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HOUSING FOR THE CHRONICALLY MENTALLY DISABLED: PART II — PROCESS AND OUTCOME

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ABSTRACT

This paper reviews process and outcome research on community housing programs for the chronically mentally disabled. Several methods for conceptualizing and assessing housing environments are presented, and pertinent literature on each method is then reviewed. Next, research on the impact of various types of housing programs on clients' adaptation is reviewed. Methodological problems in both the process and outcome research are highlighted, and directions for future research are suggested. It is concluded that future research requires an integration of the process and outcome findings and methods to ascertain how different program characteristics are related to different facets of adaptation for different client groups.

The first part of this review on housing for the chronically mentally disabled (CMD) focused on the conceptual framework and social context of housing programs. This second part focuses more specifically on the nature of housing programs, including:

1. micro-level characteristics of housing programs (process) and
2. the impact of housing programs on the adaptation of clients (outcome).

CHARACTERISTICS OF HOUSING PROGRAMS

Bachrach (1978) pointed out that simply changing the "locus of care" from mental hospitals to various community settings does not necessarily ensure desirable adaptation for the CMD. Rather, the "quality of care" that is provided in each setting must be examined. In this section, we review the concepts, methods, and findings of research which examines the relationships between characteristics of housing environments and clients' adaptation.

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Conceptualization and Assessment of Housing Environments

Moos (1973) described several ways of conceptualizing human environments which are applicable to the study of housing environments.

Physical-architectural environment. While several writers have argued about the importance of safety and environmental factors in the accreditation of residential facilities (Barry, 1976) and the need for architectural designs which promote social interaction and reduce sensory deprivation and distortion (Lacy, 1981), these arguments are usually not based on any research (Davis, Glick & Rosow, 1979).

Although research in this area is scant, a few significant findings have emerged. Ittelson, Proshansky, and Rivlin (1970) found a positive correlation between the number of clients sharing a room and withdrawal from treatment activities, indicating the importance of clients' needs for privacy, which are often overlooked.

In a study of many different types of housing, Kruzich (1985; Kruzich & Berg, 1985; Kruzich & Kruzich, 1985) found that a measure of the quality of the physical environment (including maintenance, lighting, safety, etc.) was not significantly correlated with CMD clients' self-sufficiency, internal (within the residence) integration, and external (community) integration. However, there is little reason to assume that these variables would be related. It seems more likely that a physical environment of poor quality would be a stressor related to clients' experiences of negative feelings. Using a measure similar to the one used by Kruzich (1985), Earls and Nelson (in press) found a positive correlation between the number of housing problems and clients' negative affect, thus supporting this hypothesis. These researchers also found that clients living in their own homes, their parents' homes, or group homes reported significantly fewer housing problems than clients who lived in board-and-care homes or private apartments (Nelson & Earls, 1986). Similarly, Goldstein and Caton (1983) reported that poor physical housing conditions were related to clients' dissatisfaction with their places of residence. In view of the squalid conditions of many of the board-and-care homes in which CMD clients live, further research and action are needed on this issue.

Several writers (Bakos, Bozic, Chapin, & Newman, 1980; Davis et al., 1979; Lacy, 1981) have argued for clients' needs for involvement and control in changing the physical and architectural dimensions of their residences (e.g., design planning, freedom to decorate or arrange furniture, etc.). In one study, staff involved elderly CMD residents in changing the design of a large dayroom to establish several small groupings for conversation and other social activities (Bakos et al., 1980). Using observational methods, these researchers found the level of social participation increased among staff and residents following these changes. The authors attributed this increase to both the design changes and clients' involvement in the change process.

Behaviour settings. Barker and Gump (1964) conceptualized behaviour settings as consisting of routine patterns of behaviour and the physical-temporal aspects of the environment. In a behaviour setting, implicit "rules of the game" for conduct are demanded by the setting, such that behaviour is more dependent on the setting than on the personality of the individual (e.g., people implicitly

know how to behave "church"). With the exception of a study by Perkins and Perry (1985), there is little research which attempts to define the behaviour settings in which the CMD participate in the community.

