

Functioning in Activities of Daily Living of Psychiatric Inpatients With Mental Retardation

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Functioning in activities of daily living of 40 psychiatric inpatients with mental retardation was compared with that of nonhospitalized control subjects matched for sex, age, and level of intellectual impairment. After excluding data for six quadriplegic control subjects from the analyses, the only difference between the groups was that the inpatients were less impaired in seeing. The findings indicate that even a major psychiatric disorder does not necessarily impair functioning in activities of daily living among individuals with mental retardation. Thus normal functioning adjusted for intellectual impairment does not necessarily indicate the absence of a major psychiatric disorder. (*Psychiatric Services* 49:1084-1085, 1998)

According to *DSM-IV*, mental retardation is defined by three criteria: an intelligence quotient of about 70 or below, limitations in current adaptive functioning, and onset before 18 years of age (1). The ability to cope with activities of daily living is essential for adaptive functioning among individuals with mental retardation (2).

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The operational definitions of functions in activities of daily living among individuals with mental retardation have varied in different studies (2-4). For profoundly retarded persons, Maaskant and colleagues (4) included body care, dressing, use of the toilet, and eating. In their study, hearing and vision, mobility, and incontinence were evaluated separately.

Wells and associates (5) found that the functioning and well-being of depressed patients with normal intellectual functioning were poorer than those of patients with chronic somatic disease and that the impact of depression and somatic disease was additive. Maaskant and colleagues (4) found that the presence of a psychiatric disorder predicted care dependence in mentally retarded individuals.

A significant proportion of people with mental retardation also have a psychiatric disorder (6-8). Reiss and coworkers (9) suggested that the presence of mental retardation may decrease the diagnostic significance of abnormal behavior, a phenomenon they called diagnostic overshadowing.

Weisblatt (10) has proposed that changes in activities of daily living skills are often harbingers of a mental disorder. However, to our knowledge the additive impact of mental retardation and psychiatric disorder on functioning in activities of daily living has not been studied. The purpose of this study was to assess whether the presence of a diagnosed psychiatric disorder has any effect on functioning in activities of daily living among persons with mental retardation.

Methods

The patient group consisted of 40 consecutive admissions from February 1994 through July 1995 to the acute psychiatric inpatient unit of the Special Welfare District of Southwest Finland, a service organization for persons with mental retardation. When the study was done, the district had a catchment area with a population of 435,000, and it was responsible for 1,878 individuals with mental retardation.

For every patient, a matched pairwise control was selected from a random sample of 122 individuals drawn from the group of 1,878 persons with mental retardation who were not inpatients in other psychiatric hospitals. Patients were matched for sex, age (within five years), and level of mental retardation. For three patients the matching criteria for age were not met exactly.

Both samples included 12 women and 28 men. For the patient group the median age was 28 years, with a mean \pm SD of 30 ± 10 and a range of 15 to 52 years. For the matched control group the median age was 32 years, with a mean \pm SD of 34 ± 11 and a range of 19 to 65 years. Both groups were matched exactly in level of mental retardation. Five patients (12 percent) had borderline intellectual functioning, 26 (65 percent) had mild mental retardation, six (15 percent) had moderate retardation, and two (5 percent) had severe retardation. For one patient (3 percent) the severity was unspecified. No patient was profoundly retarded.

The psychiatric and somatic disorders of the patients were assessed during inpatient treatment by psychiatric

interviews and observation. The mean \pm SD length of stay was 87 \pm 100.5 days, with a range of five to 368 days. Fourteen patients (35 percent) had a primary diagnosis of schizophrenia or another psychotic disorder, seven (17 percent) had a mood disorder, three (8 percent) had an anxiety disorder, three (8 percent) had an impulse control disorder, nine (22 percent) had an adjustment disorder, and one each (3 percent) had an eating disorder, a sleep disorder, a somatoform disorder, or a personality disorder.

