Older Adults’ Perceptions of Recovery From Mental Illness: Impact of Psychiatric Hospitalization Prior to 1990

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Objective: We tested the hypothesis that older adults are more likely than younger adults to consider their current mental health status when estimating their own recovery from psychiatric illness because many older people were first hospitalized for psychiatric illness prior to the emergence of the recovery movement in the 1990s, before recovery was redefined to include life improvements other than symptom alleviation. Method: Seventy-one members of a rehabilitation program (age 23 to 69; M = 49) were asked to rate satisfaction with their own recovery and with their current mental and physical health. The study hypothesis was tested in two hierarchical regression analyses that examined variation in the correlation between mental health and recovery self-ratings first by age and then by year of first hospitalization. Results: The correspondence between mental health and recovery self-ratings was twice as strong for adults age 50 and older compared with those younger than age 50 and this same age difference in self-ratings was also evident for participants first hospitalized for a psychiatric illness earlier versus later than 1990. The correlation between physical health and recovery self-ratings did not vary by age or year of first hospitalization. Conclusions and Implications for Practice: Recovery-oriented interventions will be most effective for older individuals when service providers take into account their personal histories and the propensity of many older adults to associate recovery with symptom improvement even while embracing other life improvements.

Keywords: recovery, community-based rehabilitation, severe mental illnesses, aging

The recovery movement in psychiatric rehabilitation (Anthony, 1993) has now spread throughout Europe, Australia, and North America but its impact on individuals is not yet fully understood. Consumers active in recovery-oriented programs report greater empowerment and self-direction than those in more traditional provider-directed care (O’Connell, Tondora, Croog, Evans, & Davidson, 2005), but it remains debatable whether some types of people are naturally inclined to be more or less receptive to recovery principles. For instance, are individuals in late adulthood as likely as young adults to embrace a hopeful perspective focused on personal goals and lifestyle improvements, as opposed to only psychiatric symptom alleviation? This question has strong policy relevance as the large “baby-boom” cohort grows older (Cohler, Pickett, & Cook, 1996; Jeste et al., 1999). Do we need to design recovery-oriented psychiatric rehabilitation services to specifically fit the life experiences and expectations of older adults (Bartels & Pratt, 2009; Pratt, Van Citters, Mueser, & Bartels, 2008)? Published research offers contradictory answers to this question. Longitudinal studies suggest that many people learn to cope with their symptoms (Solano & Whitbourne, 2001) and make a functional recovery from severe psychiatric illness (Harding, 2005). European studies report that most people become more positive and easy going as they grow old (Brose, Schmiedek, Lövdén, & Lindenberg, 2011; Erskine, Kavvashvili, Conway, & Myers, 2007). On the other hand, there is also ample evidence that depression is prevalent among older adults (Fiest, Currie, Williams, & Wang, 2011), especially if they are coping with age-related physical health declines (Gili et al., 2011; Schnittker, 2005). And, if an individual has been psychiatrically ill for many years, she or he is likely to have experienced repeated hospitalizations and illness-associated traumas that could increase rumination (Jackson, Meeks, & Vititoe, 2002; Turner & Lloyd, 1995).
Aside from these very personal experiences, there are historical influences to consider (Drake, Green, Mueser, & Goldman, 2003). Many older adults were first diagnosed with a major psychiatric disorder as a young adult prior to 1990, before the recovery movement became widely accepted by the field of psychiatric rehabilitation (Davidson & Roe, 2007). Psychiatric hospitalization can be traumatic (Frueh et al., 2005) and many hospital patients subsequently report a loss of personal control over their own lives (Harrow, Hansford, & Astrachan-Fletcher, 2009). This sense of vulnerability could predispose any hospital patient to accept the prevailing view of recovery from mental illness which, prior to 1990, primarily entailed medical treatment for psychiatric symptoms (Wood, 2000).

Using survey data previously collected for continuous quality improvement purposes, the members and staff of a psychiatric rehabilitation program tested the following hypothesis:

Individuals age 50 or older are more likely than younger adults to rely on their current mental health status as a criterion for estimating their own recovery from psychiatric illness because many older adults experienced their first psychiatric hospitalization prior to the emergence of the recovery movement in the 1990s.

Method

Program Description

The study was conducted at a community-based program for adults with severe mental illness sponsored by McLean Hospital. This psychiatric rehabilitation program offers opportunities for casual conversation, group discussions, and interactive social, educational, and recreational activities. Counseling, vocational and educational supports, housing assistance, and help with daily living are provided on request. Eligibility criteria are adult status and a primary diagnosis of a serious mental illness.

