

PREDICTORS OF SUCCESS IN COMMUNITY PLACEMENT OF PERSONS WITH MENTAL RETARDATION

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Introduction

As the trend towards deinstitutionalization of persons with mental retardation advances, so does the effort to identify predictors of success in community placement. A good deal of research has been reported on the extent to which success in the placement of persons with mental retardation from institutions into community facilities can be predicted by general client characteristics (e.g., age, gender, and IQ), adaptive behaviour, and maladaptive behaviour (e.g., aggression). The most consistent finding of research is that persons with maladaptive behaviours are more likely to be returned to the institution than those who do not exhibit these behaviours. An issue that has been less pursued in research is the effect of social support upon success in community placement. Another issue in need of further study is the relative impact upon success of all these variables taken together.

As we enter the 1990s, we seem to have entered a new phase in the process of deinstitutionalization because our institutions are being pressured to place into the community individuals with a number of needs. One question that arises is whether this relationship between maladaptive behaviour and success in placement is still present. The purpose of the present study is to examine the extent to which maladaptive behaviour is a predictor of success in community placement when adaptive behaviour and demographics are controlled.

Reliable knowledge concerning the characteristics associated with successful and unsuccessful community placements of persons with mental retardation is important for several reasons. Efforts for integration have been met with community opposition, problems with community support systems, and, in some cases, even legal action. For professionals, a comprehensive profile of those currently

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succeeding in the transition, and of those who have failed to make the transition, will facilitate the selection of future discharge candidates, aid in the preparation of those candidates for discharge, and help to identify necessary support systems.

Review of the Literature

Many researchers have attempted to determine the reasons for community placement failures. Reviews of literature have been completed by Windle (1962), Eagle (1967), and Sternlight (1978). Among those variables investigated, the characteristics of the clients themselves have received much attention. These client characteristics include age, intelligence, various personality traits, training variables, and independent living skills (Bell, 1976; Heal *et al.*, 1978; McCarver & Craig, 1974).

Many researchers have defined placement failure as a return to the institution for any reason. In an early pioneering study, Fernald (1919) estimated a failure rate of 36 percent. More current investigations have identified the failure rate as close to 50 percent (Brown *et al.*, 1959; Eagle, 1967). Most failures seem to occur within one year of placement. A study by Fuller (1982) indicated that 78 percent of readmissions occurred within 12 months of discharge.

Several studies of placement failure have focused upon such client characteristics as personal appearance, vocational skills, social skills, age, psychomotor ability, and level of retardation. Results of such studies have been inconclusive (Bell,

1976; Crawford *et al.* 1979; Heal *et al.*, 1978). For example, level of retardation was found to be a predictor of success in a study by Sutter *et al.* (1980) but Tarjan, *et al.* (1959) found no relationship between success and this variable. Sutter *et al.* (1980) found that males were less successful in placement than females but the opposite was found in another study (Schalock *et al.* 1981).

Some of the findings of the research on community placement can be viewed as surprising at first glance. For example, the Sutter study cited above found that mentally retarded persons with higher IQ scores were more likely to be unsuccessful in placement than those with lower scores. The same study also revealed that persons with higher levels of self-help and social skills were more likely to be in unsuccessful placements than those with lower skills. A potential explanation can be found in the fact that higher functioning individuals in an institution will be in a position of special status within that environment but this special status will not be present in the community. Perhaps this fact encourages these individuals to make fewer efforts to make their community placements work.

The variable most frequently cited as responsible for community placement failure is unacceptable client behaviour (Keys *et al.* 1973; Pagel & Whitling, 1978; Eyman & Call, 1977; Sutter *et al.* 1980; Jacobson & Schwartz, 1983). Behaviours that are most commonly cited that led to reinstitutionalization are temper tantrums, property destruction, physical abuse of other clients, untrustworthiness, running away, and defiance.

Jacobson & Schwartz (1983) suggest that group homes may be less tolerant of problems stemming from chronic, characterological traits than with episodic behaviour problems. At least one study, however, has found that the level of support within the community has led to success even for clients with maladaptive behaviour. Having advocates, mental health services, and group home staff with an attitude of patience and commitment were among the predictors of success for the clients in this study (Schalock *et al.* 1981). Another study, however, revealed that retarded citizens who had experienced successful community placements did not have a significantly greater amount of social support from family, friends, and various professionals than did those who had not been successful in their community placement (Causby & York, 1989).

