"FREQUENCY OF RESTRAINT AND FACTORS ASSOCIATED WITH RESTRAINT IN PATIENTS ADMITTED IN GENERAL HOSPITAL PSYCHIATRY UNIT- A CROSS-SECTIONAL OBSERVATIONAL STUDY"

By

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ABBREVIATIONS

MHCA – Mental Healthcare Act

ECT – Electroconvulsive Therapy

CES – Coercion Experience Scale

MAES – MacArthur Perceived Coercion Scale

ICQ – Iowa Coercion Questionnaire

PR – Physical Restraint

ICU – Intensive Care Unit

RASS – Richmond Agitation and Sedation Scale

UNCRPD – United Nations Convention on the Rights of Persons with Disabilities

NR – Nominated Representative

GHPU – General Hospital Psychiatry Unit

CGI-S – Clinical Global Impression – Severity

SOAS-R – Staff Observation Aggression Scale – Revised

ABS – Agitated Behaviour Scale

NIMHANS – National Institute of Mental Health and Neurosciences

MS – Microsoft (in “MS Excel”)

SPSS – Statistical Package for the Social Sciences

SD – Standard Deviation

IQR – Interquartile Range

D/O – Disorder

ADL – Activities of Daily Living

EPS – Extrapyramidal Symptoms

PUC – Pre-University Course

MDD – Major Depressive Disorder

PTSD – Post-Traumatic Stress Disorder

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ABSTRACT

Background: The use of restraints in psychiatric care is a contentious practice due to its ethical, legal, and psychological implications. While necessary in certain acute scenarios, restraint use remains a measure of last resort. The Mental Healthcare Act (MHCA), 2017, emphasizes the least restrictive care and mandates strict oversight of restraint use in India. However, data on restraint practices in general hospital settings remain sparse.

Objective: This study aimed to assess the frequency, types, and associated factors of restraint use among psychiatric inpatients admitted to a General Hospital Psychiatry Unit (GHPU).

Methods: A cross-sectional observational study was conducted at KLE-Prabhakar Kore Hospital over one year (March 2023–March 2024), analyzing 200 restraint episodes among 77 inpatients. Data on sociodemographic, clinical, and aggression-related variables were collected using validated tools: Clinical Global Impression–Severity (CGI-S), Staff Observation Aggression Scale–Revised (SOAS-R), and Agitated Behaviour Scale (ABS).

Results: The prevalence of restraint use was 7.28% (77 out of 1057 admissions). The majority of restrained patients were males (80.52%) aged 21–40 years (66.23%) with diagnoses including schizophrenia (20.78%), alcohol-induced delirium (18.18%), and bipolar disorder (15.58%). Most patients were employed and from middle socioeconomic backgrounds. Combined physical and chemical restraints were used in 55.5% of cases. Severe agitation (ABS score: mean 36.37±7.84) was common, and verbal de-escalation was attempted in 59.74% of cases. The mean SOAS-R score was

10.01±6.39. Most restraint episodes occurred on the first day of admission, indicating high-risk behaviours upon entry.

Conclusion: This study met its primary objectives of assessing the frequency of restraint use, types of restraints employed, and the clinical and demographic factors associated with restraint in a general hospital psychiatric setting. The prevalence of restraint use was 7.28**%**, and among the 200 documented restraint episodes, 55.5% involved combined physical and chemical restraint, while 44.5% involved only chemical restraint. Restraint use was found to be significantly associated with young adult males presenting with psychotic or substance-induced conditions, often with a prior history of violence. While most patients were severely agitated, verbal de-escalation was underutilized. These findings underscore the need for systematic de-escalation training, early risk assessment, and strict adherence to MHCA guidelines to minimize coercive practices in psychiatric care.

INTRODUCTION

Coercion in healthcare, particularly in psychiatric settings, has always been a subject of ethical and clinical debate due to the inherent power imbalance between patients and mental health professionals. The vulnerability associated with mental illness, often compounded by impaired decision-making capacity or lack of insight, has historically been used to justify involuntary interventions. These measures include involuntary admissions, forced treatment, seclusion, and the use of physical or chemical restraints. While such interventions are sometimes crucial to prevent harm to the patient or others, they remain fraught with ethical, legal, and psychological concerns.[1]

In psychiatric practice, the use of restraints—whether physical, mechanical, or chemical—continues to be a highly controversial and variably applied intervention. Typically, restraints are employed to manage acute agitation, aggression, or behaviour that poses an immediate risk. However, their use has significant adverse implications, not only for patients, who may experience physical injuries, psychological trauma, and loss of autonomy, but also for healthcare staff, who may face occupational injuries, emotional distress, and moral conflict.[2]

Globally, there is considerable variation in the prevalence and type of restraint used across healthcare systems. Some countries, such as the UK and Portugal, report minimal or negligible use of restraints, whereas in others, including Italy and China, restraint practices remain common.[3,4]. In India, the prevalence of restraint use is relatively high in psychiatric institutions, often influenced by systemic challenges such as inadequate infrastructure, resource constraints, understaffing, and limited access to de-escalation training.[5]

These factors frequently result in coercion being used as a necessity rather than as a last resort, raising ethical and human rights concerns. Recognizing these issues, India introduced the Mental Healthcare Act (MHCA), 2017, which marked a shift toward a rights-based framework in mental healthcare. Section 97 of the Act specifically addresses the use of restraints, stipulating that restraint should only be used under strict supervision, as a last resort, and never for punishment or staff convenience. It prohibits seclusion and solitary confinement, permits physical restraint only under specific conditions with psychiatrist authorization, and mandates that all instances be documented and reported to the Mental Health Review Board. The Act further requires that a patient's nominated representative be informed within 24 hours of any restraint episode. [6,7]

Despite these legislative provisions, the implementation of restraint guidelines in Indian psychiatric settings remains inconsistent. Studies indicate variability in restraint prevalence, influenced by patient-related factors such as gender, diagnosis, severity of illness, socioeconomic background, and prior history of violence or non-compliance.[8,9]. Individuals diagnosed with schizophrenia, bipolar disorder, or substance-induced psychosis, particularly those presenting with agitation or violent behaviour, are disproportionately subjected to restraint.[7,10]

However, there is a paucity of research focusing specifically on the use of restraints in General Hospital settings, as opposed to intensive care units or dedicated mental health establishments. This gap limits our understanding of restraint practices in such general psychiatric contexts, where patient profiles and systemic factors may differ significantly.

In this context, the present study aims to explore the frequency, associated factors, and clinical characteristics of restraint use in a General Hospital Psychiatry Unit (GHPU). By addressing this gap, the study seeks to contribute to the existing body of knowledge and promote informed clinical practices concerning the use of restraints in psychiatric settings.

OBJECTIVES

Aim

To assess the frequency of restraint and factors associated with restraints in patients admitted in general hospital psychiatry unit.

Objective

- To assess the frequency of restraints of patients in psychiatry ward in general hospital psychiatry unit
- To assess the frequency of different types of restraints.
- To assess the clinical and demographic factors associated with restraints

REVIEW OF LITERATURE

Although empirical evidence from diverse contexts indicates that mental health care and interventions yield substantial advantages, psychiatry persists as a contentious domain within the medical profession. Ambiguity surrounding the efficacy of numerous psychiatric interventions, significant variations in clinical methodologies, inadequate patient safety and a dearth of high-grade outcome data pertinent to patient concerns contribute to the unfavourable perception of psychiatry. [11]

Nevertheless, the most disputed facet of contemporary psychiatry continues to be its persistent employment of coercion within clinical practice, a procedure deeply entrenched in its historical framework. While a considerable proportion of individuals engaging with mental health services do not experience coercive interventions, involuntary hospitalization and compelled treatment are prevalent phenomena in mental health care. These involuntary actions frequently entail the application of force, including seclusion, restraint, and mandated medication. Such coercive methodologies are rationalized, sanctioned, and commonly implemented in both economically prosperous and economically disadvantaged nations, as well as in institutional and community environments. These actions constitute profound violations of human rights and exemplify "an unresolved global crisis" [12] remaining among the most controversial issues in mental health. [12,1]

Coercion

The concept of "compulsion" within the realm of mental health care is relatively well-defined; it pertains to the imposition of force, ideally governed by legal frameworks, to compel an individual to undergo treatment that they have previously declined. The nomenclature "coercion" is generally understood to

encompass "compulsion" while also extending to a broader array of practices. It is not uncommon for the term to be utilized almost synonymously with treatment pressures, such as "interpersonal leverage," and even "persuasion." [3]

Coercion and persuasion, while closely interconnected, are conceptually distinct. The process of persuasion involves the clinician engaging the patient's cognitive faculties to navigate them towards a preferred resolution. Conversely, coercion transpires when the clinician employs manipulative tactics that introduce external factors, thereby undermining the patient's capacity for rational thought. [13]

