Violence in Geriatric Patients with Dementia

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Although the elderly have been studied as victims of violent behavior, there has been little investigation of this population as perpetrators of violence. Using the method of retrospective chart review, this study examines the issue of violence by geriatric patients with dementia who need acute psychiatric hospitalization. Of 52 patients, 44 percent engaged in physical attacks and/or fear-inducing behavior during the two weeks prior to admission, and 29 percent engaged in similar behavior within the first 72 hours of hospitalization. Married patients and those who lived with family were overrepresented in the group of violent patients. The authors discuss possible explanations and implications of these findings.

Although the elderly have been studied as victims of violence, there has been little investigation of them as perpetrators. However, geriatric patients, especially those with dementia, can display violent behavior. Petrie *et al.*[1] have reported that before admission to a geropsychiatry unit, 8 percent of patients had used guns or knives in violent acts, and 55 percent had displayed aggressive behavior. Another study[2] found that 14 percent of the assaultive patients in a psychiatric hospital were 65 years of age or older, and 70 percent of these were demented.

Demographic predictions suggest that psychiatrists will be treating increasing numbers of older patients. The U.S. Census counted 25 million Americans over the age of 65 in 1980 and projects 32 million by 1990. Approximately 5 percent of this population suffers from severe dementia, and 10 percent has mild dementia.[3] Some members of this demented geriatric population will need psychiatric hospitalization to confirm the diagnosis of dementia, to rule out reversible causes, to treat any behavioral symptoms, or to remove the patient from a harmful home situation and help with transition to a chronic facility.

In this study, we examine violent behavior by geriatric patients with dementia who need psychiatric hospitalization. Because previous research has shown that a significant amount of violence is perpetrated by psychiatric patients prior

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to admission and during acute hospitalization,[4] we will examine these two time periods. The following questions are addressed: (1) What is the prevalence of violent behavior by demented geriatric patients prior to and during acute psychiatric hospitalization? (2) How do violent geriatric patients with dementia differ from their non-violent counterparts?

Methods

The setting was an acute locked inpatient unit in a university psychiatric hospital. Medical records were requested for all patients hospitalized on this unit who were 60 years of age or older and had a primary diagnosis of senile dementia according to the *International Classification of Diseases* (ICD-9-CM).[5] The earliest date that such data could be tracked via our hospital management information system was July 1979, and we thus obtained information on 100 percent of the demented geriatric patients hospitalized between July 1, 1979, and September 1, 1987. The ICD-9-CM was used for diagnosis because it had been used consistently in our institution throughout the eight years reviewed.

The medical record of each patient was extensively reviewed by one of us (E.H.) for demographic information, to determine whether there was a recent history of suicidal behavior, and to gain information regarding the patient's living situation before and after hospitalization. Evidence of violent behavior during the two weeks preceding the admission and the first 72 hours of hospitalization was also extracted. Violent behavior was rated according to an adaptation of the scale developed by Lagos[6] *et al.* which includes four categories of violent behavior: attacks on persons, attacks on objects, threats to attack persons, and verbal attacks on persons. If a given record indicated that more than one of these types of violence had occurred, only the most serious description was tabulated. For purposes of data analysis, the rating scale was combined into three levels of increasingly severe violent behavior: no violence, fear-inducing behavior (verbal attacks, threats to attack, or attacks on objects), and physical attacks on persons.

Results

A total of 52 patients with senile dementia were admitted between July 1, 1979, and September 1, 1987, representing 24 percent of all admissions for individuals over 60 years of age. The mean age of the 52 patients was 81.4 years (range, 62 to 95 years). Within the two weeks prior to admission, 23.1 percent (N = 12) physically attacked others, 21.2 percent (N = 11) engaged in fear-inducing behavior, and 55.8 percent (N = 29) were non-violent. During the first three days of hospitalization, 9.6 percent (N = 5) of the patients physically attacked others, 19.2 percent (N = 10) engaged in fear-inducing behavior, and 71.2 percent (N = 37) were nonviolent.

