COMMUNITY RESIDENTIAL FACILITIES FOR THE MENTALLY ILL AND MENTALLY RETARDED: ENVIRONMENTAL QUALITY AND ADAPTIVE FUNCTIONING

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ABSTRACT

Environmental quality of the entire Manitoba population of community residences, boarding homes and independent living units (278) was examined by an adapted version of Program Analysis of Service Systems (P.A.S.S.-3). The adaptive functioning of residents (665) was also determined by use of sections of the Adaptive Functioning Index (A.F.I.). The findings indicated the need for more promotion of socially integrative activities for residents such as recreation, community awareness and citization of community resources. Improvements in environmental quality were indicated in areas such as integration versus segregation, intensity of special placements exceeding the integrative potential of certain neighborhoods and restrictions on autonomy of residents. Strong, positive correlations were found between environmental normalization and the adaptive functioning level of residents.

Over the last two decades, increasing numbers of mentally retarded and post-mentally ill individuals have been discharged from institutions into community residential facilities of a variety of types (O'Connor, 1976; Bachrach, 1976). In Canada the number of persons in institutions for the mentally ill and mentally retarded has declined from 80,211 in 1964 to 49,416 in 1974 (Statistics Canada,

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1976). These developments appear to reflect changes in ideology, treatment technology and administrative practice.

The development of adequate services in the community, however, has not always kept pace with the growing numbers of deinstitutionalized persons and a number of authors have expressed concern about the life styles of former residents of institutions (Edgerton, 1967; Chu and Trotter, 1974; Murphy et al., 1972; Reich, 1973; Lamb and Goetzen, 1975; Robbins and Robbins, 1975; Aviram and Segal, 1973). As Eyman, Demaine and Lei (1979) point out, unless the effectiveness of community facilities can be demonstrated, we run the risk of "rediscovering" large institutions.

These concerns about the quality of the environment to which mentally handicapped persons are exposed have been given impetus by the development of behavioral technology, by the interest in ecological psychology and by evidence which indicates that behavior does not simply reflect inherent personality characteristics, but is very responsive to the environment (Mischel, 1976; Moos, 1975). Bjaanes and Butler (1974), O'Connor (1975), and Yaron (undated). Lambert (1974) and Eyman, Demaine and Lei (1979) have begun to examine environmental-behavioral linkages in such special residential services for the mentally retarded, and Trute and Segal (1976), Tcheng-Laroche, Murphy and Engelsmann (1976) and Segal and Aviram (1978) have reported on similar projects with the formerly institutionalized mentally ill.

A variety of means of environmental assessment have been employed. Indeed, most of these studies developed their own assessment devices. The Eyman et al. (1979) study, however, employed as a measure of the environment, Program Analysis of Service Systems or PASS (Wolfensberger and Glenn, 1975), a previously existing instrument which is basically an operationalization of the concept of normalization. Normalization as defined by Wolfensberger (1972) is "the utilization of means which are culturally normative as possible, in order to establish and/or maintain personal behaviours and characteristics which are as culturally normative as possible" (p. 28).

As an ideology, a system of values, normalization has caught the imagination of a number of professionals, although, as such, it is not subject to empirical verification. One agrees with the ideology or one does not. However, its proponents claim that it is not only an ideology, it is also a technology, a technology which promotes the development of individual capabilities and increased the capacity of individuals to function adaptively in a community setting.

This is clearly an empirical issue, an issue which, until relatively recently has been addressed more by appeal to authority or to plausibility than by the accumulation and analysis of relevant data. As Roos (1972) has said, "the assumption that normative approaches are the most effective strategy for generating normal behaviour is still largly untested" (p. 148). Some recent studies Yarol (undated) and Eyman et al., (1979), however, seem to provide at least the beginnings of an empirical basis for the notion that normalization is a technology which can influence adaptive functioning skills. If so this would be an important finding, since many of the former residents of institutions have lost (or had never acquired) a variety of the behavioral skills required to function independently in our society.

In the present study, data on both adaptive functioning and on characteristics of residential environments were collected. In the present paper, we intend to give an overview of the results obtained from these two sets of measures. In subsequent papers we will examine how environmental, individual and community characteristics interact to influence adaptive functioning, as well explore the factors which are related to the achievement of a high level of Environmental Normalization.

