Reactions of Patients and Psychiatric Hospital Staff About Physical Restraint

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Abstract

The use of physical restraint in a variety of health care settings, has received increased attention in recent years. Restraint when used properly, can be a life saving and an injury sparing measure. However, it has a potential for abuse if used improperly.

The responsibility of ordering restraint is that of the physician, and his opinion and experience toward restraint is one of the significant factors affecting the frequency with which this intervention is used. Nurses are often on the front line, interacting with patients who may be violent or who display disruptive behavior, and they may choose to use restraint as an intervention.

From the patients' perspective, restraint can be understood as a form of assault, humiliation and detention. The controversy over how helpful physical restraint is to the patients continues to be an issue in psychiatric settings. This highlights the need and importance of systematic and comprehensive research of patients and staff experience about restraint.

The main results yielded by the study proved that, concerning the patients' feelings during restraint, humiliation and worthlessness are the most common feelings experienced by 38.75% of the patients, followed by rage and resentment (25.00%), sadness and despair as well as injustice were experienced equally by the patients (18.75%), feeling guilty was mentioned by 11.25% of the studied subjects, and 3.75% said that they calmed down.

Introduction:

The use of physical restraint in a variety of health care settings, has received increased attention in recent years. It is defined as any manual method or mechanical device attached to the patient's body, that restricts freedom of movement and cannot be easily removed[1]. It is considered one of the earliest mean used to cope with people who are unable to control their behavior. Physical restraint is indicated to ensure the physical safety of the patient and others, when they pose a severe threat that cannot be controlled in any other way.

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one of the significant factors affecting the frequency with which this intervention is used. But nurses are often in the front line, interacting with patients who may be violent or who display disruptive behavior, and they may choose to use restraint as an intervention. Their ability to offer effective intervention is influenced by their psychological reaction to restraint(2-5).

Physical restraint is used when less restrictive interventions have been determined to be ineffective. In this emergency situation, patients may be restrained temporarily to receive medication or for longer periods if medication cannot be used. Physical restraint should never be used as a punishment, as a substitute for nursing care, or as a matter of convenience for the health care provider(6,7).

In many studies most overwhelmingly identified reason for using physical restraint is the protection of the patient. In other terms **"patient oriented reasons"**, by preventing injury to the patient and others in case of violent behavior, sometimes to control patient behavior as in case of altered mental status and confusion and to prevent patients from wondering(8-10).

Physical restraint can be used to prevent treatment interference, in other terms **"treatment oriented reasons"** based on the goal of protecting patient from the harm associated with unskilled removing of treatment device, which includes oxygen therapy, endotracheal tube, nasogastric tube, urinary catheter, wound dressing and suture(3). In the psychiatric field the use of restraints for aggressive or assaultive behavior is sometimes required when patients don't accept oral medication, and the administration of intra muscular drugs is necessary(8).

However, numerous studies reveal that, restraint was also used to help the organization in achieving its goal, which means that, restraint was used for the benefit of health care worker rather than for the patient being restrained, and to maintain the social environment of hospital wards. In other terms **organization oriented reasons**, the most common of these reasons was to compensate for insufficient staff member(11,12). In other studies nurses reported that, they used physical restraint for their own comfort or as a punishment for the patient upon his behavior or non compliance or that, they used physical restraint for preventing patient from bothering others(13-15). Restraint methods can have considerable harmful psychological effect on both patients and staff (3,16).

In general, research findings revealed that patients as a result of being restrained reported that they felt angry, helpless, sad, and powerless, punished, embarrassed, and that their right to autonomy and privacy has been violated. In addition to a feeling of loss of self worth, degradation, demoralization and humiliation while they are restrained(17,18). Most of the patients' subjective experiences highlight the

negative impact of physical restraint on the patients. These experiences were summarized in two themes: restriction and discomfort. Restriction relates to loss of freedom and control over what is happening during hospitalization, while discomfort is caused by enforced immobility, i.e. from patient narrative comment:" I felt like a dog and cried all night, it hurts me to have to be tied up, and I'm in a jail stuck, I couldn't even bring my hands together"(19,20).

A study about psychiatric staff's thoughts and feelings about restraint use, found that the risk of harm and the use of restraint conflicted with nurses' role to protect. Nurses did not want to use restraints as a first option(21,22).

