CHARACTERISTICS OF PSYCHIATRIC IN-PATIENTS WHO ENGAGE IN ASSUALTIVE BEHAVIOUR IN MATHARI HOSPITAL, NAIROBI

BY

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DECLARATION

I, DR. EDWIN SIMON PETER OTHIENO-NYAURA, DECLARE THAT THIS DISSERTATION IS MY ORIGINAL WORK AND HAS NOT BEEN PRESENTED FOR A DEGREE IN ANY OTHER UNIVERSITY.

Signed..... Date.....28th JUNE 1991.

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M.B.CH.B (MAKERERE)

CANDIDATE

THIS DISSERTATION HAS BEEN SUBMITTED FOR

THE EXAMINATION WITH MY APPROVAL

Signed.....Kigamwa..... Date.....28/06/1991.....

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SUMMARY

Literature on assaultive behaviour by psychiatric in patients was reviewed. A total of 142 violent incidents perpetrated by 68 males and 74 female patients were studied over a period of 3 months. Of the total incidents of assault 98.54% resulted in severity I injuries as per Fottrell (1980) rating scale.

The diagnosis of chronic schizophrenia featured in 50 (35.21%) of the patients with an almost equal distribution among the males and female. These patients were severely impaired on such psychotic symptoms as delusions, hallucinations and inappropriate affect. Depressives who turned assaultive were almost exclusively females. Violence appeared to be a preoccupation of the 18-24 years age group among the male patients studied, while among the female patients the 35-44 years age group were over represented. Assaultive behaviour in relation to length of hospital confinement showed a bimodal distribution. Most assaultive behaviour occurred during the first two weeks of admission, followed by a relatively quiet two weeks and then another spike during the fourth week after admission.

INTRODUCTION

The occurrence of assaultive behaviour among in-patients in a psychiatric unit merits study. This is so because assaultive behaviour is a very topical subject among public and other health workers of non-psychiatric specialities. Most references to this behaviour has anecdotal and derogatory connotations. The situation is compounded by what one reads in press of the occasional harrowing stories about a "violent lunatic" let loose among "peace loving" members of the public.

Current teaching is that psychiatric patients are not any more violent than members of the general population. However, during the past decade there has been an increasing interest in the occurrence of violent or fear inducing behaviour by psychiatric in-patients. In this research project the author endeavoured to try and identify patients particularly at risk of becoming assaultive, those ward areas where violence tends to occur and the relationship of their occurrence to various aspects of ward situations and clinical characteristics. The ultimate objectives was to alert and educate psychiatric medical workers of factors associated with the assaultive patient.

LITERATURE REVIEW

The relationship between violence and psychiatric disorders is a complicated and much debated subject. Most of the factors associated with violent behaviour among psychiatric patients apply also to those without psychiatric disorders (Krawaski et al, 1986). However in a hospital setting, it is commonly encountered while caring for the mentally ill (Tardiff, 1984; Haller and Deluty, 1988). This has considerable implications for the organization of services, as well as for the individuals involved if the increasing concern over the standards of care of the patients is to be realized. Earlier reports indicate that only small proportions of patients are involved in violence of any kind (Fottrell et al 1978; Pearson et al, 1986). Yet there is a growing body of concern that levels of violence may be increasing (Tardiff 1983; Haller and Deluty, 1988). It is therefore surprising that literature on violence in psychiatric wards is scarce (Fottrell, 1980).

Methodological and design difference between several studies render comparison of their findings arduous and difficult (Haller and Deluty, 1988). This is compounded by the fact that there is no universally accepted definition of violence. A number of publications include verbal abuse or threatening behaviour (Werner et al, 1983). Others self harm (Fottrell et al, 1978) and damage to property (Armond, 1982). Some investigators are only concerned with physical attack on persons (Tardiff 1984) while others limit their interest to attacks on staff (Aiken, 1984). Each study examines a different population. There are

also important differences in the methods used for collecting data. The size of the hospital, patient groups and areas served also vary and are bound to exert some appreciable effect on data.

Despite these difficulties some tentative conclusions may be drawn. Violence is more likely to be associated with younger patients (Tardiff and Sweillam, 1979), Schizophrenics (Tardiff and Sweillam, 1982; Pearson et al, 1986) and those with a history of violence before admission (Yasavage, 1983, 1984; McNeil et al, 1988). Pearson et al (1986) noted that acute patients were more likely to be violent as opposed to medium and long stay patients. Fottrell (1980) concurs with this.

In all studies reviewed no consistent associations have been found with education, marital status or length of stay in hospital and violence.

Fottrell E. (1980) reported an over-representation of the female sex in the group with assaultive behaviour. In yet another study male patients were more assaultive but females were very prominent in the fear inducing group, (Rossi, 1986).

The relationship between race and violence is mentioned in only two studies reviewed. One was by Rossi et al (1986) where he reported that Blacks, Asiatics and Hispanic patients were more assaultive than other patients from the same catchment area in New York City, while Noble. (1989) reports that Afro-Carribean patients were more represented in the assaultive group in a study done at the Maudsley Hospital in London.

The commonest victims of patient violence were members of medical staff and almost excessively nursing staff, (Fottrell E. 1980). Factors that may diminish the ability of nursing staff to manage disturbed patients include; authoritarian attitudes and under-involvement of staff in patient care (Langley and Bayatti, 1984), and increased vulnerability among nurses involved in staff conflicts (Morgan and Prients, 1984).

The mental state, and underlying personality may be the most important factors in determining whether a patient strikes out at another person in the hospital (Tardiff and Sweillam, 1982). The most consistent diagnosis associated with violence is paranoid schizophrenia, (Noble P. 1989) while patients who are deluded and hallucinated are more represented in the assaultive group. This view however, differed from Tardiff and Sweillam's study of 1982 which reported that paranoid schizophrenic patients in the hospital as less likely to be assaultive than non-paranoid schizophrenic patients, whereas paranoid schizophrenic patients outside of the hospital were more likely to be assaultive. This variance they attributed to the more effective treatment of paranoid schizophrenics in the acute episode.

The reason for the schizophrenics featuring very well in the violent group may be because of the greater number of Schizophrenics in the hospital population and their length of stay. (Fottrell E. 1980).

According to Rossi et al (1986) of all admissions who came into hospital on involuntary orders 71% turned violent while among the voluntary admissions only 28.7% were violent.

RATIONALE OF THE STUDY

The significance of this study is that no similar study has been undertaken in our set up despite the increasing interest among clinical workers. Wazome, E (1988) conducted a retrospective study in Mathari.

It is well known in clinical situations that when psychiatric in-patients become violent usually the victim of such misdirected behaviour are the people who are in the vicinity e.g medical staff, fellow patients and occasionally relatives. In the case of a medical staff getting injured there is no way one can seek legal redress.