METHOD

Population

Data were obtained on 665 individuals (48 per cent male and 52 per cent female) residing in 278 special residential facilities for the mentally ill and mentally retarded in Manitoba during 1977. Of these, 244 were board and care residences or foster homes, 17 were staffed group homes or community residences and 17 were independent living facilities. Some 296 of the respondents had been diagnosed as having a psychiatric disorder and 369 as being mentally retarded. The ages ranged from 18 to 81, with a median of 47. Eighty-three per cent had spent some time in institutions for the mentally retarded or mentally ill. The median length of institutionalization for this 83 per cent was approximately 10 years. Seventy-five per cent of the mentally ill had a diagnosis of schizophrenia, while the remaining 25 per cent fell into a variety of diagnostic categories, none of which included more than 7 per cent of the sample. Among the mentally retarded clients, I.Q. scores ranged from 20 to over 90 with a median of 54.

Instruments

In order to assess the program needs of the residents, their current level of functioning was measured by an adapted version of the 150 items of the Residential section of the Adaptive Functioning Index or AFI (Marlett, 1971, 1977). The AFI, frequently used by staff working with handicapped individuals throughout Canada, is a checklist of 150 specific skills considered necessary for independent functioning in the community. It includes 3 domains, Personal Routines, Community Awareness and Social Maturity each consisting of five sub-domains of 10 items. Scores for each of the sub-domains, domains, as well as the total score were transformed into percentages.

As a measure of the quality of the environment, 30 items were adapted from the Program Analysis of Service Systems (Wolfensberger and Glenn, 1975). The ratings selected pertain particularly to the extent to which the independence, self-respect and dignity of residents are promoted, the extent to which residents are encouraged to participate in the activities of the community and the physical quality of the environment.

The items to be rated were developed by constructing 172 items which were specifically applicable to the types of residential facilities in question. To eliminate negative scores and to increase comparability across ratings, all ratings were transformed into percentage scores reflecting the three to six categories of the original ratings. These 30 items were then weighted in a manner identical to that described in the PASS 3 Field Manual (Wolfensberger and Glenn, 1975) to arrive at a total Environmental Normalization score. Although the items were

constructed on the basis of the detailed discussion of each rating as outlined in the PASS Field Manual (Wolfensberger and Glenn, 1975), as well as information contained in additional training literature, it is important to emphasize that the ratings and the total score are not identical to PASS; however, they are adequately similar to allow some comparisons. Inter-rater reliability as measured by percentage of identical ratings obtained from two interviewers on the same resource, ranged from 86 to 96 per cent in the various sections, with a median of 93 per cent.

RESULTS

Adaptive Functioning Index

The means and standard deviations for the three domains of the residential section of the AFI (Personal Routines, Community Awareness, and Social Maturity), the fifteen sub-domains, and the total AFI score are presented in Table 1 for both mentally ill (MH) and mentally retarded (MR) clients. Scores are expressed as percentages of the maximum possible score. Significance levels for comparisons between the MR and MH groups are also shown.

TABLE 1
Comparison of A.F.I. Scores for Mental Retardation (MR) and Mental Health (MH) Foster Home Residents

Adaptive Functioning Index	MR (N = 369) Mean	Std. Dev.	MH (N = 29) Mean	Std. Dev.	Significance*
I. Personal Routines					
1. Cleanliness	76%	19	84%	17	0.001
2. Appearance and Eating	82%	15	88%	14	0.001
3. Room Management	68%	24	68%	27	N.S.
4. Time Management	62%	22	73%	20	0.001
5. Health	62%	25	71%	21	0.001
Subtotal	71%	16	77%	16	0.001
II. Community Awareness					
1. Transportation	57%	31	61%	29	N.S.
2. Shopping	52%	26	72%	23	0.001
3. Leisure	55%	19	49%	16	0.001
4. Budgeting	34%	21	49%	24	0.001
5. Cooking and Home Management	44%	24	51%	26	0.001
Subtotal	48%	19	57%	19	0.001
III. Social Maturity					
1. Communication	55%	26	68%	24	0.001
2. Consideration	76%	18	84%	15	0.001
3. Getting Friends	74%	20	74%	21	N.S.
4. Keeping Friends	52%	19	57%	20	0.001
5. Handling Problems	59%	22	65%	22	0.001
Subtotal	63%	17	69%	16	0.001
Total A.F.I. Score	61%	15	68%	16	0.001

* By t test of difference between means

Mental Health residents scored significantly higher on all three domains and eleven out of the fifteen sub-domains. No significant differences between clients of the mental health program and those of the mental retardation program were found for the sub-domains Room Management, Transportation and Getting Friends. Mentally retarded clients obtained a significantly higher score on use of Leisure, a reflection, no doubt, of the traditional emphasis on organized recreation within the mental retardation system.

