

Patients and Staff Attitudes toward Physical Restraint

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Abstract

The purpose of the study was to obtain patients and staff attitudes toward physical restraint. Also detection of different variables affects their perceptions and responses. 30 patients experienced physical restraint and 48 psychiatrist, 62 nurses who had direct contact and routinely use this technique were subjected for especially designed questionnaires for patients / staff attitude and reason opinions, delivered in both Arabic and English versions. Patients were diagnosed by DSM - IV structured interview. Demographics and clinical characteristics and restraint event are collected. Descriptive statistics, correlations and analysis of variance were used to examine patients and staff responses. The patients means ages was 33.9 ± 13.1 , 3/4 were males, behavioral problems were the dominant presentation (76.7%) and mood disorder (manic episode) form 60%. More than 50% of patients had negative attitudes and not accepting restraint as away of management. Females, younger patients and those with first admission, short illness duration, and poor compliance were at high risk for negative attitude. Using force with restraint procedure significantly associated with negative responses. Helplessness, negligence, rejections, punishments, aggression and negative Thoughts, confusing emotions were the higher responses. There was high agreement between psychiatrists and nurses in most of responses, But nurses had more aggressive / harsh attitude than psychiatrist ($P = 0.03$) and admit more that force is the rule ($P = 0.005$). Nurses and patients' gender as well as level of experience and professionalism affect the nurse's response. Psychiatrist demographics had no effect on their attitudes. Negative attitudes for patients and staff responses highlight. The importance of educational programs of restraint, directed for increasing sensitivity of risk group detection and gaining to decrease such negative perceptions. Needs for researches about other alternatives with of restrictive and directed for its comparative efficacy.

Introduction:

Coercive measures in psychiatry, although in many cases effective in violence management and injury reduction, have been criticized from a consumerist point of view. Soloff (1984) noted that the controversy over the legitimacy and efficacy of physical technique reflects broader social, cultural and educational perspectives.

Society currently demands that mentally ill persons be treated with the least restrictive methods and advances in psychopharmacology have allowed many severely ill patients to be managed without

excessive use of restraint. However, negative side effects of many psychotropics rule out use of these medications with some patients (*Klinge V.1994*).

Patient attacks on healthcare personnel can have devastating effects such as workplace stress, post traumatic stress disorder or at lesser extent, physical injury. The most affected group is the nursing profession with almost 100% of nurses experiencing patient violence in the course of their career compared to 61% for other personals (*Wynn R, Bratlid T 1998*).

Some clinical experts advocate the benefits of the interventions in preventing injury, reducing sensory stimulation, maintaining the ward milieu and conserving staff resources. Others advise continuous use of the interventions noting that they have few therapeutic benefits and may have unintended adverse effects on patients and staff (*Outlaw F, Lowery B1992*). Others have focused on the therapeutic contraindication for use of restraint with certain populations, including persons with compromised physical health, children and elderly persons (*Burger S 1993*).

Generally, patients have negative feeling about being restrained. They describe feeling discomfort, anger, fear and resentment. They also indicate the event of being restrained as a memorable one that is filled with conflict and uncertainty and one they want resolved (*Miller, D. Walker, M.C., & Friedman, D1984*).

Attitude therapy and training programs have been used successfully to help the staff to reduce the use of restraint. Understanding patient attitudes, as a part of an educational program changed the staff's use of restraint. Also, education about the nature of violence has demonstrated a change in the way staff relates and handle violent behavior (*Owen, C., Tarantello, C., et al1998*).

Service planning and training programs need accurate data about hospital characteristics, patients clinical and demographic data, causes and circumstances and procedures of restraint and other alternative least restrictive methods availability as well as knowing patients and staff opinions about this physical method of management.

Objectives:

1. Patients attitudes toward physical restraint.
2. Staff opinion about reasons and attitudes toward restraint.
3. Studying Demographic and clinical factors that may associated with different attitudes and opinions.

Subjects and methods

Hospital characteristics: -

The study was done at Kuwait state psychological medicine hospital. It consists of

- Eight acute wards.
- Four rehabilitation wards.
- Four forensic wards.
- Two wards for chronically institutionalized patients.

The study was performed in four acute wards (2 for male, and 2 for female inpatients), as representative for acute wards.

Subjects:

30 patients selected from male and female wards, by systemic randomization over six months from first January up to 30 June 2006.

1. Age above 15 years.
2. Both sexes.
3. Experienced physical restraint at least one on current admission.
4. Assessment after patient settled down with clinical improvement of his mental state and no more restraint.
5. Cooperative, agreement and consent obtained.

Exclusion:

1. Impaired cognitive function, consciousness that impaired patient cooperativeness.
2. Mental retardation.

3. Refusal and uncooperative ones.

4. Patients who are unable to speak Arabic or English.

Psychiatrists and nurses staff of different age, Experience, both sexes, who are indirect contact with patients assessed for the study.

Methods and Procedures: -

1. Semi-structured designed sheet to collect demographics and clinical data of patients as well as characteristics and circumstances of restraint event.

