

Independent Community Living Among Women With Severe Mental Illness: A Comparison With Outcomes Among Men

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Abstract

This analysis addresses the question of whether or not women and men display differential ability to live in commercial housing following psychiatric rehabilitation. A multivariate model predicting the independent living status of 650 mental health consumers 6 months following psychiatric rehabilitation was tested. Results revealed that significant gender differences favoring women disappeared when controlling for level of functioning, program tenure, support continuity, parental status, and community participation. Implications of these results for service delivery are discussed.

Introduction

The field of mental health services research has become increasingly concerned with the lives of women who have severe psychiatric disorders.¹ One area of interest is that of independent living, and one related question is the extent to which men and women experience differential outcomes following residential rehabilitation. This analysis investigates whether or not women and men display differential ability to live on their own in commercial housing following psychiatric rehabilitation.

Review of the Literature

A review of the literature on women with severe psychiatric disorders suggests that gender influences experiences of mental illness because of women's status, role expectations, and differential illness course. As discussed later, some of these influences may promote women's attempts to live independently in the community whereas others may act as barriers.

One gender difference that may favor residential independence is a later onset of mental illness among women than among men. Whereas women are typically hospitalized for the first time during middle age, onset of mental illness among men tends to occur earlier—during their 20s and 30s.^{2,3} A later age at onset may provide women with greater opportunities to learn domestic skills and establish competencies such as budgeting, money management, housekeeping, cooking, and shopping *before* becoming ill. Thus residential rehabilitation for women may involve relearning of independent living skills acquired before the illness, whereas for men it involves first-time skill acquisition that is presumably more difficult.

Related to later onset is the frequent finding of better premorbid functioning among women than among men.^{4,5} Women with severe mental illness are more likely than men to have married and born children⁶⁻⁸ and to have attained higher levels of education⁹ before becoming ill. Most importantly,

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women were more likely to have lived on their own before the onset of illness in at least three studies.^{4,9,10} Thus women may bring to the independent living effort a greater repertoire of related experiences that help promote greater success.

Another gender difference favoring women's community living is the differential pattern of inpatient admissions among men and women. In several studies, women remained in the community significantly longer between hospitalizations^{11,12} and had lower readmission rates following discharge.^{13,14} Women's longer community tenure means that they have longer periods of time to pursue residential goals. This is relevant in an area such as obtaining public housing given that people with mental illness have trouble competing for available housing and have difficulty using subsidy or voucher programs.¹⁵ The long waiting lists and application process for public housing might favor those clients with longer periods of community tenure, thereby enhancing women's chances of obtaining and maintaining commercial housing.

Another potential advantage is the finding that women with psychiatric disabilities have wider community support networks than do their more isolated male counterparts. One study of 971 people receiving community support program services¹⁶ found that women were more likely than men to be engaged with others in activities outside their homes. Women's higher rates of marriage and child rearing suggest that they have a greater number of social relationships that may support independence.¹

Although the foregoing factors may promote residential independence, there are several additional factors that may be negative influences. First, women in North American society are socialized into passive, dependent roles in comparison to men.¹⁷ These dependent positions may be inadvertently encouraged by service provision models emphasizing comprehensive, wraparound services.⁹ For example, one study found that homeless women—many with mental illness—received encouragement from shelter providers for passive behavior.¹⁸ In other studies of independent living skills training, programs tacitly accepted lower levels of independence for women clients than for men.^{19,20}

Also supporting dependency may be the attitudes and behaviors of family members, especially those of parents toward their ill daughters. There is evidence that parents of ill daughters are more protective of them because they see them as more vulnerable than sons.²¹ Seeman¹⁰ found that families lowered their expectations for their ill daughters while continuing to hold pre-illness achievement expectations for ill sons. Several studies have reported that parents feel higher caregiver burden for daughters than for sons.²²⁻²⁴ Expectations that they will be dependent may create barriers for those women who wish to live on their own.