There is a misconception that because psychiatric patients are given "liberal" dozes of tranquilizing drugs are less violent. However, this is not found to be so occasionally.

OBJECTIVE OF THE STUDY

1. To describe the characteristics of patients who engage in assaultive behaviour.

2. To describe factors related to the quality of care that may be associated with violence.

HYPOTHESIS

In-patients at Mathari Hospital who engage in assaultive behaviour have certain characteristics that are determinable.

DEFINITION OF VIOLENCE

First of all it is important to have in mind that violence is a generic word and covers a multitude of phenomenon and hence lacks a universally accepted definition. It therefore needs to be described in its social, environmental and psychological setting.

The type that causes the greatest concern is of course the personal physical violence to self and others and it is this type that will be studied here.

DEFINITION

Any act of actual physical aggression involving physical contact, including that directed to self for whatever purpose and irrespective of provocation or outcome.

SITE DESCRIPTION

a) History of Mathari Hospital

Mathari Hospital is located in the Muthaiga Suburb of Nairobi City which is about 6 kilometres from the city center along the major highway to Thika Town. The history of the hospital goes back to the first decade of this century, when cases of small pox were spotted, collected together and tucked away 6 kilometres to the North of Nairobi Town Centre in a place then known as "Small Pox Isolation Centre". This centre was later (from July 1910) to be used for the so called "Native Lunatics" who had drifted into the town and was therefore renamed "Nairobi Lunatic Asylum".

During the first World War, "Mathari Hospital" admitted the mentally ill from the various African troops who fought for the "British Empire" on this continent. Although no written records exist of admission of earlier years, it is common knowledge that the "Hospital" admitted mainly Africans and very few Indians. The European mentally ill were admitted to Mathari in a small unit while waiting to be repatriated to their countries for further care.

In 1924 the name was changed from Nairobi Lunatic Asylum to Mathari Hospital in line with the changing views and attitudes regarding mental illness. The treatment however, was invariably of custodial nature with a restrictive and

isolated atmosphere of a prison. For many years and until fairly recently Mathari was referred to by the local populace as "JELA LA WAZIMU", translated into English this reads "PRISON FOR THE MENTALLY ILL".

In 1949, the Lunacy Act was introduced to replace the Indian Lunatic Asylum Act hitherto in use.

The Lunancy Act was later revised in 1962 and was consequently renamed and known as the Mental Treatment Act. Another revision was done in 1970.

A new Mental Treatment Act is currently in operation having been revised as recently as 1989 and was launched on 1st May, 1991 by the Minister of Health in the Kenya Government.

The Hospital compound occupies an area of approximately 70 acres. The hospital is divided into a Civil Section and a Maximum Security Unit the latter houses the criminally insane patients. The civil section compound accommodates 6 male wards, 5 female wards, the amenity ward, a children's ward and the occupational therapy department.

Each of the wards is headed by a Consultant Psychiatrist under whom are Psychiatric Registrar and Senior House Offices as well as Medical Officers. In addition each ward has attached to it a Psychiatric Social Worker and Clinical Psychologist. A nursing team under the charge nurse completes the ward staff team. Lastly occupational

therapists are deployed in the occupational therapy apartment. The total in patient population averages about 800 patients on any given day.

b) Functions of Mathari Hospital

1. Mathari Hospital is the main and only referral psychiatric hospital in Kenya.

2. It caters for a large catchment areas including Nairobi City and the environs i.e Kiambu District and Ngong areas from where patients come for in and out patient services.

3. Mathari Hospital also doubles up as a teaching hospital and offers clinical experience to trainees from various health disciplines including Doctors (under and post-graduate), Nurses (basic and post basic enrolled and registered levels), Occupational Therapists, Social Workers, Clinical Officers and Medical Records Technicians.

SELECTION PROCEDURE

a) Subjects

The subjects for the study were all psychiatric in-patients in Mathari Hospital wards. The patients included were those in-patients who indulged in acts of violence (as defined above). The subjects were recruited over a period of three months i.e from October 1990 to December 1990. During this period 142 patients were studied.

INCLUSION CRITERIA

1. All male and female patients over 18 years of age who become violent on the wards were included in the study.

EXCLUSION CRITERIA

1. Only patients under the age of 18 years were excluded.

CONDUCT OF STUDY

The principal researcher endeavoured to instruct each of the ward staff on how to fill the preliminary information questionnaire with utmost care. This was more emphasized for the ward staffs who were more likely to witness a violent incident in the ward. These happened to the subordinate staffs.

Distribution of the preliminary information questionnaire included the occupational therapy department and places of worship as well.

Spot checks were done at all points where the preliminary information questionnaire were distributed to ensure that no incident of violence went unreported.

DATA COLLECTION TECHNIQUE

The data used in this study were obtained from in-patients who qualified to be admitted to the study. This was done through several tools.

1. The first tool was the preliminary questionnaire (Appendix 1) which was administered by the charge nurse or any ward staff who witnessed the incident.

2. The second tool was a secondary information questionnaire designed by the researcher (Appendix II) and which was administered by the principal researcher himself.

3. The third tool was the severity scale developed by Fottrell (1980) (See Appendix III).

3. The fourth tool was the standard psychiatric interview (SPI) marked Appendix IV.

5. The fifth tool was the patients records from which further information was to be extracted.

6. All patients were required to give an informed consent and a consent form for this purpose is annexed Appendix V.

7. Permission to conduct the study was obtained from the Medical Superintendent of Mathari Hospital and the hospital Ethics Committee.

RESULTS

Over a three month period from October 1990 to December 1990 a total of 142 assaultive patients were studied.

