community-based mental health services increased in all the provinces, but at an unequal rate among the provinces and over time.

Based on their empirical analysis of the provinces' unequal rate of implementing the process of deinstitutionalization, Sealy and Whitehead structured a research design to simulate a naturally occurring experiment by dividing the provinces in Canada according to the earlier/later implementation of the policy of deinstitutionalization. The construct of earlier/later deinstitutionalization was derived according to whether the standardized days of care in psychiatric hospitals in the provinces was above or below the national average of 312 days per 1,000 population in 1994 (See Figure 1: Canadian Provinces Standardized Days of Care per 1,000 Population: 1994). The difference in the means of days of care between category of provinces represented by earlier versus later deinstitutionalization is statistically significant ($t = -226$ days, $p < 0.001$). The mean days of care in psychiatric hospitals for the provinces in the earlier deinstitutionalization category is 138.7 days/ 1,000

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population; the mean days of care in psychiatric hospitals for the provinces in the later deinstitutionalization category is 651.7 days/1,000 population.

FIGURE 1
Canadian Provinces Standardized Days of Care per 1,000 Population: 1994
 (Sealy & Whitehead, in press)



Provinces in the category of earlier deinstitutionalization have significantly fewer days of inpatient care in psychiatric units in general hospitals (119.9 days/1,000 population versus 128.5 days/1,000 populations in later deinstitutionalization; $t = -8.34$, $p < 0.001$). Per capita expenditures on community-based mental health services are significantly higher in the provinces that implemented deinstitutionalization later as opposed to earlier in 1994 ($t = 18.8$, $p < 0.001$) and 1998 ($t = 112.4$, $p < 0.001$).

The current research focuses on the subpopulation of people who reported higher levels of psychological distress using the 1994/95 and 1998/99 waves of the National Population Health Survey (NPHS; Sealy & Whitehead, in press), a longitudinal survey implemented to evaluate the policies on health care (Statistics Canada 1996, 2001). It is designed to facilitate the understanding of the “economic, social, demographic, occupational, and environmental correlates of health” and monitor the utilization of health care services (Statistics Canada, 1996, p. 2). Statistics Canada (1996, 2001) published a detailed description of the methods of the National Population Health Survey. This design focuses on the impact of deinstitutionalization on accessing mental health services by people with higher levels of psychological distress. The level of psychological distress is measured with an “index based on a subset of items from the Composite International Diagnostics Interview (CIDI).” This scale is based on the research of Kessler and Mroczek (Patten, 1997) and has been repeatedly used to measure levels of psychological distress in the general population. The scale ranges from 0 to 24 with higher scores indicating higher levels of distress. Levels of psychological distress in the general population are skewed, with the majority of people experiencing lower levels of distress. A higher level of

psychological distress is defined as a score greater than 9 on the derived scale on the NPHS (Statistics Canada, 1996). This score represents two standard deviations above the mean level of psychological distress for the total sample.

The dependent variable is the probability of accessing mental health services, measured as a binomial variable (yes/no) in the 1994/95 and 1998/98 waves of the NPHS depending on whether respondents have seen a health professional about mental health over the previous 12 months. Weighted analysis of variance is completed to identify whether the demographic characteristics of people who did not respond to this question are different from those who did respond. In 1994/95, 6% of the data are missing while only 2.6% of the data are missing in 1998/95. Respondents who chose not to answer this question, in both waves, tended to be males, aged 15 to 19 years old, have less than a secondary level of education, or were immigrants. Based on the research of Pearlin's Stress Process Model (1989; Pearlin, Menaghan, Lieberman, & Mullan, 1981), this study includes the impact of some of the social correlates that may buffer levels of psychological distress and improve the probability of accessing mental health services. These correlates include levels of social support, socioeconomic status, sex, age, geographical location, and status as an immigrant.