Women's more limited financial resources and economic vulnerability^{6,25} may be a barrier to obtaining commercial housing. Disabled women's poorer work histories mean that they receive less generous benefits from programs such as disability insurance, supplemental security income, and workers' compensation.²⁶ Along with this, disabled women's lower employment rate²⁷ means that they bring fewer financial resources to the effort to obtain residential independence. Women with disabilities also may have lower financial resources for other reasons such as child care²⁸ or the need to care for elderly parents.²⁹

The close connection between poverty and residence means that many women with mental illness live in unsafe housing in unsafe neighborhoods.⁹ This is one reason that women with severe mental illness, especially those who are homeless, are targets of crime and violence. Partly as a result, disproportionately more women with mental illness report physical and sexual assault in adulthood than do men.³⁰ Moreover, homeless women, many of whom are mentally ill,¹⁸ may be more vulnerable to exclusion from shelters, creating greater risks of victimization as targets of violent crime³¹ or untreated incarceration.³²

Prior Outcome Studies in Residential Rehabilitation

Outcome research in the area of residential rehabilitation offers some clues to the effects of *gender* on independent living. Interestingly, these studies suggest that women have superior residential

outcomes in comparison to men. In a study of 187 aftercare patients following release from an urban state psychiatric hospital,³³ women were significantly more likely to be in stable housing and less likely to be homeless than were men. A study of 122 young adults with schizophrenia and schizophrenia-related disorders³ found that women spent significantly more time than men residing in apartments and houses whereas men spent more time than did women living in rooming houses. A review of 320 records of patients in seven psychiatric hospitals¹ found that women were more likely to live independently (but also more likely to live in nursing homes) whereas men were more likely to live in group or foster homes, in jail, or with family.

Level of functional impairment appears to be an additional client-level influence on residential outcomes. In one study of board and care homes,³⁴ clients with lower functioning levels received higher amounts of practical support from residence operators and had lower congruence with housemates than did higher functioning clients. In another study,³⁵ the most powerful client-level variable predicting residential integration was the individual's level of functioning; those with better psychosocial functioning were more involved in facility activities than were those with poorer functioning. A study of deaf clients with mental illness³⁶ found that level of functioning remained significant in a multivariate model predicting who was able to live in commercial housing. In addition, *age* has been found to be related to independent living outcomes. Younger clients were less likely to reside in supervised, noncommercial housing in one study³⁴ and were more socially involved in residence and community activities than were older clients in another study.¹⁶

Two programmatic variables appear to be significant in studies of residential services. First, program models providing *ongoing support* are most successful as opposed to transitional, time-limited housing models.³⁷⁻³⁹ In one study,⁴⁰ former rehabilitation clients were more likely to be living independently if they had maintained contact with their caseworkers. Another service use variable, *program tenure*, may have an influence on residential outcomes given that clients seem to benefit most from longer periods of service delivery. For example, clients with longer tenure at one urban psychosocial rehabilitation program were more likely to be living on their own in commercially available housing than were those with shorter tenure.⁴¹

Multivariate Model

Combining findings from research on women with those on residential outcomes in psychiatric rehabilitation, a multivariate model was constructed. In this model, women's societal status, role expectations, illness course, and service use were all hypothesized to influence their residential outcomes. This is an expansion of the notion of "social disablements" first explicated by Wing and Morris.⁴² In this conceptualization, persons with mental disorders experience primary disabilities related to the illness along with secondary disabilities or "adverse personal reactions" to their primary symptoms. But, in addition, a tertiary set of limitations known as social disablements are faced by persons with long-term mental illness and influence outcomes. These social disablements include things such as poverty and stigma imposed by society in reaction to mental illness.

Bachrach⁴³ suggests that women with psychiatric disorders experience social disablements related to their gender. She proposes that social disablements related to being female and having long-term mental illness interact to create "serious deficits in the care of these women in today's psychiatric service systems" (p. 4).⁴³ Carrying this notion one step further, the present model assumes that gender influences in all four domains can have both negative *and* positive effects on women's ability to establish independent living. Thus the model includes variables representing social disablements related to gender such as more limited income resources and the extra burdens of child care responsibilities. It also includes social enablements, or variables that may enhance residential independence for women, such as later age at illness onset, greater community participation, and greater likelihood of being in a marital or cohabiting relationship. Moreover, the model includes those variables found to be significant in prior research on residential outcomes, such as age, level of functioning, and programmatic variables.

In this theoretical model, it is expected that positive outcomes will be associated with certain social statuses (being female, being younger, having greater and more varied income sources), illness and disability features (being higher functioning, experiencing a later illness onset, having fewer psychiatric hospitalizations), social role responsibilities (being married or cohabiting, having children, engaging in social and leisure pursuits), and service use patterns (participating longer in rehabilitation programming, experiencing service continuity, participating in therapy, using transitional residences). Control variables include preprogram residential status, ethnicity, and education.