Coercion within the healthcare system is widely recognized, particularly in scenarios involving mandated treatment against the patient's consent, a phenomenon that is notably more pronounced in psychiatric contexts. The field of psychiatry is distinctive in that it represents the sole medical discipline where coercion can be both legally sanctioned and endorsed by the state. Although the principle of autonomous decision-making is frequently contested due to the inherent power disparity between the knowledgeable practitioner and the less-informed patient, this power imbalance is exacerbated in psychiatry, attributed to the complexities associated with mental health disorders. Coercive practices in psychiatric care manifest in various modalities, including involuntary admission, involuntary treatment, seclusion/restraint, outpatient commitment, and, in certain jurisdictions such as India, even covert treatment. [14]

The expression of coercion in mental healthcare is characterized by diverse manifestations and varying intensities, some of which are more conspicuous than others. These include treatment pressures, interpersonal leverage, both implicit and explicit threats, and compulsion, whereby force is exerted, typically under legal authority, to compel an individual to accept treatment or interventions that they had previously rejected. Involuntary treatment may entail the enforcement of behavioural

controls, including mechanical, physical, or pharmacological restraints, forcible confinement in seclusion, administration of treatment without informed consent, and the imposition of restrictive conditions during community-based treatment and supervision. [15]

Coercion has undergone a transformation throughout history, transitioning from methods such as seclusion to the implementation of pharmacological interventions under the pretext of serving the patient's best interests, even when such actions are involuntary or clandestine. In modern psychiatric practice, coercion is recognized as a critical concern within the healthcare framework. Investigations in this domain generally concentrate on three primary dimensions of coercion within clinical environments. [8]

The incidence of overt coercive strategies, including physical restraints, compulsory pharmacological interventions (chemical restraints, involuntary medications), isolation, seclusion, and at times, electroconvulsive therapy (ECT). The phenomenon of subjective coercion, as evaluated through the coercion ladder, a systematic interview instrument designed for Indian healthcare contexts [16], or the Coercion Experience Scale (CES). [17]

The assessment of perceived coercion utilizing the MacArthur Perceived Coercion Scale (MAES) [18] or the Iowa Coercion Questionnaire (ICQ) [19]**.** Coercion within the realm of mental healthcare encompasses both implicit and explicit threats, along with the apprehension that many patients harbour regarding the potential repercussions of non-compliance, which may include the application of compulsory measures, a construct referred to as a "coercive shadow"[15].

Coercion exists beyond just mental health facilities; it is frequently observed in the treatment of older adults, those with intellectual challenges, and minors.

Coercive methodologies are likewise observed in critical surgical and medical environments. Nevertheless, no other sector of healthcare implements coercion as consistently or pervasively as that found in mental healthcare. [1]

Aggression constitutes a substantial concern within mental health institutions, and is characterized as a series of behaviours that may inflict harm upon others, manifested through both actions and verbal expressions. The underlying intent of these behaviours is frequently discernible, and they can lead to both physical harm and emotional turmoil.[20] Gautam et al.,2023 underscores that aggression is prevalent among psychiatric patients, with empirical studies suggesting that between 18% and 25% of hospitalized individuals display violent conduct.[20]

Restraints

Involvement in the medical field is accompanied by intrinsic hazards, especially when patients, who are in pursuit of assistance, exhibit agitation or violent behaviour. . According to the Occupational Safety and Health Administration, 75% of workplace assaults occur in the healthcare and social service sectors. The National Crime Victimization Survey reports that healthcare workers face a 20% higher likelihood of being victimized at work compared to other professions. Since patient violence can happen in any clinical setting, healthcare providers must be prepared to reduce the risk of harm to both patients and staff. [21]

The research by Singh et al., 2024 entitled "Analysis and Determinants of Restraint Practices in Psychiatry Inpatients from a Tertiary Care Hospital in India" was executed within the confines of the psychiatry department of a tertiary care facility in India. This investigation constituted a retrospective chart review aimed at examining restraint practices among psychiatric inpatients at a tertiary care institution

in India. The study unveiled a prevalence rate of 9.25% regarding the implementation of restraints among the evaluated patients. [22]

A descriptive cross-sectional study conducted in a psychiatric ward of a selected hospital in Mangalore observed restraint practices among patients. The study reported that **chemical restraints were most commonly used (44%)**, followed by **physical and mixed restraints (28% each)**, highlighting the frequent reliance on medication and physical methods to manage patient behaviour. **[23]**

There exists considerable disparity in the prevalence of physical restraint (PR) application within intensive care units (ICUs) across various nations. In the United States and Canada, the incidence of PR utilization varies between 16.6% and 56%. Conversely, in Europe, the rates present stark contrasts, with nations such as the United Kingdom and Portugal documenting a 0% usage rate, whereas Italy reports as high as 100% in certain units. Data derived from 44 ICUs in Australia and New Zealand illustrates an 8% PR utilization rate. In Japan and Jordan, the prevalence is significantly greater, at 32.9% and 35.8%, respectively. Two surveys conducted in China indicated that 59.07% and 61.2% of critically ill patients were subjected to physical restraints.[4]

In a study conducted in a general intensive care unit (ICU) at an 800-bed secondary medical centre in Kfar Saba, Israel, to examine the outcomes associated with restraint use. The findings revealed that patients who were subjected to restraints demonstrated higher morbidity and mortality rates during their ICU and overall hospital stay. These patients also experienced a greater number of agitation episodes, with higher severity of agitation as assessed by the Richmond Agitation and Sedation Scale (RASS). Additionally, the use of restraints was associated with an increased need for antipsychotic medication, with 11% of restrained patients (71 individuals)

requiring such treatment during hospitalization. The study highlights the complex clinical profile of restrained patients, who not only exhibited elevated agitation levels but also required more intensive pharmacological interventions and had poorer health outcomes. [24]

Basic preventive safety strategies aimed to reduce workplace violence and minimize the need for seclusion and restraint include [25]:

- *Security*: Healthcare practitioners, particularly those operating within high-risk environments, are consistently vulnerable to confrontations with agitated patients and visitors, primarily attributable to inadequate or entirely non-existent security protocols. A research investigation conducted in 2008, which examined 3,518 questionnaires from 65 emergency department environments, indicated that weaponry, including firearms and knives, was introduced into emergency departments on a daily or weekly basis. The presence of security personnel who are suitably trained and possess comprehensive experience is essential for the mitigation of violent incidents.[25.26]

- *Efficiency of Operation*: Prolonged waiting periods have been correlated with heightened instances of violence within emergency departments. A study encompassing approximately 50,000 patients indicated that a waiting duration of 2 hours was significantly related to an increased occurrence of violent incidents.[25,27]

- *Warning Sign Recognition* :Training staff to identify disruptive behaviour at the onset of a patient's visit can facilitate the enhancement of awareness and the implementation of preventive strategies. A survey conducted in 1997 among 517 psychiatric residents revealed that 36% had experienced physical

assault, and nearly 66% indicated feeling underprepared or inadequately trained in managing violent patients.[25,28]

- *Access Control:* A study of emergency department security across 250 hospitals found that only 21% of hospitals-controlled access during high-risk periods.[25,29]

- *Alarm Systems*: The deployment of various alarm systems can significantly bolster safety for both patients and healthcare personnel, including pressure-sensitive bed alarms, patient room alarms, and staff panic alarms.[25]

In both psychiatric and medical healthcare settings, coercive measures regrettably remain prevalent despite extensive initiatives aimed at curtailing their application. Ideally, treatment modalities should foster collaboration, with coercive interventions utilized solely as a last resort and only enacted when legally justified under specific mental health or capacity legislation. The motivations underlying the use of coercion are complex, with one contributing factor being aggression directed towards staff, a concern that is notably frequent in both medical and psychiatric contexts.[8]

The fundamental rationale for the application of restraint and seclusion protocols is the prevention of potential violence and the mitigation of harm. The inherent risks associated with coercive measures encompass potential harm to both the patient and the healthcare provider, including both violent and nonviolent threats. Healthcare professionals are perpetually encouraged to maintain vigilance to reduce these risks.[25]

Negative Consequences of Restraint and Seclusion

Healthcare practitioners must acknowledge that the implementation of restraint and seclusion can yield considerable adverse effects on patients and should only be contemplated as a final recourse. In such circumstances, healthcare professionals are informed by four essential ethical principles listed below. [14]

a. **Respect for autonomy**: This principle entails honouring the patient's independence and their capacity to make deliberate decisions unencumbered by coercive influences.

b. **Beneficence**: This refers to the moral obligation to act in the best interests of others, promoting their well-being.

c. **Nonmaleficence**: Commonly expressed as "First, do no harm," this principle emphasizes the importance of avoiding harm to the patient.

d. **Justice**: This principle is concerned with ensuring the fair and equitable distribution of treatment and resources.

