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FACTORS DISTINGUISHING URBAN AND RURAL STATE MENTAL HOSPITAL PATIENTS IN FLORIDA*

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Miami, Florida

and

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Behavioral Science Research Institute
Coral Gables, Florida

ABSTRACT

This study compares the patients of two state mental hospitals, one serving an urban region, the other a rural district. The purpose is to explore urban and rural patient differences on background, hospital history and experience, post-release living situation, use of community mental health services, and post-release functioning. A summary attempt to distinguish urban from rural patients using discriminant function analysis established that rural-urban differences exist in symptom manifestation, the patient's personal and social environment, and institutional processing patterns. These patient differences have implications for the development of aftercare services.

The traditional focus of rural-urban differentials in mental health research has been almost exclusively one of predicting incidence and prevalence of disorder. Typically these issues have been answered by pointing to urban settings and situations coinciding with them that are thought to promote higher rates of disturbance, treated or untreated. Hence, the stresses of urban living (Faris and Dunham, 1939), especially mediated by social class (Eaton, 1974; also Liem and Liem, 1978) have been considered risk factors in mental disorder. Other contributing dimensions include in-migration of the psychiatrically disturbed from rural areas to urban (Murphy, 1965); lower tolerance of deviance and weaker primary relationships in urban areas (Eaton, 1974); and the greater availability, accessibility and utilization of psychiatric

*Data for this study were collected for the Aftercare Project, of the Florida Department of Health and Rehabilitative Services, Mental Health Program Office and are used with permission of that agency.
services in urban areas (Eaton, 1974; Dohrenwend, 1975). Not only are incidence and prevalence seen to vary with urbanization, but type of disorder also appears subject to that influence. Rural areas have been associated with more functional psychoses, except schizophrenia, which along with the neuroses and character disorders, tend to be urban phenomena (Dohrenwend, 1975: 370).

If there are real urban-rural differences in the extent and nature of disorder, based on different stresses, different social definitions of behavior, and different service utilization patterns, then it is reasonable to expect treated patients to differ according to their urban or rural situation. The purpose of this study is to compare the discharged patients of two state hospitals, one serving a cosmopolitan urban region, the other a more homogeneous and essentially rural district, and to consider the possible ramifications for aftercare in the two areas. The issue to be addressed here is the extent to which two groups, one rural, and one urban, differ on some combination of variables related to (a) other demographic characteristics; (b) hospital history and experience; (c) post-release living situation and use of community mental health and (d) post-release functioning.

METHODS

The initial sample of 414 consisted of all willing patients released from February to April, 1976, from one urban, and one rural state hospital in a southeastern state. The severely medically infirm and those with criminal charges pending were excluded from the sample. At release, background social data and clinical information were gathered from hospital records and with a brief interview with each patient. At six months post-discharge, a follow-up interview was conducted with all patients who were still in the community and a 'significant other' (SO) designated by the patient. Patients readmitted before the six months follow-up were also interviewed as soon as possible after return to the hospital, along with an SO. With attrition due to deaths, geographic moves, and refusals at follow-up, the total sample with sufficient data for analysis was reduced to 332; 227 came from the urban institution, 105 from the rural. Of the total, 240 were still in the community at six months, and 92 had relapsed. Readmission for the urban group was 30%; for the rural group 24% - this was not a statistically significant difference. Diagnoses for the groups were relatively homogeneous; 70% were designated functionally psychotic, primarily schizophrenic; the remaining 30% were equally spread among the organic syndromes and character disorders, all considered severe. Table 1 describes the sample demographically.

The follow-up interviews, use of a patient-SO combination to provide information on the patient, and a number of composite indices of adjustment and functioning were based on the prior studies
TABLE 1: PATIENT DEMOGRAPHIC CHARACTERISTICS AND REGION