In looking at maladaptive behaviour, Jacobson & Schwartz (1983) recognized that behaviour problems do not occur in a vacuum: they are responsive to the environment. Shortfalls in services, mental health services in particular, contribute to the relationship between problem behaviour and placement failure.

The concept of social support is becoming more popular to researchers and practitioners alike in various fields of endeavour (Mitchell & Trickett, 1980). It is viewed as a vital link between problems and solutions for humans in need. Much of the rationale for this view is the obvious fact that persons in need, whether retarded or not, are in most cases in direct and regular contact with

family, friends, and professionals who provide regular care. Yet little research has been reported on the role of social support in the effectiveness of community placement for the mentally retarded.

Social support refers to relationships with a high degree of interaction which provides emotional intensity for the individual. Such support comes from primary and secondary family units, friends, and an array of professionals who interact with the client. A question pursued in a companion study to the one presented in this article examined the relationship between success in community placement and various forms of social support. It was found that persons with successful placements had not received a significantly different level of support than those who had been unsuccessful in their placements.

The purpose of the present research is to identify predictors of successful community placement for institutionalized mentally retarded persons among sources of information that are potentially available at the time of discharge. The results of such an investigation can assist the professional in determining the client's suitability for placement and can identify potential avenues for improvement in the community's response to the individuals with mental retardation.

Study Methodology

The research question posed in the present study was "How well do certain adaptive and maladaptive behaviours serve as predictors of success for community placements of persons residing in

state institutions?" Of particular interest was the identification of behaviours exhibited in the state institution that could help to identify those clients more at risk for unsuccessful community placement. Thus, information on predictors of success was obtained from records that were available on a sample of clients before they were placed in a community facility. Persons whose placements had been successful were compared with those who had been removed from the community facility and returned to an institutional setting.

The sample for the present study consisted of all the residents of a state institution serving the needs of citizens with mental retardation located in a southern state, who had been discharged into the community between one and six years prior to the study. This excluded residents who had been discharged into other state institutions. The 91 subjects included in this study had been discharged into group homes, nursing homes, and independent living arrangements.

The dependent variable was success in community placement which was measured by whether the client had been returned to the institution after placement. All subjects had been out of the institution for one year or more. Because previous research had indicated that failures usually occur within one year (see previous reference to Fuller, et al., 1982), the combination of cases which had been a success for one to five years was considered appropriate. Thus, on this variable, unsuccessful placements were considered to be those in which

clients were returned to the institution within one year period of time. Success was considered to have occurred when clients remained in the community, not in any institution, for more than one year. Data for the study were derived from records which provided information on the client at the time of placement; thus, it was focused upon information that is available as a resource for determining suitability for placement. These data were compiled by two professionals who were familiar with the record keeping process of the institution.

One of the independent variables was maladaptive behaviour which was assessed by the Balthazar Scales of Adaptive Behaviour (1971). Administration of this instrument differed from the norm. The two professionals involved in this assessment employed extensive client records including all disciplines progress notes, annual evaluations and the progress of goals and objectives for each client to ascertain the answers to the questions about maladaptive behaviour.

Included among the dimensions of maladaptive behaviour were (1) stereotypic behaviour (physical repetition, vocal play, posturing, etc.), (2) inappropriate self-directed behaviour (e.g., genital play), (3) inappropriate contact with others (both staff and peers), (4) verbal aggression (both staff and peers), (5) physical aggression (both staff and peers), and (6) non-compliance with instruction. Each specific behaviour was measured on a 5 point ordinal scale.

Another independent variable was adaptive behaviour which was also measured with the use of the Balthazar

Scales. The adaptive behaviour portion of the Balthazar Scales includes behaviours which are grouped into three categories - eating, dressing, and toileting. Each subject had a score from 0 to 100 for eating, for dressing, and for toilet behaviour based upon the percentage of each behaviour that was displayed. Information for the measurement of these variables was readily available from the extensive records kept by the institution based on the Joint Commission on Accreditation of Hospitals Standards.

Inter-rater reliability on the measurement of the variables both for adaptive behaviour and maladaptive behaviour was informally assessed by a procedure in which the two raters gave ratings to each of six cases and their responses were compared to see if they were consistent. There was near unanimous agreement on the ratings of these six cases; in fact, the ratings were identical in 85 percent of the ratings for these cases.

