

Seclusion in a Moroccan Adult Psychiatry Unit

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Abstract

Original Research Article

Despite significant advances in the pharmacological treatment of mental disorders, seclusion is still used in daily practice for patients hospitalized in Moroccan psychiatric institutions. Staff generally prefers to avoid using these procedures, as they limit the patient's freedom and undermine his or her dignity. However, it is sometimes necessary to do so to manage extreme episodes of dangerous behavior that threatens the safety of the patient and those around them. We aim in this study to identify the factors that impact the average duration of seclusion and to deduce, if possible, recommendations and measures to optimize or even reduce this time. This is a one-year retrospective study, conducted in the psychiatric department of IBN ROCHD University hospital in Casablanca-Morocco. The study includes data from 169 patients admitted during the entire year of 2018. Multivariate logistic regression analysis was employed to identify factors associated with the duration of seclusion. Based on the results of our study, it appears that the only socio-demographic factor that has a significant impact on the duration of the isolation is marital status. Also, for patients with a personal psychiatric history, the isolation was shorter. Furthermore, it was observed that patients who self-harmed resided longer in seclusion rooms. Regarding the medical diagnosis, it seems that schizoaffective disorder is the only diagnosis that leads to a longer period of isolation than others. Post-seclusion observations indicate that patients whose condition has deteriorated are placed in an extended placement. Although seclusion is not part of the patient's standard treatment, such an intervention may be implemented as an emergency treatment for patients exhibiting behavior that is dangerous to themselves or others. In addition, it would also be necessary to consider Morocco's reality with its cultural aspects but also to deal with the lack of human and material resources from which our health care system suffers.

Keywords: Seclusion; coercion; psychiatry, inpatient, safety, recommendations.

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INTRODUCTION

The seclusion method is closely associated with the development of psychiatric institutions, especially the establishment of emergency units and milieu therapy. The clinical concept of seclusion implies the retention of an inpatient in a bare room to contain a situation that may result in an emergency [1]. However, it must take place after other forms of care have failed. The use of the isolation room is a clinical prescription that must respond to a benefit-risk equation. Moreover, it is often accompanied by psychological repercussions. It is only considered therapeutic only if it is really accompanied by a follow-up and monitoring.

At the university psychiatric center of Casablanca, as in the many psychiatric institutions

where therapeutic isolation is recommended, it has a double objective, therapeutic and security. On the one hand, it is therapeutic because it allows, in an optimal time frame, to reduce and control the environmental stimuli to which the patient is exposed. On the other hand, it is considered a preventive measure, with the objective of maintaining safety in the internal environment of the university psychiatric center. This study focuses on patients placed in seclusion rooms, admitted voluntarily and involuntarily, and attempts to find the parameters that influence the duration of this seclusion measure in the university psychiatry department of Casablanca.

MATERIALS AND METHODS

This is a one-year retrospective study, conducted in the psychiatric department of Casablanca

university hospital, Morocco. The study includes data from 169 patients admitted during the entire year 2018. The data were extracted from the records of patients who underwent seclusion procedures during this period. The patient descriptions were treated confidentially and anonymized by removing any information that could identify the patients. The objective is to verify the existence of a statistical link between the duration of seclusion and various socio-demographic and clinical parameters characterizing the group of patients. In fine, this work could also help us to make recommendations concerning the use of seclusion depending on the patients, to supervise it, and potentially improve it in psychiatric emergencies in Morocco.

The parameters analyzed were:

- Socio-demographic and include age, social level, professional activity, marital status, level of education, and legal status at admission.
- Clinical and include hospitalization patterns, diagnoses, prior history, prescribed treatments, presence of contraindications, length of time in the room, clinical course, and evolution.

As a reminder, isolation in our study is defined as the placement of the patient in a locked room. During isolation, patients are observed by the nursing staff via rounds. Prior to their placement in segregation, the medical staff, often the nurse under the supervision of the psychiatrist on duty administers the patient's sedative medication including neuroleptics and benzodiazepines.

Analysis of the duration of Seclusion

We have chosen to study the variable "duration of seclusion". This variable includes two variants, the duration of the first placement in the room and the total duration in case of multiple placements in the room. After the study, we decided to focus on the total duration (expressed in days) because it is more relevant and has a slightly more "normal" statistical distribution. To analyze this variable, we used the analysis of variance (ANOVA). Which tests the hypothesis that the average duration of two or more populations is equal? ANOVAs assess the importance of one or more factors by comparing the means of the average total duration of seclusion for the different levels of factors. The null hypothesis states that all population mean (factor level averages) are equal, while the alternative hypothesis states that at least one of them differs. To perform this ANOVA on the average duration of isolation, we have the socio-demographic and clinical factors, each of which has two or more levels characterizing the patient