Methodology

Sample

The sample is composed of 650 clients who received psychosocial rehabilitation services at a large urban psychosocial rehabilitation agency. The present analysis uses data collected from these clients and their case files at the time they entered the program (intake), at the end of their participation in the program (closing), and 6 months thereafter (follow-up). Follow-up interviews were conducted from January 1986 through June 1992. The follow-up interview response rate during this period was 75%, with most nonresponses due to failure to locate the ex-client rather than the subject's refusal to participate.

When asked to name their reasons for coming to the program at intake, more than three-quarters (82%) of all clients reported that they needed assistance in finding a job, more than half (55%) said they needed help with activities of daily living, and around a third (37%) said they needed help staying out of the hospital. Upon program entry, 15% were living independently (defined as residing in commercial housing with no in-home supports), 44% were living with relatives, 24% were living in a supported setting such as a group home or board and care, and 17% were living in institutions. At the time of their closing from the agency, 36% were living independently, 36% were living with parents or family, 22% lived in a supported setting, and 4% were residing in institutions. At the 6-month follow-up interview, 34% of former clientele were living independently, 35% lived with parents or family, 23% lived in a supported setting, and 8% lived in an institution.

Two-thirds (65%) of the clients in this study are male and one-third are female; 73% are white and 27% are minority (of the 174 minority clients, 127 are African American, 26 are Hispanic/Latino, 9 are Asian, 3 are Native American, and 9 are mixed ethnicity). The average age of clients when they entered the agency was 27 years. Almost three-quarters (74%) had a high school or college degree, and a very low proportion (3.4%) reported being married or cohabiting. The median number of prior hospitalizations at time of program intake for the sample was 4.7; 90% of all clients had been hospitalized for psychiatric reasons at least once before entering the agency, and their average age at first admission was 21 years. Around a third (37%) of the clients stayed in the program 1 year or less, another third (28%) stayed 1-2 years, and a final third (35%) stayed 2-20 years; the median length of stay in the program was 505 days or about 1 year and 5 months. Half of the clients (50%) had lived in one or more of the agency's transitional residences during their tenure. At the time they entered the agency, the average functional assessment rating using the Global Assessment Scale (GAS)⁴⁴ for clients was 48.6, indicating a group with serious symptomatology presence and functioning impairment. At the time of their closing from the agency, the mean GAS score for the sample was 48.7, indicating that the average functioning level for this clientele remained relatively unchanged during their tenure at the agency. Upon closing, around a fifth (22%) went on to agency-affiliated programs whereas the remainder terminated services completely. During the 6-month follow-up period, a quarter (27%) were rehospitalized; by the time of the follow-up interview, respondents averaged a lifetime of 5.9 admissions. The majority (61%) reported that they were seeing a therapist, and their mean age at interview was 27 years, ranging from 16 to 60. Only a tenth (13%) reported that they were parents. Regarding income sources, 43% reported money from

social security insurance (SSI), 45% from social security disability insurance (SSDI), 32% from employment, 29% from family, 18% from public assistance (PA), 6% from savings, 3% from the Veterans Administration (VA), and 1% from unemployment compensation.

Setting of the Research

The setting of the research was an urban psychosocial rehabilitation agency exclusively serving persons with severe and persistent mental illness. The model used at the agency included psychiatric medication management services, vocational training and job placement, General Equivalency Degree (GED) and basic education classes, social skills training and recreational activities, and medical services. Residential rehabilitation services included independent living skills training, assistance with budgeting and money management, classes on cooking and nutrition, assistance with obtaining home furnishings, and help with apartment hunting and dealing with landlords. Transitional residences were available for clients desiring time-limited housing.

Categorical Measures

Among the dichotomous variables, gender was coded as 1 for females and 2 for males. Marital status was coded as 1 for those married or cohabiting and 0 otherwise. Minority status was coded as 0 for white and 1 for all others. Parental status was coded as 1 if respondents reported one or more children and 0 if they were childless. The housing program use variable was coded as 1 if respondents had lived in one or more agency-owned residences during their tenure in the program and 0 otherwise. Ongoing support was coded as 1 if respondents were supported continuously (through alternative programs affiliated with the agency) even after they completed rehabilitation and 0 otherwise. At follow-up, respondents who reported having a therapist were coded as 1 on the variable therapy and 0 otherwise. Also at follow-up, the series of 8 income sources were coded as 1 if reported by respondents and 0 if not; these included PA, SSI, SSDI, VA, unemployment compensation, savings, money from relatives, and income from employment.