To evaluate how violent and nonviolent geriatric patients with dementia differed, we compared them on a variety of demographic and clinical variables using the chi-square statistic. As shown in Table 1, married patients and those who lived with family were overrepresented in the group of violent patients

Table 1
Characteristics of 52 Demented Geriatric Patients by Presence or Absence of Violent Behavior in the Community and in the Hospital

Variable	Violence in the Community						Violence in the Hospital						Total	
	No Violence		Fear Inducing Behavior		Physical Attacks		No Violence		Fear Inducing Behavior		Physical Attacks			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Gender														
Females	17	58.6	5	45.5	5	41.7	21	56.8	3	30.0	3	60.0	27	51.9
Males	12	41.4	6	54.6	7	58.3	16	43.2	7	70.0	2	40.0	25	48.1
	($\chi^2 = 1.21$, $df = 2$, n.s.)						($\chi^2 = 2.40$, $df = 2$, n.s.)							
Social Class														
II	2	14.3	1	14.3	0	00.0	3	14.3	0	00.0	0	00.0	3	10.7
III	2	14.3	1	14.3	1	14.3	2	9.5	1	25.0	1	33.3	4	14.3
IV	6	42.8	1	14.3	4	57.1	9	42.9	2	50.0	0	00.0	11	39.3
V	4	28.6	4	57.1	2	28.6	7	33.3	1	25.0	2	66.7	10	35.7
	($\chi^2 = 3.93$, $df = 6$, n.s.)						($\chi^2 = 4.75$, $df = 6$, n.s.)							
Ethnic Group														
White	18	62.1	9	81.8	11	91.7	27	73.0	8	80.0	3	60.0	38	73.1
Nonwhite	11	37.9	2	18.2	1	8.3	10	27.0	2	20.0	2	40.0	14	26.9
	($\chi^2 = 4.32$, $df = 2$, n.s.)						($\chi^2 = 0.68$, $df = 2$, n.s.)							
Marital Status														
Single, Divorced, or Widowed	26	89.7	6	54.6	7	58.3	31	83.8	6	60.0	2	40.0	39	75.0
Married or Living Together	3	10.3	5	45.5	5	41.7	6	16.2	4	40.0	3	60.0	13	25.0
	($\chi^2 = 7.56$, $df = 2$, $p < 0.03$)						($\chi^2 = 5.99$, $df = 2$, $p < 0.05$)							
Reside With Before Admission														
Family	5	17.2	6	54.6	8	66.7	10	27.0	5	50.0	4	80.0	19	36.5
Other	24	82.8	5	45.5	4	33.3	27	73.0	5	50.0	1	20.0	33	63.5
	($\chi^2 = 10.89$, $df = 2$, $p < 0.004$)						($\chi^2 = 6.30$, $df = 2$, $p < 0.05$)							
Placement at Discharge														
Family	4	13.8	2	18.2	1	8.3	3	8.1	1	10.0	3	60.0	7	13.5
Other	25	86.2	9	81.8	11	91.7	34	91.9	9	90.0	2	40.0	45	86.5
	($\chi^2 = 0.48$, $df = 2$, n.s.)						($\chi^2 = 10.31$, $df = 2$, $p < 0.01$)							
Suicidal Behavior														
Present	1	3.5	2	18.2	1	8.3	1	2.7	2	20.0	1	20.0	4	7.7
Absent	28	96.5	9	81.8	11	91.7	36	97.3	8	80.0	4	80.0	48	92.3
	($\chi^2 = 2.45$, $df = 2$, n.s.)						($\chi^2 = 4.50$, $df = 2$, n.s.)							

(i.e., those who exhibited physical attacks or fear-inducing behavior) both before admission and in the hospital. Although the numbers were small, patients who were violent during the hospitalization appeared more likely to be placed with family following discharge than those who were not violent on the ward. No significant associations were found between violence and gender, social class, ethnic group, or preadmission suicidal behavior.

Some individuals within this population can become violent even in situations where aggressive behavior would not usually be anticipated. The following cases are examples where unexpected violent behavior occurred before admission and during acute hospitalization.