RESULTS

The Impact of Deinstitutionalization and the Probability of Accessing Mental Health Services

The data show a significantly higher proportion of people with higher levels of psychological distress accessing mental health services between 1994/95 and 1998/99 (+7.9%, $p < 0.01$) among people living in the provinces that implemented deinstitutionalization earlier (British Columbia, Alberta, Saskatchewan, Ontario and Nova Scotia) (Table 1). In contrast, there is a small, but nonsignificant, increase (2.8%) for people living in the provinces that implemented deinstitutionalization later (Manitoba, Quebec, New Brunswick, Prince Edward Island). Data for Newfoundland are missing.

In 1994/95, the provinces that implemented deinstitutionalization earlier have a 7.6% higher level of accessing mental health services compared to the provinces that implemented deinstitutionalization later ($X^2 = 6.980$, d.f. = 1032, $p < 0.01$) (Table 2). This difference increases to 12.7% in 1998/99 ($X^2 = 12.209$, d.f. = 701, $p < 0.001$).

Even though the data support improved levels of accessing mental health services between 1994/95 and 1998/99, the majority of people with higher levels of psychological distress did not access mental health services; 67.3% of people in 1994/95 and 59.4% of people in 1998/99 did not access mental health services in the provinces that implemented deinstitutionalization earlier. Thus, logistic regression was conducted to examine the log odds of people with higher levels of distress accessing mental health services while controlling for earlier/later implementation of deinstitutionalization.

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TABLE 1
Comparison of Accessing Mental Health Services by Wave of the NPHS
while Controlling for Higher Levels of Psychological Distress
and Earlier/Later Implementation of Deinstitutionalization

Earlier Deinstitutionalization				
	1994/95 (S.D.)	1998/99 (S.D.)	X ²	% Difference from 94/95 to 98/99
Accessed services	198 (32.7%)	164 (40.6%)	6.613*	+7.9%
Did not access services	408 (67.3%)	240 (59.4%)		
Total	606 (100%)	404 (100%)		
Later Deinstitutionalization				
	1994/95 (S.D.)	1998/99 (S.D.)	X ²	% Difference from 94/95 to 98/99
Accessed services	107 (25.1%)	83 (27.9%)	0.708	+2.8%
Did not access services	320 (74.9%)	215 (72.1%)		
Total	427 (100%)	298 (100%)		

* $p < 0.01$

Probability of Accessing Mental Health Services by People
with Higher Levels of Psychological Distress while
Controlling for the Earlier/Later Implementation of Deinstitutionalization

Earlier deinstitutionalization was associated with increased probability of accessing mental health services by people with higher levels of psychological distress. The zero order log odds of accessing mental health services for provinces that implemented the policy of deinstitutionalization earlier was 1.575 (Wald 18.041, $p < 0.001$, $n = 1767$).

Comparing the subsets of the sample (earlier vs. later) in the full regression model (including per capita expenditures on community-based mental health services and the social correlates), per capita expenditures on community-based mental health services was nonsignificant among the provinces that implemented deinstitutionalization earlier (Table 3). In contrast, higher levels of per capita expenditures on community-based mental health services were associated with a lower log odds of accessing mental health services among the provinces that implemented deinstitutionalization later ($\text{Exp}(B) = 0.981$, $p < 0.01$).

The year/wave of the NPHS significantly increased the log odds of accessing mental health services among the provinces that implemented deinstitutionalization later. People were less likely to access mental health services in 1994/95 ($\text{Exp}(B) = 0.466$, $p < 0.01$). In

contrast, the year of the survey is nonsignificant among the provinces that implemented deinstitutionalization earlier (Table 3).