Interval-Level Measures

Age at first hospitalization, age at follow-up, and education level were all measured in years. At time of program exit, tenure at the agency was measured in days. Also at closing, respondents' levels of functioning were measured using the GAS, a single-item measure ranging from 1 to 100 and completed by respondents' caseworkers. Hospitalization was operationalized as the number of psychiatric hospital admissions since leaving the program. Age at first hospitalization used clients' actual ages, substituting age at program entry for clients who had never been hospitalized. Finally, participation in social and leisure time activities was measured by scores on a slightly adapted version of the Katz and Lyerly social and leisure time activities scale KAS-4,⁴⁵ ranging from 0 to 60 with a mean of 35 and a standard deviation of 5.5; Cronbach's alpha for this scale was .74, indicating adequate internal validity for this measure of community participation.

Dependent Variable

The outcome measure for this study was whether or not the client was living in commercial or privately owned housing without family members or other in-home supports (except spouses or cohabitants). This is the operationalization of consumers' preferred housing arrangements in multiple survey research studies. For example, a review of 26 consumer housing preference studies⁴⁶ found that the most preferred arrangement was independent living in a house or apartment. In 20 of the studies reviewed, 70% or more of the mental health consumers surveyed expressed this preference. This outcome was assessed as a dichotomous variable scored 1 if the individual was living in such a situation at follow-up and as 0 otherwise.

Table 1
Proportions of Males and Females Living Independently at Three Time Points

Time Point	Percentage Males Independent	Percentage Females Independent	Chi-Square and Significance
At program entry	13	18	2.7 (n.s.)
At program closing	31	43	10.04**
At 6-month follow-up	30	39	4.68*

* $p < .05$; ** $p < .001$; n.s. = nonsignificant.

Statistical Analysis

Frequency distributions and cross-tabulations were computed to examine variables at the univariate level. In addition, *t* tests were used to assess gender differences in residential outcome followed by multivariate analysis (ordinary least squares [OLS] regression analysis and probit) to test the proposed model. Because less than 10% of data were missing for any given variable, mean substitution was used in the multivariate analyses.

Results

Gender Differences in Independent Living

Given the literature on women and residential rehabilitation, we turn first to the question of gender divergence in rehabilitation outcome. Table 1 presents the proportions of males and females living independently at three points in time: at intake, at closing, and at follow-up. There was no significant difference in proportions of males and females living in commercial housing at time of program entry; 13% of all entering males and 18% of all females were living on their own at intake. By the time of program closing, however, a significantly higher proportion of women (43%) than men (31%) were living independently. This significant difference between the genders persisted 6 months later, with 39% of all females living independently and 30% of all males doing so at follow-up.

To explore this relationship at the multivariate level, OLS regression analysis and logistic regression analysis (probit) were performed. Table 2 presents the zero-order correlations for these analyses. Because the dependent variable is dichotomous, its aggregate interpretation is as the probability that an individual was living independently at follow-up. Although OLS and logistic regression provide similar results when the mean of a dependent variable ranges from 25 to 75%,⁴⁷ outside this range the effects of continuous variables are over- or underestimated relative to effects of dichotomous variables.⁴⁸ At the time of follow-up, 33.6% of the sample were living in commercial housing on their own or with a roommate; thus application of OLS techniques is not likely to distort the findings regarding continuous variables. Nevertheless, in the following section, the results of the OLS and logistic regression are reported and compared.

Multivariate Prediction of Independent Living: OLS and Logistic Regression

In these analyses, independent living status was regressed on the 22-variable model described previously. Table 3 presents OLS beta values and logit coefficients for the hypothesized model controlling for all nonsignificant coefficients (*t* values from both methods are presented in parentheses under each set of coefficients).