In most of the studies the nursing staff reported a range of emotional reaction felt while doing restraint procedure, including anxiety, anger, feeling bored or distressed, crying, inadequacy, hopelessness, frustration, fear, guilt, dissatisfaction, isolation, being overwhelmed, feeling drained, vengeance and repugnance(23,24).

Other staff members described how they had come hardened to the experience of restraint, some of them reported that they had no emotional reaction and many reported automatic responding during restraint event in which they did not feel any emotion, this lack of feeling among nurses, might be due to the fact that the practice had become so ritualized that it does not provoke any reaction(2).

There is a growing concern surrounding the use of physical restraint in health care institution. Considerable information about least restrictive intervention to restraint, with very positive outcomes, for patients in psychiatric settings are now available. Anger control assistance, cognitive intervention, behavior intervention, thought stopping, biological intervention and managing nutrition are some examples of them. Anger control assistance which is defined as the facilitation of the expression of anger adaptively and nonviolently, is useful and can prevent deterioration of patients' behavior(25). Cognitive interventions usually provide new ideas, opinions, information, or education about particular problem.

In the thought stopping technique, the nurse asks the patient to identify thoughts that heighten feeling of anger and invites patient to" turn the thought off "by focusing on other thoughts or activities including talking to someone, reading, or thinking about future events (25).

Behavioral interventions are designed to assist the patient to behave differently, as assigning behavioral tasks, using bibliotherapy, interrupting pattern, and providing choices(26).

Concerning the biologic intervention, there are several classes of drugs that are used in the management of aggressive behavior.

Despite the fact that the understanding of patients and staff perspectives are considered to be important in decision making process and evaluation of the quality of care given, little research has been conducted on this aspect. This

highlights the need for systematic and comprehensive investigation of patients and staff reactions toward restraint procedure.

Aim of the Study

The aim of the study is to explore the reaction of psychotic inpatients and psychiatric hospital staff about physical restraint.

Materials and Method

Materials

Design

The design followed for this study is a descriptive exploratory design.

Setting:

The study was conducted at El-Maamoura Hospital for Psychiatric Medicine in Alexandria. The hospital is affiliated to the Ministry of Health and Population. It has a capacity of 840 beds and is composed of 12 wards divided into five free wards (3 for male and 2 for female patients), five private wards (3 for male and 2 for female patients), and two wards for the treatment of drug dependents. The hospital serves three governorates, namely Alexandria, El Beheira and Matrouh. The hospital employs 216 nurses (19 nurses with a bachelor degree; 16 nurses with an associate degree; 180 nurses, Secondary nursing schools; and one First aid nurse) and 74 psychiatrists (34 bachelor of medicine, 24 having a diploma degree, and 16 with a master degree).

Subjects:

Subjects of the study comprised:

1- Eighty psychotic patients, either male or female, during the three days following the restraint incident.
2- Fifty percent of the hospital nursing staff was included in the sample. 108 nurses were selected by stratified random sampling method; their number amounted to 9 nurses with a bachelor degree in nursing sciences, 9 with an associated degree of nursing, and 90 nurses with a secondary nursing school degree.
3- Fifty percent of the medical staff was included in the study. Their number amounted to 37 physicians. 17 with a bachelor degree of medicine, 12 having a diploma degree, and 8 with a master degree; those available at the time of data collection were included in the study.

Tools:

Two tools were used for data collection:

Tool I: "Patients' assessment structured interview schedule". This interview schedule was developed by the researchers to explore the reactions of psychotic inpatients about their physical restraint. It is composed of two parts :

Part I. Patients' demographic and clinical data.

The demographic data inquires about the patients' age, sex, marital status, educational level, and occupation.

The clinical data were about the number of pervious admissions, onset of illness, length of present hospitalization, type of ward in which the patient is admitted, number of pervious restraint, and number of restraint during present hospitalization.

Part II. It is concerned with the patient's reaction about his physical restraint. It is composed of 30 open-ended questions covering patient's reaction to his physical restraint as, the cause for restraint, persons who carry out the restraint, duration of restraint, staff's behavior related to restraint procedure, the effect of restraint, alternatives to physical restraint .In addition to 20 statements that measure the patients' psychological reactions to restrain procedure.