The research on size of housing environments for CMD clients clearly supports the theory of undermanning (Barker & Gump, 1964). This theory asserts that as the size of a setting increases, more people are available to populate each behaviour setting; hence, people experience less pressure to become involved in and take responsibility for behaviour settings and become less active and integrated than people in small settings. Compared with large residences, small residences are associated with less anxiety, passivity, and psychological distance from others and more positive views of the social environment (Hellman, Greene, Morrison, & Abramowitz, 1985), more self-sufficiency (Kruzich & Berg, 1985), external integration (Kruzich, 1985), contact with neighbors (Trute, 1986), and environmental normalization (Hull & Thompson, 1981a). In a longitudinal study, Hellman et al. (1985) found a deterioration in clients' adaptation where three small residences, housing six clients each, were centralized into one large facility. While the research is consistent in the finding that "small is beautiful," future research needs to determine at what size of residence client adaptation begins to deteriorate.

Peer-induced climates. This approach to conceptualizing an environment is based on the assumption that individuals are influenced by the characteristics of the other inhabitants of their environment. Research on the CMD which follows this approach has focused on the relationship between clients' adaptation and the characteristics of operators, staff, and other residents. Putten and Spar (1979) have noted that in both the media and the professional literature, the image of the board-and-care operator is a negative one. Operators tend to be characterized as unscrupulous people who are more concerned with making a financial profit than with the welfare of their residents and who provide little more than custodial care. Yet Beatty and Seeley (1980) and Putten and Spar (1979) found that operators tend to be middle-aged women who have raised a family and who see their role as one of providing food, shelter, and support for their residents. Beatty and Seeley (1980) also found that operators had significantly higher expectations for CMD clients than did university students. Moreover, the often tremendous influence operators have (Parks & Pilisuk, 1984) can have beneficial effects. Operators who find social services to be helpful tend to have residents with relatively high levels of self-sufficiency (Kruzich & Berg, 1985), internal integration (Segal & Aviram, 1978), and external integration (Kruzich, 1985). Operators' level of alienation has been shown to be inversely related to residents' level of contact with neighbours (Trute, 1986). Finally, Sherman, Frenkel, and Newman (1986) found that operators' level of activity was positively related to residents' level of activity, both with and without the accompaniment of the operator.

Little research has examined the relationship between the characteristics of other residents and client outcomes. Hull and Thompson (1981a) found the greater the number of disability groups in a residence and the higher the proportion of men, the lower was the level of environmental normalization for CMD clients. These findings support the conventional wisdom that it is important to have a good "mix" of clients with different levels of functioning and that it is inappropriate to "dump" many people with low levels of functioning in one set-

ting. Further research is needed not only on the influence of various groupings of residents but also on residents' degree of choice regarding with whom they live.

Organizational structure and culture. This conceptualization of human environments is concerned with decision-making, power, communication, and roles within an organization. Some individuals have been concerned that community residences may employ the same hierarchical organizational structure and dehumanizing practices found in mental hospitals. Using Goffman's (1961) description of the culture of the mental hospital as a frame of reference, King and Raynes (1968) developed a scale to assess management practices in terms of the rigidity of routine, block treatment of residents, depersonalization of residents, and social distance between staff and residents. In a study of housing for CMD clients, all four dimensions of this scale were inversely related to clients' self-sufficiency (Kruzich & Berg, 1985), internal integration (Kruzich & Kruzich, 1985), and external integration (Kruzich, 1985). Using another scale, Apte (1968) found halfway houses and hospital wards for CMD clients could be differentiated on two dimensions: restrictive-permissive practices and responsibility-dependency expectations. Halfway houses were more permissive and encouraged responsibility more than hospitals. Carpenter and Bourestom (1976) found that CMD clients had significantly lower rates of rehospitalization in tolerant as opposed to strict environments, but they also found that clients in strict environments had higher levels of social participation and life satisfaction than those in tolerant environments.

Using the Program Analysis of Service Systems (PASS) as a measure of environmental normalization, Hull and Thompson (1981b) found CMD clients' level of adaptive functioning in board-and-care facilities was related to several PASS dimensions, including: level of social protection (i.e., unnecessary rules and restrictions), opportunities for freedom and initiative, courteous resident-staff interactions, activities promoting social integration, etc. In view of the importance of resident-centred management practices, further research is needed on client-run residences.