2. Patients information was collected by direct interview, file notes & nurses direct questioning.

3. Structured DSM-IV interview for clinical diagnosis.

4. Demographics of staff (gender, nationality, level of education, years of experience, Job description hierarchy.

5. Questionnaires:

- Three designed questionnaires especially by the researcher for patient's attitudes, reasons opinion, staff attitudes.

- All were delivered by direct interview of the patient and direct communication to the staff members; ensure respond to them anonymously and separately.

- Arabic as well as English version by translation & retranslation.

- The statements were simple and direct.

A. Patient attitude questionnaire: - **(Appendix 1)**

17 statements, examine different responses in (yes/no) answers. The statements were re-grouped to give general attitudes offer them individual items.

* Five attitudes were described.

1. Acceptance / welcome attitude: - including patients who respond by (yes) on statements (1, 2, 5). Agree about restraint, prefer restrain than drug, and trust their staff decision about restrain.

2. Refusal attitude: - Patient respond positively on (4, 6, 17) statements, where patients experience restrain as punishment, decide to avoid readmission because of restraint and not accept restraint as way of management.

3. Aggression release response:- Statements (3, 7, 13) where patients report that aggression is natural result of restraint, decide to breakdown hospital structure or discipline as well as homicidal tendencies.

4. Positive emotions and thoughts response: - Statements (14, 15, and 16) where patient experience support from others, sense of being strong, powerful and controllable and secure during this experience.

5. Negative emotions and thoughts response: - Statements (8, 9, 10, 11, and 12) where patients experience mixed confusing emotions, positive and negative thoughts toward others, feel negligence and rejection helplessness, admit death wishes and / or suicidal thoughts.

B- Reasons opinion questionnaire: **(Appendix 2)**

Eleven statements that describe certain issues around different indications for restraint. Staff respond in (agree disagree and uncertain way).

C- Staff attitude questionnaire: **(Appendix 3)**

16 statements which describe different attitudes of staff (psychiatrist & nurse) who had direct contact with the patients. They respond by (agree - disagree, uncertain).

These statements are describing three main attitudes.

1. Welcome / acceptance attitude:- statements number (1,5,8,11,13), where staff respond that all agitated patients should be restrained, patients had no rights to refuse restraint, prefer continuous restrain admitting physical restrain is preferable even with risk of hazardous than drugs which only added of patients not completely controlled.

2. Aggressive / harsh attitude: - statements (3, 4,7,14, 15) where staff who respond positively on these items considered with harsh / aggressive attitude on the restraint procedure (force is rule; underestimate the

risk of complications, communication with patient on restraint is of no value, written order is not mandatory.

3. Conservative attitude: - Statements (2, 6, 9, 10, 12, and 16) where they keep in mind certain precautions and procedures when physical restraint is indicated.

* Written order & psychiatrist attendances are mandatory.

* Keeping watch over the patients.

* Release, patients on partial control.

* Educate the patient about indication & procedure.

* Prefer short time restraint.

* Prefer chemical restrain to avoid restraint hazardous.

Questionnaires reliability: -

By using Cronbach's alpha test the reliability was as follow.

Questionnaire name	Subjects	Subject number	Items number	Reliability by Cronbach's Alpha
1. patient attitude	Restrained patients	30	17	0.645
2. reason opinion	Psychiatrist nurse	48 62	11	0.530 0.473
3. staff attitude	Psychiatrist nurse	48 62	16	0.652 0.626

Statistical Methodology

Data were collected and coded then entered into an IBM compatible computer, using the SPSS version 12 for Windows. Entered data were checked for accuracy then for normality, using Kolmogorov-Smirnov & Shapiro-Wilk tests, and proved to be normally distributed. Qualitative variables were expressed as number and percentage while quantitative variables were expressed as median, mean ($\bar{X}$) and standard deviation (S).

The arithmetic mean ($\bar{X}$) was used as a measure of central tendency, while the standard deviation (S) was used as a measure of dispersion.

The arithmetic mean and the median were used as measures of central tendency, while the standard deviation was used as a measure of dispersion. The percent change was computed to express the change in the repeated variables as a percentage.

The following statistical tests were used:-

1- Independent samples t-test was used as a parametric test of significance for comparison between two sample means, after performing the Levene's test for equality of variances.

2- Independent samples Mann-Whitney's U-test (or Z-test) was used as a

nonparametric test of significance for comparison between two sample medians.

3- The χ^2 -test (or likelihood ratio =LLR) was used as a non-parametric test of significance for comparison between the distribution of two qualitative variables.

4- The Fisher's exact test was used as a non-parametric test of significance for comparison between the distributions of two qualitative variables whenever the χ^2 -test was not appropriate. It gives a p-value directly.

5- Paired samples t-test was used as a parametric test of significance for comparison between before and after values of a quantitative variable.

6- The Wilcoxon signed ranks test (Z-value) was used as a non-parametric test of significance for comparison between before and after values of a qualitative or ordinal variable, when the paired-t test was not appropriate.

7- McNemar's χ^2 -test was used for paired comparison of dichotomous variables.