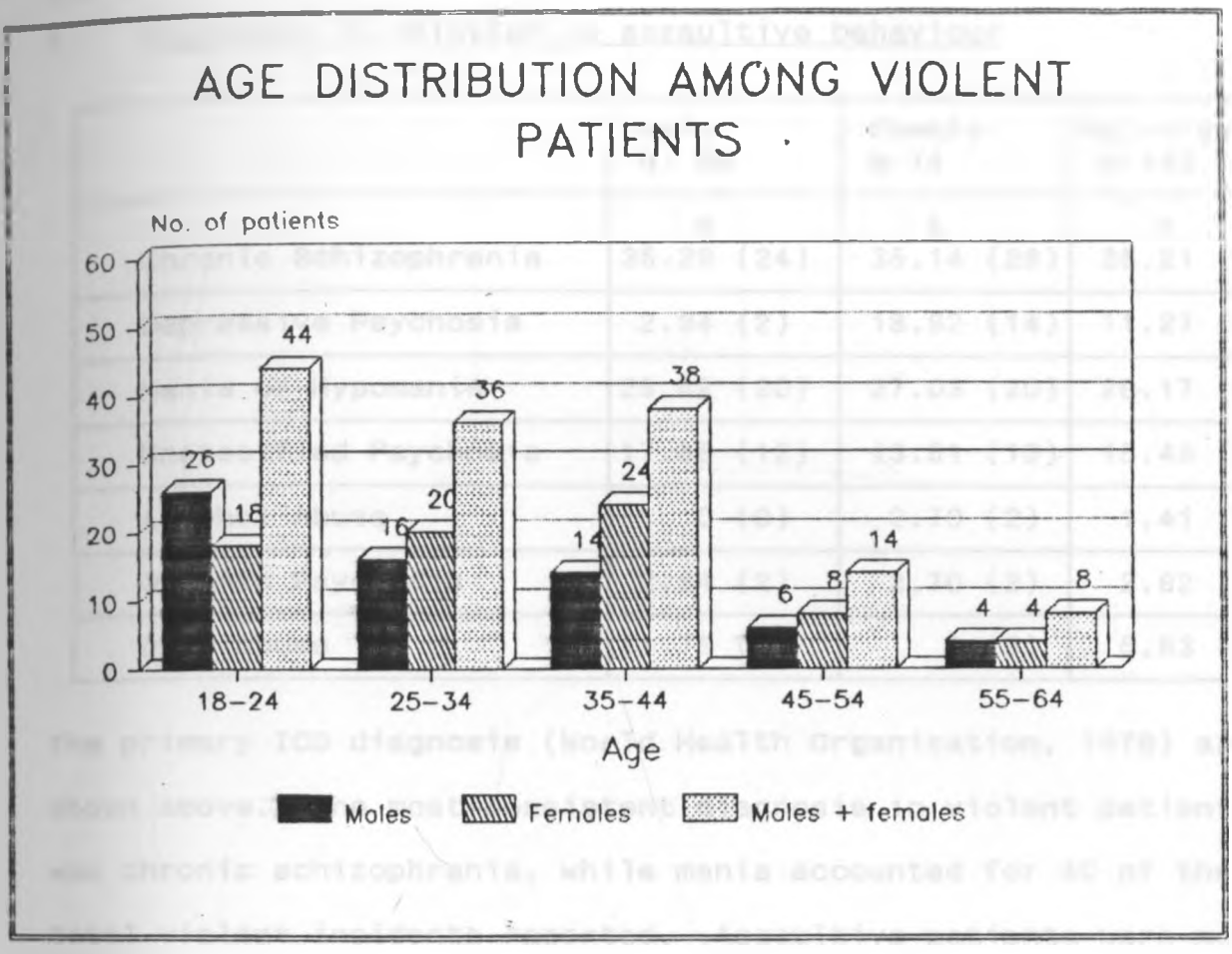
Table 1

Severity of Assaults as per Fottrell (1980) rating scale (see Appendix III)

	Male N: 68	Females N: 74	Male & Female N: 421
Severity I	% 97.06 (66)	% 100 (74)	% 98.59 (140)
Severity II	2.94 (2)	0 (0)	1.41 (2)
Severity III	0 (0)	0 (0)	0 (0)

Violence seen in Mathari Hospital was of trivial nature and usually resulted in Severity I injuries. Of all the violent incidents recorded 98.59% of them were of this nature. Severity II injuries resulted from 1.41% of all violent incidents while there were not injuries warranting inclusion into Severity III. However, some of these assaults rated I and II might have been more serious but for the intervention of the Nursing staffs.

Table 2



The above table shows the age distribution in relation to violence. Most assaults were committed by young adults. But when looked at in greater detail this hold true for the male population but for the female patients violence is a preoccupation of these in the age group 35-44 years.

Table 3
Clinical Features

1. Diagnosis in relation to assaultive behaviour

	Male N: 68	Female N:74	Male+Female N:142
	%	%	%
Chronic Schizophrenia	35.29 (24)	35.14 (26)	35.21 (50)
Depressive Psychosis	2.94 (2)	18.92 (14)	11.27 (16)
Mania or Hypomania	29.42 (20)	27.03 (20)	28.17 (40)
Unspecified Psychosis	17.65 (12)	13.51 (10)	15.49 (22)
Alcohol Abuse	0 (0)	2.70 (2)	1.41 (2)
Organic Psychosis	2.94 (2)	2.70 (2)	2.82 (4)
Drug Abuse	11.76 (8)	0 (0)	5.63 (8)

The primary ICD diagnosis (World Health Organisation, 1978) are shown above. The most consistent diagnosis in violent patients was chronic schizophrenia, while mania accounted for 40 of the total violent incidents reported. Assaultive patients were more severely impaired on such psychotic symptoms as delusions, hallucinations, inappropriate affect and bizarre habits or behaviour. The ratings on the Standardized Psychiatric Interview Schedule also revealed that assaultive patients displayed more agitation, were more negativistic and exhibited more antisocial behaviour.

Patients with a diagnosis of depressive psychosis who turned assaultive were almost exclusively females and they accounted for 14 of the 16 incidents of violence attributed to this group. It is interesting to note that no male alcoholic was reported to be assaultive as opposed to 2 females. Also worth noting is the fact that the diagnosis of drug abuse featured on 8 occasions among the male population and none in the females.

Table 4

2. Legal status of assaultive patients

	Males N:68	Females N:74	Male+Female N:142
	%	%	%
Voluntary	0 (0)	5.41 (4)	2.82 (4)
Court Order	11.76 (8)	13.51 (10)	12.68 (18)
Temporary	82.35 (56)	81.08 (60)	81.68 (116)
Certified	5.89 (4)	0 (0)	2.82 (4)

Of the assaultive group as a whole 81.68% were admitted under temporary restriction orders, while 12.68% were admitted through court orders. Only 2.82% were voluntary admissions. Considering the whole period of study, violent patients were significantly more likely to be detained involuntarily and true to the situation the use of the section (detention) order was itself a response to increasingly disturbed or aggressive behaviour.

Table 5

Previous Aggression and Antisocial behaviour on the ward

	Male N: 68	Female N:74	Male+Female N:142
	%	%	%
Nil	61.76 (42)	48.66 (36)	54.93 (78)
Damage to Property	8.82 (6)	13.51 (10)	11.27 (16)
Verbal Aggression	14.71 (10)	24.32 (18)	19.72 (28)
Threatening Behaviour	14.17 (10)	13.51 (10)	14.08 (20)

The above table shows behavioural characteristics exhibited by patients prior to the assaultive behaviour. The majority (54.93%) of the patients had no history of violence prior to the key incident. However, of those who turned assaultive some had signaled their intention to do so by some overt behaviour characteristics for example damage to property 11.27%, verbal aggression 19.72% and threatening behaviour.