Tool II: "Medical and nursing staff assessment structured interview schedule". It was developed by the researchers to explore the reaction of medical and nursing staff about physical restraint. It is composed of two parts:

Part I. This part includes the socio-demographic data of medical and nursing staff, as age, sex, marital status, level of education, and years of experience.

Part II. It is concerned with medical and nursing staff's reaction toward physical restraint, and their willingness to know more about it, uses of physical restraint in practice, methods of restraint, duration, role of staff in restrain procedure, policies of restraint, patient's response to restraint & effect of restraint on patient's personality and behavior.

In addition to 28 statements that explore the staff psychological reactions to restrain procedure.

Method

Tools development:

1- A structured interview schedule, to explore the reactions of psychotic inpatients about their physical restraint (Tool I) and an interview schedule to explore the reactions of medical and nursing staff about physical restraint (Tool II) were developed by the researchers after a thorough review of literature[27-31].

2- A jury of 9 experts in the psychiatric field examined the content validity of both tool I and II. Then necessary modifications were done accordingly. Test-retest reliability was applied to ascertain the reliability of both tools.

Pilot study:

Before embarking on the actual study, a pilot study was carried out on ten percent of the subjects; (8 patients, 4 doctors and 11 nurses).

Actual study

- An official approval was obtained from the General Secretariat for Mental Health, at the Ministry of Health and

Population in Cairo and from the hospital's director in Alexandria.

- Nursing staff and/or worker in each ward were asked about patients who were being restrained during the last three days.
- The patient who had been restrained was informed about the aim of the study and ensured about the confidentiality of his response.
- Voluntary participation was ascertained.
- The patient was interviewed on an individual basis for about 10-45 minutes several times according to the patients' response.
- During the first session interview, the researcher tried to build a trustful relationship with the patients and helped the patients to express their feelings about restraint procedure.
- During a second interview session, tool I was applied, either on the same day, or the following day after the initial interview.
- More than two interview sessions were required for the majority of the patients, to complete Tool I.
- Patients' demographic and clinical data were collected through reviewing the patient's chart.
- The medical and nursing staff who were included in the study were informed about the aim of the study, and each staff member was interviewed on an individual basis using tool II.
- The interview time for the medical and nursing staff took about 45-60 minutes.
- The data were collected over a period of twelve months, starting from June 2005 to June 2006.

Statistical Analysis

The data were computerized and verified using the SPSS (Statistical Package for Social Science) version 11.5 to perform tabulation and statistical analysis. Qualitative variables were described in frequency and percentages, while quantitative variables were described by mean and standard deviation. Analysis of collected data was done through the use of several statistical tests as: Chi-square test (χ^2), was used to analyze qualitative variables; Standardized Marginal Homogeneity Test (Std. MH) was used to analyze two qualitative related variables.

Results

Table (1) Demographic characteristics and clinical data of the studied restrained patients.

The majority of the studied subjects were males (85%) and only 15% were females. Concerning their age, 40% of the patients were in the age group ranging from 15 to less than 25 years, while those falling in the range from 25 to less than 45 years, represented 53.75% of the studied subjects. With a mean age of 30.34±9.91 years.

Regarding their marital status, patients who were single constituted nearly three quarters of the studied subjects (75%), and only 22.5% of the patients were married. In relation to their educational level, more than half of the studied subjects (51.25%) had primary and/or preparatory level of education and about one quarter of them (23.75%) were illiterate.

The table also shows that 47.5% of the patients were diagnosed as mood disorder, and 32.5% as schizophrenics.

Concerning the duration of illness, it is shown that almost half of the studied subjects (51.52%) had a duration of illness ranging from less than one year to less than 5 years. While 35% of them had a duration of illness ranging from ten to 15 years and more, with a mean of 7.27±7.35 years.

As regard the number of previous admissions 76.25% of the subjects were admitted several times; while only 23.75% were admitted to the hospital for the first time. In relation to the length of last hospitalization 71.25 % of the subjects stayed in hospital for less than 4 weeks, while 28.75% of them stayed more than 4 weeks; with a mean of 34.91±73.65 weeks.

Most of the patients were admitted in free wards. The table also shows that 52.5% of the patients were restrained once during their last admission, while 47.5% of them were restrained more than one time.