Although these ethical principles function as guiding tenets, they frequently come into conflict within practical scenarios. For example, the principles of beneficence (promoting good) and nonmaleficence (preventing harm) both underscore the necessity for restraint to be employed solely as a last resort. Furthermore, healthcare practitioners must diligently monitor patients following the use of restraint and seclusion to avert detrimental outcomes such as pressure ulcers, skin deterioration, abrasions, asphyxia, strangulation, incontinence, depression, social isolation, and the potential for drug overdose or adverse interactions.[30]

Clinical significance

In the process of interviewing patients, it is imperative to ensure that appropriate safety protocols are established, which include searching, disarming, and

performing routine gowning procedures. The assessment should occur in a private setting while avoiding isolation, thereby preserving both confidentiality and safety. The identification of indicators of violent behaviour is essential, as a patient's prior history of violence frequently serves as the most dependable predictor of future violent conduct. [25]

The escalation of patient violence generally adheres to a traditional trajectory: commencing with anger and resistance, culminating in eventual confrontation. Indicators of imminent violence comprise provocative behaviour, posturing, pacing, an irate demeanour, and aggressive actions. The early identification of these indicators can empower healthcare practitioners to implement preventative strategies to safeguard both the patient and the staff.[25]

De-escalation Techniques

Once an agitated patient has been identified, it's important for staff to allow time for the patient to calm down before considering physical intervention. Many agitated but cooperative patients can be calmed through verbal de-escalation. The use of an honest, straightforward approach along with friendly gestures is often the most effective strategy in these situations.[25]

The American Association for Emergency Psychiatry De-escalation Workgroup outlines ten key features for verbal de-escalation, which include the following. [31]

1. Maintain a distance of 2 arm's lengths
2. Maintain a relaxed and non-confrontational posture
3. Establish verbal contact
4. Use simple and concise language.
5. Identify requests and feelings.

6. Actively listen to what the patient is saying.
7. Do not be afraid to agree to disagree.
8. Set clear boundaries
9. Attempt to offer choices
10. Debrief the staff and patient

Indication for Emergency Seclusion and Restraint

Following fruitless de-escalation techniques, emergency seclusion and restraint can be indicated. The following list suggests incidences when such measures should be administered.[31]

- Imminent danger to others
- Imminent danger to the patient
- Profound disruption of treatment or damage

Guiding principles for use of restraints

The following are the general principles followed for the use of restraints.[32]

1. The safety and dignity of the patient must be ensured
2. The safety and well-being of staff is also a priority
3. Prevention of violence is key
4. De-escalation should always be tried before the use of restraint
5. Restraint is used for the minimum period
6. All actions undertaken by staff are appropriate and proportional to the patient's behavior

7. Any restraint used must be the least restrictive, to ensure safety
8. The patient must be closely monitored, so that any deterioration in their physical condition is noted and managed promptly and appropriately. Mechanical-restraint requires 1:1 observation
9. Only appropriately trained staff should undertake restrictive interventions, to ensure the safety of patients and staff.

Restraints considered

The various types of restraint that may be considered in healthcare settings are as follows.[32]

1. **Physical restraint**: This involves direct physical contact where force is applied to either restrict a person's movement or mobility or to disengage from harmful behavior. It requires positive physical intervention against resistance.
2. **Chemical restraint**: The use of medication to control undesirable behavior. Unlike therapeutic sedation, chemical restraint does not have a therapeutic purpose but is primarily used to manage behavior by sedating or calming the individual.
3. **Mechanical restraint**: This involves using equipment to restrict movement. Examples include mittens designed for use in intensive care settings, everyday objects like a heavy table or belt to prevent a person from leaving their chair, or bedrails to prevent someone from getting out of bed. Other mechanical restraints can include locks, keypads, or other tools that restrict freedom of movement.

4. **Environmental restraint**: This refers to the design of buildings or spaces that limit a person's movement, such as locked doors, electronic keypads, double door handles, or baffle locks.

5. **Seclusion**: A specific form of environmental restraint, seclusion involves placing a person alone in a room or area where the door is shut to prevent free exit. This can happen at any time and for any duration, depending on the situation.

6. **Psychological restraint**: This form involves restricting a person's actions or freedom through verbal communication. It includes consistently telling a person what they cannot do, imposing limitations on their lifestyle choices (such as when to sleep or wake), or depriving them of possessions or equipment they rely on (e.g., walking aids, glasses, or outdoor clothing). It can also involve keeping someone in nightwear to prevent them from leaving.

7. **Planned vs. Unplanned physical restraint**:

    - **Unplanned physical restraint** occurs in situations where restrictive interventions are needed unexpectedly, often in response to unforeseen incidents. Immediacy means there’s no time to plan, and staff must act quickly based on training and best practice guidelines.
    - **Planned physical restraint** is when restrictive interventions are anticipated and planned for based on risk assessments. There is time to prepare and document these interventions in healthcare records to ensure they are structured and follow established protocols.

Each form of restraint has its own considerations and ethical implications, and healthcare providers must carefully evaluate the necessity and appropriateness of their use in line with established guidelines and principles. [32]

The classifications of restraints employed within a hospital environment can be delineated into two primary categories: direct restraints and indirect restraints (Table 1). [33]

Table 1: Type of restraints [33]

Direct restraints	**Indirect restraints**
Tables that can be moved	Passive interactions
Low chairs	Out-of-reach mobility aids
Bed rails	Persistent monitoring [sitters or specials]
Restraint belts	Lack of response to call bell
Bed linen [patients tucked into the bed]	
Locked doors	
Awkward bed positioning	
Bed positioned against a wall	
Mittens	
Web spacers	
Nasogastric tubes fixed in position	

The various types of restraint devices are enlisted below. [32]

1. *Manual restraint*: This is a hands-on physical restraint technique used by a skilled individual to prevent a patient from harming themselves or others. It involves applying controlled body pressure to immobilize the patient safely and restrict their movement.

2. *Leather, nylon, or vinyl waist belt and wrist cuff*: A less restrictive alternative to more comprehensive restraints like four- or five-point restraints, typically used for patients with severe agitation that mainly involves their hands or arms. A canvas camisole can serve as an alternative to the waist belt and wrist cuffs, offering a similar level of restraint.

3. *Leg restraint*: This device consists of a leather, nylon, or vinyl cuff with a connecting strap that allows the patient to walk but prevents them from running or kicking aggressively.

4. *Protective helmet*: This is used to protect the head of a patient who engages in self-directed violent behavior, such as head banging, to reduce the risk of injury.

5. *Five-point restraint*: This physical-restraint technique secures a patient's wrists and ankles to four points on a bed, using cuffs and straps, while the patient lies in a supine position. A waist belt is added to further immobilize movement. This is considered one of the most restrictive forms of restraint, used when less restrictive measures, such as verbal intervention, have failed. If head restraints are also applied, it is referred to as a seven-point restraint.

6. *Restraint chair:* A specially designed chair used to restrain a patient during an episode of severe agitation to prevent harm to themselves or others.

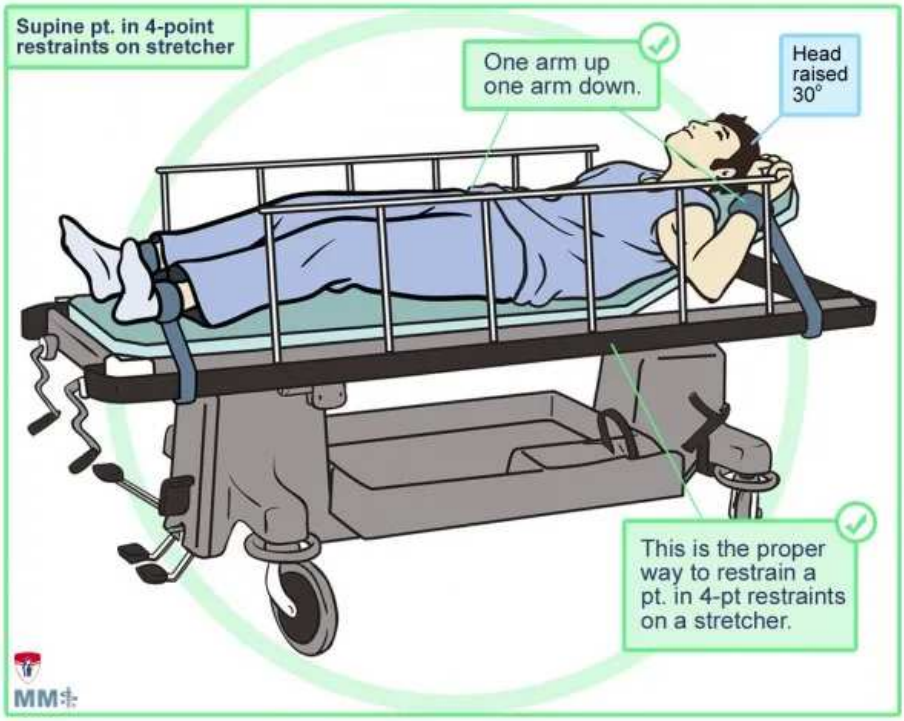
7. *Leather, vinyl, or plastic cuffs*: These are used instead of metal handcuffs to restrain a patient during a highly agitated state, helping prevent harm without using harsh metal restraints.

8. *Metal handcuffs, shackles, and chains*: These devices are no longer permitted under the Mental Healthcare Act (MHCA) 2017 and are strictly forbidden for use in healthcare settings.