Turning first to the results of the OLS regression, we can see that gender itself is not a major differentiator once other variables in the model are controlled. Gender, therefore, acts indirectly, and

Table 2

Univariate Statistics and Correlations for Variables in the Analysis

VARIABLE	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)		
INDEPENDENT LIVING (1)	1.00																								
SEX (2)	.08a	1.00																							
MINORITY (3)	-.06	.02	1.00																						
EDUCATION (4)	.12b	.01	-.18d	1.00																					
PARENT (5)	.17d	.26d	.07a	-.04	1.00																				
AGE @ FIRST HOSP. (6)	.16d	.07	-.05	.33d	.16d	1.00																			
TENURE (7)	.24d	.06	-.06	.13c	-.05	.09b	1.00																		
SERVICE CONTINUITY (8)	-.03	.04	-.00	.12b	-.02	.13c	.23d	1.00																	
GAS @ CLOSING (9)	.38d	.04	-.04	.28d	.09a	.25d	.37d	.14d	1.00																
AGENCY RESIDENCE (10)	.02	.00	-.09b	-.07a	-.17d	-.19d	.17d	.05	.09b	1.00															
AGE @ FOLLOWUP (11)	.16d	.12b	-.06	.35d	.32d	.57d	-.01	.19d	.22d	-.26d	1.00														
THERAPY @ FOLLOWUP (12)	.08a	.11b	-.06	.18d	-.00	.03	.08a	.05	.04	-.08a	.16d	1.00													
COMMUNITY PART. (13)	.13c	.14d	.01	.05	-.01	.01	.04	.05	.16d	.03	-.02	.04	1.00												
MARITAL STATUS (14)	.14d	.13c	-.04	.09b	.31d	.06	-.02	-.03	.06	-.12b	.24d	.07	.03	1.00											
# HOSP @ FOLLOWUP (15)	-.08a	.11b	-.00	-.04	.02	-.09a	-.08a	-.05	-.27d	.04	-.03	.03	-.11b	-.03	1.00										
INCOME-FAMILY (16)	-.13c	-.10b	-.13c	.02	-.13c	-.16d	-.10b	-.05	-.16d	.01	-.19d	-.02	-.00	-.04	-.01	1.00									
INCOME-PA (17)	-.11b	.00	-.01	-.14d	.02	-.15d	-.05	.02	-.12c	.01	-.06	.00	-.06	-.06	.14d	-.01	1.00								
INCOME-SSI (18)	-.15d	.02	.09a	-.23d	-.05	-.14d	-.06	.02	-.25d	.00	-.15d	-.03	.03	-.10b	.12c	-.12b	.27d	1.00							
INCOME-SSDI (19)	-.01	.04	-.12c	.14d	.06	.17d	-.11b	.03	-.02	-.04	.28d	.06	-.02	.04	.08a	-.07a	.00	-.09b	1.00						
INCOME-UNEMP (20)	.08a	-.00	.05	-.03	.11b	.04	-.02	-.06	.05	.01	.04	-.04	.04	-.02	-.04	.04	-.02	-.07a	-.05	1.00					
INCOME-SAVINGS (21)	.02	-.02	-.07	-.01	.00	-.06	.15d	.05	.01	.10b	-.14d	.00	.06	-.01	-.01	.11b	-.02	-.05	-.14d	.07a	1.00				
INCOME-VA (22)	.02	-.12c	.05	-.03	-.05	-.01	-.02	.00	.02	-.06	.10b	.01	-.00	.01	-.04	-.03	-.02	-.09b	-.03	.11b	.01	1.00			
INCOME-WORK (23)	.16d	-.04	-.02	.11b	-.08a	.06	.19d	.18d	.34d	.09b	-.01	-.03	.05	-.02	-.21d	-.02	-.17d	-.16d	-.23d	-.08a	.07a	-.09b	1.00		
MEAN	.34	1.35	.27	12.5	.13	21.5	714.4	.22	48.1	.50	27.8	.61	35	.03	.48	.30	.18	.44	.46	.01	.07	.04	.32		
STD. DEV.	.47	.48	.44	2.21	.34	6.32	715	.41	16.6	.50	7.9	.48	5.2	.18	1.0	.45	.38	.49	.12	.25	.18	.18	.47		
N	650	650	650	650	650	650	650	650	650	650	650	650	650	650	650	650	650	650	650	650	650	650	650	650	

a. $p < .05$.
 b. $p < .01$.
 c. $p < .001$.
 d. $p < .0001$.