Table 6

Assaultive behaviour in comparison to length of stay in hospital

	Males N:68	Females N:74	Male+Female N:142
	%	%	%
1 - 2 Weeks	73.53 (50)	72.97 (54)	73.24 (104)
3 - 4 Weeks	2.94 (2)	8.11 (6)	5.64 (8)
4 - 6 Weeks	14.71 (10)	13.51 (10)	14.08 (20)
More	8.82 (6)	5.41 (4)	7.04 (10)

Table 7

Number of previous admission in assaultive patients

	Males N:68	Females N:74	Male+Female N:142
	%	%	%
First	47.06 (32)	43.24 (32)	45.07 (64)
Second	8.82 (6)	13.51 (10)	11.27 (16)
Third	11.76 (8)	27.03 (20)	19.72 (28)
More	32.36 (22)	16.22 (12)	23.94 (34)

Patients who were the subject of a first admission were the most assaultive of all the population studied and violent incidents in this group made up 47.06% of male and 43.24% of female of all those recorded.

Newly admitted patients are violent for severally postulated reasons one of them being that they view the restrictions placed on them, for example refusal to leave, as intolerable hence the reactive aggression. This observation is again reported when assaultive behaviour is compared to the length of stay of patients in hospital. Assaultive behaviour is most likely to happen during the first week of admission when patients are very ill. There is also another spike in violence during the third week of hospitalization, possibly due to the improved mental state of patient who then view the restrictions placed on them as intolerable.

Table 8

Marital Status in Assaultive Patients

	Male N: 68	Female N:74	Male+Female N:142
	%	%	%
Now Married	20.59 (14)	40.53 (30)	30.99 (44)
Single	67.65 (46)	35.14 (26)	50.70 (72)
Divorced	0 (0)	5.41 (4)	2.82 (4)
Separated	8.82 (6)	13.51 (10)	11.27 (16)
Widowed	2.94 (2)	5.41 (4)	4.22 (6)

Table 9

Employment Status in Assaultive Patients

	Males N:68	Females N:74	Male+Female N:142
	%	%	%
Unemployed	73.53 (50)	81.08 (60)	77.47 (110)
Part Time	2.94 (2)	8.11 (6)	5.63 (8)
Full Time	23.53 (16)	10.81 (8)	16.90 (24)

As a group patients who turn violent in Mathari Hospital can be said to come from socially isolated environments. This is so because 50.7% of them were single, 11.27% separated and only 30.99% were living with a spouse.

Examination of the work histories indicated that 77.47% of all assaultive patients were unemployed at the time of admission. While only 16.90% of them were in full time employment, 5.63% were said to have part-time employment prior to admission.

Table 10

If intervention was by staff - How many were required

	Males N:68	Females N:74	Male+Female N:142
	%	%	%
One	2.94 (2)	18.92 (14)	11.27 (16)
Two	38.24 (26)	54.06 (40)	46.48 (66)
Three	38.24 (26)	24.32 (18)	30.97 (44)
Four	17.64 (12)	2.70 (2)	11.27 (14)
Five	0 (0)	0 (0)	0 (0)
Very many	2.94 (2)	0 (0)	1.42 (2)

Table 11

Who intervened during violence

	Male N: 68	Female N:74	Male+Female N:142
	%	%	%
Other patients	14.71 (10)	27.03 (20)	21.13(30)
Subordinate staff	64.71 (44)	89.19 (66)	77.46(110)
Nurses	91.18 (62)	43.25 (32)	66.20(94)
Doctors	0 (0)	1.35 (2)	0.70 (2)
Other people from outside	0 (0)	0 (0)	0 (0)

In almost all incidents intervention was solely by Nursing staff that is by subordinate staff and staff nurses. A Doctor was involved once. On that occasion it was the duty doctor who was called upon to assist. Some 57.75% of the violent incidents were dealt with by two or fewer staff and 43.65% incidents by three to five staff members.

Table 12

How many people were assaulted?

	Males Patients N: 68	Females Patients N:74	Male+Female Patients N:142
	%	%	%
One	35.29 (24)	89.19 (29)	63.37
Two	38.24 (26)	8.11 (6)	22.54
Three	17.65 (12)	2.70 (2)	9.86
Four	5.88 (4)	0 (0)	2.82
Five	2.94 (2)	0 (0)	1.41
More	0 (0)	0 (0)	0

In the majority of incidents studied (63.37%) only one person was assaulted. However 22.54% of violent incidents resulted in injury to 2 people, while in 9.86% of the incidents 3 persons were injured. Four people were injured in 2.82% of incidents, while 1.41% of assaultive patients injured five people.

Table 13

Type of weapon used if any

	Male N: 68	Female N:74	Male+Female N:142
	%	%	%
Hand (Fist)	91.18 (62)	94.60 (70)	92.96 (132)
Stick + Others	8.82 (6)	5.40 (4)	7.04 (10)

Weapons used by both female and male patients were a fist in 92.96% of the incidents. A stick picked up within the ward premised and other weapons for example food bowl and drinking cup were used in 7.04% of all violent incidents.

Table 14

Day of the week in relation to assaultive behaviour

	Male N: 68	Female N:74	Male+Female N:142
	%	%	%
Monday	17.65 (12)	16.22 (12)	16.90 (24)
Tuesday	17.65 (12)	29.73 (22)	23.94 (34)
Wednesday	23.53 (16)	13.51 (10)	18.31 (26)
Thursday	14.71 (10)	5.41 (4)	9.86 (14)
Friday	11.76 (8)	13.51 (10)	12.68 (18)
Saturday	2.94 (2)	10.81 (8)	7.04 (10)
Sunday	11.76 (8)	10.81 (10)	11.27 (16)