TABLE 2
Comparison of Accessing Mental Health Services by Wave of the NPHS
while Controlling for Higher Levels of Psychological Distress
and Earlier/Later Implementation of Deinstitutionalization

1994/95	Early Deinst. (S.D.)	Later Deinst. (S.D.)	X ²	% Difference from Early to Later
Accessed services	198 (32.7%)	107 (25.1%)	6.980*	+7.6%
Did not access services	408 (67.3%)	320 (74.9%)		
Total	606 (100%)	427 (100%)		
1998/99	Early Deinst. (S.D.)	Later Deinst. (S.D.)	X ²	% Difference from Early to Later
Accessed services	164 (40.6%)	83 (27.9%)	12.209**	+12.7%
Did not access services	240 (59.4%)	215 (72.1%)		
Total	404 (100%)	298 (100%)		

* $p < 0.01$; ** $p < 0.001$

When reviewing the social correlates of access, it is important to note the social correlates that are nonsignificant because these correlates are an indication of social equality with respect to accessing mental health services (Table 3). Among the provinces that implemented deinstitutionalization earlier, income, age, sex, and perceived levels of social support were nonsignificant. Level of education, immigration status, and family living arrangements were significant (Table 3). People with lower levels of education were less likely to access mental health services as compared to people with post-secondary levels of education ($\text{Exp(B)} = 0.543$, $p < 0.01$). In addition, immigrants were less likely to access mental health services ($\text{Exp(B)} = 0.445$, $p < 0.001$) as well as youths in two parent families ($\text{Exp(B)} = 0.467$, $p < 0.05$).

In contrast, the year of the NPHS, level of education, income, family living arrangements, and the interaction between sex and age were statistically significant among the provinces that implemented deinstitutionalization later. People were more likely to access mental health services in 1998/99 ($\text{Exp(B)} = 0.466$) than in 1994/95, ($p < 0.01$). People with some post-secondary level of education were less likely to access mental health services ($\text{Exp(B)} = 0.407$, $p < 0.01$) compared to people with post-secondary levels of

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education (the reference category). Youths in two-parent families were less likely to access mental health services ($\text{Exp(B)} = 0.279$, $p < .001$), whereas single parents ($\text{Exp(B)} = 3.402$, $p < .001$) and other single people ($\text{Exp(B)} = 3.165$, $p < .001$) were more likely to access mental health services compared to spouses living together without children. Higher levels of total income were associated with the higher log odds of accessing mental health services ($\text{Exp(B)} = 1.418$, $p < .01$). There was also a significant interaction between sex and age. Younger women ($\text{Exp(B)} = 1.305$) were more likely to access mental health services than younger men ($\text{Exp(B)} = 0.071$) (Table 5). The log odds of accessing mental health services were higher with age.

TABLE 3
Logistic Regression of the Probability of Accessing Mental Health Services by People
with Higher Levels of Psychological Distress while Controlling of
the Earlier/Later Implementation of the Policy of Deinstitutionalization

	Earlier Deinstitutionalization		Later Deinstitutionalization	
	b	Exp(B)	b	Exp(B)
Constant	0.765	2.150	0.865	2.376
Per capita com. \$	-.001	1.001	-0.019**	0.981
Year 94/95	-0.233	0.792	-0.763**	0.466
Sex				
Male	-0.240	0.787	-2.675**	0.069
Age	0.004	1.004	0.266*	1.305
Family structure (ref: only spouses)	**		***	
Single living alone	-0.053	0.948	1.152***	3.165
Single living with others	0.033	1.034	-0.182	0.834
Two parents with children	-0.423	0.655	-0.057	0.945
Single parent and children	0.123	1.131	1.224***	3.402
Youth of single parent	-0.463	0.629	-1.745	0.175
Youth of two parents	-0.761*	0.467	-1.276**	0.279
Other	-1.238***	0.290	-0.890	0.411
Family income	-0.067	0.935	0.349*	1.418
Education (ref: post sec grad)	**		*	
Less than secondary	-0.610**	0.543	-0.099	0.906
Secondary	-0.342	0.710	-0.379	0.684
Some post secondary	0.056	1.058	-0.898**	0.407
Status as an immigrant	-0.809***	0.445	-0.674	0.510
Social support	-0.135	0.873	0.300	1.350
Sex* social support	-0.079	0.924	0.067	1.069
Sex* income	0.070	1.073	-0.136	0.873
Sex* age	-0.028	0.973	-0.231***	0.793
n	930		682	
-2 Log likelihood	1128		678	

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

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A limitation of the above model is that rural/urban residence was excluded because of missing data from Ontario in 1994/95. Thus, the model is analyzed with per capita expenditures on community-based mental health services, year, rural/urban residence, sex and the interaction between residence and sex (Table 4).