RESULTS

Our analysis focused on the 169 patients who were admitted in the year 2018. In our study, the sex ratio of females to males was 0.3 and the most frequent

age group was 25-35 years. 71.6% were single, with a low socioeconomic level of 59.2%, 68.6% of the patients were hospitalized at the request of the family, and aggressiveness was the most frequent reason for admission with a percentage of 72.8%. Among the patients 45.6% had schizophrenia, 5.3% had schizoaffective disorder, 26.6% had bipolar disorder, 3.6% had a diagnosis of depressive disorder, and 12.4% had a diagnosis of isolated mania. All the socio-demographic and clinical data are in Tables I and II. Average length of stay for males is 8.16 days and 8.09 days for females. Based on the results of our study, it appears that the only factor socio-demographic factor that significantly impacts the duration of seclusion is marital status. Indeed, our observations concluded that patients with family support (married) spend less time in isolation than divorced patients. It can therefore be hypothesized that increased social support to the populations without this type of support would reduce the time spent in the seclusion room.

It is, therefore, conceivable to recommend that the medical profession pay more attention to these issues and seek family support for patients whenever possible. Secondly, the hospitalization modalities have an impact on the duration of isolation. Indeed, patients hospitalized under a legal decision stay longer in a seclusion room than those hospitalized at the request of a member of their family members. Once again, the impact of the family is paramount.

However, one can question the interest of the seclusion measure for this type of population. A more in-depth study would be necessary. The only two factors related to history are psychiatric personal and medical-surgical. For patients with a personal psychiatric history, there is a shorter time to isolation. Furthermore, we observe that patients who self-harm reside in seclusion longer than others. It seems, in this case, that the act of self-injury pushes the medical profession to keep this type of population in seclusion longer. One might ask why this factor is so discriminating compared to the others, namely: suicide risk, Heteroaggressiveness, confusion, and disorganization. Is it not a subjective judgment of the caregivers regarding the visible physical injuries?

For the medical diagnosis, it seems that schizoaffective disorder is the only diagnosis leading to a longer period of isolation. Finally, the post-seclusion observations indicate that patients whose condition has deteriorated are placed in deteriorated undergo a prolonged placement. We, therefore, wonder about the interest and the seclusion. This observation is reinforced by the longer duration of patients who are discharged against medical advice. All the significant associations were gathered in Table III.

TABLE 1: Sociodemographics characteristics

Category	Sub-category	Number	Percentage
Sex	Female	41	24.3
	Male	127	75.1
Age	0-18ans	5	3.0
	18-25ans	52	30.8
	25-35ans	66	39.1
	35-45ans	28	16.6
	>45ans	18	10.7
Marital status	Single	121	71.6
	Married	24	14.2
	Separated	1	0.6
	Divorced	17	10.1
	Widowed	2	1.2
Socio-economic level	Low	100	59.2
	Average	51	30.2
	High	14	8.3
Profession	Yes	98	58.0
	No	67	39.6
Educational background	Yes	157	92.8
	No	6	3.6

TABLE II: Clinical characteristics

Category	Sub-category	Number	Percentage
Admission Reason	Aggressivity	123	72.8
	Agitation	20	11.8
	Suicidality	22	13.0
	Behavioral disorder	7	4.1
Method of hospitalization	Family	116	68.6
	Administrative authorities	41	24.3
	Legal authorities	11	6.5
Seclusion reason	Aggressivity	121	71.6
	Agitation	50	29.6
	Confusion	4	2.4
	Suicidality	27	16.0
	Self-mutilation	13	7.7
History	Psychiatric history	148	87.6
	History of psychiatric hospitalization	58	34.3
	History of seclusion	48	28.4
	Medical and surgery history	47	27.8
	History of drug use	123	72.8
	History of suicidal behavior	40	23.7
	Legal history	45	26.6
	Family psychiatric history	56	33.1
Diagnosis	Schizophrenia	77	45.6
	Bipolar disorder	45	26.6
	Brief psychotic disorder	6	3.6
	Acute mania	21	12.4
	Schizoaffective disorder	9	5.3
	Depression	6	3.6
	PTSD	1	0.6
	Substance-related disorders	1	0.6
	Intellectual disability	1	0.6
Treatment	Antipsychotics first generation	162	95.9
	Antipsychotics second generation	68	40.2
	Antidepressants	9	5.3
	Mood stabilizers	5	3.0
	Anxiolytics	26	15.4
	Hypnotics	44	26.0
Evolution	Good	116	68.6
	Bad	41	24.3
	None	11	6.5