In terms of total AFI score, the mentally ill clients do somewhat better (68 per cent) than do the mentally retarded clients (61 per cent). The difference is statistically significant, but not large in magnitude.

Although the ability to successfully carry out all the tasks included in the AFI could be regarded as the minimum level of adaptive functioning essential for independent community living, many people undoubtedly function independently without achieving a perfect score, and so we have set an admittedly arbitrary minimum desirable criterion of 80 per cent. The mean score for the mentally ill clients reaches this level on only three sub-domains of fifteen, and for the mentally retarded only one of the fifteen. On five more sub-domains, the mentally ill scored between 70 and 79, while the retarded do so on only 3. The latter, in fact, score below 60 per cent on 8 sub-domains, including all five sections of the Community Awareness domain, where the mean score is 48 per cent. The mentally ill fall below 60 per cent on four sub-domains, three of which are also in the Community Awareness domain. An examination of the skills involved in this domain show that they are essential for independent functioning. The results seem to point clearly to areas in which more intensive programming is required.

Scores on the AFI are correlated with a variety of individual, residential and community characteristics. Not surprisingly, I.Q. correlated quite highly with overall adaptive functioning for mentally retarded clients ($r = .48$), and it accounted for more than 22% of the variance in AFI scores. The correlation for the mentally ill was lower ($r = .31$), accounting for only 10% of the variance.

Older persons tended to have poor adaptive functioning skills, both among the mentally ill ($r = -.26$) and among the mentally retarded ($r = -.27$). The longer a person has spent in institutions, the more limited their ability to function independently, whether they are mentally ill ($r = -.24$) or mentally retarded ($r = -.17$), although among the mentally ill, those who have been admitted to hospital more frequently are functioning at a higher level than those who have been admitted on fewer occasions ($r = .17$).

Average family income in each community was also positively correlated with total AFI scores for MR ($r = .32$), and MH ($r = .29$). Residents in urban as opposed to rural communities had higher AFI scores, both among the mentally retarded ($r = .28$, $p < .001$), and among the mentally ill ($r = .31$, $p < .001$). These correlations may reflect the greater normalization opportunities of urban areas because of the greater access to potentially integrating services and facilities.

Environmental Normalization

The range of total scores was from 27 per cent to 88 per cent (in PASS 3 terms from -420 to +750), a range very similar to that found in an earlier National Institute of Mental Retardation analysis of 93 community programs, of

which 40 were residential (Flynn, 1975). In that study, the average score for all community services was 62 per cent (250), and for all community residential services was 64 per cent (294), while in the present study the average was about 63 per cent (279). It seems clear that the scores in the two studies are very similar. In the present study, the average Manitoba residential service fell towards the top end of the Minimally Acceptable range (in PASS (3) terms) while 8.3 per cent were below Minimally Acceptable standards. Fourteen per cent were rated very good, or near ideal (75 per cent of higher or 500+ in PASS terms).

The percentage scores for each of the ratings (including the corresponding PASS 3 rating title) are presented in Table 2. In all but four ratings, the scores of the residences ranged from the lowest possible score (0) to the highest possible score (100), and even in three of these four there was a range of at least 70. On six ratings, however, No. 7, Program Name (92 per cent), No. 8, Homelike Appearance (96 per cent), No. 9, Appropriateness of Appearance and Function (89 per cent), No. 12, Number of Disability Groups in Home (94 per cent), No. 14, Appropriateness of Internal Decor (87 per cent), and No. 24, Level of Physical Protection in the Environment (99 per cent), the scores were very high, falling in the ideal (95 per cent) or near ideal range (85-94 per cent). Since most of the residences were foster homes, these results will not be surprising. The utility of these particular ratings when all of the facilities studied are community residential facilities is somewhat limited. They are more applicable to other types of programs, (when suitably modified).