Table 3
Multivariate Analyses (OLS and Probit) of
Model Predicting Independent Living at Follow-up

Variable	Beta	Logit Coefficient
Global level of functioning at closing	.27**** (5.99)	.02**** (5.59)
Program tenure (number of days)	.16**** (3.87)	.00**** (3.44)
Continuous support received	-.12*** (-3.17)	-.38*** (-3.01)
Parental status	.11** (2.71)	.39** (2.51)
Community participation	.08* (2.12)	.02* (1.96)
Married or cohabiting	.07+ (1.77)	.46* (1.66)
Minority status	-.06+ (-1.74)	-.21* (-1.80)
Financial support from family	-.06+ (-1.63)	-.20* (-1.71)
Receiving unemployment benefits	.06+ (1.62)	.60+ (1.48)
In therapy	.06 (n.s.) (1.54)	.17* (1.68)
Constant	(-2.34)**	(5.14)**
R^2	.23	
N	650	650

Note: The t values for both OLS and probit methods are given in parentheses under each coefficient. The beta and logit values control for gender, minority status, age at follow-up, number of psychiatric hospitalizations, age at first admission, use of transitional residential services, being in therapy, married or cohabiting, education, income from social security insurance, from social security disability insurance, from public assistance, from Veterans Administration, from savings, from family, and from employment.

+ $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$; **** $p < .0001$; $n.s.$ = not significant.

its influence on the probability of living in normal housing is related to a series of other factors. The model's standardized regression coefficients (betas) indicate each variable's relative contribution to the equation. The greatest effects are due to clients' global level of functioning at time of leaving the program; those with better functioning were significantly more likely to be living on their own at follow-up (beta = .27). Second, clients with longer program tenure were more likely to be living in commercial housing at follow-up (beta = .16). Third, clients who did *not* receive ongoing support from the agency were those who were *more* likely to be living on their own at follow-up (beta = -.12). Fourth, clients with children were more likely to be living independently than were those who were not parents (beta = .11). Finally, clients who reported higher levels of social and leisure time activities were more likely to be living independently than were those with lower levels of community participation (beta = .08). These five variables, controlling for all other variables in the model, account for 23% of the variance in residential outcome; each is a significant addition to the model, and the entire model is significant ($p < .0001$). Inclusion of a control variable assessing

residential status at intake (not shown) in this model raised the R^2 to .29 and had little effect on the significant variables (with the exception of the beta for leisure participation, which dropped to $p = .06$).

Four additional variables approach significance in the model and bear mentioning as trends. First, being married or cohabiting increased the likelihood of living in commercial housing ($p < .08$). This confirms the findings of prior research that suggest a positive relationship between marriage and independent living. Second, white clients were more likely to be living in normal housing than were minorities ($p < .08$). This may reflect the well-documented housing discrimination faced by ethnic minorities in the United States.⁴⁹ Third, clients who reported that they were *not* receiving income from parents or family were more likely to be living in commercial housing than were those reporting this income source ($p < .10$). It may be that clients are more likely to receive financial assistance from relatives if they live with family or in supported settings. Fourth, receiving unemployment benefits was positively associated with living in commercial housing at follow-up ($p < .10$). In addition to the direct effects of unemployment income, this variable may also be acting as a proxy for prior work status.

Turning next to the logistic regression analysis, we see virtually identical results. Comparison of t values indicates that global level of functioning still contributes most to the model, followed by tenure, continuity of support, parental status, and community participation. In addition, marital status, minority status, receiving income from family, and being in therapy at follow-up also were significant in the logit model. Interestingly, comparison of the t values from both methods indicates that OLS regression tended to order the variables in the same relative importance as did the logit analysis, with a few minor exceptions. A separate discriminant function analysis using the 22-variable model (not shown) indicated that it correctly classified cases grouped as “independent” or “nonindependent” 74% of the time; moreover, the η^2 indicated that this model explained 24% of the variance, a figure highly similar to that of the R^2 of .23 obtained in the OLS regression.

Gender and the Model’s Predictor Variables

The decline in the importance of gender once the full model was tested suggests the need to examine zero-order relationships between gender and the model variables. The correlations in Table 2 present these results. First, women were older than men at follow-up although this relationship was a weak one ($r = .16$, $p < .0001$). Not surprisingly, women experienced their first psychiatric hospitalization at significantly older ages than did men. Also as expected, women were more likely to have children than were men. Interestingly, women experienced significantly more hospitalizations than did men during the follow-up period although this relationship also was a weak one. As in prior studies, women were significantly more likely to be married or cohabiting than were their male counterparts in the program; they also reported engaging in significantly higher levels of community activities than did men. At follow-up, women were more likely to be in therapy than were men, again a weak relationship. Finally, women were less likely to report VA funding or financial assistance from their families than were men. On the other hand, gender was not related to level of functioning, length of program participation, or occurrence of ongoing support.