8- The Mann-Whitney test (Z-value) was used as a non-parametric test of significance for comparison between two samples means, when the independent t-test was not appropriate.

9- The one-way ANOVA (F-test) was used as a parametric test of significance for comparison between more than two samples means, using either Scheffe's or Tamhane's post hoc tests for paired comparison according to the results of homogeneity testing.

10- The Kruskal-Wallis test (χ^2 -value) was used as a non-parametric test of significance for one-way comparison between more than two samples means, when the one-way ANOVA test was not appropriate.

11- The Pearson's correlation coefficient (r) was used as a parametric measure of the mutual relationship between two normally distributed quantitative variables.

12- The Spearman's rank correlation coefficient (r) was used as a non-parametric measure of the mutual relationship between two not-normally distributed quantitative or ordinal variables.

13- Validating parameters were calculated namely sensitivity, specificity, PPV, NPV and diagnostic accuracy for clinical presentation versus results of XXX.

Sensitivity= the ability of the test to detect those with the condition.

Specificity= the ability of the test to exclude those without the condition.

Positive predictive value (PPV) = the ability of the test to detect those with the condition among positively screenees. Negative predictive value (NPV) = the ability of the test to exclude those without the condition among negatively screenees. Diagnostic accuracy = the percentage of total agreement methods regarding of both true positives and true negatives.

Results

A- Demographics:

1. for patients (Table I)

30 patients, who experienced physical restrain, were studied their demographics showed that:

* The mean age was 33.9 ± 13.1 .

* 73.3% (22) were males, while females represent one forth of patients.

* 90% were with Arabic nationality.

* Around half of patients were married.

* Only 6.7% were illiterate and others were educated with different grades (40% low grade, 46.7% high school and 6.7% of university degree).

2. For nurses:

The questionnaire delivered to 70 nurses, 62 nurses responded to the questionnaires regarding indications and attitude toward physical restraint where 30 of them were females, 90% (50) were working as registered nurse with nursing diploma while only 10% have high nursery school and were seniors. Around 2/3 of them were Arabian. 29 of them were working in male patients wards while 33 were working in female patients wards. The mean of experience duration was (12.06 ± 7.6)

3. Psychiatrist:

- 48 psychiatrists out of 65 were responded to questionnaires and their demographics were distributed as following:
- 35 of them were males.
- 30 working as registrar with (MSCs) post degree and 16 of them with higher (MD) level.
- Most of them (45) were Arabian.
- Mean of experience duration was (14.6 ± 7.2)

B- Clinical data for patients (table 2):-

- Positive psychotic symptoms, behavioral problems (aggression, irritability, roaming & hyperactive...etc) and sleep disturbance were the most symptoms expressed by patients (53.3%, 76.7%, 40% respectively).
- 60% were diagnosed as mood disorder (manic episode), while schizophrenics represent 23.3%.
- 83.3% were with positive history of restrain and repeated admissions, where more than 1/3 of patients with more than 5 admissions.

- 29.7% with duration of illness from 10 - 20 years.

- Half of the patients were with poor compliance on treatment.

- 80% presented to the hospital admitted and brought by family, while police was the source of referral in 20% all admitted via casualty.

- Regarding restraint clinical descriptions, about 80% of patients were restrained by interrupted type with range of duration between 1 - 8 hours. The range of restrained episodes number from 1 - 5 episodes and force was associated with the restraint event in such patients.

Note: Continuous restraint operationally defined more than 8 hours (number of staff hours work / day)

C- Distribution of individuals items and main categories of attitude questionnaires:

* Individual items responses

1. Attitude questionnaire for Patients (figure 1):

About 50% questionnaire for patients:

About 50% or more of patients respond on items suggestive to the negative experience to physical restraint.

- 90% experiencing mixed confusing emotions.
- 86% feel state of helplessness.
- 66% reveal that aggression is the result of physical restraint.
- 63% experience restraint as punishment.
- 60% feel negligence and rejection while restrained.
- 53% admit negative thoughts and prosecution toward others.
- 46% not accepting restraint as way of management.

*** General attitude categories:**

The data showed that the least median (1) was for acceptance and welcome attitude and the highest median (2) was for both aggression release and positive emotions and thoughts.

2. Agreement between psychiatrists and nurses responses on reasons opinion and attitude questionnaires (figure 2, 3):-

- There is no statistical significance difference with high agreement between psychiatrists and nurses in all items of reason opinion and attitude questionnaires.
- Only the statistical difference with less agreement was in few items in both questionnaires.
- Psychiatrists respond more than nurses to the following items:
- Patients with substance intoxication need physical restrain ($P = 0.001$).

Aggressive and homicidal patients cannot controlled only by restrain ($P = 0.04$).

On the other hand nurses see that patients with roaming and hyperactivity could be controlled by restrain.

This view is not shared by psychiatrists ($P = 0.001$), (Figure 1).