The study program has strong compliance with recovery principles outlined by the Recovery Promotion Fidelity Scale (Armstrong & Steffen, 2009). Specifically, the study program (a) guarantees each member the right to plan his or her own recovery, (b) allows members to choose how and when to use the program, (c) relies on members to plan activities and suggest improvements, (d) recruits members to be group leaders, (e) hires peer staff, (f) conducts annual member surveys, and (g) maintains a quality improvement process.

Sample characteristics. The survey sample (n = 71) represented 76% of all currently active members (N = 93) and did not differ significantly, nor substantially, on any background variable from members not in the survey. About one half (59%) of survey participants were male, 51% had a schizophrenia spectrum disorder, 39% had a chronic or permanent physical health condition, and 40% reported a substance use disorder. In keeping with local demographics, 93% of participants were non-Hispanic Caucasian.

Procedures

All active program members were invited to complete the survey in Spring, 2011, but the target population was every member who had 3 days of attendance during the preceding first quarter of 2011 (N = 93). To preserve confidentiality and encourage disclosure of personal opinion, each respondent placed the completed survey in an envelope and signed across the seal to ensure personal responses would be seen only by the external evaluator, who stored the data on an encrypted computer.

A participatory research team composed of program members and staff convened 6 months after the survey administration to generate theory-based hypotheses to be tested statistically by the external evaluator, who had previously prepared a routine quality assurance report that summarized members’ overall service satisfaction, interest in program activities, and current life quality in several domains. All procedures were approved by the McLean Hospital institutional review board.

Measures

Participant background characteristics. Program records tracked personal information and attendance. Physical health conditions (e.g., coronary disease, diabetes, asthma, arthritis, cancer) were coded 1 = any chronic or permanent health problem; 0 = no documented problem. Year of first psychiatric hospitalization was coded 1 = prior to 1990; 0 = 1990 or later.

Survey items. The questionnaire was designed by a group of program members and staff under the leadership of the first author. The instrument included a mix of service satisfaction and personal life satisfaction items derived from standard instruments. In this study, we focus on respondents’ self-ratings of their own mental health, physical health, and recovery from psychiatric illness.

1. Self-rating of recovery. The first page of the questionnaire asked “How would you rate your recovery right now?” Respondents circled a number on a rating scale identical in design (1 = Terrible to 7 = Great) to the scaling of the subjective items in Lehman’s Quality of Life Interview (Lehman, Kernan, & Postrado, 1995).

2. Recovery resource checklist. Respondents were also asked on Page 1 to check any of several sources of information about recovery that helped to shape their own ideas.

3. Program empowerment. Two items were designed to measure respondents’ perceptions of self-determination (“Members have a right to make their own decisions about how they use the program”) and self-efficacy (“Members can help to change the program for the better”). A single item measured personal empowerment: “I have a positive effect on Waverley Place when I join in activities.” Rating scale options were: 1 = Strongly Disagree; 2 = Disagree; 3 = Agree; 4 = Strongly Agree.

4. Self-ratings of mental health and physical health status. On the last page of the questionnaire (Page 4), respondents were asked “How would you rate your mental health right now?” and “How would you rate your physical health right now?” Responses were circled on 7-point rating scales identical to the scale used on Page 1 to rate personal recovery.

Data Analysis Plan

The study hypothesis was tested by contrasting Pearson r measures of the bivariate correlation between mental health and recovery self-ratings for (a) participants younger versus older than age 50, and then for (b) participants first hospitalized before versus after 1990. The statistical significance of each absolute group difference in r was then tested in two hierarchical linear regression analyses. Two analyses were necessary because age and year of
first hospitalization were collinear in their prediction of the correlation between mental health and recovery self-ratings. Each of the two regression analyses had self-rated recovery as the dependent variable and the same set of control variables. The first analysis tested whether the correspondence between recovery self-ratings and mental health self-ratings was higher for older adults by entering an “age-by-mental health self-rating” interaction term, calculated as each individual’s age in years multiplied by his or her score on the item “How would you rate your mental health right now?” The second analysis tested whether the correspondence between recovery self-ratings and mental health self-ratings was higher for participants first hospitalized for a psychiatric illness prior to 1990 by entering a “year of first hospitalization-by-mental health self-rating” interaction term calculated as each individual’s code for “first hospitalized pre-1990” (yes = 1, no = 0) multiplied by his or her mental health self-rating score. Continuous variables were z-transformed prior to multiplication. Order of variable entry in both analyses was theory driven, as detailed in the Results section.