Table (2) The psychological and physical reactions of patients towards restraint.

Concerning the patients' feeling during restraint, humiliation and worthlessness are the most common feelings experienced by the patients (38.75%), followed by rage and resentment (25%), while sadness & despair, as well as injustice were reported equally by the patients (18.75%). Those who felt guilty represent 11.25% of the studied subjects. While only 3.75% reported that restraint helped them to calm down.

As regard the physical reaction of the patients towards restraint, eighty five percent of the studied subjects reported that, the restraint affects them physically. All of these patients reported that they had general body aches, while 4.4% of them reported that they had severe pain in extremities in addition to their body aches.

Table (3) Shows the alternatives to restraint as perceived by the patients.

It was found that 65% of the studied patients perceived giving time and care as an alternative to restraint, and 13.75% mentioned giving medication. While about one quarter of the studied patients (21.25%) perceived that there are no

alternatives to restraint.

Table (4) Shows the causes of restraint as perceived by the nursing staff and/or workers and by the patients.

This table shows that 58.75% of the patients and 52.5% of the staff perceived the cause of restraint as "organization oriented reason". While 42.5 % of the staff reported that they restrained patients because of "patient oriented reason", i.e. physical aggression and patients' safety, compared to 18.75% of the patients who gave the same reasons. Standardized marginal homogeneity test did not detect a statistically significant relation; this means that causes offered by the patients were congruent with the causes offered by the staff.

Table (5) Shows the relation between staff behavior during restraint and patients expectation.

It can be observed that more than two thirds of the patients who mentioned that they were just restrained by staff, or who reported that the staff was displaying aggression during restraint time represent 68.4% and 65.6% respectively, these patients were expecting doctors to provide them with their rights and appropriate treatment. No significant relations were noted (χ^2=0.059, p= 0.971).

Concerning patient's expectation regarding the nurses' behavior, more than half of the patients (50.8%) who reported that the staff was displaying aggression during restraint, were expecting gentle treatment from nurses, as compared to 36.8% of those who were just restrained. No statistically significant difference was obtained between the two group (χ^2= 3.405, p=0.493).

In relation to patients' expectations concerning the workers' behavior, most of the patients who reported that workers were displaying aggression during restraint time (81.96%), were expecting a gentle treatment. Compared to only 52.6% of those who were just restrained. A statistically significant difference was evident (χ^2= 6.65, p = 0.0009).

Table (6) Demographic characteristics and clinical experience of medical and nursing staff of El-Maamoura Hospital for Psychiatric Medicine.

Almost all the studied nurses were females (92.6%), while 73% of the physicians were males. Concerning their age, almost half of the nurses (50.9%) were in the age group of 20 to less than 30 years, while those falling in the age group of 30 to less than 50 years represent 33.4% of the studied subjects. Concerning the physicians, 81% of them were in the age group of 20 to less than 50 years, with a mean age of 37.5±10.1, and 29.4±10.1 years respectively.

Regarding marital status, more than half of physicians and nurses were married (64.9%, 54.6% respectively)

while 32.4% of the physicians and 45.4% of the nurses were single. In relation to their educational level, about half of the physicians (46.0%) had a bachelor degree, and one third of them (32.4%) had a diploma degree, only 21% had a master degree. On the other hand the majority of nurses had a secondary nursing school degree (84.3%), and only 7.4% of them had a bachelor degree.

Concerning staff years of experience; more than half of the physicians (51.4%) had less than five years of experience, compared to only 29.6% of the nursing staff. While 31.5% of the nurses had five to less than ten years of experience compared to only 10.8% of the physicians.

Those who had more than 15 years of experience, represent 32.4% of the physicians and 29.6% of the nurses. With a mean of 8.10±9.2, and 10.4±9.3 years respectively.

Table (7) shows the causes that lead to physical restraint in actual practice. This table reveals that, the majority of physicians and nurses (94.6%, 95.4% respectively) used restraint for patient oriented reasons as in case of excitement, suicidal attempt, aggressive behavior etc. While 43.5% of the nurses and 13.5% of the physicians stated that restraint was used for organization oriented reasons, as in case of trouble making, attempt to escape, etc. Only, 5.4% of the physicians and 0.9% of the nurses stated that restraint is used as behavior therapy.