- (Figure 2) showed that there is no statistical significant difference with high agreement between psychiatrists and nurses in attitude items questionnaires except that nurses highly focus on force a rule. ($P=0.001$), and written order as well as doctor attendance are mandatory ($P = 0.004$), and also patients do noise deserve restraint ($P = 0.01$).

Psychiatrists respond more in that drugs may be added if patient is not completely controlled ($P = 0.02$).

- Regarding to the main attitude categories:

There was significant difference between psychiatrists and nurses attitude on harsh / aggressive ($P = 0.03$). Nurses had higher tendency to aggressive / harsh attitude in Nurses than Psychiatrists. But median score for welcome / acceptance attitude and conservative attitude are the same for the two groups with no significant difference.

Statistical correlations:

I- Patients attitude questionnaire:

1. There was significant association between patient's non acceptance for physical restraint as way of management and history of admission and / or history of restrain and behavioral disturbance. Symptom, presentation, (Table 6) Also, significant negative correlation between non acceptance and age ($r = 0.4$, $P = 0.01$), duration of illness ($r = 0.50$, $P = 0.005$) and number of admissions ($r = 0.39$, $P = 0.03$).

i.e.: older patients with longer duration, repeated admissions with history of restrain and expressed behavioral disturbance were more accepting to the physical restraint as a way of management.

In contrast, younger patients with no history of admission or restrain, short duration of illness and with no behavioral disturbance were more refusing and resistant to physical restraint as a way of management.

2. Educated patients and patients with repeated admissions and history of restrain responded significantly to the feeling of strong, power and control during restraint experience.

- Patients with history of poor compliance on treatment are experiencing more mixed confusing emotions than patients with history of satisfactory drug compliance ($P = 0.02$).

- Destructive thoughts (breakdown of hospital structure and discipline) emerged in the mind of educated ($P = 0.006$), while the patient without mood symptoms has a tendency to avoid readmission because of restraint ($P = 0.01$).

- Table (8) showed that there is significant association between circumstances of restrain and negative emotions and though attitude ($P = 0.04$).

- Patient restrained by force are more prone for feeling of helplessness, negligence & rejection, released mixed confusing emotions and feel prosecution & thinking negatively toward others ($P = 0.01, 0.03, 0.001$ and 0.01 , respectively). However, patients restrained after their agreement feel highly support from others ($P = 0.006$).

- Sex is significantly associated general negative emotions and thought attitude ($P = 0.04$), where female patients had general negative attitude and more prone to sense of negligence and rejection ($P = 0.02$), while males feel positively support from others ($P = 0.03$).

- Other demographics such as nationality and marital status are not significantly associated with patients attitudes.

- Also, source referral, way of admission (all casualty admissions), clinical diagnosis and symptoms presentation other than mood and behavioral disturbances are not significantly associated with attitudes.

- Restraint characters such as pattern, duration, number of restrain have no effect on patient's responses.

II- Psychiatrists and nurses response correlations:

A) Psychiatrist response:

Demographics for psychiatrists had no significant associations with any response

on both questionnaires including gender, job description, educational level and nationality.

B) Nurses response:

1. Male nurses and nurses work in male wards were significantly associated and responded more on welcome attitude ($P = 0.01$, & 0.04 , respectively) and prefer continuous restrain ($P = 0.009$ & 0.01 , respectively), while female nurses and nurse working in female wards responded significantly more on patient partially controlled deserve release ($P = 0.011$ & $P = 0.019$).

2. Nurses how are less professional respond significantly on general aggressive / harsh attitude and preferred physical restrain even with high potentials of hazards ($p = 0.03$ & 0.01).

3. Also, nurses with less educational level respond significantly with that force is rule on physical restraint ($P = 0.005$), while these with high nursery school prefer short restrain ($P = 0.013$).

4. Duration of experience is correlated negatively with that patient with roaming and hyperactivity could be restrained ($r = 0.28$, $P = 0.23$), where nurses with longer duration of experience do not agree about restrain for such patient who were roaming or hyperactive.

Reasons and attitude correlation:

1. Nurses with conservative general attitude respond significantly with indication of restrain for patient with suicide thought or attempt for their safety ($r=0.288$, $P = 0.023$).

2. On the other hand nurses respond with welcome and acceptance attitudes.

3. Psychiatrists with higher responses on aggressive / harsh general attitude significantly associated with responses on reasons Item.

($r = 0.32$ $P = 0.02$)

1. Psychotic patients with acting out need restrain

2. Roaming and hyperactive patients controlled by restraint ($r = 0.37$ $P = 0.009$)

3. Patient could be restrained on his request

($r = 0.31$, $P = 0.03$)

Results:

Table (1) Demographics for 30 patients experienced physical restraint

Item		N	%
Gender	Male	22	73.3
	Female	8	26.7
Nationality	Arab	27	90
	Non Arab	3	10
Marital status	Single	8	26.7
	Divorced	8	26.7
	Married	14	46.7
Education	Illiterate	2	6.7
	Low grade	12	40.0
	High school	14	46.7
	University	2	6.7

Age mean 33.9 SD $\pm$ 13.15

Range (17 - 76)

Table (2) Distribution of clinical data for 30 patients experienced physical restraint