To protect against Type I errors, we will report only adjusted $R^2$ because it takes into account the small sample size ($n = 71$) relative to number of predictors. We assume support for the study hypothesis if three conditions are all met by both analyses: (a) the interaction term is statistically significant as a predictor of recovery self-rating, (b) there is a significant increase in Model $R^2$ after the entry of the interaction term, and (c) the full regression model is statistically significant. In keeping with standard practice, no variable effects will be interpreted unless the model containing that variable is also statistically significant and lower-order terms will be ignored when interpreting a significant interaction. All analyses were conducted using SPSS, version 19.

**Results**

**Bivariate Correlations**

**Participant background characteristics related to age.** Current age was normally distributed, with a range from 23 to 69 years, and a median of 49 years ($M = 48.56, SD = 11.14$). Participants who had a chronic or permanent physical condition were older than those without a health condition ($M = 52.10, SD = 12 vs. M = 45.98, SD = 10; t = 2.36, df = 1, 69, \( p < .02 \)) and participants over age 50 were more likely than younger participants to have a college degree ($63\%$, $n = 22$ vs. $31\%$, $n = 11$, $\chi^2 = 7.44, df = 1, p = .006$).

Age correlated positively with years since first hospitalization ($r = +.61, p < .001$), with a mean of 29 years ($SD = 11.56$) for participants age 50 or older compared with a mean of 17 years ($SD = 9.09$) for younger participants ($t = 4.85, df = 1, 68, p < .001$). For this reason, participants age 50 or older were more likely to have had their first hospitalization for psychiatric illness prior to 1990 ($83\%$, $n = 29$ vs. $31\%$, $n = 11$, $\chi^2 = 19.73, df = 1, p < .001$). Participants older versus younger than age 50 had similar psychiatric diagnoses (major depression: $23\%$ vs. $25\%$; bipolar disorder: $22\%$ vs. $29\%$; schizophrenia: $49\%$ vs. $53\%$), and age was unrelated to employment in the year preceding the survey (Work: $M = 51, SD = 9$ vs. No Work: $M = 48, SD = 10, ns$). However, no study participant under age 50 had yet married, although $65\%$ ($n = 19$) of participants age 50 or older had married at some point in their lives.

Age was not associated with program engagement, whether defined as months of membership ($r = +.11, p = .00), or total attendance days since enrollment ($r = .04$). On average, participants both older and younger than age 50 had been active in the program about 4 1/2 years ($M = 4.66, SD = 2.98 vs. M = 4.25, SD = 2.94, p = ns$). The two items designed to measure the program’s empowerment (“Members have a right to make their own decisions about how they use the program” and “Members can help to change the program for the better”) received $100\%$ agreement, and participants age 50 or older were as likely as younger participants to have talked about recovery with peer staff ($64\%$ vs. $64\%$), nonpeer staff ($46\%$ vs. $36\%$), or other program members ($46\%$ vs. $36\%$). The two age groups had nearly identical personal empowerment mean scores ($M = 3.04, SD = .46 vs. M = 3.07, SD = .51, ns$).

**Self-ratings of mental health, physical health, and recovery.** Mental health self-rating correlated moderately with physical health self-rating ($r = +.45, p < .001$), and recovery self-rating correlated with both mental health ($r = +.56, p < .001$) and physical health ($r = +.51, p < .001$) self-ratings. About one half of all participants rated themselves “satisfied” (5 or higher) on all three self-assessments.

Three background variables correlated with self-ratings. Participants with a major affective disorder rated their mental health less positively than those with a schizophrenia spectrum disorder ($M = 4.34, SD = 1.55$ vs. $M = 4.97, SD = 1.05; p < .05$), and men rated their physical health more positively than women ($M = 5.10, SD = 1.39$ vs. $M = 4.38, SD = 1.47, p < .05$).

Participants who had a college degree rated their recovery significantly less positively than those without a degree ($M = 4.30, SD = 1.16$ vs. $M = 5.16, SD = 1.07, p = .002$), and this was true for participants both older and younger than age 50 when examined separately. Interestingly, participants hospitalized before 1990 were no more likely to have a college degree than those hospitalized later ($45\%$ vs. $48\%$, respectively; $ns$), even though they were older and, in general, older participants were more likely to have completed a college degree.