Social climate. Moos (1972) developed the Community-Oriented Programs Environment Scale (COPEs) which measures three aspects of the climate of community programs: personal relationships, treatment program, and systems maintenance. This approach to assessment is a phenomenological one which emphasizes the individual's perceptions of a setting's climate.

Coulton, Fitch, and Holland (1985) used the COPEs in a study of 40 different housing programs for CMD clients. Using multivariate techniques, they found the settings could be classified along two dimensions: (a) socioemotional support, and (b) structure. In a large study of sheltered-care facilities, Segal and Aviram (1978) reported that both the support and structure dimensions of the COPEs were positively correlated with the internal and external integration of residents. Moreover, they found that residents' perceptions of the support and structure dimensions of their residences were more strongly correlated with internal and external integration than were operators' perceptions (Segal, Everett-Dille, & Moyles, 1979).

Applied behaviour analysis. Based on research on operant conditioning, this approach describes the environment in terms of contingencies of reinforcement

and punishment, sometimes as an explicit management practice. For example, Doniger (1970) described the use of an incentive system in a halfway house program whereby residents can pay lower rent if they engage in some meaningful activity outside the residence (e.g., volunteer or paid work, attendance at day programs, etc.). However, there is little information about how behaviour modification techniques are used or abused in community residences for the CMD.

Social network analysis. Not included in Moos' (1973) article on conceptualizations of human environments is social network analysis. Several studies have examined CMD clients' support networks in the context of their housing. In a study of ex-residents of a halfway house, Holman and Shore (1978) found that perceived support from both staff and other residents was related to better social adjustment and fewer rehospitalizations. Similarly, high levels of interpersonal stress and low levels of social support were reported to be related to high rates of rehospitalization (Goldstein & Caton, 1983). Finally, the size of CMD clients' social networks can buffer the effects of poor housing conditions on clients' self-reported positive and negative affect (Earls & Nelson, in press).

In a study of CMD clients in single-room occupancy (SRO) hotels, Sokolovsky, Cohen, Berger, and Geiger (1978) found clients with impoverished networks were more likely to be rehospitalized than clients with more extensive networks. Cohen, Sichel, and Berger (1977) described a program which they initiated in a SRO hotel to increase network support to clients. The program included a variety of activities, including a tenants' council, socialization group, and lunch program. Clients who participated in the program showed a significant decrease in the number of times they were rehospitalized compared to a two-year period prior to arriving at the hotel.

Summary

Rather than summarize all the characteristics of community housing environments related to client adaptation, one can formulate an image of the most desirable type of residence based on these findings. The image that comes to mind is that of a child's painting of his or her home: a small, family-like living situation with an atmosphere characterized by mutual support and expectations for responsible behaviour. The residence is a home that provides the privacy, dignity, and autonomy the residents need. As well, residents are responsible for the care of the setting and other residents. Small halfway houses and cooperative apartments are the types of settings most congruent with this image. In fact, the literature clearly shows superior adaptation for clients who live in apartments, group homes, and halfway houses, as opposed to board-and-care homes, nursing facilities, or other large, heavily supervised settings (Hull & Thompson, 1981a, 1981b; Kruzich, 1985; Segal & Aviram, 1978).

It is important to note that the research reviewed in this section is limited in several ways. First, since the research is correlational in nature, the characteristics of housing environments cannot be regarded as causes which lead to certain effects on client adaptation. Second, the observed relationships between housing characteristics and client adaptation could be due to other variables such as level of client functioning, type of residence, and staffing, since these are generally not statistically controlled. Often the highest functioning clients are placed in settings

with the most desirable qualities (i.e., apartments, group homes) and not surprisingly, their adaptation is positive. In those instances in which level of functioning has been controlled (Segal & Aviram, 1978; Hull & Thompson, 1981b; Kruzich, 1985), housing characteristics have been found to contribute to explaining the variance in clients' adaptation. Finally, investigators often neglect to examine non-linear relationships. Using multiple classification analysis, Kruzich and Kruzich (1985) found that a moderately rigid routine and a moderate number of skills programmed in the setting were associated with higher levels of internal integration than either high or low levels of these variables. These findings demonstrate the importance of examining non-linear trends.