There were also, however, a number of ratings, many of them important ratings, in which the average score fell below what seemed to be a Minimally Acceptable standard (50 per cent). These include:

1. Intensity of Special Placements in the neighborhood (47 per cent). This indicates that residences tend to be heavily concentrated in certain areas, thereby reducing the integrative potential of the neighborhood.
2. Activities Promoting Social Integration (44 per cent). This suggests that residences are not promoting socially integrative educational,

TABLE 2

Mean Environmental Normalization Percentage Scores Achieved by Special Residential Facilities

Environmental Normalization Title	Corresponding PASS 3 Title	Mean
1. Proximity to Population Cluster	Local Proximity	67
2. Adequacy of Regional Location	Regional Proximity	64
3. Adequacy of Transportation Facilities	Access	64
4. Adequacy of Community Resources	Physical Resources	57
5. Location Appropriateness in Community	Program—Neighborhood Harmony	67
6. Intensity of Special Placements in Neighborhood	Congregation—Assimilation Potential	47
7. Program Name	Program, Facility and Location Names	92

8. Homelike Appearance	Function—Congruity Image	96
9. Appropriateness of Appearance and Function	Building Neighborhood Harmony	89
10. Appropriateness of Program Presentation	Deviancy Image Juxtaposition	73
11. Number of Neighborhood Residential Programs	Deviancy Program Juxtaposition	51
12. Number of Disability Groups in Home	Deviant Client and Other Juxtaposition	94
13. Activities Promoting Social Integration	Socially Integrative Social Activities	44
14. Appropriateness of Internal Decor	Age Appropriate Facilities, Environment Design and Appointments	87
15. Age Appropriateness of Appearance and Dress	Age Appropriate Personal Appearance	78
16. Age Appropriateness of Activities	Age Appropriate Activities, Routines and Rhythms	59
17. Age Appropriateness of Forms of Address	Age Appropriate Labels and Forms of Address	74
18. Opportunities for Freedom and Initiative	Age Appropriate Autonomy and Rights	40
19. Appropriateness of Posessions	Age Appropriate Possessions	83
20. Social Appropriateness of Appearance	Culture Appropriate Personal Appearance	67
21. Social Appropriateness of Activities	Culture Appropriate Activities, Routines and Rhythms	72
22. Social Appropriateness of Labels	Culture Appropriate Labels and Forms of Address	50
23. Fire Safety Precautions*	Culture Appropriate Rights	44
24. Level of Physical Protection in Environment	Physical Overprotection	99
25. Level of Social Protection in Environment	Social Overprotection	56
26. Manpower Input	Intensity of Relevant Programming	57
27. Adequacy of Internal Physical Environment	Physical Comfort	58
28. Attractiveness of Internal Physical Environment	Environmental Beauty	66
29. Appropriateness of Individual Differentiations	Individualization	59
30. Appropriateness of Resident-Staff Interactions	Interactions	56
Second-Order Variables		
31. Adequacy of Location (1-6, 9, 11)	Physical Integration	61
32. Appropriateness of Presentation to Community (7-13)	Social Integration	71
33. Age Appropriateness (14-19)	Age Appropriate Interpretations and Structures	64
34. Social Appropriateness of Interactions (20-23)	Cultural Appropriate Interpretations and Structures	57
35. Developmental Growth Orientation (24-26)	Development Growth Orientation	65
36. Miscellaneous Quality Ratings (27-30)	Quality of Setting	59
37. Integration (31, 32)	Integration	66
38. Appropriateness of Interactions (33, 34)	Appropriate Interpretations and Structures	61
39. Quality of Physical Setting (5, 8, 9, 14, 24, 27, 28)		75
40. Personal Clinical Program Emphasis (12 to 30 except 14)		61
41. Total Normalization Score (1 to 30)		63

* The rating only covers one aspect of Culture Appropriate Rights.

vocational, recreational and social activities as much as would be desired.

3. Opportunities for Freedom and Initiative (40 per cent), which means that many homes are substantially restricting certain social and cultural freedoms, such as use of telephone, mail, spending money, access to visitors and are imposing curfews and other rules perhaps beyond what is essential.