Discussion

Physical restraint is being used as a protective intervention in psychiatric settings(32). Fisher (1994) found that, restraint has deleterious psychological effect on patients and staff(33). Consequently, this can influence therapeutic alliance between patient and staff, if staff members are prevented from dealing with intense feeling, such as those which may result from the use of physical restraint. It can influence their interaction, reaction and perception about procedure, and their choice for restraint as intervention(34). Patient who have been restrained constitute the only source of information regarding how restraint is experienced.

Related to the psychological and physical effect of restraint as perceived by the patients, the present study showed that the majority of the patients indicated that restraint experience precipitated negative feelings, such as humiliation and worthlessness, rage and resentment, sadness and despair, injustice, fear, insecurity, and guilt feeling. While few patients indicated that restraint had a positive aspect as they calmed down. As regards the physical effect, the majority of patients stated having body aches; while the minority reported severe pain in extremities. This may be due to the staff behavior during restraint which is

characterized by aggression in the form of beating; or keeping them over a long period of time in the same position. Restraint is considered as restricting patient freedom, despite being a therapeutic method, it may initiate in patients negative feelings and rejections for its use. This finding is consistent with other studies[35-37]. Strumpf et al. (1988), stated that 11 from 25 nurses noted that with restraint patients' anger, combativeness, agitation, resistance, or even hallucination are increased[14]. Moreover, it was found that restraint experience evokes intense emotion and may lead to hallucination and delusion experience[38]. Also Molassiotis et al. (1996), found that nurses believed that the main psychological effect of physical restraint on the patient was anger and/or resistance[11]. As regard positive feeling, Wynn (2004) indicated that some respondents reported that they calmed down after having been restrained, while others did so only after having received additional pharmacological restraint[37].

Concerning patients' perception of the alternatives to restraints, the present study found that more than two thirds of the studied patients stated that more time and care, listening or trying to understand them, and being empathetic would be alternatives to physical restraint. According to patients' report, the staff was not caring; this involves not listening or understanding them, also not taking their problems seriously, displaying aggressive attitudes toward them, neglecting them, and constantly imposing restrictive measures on them. These had played a role in their aggressive behaviors. This may be due to the fact that the majority of patients and staff interactions, in the studied psychiatric units, occur with workers, who are generally the least educated. Moreover, the healthcare team members are influenced by the working environment which is characterized by a high workload and by staff negligence of interpersonal relationship with patients. This in accordance with Gutheil (1978), who stated that it must be understood that restraint, as an intervention, represent the last resort, and that the earliest interventions, as talking with the patient in distressing situations, offering of support, explanation, or just company, and working with the basic treatment alliance, will prevent the increase in tension or agitation[39]. This goes with Chien et al. (2004), who found that the most violent psychiatric patients wished that the staff would have been more receptive to their needs[40]. This finding is also consistent with the psychological theory regarding the potentiation of behavioral aggression through frustration and other negative emotions such as feeling of powerlessness, fear, or perceiving threat[41,42].

The present study findings were in partial agreement with Bonner et al. (2002), who stated that the restrained

patients reported feeling of ignorance and were unheard both before and after restraint incidents. It, also highlighted that patients often felt that they had given specific warning of how they were feeling, and that these warnings were ignored, not recognized or not adequately acted on by staff[43]. Similarly, Stuart et al. (1983), Winger et al. (1987) and Blair (1991) maintained that aggression is not only related to patients factors but also to environmental and interaction aspects (staff attitudes and the structure of the ward, i.e. less or more restricted, which can affect arousal of aggression)[44-46]. The present study finding raises an alarm about recommendation of the Joint Commission on Accreditation of Health Care Organization (JCAHO) (2004) that stressed the importance for healthcare providers professionals to interact continuously with patient, to assess their mental condition, and to understand what their interests are, in order to ensure the appropriate use of physical restraint[40].