OUTCOMES OF HOUSING PROGRAMS

Whereas the research reviewed in the previous section was correlational in nature, the research reviewed in this section uses experimental or quasi-experimental designs to evaluate the effects of different types of housing programs on clients' adaptation.

Evaluation Research

While there are many uncontrolled case-study reports of various housing programs for CMD clients, it is difficult to interpret the success of these programs in improving clients' adaptation. Therefore, the literature reviewed in this section is limited, for the most part, to those studies which employ some type of control or comparison group. Outcome research on various types of community housing programs is considered in this section.

Short-term family crisis care. In a study by Polak and Kirby (1976), clients were randomly assigned at admission to a private home with a foster family or to an inpatient psychiatric unit. The results showed the family crisis-care group scored significantly higher than the hospital control group at a four-month follow-up on clients' ratings of treatment effectiveness, goal attainment, and self-disclosure to significant others.

Transitional housing programs. Several evaluations have been done on halfway houses, but very few of them have used a control group (see Cometa, Morrison, & Ziskoven, 1979, and Rog & Raush, 1975, for earlier reviews). Gumruckcu (1968) compared ex-residents of a halfway house with a matched comparison group of hospitalized clients. One year after discharge into the community, none of the halfway-house group had been rehospitalized compared with 20% of the comparison group. Similarly, 67% of the halfway-house group were employed compared with 26% of the comparison group.

Samuels and Henderson (1971) reported the effects of a transitional facility employing a token economy. Forty CMD men were randomly assigned to a state hospital, the psychiatric ward of a municipal hospital, or the transitional program. At an 18-month follow-up, 28% of those in the transitional facility had been rehospitalized, compared with 50% of the state-hospital group and 66% of the municipal-hospital group. Those in the transitional facility also had significantly better employment records during the follow-up period than those in the other two groups.

In a study by Lamb and Goertzel (1971, 1972), CMD clients with no family and an average hospitalization of eight years were randomly assigned upon discharge to a "high expectations" halfway house or a "low expectations" board-and-care home. Significant differences in rehospitalization and vocational activity were found between the two groups at six-, 12-, 18-, and 24-month follow-up periods, such that the "high expectations" group outperformed the other group at each assessment.

Velasquez and McCubbin (1980) randomly assigned young CMD adults to a residential program or a control group. The results showed that those in the program improved significantly more at a six-month follow-up than those in the control group on several measures, including: social participation, self-responsibility, employment, rates of rehospitalization, and self-concept.

Group homes. Group homes are similar to transitional programs in that a small number of CMD clients live together in a community residence, but they differ in that the group home is viewed as a place where clients can live for as long as they want. In a longitudinal study, Fairweather, Sanders, Maynard, and Cressler (1969) randomly assigned CMD clients about to be discharged from a mental hospital to either the typical post-discharge program of outpatient care or to a community lodge. Those in the lodge program functioned as a family and operated a business (janitorial service, yardwork, painting, etc.). Lodge residents spent more time in the community and more time working than the control groups at follow-up intervals of six, 12, 18, 24, 30, 34, and 40 months. On the other hand, the two groups did not differ significantly on measures of symptomatology and community adjustment.

Mosher and Menn (1978) compared the effects of a residential program for CMD clients with a comparison group consisting of clients who were admitted to the psychiatric ward of a hospital. At a two-year follow-up, the two groups did not differ significantly in terms of symptomatology or rehospitalization, but those in the residential program used significantly less medication, had significantly fewer contacts with other forms of treatment, and were significantly more likely to be living independently than the hospital control group.

Okin, Dolnick, and Pearsall (1983) compared clients discharged from a state hospital to small group homes with clients who were ready for release but who were kept in the hospital because of delays in opening some of the group homes. The two groups differed significantly at an eight-month follow-up in terms of clients' perceptions of social support, involvement in leisure activities, and their capacity to meet basic needs, with those in the group homes exceeding the hospital control group.