Scores on 11 of the remaining 19 ratings fall in the Minimally Acceptable or Fair range (50 to 65 per cent), and another 7 fall in the range described as Good (65 to 74 per cent). Two ratings, Age Appropriateness of Appearance and Dress (78 per cent), and Age Appropriateness of Possessions (83 per cent) fell in the Very Good range.

Mental retardation community residences and mental retardation foster homes were very similar overall, although there were considerable differences in both directions on many of the ratings, with the former tending to be located nearer to potentially integrating services and facilities and to score more highly on the Age Appropriateness and Miscellaneous Quality ratings, and the latter much less likely to present a deviant image to their community. Mental health and mental retardation foster homes were also similar overall, with the former scoring more highly in terms of Age Appropriateness (the problem of treating clients as children has been more of an issue in mental retardation) and to some extent Social Appropriateness of Interactions and Miscellaneous Quality Ratings, while the mental retardation homes do better in terms of their Presentation to the Community. Independent Living Residences scored at a much higher level than the others (78 per cent).

DISCUSSION

The AFI results showed that both the mentally ill and the mentally retarded clients residing in special care facilities perform reasonably effectively in terms of personal routines and self care as well as simple interpersonal skills. There are clear deficiencies, however, for members of both groups in terms of more complex inter-personal skills, in terms of their ability to manage a residential situation independently and in terms of their ability to utilize community services and resources.

The data suggest that the distributional properties of the AFI make it generally a more useful tool for the mentally retarded than for the mentally ill, although most of the sub-domains are also useful for this latter group as well. Several, however, have low ceilings and distributions skewed to the left (paper in preparation).

The Environmental Normalization scores indicate that the intensity of special placements in certain neighborhoods is too high, probably exceeding the integrative potential of the neighborhood. Many residences also seem to impose a large number of restrictions in the autonomy of their residents, and often fail to promote socially integrative (as opposed to segregated) activities to the extent that would be desirable. The data collected in the study permitted us to identify both those homes which were below minimally acceptable standards, as well as those which were near ideal and which could serve as models for other residences.

At a zero-order level, there are strong and positive correlations between the level of Environmental Normalization in a home and the adaptive functioning level of the residents of that home ($r = .49$). The relationship was even stronger for mentally ill clients ($r = .54$), but somewhat weaker for mentally retarded clients ($r = .41$). The direction of the casual relationship is not clear at this time, although the trends suggest that Environmental Normalization promotes more effective adaptive functioning. Actually, it seems likely that the relationships are reciprocal, since, while it is certainly reasonable to conclude that the environment influences behavior, it is equally reasonable to conclude that an actor's current behavioral repertoire, as part of the social environment of others, plays a role in shaping his own environment. The critical issues for program planning have to do with the magnitude of the effects in either direction, and the relative ease with which the independent variables can be manipulated.

The Adaptive Functioning and Environmental Normalization data discussed in the aggregate in this paper have been made available on an individual level to the workers concerned with the cases, along with the aggregate data. They can serve as baselines against which to measure subsequent progress as well as assist in pinpointing problem areas in need of significant improvement, and will be employed for individual program planning as well as for planning at a regional and program level.

RÉSUMÉ

Au moyen d'une version adaptée de *Program Analysis of Service Systems* (P.A.S.S.-3), on a examiné la qualité de l'environnement de toute la population manitobaine vivant dans des résidences communautaires, des maisons de pension et des unités indépendantes de séjour (278). On a aussi mesuré le fonctionnement adaptatif des résidents (665) au moyen de sections du *Adaptive Functioning Index* (A.D.I.). Les résultats indiquent qu'il faudrait faire la promotion d'activités d'intégration sociale pour les résidents telles que les loisirs, le sens communautaire et la mise en commun des ressources communautaires. Les améliorations dans la qualité de la vie sont à chercher dans des domaines comme l'intégration versus la ségrégation, l'intensité de placements spéciaux qui excèdent le potentiel intégratif de certains quartiers et les restrictions à l'autonomie des résidents. On a trouvé une forte corrélation positive entre la normalisation de l'environnement et le niveau de fonctionnement adaptatif des résidents.

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