	Item	N	%
Gender	Mood symptoms	2	6.6
	Positive psychotic	16	53.3
	Behavioral list	23	76.7
	Sleep disturbance	12	40
	Negative symptoms	3	9.9
Clinical diagnosis	Mood disorder (mania)	18	60.0
	Schizophrenias	7	23.3
	Organic syndrome	2	6.7
	Brief	3	10
Duration of illness	1 - 10 years	19	62.7
	11 - 20 years	9	29.7
	> 20 years	2	6.6
History of admission/restrain	Positive	25	83.3
	Negative	5	16.7
Number of admission	IST admission	5	16.7
	≤ 5 admission	14	46.6
	> 5	11	36.7
Drug compliance	Poor	14	46.7
	Satisfactory	11	36.6
	Non previous III	5	16.7
Source of referral	Family	24	80
	Police	6	20

Table (3) Clinical description of restraint event for 30 patients

	Strain Item	N.	%
Pattern of restrain	Interrupted	25	83.3
	Continuous	5	16.7
Duration of restrain	1 - 3 hrs	13	43.3
	4 - 8 hrs	12	40.0
	> - 8 hrs	5	16.7
Number of restrained episodes	1-5	24	80
	6-10	6	20
Circumstances & agreement	With agreement	5	16.7
	by force	25	83.3

Table (4) Distribution of general attitudes for 30 patients experienced physical restraint

	Acceptance	Refusal	Release aggression	Positive emotion/Th.	Negative emotions/Th.	Total
Median	1	1.5	2	2	1.5	8
Minimum	0	0	0	0	0	3
maximum	3	3	3	3	5	13

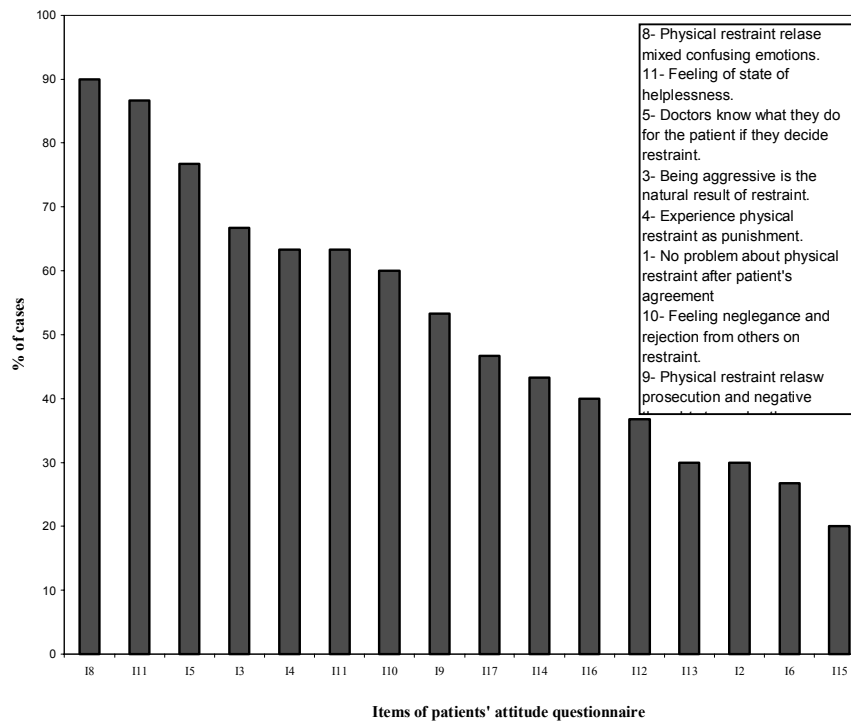


Figure 1: Rank ordered bar of statements of patients attitudes on physical restraint