**Hypothesis Test**

**Individuals age 50 or older are more likely than younger adults to rely on their current mental health status as a criterion for estimating their own recovery from psychiatric illness . . .**

Descriptive statistics support this first part of our hypothesis. The correlation between mental health self-ratings and recovery self-ratings was twice as strong for participants age 50 and older ($r = +.82; p < .001$) compared with those younger than age 50 ($r = +.39; p = .02$). By comparison, these two age groups had comparable moderate correlations between physical health self-ratings and recovery self-ratings ($r = +.49, p = .002$ vs. $r = +.43, p = .008$).

Results of a hierarchical regression analysis (see Table 1) show that this age-based difference in the correlation between mental health and recovery self-ratings is statistically significant, even when age is measured as a continuous variable and we statistically control for two potentially confounding factors, that is, whether the participant had a health condition or a college degree. Model 1
shows that self-rated mental health and physical health are independent predictors of self-rated recovery and, together, these two subjective health assessments account for about 40% of the variance in recovery self-ratings. When age is added in Model 2, mental health and physical health self-ratings remain positive predictors of self-rated recovery but age is also a weak negative predictor. However, when college degree (1 = yes; 0 = no) is added in Model 3, this educational variable negatively predicts self-rated recovery over and above the stable positive effects of self-rated mental and physical health and its addition to the regression model lowers the coefficient for age to a nonsignificant value, even though $R^2$ is significantly improved. This constellation of effects suggests that the negative correlation between age and recovery self-rating observed in Model 2 is explained by the fact that college-educated participants were generally older.

In Model 4, the “age-by-mental health self-rating” interaction term is significant, its addition significantly increased $R^2$ ($\Delta R^2 = .086, p < .001$), and the full regression model is also significant. The study hypothesis is supported because all three criteria laid out in the analysis plan have been met.

...because many older adults experienced their first psychiatric hospitalization prior to the emergence of the recovery movement in the 1990s.

As predicted, the correlation between mental health and recovery self-ratings was twice as strong for participants first hospitalized for a psychiatric illness prior to 1990 ($r = +.79; p < .001$) compared with participants whose first hospitalization occurred later ($r = +.35; p = .02$).

We tested the statistical significance of this second set of variable correlations by repeating the analysis depicted in Table 1, with “year of first hospitalization” (1 = prior to 1990; 0 = 1990 or later) added to Model 4 as a lower-order interaction term, and “year of first hospitalization-by-mental health self-rating” interaction term substituted for “age-by-mental health self-rating.” This substitution produced an almost identical set of findings as those presented in Table 1 and the results of this second analysis met all three criteria laid out in the analysis plan. The “year of hospitalization-by-mental health self-rating” interaction term was a significant predictor of recovery self-rating ($\beta = .34, t = 2.81; p = .007$), and its addition in Model 4 significantly improved $R^2$ ($\Delta R^2 = .06, p < .012$). All other beta and $R^2$ values remained the same as in Table 1, with the full regression model statistically significant at $p < .001$ ($F = 14.32, df = 6, 64; adj R^2 = .53$). These findings support the second part of our hypothesis, demonstrating that older age and having been first hospitalized for psychiatric illness prior to 1990 are both strong, and indistinguishable, predictors of a strong positive association between self-assessed mental health and recovery from psychiatric illness.

### Consideration of Three Alternative Explanations

1. Older participants’ higher educational status may have predisposed them to pay more attention to their symptoms when rating their own recovery because they had spent more time reading about their diagnoses and psychiatric medications. This may be true, but it does not explain our findings because the regression analyses controlled for the fact older participants were more likely to have earned a college degree.

2. Older participants had a higher incidence of physical health conditions that could have aggravated their psychiatric symptoms, making them more salient. If so, poor physical health, rather than older age, could account for

### Table 1

Hierarchical Linear Regression of Self-Rated Recovery on Participants’ Age and Self-Ratings of Mental Health and Physical Health Status (N = 71)