Regarding causes of restraint as perceived by the patients, these could be grouped under organization oriented, patient oriented, other diverse and unknown reasons. The knowledge about the causes that the patients assume for the restraint experience may provide important information on their reactions to that experience. Firstly, about two thirds of the studied patients perceived causes of their restraint as an organization oriented reasons, i.e. punishment, authority/force and arguing with staff. The previously mentioned causes were emphasized by staff. These findings are consistent with the findings of many studies; in which restraint was used in situations where patients were not dangerous for example, drug and food refusal, being demanding, or attempting to escape[47-49]. This finding goes with that of Wynn (2004), who found that most of the patients did not have problems identifying what they believed were the reasons for being restrained. Patients' responses regarding the reasons they thought were behind restraint fell into four main categories: refusal of treatment/medication, patients' loss of control in form of self harm or verbal and/or physical aggression directed toward staff, refusal to follow staff directions, and those who could not give a reason why restraint has been done[37]. In addition to that, Betemps et al. (1993) added that hospitals, with the highest rates for using restraint, used it most frequently for reasons that are not associated with violent or potentially violent behavior[50]. Contrary to Marangos-Frost et al. (2000), who found that nurses described restraint's use as arising from a situation in which patients, other persons, and/or the unit were perceived to be at risk of imminent harm, they felt the need to restrain patients, in order to manage the potential harm[51]. Allen et al. (2004), found that psychiatric emergency services staff suggested that

the use of physical restraint was primarily based on a patients' danger to self or to others, was ordered only by professional staff, and occurred in a minority of all cases in most of the facilities surveyed[52].

The present study assessed also the psychiatric hospital's staff reactions toward the use of physical restraint, this assessment was important to give a global view about this issue; it can be useful to mental health professionals when making decision about restraint use, and to evaluate the quality of care given. As regards to causes that lead to physical restraint in actual practice from physicians and nurses' perspectives, these encompass patient oriented reasons, organization oriented reasons, and as a form behavior therapy.

The findings of the present study revealed that both physicians and nurses rationalized the use of restraint with situations where patients are dangerous to themselves or to others (patients-oriented reasons), i.e. in case of excitement, suicidal attempt, aggressive behavior, drug and food refusal, confusion after ECT and as patient's request. Noticeably, the staff was restraining patients not only in case of excitement, but also in case of aggressive behavior, while patients were still not reaching the stage of loosing control. Despite the fact that the situations sometimes required other alternatives than restraint, as de-escalating patients' aggression by using verbal de-escalation technique, or decreasing stimuli, or offering support; the staff still mandate the use of physical restraint. This may be due to the fact that patients' aggression is perceived usually as a threat by the staff members their fear of danger and/or being attacked may lead to unnecessary use of restraint. In this respect Mekail et al. (1992), found that 60.66% of nurses at El-Maamoura hospital perceived dealing with aggressive patients as difficult or problematic for them[53]. It may also be due to their lack of knowledge about therapeutic physical restraint use and/or cues of excitement. Moreover, other causes mentioned by the physicians and nurses are for the sake of patients' safety, as in case of suicidal attempt, drug and food refusal, confusion after Electro Convulsive Therapy (ECT). Every problem mentioned above needs a specific set of nursing interventions and constant nursing observations rather than restraint. This may be attributed to the staff workload and to the imbalance between staff/patients ratio, which limit their abilities to observe patients and use appropriate interventions.

The previous result is in accordance with the findings of many studies, where staff agreed that uncontrolled behavior and aggression toward other persons were the most critical behaviors that led to patients' restraints[27,29,54-56].

Few physicians and much larger

number of nurses stated that they used restraint for reasons such as punishment for trouble making, or for homosexual behaviors, drug and food refusal, or patients being demanding, attempting to escape, and having urinary incontinence. This may be due to the fact that health professionals imitate each others in their use of physical restraints; instead of its therapeutic effect it becomes a punishment. This is in line with other studies' findings, where patients were restrained for non-violent behaviors such as attempt to escape, or non-compliance, or disruption to others(48-50,57). These findings may be explained by Peterson (2002), who suggested that many mental health professionals feel under pressure to demonstrate effectiveness and efficiency when treating their clients, leading to insistence on their clients obedience, and ultimately causing them to feel anger and frustration when their clients do not conform to their instructions(58). Contrary to the findings of Abd El Dayem et al. (1993), who indicated that a minority of nurses, from Egypt, Saudi Arabia and Kuwait, agreed that refusal of taking medication was the most leading behavior to physical restraint, as well as "refusing to attend activity" or "continuous asking to see the treating physician"(54).