Each type of restraint is intended for specific circumstances, and their use must always align with clinical judgment, legal requirements, and ethical considerations to ensure the safety and dignity of the patient. 32

Figure 1 demonstrates the correct technique for applying 4-point restraints to a supine patient on a stretcher. The patient is positioned with the head elevated at a 30-degree angle, which supports airway patency and comfort. One arm is restrained upwards and the other downwards in a diagonal pattern, minimizing the risk of the patient using coordinated force to escape. Both legs are restrained separately, ensuring immobilization and safety. The side rails are raised to further prevent accidental falls. This setup aligns with clinical guidelines for safely restraining agitated or high-risk patients, balancing immobilization with physiological support and patient dignity. [34]

Figure 1: Depicts four-point restraints [34]



Figures 1. Four point restraints

Use of restraints

A principal objective of Project BETA (Best practices in Evaluation and Treatment of Agitation) is to advocate for noncoercive de-escalation strategies, with the intent of calming the agitated patient and securing their compliance during the evaluation and treatment processes. Although certain healthcare providers may regard forced medication, seclusion, and physical restraint as the most expedient and secure interventions for addressing agitation, these approaches frequently result in heightened injuries—both physical and psychological—to patients and healthcare personnel alike.[35]

The administration of pharmacological agents for the purpose of restraint can provoke significant adverse effects, thereby complicating the delivery of patient care. Furthermore, both physical interventions and pharmacological restraints are associated with long-term detrimental consequences, including the potential erosion

of the patient-physician relationship. In recognition of these inherent risks, advocacy organizations and regulatory bodies are promoting a diminished dependence on restraint and seclusion within healthcare settings. Nevertheless, there are clinical scenarios in which verbal and behavioural de-escalation techniques may be insufficient, necessitating the use of restraint or seclusion to protect both the patient and the healthcare workforce. In situations where restraint is deemed essential, healthcare professionals can implement strategies to alleviate the negative repercussions associated with such measures, thereby ensuring the safety and dignity of all individuals involved. [36]

Definite attributes of use of physical restraints [37]

The implementation of physical restraint within healthcare environments, particularly in the domain of mental health, frequently transpires contrary to the voluntary consent of the patient. While it is generally acknowledged that adults possess the right to make autonomous decisions, a principle recognized as individual autonomy, the application of physical restraint inherently contravenes this foundational tenet to a certain degree. Although the procurement of informed consent is deemed the optimal method for honouring autonomy, physical restraint may, at times, be enacted in the absence of such consent, particularly in mental health contexts where its conditional use is legally sanctioned under specific circumstances. Given the substantial risks associated with the application of physical restraint for both patients and healthcare professionals, only personnel possessing the requisite qualifications are sanctioned to execute these interventions. Educational programs are essential for healthcare practitioners to enhance their competency in the application of physical restraint. These training initiatives concentrate on clinical justifications,

alternative methodologies, the appropriate procedural framework for implementation, potential adverse consequences, and methodologies to mitigate injury and trauma. Physical restraint is conceptualized as a measure of last resort, primarily aimed at safeguarding patient welfare and facilitating necessary medical interventions. In exceptional circumstances, such as when a patient presents a substantial risk of harm to themselves or others—exemplified by severe agitation or suicidal ideation—manual physical restraint may be employed to curtail physical mobility. Critically ill individuals who decline mental health treatment may similarly be subjected to restraint. [37]

Although healthcare providers might perceive physical restraint as indispensable for ensuring safety, its application can engender considerable ethical dilemmas and apprehension among staff. Established guidelines underscore that restraint should only be implemented following a comprehensive medical evaluation and after exhausting all appropriate alternatives. The use of physical restraint must never be employed for the convenience of the staff, irrespective of the clinical context. It should consistently be regarded as a measure of last resort.

Several factors that contribute to doctors and nurses resorting to restraints in healthcare settings are enlisted below.[38]

1. **Unsuitable facilities**: Inadequate or poorly designed spaces may not provide the necessary environment for safely managing agitated patients, leading staff to use restraints as a quick solution.
2. **Understaffing**: High attrition rates and understaffing, especially in public health facilities, create situations where healthcare providers may lack the

support and resources needed to handle agitated patients without resorting to restraints.

3. **Professional burnout**: High levels of job-related stress, often leading to psychological and physical exhaustion, are prevalent, particularly in psychiatric facilities. This burnout can reduce staff members' capacity to effectively manage challenging situations, making restraint seem like a necessary option.
4. **Inadequately trained professionals**: When healthcare staff are not properly trained to manage agitated or aggressive patients, they may be more likely to turn to restraints as a means of control, rather than using alternative de-escalation techniques.

Addressing these underlying factors through improved training, better staffing, and facility design can help reduce the reliance on restraints and promote safer, more effective care. [38]

Raveesh BN et al 2016 conducted a study aimed to evaluate the attitudes concerning the utilization of restraints among psychiatrists and caregivers. A cohort comprising 210 psychiatrists and an equivalent number of caregivers participated in the research. Both cohorts concurred that coercive measures, including restraints, were correlated with variables such as limited resources, security apprehensions, and the objective of mitigating harm. They also reached a consensus that coercion should not be employed as a therapeutic approach but is deemed necessary in specific circumstances, particularly for the safeguarding of patients in perilous situations. Nevertheless, significant disparities in perspectives were observed contingent upon experience and demographic factors. More seasoned caregivers and male psychiatrists

with extensive experience posited that coercive actions stemming from resource scarcity infringed upon patient integrity. Notwithstanding these divergences, both factions recognized the necessity of coercion for protection in hazardous contexts. The investigation revealed considerable disagreement between the professional opinions of psychiatrists and those of caregivers concerning numerous aspects related to coercion. While the reliability of the SACS (an instrument utilized for gauging attitudes towards coercion) was found to be moderately acceptable to commendable among psychiatrists, it exhibited insufficient reliability within the caregiver demographic. Both psychiatrists and caregivers acknowledged that the insufficiency of resources played a significant role in the application of coercive measures. Furthermore, they concurred on the imperative for early detection of aggressive behaviour, the implementation of interventions aimed at reducing aggression, the empowerment of patients, and the enhancement of hospital resources. They also emphasized the paramount significance of personnel training in verbal de-escalation techniques. The study illuminated the pressing necessity for standardized operational protocols concerning the application of coercive measures within Indian mental health environments, to ensure uniformity, safety, and the preservation of patient dignity. [39]

Allen MH et al 2004 found out that, on average, each episode lasted 3.3 hours, with 8.5% of presentations incorporating the use of physical restraints. A notable correlation was observed between the proportion of psychotic patients receiving treatment and the implementation of restraints; however, this correlation did not extend to numerous other patient and service attributes. Oral pharmacological agents were administered to 29% of the patient population, whereas involuntary medication was employed in 16% of instances. A significant majority (94%) dismissed the notion of sleep or excessive sedation as an appropriate endpoint; conversely, 82% endorsed

the use of mild sedation as a more suitable endpoint that would permit further assessment. The medications most strongly favoured by respondents were benzodiazepines, with 82% asserting that benzodiazepines should be the initial treatment for agitation, followed by antipsychotic intervention if deemed necessary. A noteworthy 60% of respondents expressed a preference for the exclusive use of benzodiazepines in cases where there was no documented history of prior antipsychotic exposure. Nonetheless, only 8% supported this strategy in the context of a previous treatment history involving antipsychotic medications. When feasible, a substantial majority of respondents (78%) indicated a preference for addressing behavioural emergencies with oral medications; however, 70.3% acknowledged routinely employing an intramuscular combination of a high-potency typical neuroleptic and a benzodiazepine as required. In addition to crisis management, 70% of services commenced regular pharmacological treatments for patients transitioning back to the community, and 82% of services initiated ongoing medication protocols for patients being admitted to hospital environments. Among those patients who were initially prescribed oral antipsychotics, 42% received an atypical antipsychotic. A significant majority of respondents (92%) indicated that selective serotonin reuptake inhibitors represented the preferred class of antidepressants, and 90% recognized divalproex or analogous compounds as appropriate for the treatment of bipolar disorder within the psychiatric emergency setting, underscoring the importance of pharmacological attributes in critical circumstances. [40]