This interaction is only significant among the provinces that implemented the policies of deinstitutionalization earlier. Men living in rural areas had a lower log odds of accessing mental health services ($b = -8.088$) followed by men living in urban areas ($b = -3.569$) (Table 5). Women living in rural areas had a lower log odds of accessing mental health services of 0.057 ($b = -2.866$) compared to women living in urban areas (the reference category) (Table 5).

TABLE 4
Logistic Regression of the Probability of Accessing Mental Health Services by People with Higher Levels of Psychological Distress while Controlling of the Earlier/Later Implementation of the Policy of Deinstitutionalization (Urban/Rural Residence)

	Earlier Deinstitutionalization b	Exp(B)	Later Deinstitutionalization b	Exp(B)
Constant	6.242*	514	2.254	9.529
Per capita com. \$	0.012	1.012	-0.020**	0.980
Year 94/95	-0.910***	0.402	-0.568*	0.566
Rural	-2.866*	0.057	-1.218	0.296
Sex (Male)	-3.569**	0.028	-1.177	0.308
Sex* Rural	-1.653**	0.191	-0.518	0.569
n	515		639	
-2 Log likelihood	613		639	

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

TABLE 5
The Log Odds of Accessing Mental Health Services by Urban/Rural Residence

Sex and Residence Male	Residence	Male X Res.	Total	Exp(B)	
Rural	-3.569	-2.866	-1.653	-8.088	0.000
Urban	-3.569	0	0	-3.569	0.028
Sex and Age	Sex	Age	Sex X Age	Total	Exp(B)
Male	-2.675	0.266	-0.231	-2.64	0.071
Female	0	0.266	0	0.266	1.305

DISCUSSION

The results support the hypothesis that the access of mental health services was significantly higher in the provinces that implemented deinstitutionalization earlier as compared to later. These differences are in accord with the policy of deinstitutionalization of psychiatric services, which suggests that the accessing of mental health services is increased when resources are reallocated from psychiatric institutions to community-based mental health services serving a broader base of people. In the provinces that implemented deinstitutionalization earlier, the increase in accessing mental health services could be related to the fact that they have had the opportunity to develop a better infrastructure for the delivery of mental health services and to implement public education campaigns on mental illness. The provinces that implemented deinstitutionalization later actually had higher levels of per capita expenditures on community-based mental health services, but a period longer than four years might be needed to fully appreciate the impact on the mental health of the community.

It is important to note that even though earlier deinstitutionalization is associated with improved accessing of mental health services, this effect may be decreasing over time. In the analysis of the subsets of the data, the 1998/99 wave of the NPHS is only significant in the provinces that implemented deinstitutionalization later. In addition, approximately 60% of people with higher levels of psychological distress had not accessed mental health services in the provinces that implemented deinstitutionalization earlier. Additional research is needed to determine if this lack of access is related to an insufficient level of community-based mental health services or to other barriers that interfere with access, such as a lack of knowledge of available mental health services or a fear of stigma related to accessing services.

The policy theory identifies that people in lower income groups, people with lower levels of education, single parents, men, immigrants, and people living in rural areas are at higher risk of reduced access to mental health services. Early deinstitutionalization is associated with a decrease in some of the traditional social inequalities that affect accessing mental health services, such as age and lower levels of income. Social inequalities with respect to lower levels of education, status as an immigrant, and men in rural areas continued in these provinces. In contrast, all social correlates, with the exceptions of status as an immigrant and rural/urban, are associated with inequalities in the access of mental health services among the provinces that implemented deinstitutionalization later.