Providing staff with an adequate understanding of patients' perspective toward the use of restraint can help them take the appropriate intervention. Staff can rely also on their professional judgment about the necessity of using restraint and they can create a relaxed therapeutic environment for their patients, using their sound judgment, creativity and sincerity.

Conclusion

Physical restraint is used as a method to control patients' unacceptable behavior in the hospital. Unfortunately it is frequently used as a way of punishing the patient instead of helping him to calm down. This misuse of physical restraint provoked negative emotions in the patients as well as in the medical and nursing staff, it affected as well, the over all patients' expectations from hospital staff.

Recommendations

The followings are the main recommendations pertained to this study:

- Health care administrators should provide time and fund to conduct in-service training programs for staff for the development of least restrictive strategies in dealing with agitated, violent, or newly admitted patients.
- Based on the understanding of the reactions of both the patients and the psychiatric hospital staff about physical restraint, it is essential to acknowledge patients and staff perspective, and to invest in formulating multicomponent strategies which may be effective in

dealing with situations usually managed by restraints.

- Objective measurement and documentation of inpatients' aggression should be carried out in psychiatric hospitals.
- In-service training programs are needed for all staff members about the use of effective communication techniques to enhance the interpersonal relationships.
- It's important to make the hospital environment less threatening to the patients through eliminating noise and overcrowding. Recreational and occupational therapy is suggested as an essential characteristic of a constructive and therapeutic hospital environment.
- Patients should receive debriefing post restraint incidence to minimize psychological effect, provided with an opportunity to discuss the experience of being restrained.
- More researches are required to identify the relation between the hospital setting and the mounting tension of the patients. As well as the identification of the staff-patient's relationship and its effect on patients' level of aggression.

Table (1): Demographic & clinical data of the studied restrained psychiatric inpatients

Demographic & clinical data		Studied psychiatric inpatients (n=80)	%
Sex	Male	66	85.00
	Female	12	15.00
Age	15-	32	40.00
	25-	23	28.75
	35-	20	25.00
	45-55	5	6.25
Mean ± SD		**30.34 ± 9.91**	
Educational Level	Illiterate /read and write	19	23.75
	Primary/preparatory	41	51.25
	Secondary level	16	20.00
	University level	4	5.00
Occupation	Working	17	21.25
	Not working	50	62.50
	Retired	2	2.50
	Housewife	11	13.75
Marital status	Single	58	72.50
	Married	18	22.50
	Divorced	4	5.00
Diagnosis	Schizophrenia	26	32.50
	Mood disorder	38	47.50
	Others	16	20.00
Duration of illness by years	<1	12	15.00
	1 -	29	36.25
	5 -	11	13.75
	10 -	13	16.25
	15+	15	18.75
Mean ± SD		**7.27 ± 7.35**	
Number of previous admission	First admission	19	23.75
	Several admission	61	76.25
Length of last hospitalization (by weeks)	< 4weeks	57	71.25
	> 4weeks	23	28.75
Mean ± SD		**34.91 ± 73.65**	
Number of restraint during last admission	Once	42	52.50
	More than once	38	47.50
Type of ward	Free	67	83.75
	Private	13	16.25

Table (2): The psychological and physical reactions of psychiatric inpatients towards restraint

Reactions of psychiatric inpatients towards restraint	Studied psychiatric inpatients	
	(n=80)	%
Patients' feeling during restraint		
Humiliation& worthlessness	31	38.75
Rage and resentment	20	25.00
Sadness and despair	15	18.75
Injustice	15	18.75
Fear and insecurity	9	11.25
Guilt feeling	7	8.75
Calming down	3	3.75
Others	9	11.25
Physical reaction to restraint		
Present	68	85.0
Not present	12	15.0
Type of physical reaction		
General body ache	68	100.0
Sever pain in extremities	3	4.4

*Frequencies are not mutually exclusive.

Table (3): Alternatives to restraint as perceived by the patients

Alternatives to restraint	Studied psychiatric inpatients	
	(n=80)	%
Giving time and care	52	65.0
Giving medication	11	13.75
Does not know	4	5.0
No alternative to restraint	17	21.25

*Frequencies are not mutually exclusive.