<table>
<thead>
<tr>
<th></th>
<th>Rural (n=105)</th>
<th>Urban (n=227)</th>
<th>TOTAL (n=332)</th>
<th>( \chi^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex:</strong></td>
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<tr>
<td>Male</td>
<td>57%</td>
<td>60%</td>
<td>59%</td>
<td>.19</td>
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<tr>
<td>Female</td>
<td>43</td>
<td>40</td>
<td>41</td>
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<tr>
<td><strong>Marital:</strong></td>
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<tr>
<td>Ever married</td>
<td>63%</td>
<td>51%</td>
<td>55%</td>
<td></td>
</tr>
<tr>
<td>Never married</td>
<td>37</td>
<td>49</td>
<td>45</td>
<td>3.39</td>
</tr>
<tr>
<td><strong>Occupation:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White collar</td>
<td>25%</td>
<td>14%</td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td>Laborer</td>
<td>64</td>
<td>63</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>11</td>
<td>23</td>
<td>19</td>
<td>9.81**</td>
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<tr>
<td><strong>Age:</strong></td>
<td></td>
<td></td>
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<tr>
<td>0-29</td>
<td>32%</td>
<td>40%</td>
<td>37%</td>
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<tr>
<td>30-49</td>
<td>32</td>
<td>39</td>
<td>37</td>
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<tr>
<td>50+</td>
<td>36</td>
<td>21</td>
<td>26</td>
<td>7.49*</td>
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<tr>
<td><strong>Ethnicity:</strong></td>
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<tr>
<td>Anglo</td>
<td>63%</td>
<td>57%</td>
<td>59%</td>
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<tr>
<td>Non-Anglo</td>
<td>37</td>
<td>43</td>
<td>41</td>
<td>.87</td>
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<tr>
<td><strong>Religion:</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Protestant</td>
<td>67%</td>
<td>55%</td>
<td>59%</td>
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<tr>
<td>Catholic</td>
<td>9</td>
<td>27</td>
<td>21</td>
<td></td>
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<tr>
<td>Other</td>
<td>24</td>
<td>18</td>
<td>20</td>
<td>13.78**</td>
</tr>
<tr>
<td><strong>Education:</strong></td>
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<tr>
<td>High school or less</td>
<td>65%</td>
<td>58%</td>
<td>60%</td>
<td></td>
</tr>
<tr>
<td>High school diploma or more</td>
<td>35</td>
<td>42</td>
<td>40</td>
<td>1.02</td>
</tr>
</tbody>
</table>

* \( p < .05; \) ** \( p < .01 \)

of Freeman and Simmons, 1963; Angrist, et.al., 1968; Michaux, et.al., 1970; Katz and Lyerly, 1963; Katz, 1966; Katz, et.al., 1966, 1969. The indices of patient performance, revalidated and re-analyzed to assure internal reliability, included twin measures of social functioning and symptomatology based on both the patient's self report and the ratings of the SO, typically living with or in daily contact with the patient. In addition, SOs were assessed as to their general attitudes, beliefs and stereotypes of mental patients (the SO-Stereotype Index).

Patient performance, then, was considered to involve (1) the patient's adequacy in social functioning as represented by indices measuring the quality of leisure time use and successful social relationships, and feelings of social rejection and stigma; (2) the patient's psychiatric symptom level as represented by indices of anxiety, depression, general psychopathology, and incompetence in self care and personal management. Further details on the
sampling, instrumentation, index validation, and field data collection have been reported in Nuehring and Thayer (1978).

Since the basic task was to distinguish urban from rural patients, Discriminant Function Analysis (DFA) was selected. (Becker and Kronus, 1977; Klecka, 1975; Morrison, 1969). DFA is a multivariate technique used to distinguish two or more groups, by means of a statistically "best" combination of variables forming a single dimension or "function" (Table 2). To paraphrase Becker and Kronus (1977: 488), it is assumed that urban patients cluster at one pole in space, rural patients at the other pole. Variables which discriminate strongly between the groups "gravitate" closer to one pole or the other and have large weights, or large standardized discriminant coefficients. Variables which do not differentiate the groups very much are located midway between poles, and have small standardized discriminant coefficients. Beyond separating groups, DFA also provides a basis for classification of individuals to their appropriate groups. If the discriminant function allows correct classification in excess of chance, it is regarded as useful. The more sensitive standard against which to test the discriminant function is the proportion of the smaller group correctly classified. Thus, a high percentage of correctly classified rural cases is sought in this analysis.

Distinguishing Urban and Rural Patients with Multiple Variables

For present purposes, the DFA was used to investigate the following questions: What conditions or characteristics in combination differentiate urban from rural patients? Which of the variables in the constellation are most important in separating the groups? How well does this combination of variables, mathematically translated into a discriminant function, differentiate the groups?

Table 2 exhibits the results of the DFA achieved for urban versus rural patients with a wide array of discriminating variables concerning patient background, hospitalization history, post discharge situation and performance available to contribute to the discriminating function.