Discussion and Implications for Mental Health Services Delivery

The results of this study indicate that a significantly higher proportion of women than men are able to achieve residential independence when the outcome assessed is living in “normal” (i.e., commercial) community housing. Although there is not a gender difference at the start of rehabilitation, a higher percentage of women are living independently by the time of program termination; this difference continues for at least 6 months after the end of rehabilitation services.

However, gender itself is not a significant predictor of independent living when the effects of functioning level, parental status, program tenure, community participation, and ongoing support

are controlled. These model variables override the effects of gender, suggesting that they have a more direct effect on the ability to maintain commercial housing. The question remains, however, as to how women experience these five important features that predict residential independence as well as their implications for service delivery.

The fact that women were more likely to be married or cohabiting suggests that social relationships may support their efforts to live independently. This is echoed by the finding that women were more likely to engage in social and leisure time activities in the community. The trend toward women's greater likelihood of being in therapy also is relevant here. Women's relationships with partners and therapists and their greater community participation may have provided a "safety net" of supportive relationships that promoted their attempts to live in commercial housing. Service providers may want to use this information in helping clients build networks of interpersonal relationships that can continue to support independent living goals even after clients have exited programs.

Women were more likely to have children, and the status of parenthood directly predicted positive commercial housing outcomes in the model. Instead of lowering women's chances of residential independence, parenthood appears to have enhanced them. This may be because parenthood involves social interaction with potentially supportive others such as one's own parents, welfare workers, the child's pediatrician, or the child's teachers. If so, then the fact that women are more likely to be parents and that parents, in turn, are more likely to be living independently is one example of gender as a social enablement for women mental health consumers. On the other hand, this finding could also be a byproduct of structured housing program policies that typically exclude residents with children, forcing them to live with family or on their own. Further study is needed to address this issue. Until then, administrators should review residential policies that exclude consumers with children and consider creating services responsive to the needs of parents, such as on-site child care or parenting training.

Regardless of a client's gender, the importance of degree of functional impairment to residential independence is evident in the strong effects of global functioning on residential status. Clients with higher functioning levels at the time they ended rehabilitation services were more likely to be living in normal housing without supervision at follow-up. This confirms previous findings regarding the importance of overall functioning to independent living. Similarly, the counterintuitive finding of a negative relationship between ongoing support and residential independence may indicate a prior selection process—that is, clients who are able to live on their own may be less likely to request and receive ongoing services. These findings suggest that the residential rehabilitation services delivered by this agency may benefit higher functioning clients more than those with greater impairments. Residential programming specifically geared toward helping lower functioning clients achieve commercial housing may be needed to fill a gap in programming.

The absence of information about *satisfaction* with current living situation impedes attempts to integrate a consumer perspective into understanding this outcome. Although we know that "successful" respondents achieved the goal of living in commercial housing expressed by the majority of consumers in several studies, we do not know whether respondents themselves endorsed such a goal. This is a weakness of the present study. The possibility that some consumers might *prefer* to live in structured settings to combat loneliness or receive on-site assistance from professional staff remains to be addressed. Women with child care responsibilities may benefit from these kinds of in-home supports, and this question deserves further exploration both by researchers and by those who design residential programming.

This analysis has tested the effects of gender as both a disablement and an enablement for the residential outcomes of women mental health consumers. It may be that the role responsibilities that accrue to women act to promote independent living rather than inhibit it so that gender functions as a social enablement rather than a disablement. At the same time, however, women had no advantage over men in other significant areas such as global functioning, length of program participation, or

service continuity. This suggests that gender and perhaps client-level variables in general will not suffice in predictive models for residential rehabilitation services, as others have noted previously.^{50,51} Similarly, a narrow focus on client features may miss some of the important environmental and contextual features that should be addressed in residential program design.

It may be that women's documented poorer performance in the vocational realm⁵²⁻⁵⁵ is counterbalanced by superior residential outcomes following psychiatric rehabilitation. This may mean that specialized residential programming should be developed for men, particularly those who are lower functioning and are isolated from social supports. Future research is needed that will further test some of the predictive relationships identified in this study so that service designers can capitalize on these associations, making sure to nurture the natural processes that co-occur with residential independence.

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