Also collected was information on gender, IQ, and age at the time of discharge. Thus, three major categories of independent variables were included in the study - adaptive behaviour, maladaptive behaviour, and demographic information.

Included in a companion study was social support which was defined as a set of relationships that provide nurturance and reinforcement. This concept was measured with reference to 20 sources of support as follows: natural family, surrogate family, extended family, friends, sheltered workshop instructor, teacher, employer, mental retardation specialist, mental health caseworker, group home

administrator, Title XX support services, physician, physical therapist, the department of social services, the health department, public schools, the Association for Retarded Citizens, and the regional and state offices of the state human resources department. For each of these twenty sources of social support, the client was given a rating on a five point ordinal scale from a score of 0 for "not at all helpful" as a source of support to a rating of 4 for "extremely helpful". This variable, however, was found not to be correlated with success and was ruled out as a predictor of success and is reported in a companion article that focuses upon various sources of support (see Causby & York, 1989). It was included in the present study in the form of an examination of the relationship between support and maladaptive behaviour in the pursuit of a further understanding of the implications of maladaptive behaviour for practice.

Results

Of these 91 subjects, 53 (58 percent) were male and 38 (42 percent) were female. The average age at time of discharge was 23 while the average IQ was 41. Twenty-nine of these individuals were classified as failures while 62 were classified as having experienced a successful placement. Approximately one-third (32 percent) of these mentally retarded individuals had experienced a previous failure at community placement with two of these individuals having experienced as many as four previous failures.

TABLE I
The Relationship of Success in Community Placement and Various Behaviours

	Mean Scores		t	p
	Successful Group	Unsuccessful Group		
<u>Maladaptive Behaviors</u>				
Stereotypic behavior	0.23	0.48	1.00	0.32
Self-directed behavior	0.26	0.59	1.63	0.11
Contact with others	0.48	0.00	2.14	0.03
Verbal aggression	1.06	3.21	3.75	0.0003
Physical aggression	0.48	1.90	3.31	0.001
Non-compliance	0.82	2.38	2.97	0.004
<u>Adaptive Behaviors</u>				
Eating	92.89	93.34	0.14	0.88
Dressing	87.84	90.34	0.42	0.68
Toilet	89.7	93.20	0.63	0.53

The average IQ for those in successful placement was 39.6 while those in unsuccessful placements had an average IQ of 44.7. This difference was not statistically significant ($t = 1.23$; $p = .22$). The average age of persons in successful placements was 23.7 as compared to an average of 21.6 for those in unsuccessful placements, a difference that also failed to achieve statistical significance ($t = .95$; $p = .34$). Also non-significant was the relationship between gender and success in community placement (chi square = .003; $p = 0.96$). Thus, none of the client characteristics were found to be related to success in community placement.

The relationship between success and each of a set of maladaptive behaviours and adaptive behaviours is dis-

played in Table I. From these data, it is apparent that success is related only to the maladaptive behaviours of verbal aggression, physical aggression, non-compliance, and inappropriate contact with others. Not related to success were the maladaptive behaviours of stereotypic behaviour, and inappropriate self-directed behaviour. Also non-significant as a predictor of success was each of three types of adaptive behaviour: eating, dressing, and toilet behaviour. A surprising result was the fact that the unsuccessful group had a lower level of inappropriate contact with others than did the successful group. In fact, their level of inappropriate contact was recorded as the lowest level (0) for all persons in the unsuccessful group.

TABLE II
Stepwise Discriminant Analysis of Success and Maladaptive Behaviours

Variable	Partial R ²	F	Prob. > F
Verbal Aggression	0.137	14.10	0.0003
Inappropriate Contact	0.108	10.60	0.0016
Physical Aggression	0.026	2.36	0.1284

One of the limitations of the examination of several bivariate relationships is the absence of a mechanism for examining the potential that one relationship between a dependent variable and an independent variable may be influenced by the inter-relations of the independent variables. Thus, it was decided to employ a multivariate statistic in the analysis of the data.

A stepwise discriminant analysis was undertaken with success as the dependent variable and each of the maladaptive behaviours that had proven to be significantly related to success as the independent variables. The data for this assessment is displayed in Table II. From this analysis, it is evident that verbal aggression is the most significant predictor of success. The partial R square reveals that it predicted nearly 14 percent of the variance in success while inappropriate contact predicted 11 percent of the variance. Physical aggression approached statistical significance as a predictor of success but non-compliance was eliminated as a predictor in this analysis.