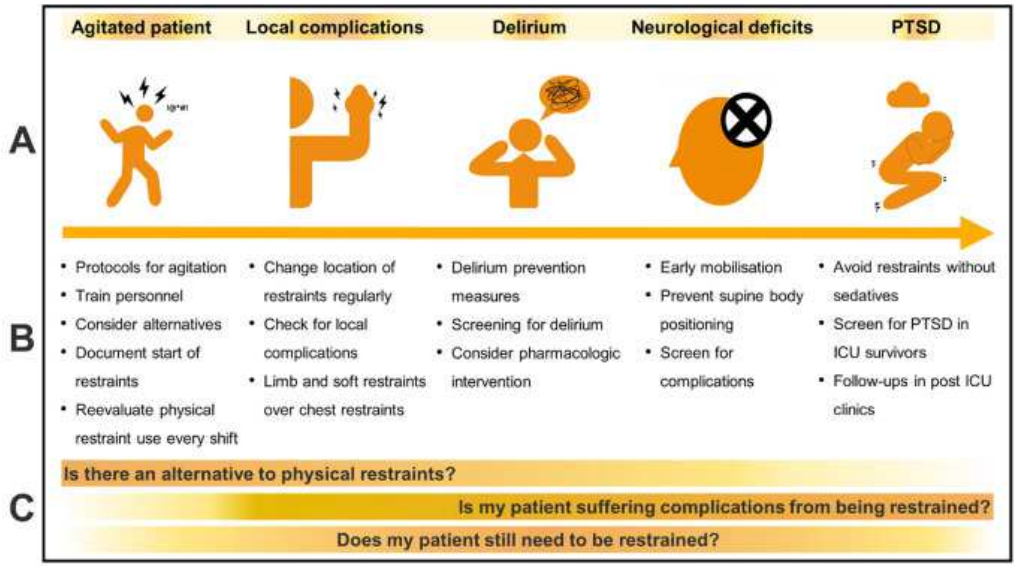
The use of restraints is not without identifiable psychological (to both staff and patients) or physical health risks. As listed in Table 2, physical examples include injury and aggression, pressure sores and loss of muscle tone, contractures, asphyxiation and death due to strangulation. Psychosocial effects can include anger, frustration, aggression, fear, reduced engagement and apathy. Using such methods can also raise ethical issues with staff members and grow feelings of contentiousness and unhappiness. [33]

Table 2 complications associated with the use of restraints in psychiatric settings [33]

Physical	Urinary and faecal	Mental
Skin trauma	Constipation	Delirium
Muscle atrophy	Urinary and faecal incontinence	Agitation
Limb injury, including fracture		Apathy
Skull fracture		Depression
Intracranial haemorrhage		Anxiety
Nerve injury [radial nerve/brachial plexus]		Aggression
Contracture		Frustration
Strangulation		Disempowered
Asphyxiation		Cognitive decline
		PTSD

Figure 2 illustrates potential intervention targets for physical restraint use during intensive care unit (ICUs) stay include complications(A) , an intervention checklist (B), and critical periodic re-evaluation (C). [41]

Figure 2: Potential complications of physical restraints across different stages and preventive strategies and reflective clinical questions to minimize their use [41]



Guidelines designed to mitigate or eradicate the application of restraints have been formulated in nations such as the United States, the United Kingdom, and Australia. The United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) has advocated for the limitation of all modalities of restraint for individuals with disabilities, including those experiencing mental health disorders, except in scenarios where the individual is incapable of providing informed consent or possesses restricted decision-making abilities. In such circumstances, the implementation of restraints may be permissible; however, it must be accompanied by comprehensive monitoring. [42]

In the Indian context, the Mental Health Care Act (MHCA) enacted in 2017 delineates comprehensive guidelines pertaining to the application of restraint. The MHCA underscores the imperative to administer treatment within the "least restrictive setting," which signifies that restraint is permissible solely in circumstances where there exists an immediate threat to the individual or to others. Additionally, the Act stipulates that the medical officer or mental health professional overseeing the case must diligently monitor and document the techniques, nature, and duration of any restraint implemented. Moreover, it necessitates the communication of any instances of restraint to the designated representative within a 24-hour timeframe.[6]

These contemporary statutes and regulations bolster the significance of patient rights, encompassing informed consent, autonomy, privacy, and dignity. They endorse a careful consideration of the balance between the hazards and advantages associated with the application of restraints, ensuring that patient safety and well-being are prioritized while also adhering to their essential rights.[7]

The Mental Healthcare Act, 2017 lays down clear guidelines (Table 3) to protect the dignity and rights of persons with mental illness. Section 97 specifically addresses the use of restraints and seclusion in mental health establishments, emphasizing that restraint should be used only as a last resort, under strict conditions, and never as a form of punishment, deterrent, or convenience. [43]

Table 3: Summary of key provisions related to restraints and seclusion under Section 97 of MHCA 2017 [43]

Aspect	Details
Seclusion & Solitary Confinement	Completely prohibited. Cannot be used under any circumstance.
Physical Restraint – Conditions	Allowed only if: • No other means to prevent immediate harm. • Authorized by treating psychiatrist.
Duration of Restraint	For minimum period necessary to prevent harm.
Documentation	Details of method, reason, and duration of restraint must be immediately recorded in the person's medical records.
Prohibition of Punitive Use	Cannot be used as punishment, deterrent, or due to staff shortage.
Information to Nominated Representative	NR to be informed within 24 hours of each instance of restraint.
Supervision of Restrained Person	Must be kept in a safe place under continuous medical supervision.
Reporting to Board	All instances of restraint to be reported monthly to the Mental Health Review Board.
Authority & Oversight	Central Authority may frame regulations. Board can order establishment to stop restraint if rules are violated.

Review of Published Literature

SOCIODEMOGRAPHIC VARIABLES

Table 4: Age and Restraint Use

Study	Type of Study	Key Findings
Singh et al., 2024[22]	Observational	Younger patients were more likely to be restrained.
Ros et al., 2024 [44]	Observational	Younger patients were more likely to be mechanically restrained.
Spennato et al., 2023 [10]	Retrospective Cohort	Older patients were more likely to be restrained.
Aaron Jones et al., 2022 [45]	Retrospective cohort study	The median age of restrained patients was 76 years.
Välimäki et al., 2022 [46]	Observational	The mean age of physically restrained patients was 40 years.
Mahin Nomali et al., 2022 [47]	Cross sectional Observational	The mean age of restrained patients was 45.8 years.
Kuppili et al., 2022 [7]	Observational	The average age of restrained patients was 30.50 years.

Table 5: Gender and Restraint Use

Study	Type of Study	Key Findings
Singh et al., 2024 [22]	Observational	Males were more frequently restrained than females.
Ros et al., 2024 [44]	Observational	Younger males were more likely to be mechanically restrained.
DePorre et al., 2023 [48]	Retrospective cohort study	Male sex was a significant predictor of restraint use in children.
Caruso et al., 2021 [49]	narrative review	Younger and male patients were more likely to exhibit aggression.
Mahin Nomali et al., 2022 [47]	Observational	64.7% of restrained patients were male.
Välimäki et al., 2022 [46]	Cohort Study	Gender distribution was equal (50% male, 50% female).
Kuppili et al., 2022 [7]	Observational	Majority of restrained patients were male (63.16%).

Table 6: Socioeconomic Status and Restraint Use

Study	Type of Study	Key Findings
Singh et al., 2024 [22]	Observational	Patients from lower and middle socioeconomic backgrounds were more frequently restrained.
Jumriani et al., 2023 [50]	Literature Review	Low socioeconomic status identified as a risk factor for restraint use.
Kuppili et al., 2022 [7]	Observational	Majority of restrained patients were employed (92.21%) and from middle-class backgrounds.

Table 7: Most common primary diagnosis

Study	**Type of Study**	**Key Findings**
Caruso et al., 2021 [49]	Narrative Review	Schizophrenia, cognitive impairment, and personality disorders strongly associated with aggressive behaviour.
Hu et al., 2019 [51]	descriptive quantitative study	Most common diagnoses among chemically restrained patients were schizophrenia, schizotypal disorders, and delusional disorders. Most prescribed drugs were clonazepam and olanzapine.
Kuppili et al., 2022 [7]	Cross-sectional	Most common diagnosis was bipolar disorder (44.74%), followed by non-affective psychosis (31.57%), substance use disorder (9.33%), and emotionally unstable personality disorder (5.33%).
Zun et al., 2003 [52]	Prospective Observational study	Psychosis was the most frequent discharge diagnosis (33%) among restrained patients.
Jumriani et al., 2023 [50]	Literature Review	Patients with psychotic disorders, mood disorders, and cognitive impairments are more likely to be restrained due to behaviours like aggression, agitation, or disorientation.

Güngör et al., 2024 [53]	Descriptive cross-sectional	Psychiatric conditions such as psychotic disorders and mood disorders identified as risk factors for restraint.
Chieze et al., 2021 [9]	Literature Review	Psychiatric diagnoses associated with higher restraint use include psychotic and mood disorders.
Singh et al., 2024 [22]	Retrospective Study	Main diagnoses among restrained patients: alcohol use disorder with delirium tremens (46.9%), mood disorders with manic/mixed episodes (31.3%), schizophrenia/schizoaffective disorder (9.4%), other psychotic disorders (9.4%), severe depression with psychotic symptoms (3.1%).
Välimäki et al., 2022 [46]	Observational	Schizophrenia-spectrum and other psychotic disorders accounted for 61% of restrained patients.
Spennato et al., 2023 [10]	Retrospective Cohort	Reasons for restraint: Delirium (64.6%), fall prevention (26.4%), aggressive behaviour prevention (3.8%). Common diagnoses: schizophrenia, bipolar disorder, personality disorders. Personality disorders associated with longer restraint duration.
Miodownik et al., 2019 [53]	Retrospective study	Patients with personality disorders tend to experience longer periods of restraint.

