

SURVEY OF THE DEMOGRAPHIC CHARACTERISTICS OF PATIENTS REQUIRING RESTRAINTS IN A PSYCHIATRIC EMERGENCY SERVICE

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This paper examines the previously studied topic of the prevalence of uncontrollable behavior in psychiatric emergencies, using the need for restraints as an indicator, and seeks to discover demographic characteristics that were associated with patients needing restraints. The variables considered are sex, referral source, marital and financial status, race, education, diagnosis, age, and disposition. The findings of this survey were compared with those of another survey, which was conducted with a different population in a different community context, using tendency toward assault as an indicator of uncontrollable behavior. Although the two surveys were not strictly comparable, some interesting points were raised regarding differences and similarities.

This report focuses on a population that was the subject of an earlier study¹ that found that 15.6 percent of patients who presented to the psychiatric emergency service (PES) required physical restraints to manage their uncontrollable behavior and discussed the use of martial arts techniques as

a safe means toward this end. This report surveys the demographic characteristics of the population studied with a comparison between the restrained and nonrestrained subgroups of patients. The parameters studied were sex, referral source, marital status, financial status, race, education, diagnosis, age, and disposition. Finally, although most studies on psychiatric patient violence are not congruent and there is evidence that the incidence of violence is underreported in mental health settings,^{2,3} the findings of this survey are compared with those of another to point out some important differences and similarities between a predominately white group and a predominately black group.

This survey was performed on the August, September, and October 1979 population that was the subject of a previous paper.¹ Owing to the nature of the PES's record keeping system, which is based on time of service rather than patient identification numbers, several of the initial 687 patients of the three-month 1979 sample were lost. However, patients' records that were not available indicate the number of patients that returned to the PES within the 1½ years between the initial and current review. Of 687 patients studied for the prevalence of violence and the use of restraints in their treatment, 164 records (23.9 percent) were absent from the files 1½ years later. This indicated that only 23.9 percent had returned for service from the PES. Of the 106 patients who had been restrained, 11 records (10.4 percent) were not available, indicating that the patients had returned

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TABLE 1. DISTRIBUTION BY SEX

	Restrained No. (%)	Nonrestrained No. (%)	Total
Males	58 (61.1)	196 (46)	254
Females	37 (38.9)	230 (54)	267
Total	95 (100)	426 (100) *	521

*Not equal to 428 because of unavailability of information on PES charts

TABLE 2. METHOD OF ARRIVAL AT PES

	Restrained No. (%)	Nonrestrained No. (%)	Total
Police	61 (64.9)	131 (31.3)	192
Ambulance	2 (2.1)	10 (2.4)	12
Relative	24 (25.5)	155 (37.1)	179
Self	7 (7.4)	122 (29.2)	129
Total*	94 (100)	418 (100)	512

*Not equal to 95 and 428 because of unavailability of information on PES charts

TABLE 3. MARITAL STATUS OF PATIENTS

	Restrained No. (%)	Nonrestrained No. (%)	Total
Single	53 (59.6)	220 (56.0)	273
Married	16 (18.0)	82 (20.9)	98
Divorced	7 (7.9)	37 (9.4)	44
Separated	13 (14.6)	39 (9.9)	52
Widowed	0 (0)	15 (3.8)	15
Total*	89 (100)	393 (100)	482

*Not equal to 95 and 428 because of unavailability of information on PES charts

in the subsequent 1½ years. Further, of the 581 patients not restrained, 153 records (26.3 percent) were not available, indicating the patients had returned for service in the subsequent 1½ years.

Thus, taking these losses of the original data base into consideration, there was a total remaining population of 523, with 95 of these patients being in the restrained group and 428 being in the nonrestrained group. A comparison of the non-

restrained group with the restrained group within several parameters yields some interesting findings.

FINDINGS

Tables 1 through 8 show the number and percentage of restrained and nonrestrained patients

TABLE 4. SOCIOECONOMIC STATUS OF PATIENTS

	Restrained No. (%)	Nonrestrained No. (%)	Total
Indigent	23 (24.2)	115 (26.9)	138
Insured	23 (24.2)	85 (19.9)	108
SSI, PA Medicare	38 (40.0)	203 (47.4)	241
Unknown	11 (15.6)	25 (5.8)	36
Total	95 (100)	428 (100)	523

TABLE 5. RACIAL DISTRIBUTION

	Restrained No. (%)	Nonrestrained No. (%)	Total
Black	82 (86.3)	381 (89.0)	463
White	7 (7.4)	38 (8.9)	45
Hispanic	3 (3.2)	2 (0.5)	5
Other	3 (3.2)	7 (1.6)	10
Total	95 (100)	428 (100)	523