Table (4): Causes of restraint as perceived by nursing staff and/or workers and by the psychiatric inpatients

Causes of restraint	Staff		Patients		Std. MH	P value
	n	%	n	%		
Patient oriented reasons (excitement, suicidal attempt, aggressive behavior…)	34	42.50	15	18.75	- 0.233	0.815
Organization oriented reasons (trouble making, attempt to escape…)	42	52.50	47	58.75		
Both (patient and organization oriented) reasons	4	5.00	0	0.00		
Unknown reason	0	0.00	10	12.50		
Others (as behavioral therapy)	0	0.00	8	1.00		

*Significant value at $p< 0.05$ Std. MH = Standardized Marginal Homogeneity

Table (5): The relation between staff' behaviors during restraining psychiatric inpatients & patients' expectations

Patients' expectations	Staff' behavior during restraint				χ^2 test	P value
	Just restraint		Displaying aggression during restraint			
	n	%	n	%		
Expected Doctor behavior					$\chi^2 = 0.059$	0.971
Nothing	3	15.80	11	18.00		
Gentle treatment	5	26.30	16	26.20		
Provide patient rights	13	68.40	40	65.60		
Expected nurses behavior					$\chi^2 = 3.405$	0.493
Nothing	7	36.80	16	26.20		
Give medication quickly	1	5.30	5	8.20		
Gentle treatment	7	36.80	31	50.80		
Provide patient rights	4	21.10	19	31.10		
They are caring already	2	10.50	2	3.30		
Expected worker behavior					$\chi^2= 6.65$	0.0009**
Nothing	9	47.40	11	18.03		
Gentle treatment and not to restrain	10	52.60	50	81.96		

*Significant value at $P< 0.05$ χ^2= chi-square

Table (6): Demographic characteristics and clinical experience of medical and nursing staff at El-Maamoura Hospital for Psychiatric Medicine.

Socio demographic characteristics of medical and nursing staff		Physician (n = 37)		Nurses (n= 108)	
		n	%	n	%
Sex	Male	27	73.00	8	7.40
	female	10	27.00	100	92.60
Age	> 20	0	0.00	12	11.10
	20 -	11	29.70	55	50.90
	30 -	10	27.00	18	16.70
	40 -	9	24.30	18	16.70
	50 - 60	7	19.00	5	4.60
Mean ± SD		**37. 5 ± 10.1**		**29.4±10.1**	
Marital status	Single	12	32.40	49	45.40
	Married	24	64.90	59	54.60
	Divorced	1	2.70	0	0.00
Educational status	Bachelor degree	17	46.00	8	7.40
	Diploma in medicine	12	32.40	0	0.00
	Master degree of medicine	8	21.60	0	0.00
	Associated degree of nursing	0	0.00	9	8.30
	Secondary nursing school	0	0.00	91	84.30
Years of experience	< 5	19	51.40	32	29.60
	5 -	4	10.80	34	31.50
	10-	2	5.40	10	9.30
	15+	12	32.40	32	29.60
Mean ± SD		**8.10 ± 9.1**		**10.4 ± 9.3**	
Ward	Free	23	62.20	59	54.60
	Private	14	37.80	49	45.40

Table (7): Description of the causes that lead to physical restraint in actual practice

Description of the causes that lead to physical restraint in actual practice	Physician (n = 37)		Nurses (n = 108)	
	n	%	n	%
Patient oriented reasons	35	94.60	103	95.40
Excitement	34	97.10	78	75.70
Aggressive behavior	11	31.40	29	28.10
Suicidal attempt	6	17.10	16	15.50
Drug &food refusal	4	11.20	8	7.80
Confusion after ECT	0	0.00	4	3.90
Patient' request	0	0.00	3	2.90
Organization oriented reasons	5	13.50	47	43.50
Punishment for trouble maker	3	60.00	39	83.00
Punishment for drug &food refusal	2	40.00	15	31.90
Punishment for homosexuality	1	20.00	7	14.90
Attempt to escape	0	0.00	5	10.60
Taking off his clothes	0	0.00	5	10.60
Punishment for demanding	0	0.00	4	8.50
Urinary incontinence	0	0.00	2	4.20
As behavioral therapy	2	5.40	1	0.90

*Frequencies are not mutually exclusive.

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