Table 8: Prevalence of restraint use

Study	Type of Study	Findings of the Study
Singh et al. (2024) [22]	Observational Study	9.25% prevalence of restraint use, slightly higher compared to our study.
Sobhani et al. (2024) [55]	Prospective observational Study	35.1% of patients experienced restraint, with a restraint patient rate of 8.15 per 1000 inpatient days and an event rate of 26.1 per 1000 inpatient days.
Thomann et al. (2021) [57]	Cross-sectional Study	9.46% prevalence of restraint use over the course of one year.
Thomann et al. (2021) [57]	Cross-Sectional Study	8.7% prevalence of restraint use measured over a 30-day period.
Beghi et al. (2013) [58]	Systematic Review	Systematic review found restraint prevalence ranging from 3.8% to 20%, with significant variability across institutions. Some facilities reported rates differing by 10 to 20 times, influenced by institutional practices and cultural attitudes.
Spennato et al. (2023) [10]	Retrospective Cohort Study	6.4% of 11,979 admissions involved at least one form of restraint (n = 772).

Table 9: Frequency of Types of Restraint

Study	Type of Study	Findings of the Study
Gowda GS et al. (2018) [59]	Observational Study	Involuntary medication: 32%, Seclusion: 18%, Chemical restraint: 58%, Physical restraint: 20%, One or more restraint techniques: 66.5%.
Danivas V et al. (2016) [60]	Observational Study	Intravenous injections were administered to 27% of all admitted patients.
Bilanakis N et al. (2011) [61]	Retrospective Study	10.5% of hospitalizations involved chemical restraint. 60 injections contained antipsychotics (96.7% haloperidol) often combined with benzodiazepines (61.7%).
Pérez-Revuelta et al. (2021) [62]	Retrospective Study	Between 2007 and 2014, 12% of total admissions required mechanical restraint.
Pawlowski T et al. (2017) [63]	descriptive, longitudinal study	Mechanical restraint was the most commonly used type of direct coercion.
Lepping et al. (2016) [64]	Comparative analysis	Physical restraints used in 11.8% of patients; seclusion was more common in the Netherlands, while physical restraint was more prevalent in Wales.
Thomann S et al. (2021) [57]	Observational Study	Mechanical restraints: 55.0%. Main reasons: fall prevention (43.8%), confusion or delirium (20.4%).
Aaron Jones et al. (2022) [45]	Observational Study	Chemical restraint use was more common than physical restraints in Alberta and Ontario.
Välimäki et al. (2022) [46]	Observational Study	Total 1986 restraints recorded; most frequent type was limb holder (1690 incidents), followed by waist belts and safety vests.

Table 10: Restraint related parameters

Name of Study	Type of Study	Broad Variable	Specific Variable	Findings
Kuppili et al. (2022) [7]	Observational	Restraint Patterns	Timing & Frequency of Restraint	47% restrained within first week, median events per person 2, night shifts common.
Richmond et al. (2012) [31]	Review article	De-escalation Strategies	Verbal De-escalation	Shift from coercion to verbal engagement improves patient outcomes.
Spennato et al.(2023) [10]	Retrospective Cohort	Reason for Restraint	Reason for Restraint	72% restraints applied to prevent behavioural issues ensuring safety in ICU.
Danivas V et al. (2016) [60]	Observational	Incident Dynamics	Incident Dynamics	Relatives were cause in 35%, target in 56%, and assisted in 35% incidents.
Jayprakash et al.(2023)[23]	Observational	Implementation & Consent	Who performed Restraint	Nurses performed restraints (Mangalore), staff in our study (60%), security called in 39% cases.
Moss & La Puma.(1991) [65]	Literature review	Implementation & Consent	Consent and Ethical Consideration	Restraints used after obtaining consent from patients and relatives.
Stevenson et al.(2012) [66]	Descriptive analysis	Aggression Dynamics	Consequences on Nurses	Nurses reported fear, anxiety, professional impact after violence.
d'Ettorre & Pellicani, (2017) [67]	Observational	Aggression Dynamics	Consequence of Aggression	7.5%-33% of healthcare worker victims developed psychological symptoms.
Zulian et al., 2020 [68] Dolan & Looby, 2017 [69]	Observational cross-sectional study	Risk Factors	Risk Factors in ICU	Sedation, agitation, invasive devices associated with restraint use in ICU.
Chieze M et al., 2021 [70]	Literature review	Risk Factors	Risk Factors	16.4% subjected to coercion; risk factors include aggression, psychiatric history, cognitive disorder.
Kuppili et al., 2022 [7]	Observational	Risk Factors	Indications of Restraint	Combination of violence, self-harm, absconding attempts common indications.
Raboch et al., 2010 [71]	Prospective Cohort study	Risk Factors	Reason for Coercive Measures	Aggression towards others (59%), self-harm (22%), threats to health (27%).
Dumais et al., 2011 [72]	Observational	Predictors of Restraint	Predictors of Restraint	Younger patients at higher risk, male gender not consistently predictive, long

				stay increases risk.
Jumriani et al., 2023 [50] Chien et al., 2022 [73]	Literature Review	Predictors of Restraint	Sociodemographic Factors	Young males, immigrants, low SES at higher risk; older age, low education linked to restraint.
Dumais et al.2011[72]	Observational	Predictors of Restraint	Patient Characteristics	Schizophrenia, bipolar disorder, longer stays, previous admissions linked to restraint.
Gowda GS et al., 2018 [8]; Heinze C et al., 2012; [75] Chien CF et al., 2022 [73]	Prospective Observational	Predictors of Restraint	Predictors of Restraint	Male, married, rural background, mood disorder, alcohol use linked to restraint.
Staggs, 2021 [76]	Observational	Predictors of Restraint	Predictors & Practices of Restraint	Predictors include hospital type, injury severity, admission status, patient sex.

MATERIALS AND METHODS

Source of Data: Patients who were admitted in psychiatry ward of KLE-Prabhakar Kore Hospital over a period of one year

Study Design: Cross sectional observational study

Study Period: It was an observational study to be conducted from 1st March 2023 to 1st March 2024

Informed consent: Consent was taken from attenders of patients who were willing to participate in the study.

Sample Size: We assumed the prevalence of restraints in in-patients to be 66.5% based on a study conducted in Department of Psychiatry, National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore.

Using $4pq/r^2$

Where p=66.5%, q=100-66.5=33.5

r=10% of the known prevalence=6.65

sample size=200

Sampling technique: Purposive sampling

Inclusion Criteria: All patients irrespective of diagnosis admitted in in-patient care.

Exclusion Criteria: Attenders who refused to give informed consent for the study.

Ethical Clearance: Prior to commencement, ethical clearance was obtained from Institutional Ethics Committee, Jawaharlal Nehru Medical College, Belagavi with Ethical Clearance number MDC/JNMCIEC/243.

Data collection procedure:

The data for the present study was collected in strict adherence to the legal and ethical framework outlined in the Mental Healthcare Act (MHCA), 2017, which upholds the rights, dignity, and autonomy of persons with mental illness while ensuring their safety and appropriate care. Prior to the commencement of the study, approval was obtained from the Institutional Ethics Committee. Patients who were included in the study were admitted under supported admission as per Section 89 of the MHCA, 2017, which allows for the admission of individuals with mental illness who require high levels of support and are unable to make independent decisions regarding their care.

Data collection was carried out after obtaining informed, written consent from the patient's nominated representative or legally authorized guardian. Consents were provided in the vernacular language of the nominated representative or guardian to ensure adequate understanding of the study and its procedures. The sociodemographic details and relevant clinical variables of the patients were collected using a pre-designed and pre-validated proforma. The Clinical Global Impression – Severity (CGI-S) scale was administered at the time of admission to assess the severity of psychiatric illness. Restraint-related parameters were recorded using the Staff Observation Aggression Scale – Revised (SOAS-R) at the time of each restraint episode. Additionally, the Agitated Behaviour Scale (ABS) was used to evaluate the severity of agitation during each restraint incident.