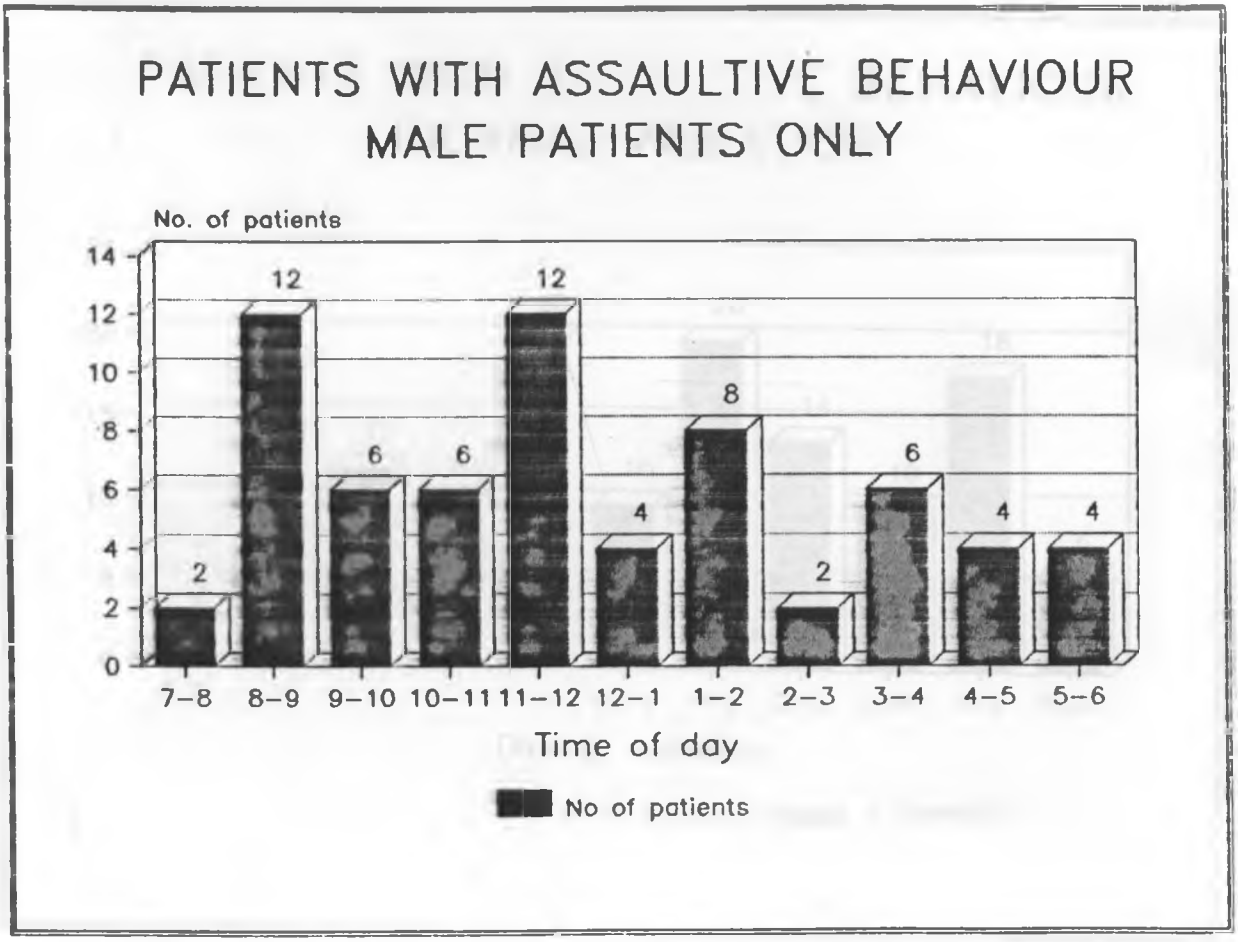
The above table shows the daily totals for the aggressive incidents. The fewest assaults occurred on Saturday. This could be because of reduced organized activity. Tuesday recorded the highest number of incidents.

Table 15

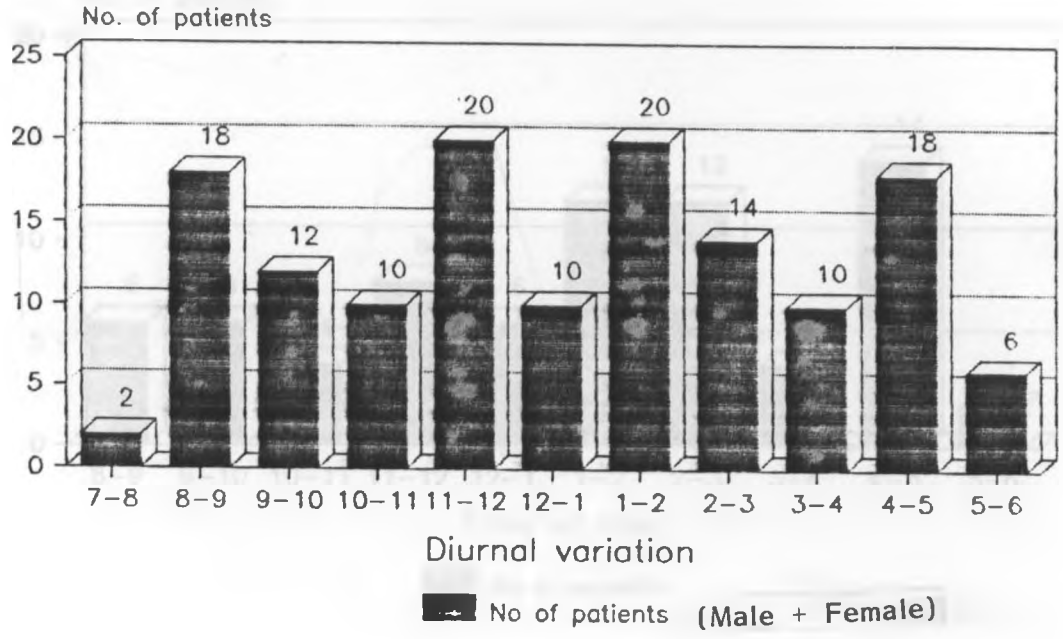
To whom violence was directed?