Case 1

A 90-year-old white woman was admitted involuntarily after striking her 86-year-old sister with her cane. The sisters, both widows, had lived together for 20 years, and had gotten along well. Although the patient had always been "bossy" towards her younger sibling, their relationship had previously been nonviolent. For two years, the patient's memory, personal hygiene, and judgment had gradually deteriorated; and for two months, she had become progressively aggressive towards her sister. This aggressiveness culminated in a physical attack with the patient's cane and precipitated her admission. The admission mental status exam was notable for disheveled grooming, psychomotor agitation, tangential thought processes, perseveration, and suspiciousness. She was oriented to name only, could not perform recall tasks, and refused to calculate. A complete work-up failed to reveal a treatable etiology for her dementia. Her agitation was controlled with haloperidol, 1 mg PO qhs; and she was discharged to a convalescent hospital.

Case 2

An 82-year-old, married black woman was admitted to the psychiatric unit shortly after her husband's acute medical hospitalization. On the day of admission, the patient had been brought to the medical clinic by a friend for a physical exam, but subsequently refused to be seen, became agitated, and did not recognize her companion. She had no prior history of violence. On admission, she was noted to be disoriented with marked deficits in short-term memory, and she displayed psychomotor agitation. During the first 72 hours, she struck staff members twice with a closed fist. Both assaults occurred in the early evening at which time she displayed an increase in agitation, disorientation, and uncooperativeness. A complete work-up for a treatable cause of her dementia was negative. Her violent behavior was well controlled with haloperidol, 2 mg PO q5PM; and upon her husband's recovery, she was discharged to their home.

Discussion

The results of this study show that violence is a problem for demented geriatric patients who need psychiatric hospitalization. The question could be asked whether such patients are more or less violent than other patients who need acute hospitalization. In a prior study[7] of a heterogeneous group of acutely ill civilly committed patients, we found that 49 percent exhibited physical attacks and/or fear-inducing behavior before admission, and 58 percent exhibited similar behavior during the first three days of hospitalization. The demented geriatric patients in the present study engaged in similar levels of preadmission violence but had a somewhat lower rate of violence in the hospital.

The results of this study are consistent with other studies of violence by geriatric patients. For example, a retrospective outpatient chart review study[8] found that 58 percent of outpatients diagnosed with dementia of the Alzheimer's type had significant behavioral symptomatology, with 48 percent showing agitation of a nonspecific nature and 30 percent displaying physical violence.

Prior studies[9] have shown that younger patients are more likely to be violent. This study is consistent with an earlier report[10] in which increased assaultive problems were seen in a bimodal distribution with younger and elderly patients accounting for the majority of violent behavior. Although our findings do not address the issue of the relative risk for violence of different age groups, the data do suggest that elderly patients are indeed prone to violence.

This study evaluated a homogeneous sample of elderly patients who all carried the same diagnosis. For this sample, we found few differences between the violent and nonviolent subgroups. Gender, ethnic group, and social class did not differ between them, and although these variables are often associated with the risk of violence, they may be less important in this homogeneous population. Additionally, our sample size may have been too small to show statistically significant differences that would be apparent in a larger sample.

Both living with family before admission and being married were found to be associated with violent behavior. One explanation for these associations is that when patients are married or living with family, there is an available victim; and, therefore, there is a greater likelihood of aggressive behavior by a patient who is at risk for committing violence. A previous study[11] also found that violent patients who lived with their families were significantly more likely to assault family members. However, 55 percent of the patients in that study who assaulted someone outside of their family also lived with family members; and, therefore, factors other than victim availability appear to be important.[11] Specific family dynamics and interactional patterns within the family may affect who becomes the victim of violence by psychiatric patients. Further studies are indicated to address these issues. Our data also suggest that physically assaultive patients frequently return to live with their families after discharge. Therefore, it is especially important to monitor these potentially violent patients and to understand factors associated with their dangerous behavior.

The prevalence of violent behavior in our sample of geriatric patients with dementia decreased after admission to the locked unit, demonstrating the impact of situational factors on violence. This decline in aggressive behavior is most likely related to treatment interventions including medication usage, firm limit setting, and the structured milieu on the ward.

This paper has focused on one diagnostic subgroup of the geriatric patient population, those with dementia. Of the 219 geriatric patients admitted over an eight-year period, 24 percent carried this diagnosis. Further studies are needed to

elucidate the factors associated with aggressive and assaultive behavior in geriatric patients with other diagnoses as well. Comparisons between the different diagnostic subgroups may help to further our understanding of such potentially dangerous behavior.

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