<table>
<thead>
<tr>
<th>Predictor variables</th>
<th>beta</th>
<th>SE</th>
<th>$\beta$</th>
<th>$p$</th>
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</thead>
<tbody>
<tr>
<td>Model 1: Adj $R^2 = .38$</td>
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<td></td>
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<td></td>
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<tr>
<td>Physical health self-rating</td>
<td>.260</td>
<td>.085</td>
<td>.320</td>
<td>.003</td>
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<td>Mental health self-rating</td>
<td>.371</td>
<td>.092</td>
<td>.423</td>
<td>&lt;.001</td>
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<tr>
<td>Model 2: Adj $R^2 = .41$; $R^2$ change = .04*</td>
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<td></td>
<td></td>
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<tr>
<td>Physical health self-rating</td>
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<td>.085</td>
<td>.274</td>
<td>.011</td>
</tr>
<tr>
<td>Mental health self-rating</td>
<td>.406</td>
<td>.091</td>
<td>.463</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Age at time of survey (years)</td>
<td>-.021</td>
<td>.010</td>
<td>-.198</td>
<td>.039</td>
</tr>
<tr>
<td>Model 3: Adj $R^2 = .48$; $R^2$ change = .07**</td>
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<td></td>
</tr>
<tr>
<td>Physical health self-rating</td>
<td>.217</td>
<td>.080</td>
<td>.267</td>
<td>.009</td>
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<tr>
<td>Mental health self-rating</td>
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<td>.086</td>
<td>.436</td>
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<tr>
<td>Age at time of survey (years)</td>
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<td>.010</td>
<td>-.122</td>
<td>.188</td>
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<tr>
<td>College degree</td>
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<td>.212</td>
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<td>.003</td>
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<tr>
<td>Model 4: Adj $R^2 = .55$; $R^2$ change = .07**</td>
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<tr>
<td>Physical health self-rating</td>
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<td>.077</td>
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<tr>
<td>Mental health self-rating</td>
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<tr>
<td>Age at time of survey (years)</td>
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<td>.062</td>
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<tr>
<td>College degree</td>
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<td>.199</td>
<td>-.257</td>
<td>.003</td>
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<tr>
<td>Age × mental health self-rating</td>
<td>.310</td>
<td>.094</td>
<td>.279</td>
<td>.002</td>
</tr>
</tbody>
</table>

Note: beta = unstandardized coefficient; SE = standard error; $\beta = $ standardized coefficient.

a Dependent variable: Self-rating on item “How would you rate your physical health right now?” Score range: 1 (Terrible) to 7 (Great).

b Self-rating on items “How would you rate your mental health right now?” and “How would you rate your physical health right now?” Score range: 1 (Terrible) to 7 (Great).

c $p < .05$. ** $p < .01$. 

The study hypothesis is supported because all three criteria laid out in the analysis plan have been met.

...because many older adults experienced their first psychiatric hospitalization prior to the emergence of the recovery movement in the 1990s.

As predicted, the correlation between mental health and recovery self-ratings was twice as strong for participants first hospitalized for a psychiatric illness prior to 1990 ($r = +.79; p < .001$) compared with participants whose first hospitalization occurred later ($r = +.35; p = .02$).

We tested the statistical significance of this second set of variable correlations by repeating the analysis depicted in Table 1, with “year of first hospitalization” (1 = prior to 1990; 0 = 1990 or later) added to Model 4 as a lower-order interaction term, and “year of first hospitalization-by-mental health self-rating” interaction term substituted for “age-by-mental health self-rating.” This substitution produced an almost identical set of findings as those presented in Table 1 and the results of this second analysis met all three criteria laid out in the analysis plan. The “year of hospitalization-by-mental health self-rating” interaction term was a significant predictor of recovery self-rating ($\beta = .34, t = 2.81; p = .007$), and its addition in Model 4 significantly improved $R^2$ ($\Delta R^2 = .06, p < .012$). All other beta and $R^2$ values remained the same as in Table 1, with the full regression model statistically significant at $p < .001$ ($F = 14.32, df = 6, 64; adj R^2 = .53$). These findings support the second part of our hypothesis, demonstrating that older age and having been first hospitalized for psychiatric illness prior to 1990 are both strong, and indistinguishable, predictors of a strong positive association between self-assessed mental health and recovery from psychiatric illness.
the stronger correlation between self-rated mental health and self-rated recovery for older participants. This is not a tenable alternative explanation because the opposite is true: Participants with a physical health condition had a lower correlation between self-rated mental health and self-rated recovery compared with participants without a health condition ($r = +.36$ vs. $r = +.71$, respectively).

3. Older participants might have had less exposure to current concepts of recovery. This is unlikely because the study program had high fidelity to recovery principles and older participants attended the program as often as younger participants, gave themselves comparable self-ratings for personal empowerment, and were as likely as younger participants to report talking about recovery with the program’s peer staff.