Limitations of the Research

The measure of earlier versus later deinstitutionalization helps to categorize the provinces in a manner similar to a natural experiment, in order to analyze the impact of this policy (time and intensity). Nevertheless, there may be nonrandom differences within and between these two categories of provinces that influenced the results. A second limitation is that this test does not allow for the direct measurement of whether individuals received services in psychiatric hospitals or in the community. The NPHS does not identify the type of health professional that the respondent contacted in the previous year. The CIDI scale cannot be directly translated into a psychiatric diagnosis.

It is possible that some of the findings about the impact of deinstitutionalization on levels of psychological distress and the probability of accessing mental health services are the result of a selection effect. It is unknown whether people who have higher levels of

psychological distress chose not to participate in the 1994/95 and 1998/99 waves of the NPHS; the data are cross-sectional rather than longitudinal. Bachrach (1989, 1992) and Lamb and Bachrach (2001), among others, have suggested that deinstitutionalization is associated with homelessness. This study does not address whether deinstitutionalization had an impact on homelessness since the NPHS only samples respondents who have addresses.

Implications for Policy

There is clear evidence of benefit to the community resulting from the deinstitutionalization of psychiatric services. Accordingly, it appears beneficial for the provinces that implemented deinstitutionalization later to continue doing so, at least until these provinces attain the same level of intensity as the provinces that implemented deinstitutionalization earlier. Policies and practices need to be designed to specifically address the needs of groups who continue to be disadvantaged; who experience higher levels of psychological distress and reduced probabilities of accessing mental health services. These include people with lower levels of education, immigrants and men in rural areas.

Suggestions for Future Research

Sealy and Whitehead (in press) identified the need for research that empirically determines criteria describing the full implementation of the policy of deinstitutionalizing psychiatric services and the development of a full spectrum of community-based mental health services. The impact on the general population, including high risk groups, should then be evaluated. Research on mental health programs needs to clarify the best theoretical approaches to address accessibility for people who have higher levels of psychological distress yet do not access mental health services. Research should also be conducted with longitudinal data (preferably panel data) to examine for a causal impact of deinstitutionalization on accessing mental health services.

CONCLUSION

The implementation of the policy of deinstitutionalization is associated with improved accessing of mental health services for the community. Nevertheless, the majority of people who have higher levels of psychological distress have not accessed mental health services. Research efforts must continue to analyze methods for reducing the barriers to accessing mental health services for people who have higher levels of psychological distress. Such research must use standardized rates of deinstitutionalization in order to adjust for the systemic bias that results from the differential impact of the stage of implementation of this policy.

RÉSUMÉ

L'un des objectifs de la désinstitutionnalisation en milieu psychiatrique est d'améliorer l'accès aux services communautaires de santé mentale, mais bien peu de recherches ont mesuré son impact sur la collectivité générale. Les résultats de recherche présentés ici sont tirés de l'analyse empirique du processus de désinstitutionnalisation des services de santé mentale en cours depuis 40 ans au Canada (Sealy & Whitehead, 2004). Les chercheurs ont élaboré un modèle expérimental fondé sur des paramètres dérivés (désinstitutionnalisation précoce et tardive), afin d'établir dans quelle mesure

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les politiques de désinstitutionnalisation ont atteint l'objectif d'amélioration de l'accès aux soins de santé mentale par les personnes dont le niveau de détresse psychologique est plus élevé; le modèle prend également en considération certains corrélats sociaux. Les données concernant l'accès aux services de santé mentale ont été puisées dans l'Enquête nationale sur la santé de la population (Statistique Canada, 1996, 2001). Les résultats de l'étude démontrent une amélioration de l'accès aux services communautaires de santé mentale ainsi qu'une diminution des inégalités sociales relatives à cet accès dans les provinces où la désinstitutionnalisation a été mise en œuvre de façon précoce. Néanmoins, la majorité des personnes souffrant de détresse psychologique élevée n'ont pas obtenu accès aux services de santé mentale.