Foster-family care. Another living arrangement for CMD clients is with families who take clients into their homes. Weinman, Kleiner, Yu, and Tillson (1974) evaluated the effects of two types of community residential placement for CMD clients. Live-in "enablers" took clients into their homes while visiting "enablers" met five times a week with clients who lived in apartments in groups of two or three. These two groups were compared with clients in a socioenvironmental treatment ward and clients in a traditional ward. At two years post-treatment, 16% of those in the two community groups had been rehospitalized compared with 23% of those in the socioenvironmental ward and 42% of those in

the traditional ward. Comparing the two community programs, 22% of those in the visiting "enabler" program had been rehospitalized compared with four per cent of those in the live-in "enabler" program. In contrast, it was found that clients who lived in apartments, either in the visiting "enabler" program or upon discharge from the socioenvironmental treatment ward, had significantly higher instrumental performance than those in foster-family care or board-and-care living situations.

Murphy, Engelsmann, and Tchong-Laroche (1976) compared the effects of foster-family care on CMD clients with control clients who met the same criteria but who were denied or refused foster-care placement and thus remained in hospital. Almost no significant differences were found between the two groups on a battery of measures assessing symptomatology and social functioning over an 18-month follow-up period.

In a large study, Linn, Caffey, Klett, and Hogarty (1977) randomly assigned CMD clients in a mental hospital to foster-family placement or continued hospitalization. In contrast to the findings of Murphy et al. (1976), Linn et al. (1977) found significantly greater improvement at a four-month follow-up on measures of symptomatology and social functioning for the foster-family group compared with the hospital control group.

Cooperative apartments. Almost no research has evaluated the effects of cooperative apartment programs. Depp, Scarpelli, and Apostoles (1983) studied nine CMD clients just prior to placement in cooperative apartments (in groups of four) and one year later. The group showed significant improvement on a measure of self-concept and on some dimensions of the COPES.

Summary

The majority of evaluations reviewed have shown that different types of community housing have beneficial effects on CMD clients. While this is certainly good news, it is also important to recognize the limitations of this research. Most of the experimental studies on this topic suffer from the "black box" phenomenon. That is, many studies do not present what Rutman (1980) has called a program-logic model to clearly show how program activities (processes) are related to the goals for change in the clients (outcomes).

For the most part, evaluators have examined the effects of type of housing (e.g., family care) rather than the characteristics of the housing that are designed to be beneficial to clients (e.g., management practices, social climate, etc.). For example, rather than examining "family care" and potentially finding conflicting results (e.g., Linn et al., 1977; Murphy et al., 1976) because many different types of family care have been lumped together, it makes more sense to examine various dimensions of the "quality of family care." Thus, future experimental evaluation research should incorporate findings from the correlational research on housing characteristics reviewed in the first section of this paper to develop more specific program-logic models. Such research will help us to know not only if community housing programs are beneficial for clients but also why they are beneficial.

A related program is the failure to specify the living arrangements of those clients in control groups. Again, with a few exceptions (e.g., Lamb & Goertzel,

1971; Weinman et al., 1974), most evaluations have lumped all those clients not participating in innovative housing programs into control groups without specifying the nature of these alternative living conditions. Rather than having a heterogeneous control group, it makes more sense to compare various types of housing arrangements such as Lamb and Goertzel (1971) did in comparing "high expectations" versus "low expectations" living environments.

In addition to specifying the characteristics of housing programs, it is also important to specify program goals and to develop outcome measures to assess the goals. In the absence of well-defined program-logic models, early evaluations tended to use two primary criteria of success: rates of rehospitalization and work productivity. Using these criteria, a client who lives an isolated existence in a run-down board-and-care home and who performs monotonous tasks in a sheltered workshop would be considered a success. Clearly, these criteria are by themselves inadequate to assess clients' adaptation. More recent evaluations have used measures designed to tap the quality of clients' experiences in the community, such as: self-sufficiency, internal and external integration, social network support, and social adjustment. Although these measures can be useful indicators of clients' involvement in the community, the standard for comparison may not be relevant and hence, the assessment limited (e.g., Platt, 1981).

Most of the evaluations to date have used outcome measures that reflect planners' needs for cost-effective programs (e.g., rehospitalization rates and work productivity) and practitioners' need for clients to be socially useful (e.g., social adjustment, integration), to the neglect of clients' perceptions of their experiences. Since community housing programs are intended to serve clients, then clients' viewpoints must be assessed. Baker and Intagliata (1982) have described several measures that can be used for this purpose. Multiple outcome measures should be used in future research.