Functioning in activities of daily living was assessed using a measure developed by Maaskant and associates (4). Data were collected for 11 areas: mobility (scored from 1 to 5), eating (from 1 to 3), dressing (from 1 to 3), washing (from 1 to 4), toilet skills (scored 1 or 2), incontinence (1 or 2), encopresis (1 or 2), expressive communication (from 1 to 3), speech comprehension (from 1 to 3), seeing (from 1 to 4), and hearing (from 1 to 4).

Information about functioning in activities of daily living, somatic diseases, and previous psychiatric diagnoses of persons in the control group was collected by telephone interviews with these individuals and their caretakers. To improve reliability, information for every control group member was collected from at least two sources. If control group members had a previous psychiatric hospitalization, we also reviewed their hospital charts. We did not attempt to screen the control group for current psychiatric disorders, because for individuals with mental retardation, reliable psychiatric assessment usually requires observation on a ward.

The scores on functioning in activities of daily living of patients and control group members were compared separately for every item with either a chi square test or a Fisher's exact test.

Results

Three statistically significant differences were found between the patient group and the control group. The patients were less impaired in mobility ($\chi^2=7.1$, $df=2$, $p=.029$), dressing ($\chi^2=6.8$, $df=2$, $p=.034$), and toilet skills ($\chi^2=4.3$, $df=1$, $p=.038$).

Seven individuals in the control group had a previous psychiatric disorder.

Two of them had psychosis, two had an affective disorder, two had an anxiety disorder, and one had an impulse-control disorder. After the individuals with a previous psychiatric disorder were excluded from the controls, four significant differences in functioning were found between the groups. Patients were less impaired in mobility ($\chi^2=4.9$, $df=1$, $p=.027$), eating ($\chi^2=4.2$, $df=1$, $p=.040$), toilet skills (Fischer's exact test, $p=.018$), and expressive communication ($\chi^2=4.7$, $df=1$, $p=.029$).

Six persons in the control group had quadriplegia, and no patients did, a significant difference (Fischer's exact test $p=.012$). After data for the six were excluded from the analyses, only one significant difference in functioning was found between the groups. Patients were less impaired than control subjects in seeing ($\chi^2=7.9$, $df=2$, $p=.019$).

Discussion and conclusions

We found that mentally retarded psychiatric inpatients were less impaired in functioning in activities of daily living than their matched controls. This result did not change if individuals with a history of a psychiatric disorder were excluded from the control group.

The greater impairment in the control group was mostly due to its larger number of quadriplegic individuals. After these six immobile individuals were excluded from the control group, the control group members were more impaired in seeing. Otherwise, the functioning of the groups was similar.

The main finding of this study is that the presence of a psychiatric disorder did not significantly impair functioning in activities of daily living of individuals with mental retardation. This finding suggests that in addition to diagnostic overshadowing described by Reiss (9), functional overshadowing may also exist—that is, the major impact of mental retardation on functioning in activities of daily living can overshadow minor impairments caused by psychiatric disorders. We attempted to include only elementary functions that are independent of environmental factors. However, these basic functions are essential for more sophisticated functions in activities of daily living, such as the ability to do shopping or to use public transportation.

We did not exclude individuals who

had a current psychiatric disorder from the control group. Therefore, the finding that immobility was significantly more common in the control group may imply that psychiatric disorders among immobile individuals with mental retardation are underdiagnosed.

These findings are based on relatively small samples of patients and controls, and they should therefore be interpreted with caution. Our results indicate that even a major psychiatric disorder does not necessarily impair functioning in activities of daily living among individuals with mental retardation. Thus normal functioning adjusted for intellectual impairment does not necessarily indicate the absence of a major psychiatric disorder. Assessment of mental health in this patient group is a difficult task, and therefore we encourage clinicians to keep in mind various overshadowing effects and to actively screen mentally retarded individuals for psychiatric signs and symptoms. ♦

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