REFERENCES

- Awad, A.G., Voruganti, L.N.P., & Heslegrave, R.J. (1997). A conceptual model of quality of life in schizophrenia: Description and preliminary clinical validation. *Quality of Life Research*, 6, 21-26.
- Bachrach, L.L. (1978). A conceptual approach to deinstitutionalization. *Hospital & Community Psychiatry*, 29, 573-578.
- Bachrach, L.L. (1983). Psychiatric services in rural areas: A sociological overview. *Hospital and Community Psychiatry*, 34, 215-226.
- Bachrach, L.L. (1986). The challenge of service planning for chronic mental patients. *Community Mental Health Journal*, 22(3), 170-174.
- Bachrach, L.L. (1989). Deinstitutionalization: A semantic analysis. *Journal of Social Issues*, 45(3), 161-171.
- Bachrach, L.L. (1992). The urban environment and mental health. *The International Journal of Social Psychiatry*, 38(1), 5-15.
- Badawi, M., Kramer, M., & Eaton W. (1996). Use of mental health services by households in the United States. *Psychiatric Services*, 47(4), 376-380.
- Beiser, M. (1988a). After the Door has been Opened: Mental Health Issues Affecting Immigrants and Refugees in Canada. Ottawa: Health and Welfare Canada.
- Beiser, M. (1988b). Review of the Literature on Migrant Mental Health. Ottawa: Health and Welfare Canada.
- Beiser, M. & Edwards, G. (1994). Mental health of immigrants and refugees. *Mental Health Care in Canada*, 6, 73-86.
- Clayer, J., Bookless, C., Air, T., & McFarlane, A. (1998). Psychiatric disorder and disability in a rural community. *Social Psychiatry Psychiatric Epidemiology*, 33, 269-273.
- Davidson, L., Haglund, K.E., Stayner, D.A., Rakfeldt, J., Chinman, M.J., & Tebes, J.K. (2001). It was just realizing . . . that life isn't one big horror: A qualitative study of supported socialization. *Psychiatric Rehabilitation Journal*, 24(3), 275-292.
- Fox, J.C., Blank, M., Rovnyak, V.C., & Barnett, R.Y. (2001). Barriers to help seeking for mental disorders in a rural impoverished population. *Community Mental Health Journal*, 37(5), 421-436.
- Health and Welfare Canada. (1988). Mental Health for Canadians: Striking a Balance. Ottawa: Minister of Supply and Services Canada: Cat. H39-128/1988E.
- Health and Welfare Canada. (1990). Mental Health Services in Canada. Ottawa: Minister of Supply and Services Canada Cat. No. H39-182/1990E.
- Hoyt, D.R., Conger, R.D., Gaffney, V. J., & Weihs, K. (1997). Psychological distress and help seeking in rural America. *American Journal of Community Psychology*, 25(4), 449-470.
- Kessler, R.C., McGonagle, K.A., Zhao, S., Nelson, C.B., Hughes, M., Eshleman, S., Wittchen, H., & Kendler, K.S. (1994). Lifetime and 12 month prevalence of DSM-III-R psychiatric disorders in the United States. *Archives of General Psychiatry*, 51, 8-19.
- Lamb, H.R. & Bachrach, L.L. (2001). Some perspectives on deinstitutionalization. *Psychiatric Services*, 52(8), 1039-1045.