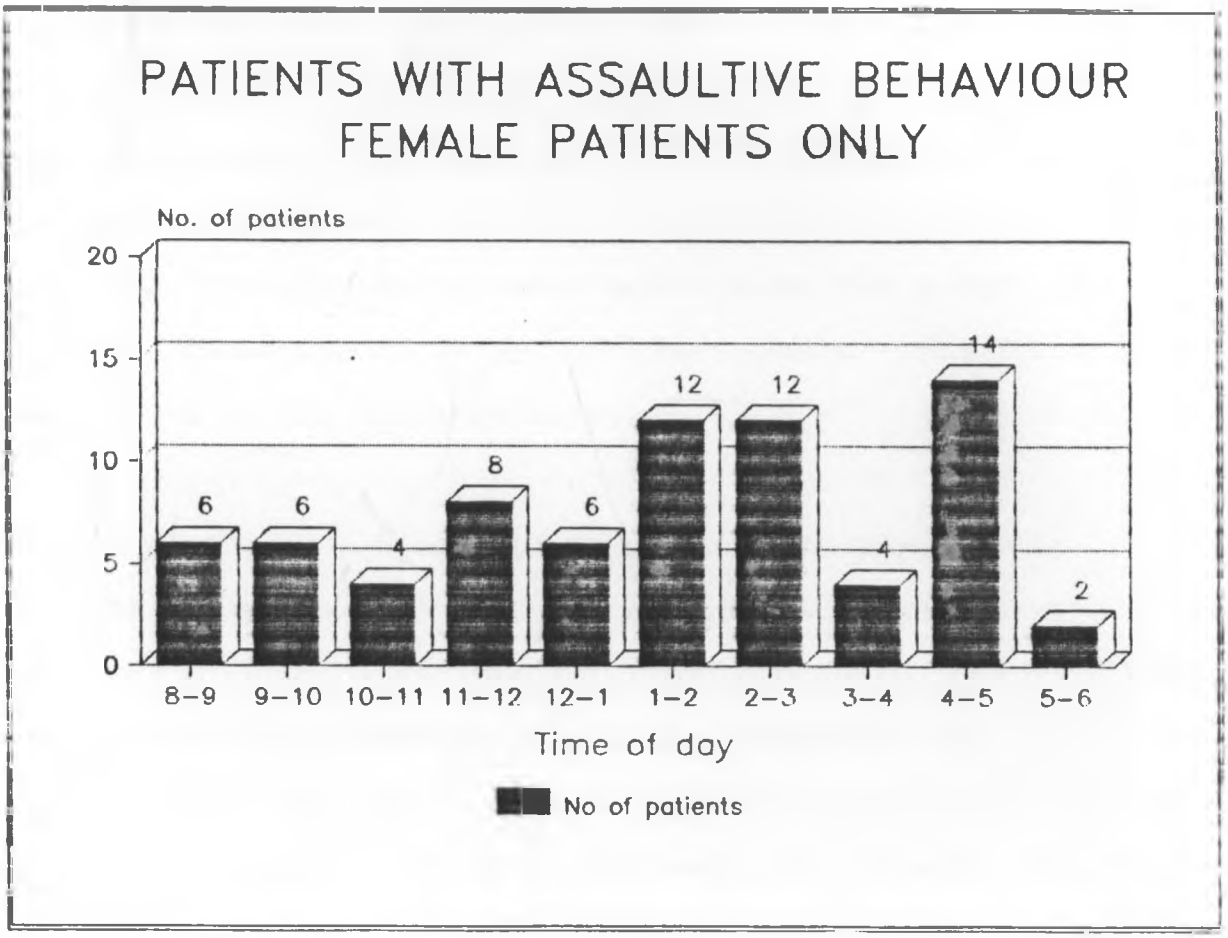
	Male N: 68	Female N:74	Male+Female N:142
	%	%	%
Fellow patient	50.0 (34)	89.19 (66)	70.42
Subordinate staff	44.12(30)	10.81 (8)	26.76
Nurse	23.53(16)	2.70 (2)	12.68
Doctor	0 (0)	0 (0)	0
Visitor	14.17(10)	0 (0)	7.04
Self	2.94(2)	0 (0)	1.41
Any object specify	0 (0)	0 (0)	0

The most common victims were fellow patients to whom violent was directed in 70.42% of all recorded violent incidents. Subordinate staff were assaulted on 38 occasions; Nurses on eighteen; visitors ten and Doctors were not assaulted at all.


PATIENTS WITH ASSAULTIVE BEHAVIOUR
MALE PATIENTS ONLY
No. of patients
14
12
10
8
6
4
2
0
2
12
6
6
12
4
8
2
6
4
4
7–8
8–9
9–10
10–11
11–12
12–1
1–2
2–3
3–4
4–5
5–6
Time of day
No of patients

PATIENTS WITH ASSAULTIVE BEHAVIOUR
DIURNAL VARIATION




PATIENTS WITH ASSAULTIVE BEHAVIOUR
FEMALE PATIENTS ONLY
No. of patients
20
15
10
5
0
6
6
4
8
6
12
12
4
14
2
8–9
9–10
10–11
11–12
12–1
1–2
2–3
3–4
4–5
5–6
Time of day
No of patients

Diurnal variation of aggression is displayed on the bar charts available. There are increased incidences of assault between 8-9 a.m., 11-12 a.m., 1-2 p.m., and 4-5 p.m. These spikes in aggression correspond to periods of intense activity which coincide with breakfast and early morning general cleaning, lunch time and supper time respectively. These are times during which close human contact is inevitable.

DISCUSSION

Several studies including Tardiff and Sweillam (1982) and Haller and Deluty (1988) have described an apparent increase in violent behaviour by psychiatric in-patients in recent years. The data are often impressionistic and not the result of systematic longitudinal studies. The limitations of retrospective study is that the unreporting and under reporting of violence and aggressive behaviour by patients or verbal aggression leading to physical violence goes unnoticed. In the Mathari Hospital there are no previous studies to compare and gauge the extent of violence. Consequently it is not known whether assaultive behaviour is on the increase or otherwise.

Fottrell (1980) in a study conducted in three psychiatric hospitals found the vast majority of violent incidents were of a petty kind qualifying for Severity I on his rating scale. Those incidents he noted were perpetrated by psychotic women under the age of 50 years and with a history of violence on the ward. In this study female patients (52.11%) were over represented in the population of violent patients and 32.43% of these were aged 35-44 years. This finding may be more interesting if one speculates that men are more likely than women to be hospitalized for assaultive behaviour in the community. This speculative explanation may be true but since no male or female admission rates are available the interpretation of this finding is limited.

The overall view is that aggression is considered more appropriate for males in our society than for the female sex. In this study female patients who were assaultive outnumbered men by eight. This may suggest that blurring of sex role difference occur once a person becomes a chronic patient in a mental hospital.

LIMITATIONS AND CONSTRAINTS

1. Reporting of violent incidents in the ward is a sensitive and problematic issue. Some members of nursing staff view the occurrence of assaults as reflecting poorly on their "vigilance" and hence poor work record. In this respect the nursing staff are most likely to disregard certain incidents of assault. This led to some degree of under-reporting of assaultive behaviour by patients. This was the most difficult problem to overcome in this study.

2. Although nursing staffs were adequately educated on the criteria for recruiting of patients for the study, there was one draw back in that violence reported depended on the concept of what each individual nurse had of it. That it was at their discretion to include or exclude any incident of assaultive behaviour.

3. The period of three months in which the study was conducted was very short. Consequently not enough data could be collected from which conclusive results could be derived. A longer period such as twelve months is more desirable.

4. Only incidents of assault that had been witnessed by members of staff could be documented. This forced the principal researcher to include only incidents occurring between 7.00 a.m in the morning and 6.00 p.m in the evening when the nursing staff were in full contact with the patient.

The most likely victims of in-patient aggression in this study were fellow patients. However among the ward staff, nurses and subordinate staffs who are in close contact with in-patients, were by far the most commonly assaulted group of staff.

The mean age of the violent patient in this study was 31.7 years, but there was a considerable spread of violence throughout the age range studied. Tanke and Yasavage (1985) reported no relationship between age and aggression. Fottrell (1980) and Pearson et al (1986) reported most assaultive behaviour in young adults, which was supported by Tardiff and Sweillam (1982). However mental state and age may be more important than sex in determining whether a patient strikes out at other persons in the hospital, (Tardiff and Sweillam (1982).