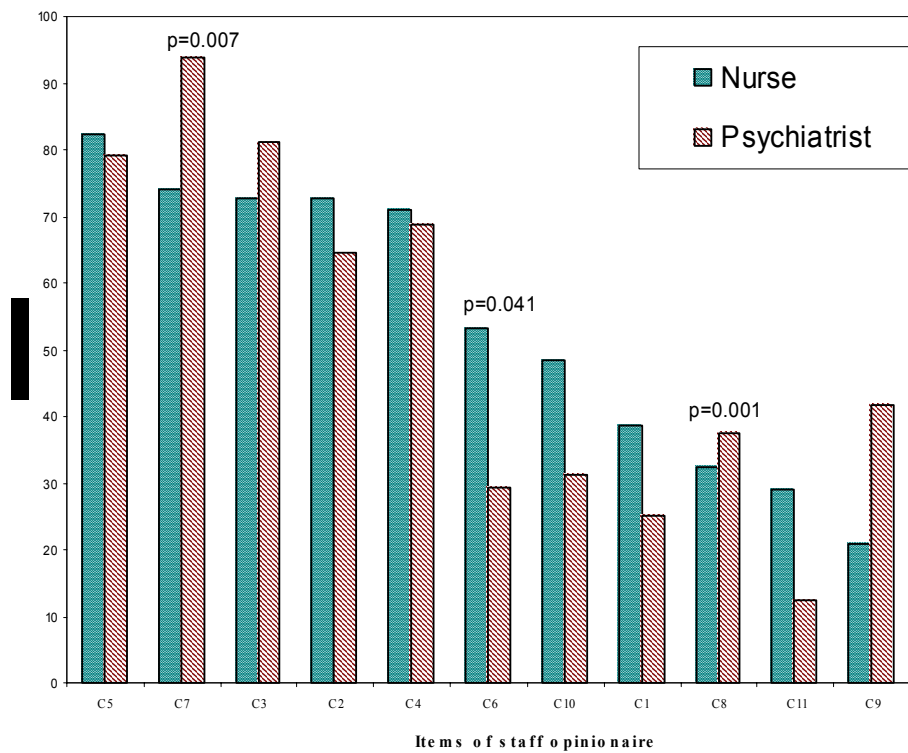


Figure 2: Distribution of the study staff according to their agreed responses regarding indications of physical restraint

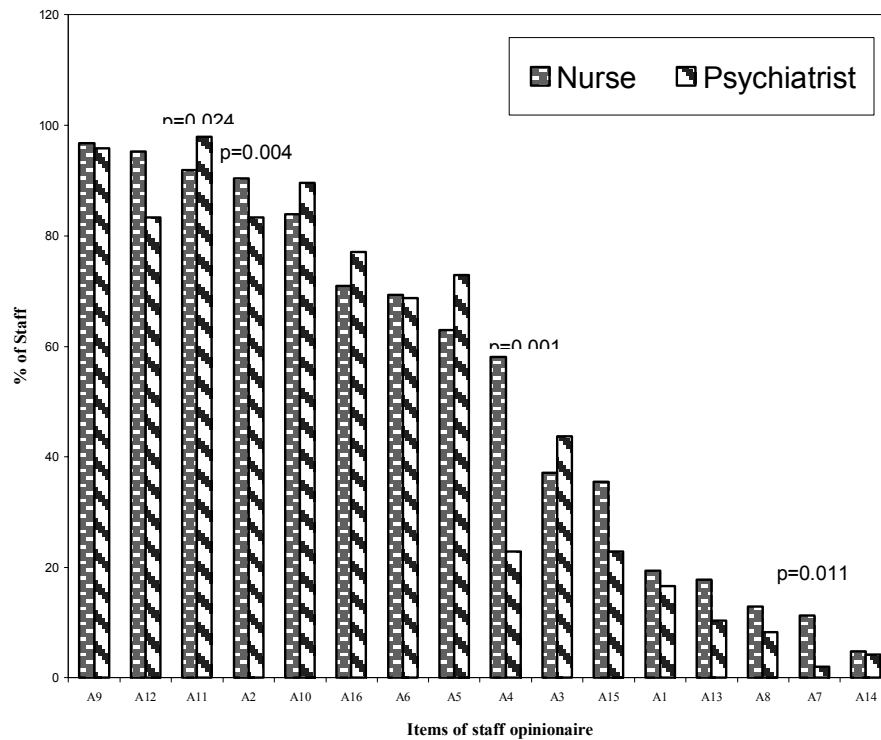


Figure 3: Distribution of the study staff according to their agreed responses regarding their attitudes about physical restraint

Table (5) Statistical correlation between different attitudes for psychiatrists and nurses toward physical restraint

Categories		Welcome	Conservative	Aggressive	Total
Psychiatrist	Min - Max	1 - 7	4 - 10	0.5	6 - 18
	Median	3	6	1.5	10
Nurses:	Min - Max	1 - 6	4 - 9	0 - 7	6 - 17
	Median	3	6	2	12
	M-W-test z	1.025	1.513	2.111*	1.623
	P	0.305	0.130	0.035	0.105

* Significant at 5% level.

** Highly significant at 1% level.

Table (6): significant associations between different attitude items and demographics as well as clinical data for 30 patients experienced physical restraint.

Attitude items	Dem/clinical data	Median	P
I am not accepting physical restraint as a way of management	Positive admission	0	0.02*
	Negative admission	1	
	Positive restrain history	0	0.01*
	Negative restrain history	1	
	With behavioral disturbance	0	0.02*
	Without behavioral disturbance	1	
During restrain I feel strong/powerful and controllable	Education		0.01*
	- illiterate	0.5	
	- educated	1	0.01*
	Positive admission	1	
	Negative admission	0	0.04*
	Positive restrain history	1	
On restrain I decide to breakdown hospital structure & discipline	Negative restrain history	0	0.006**
	Education		
	- illiterate	0	
Physical restraint release mixed confusing emotions	- educated	1	0.02*
	Drug compliance		
	Poor	1	
I decide to avoid readmission by any means because of restraint	Satisfactory	0	0.01*
	Mood symptoms		
	Present	0	
	Absent	1	

Table (7): significant association between restraint circumstances and different attitude items for patients with restraint

Attitude item	Circumstances of restraint		P
	By force	Agreement	
	Median	Median	
On restraint I feel support from others	0	1	0.006**
I feel state of helplessness	1	0	0.01*
I feel negligence & rejection from others on restraint	1	0	0.03*
Physical restraint release prosecution & negative thoughts toward others	1	0	0.01*
Physical restraint release mixed confusing emotions	1	0	0.001**
General attitude released negative emotions	1	0.5	0.04*

Table (8): significant association between sex & patients responses on restraint attitude.