Taking the last discriminant analysis question first, the best combination of measures derivable differentiated the urban from the rural patients moderately well (group centroids, -0.75 to +0.41).
<table>
<thead>
<tr>
<th>Variable</th>
<th>Urban 78%</th>
<th>Rural 75%</th>
<th>Urban 85%</th>
<th>Rural 87%</th>
<th>Urban 72%</th>
<th>Rural 68%</th>
<th>Percent of Total</th>
<th>Percent of Total</th>
<th>Absolute Canonical Functions Wilks' Chi-2 Degrees of Freedom</th>
<th>Significance</th>
<th>Percent of Total</th>
<th>Percent of Total</th>
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<tbody>
<tr>
<td>Religion (non-Protestant)</td>
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<td>Male</td>
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<tr>
<td>Occupation (white collar, laborer, none)</td>
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<td>Duration, Most Recent Hospitalization</td>
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<td>Admission Status (inpatient)</td>
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<td>Employment Status Discharge</td>
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<td>Social Relationships (50 Report)</td>
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<td>Feelings of Stigma (Parent Report)</td>
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<td>Accompany With Living Situation</td>
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<td>Anxiety (50 Report)</td>
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<td>Personal Incompliance (50 Report)</td>
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<td>Table 2: Discriminant Function Analysis on Rural and Urban Hospital Patients</td>
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<tr>
<td>Variables entered Discriminant</td>
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<td>Standardized Discriminant</td>
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</table>
Correct classification of the smaller group, rural patients, was 66% -- better than chance, although 36 of 105 rural patients were wrongly predicted to be among the urban group. Wilks Lambda, prior to derivation of the function, was statistically significant (.68), suggesting the array of available measures offered respectable discriminating power. The canonical correlation squared indicated about one third of variance (31%) in the groups was explained by the function. Overall, then, there is an identifiable gulf between urban and rural patients with respect to their demographics, their hospitalization history and experiences, their post-release situation and functioning.

However, the discriminant function is not a cohesive, singular dimension, owing to the complex nature of the urban-rural difference. The function, better viewed as an equation or "model", is comprised mainly of measures of psychiatric symptoms and characteristics of the most recent hospitalization, with occupation and age representing the only reasonably strong demographic discriminators.

Roughly in order of discriminating power, patients can be differentiated as follows: Rural patients were more likely than urban patients to have been admitted involuntarily and to have stayed in the hospital longer. Confirmed by both patient and SO indices, rural patients were more anxious and also more personally incompetent after discharge; however, they did not experience feelings of social stigma and rejection as did the urban patients. Demographically, rural patients were older than urban (consistent with Eaton's 1974 observation that hospitalization occurs at a later age among rural persons). They were more likely to claim an occupation, white collar or blue collar, than urban patients, but there was a better chance that the urban patient with an occupation would have been employed after discharge. Rural patients were more likely to be Protestant while the urban group was heavily represented by Catholics and a small number of Jewish persons.

Social role performance did not seem to vary by urban-rural region, except that urban patients were seen as having slightly more successful, interactive social relationships than rural patients.

Barely separating the groups at all, there was a slight tendency for urban patients to be more uncomfortable with their living situations (which were somewhat more likely to be non-familial settings) and to report a greater level of general psychopathology (bizarre thoughts, hallucinations, memory impairment, etc.).

**DISCUSSION**

Observations based on these data are generally consistent with other research documenting different manifestations of mental disorders between urban and rural settings, in which rural patients
appear to be more afflicted with the functional psychoses (see Dohrenwend, 1975).

In addition to the nature of illness, urban and rural patients appear to be processed differently by their respective institutions. Succinctly, the urban person is a quickly expedited, relatively young voluntary patient while the rural citizen is likely to be an older involuntary patient and to be confined longer, perhaps reflecting a personal situation that in fact tolerates deviant individuals longer but ultimately uses more coercion. An interesting variable, which these data do not contain, is the degree to which patients in urban settings are processed in and out of the hospital exclusively by social and psychiatric agencies, while in rural settings, family and community maintain greater control over the decision to hospitalize. The "professional" decision to hospitalize may be met with greater patient compliance, particularly if it has also facilitated earlier detection of the problem. On the other hand, the "family" decision to hospitalize could evoke patient resistance, feelings of betrayal, and the like, resulting in involuntary procedures and longer confinements.

Urban-rural patient differences, then, appear to be based on a complex interaction of degree and type of symptoms and institutional processing. Of these two aspects of the urban-rural differential, the one that has been least investigated is the latter: the workings of rural versus urban social agencies, courts and hospitals and the implications for patient identification, patient labeling, and modes of intervention. This encourages an organizational focus that subsequent studies need to take in considering regional and administrative differences in mental health care patterns, including hospitalization and aftercare.