Table III: Summary of the main associations found in our study

Type	Temporality	Significant factors on the average duration of seclusion	Correlation with the duration of isolation	Interpretation
Socio-demographic	Pre-seclusion	Marital status	N/A	The married patient supported by family spends less time in seclusion compared to the divorced patient who spends 3.8 more days.
Clinical	Pre-seclusion	Hospitalization arrangements – Legal authorities	Positive	Patients who were hospitalized at the request of their families spend an average of 6.45 fewer days in hospital than those hospitalized by court order and 2.3 days less than those hospitalized following an administrative decision
Clinical	Pre-seclusion	Psychiatric personal history	Negative	Patients with a history of psychiatric illness spend an average of 4.2 fewer days in the seclusion room
Clinical	Pre-seclusion	Medical and surgical history	Positive	Patients with a medical/surgical history spend an average of 3.9 more days in the isolation room.
Clinical	Pre-seclusion	Reason for placing in isolation room – Self-use	Positive	Patients placed for self-harm spend an average of 7.14 days longer in seclusion than other patients placed for other reasons
Clinical	During seclusion	Diagnosis – Schizo-affective	Positive	Patients with dysthymic schizophrenia spend on average more time in isolation than those with depression, bipolar or manic episodes.
Clinical	Post seclusion	Evolution of the patient's condition	N/A	Patients who are getting worse spend an average of 10.05 more days compared to those who are progressing well.

DISCUSSION

A high priority in health services worldwide is a reduction of coercive methods, including seclusion, based on an increased emphasis on human rights, empowerment, and shared decision making [2-4]. Treating psychiatric patients in the least restrictive environment possible is a common aim [5]. Clinically, various forms of seclusion seem to be used as treatment options for different forms of agitation, aggressive behavior, and disorientation [6, 13, 7, 8], and several studies have shown considerable differences in the use of seclusion among various wards and geographical areas [9-12]. This indicates a potential for quality improvement [12], and it appears that there is a major discrepancy between the widespread use of seclusion and its knowledge basis. However, in certain situations, it's the only option to provide harm.

In our study, the fact that heteroaggressiveness did not have an impact on the average duration of seclusion could be explained either by a direct effect of the antipsychotic and sedative treatment or by the existence of an uncontrolled factor. The controlled study of Georgiev *et al.*, [5] having shown the absence of effect of the prescription of a sedative treatment on the length of stay in isolation (the hypothesis tested is that of a reducing effect), the existence of an uncontrolled collinear factor, such as the severity of the

pathology, remains the most probable. In our study, aggressiveness represents, which may seem surprising, 13% for self-aggression and 72.8% for heteroaggression. In fact, isolation must be a last resort and be a measure of last resort and agitation is the main indication, which was the reason for seclusion in 11% of cases. On the other hand, we find a difference in duration when comparing diagnosis of psychotic disorder or mood disorder, specifically schizoaffective disorder, despite this result; we believe that other studies will be necessary to show a link between diagnosis and length of stay, and to identify groups of patients at risk. Based on our study, 45.6% of patients with schizophrenia were admitted to a therapeutic isolation room, and 26.6% of bipolar patients; these patients are the best candidates for interventions and programs to reduce their candidates for interventions and programs aimed at reducing seclusion duration of seclusion. Several types of interventions have been shown to be effective in this area. These include increasing the ratio of caregivers to patients, external debriefing of teams and post-incident analysis, team training and education on the use of numerical data, the involvement of families and users of the care system, and changes in care programs.

However, the number of studies in this area is still limited and efforts, targeted at at-risk populations,

are still needed to be done. Ashcraft and Anthony [14] state that successful seclusion and restraint reduction programs are based on strong leadership direction, policy and procedural change, staff training, consumer debriefing, and regular feedback.

Forster and colleagues [15] focused their training on increasing awareness of factors that lead to agitation and violence, teaching less restrictive interventions, and teaching safe reactions to patient violence. Borckardt and colleagues [16] implemented an engagement model that includes trauma-informed care training, changes in rules and language, patient involvement in treatment planning, and changes to the physical characteristics of the therapeutic environment.

A large study took place in 9 Pennsylvania state hospitals during an 11-year period. According to the authors, "The rate of seclusion decreased from 4.2 to 0.3 episodes per 1,000 patient-days. The average duration of seclusion decreased from 10.8 to 1.3 hours. The rate of restraint decreased from 3.5 to 1.2 episodes per 1,000 patient days. The average duration of restraint decreased from 11.9 to 1.9 hours." Other major reasons were changes in attitude, culture, and environment within the hospitals [17]. When seclusion or restraint is necessary, the least restrictive intervention should be chosen. And that's why we need guidelines for practice; we choose 3 guidelines from different countries:

- **Canada**, Patient Safety Education Program in Canada, le PSEP [18], the use of these restraint methods in response to behavioral emergencies should not be prescribed indiscriminately but implemented based on a physician's instructions. These orders expire after 24 hours. However, before these restraints are used, all other behavioral de-escalation measures have failed. The detainee should be monitored continuously by audio-visual methods or by observing changes in behavior and signs of psychological trauma. It is considered appropriate to observe individuals at frequently scheduled intervals (for example, every 15 minutes).
- **New Zealand**, Mental Health Act in New Zealand [19], the specific cultural needs of patients are recognized throughout seclusion. Individual care plans using alternatives (behavioral support and de-escalation techniques) ensure that seclusion is used only when necessary. Once seclusion is prescribed, observation should be continuous or as frequent as possible for at least the first 10 minutes. Thereafter, assessments every two hours are recommended. Before the end of an eight-hour period, when a decision is made to extend eight hours, to extend seclusion, confirmation should be provided by the initiating and supporting clinicians.
- **United Kingdom**: NICE (National Institute

for Health and Care Excellence) [20], restrictive intervention can only be used if de-escalation strategies and other preventative strategies, including medication have been ineffective and there is a potential risk of injury to carers or other patients if no decision is made.

It is necessary to ensure that the techniques and methods used are proportionate to the risk and potential for severe violence. That it takes into account the physical condition, degree of frailty and age of the patient and, if possible, his or her preferences if these are known.

Finally, these recommendations are similar on many points, one of which is very interesting, the socio-cultural context in countries where multiculturalism is preponderant. Moreover, a study by psychiatrist Andrew Molodynski and Moussaoui [21] observed many disparities between countries in terms of cultural differences and especially the place of the family in society. For example, coercive measures seem to be used more in high-income countries, where the family environment does not play its protective role because of urbanization and individualism. Similarly, culture is a factor influencing practices. If isolation is practiced worldwide, research and its reduction seem to be concentrated in the richer developed countries such as North America and Western Europe.

In total, unless the patient is actively violent, verbal de-escalation should be tried first. The clinician should offer medication and try to involve the patient in decisions about medication. If the patient is an immediate danger to others, restraint is indicated. If the patient is not a danger to others, seclusion should be considered. All patients in restraint or seclusion should be monitored to assess their response to medication and to prevent complications from these interventions. Treatment should be directed toward minimizing time in forced seclusion or restraint. Once the patient has regained control, a more thorough evaluation can be done, followed by further treatment planning, and determining disposition.

In Morocco, the seclusion is done for a maximum duration of fifteen days and takes place on request of the patient or of any public or private person acting in the interest of the patient or his relatives, or officers. The law of April 30, 1959 [22] does not define its purpose or the population targeted by its provisions. It gives no definition of mental health and/or mental illness, and obviously makes no reference to the right to health. This is the Dahir n° 1-58-295 of April 30, 1959[22] relating to "the prevention and treatment of mental illness and the protection of the mentally ill". Our basic legislation on the prevention, treatment, protection, and civil liability of the mentally ill can be found in the same Dahir, but without specifying the

isolation room (Title III specifies the modalities of hospitalization and observation of the mentally ill without any other data).

In Western countries with adequate infrastructure, human and material resources, the recourse to coercive measures is less frequent and both in terms of frequency and amplitude. Such a difference with Morocco could be explained, on the one hand, by the cultural characteristics and prejudices concerning mental illness and on the other hand, by the means and the arsenal put at available to combat it, including the number of staff per patient, the training of the number of staff per patient, the training of the nursing staff and the physical conditions of the psychiatric facilities. Also, Moroccan authorities should put in place a system of the isolation room and detail a decision-making process to ensure that all alternative solutions have been tried. Beyond this framework, a whole process of control on the application of this system is also needed. In addition, it would also be necessary to consider the Moroccan reality with its cultural aspects but also to compose with the material resources from which our health care system suffers. In a systemic review, these were the main interventions for reducing seclusion and restraint in mental health care for adults in Norway [23]:

- Joint crisis plans probably reduce the number of compulsory admissions.
- Systematic evaluation of aggressive behavior in patients admitted to an acute psychiatric ward may reduce the use of restraint and seclusion.
- Counseling towards staff in high-security wards may reduce seclusion and restraint.
- For the other interventions (such as community-care networks, involuntary outpatient commitment programs, and personal advocacy for inpatients) conclusions could not be drawn.

CONCLUSION

The appropriate management of patients with such behavior by psychiatric staff requires some structure and with high-risk behavior requires a certain structure and standards which may be specific to each country, each department and which may differ according to cultures. The indications for limitations of liberty in psychiatric institutions are therefore not always well defined and may be subject to abuse. To counter this, many countries have put in place numerous national directives governing the use of seclusion. For example, New Zealand has developed one of the most successful arsenals for the management of patients in isolation. Our study, with all modesty, has allowed us to see a little more clearly this reality and to be able to communicate it but also the reality of Moroccan patients in isolation. It would therefore be interesting to multiply this type of initiative to support and enrich the data available to us to arrive at the

appropriate system.

DECLARATION OF INTEREST STATEMENT

The authors declare that they have no ties of interest.

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