Attitude item	Sex		P
	Male	Female	
	Median	Median	
On restraint I feel support from others	1	0	0.03*
I feel negligence & rejection from others on restraint	0	1	0.02*
General attitude of released negative emotions	1	2	0.04*
General attitude released negative emotions	1	0.5	0.04*

* Significance at 5% level.

** Highly significant at 1% level.

Discussion

I. Demographics and clinical characteristics:

Attempts to correlate demographics and clinical characteristics with use of restraint have failed (*Binder, R.L. 1979*).

- The current study showed that psychotic, behavioral disturbance and sleep disturbance symptoms presentations and that manic episode, schizophrenia and brief psychosis were the highest diagnosis in our

sample. These results are going parallel to some studies found psychosis; manic symptoms and agitation uncooperativeness, disruption of therapeutic milieu were more in patients who were restrained (*Betemps, E.J., et al 1993, Millstein, K.H. & Cotton, N.S 1990 and. Tsemberis, S. & Sullivan, C 1988*).

- Also, all our patients admitted via casualty and brought by family and police, these data are consistent with *Bell, C.C. &*

Palmer, J (1983) who stated that patients who were restrained more likely to be referred to a state hospital and less likely to be referred to an outpatient setting.

- One of new results in current study is the correlations of demographics and clinical characteristics of the patients with their attitudes.

Patients who were young with first admission, short duration of illness and not exhibiting behavioral disturbance not accepting physical restraint as way of management while patients who were older, with repeated admissions, chronic course and presented with behavioral disturbance more accepting restraint.

These results raise two possibilities that acceptance or refusal of restrain for these two groups explained either by more adaptation or low rate of restrain.

The later possibility supported by different studies which denoted negative correlation of restrain use and the age (**Oldham, J.M., et al 1983 Plutchik, R., Karasu, T.B et al 1978, Sehweb, P.J. & Lahmeyer, C.B 1979, and Tardiff, K1981**).

The first possibility may be supported from results in the current study that educated patients and patients with repeated admissions and chronic course feel positively (strong, power and control) Table (6).

II- Effect of physical restrain on Patients attitudes:

- The effect of physical restraint on patients is generally negative, where more than 50% of patients respond higher on items showed non acceptance, release aggression, feeling helplessness and mixed confusing emotions as well as sense of negligence, rejection,

punishment and thought negatively toward others.

- Also, the highest median score for general attitudes were for release aggression and negative emotions and thought attitudes, while the least median score for welcome and acceptance.

These results are consistent with **Aschen, S.R 1995, Hammill, K .et al, 1989, Heyman, E 1987, Johnson, M.E, 1998, Meehan, T., et al 2002, Norris, m.K. & Kennedy, C.W 1992 ,also Richardson, B.K 1987, Sternberg, J., Whelihan, W.,et al 1989, Tooke, S.K. & Brown, J.S, 1992, and Wells, D.A 1972)**

- Certain clinical and demographic data were statistically associated with this effect such as female gender, more educated; patients with absence of mood symptoms, using force on restrain procedures and patients with poor compliance on treatment.

In contrast, male patients and those who agree before the procedure feel support from others and patients with some education, repeated admissions and previously restrained feel strong, power and control.

The above results are unique that give light about the risk group who respond negatively with the restraint event.

Absence of correlation with other restrain characters as pattern, duration, number of episodes, way of admission, source of referral, nationality and marital status may suggest that patients response and attitude toward restrain depend more on patient gender, mental state and circumstances of restraint episode.

III Staff attitude and reason opinion:

1. There was agreement between psychiatrists and nurse staff in most of

reason opinions and attitude which reflect general conception framework toward restraint event.

2. The difference between responses in both groups reflect that nurses who are in direct contact with the patients most of times and experiencing stress. Nurses viewed that patients do noise, roaming and hyperactive deserve restrain and stress on presence of written order as well as attendance of psychiatrist and admitting that force is rule during the procedure, also scored higher on aggressive and harsh attitude than psychiatrists. This speculation may be true and constraint with conclusion that almost 100% of nurses during their carrier experiencing patient violence compared to 61% of other professionals (*Wynn R, Bratlid T 1998*)

3. Nurses attitude and response affected by some demographics while psychiatrists attitude is not so.

A. Male nurses and nurses who work in male wards had welcome and acceptance attitude and prefer continuous restraint.

B. Nurses with less level of education have low title in job description and less duration of experience had more harsh / aggressive attitude, prefer restraint even hazardous admitting force as rule on procedure and roaming around patient controlled be restrained. On the other hand, senior nurse professionals with higher education, more experience has conservative attitude, prefer short restrain and not agree about restrain for roaming or hyperactive patients.