There is a positive association between a diagnosis of schizophrenia and violent behaviour for patients in the community and in hospital (Fottrell, 1977, 1980; Tardiff and Sweillam, 1980, 1982; Rossi et al 1986) The question is whether the association is stronger for paranoid schizophrenia than for other types of schizophrenia. In this study the diagnosis of chronic paranoid

schizophrenia was the most common diagnosis for both male and female patients. Very few violent patients had a primary diagnosis of organic brain disease, e.g, epilepsy, drug addiction or alcoholism in spite of the fact that the Mathari Hospital population has quite a number of these patients from its catchment area.

Figures on unemployment were high in both female and male assaultive patients 81.08% and 73.53% respectively. This was not surprising in that in as far as securing and maintaining a job the mentally ill are severely handicapped. Results from one study (Tardiff and Sweillam 1980) suggest that for both male and female patients, those who had never married were more likely than not to be assaultive. The observation was borne out by this study which revealed that of all patients who turned assaultive the majority were single (50.70%).

Though in this study the majority (54.93%) of violent patients had no previous history of aggressive behaviour, some did indeed exhibit such behavioural characteristics for example damage to property (11.27%), verbal aggression (19.72%) and threatening behaviour (14.08%) prior to the key incident. Aiken (1984) in a study of patients on the hospitals locked Intensive Care Ward, found that 80% of assaults were preceded by changes in the assaillant's speech and movement and that changes in posture were significantly associated with serious assaults.

Previous authors have considered the difficulties associated with the prediction of violence in psychiatric patients. Thus Yasavage et al (1983) showed that 15 psychiatrists and 15 psychologists were inaccurate in predicting which of 40 male in-patients would commit assault within one week of admission. Monahan (1984) advocated the development of actuarial techniques with objective demographic data to assist in making clinical judgment.

In this study 45.07% of the violent patients were on their first admission, while 59.93% had two or more previous admissions. The assaults tended to be preceded by other clear evidence of aggression and thus by the time of their key incident the great majority of the violent patients were already well known to the staff and well known to be aggressive. In practise the identification of the potentially violent patient depends most on good communications, good clinical recording and the ready availability of case notes. No firm conclusions could be drawn from data collected on ethnicity.

CONCLUSION

1. From the above data several trends emerge. Assaults by psychiatric in-patients are trivial in nature. The male culprits are young adult schizoprenics and are impaired on such psychotic symptoms as delusions and hallucinations. Among the females assaultive behaviour was perpetrated by depressives aged 35-44 years. Assaults were maximal during the first and fourth week after admission in the two populations.

2. The accumulated results from all studies to date present inconsistent findings on just about every demographic variable that has been studied. The results of this study add to this cumulative inconsistency. Without doubt part of this inconsistency is attributable to the variations in methods, definitions and patient populations used in the different studies. The inconsistency may reflect the possibility that demographic variables are not very useful in either understanding or predicting violence within the population of the mentally ill, and that the severity of pathology is more important.

RECOMMENDATIONS

1. Future research examining the correlates of violent behaviour in psychiatric in-patients may be more useful if it focuses on the type and degree of patients' psychopathology rather than on the patients' demographic characteristics.

2. It also remains for future research to identify other high risk groups and to determine in what way if any, demographic variables interact with clinical variables to either increase or decrease the risk of violent behaviour by psychiatric in-patients. This therefore calls for a controlled study.

APPENDIX I

MATHARE MENTAL HOSPITAL, NAIROBI, KENYA

CHARACTERISTICS OF PSYCHIATRIC IN-PATIENTS
WHO ENGAGE IN ASSAULTIVE BEHAVIOR IN MATHARE HOSPITAL

PART I: Preliminary Information questionnaire

Ward:_____ Date:_____

Time:_____

1. Patient's Name:_____

   Hospital No: _____

2. Preceding event before violence

1 2 3

- Was alone ☐ 1
- Had company ☐ 2
- Quarrelled ☐ 3

- Any other specify _____

3. To whom violence was directed

4 5 6 7 8 9

- Fellow patient ☐ 4
- Subordinate staff ☐ 5
- Nurse ☐ 6
- Doctor ☐ 7
- Visitor ☐ 8
- Self ☐ 9

- Any object specify _____

4. How many people were assaulted

10 11 12 13 14

- One 10
- Two 11
- Three 12
- Four 13
- Five 14

5. Was any weapon used? 15 16

- Hand (fist) 15
- Stick 16

Any other(specify)_____

6. What day of the week is it?

17 18 19 20 21 22 23

- Monday 17
- Tuesday 18
- Wednesday 19
- Thursday 20
- Friday 21
- Saturday 22
- Sunday 23

7. Who intervened during violence? 24 25 26 27 28

- Other patients ☐ 24
- Subordinate staff ☐ 25
- Nurses ☐ 26
- Doctors ☐ 27
- Other people from outside ☐ 28

8. If intervention was by staff, How many were required?

29 30 31 32 33 34

- One ☐ 29
- Two ☐ 30
- Three ☐ 31
- Four ☐ 32
- Five ☐ 33
- Very ☐ 34

9. Was violent act 35 36 37

- Impulsive ☐ 35
- Spontaneous ☐ 36
- Provoked ☐ 37

10. Was violent act done 38 39

- Individually ☐ 38
- In a group ☐ 39

APPENDIX II

PART I Secondary Information Questionnaire

Place/Ward: _____ Interviewer: _____

Date: _____ Time: _____

Patient's Name: _____ Hospital No: _____

1. Sex

45 46

- Female ☐ 45
- Male ☐ 46

Age

47 48 49 50 51 52

- 18-24 ☐ 47
- 25-34 ☐ 48
- 35-44 ☐ 49
- 45-54 ☐ 50
- 55-64 ☐ 51
- Unknown ☐ 52

3. Tribe (Ethnic Group) Specify _____

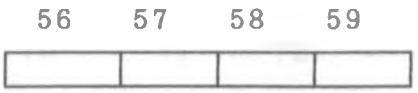
If foreigner specify _____

4. Source of referral to hospital

53 54 55

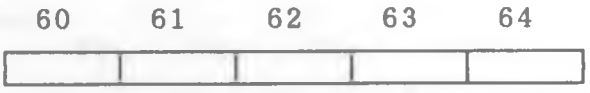
- Public health centre ☐ 53
- Police (involuntary) ☐ 54
- Self (voluntary) ☐ 55

5. Previous admission



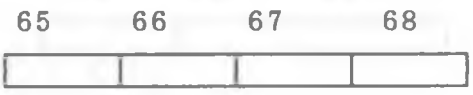
- First 56
- Second 57
- Third 58
- More 59