Tools:

1) Clinical Global Improvement- Severity of illness

The Clinical Global Impression – Severity (CGI-S) scale is a clinician-rated tool used to assess the overall severity of a patient's mental illness at the time of evaluation. It is a widely used, simple, and standardized instrument that provides an objective measure of illness severity based on the clinician's expert judgment, taking into account the patient's symptoms, behaviour, and functional impairment. The scale rates severity on a 7-point Likert scale, ranging from 1 (Normal, not at all ill) to 7 (Among the most extremely ill patients). In the present study, the CGI-S scale was applied at the time of admission to evaluate the severity of psychiatric illness among patients who required restraints. [77]

2)Staff Observation Aggression Scale- Revised

The Staff Observation Aggression Scale-Revised (SOAS-R) is an instrument for monitoring aggressive incidents in psychiatric wards. It is based on the staff's standardized reports of aggressive incidents. By using a special aggression report form, comprehensive and standardized information is obtained, thereby permitting scoring and further analysis of different aspects of aggressive incidents. It consists of five columns (categories), and each column comprises several options to characterize the actual incident. Several options can be marked in each column. The five columns have the following themes: 1) The provocation that leads to the aggressive incident; 2) The means used by the aggressor during the incident; 3) The target of aggression; 4) The consequences for victims; and 5) The immediate measures taken to stop or control aggressive behavior. [78]

3)Agitated Behavior Scale

The ABS is used for the assessment of agitated behavior. It is a 14-item scale comprising different types of behavior. Each item is rated from 1 (absent) to 4 (present to an extreme degree). Total scores of 21 points or below are classified as normal behavior, 22–28 as mild agitation, 29–35 as moderate agitation, and 36–56 as severe agitation. [79]

Statistical Analysis Plan

- Data was coded and recorded in MS Excel spreadsheet program. SPSS v23 (IBM Corp.) will be used for data analysis.
- Descriptive statistics were elaborated in the form of means/standard deviations and medians/IQRs for continuous variables, and frequencies and percentages for categorical variables. Data was presented in a graphical manner wherever appropriate for data visualization using histograms/box-and-whisker plots/column charts for continuous data and bar charts/pie charts for categorical data.

RESULTS

Results

The present study analysed a total of 200 restraint episodes involving 77 psychiatric inpatients admitted to the General Hospital Psychiatry Unit. The analysis focused on the socio-demographic and clinical profile of these patients, along with various parameters related to restraint use. The severity of psychiatric illness at the time of admission was assessed using the Clinical Global Impression – Severity (CGI-S) scale. Following this, details of each restraint episode were evaluated using the Staff Observation Aggression Scale – Revised (SOAS-R) to document aggression-related factors and contextual variables associated with the restraint. The level of agitation during the restraint episodes was further assessed using the Agitated Behaviour Scale (ABS). The results obtained from these assessments were systematically analysed to understand the patterns, frequency, and clinical correlates of restraint use in the study population.

Table 11: Distribution of sample according to Socio-demographic parameters (N=77)

Parameters	**Number (N=77) N(%)**
Age	
Mean ± SD	36.56±14.73
Range (Min-Max)	18-71
Age category	
21-40 years	51 (66.23%)
41-60 years	14 (18.18%)
20 years or Lower	6 (7.79%)

More than 60 years	6 (7.79%)
Gender	
Male	62 (80.52%)
Female	15 (19.48%)
Education	
Graduation	38 (49.35%)
Not formally educated	20 (25.97%)
Secondary school	10 (12.99%)
2nd PUC	8 (10.39%)
Post Graduation	1 (1.30%)
Occupation	
Employed	71 (92.21%)
Unemployed	6 (7.79%)
Religion	
Hindu	60 (77.92%)
Muslim	17 (22.08%)
Socio-economic status	
Lower	24 (31.17%)
Lower middle	22 (28.57%)
Upper middle	21 (27.27%)
Upper	7 (9.09%)
Upper Lower	3 (3.90%)
Place	
Rural	40 (51.95%)
Urban	37 (48.05%)

Table 11 depicts the distribution of sociodemographic parameters. The average age of the 77 patients included in the study was 36.56±14.73 years and a range of 18-71 years. Most of the patients were in the age group of 21-40 years (66.23%) followed by 41-60 years (18.18%). Most of the patients were males (80.52%). Most of the patients were educated up to graduation (49.35%). Most of the patients were employed (92.21%). Most patients were Hindu in the study (77.92%). Most of the patients belonged to the middle class (lower middle 28.57% or upper middle 27.27%). There was a slight preponderance for the patients from the rural areas (51.95%).

Table 12: Distribution of Primary Diagnosis N=77

Primary Diagnosis	N(%)
Schizophrenia continuous, currently symptomatic	16 (20.78%)
Alcohol Induced Delirium	14 (18.18%)
Bipolar Type 1 D/O Current Episode Manic	12 (15.58%)
Alzheimer's disease with behaviour disturbances	5 (6.49%)
Acute and transient psychotic disorder	4 (5.19%)
Alcohol Dependence, Alcohol Induced Psychotic D/O	4 (5.19%)
Cannabis induced psychosis	4 (5.19%)
Bipolar Type 1 D/O Current Episode Manic with Psychotic Symptoms	3 (3.90%)
Schizophrenia Continuous with Catatonia	3 (3.90%)
Intellectual Disability, Severe	2 (2.60%)
Schizophrenia, Unspecified	2 (2.60%)
Schizophrenia Multiple Episodes	2 (2.60%)
Volatile Inhalant Induced Psychotic D/O	2 (2.60%)
Amnestic D/O D/T Volatile Substance Inhalation with MDD with Seizure D/O And Blindless	1 (1.30%)
Cognitive Decline Due to Head Injury	1 (1.30%)
Intellectual Disability, Moderate	1 (1.30%)
Schizophrenia Continuous with Seizure Disorder	1 (1.30%)

Table 12 depicts the most common primary diagnosis seen in the study was Schizophrenia Continuous seen in 20.78% followed by Alcohol induced Delirium (18.18%) and Bipolar type 1 with manic episode (15.58%).

Table 13: Clinical Details of the sample population N=77

Clinical details	N(%)
Psychiatric past history +	51 (66.23%)
Family history +	39 (50.65%)
Personality disorder +	27 (35.06%)
Past attempt of suicide+	5 (6.49%)
Past H/O Violence +	37 (48.05%)
Type of admission-High Support	77(100%)
Current admission treatment details	
ECT+	26 (33.77%)
Patient accepting oral medication	16(20.78%)
Substance abuse *	
No substance use	40 (51.95%)
Dependence	34 (44.16%)
Harmful use	3 (3.90%)

***nicotine, alcohol, cannabis, volatile inhalants

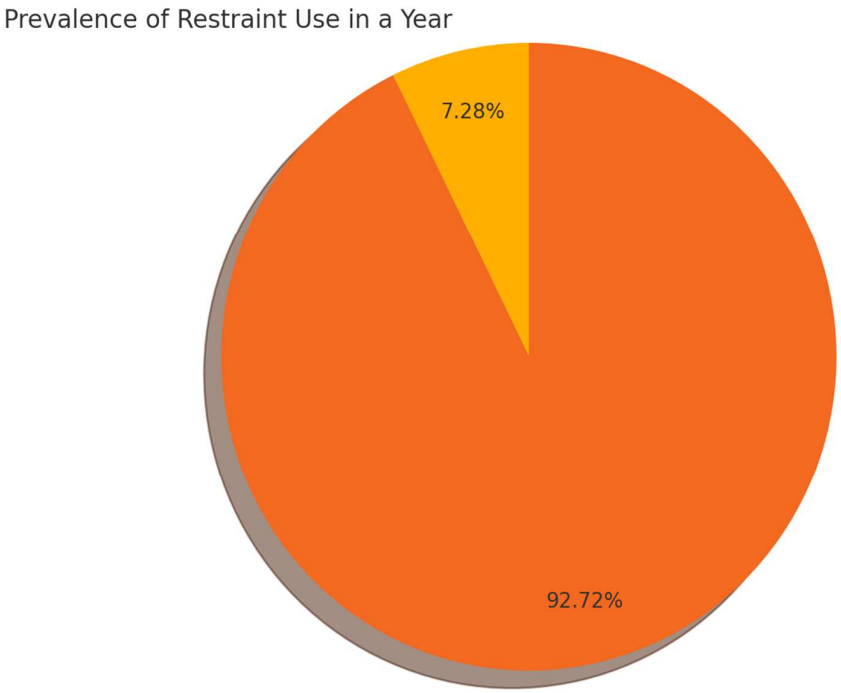
As per table 13 it was seen that 66% patients had a significant past history of psychiatric disorder. 50% patients had a positive family history of psychiatric illness. 35% patients had a history of personality disorder with only 5 patients (6.49%) having a prior history of suicide. 48% patients had a prior history of violence.

Among the patients, 40 (51.95%) had no history of substance use, while 34 (44.16%) were diagnosed with substance dependence. Additionally, 3 (3.90%) engaged in harmful substance use but did not meet the criteria for dependence.