- Psychiatrist, who respond more in aggressive / harsh attitude see that patient with psychosis, roaming or hyperactive or request restrain should be restrained.

The above results consistent with reports that gender and level of education affect nurse staff responses and attitudes toward physical restraint (*Klinge V 1994*). So, nurses with less education experience and professionalism are the targets of educational programs about physical restraint.

Conclusions and Recommendations:

1. Demographics, mental state and circumstances of restraint event patients response and attitude.
2. Educational program must be directed for nurse staff of less education and experience.
3. It is critical that restraint be implemented as a last resort.
4. It is necessary to implement restraint, the decision to do so should be less arbitrary, more rational, less frequent and less traumatic.
5. Protocols and guidelines for restraint indications and procedures should be present in all centers dealing with acute psychiatric patient.
6. Educational programs for staff for detection of risk group, using alternatives with least restrictive character are valuable.

Researches directed toward prevalence and patients characteristics, hospital environment efficacy of restraint as well as educational programs on patients and staff responses.

References

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Appendix (1)

Patient Attitude Towards Physical Towards Physically Restraint.

These are group of statements that give idea about your view and attitude from physical restraint as way of management.

Before this please answer the following question:-

Previous experience of Physical restraint.

* Yes () * No ()

If Yes number is: * Once () * several ()

Way of restraint:- * By Force () * With Agreement ()
* By sedation ()

Now please answer the following by (yes) or (No):-

No	Statements	Yes	No
1)	No, problem about physical restraint after my agreement.		
2)	I prefer physical restraint than sleeping by drugs when agitated.		
3)	Being aggressive is natural result of physical restraint.		
4)	I experience physically restraint as punishment.		
5)	Doctors know what they do for me if they decide restraint.		

6)	I decide to avoid readmission by any means next times.		
7)	I decide to breakdown all hospital structure and discipline.		
8)	Physical restraint release confused emotions.		
9)	Prosecution & negative emotions towards others.		
10)	Negligence & rejection.		
11)	Helplessness.		
12)	Death wishes and suicidal thoughts.		
13)	Homicidal tendencies.		
14)	Support of others.		
15)	Strong, power & control.		
16)	Secure & peaceful.		
17)	I not accept physical restraint as a way of the treatment.		

Appendix (3)**Staff Attitude Towards****Physical Restraint**

Dear colleague: These are group of statements about physical restraint. Please response and score for each as follow:

Agree = 2

Uncertain = 1

Disagree = 0

No	Statements	Agree	Uncertain	Disagree
1)	All newly admitted patients with agitation should be restrained.			
2)	Written Order as well as doctor's attendance is mandatory.			
3)	Patients control is essential even with risk of completions from physical restraint.			
4)	Force is rule during process of physical restraint.			
5)	Patients have no rights to refuse			

	restraint when indicated.			
6)	Chemical restraint (by drugs) helps to avoid restraint hazardous.			
7)	Patients do noise deserve restrain.			
8)	Patient's control by continuous restraint is preferred than interrupted one.			
9)	I keep watch over patients with physical restraint for support and avoid complications.			
10)	Partially controlled patients deserve release.			
11)	Drugs may be added to physical restraint if patients don't controlled completely.			
12)	Education of patients about the procedures and indication of restrain is vital.			
13)	Physical restraints even with hazardous is preferable than chemical restraint by drug.			
14)	Communication with patients during restraint is of no value.			
15)	Patients may be restraint when indicated even without written order.			
16)	Short time restraint is preferred as patients feel helplessness.			

Screen For ReasonsAppendix(2)**Of Physical Restraint**

Dear Collage, These are group of statements that indicate situations in which patients may be restraint.

Please respond to each one as follow:-

Agree =2

Uncertain =1

disagree =0

No	Statements	Agree	Uncertain	Disagree
1)	Physical restrain is better to avoid drug side effect and overdosing.			
2)	It is indicated for patients with disturbed consciousness.			
3)	Psychotic patients with acting out delusions or hallucinations could be restrained.			
4)	For safety of patients with suicidal thoughts or attempt physical restraint is indicated.			
5)	Drugs are better than physical restrain to help patient to fall into sleep.			
6)	Patients with by hyperactivity and rooming around could be controlled by physical restrain.			
7)	Aggressive or homicidal patients cannot control by physical restrain only.			
8)	Patients with substance intoxication are in need for physical restrained.			
9)	No need for physical retrain for patients showed intrusive behavior or violet the discipline of ward.			
10)	Physical restrain could be happened on patient request.			
11)	Sometimes patients could be restrained on nurse staff request without written order.			

Dear collage: Please answer the following and respond to these statements about reasons and attitude about Physical restrain as way of the management as fallow:-

Agree = 2

Uncertain = 1

Disagree = 0

Reasons of Physical Restrain	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
Total	

Attitude towards Physical Restraint	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
Total	

* Years of Experience

* Years in Hospital

* Position of work

* Nationality

* Post degree

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