- Leff, J., Dayson, D., Gooch, C., Thornicroft, G., & Wills, W. (1996). Quality of life of long-stay patients discharged from two psychiatric institutions. *Psychiatric Services*, 47(1), 62-67.
- Lewis, D.A., Riger, S., Rosenberg, H., Wagenaar H., Lurigio, A., & Reed, S. (1991). *Worlds of the mentally ill: How deinstitutionalization works in the city*. Carbondale and Edwardsville, IL: Southern Illinois Press.
- Lieberman, H.J., Forbes, J., Uttaro, T., & Sarkis, L. (1996). Using needs surveys to foster consumer and family empowerment. *Administration and Policy in Mental Health*, 23(4), 357-360.
- Lin, E., Goering, P., Offord, D.R., Campbell, D., & Boyle, M.H. (1996). The use of mental health services in Ontario: Epidemiologic findings. *Canadian Journal of Psychiatry*, 41, 572-577.
- McCubbin, M. (1994). Deinstitutionalization: The Illusion of the disillusion. *Journal of Mind and Behavior*, 15, 35-53.
- Mechanic, D. (1986). The challenge of chronic mental illness: A retrospective and prospective view. *Hospital Community Psychiatry*, 37(9), 891-896.
- Mechanic, D. (1987). Correcting misconceptions in mental health policy: Strategies for improved care of the seriously mentally ill. *Milbank Quarterly*, 65(2), 203-230.
- Mechanic, D. (1996). Emerging issues in international mental health services research. *Psychiatric Services*, 47(4), 371-375.
- Mechanic, D. (1997). Approaches for coordinating primary and specialty care for persons with mental illness. *General Hospital Psychiatry*, 19, 395-402.
- Mechanic, D. & Rochefort, D.A. (1990). Deinstitutionalization: An appraisal of reform. *Annual Review Sociology*, 16, 301-27.
- Mueser, K.T., Bond, G.R., Drake, R.E., & Resnick, S.G. (1998). Models of community care for severe mental illness: A review of research on case management. *Schizophrenia Bulletin*, 24(1), 37-74.
- Offord, D.R., Boyle, M.H., Campbell, D., Goering, P., Lin, E., Wong, M., & Racine, Y. (1996). One-year prevalence of psychiatric disorder in Ontarians 15 to 64 years of age. *Canadian Journal of Psychiatry*, 41, 559-563.
- Patten, S.B. (1997). Performance of the composite international diagnostic interview short form for major depression in community and clinical samples. *Chronic Diseases in Canada*, 18: Vol. 3. retrieved on January 31, 2006 from http://www.phac-aspc.gc.ca/publicat/cdic-mcc/18-3/a_e.html
- Pescosolido, B.A. (1992). Beyond rational choice: The social dynamics of how people seek help. *American Journal of Sociology*, 97(4), 1096-1138.
- Pescosolido, B.A., Wright, E.R., & Lutfey, K. (1999). The changing hopes, worries, and community supports of individuals moving from a closing long-term facility. *Journal of Behavioral Health Services and Research*, 26(3), 276-288.
- Pearlin, L.I. (1989). The sociological study of stress. *Journal of Health and Social Behavior*, 30, 241-256.
- Pearlin, L.I., Menaghan, E.G., Lieberman, M.A., & Mullan, J.T. (1981). The stress process. *Journal of Health and Social Behaviour*, 22, 337-356.
- Regier, D.A., Myers, J.K., Kramer, M., Robins, L.N., Blazer, D.G., Hough, R.L., Eaton, W.W., & Locke, B.Z. (1984). The NIMH epidemiological catchment area program: Historical context, major objectives, and study population characteristics. *Archives of General Psychiatry*, 41, 934-941.
- Sealy, P.A. & Whitehead, P.C. (2004). 40 years of deinstitutionalization of psychiatric services in Canada: An empirical assessment of the process. *Canadian Journal of Psychiatry*, 49(4), 249-257.
- Sealy, P.A. & Whitehead, P.C. (in press). The impact of deinstitutionalization of psychiatric hospitals on psychological distress of the community. *Journal of Health and Social Policy*.
- Statistics Canada. (1996). National Population Health Survey, 1994; Public Use Microdata "Health" File (Machine Readable Data File). Ottawa: Statistics Canada. 04-26-1996.
- Statistics Canada. (2001). National Population Health Survey, 1998-1999 (Cycle 3): Household Component. Health File (Machine Readable Data File). Ottawa. Statistics Canada. 2001-01-18.

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- Strole, L. & Millman, E.J. (1998). *The Midtown Longitudinal Study 1954-1974*. New Brunswick, NJ: Transaction.
- Wasylenki, D., Goering, P., & MacNaughton, E. (1992). Planning mental health services: I. Background and key issues. *Canadian Journal of Psychiatry*, 37(3), 199-205.