TABLE 6. DISTRIBUTION OF DIAGNOSTIC CATEGORIES

	Restrained No. (%)	Nonrestrained No. (%)	Total
Alcohol-related illness	15 (16.1)	42 (10.2)	57
Acute psychotic episode	30 (32.3)	45 (10.9)	75
Chronic schizophrenia	13 (14.0)	99 (24.0)	112
Paranoid schizophrenia	14 (15.1)	37 (9.0)	51
Major depressive episode	2 (2.2)	12 (2.9)	14
Adjustment disorder	2 (2.2)	60 (14.5)	62
Personality disorder	1 (1.1)	10 (2.4)	11
Organic brain syndrome	1 (1.1)	13 (3.1)	14
Drug-induced psychosis	4 (4.3)	6 (1.5)	10
Anxiety disorders	0 (0)	52 (12.6)	52
Mental retardation	0 (0)	4 (1.0)	4
Marital disharmony	0 (0)	5 (1.2)	5
Extrapyramidal side effects	0 (0)	6 (1.5)	6
Manic episode	5 (5.4)	8 (1.9)	13
Drug abuse	0 (0)	4 (1.0)	4
Borderline personality	4 (4.3)	5 (1.2)	9
Suicide attempt	1 (1.1)	6 (1.5)	7
Total*	93 (100)	413 (100)	506

*Not equal to 95 and 428 because of unavailability of information on PES charts

TABLE 7. AGE RANGES (YR) OF PATIENTS

	Restrained No. (%)	Nonrestrained No. (%)	Total
4-14	0 (0)	12 (2.8)	12
15-24	39 (41.1)	136 (32.0)	175
25-34	34 (35.8)	121 (28.5)	155
35-44	13 (13.7)	77 (18.1)	90
45-54	6 (6.3)	47 (11.1)	53
55-64	1 (1.1)	24 (5.6)	25
65-74	1 (1.1)	4 (0.9)	5
75 & Older	1 (1.1)	4 (0.9)	5
Total	95 (100)	425 (100) *	520

*Not equal to 428 because of unavailability of information on PES charts

TABLE 8. DISPOSITION OF PATIENTS

	Restrained No. (%)	Nonrestrained No. (%)	Total
Certified	59 (62.8)	94 (26.7)	153
Private Hospital	6 (6.4)	46 (11.6)	52
Signed AMA	6 (6.4)	15 (3.8)	21
Home	10 (10.6)	65 (16.4)	75
Clinic	9 (9.6)	130 (32.7)	139
Crisis Intervention	4 (4.3)	35 (8.8)	39
Nursing Home	0 (0)	7 (1.8)	7
Other	0 (0)	5 (1.3)	5
Total*	94 (100)	397 (100)	491

*Not equal to 95 and 428 because of unavailability of information on PES charts

with regard to the variables indicated above. A comparison between the restrained and non-restrained patients regarding education made by computing the average years in school of both groups revealed that the restrained patients had an average of 11.0 years in school and the non-restrained patients had an average of 11.3 years.

DISCUSSION

The finding that nonrestrained patients were twice as likely to have returned to the PES than

restrained patients after 1½ years may indicate that the restrained patients found the experience uncomfortable and chose not to return to the hospital for service during a psychiatric emergency to avoid the possibility of being restrained again. It could also indicate they had improved from the experience and did not need to return as frequently as the nonrestrained patient group. The fact that 73.7 percent of the nonrestrained patients and 89.6 percent of the restrained patients did not return to the PES 1½ years after the initial contact may indicate they did not need to return for emergency psychiatric services because of proper referral by

the social worker to other treatment modalities through active post-PES visit linkage to other facilities.⁴

The majority of the nonrestrained group was female and the majority of the restrained group was male, indicating that men are more likely to be uncontrollable as a symptom of their illness and therefore in need of external controls more frequently than women.

The finding that restrained patients were twice as likely to have been brought by the police indicated that patients brought by the police were more likely to need external controls and indicated the important role of the police in the management of uncontrollable patients. In contrast, nonrestrained patients were four times more likely to be self-referred than patients who were restrained. In addition, patients brought by relatives were slightly less likely to need external controls, indicating a possibly important role of relatives in helping patients maintain control of their behavior.