With respect to aftercare, rural patients seem to be an older, longer institutionalized, less socially adept, and more impaired group. They also report occupations but are less likely to be employed after release. This argues for development of rural psychosocial rehabilitation programs with provision for long term involvement with patients, which can focus on minimal vocational skills, transitional and/or sheltered employment, and social activities. Supervised living could also aid this older, more handicapped group, along with medication maintenance and psychiatric supervision.

To date, however, comprehensive long-term psychosocial programs offering the full array of vocational preparation, sheltered work settings, social opportunities, supervised living as needed, and psychiatric aftercare have developed for the most part in metropolitan areas. Good examples are Fountain House in New York City and Fellowship House in Miami, Florida. Fellowship House, for instance, is a multi-site organization providing chronic mental patients permanent membership in a system offering a wide variety of social activities and recreation, places to live with varying degrees of
supervision, sheltered employment, training for competitive employ-
ment, and "transitional" employment which bridges the gap from Fel-
lowship House's own work programs to the competitive job market.
At Fellowship House diagnoses and treatment are irrelevant concepts.
All 'members' are seriously and chronically disturbed and medical
intervention is aimed at chemotherapy maintenance only. The pro-
gram's goals are to engage individuals on a long term basis and to
enhance quality of social life, capacity for independent function-
ing, social adjustment and level of productivity within the real
limits imposed by the psychiatric handicaps.

Urban patients were somewhat more sensitive to feelings of
stigma after discharge; for them, aftercare programs might orient
toward socially easing the transition back to the community by put-
ting released patients in contact with self-help groups of other
mental patients and by counseling families and significant others
to minimize pejorative stereotypes and to help shape realistic ex-
pectations of the patient. The urban group -- younger, with
briefer hospital histories, greater social skills, less psychiatric
disability -- also evidenced a somewhat better likelihood of em-
ployment if they had occupations.

Thus, it appears that the urban patients could be relatively
well served within the existing network of service if that network
were systematically pursued. There are, in metropolitan areas,
existing resources for self-help group involvement, outpatient
counseling for patients and families, medication maintenance, and
vocational preparation. The key to effective delivery of these
services is, of course, that hard-to-attain level of coordination
required to bring multiple services from multiple agencies to an
individual.

An alternative is again offered by psychosocial rehabilitation
programs such as Fellowship House, where comprehensive aftercare
is provided within one program. For the urban patient, psycho-
social rehabilitation might emphasize more work with the individ-
ual's own social and family network, rather than replacing it
with program structured social and residential life. Also, a voca-
tional thrust aimed at training and preparation for competitive
employment as opposed to long-term sheltered work may be more feas-
able.

Hence, for rural patients, aftercare should focus in part upon
providing a nurturing social environment, enhancing independent
functioning and social adjustment, and locating opportunities for
individuals to engage in some degree of productive activity. A
rural application of psychosocial rehabilitation would be desire-
able, with emphasis on social and residential programming, along
with sheltered work or competitive employment situations in which
patients' existing occupational capabilities could be used. For
urban patients, aftercare should focus in part upon providing new
skills to enable individuals to engage in productive activity and upon modifying existing social networks to maximize the patient's ability to be maintained within them. Psychosocial rehabilitation models, such as Fellowship House, again are promising urban systems, if emphasis is directed somewhat less toward total maintenance of the patient and more toward development of the patient's own vocational and social strengths, and the patient's optimal autonomy.

**BIBLIOGRAPHY**

Angrist, S., M. Lefton, S. Dinitz, B. Pasamanick

Becker, C. and S. Kronus

Dohrenwend, B.

Eaton, W.W., Jr.

Faris, R. and W. Dunham
1939 Mental Disorders in Urban Areas. Chicago: University of Chicago Press.

Freeman, H. and D. Simmons

Katz, M. and S. Lyerly

Katz, M.

Katz, M., H. Lowery, J. Cole

Katz, M., H. Gudeman, K. Sanford
Klecka, W.

Liem, R. and J. Liem

Michaux, W., M. Katz, A. Kurland, K. Gansereit

Morrison, D.

Murphy, H.

Nuehring, E. and J. Thayer

Nuehring, E.

Schwab, J., C. Brown, C. Holzer, B. Stevenson

Tudor, W., Tudor, J.F., and Gove, W.R.