While social support was not found to be related to success in community

placement as reported in a companion study (Causby & York, 1989), it was found to be related to three of the maladaptive behaviours. An index of social support was derived from the summing of scores of 21 different sources of support, each of which had been measured on five-point ordinal scales. This index of support was found to be significantly correlated with verbal aggression ($r = -.23$; $p, .05$), physical aggression ($r = -.38$; $p, .001$), and non-compliance ($r = -.32$; $p, .01$). The negative signs of these coefficients indicates that persons with higher levels of maladaptive behaviour had lower levels of social support.

Perhaps in these data can be found an explanation for the lack of relationship between support and success in community placement. Support was found to be negatively correlated with aggressive behaviour which was itself negatively correlated with success. Perhaps a good number of the unsuccessful clients are aggressive and receive low support because of it. A further piece of relevant information is the fact that support is negatively correlated with the number of prior failures at placement ($r = -.29$,

p, .01). Perhaps the more serious cases receive less support because of their potential for failure.

As expected, the number of prior failures at placement was significantly correlated with success ($r = -.39, p < .001$), verbal aggression ($r = .24, p < .05$), physical aggression ($r = .26, p < .05$), and non-compliance with instructions ($r = .39, p < .001$). It was not, however, significantly correlated with any of the other three forms of maladaptive behaviour.

Discussion

This research has provided additional evidence of the importance of maladaptive behaviour in the determination of the success of community placements for mentally retarded citizens. But it has also provided a basis for distinguishing between various forms of maladaptive behaviour in placement decisions. Aggressive behaviour, both verbal and physical, was found to be a good predictor of success. This relationship between maladaptive behaviour and success was maintained in the face of statistical control of adaptive behaviour and client demographics.

Certain forms of maladaptive behaviour, however, were not found to be meaningful predictors of success in community placement. In particular, neither stereotypic behaviour (e.g., physical repetition, self-induced emesis, posturing, vocal play, and object stereotype) nor inappropriate self-directed behaviour were found to be related to success. Furthermore, inappropriate contact with others was surprisingly found to be

positively correlated with success. Thus, it would appear that non-compliant behaviours should be examined separately in the determination of suitable candidates for community placement and that other forms of maladaptive behaviours should be of less concern.

A possible explanation for the relationship between inappropriate contact and success could be found in the fact that contact of all kinds requires a response. It activates a response and calls our attention to the individual exhibiting the behaviour. Thus, we are compelled to try to do something about it. Perhaps the distinction between inappropriate contact of a non-aggressive nature and aggressive behaviour lies in the fact that we know better how to deal with the former than the latter. In addition, it is less intrusive and does less to threaten us with harm.

These findings have several implications for practice. In the current era of deinstitutionalization, social workers are being asked to make community placement plans for more clients with maladaptive behaviours. Knowing that the behaviours of physical and verbal aggression contribute to failure at community placement, we can better prepare the client as well as the staff in the community facility. Such planning may include providing high levels of support for the care providers in the group home or community facility.

One suggestion is the exchange of staff between the institution and the group home. Selected staff from the institution and the group facility could temporarily change jobs and use this time to

facilitate better communication between these agencies. In this way, the care providers from the institution, having knowledge of how to effectively deal with the client, would spend time in the group home providing in-service training and serving as a role model for other staff. This would also allow the mentally retarded client to adjust to the new environment without having to initially develop all new relationships with his or her care providers.

This arrangement would also allow the group home staff members to spend time in the institution and learn how to manage maladaptive behaviours of clients targeted from community placement in the future. Staff could participate in role playing sessions that allow them to witness verbal and physical aggression in a safe and supportive environment.

By utilizing this approach, we are providing social support for the new care providers as well as the mentally retarded citizens in hopes for a successful community placement. This action could possibly lead to the increased availability of more group homes specifically designed for clients with maladaptive behaviours.

Summary

In this study of the success of the deinstitutionalization of persons with mental retardation, further evidence was provided for the importance of maladaptive behaviour as an influence upon the prognosis for community placement. Two forms of maladaptive behaviour, physical and verbal aggression, were

found to be negatively associated with success at community placement while other forms of maladaptive behaviour proved to be non-significant in the prediction of success. Also non-significant in predicting success were adaptive behaviour and client characteristics such as gender and IQ.

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