6. Marital Status



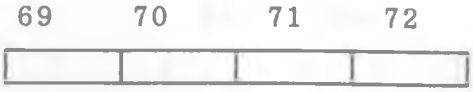
- Now married 60
- Single 61
- Divorced 62
- Separated 63
- Widowed 64

7. Type of Admission



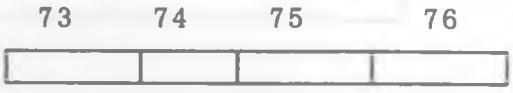
- Voluntary 65
- Involuntary
- Magistrates Court Order 66
- Temporary 67
- Certified 68

8. Education



- Primary
- Secondary
- University
- Nil

9. Length of stay in hospital

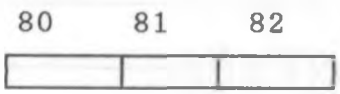


- 1-2 weeks
- 3-4 weeks
- 4-6 weeks
- More

10. Any known previous history of violence in the ward.

- Nil
- Damage to property
- Verbal Aggression
- Threatening behavior

11. Employment Status



- Unemployed
- Part-time
- Full-time

12. Body Build

83 84 85

- Large ☐ 83
- Medium ☐ 84
- Small ☐ 85

13. Assessment of reliability of information

86 87 88

- Good ☐
- Fair ☐
- Poor ☐

14. Principal Diagnosis _____

_____

_____

15. Severity I _____

_____

Severity II _____

_____

Severity III _____

_____

16. Remarks _____

_____

_____

_____

_____

APPENDIX III

THREE POINT SCALE DEVELOPED BY FOTTRELL (1980)

SEVERITY I — An assault not resulting in any detectable injury

SEVERITY II — An assault resulting in minor physical injuries such as bruising abrasions and small lacerations.

SEVERITY III — An assault resulting in major physical injuries including large lacerations, fractures, loss of consciousness or any assault requiring subsequent investigations or treatment.

APPENDIX IV

RESEARCH PROJECT: PART II PM ☐

STANDARDIZED PSYCHIATRIC INTERVIEW - Modified Clinical Interview Schedule to be completed by the Psychiatrist).

No:..... DATE: .....

PATIENT:..... AGE:.....

BRIEF SUMMARY OF COMPLAINTS AND DURATION OF ILLNESS.....
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.....
.....
.....
.....
.....
.....
.....
.....
.....

Follow instructions on rating and the use of SPI from the manual on SPI, GPRU 91970).

II. 1. SYMPTOMS

SYMPTOM	CIRCLE THE RATING	REASON FOR MORBID RATING
i. Somatic Symptoms	0 1 2 3	
ii. Fatigue	0 1 2 3	
iii. Sleep Disturbance	0 1 2 3	
iv. Irritability	0 1 2 3	
v. Lack of concentration	0 1 2 3	
vi. Depression/ unhappiness	0 1 2 3	
vii. Worry/ anxiety	0 1 2 3	
viii. Phobia	0 1 2 3	
ix. Disordered libido	0 1 2 3	
x. Bewitchment	0 1 2 3	

Sub-total.....

II. 2. ABNORMALITIES OR BEHAVIOUR

ITEMS	CIRCLE THE RATING	STATE REASON FOR MORBID RATING
i. Slow lacking Spontaneity	0 1 2 3	
ii. Suspicious Defensive	0 1 2 3	
iii. Histrionic		

Sub-total.....

III. 3. ABNORMALITIES OF MOOD

ITEMS	CIRCLE THE RATING	STATE REASON FOR MORBID RATING
i. Depressed		
ii. Anxious, agitated tense	0 1 2 3	
iii. Elated, euphoric	0 1 2 3	
iv. Flattened, incongruous	0 1 2 3	

Sub-total.....

II. 4 PERCEPTION AND COGNITIVE ABNORMALITIES

ITEMS	CIRCLE THE RATING	STATE REASON FOR MORBID RATING
i. Excessive concern with bodily functions	0 1 2 3	
ii. Depressive thought content	0 1 2 3	
iii. Delusion, thought disorder, misinterpretations	0 1 2 3	
iv. Hallucinations	0 1 2 3	
v. Intellectual impairment	0 1 2 3	

Sub-total.....

II. 5 FAMILY PSYCHIATRIC HISTORY

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II. 6 BRIEF PERSONAL AND SOCIAL HISTORY

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II. 7. SUMMARY AND FORMULATION

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II. 8. ASSESSMENT OF THE RELIABILITY OF INFORMATION

(i) Good (ii) Fair (iii) Poor ☐

II. 9 ICD DIAGNOSIS

Principal Diagnosis..... ☐☐

Ancillary Diagnosis..... ☐☐

ICD (8) Category..... ☐☐☐☐

II. 10. OVERALL SEVERITY RATING 0 1 2 3 ☐

REMARKS .....

.....

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.....

.....

MANDATORY QUESTIONS ON SPI - SYMPTOMS

1. Somatic Symptoms:

   i) Have you noticed anything else wrong with your health apart from the things that you have already told me?

   ii) In the past week, have you been troubled with headache or indigestion? Anything else?

2. Fatigue:

   i) Have you noticed that you get tired easily?

   ii) Or that you seem to be lacking in energy?

3. Sleep disturbance:

   i) What about your sleep?

   ii) Have you lost sleep in the last week?

   iii) Do you have difficulty dropping off?

   iv) Are you restless at night?

   v) Do you wake early?

4. Irritability:

   i) Do you find that you are easily upset or irritable with those around you?

   ii) Do you lose your temper or get angry easily?

5. Lack of Concentration:

   i) Do you find it difficult to concentrate?

   ii) Do you get muddled or forgetful?

6. Depression/Unhappiness:

   i) How have you been feeling in your spirits in the past week?

   ii) Have you at times felt sad, unhappy or miserable?

7. Worry/Anxiety:

   i) Do you find that you get anxious or frightened for no obvious reason?

   ii) Do you worry a lot on trivial matters?

8. Phobias:

   i) Are you scared or frightened of certain things or situations for no good reason?

   ii) When?

   Where?

9. Disordered Libido:

   i) Do you find any change in your sexual performance, desire or frequency?

   ii) Have you lost interest in marital relationship?

10. Bewitchment:

   i) Do you think that bewitchment, spirits or witchcraft are responsibility for your present condition or sickness?

   ii) How?

APPENDIX V

CONSENT FORM

I.....hereby willingly accept to give information, submit to medical examination and otherwise co-operate with researcher and his assistants in this study on violent behaviour by in-patients.

I understand that all information will be kept in strict confidence and my name shall not appear on any published materials.

The study has been explained to my by Dr. Nyaura.

Signature: Patient.....

Doctor .....

Date: .....

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