**Discussion**

The older adults in this rehabilitation program appear to have paid relatively close attention to their mental health status when asked to rate their own recovery from psychiatric illness, based on the strong correspondence between their mental health and recovery self-ratings. Younger adults, by comparison, had a much weaker correlation between self-rated mental health and self-rated recovery, and the statistical significance of this age difference was confirmed by a hierarchical regression analysis.

Most older participants in our study were first hospitalized for psychiatric illness prior to 1990, which was before the recovery movement gained momentum in psychiatric rehabilitation (Anthony, 1993). For this reason, we hypothesized that older adults may pay closer attention to their mental health status than younger adults because many were treated for psychiatric illness in an era when recovery was generally defined as symptom improvement or cure. Significant findings from a second regression analysis support this interpretation of our age-related findings. These results have strong implications for psychiatric rehabilitation. If older adults tend to define their recovery in terms of their own (good or poor) mental health status, as our results indicate, they may be less likely than younger adults to fully engage in a recovery movement which prioritizes life goal attainment over symptom improvement. Older adults may be particularly resistant to action-oriented interventions that encourage the pursuit of practical achievements in spite of symptom distress because they are acutely aware of how their own psychiatric symptoms made it difficult, or impossible, to accomplish the personal goals they had as young adults (Clarke, Oades, Crowe, Caputi, & Deane, 2009). This may also be true of any participant who has earned a college degree, regardless of age, because participants with college degrees gave themselves lower recovery ratings compared with those without degrees, even though their mental and physical health self-ratings were no less positive. College-educated adults with mental illness may have difficulty envisioning personal success after many years of missed opportunities and unfulfilled promise (Choi & Jun, 2009). On the other hand, older adults, and anyone with a college degree, may be very receptive to a philosophy of self-directed recovery that views psychiatric symptom improvement as a core component of continuous healing (Onken, Craig, Ridgway, Ralph, & Cook, 2007), where the primary objective is an individualized balance between effortful progress and calm self-acceptance or contentment (Lau & McMain, 2005). Life-reflection interventions could also provide useful insights into how early treatment experiences have shaped older and younger members’ divergent ideas about recovery and the self-insights gained could enrich each individual’s own outlook on life and help to generate ideas for how older individuals can make use of their education and skills gained from life experience.

**Other Participant Characteristics Predictive of Recovery Self-Ratings**

Overall, participants who rated their physical health positively also rated their recovery positively, regardless of their age or mental health self-rating. This strong association of recovery with self-assessed physical health suggests that wellness-promotion activities (Cook, 2011; Hutchinson, 2011) and interventions for chronic illness management (Mueser, Bartels, Santos, Pratt, & Riera, 2012) should be integral components of every recovery-oriented program.

Age had no direct association with self-rated recovery, or with self-rated mental or physical health. In one sense, this is not surprising, because other studies report comparability in psychiatric symptoms and cognitive functioning for older versus younger adults (e.g., McGurk & Mueser, 2008). However, in our study, this comparability is at clear odds with the fact that more than one half of participants over age 50 had a chronic or permanent physical health condition. This discrepancy may be the result of the “response shift” documented by many health quality-of-life studies (Schwartz & Sprangers, 2000). This “response shift” research demonstrates that, as people age, they begin to judge the quality of their own health relative to how much worse they might feel considering how old they are, rather than in comparison with how they felt when they were younger.

**Study limitations.** Generalizability of findings is limited because this research project was a small sample case study of a single rehabilitation program located in a racially homogenous neighborhood. Also, we did not use repeated measures or standardized instruments to track the effects of aging over time on self-perceptions of physical health, mental health, or recovery. However, our single-item measures of these three variables had the advantage over multiple-item recovery scales of keeping the three constructs conceptually distinct and their simple wording has strong face validity.

**Conclusions**

Our study findings suggest that older age, in and of itself, does not predispose someone to be pessimistic about recovery from mental illness but older adults may have a predisposition to associate recovery with symptom reduction if their first psychiatric hospitalization occurred prior to the birth of the recovery movement in the 1990s. Recovery-oriented illness management programs (Salyers, Godfrey, Mueser, & Labriola, 2007) may be most effective in expanding the quality of life and functional potential of older adults when they recognize and build on these individuals’ earlier treatment experiences and natural attention to symptom improvement.
References