As there was no difference in marital status of patients in the restrained and nonrestrained groups, marital status may not be a predictable indicator of which patients lose control; this likely holds true with educational status as well. Patients with insurance were slightly more likely to be restrained and patients who were indigent or receiving federal or state financial assistance were slightly less likely to be restrained; therefore, patients in lower socioeconomic classes appear to be slightly less likely to be in the need of external controls than patients in working or middle socioeconomic classes.

Black and white patients were slightly less likely to have been in restrained groups than nonrestrained groups, indicating both that ethnic indicators are not likely to predict which patients need external controls and that there was no prejudicial use of restraints in these two groups. However, since Hispanic patients were six times more likely to have been restrained, there could have been some ethnic discrimination in the use of restraints. More likely, however, the problems in managing psychiatric emergency cases when there is a language or cultural barrier between staff (which was primarily black) and these patients accounted for this high rate of restraint. The low numbers of Hispanic patients served could also be responsible for the skew in these results.

In the management of patients with a diagnosis

of acute psychotic episode, manic episode, and drug-induced psychotic episode, restraints are more frequently required. Following close behind these diagnostic categories were borderline personalities, other personality disorders, alcohol-related disorders, and paranoid schizophrenic disorders. Patients diagnosed as having anxiety disorders did not need to have restraints used in their treatment in a psychiatric emergency setting; similarly, patients with adjustment disorders also required infrequent use of restraints in their treatment. Patients with diagnoses of organic brain syndrome and chronic undifferentiated schizophrenia were occasionally in need of restraints. These findings indicate that patients with diagnoses that imply an acute loss of contact with reality and violent behavior frequently need restraints in their management. On the other hand, diagnoses that are associated with anxiety but not with an acute loss of contact with reality or with violence tend not to need restraints in their treatment and can be treated with such techniques as advice, clarification, community triage, confession, psychodynamic insight, reality contact, succorance, ventilation, as opposed to external controls such as restraints.⁵ The additional finding that acute psychotic episodes, alcohol-related problems, paranoid schizophrenic episodes, or chronic undifferentiated schizophrenic exacerbations were associated with 77.5 percent of the restrained patients probably is accounted for by the fact that these diagnostic groups more frequently present to the psychiatric emergency service for treatment and also that these patients are more likely to have problems in controlling their impulses. That 14 percent of the restrained patients were in the diagnostic categories of manic episodes, borderline personality disorders, and drug-induced psychotic states indicates that these patients were not heavily represented in the diagnostic categories that presented to the PES. Also, it is conceivable that these patients were represented in the category of acute psychotic episode because not enough information was available to make a more specific diagnosis. That anxiety disorders and adjustment disorders were not frequently represented in the restrained group but were significantly present in the nonrestrained patient group again indicates that these patients do not need restraints in their management.

The finding that the bulk of patients that were

restrained were below 34 years of age demonstrates the greater lack of impulse control in younger patients.

As restrained patients were twice as likely as nonrestrained patients to have been certified to a state hospital and not admitted to a private hospital, it appears that restrained patients were more likely to be dangerous to self or others and were less cooperative with treatment efforts; nonrestrained patients were more likely referred to outpatient services, indicating that they were less dangerous to self or others and more cooperative with treatment efforts as well. The finding that restrained patients were allowed to sign out against medical advice or return home indicates that one episode of uncontrollable behavior can be managed in a PES and is not necessarily a sign of dangerousness or a need for the patient to be certified.

In a ten-year study by Taintor et al⁶ that measured assaultive behavior of patients that occurred up to two weeks prior to admission to inpatient or outpatient psychiatric treatment services, a review of 476,152 records indicated that the prevalence of assaultive behavior was 6 percent. On the other hand, Bell and Palmer's survey¹ dealt with the prevalence of patients who were uncontrollable and in need of restraints. As initially reported, 20 percent of Bell and Palmer's patients presented with uncontrollable behavior and 15.6 percent needed restraints as part of their management.¹ Thus, the two studies are not strictly comparable. Both studies, however, do give an indication of the prevalence of uncontrollable behavior and reveal some interesting possible similarities and differences. First, it is clear that Taintor's study was done on a larger population and covered a longer period of time and therefore may be more reliable. Taintor's population was 80 percent white, 12 percent black, and 3 percent Hispanic, and Bell and Palmer's study population was 88.5 percent black, 8.6 percent white, and 1 percent Hispanic. Welfare patients accounted for approximately 10 percent of Taintor's study population and close to 45 percent of Bell and Palmer's. Comparing the two surveys seems to indicate that a predominately black, heavily loaded welfare population has almost three times the indicators of uncontrollable behavior as a predominately white, lightly loaded welfare population. However, a study of ethnicity in Taintor's study showed no significant differences between assaultive and nonassaultive patients. In Bell and Palmer's study there was only