Clear specification of the characteristics of clients in housing programs is also needed. The clients in the previously described evaluations have varied greatly in terms of their age, gender, diagnosis, history of hospitalization, etc. It would also be useful to consider clients' needs and preferences for various types and characteristics of supportive housing in future research.

Finally, future research should have a long-term follow-up component. While many evaluations have shown positive gains for clients in the short term, little is known about how clients fare in the long term. This is especially important for research on transitional facilities. It may be that clients function well for the period of time that they live in a halfway house, but once they leave, their functioning and quality of life may quickly decline.

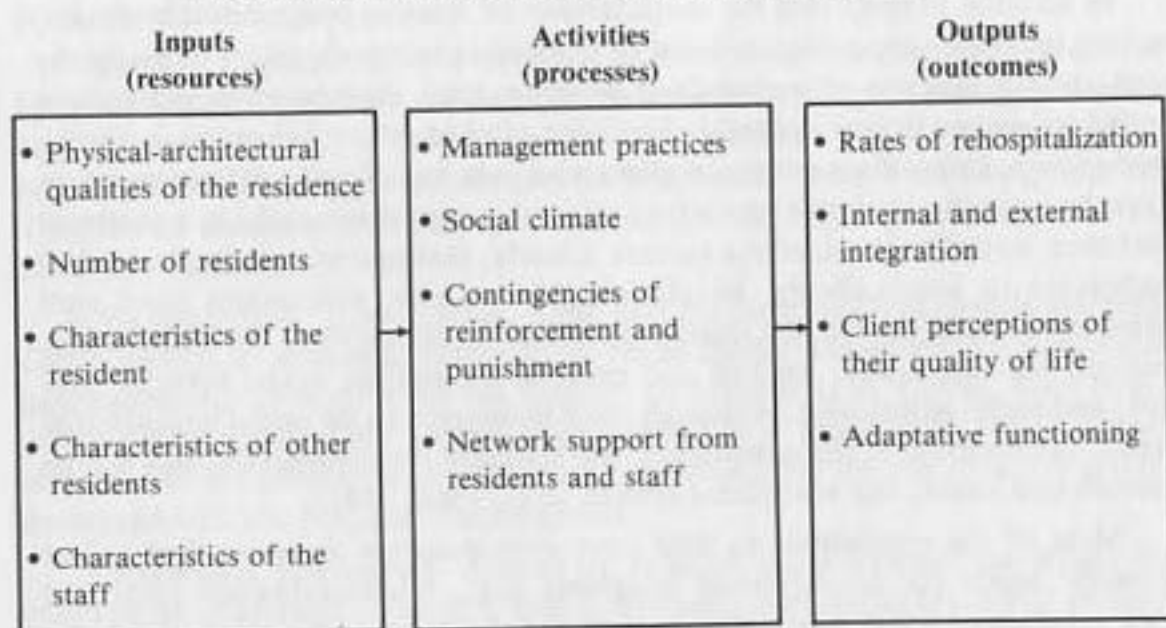
CONCLUSION

In conclusion, future research should avoid the "uniformity myths" (Kiesler, 1966) that programs, outcomes, and clients are homogeneous. By more clearly specifying these variables, we can then ask: what are the characteristics of programs that are most effective on what criteria for what types of clients? Moreover, future research aimed at answering the question posed above will require an integration of the previously separate findings and methods of process

and outcome evaluation. A program-logic model which incorporates the key variables gleaned from this review is presented in Figure 1 as a blueprint for future research.

FIGURE 1

Program-logic Model for Research on Housing for the CMD



RESUME

Cet article fait le point sur les processus et les résultats des recherches portant sur les programmes d'habitation pour les personnes atteintes de troubles mentaux chroniques. On présente plusieurs méthodes pour conceptualiser et évaluer les environnements domestiques et on fait la recension des écrits pertinents pour chaque méthode. On recense ensuite les recherches sur l'impact des différents types de programmes sur l'adaptation des clients. On souligne les problèmes méthodologiques concernant aussi bien les processus que les résultats des recherches et on suggère des orientations pour les recherches à venir. On affirme en conclusion que les futures recherches nécessitent une intégration des processus et des résultats de même que des méthodes pour découvrir comment différentes caractéristiques d'un programme sont reliées aux différentes facettes d'adaptation pour différents groupes de clients.

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