a slight difference between restrained and nonrestrained patients in terms of black or white race; however, there was a difference in the relative numbers of Hispanics in the restrained and nonrestrained groups, possibly due to difficult communication between the predominately Mexican patients and the black staff. If the differences in the prevalence of uncontrollable indicators between these two studies were not due to the difference in ethnic makeup of the population, it is possible that the lightly loaded welfare characteristic of Taintor's survey (under 15 percent) accounted for the difference, as Bell and Palmer's study population was heavily loaded with welfare patients (over 40 percent). In fact, Taintor's study indicated that there was a slightly greater tendency for assaultive patients to be on welfare (14.1 percent) than nonassaultive patients (10.9 percent). However, this is in direct contrast to Bell and Palmer's study, which indicated a lesser tendency for restrained patients to have been on welfare and a greater tendency for them to have had insurance than the nonrestrained. Thus, it seems likely that the almost threefold difference in the prevalence of uncontrollable indicators between these two studies cannot be accounted for by one population's being heavily loaded with white patients and lightly loaded with welfare patients. The more probable reason for the difference in indicators of uncontrollable behavior was that Taintor's population was drawn from patients who had been admitted to either outpatient or inpatient facilities and thus could be reasonably expected to show fewer indicators of uncontrollable behavior than an emergency room population (the population of the present study). This is supported by Dubin⁷ at the Crisis Service in the emergency room at Thomas Jefferson University, who reported that approximately 25 percent of patients who came for psychiatric services presented with violent threats or behavior. Furthermore, Lagos et al,⁸ in reviewing records of 400 hospitalized mentally ill patients for evidence of violent behavior leading to admission, found 18 to 20 percent were specifically described as violent toward persons or objects and another 11 percent vaguely described as violent. Their study population, which was 45 percent black, showed that there was no difference in the prevalence of violent behavior among blacks, whites, and Hispanics.

In Taintor's study men made up 74 percent of

the assaultive population and women, 26 percent. This is similar to Bell and Palmer's findings that 61.1 percent of the restrained population were men and 38.9 percent were women. Similarities exist in the two studies in that Taintor found assaultive patients were two times less likely to have been self-referred as nonassaultive and Bell and Palmer showed that restrained patients were four times less likely to have been self-referred than the non-restrained. Taintor's survey showed that assaultive patients were six times more likely to have been referred by the police, but in Bell and Palmer's study, restrained patients were only twice as likely to have been referred by the police as nonrestrained patients. Although the two studies are not strictly comparable, it is hypothesized that the findings may indicate that in a more destitute community, patients may self-refer themselves to a psychiatric emergency service for social services, and not because of uncontrollable behavior, more often than in an affluent community. Also indicated is that the police clearly have a role in managing uncontrollable patients in both destitute and more affluent communities. Further, police perform a role as social-service providers in the more destitute communities as well. This is an important consideration as the context of a community can seriously influence the use of referral by the police as an indicator of the potentially violent patient as opposed to an indicator of the potentially destitute patient.

Finally, Taintor's study showed that assaultive patients tended not to be married whereas Bell and Palmer's study showed no appreciable difference in marital status of those patients who had indicators of uncontrollable behavior and those who did not. Findings relating to age ranges of assaultive patients in the two studies were similar; however, Taintor showed a greater frequency of assaultive patients in the youngest age range (4 to 14) at 12.5 percent and in the eldest age range (75 and up) at 7.1 percent, compared with Bell and Palmer's study, which reported 0 percent and 1.1 percent, respectively. This difference is attributed to the small number of the patients in the extreme age ranges in Bell and Palmer's study.

In summary, this survey found that possible indicators of the need for restraints in the management of emergency room patients were male sex, age ranging from 15 to 34, being brought in by the police, and having a diagnosis of acute psy-

chotic episode, drug-induced psychotic state, or manic episode. Possible indicators for not needing to use restraints in the management of emergency room patients were female sex, age of 35 and up, being self-referred or brought in by relatives, and a diagnosis of anxiety or adjustment disorders. Ethnic, financial, educational, and marital status and other diagnostic categories may or may not have shown some trends concerning the need to use restraints in patients with certain characteristics regarding these variables. However, these trends were not strong enough to have been assigned the status of possible indicators of the need or the lack of need to use restraints. Finally, this study, which sought to measure the prevalence of violence in mental health settings using the need for restraints as an indicator, may not be strictly comparable with other studies using different indicators of the prevalence of violence in different populations in different contexts, but such a comparison is a useful undertaking.

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