Prevalence of restraint

Out of the 1057 patients managed in the department during the study period, it was seen that 77 patients had a need of restraint. Overall, this led to 7.28% restraint prevalence in the study

Figure 3: Prevalence of restraint use in a year



Frequency of type of restraint

Table 14: Distribution of type of restraint N=200

Type of restraint	N(%)
Only Chemical (per-oral/IV/IM)	89 (44.50%)
Physical + Chemical	111 (55.50%)

Figure 4. Type of restraints

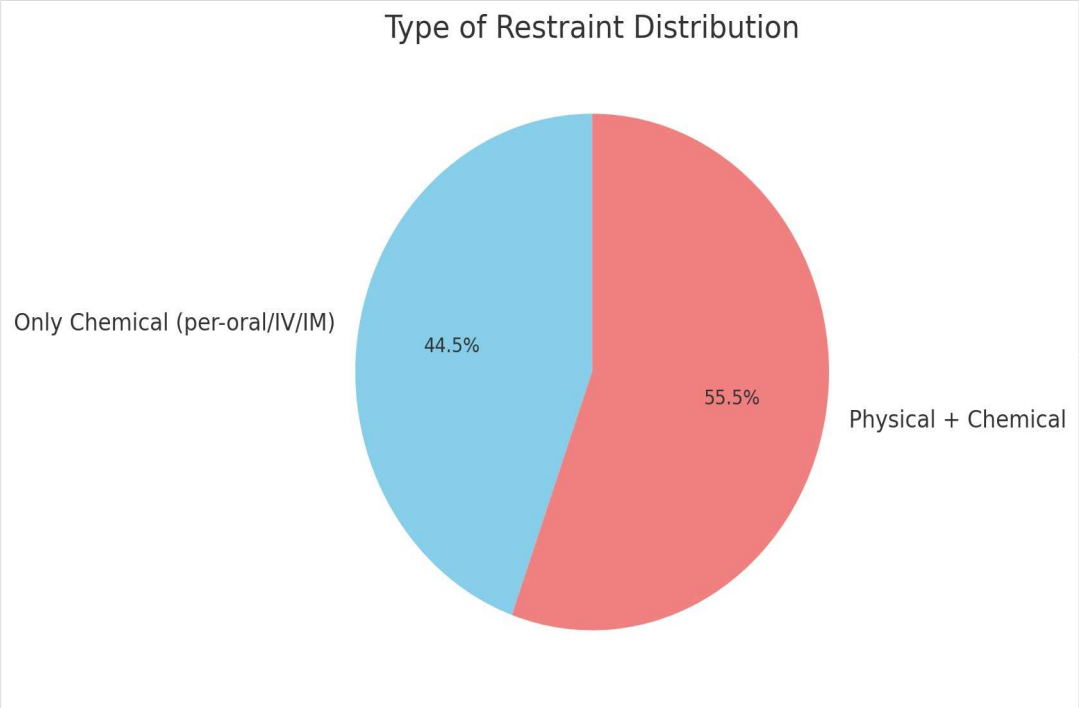


Table 14 and Figure 4 present the distribution of the type of restraint used among 200 patients, showing that more than half (55.5%) were subjected to combined physical and chemical restraints, while 44.5% received only chemical restraints.

Table 15: Distribution of frequency of restraints

Frequency of restraints	Values
Mean ± SD	2.64±1.42
Range (Min-Max)	1-7
Frequency of restraints N(%)	
Less than 3	32 (41.50%)
3-6	44 (57.10%)
7	1 (1.40%)

Table 15 depicts the number of times one patient was restrained. It was seen that the average number of times these patients were restrained was 2.64±1.42 with a range of 1-7. The median number of restraints was 3 with IQR of 1-3. Most of the patients were seen to be restrained 3 times (36.36%) followed by 1 time (31.17%). 17 patients (~22%) were seen to have a restraint of over 3 episodes (4 or more episodes)

Figure 5: Distribution of Day of restraint during course of admission. N=77

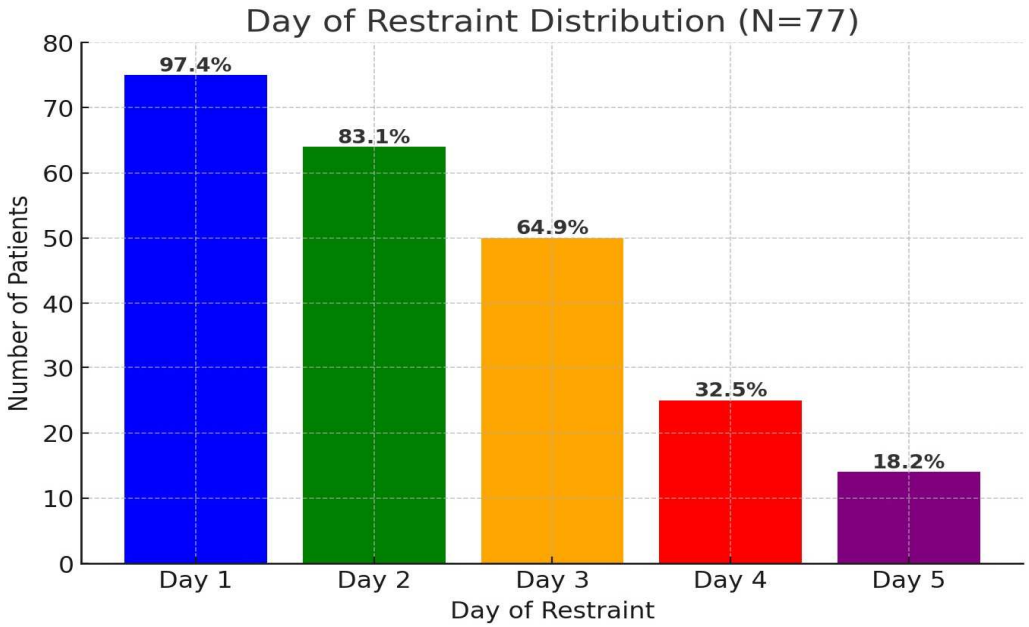


Figure 5 depicts the majority of restraint incidents occurred early during hospitalization, with out of the 77 patients, 75 (97%) patients were restrained on Day 1, and a sharp decline observed over subsequent days—dropping to 18.8% by Day 5.

Table 16 : Intervention before restraint and side effects due to restraint N=77

Intervention before restraint N (%)	
Verbal de-escalation attempted	46 (59.74%)
Side effects due to restraint	
EPS	3 (3.90%)

Table 16 depicts number of patients in whom we tried verbal de-escalation and patients who experienced side effects due to restraint. It was found that in 59.7% patients verbal de-escalation was attempted. 3.9% patients experienced extra-pyramidal symptoms like rigidity.

CGI- Severity of Illness (on admission)

Table 17:. CGI- Severity of illness. N=77

CGI- Severity of Illness (on admission)	
Parameters	**Values**
Mean ± SD	5.76±0.77
Severity of illness	**N (%)**
Not assessed	1 (0.50%)
Normal	0 (0.00%)
Borderline mentally ill	0 (0.00%)
Mildly ill	1 (1.30%)
Moderately ill	0(0.00%)
Markedly ill	38 (49.35%)
Severely ill	25(32.47.00%)
Among most extremely ill pts	12 (15.58%)

Table 17 depicts the average CGI at admission was 5.76±0.77 and in terms of the severity of the illness, most of the patients were markedly ill (46.50%) followed by severely ill (27%) and among the most extremely ill patients (16%).

Staff Observation Aggression Scale- Revised (SOAS-R) Scores

Table 18: SOAS-R score parameters. N=200

SOAS-R	
Parameter	**N (%)**
Mean ± SD	10.01±6.39
Provocation	
No understandable provocations	62 (31.00%)
Other reasons like provoked by other patient or needing help with ADL	89 (44.50%)
Staff requiring to give medication	49 (24.50%)
Means used by aggressor	
Patient used only verbal aggression	133 (66.50%)
Patient used ordinary objects like chair glass	7 (3.50%)
Patient used either hitting hands for punching or feet for kicking and teeth for biting	48 (24.00%)
Patient used dangerous objects like Knife	2 (1.00%)
Used more than 2 body parts	10 (5.00%)
Target of aggression	
No target of aggression	84 (42.00%)
Another patient	2 (1.00%)
objects	10 (5.00%)
Staff or patient self	92 (46.00%)
Another person	12 (6.00%)
Consequence for victim	
No consequence	131 (65.50%)

Objects damaged or replaced	3 (1.50%)
Person feels threatened	54 (27.00%)
Visible injury with person needing treatment	12 (6.00%)
Measures to stop aggression	
Given parenteral medication	84 (42.00%)
given per oral medication	5 (2.50%)
Physically restrained and given parenteral medication/secluded or held by force	105 (52.50%)
Held by force/ restrained only physically	6 (3.00%)
People involved	
Staff	**121 (60.50%)**
Staff and security	79 (39.50%)

According to table 18, SOAS-R assessment recorded a mean score of 10.01 ± 6.39, evaluating aggressive incidents. Provocations were mainly due to other patients or needing help with ADLs (44.50%), followed by no understandable provocations (31.00%), and staff requiring medication administration (24.50%). The most common form of aggression was verbal (66.50%), while 24.00% involved physical attacks (hitting, kicking, biting), and 1.00% involved dangerous objects like knives. Targets included staff or the patient themselves (46.00%), while 42.00% had no specific target. Consequences were minimal, with 65.50% of victims unharmed, though 27.00% felt threatened, and 6.00% suffered visible injuries. To stop aggression, 52.50% of patients required physical restraint with parenteral medication, while 42.00% received only parenteral medication. Incidents involved staff alone (60.50%) or staff assisted by security (39.50%).

Agitated Behaviour Scale (ABS) Score

Table 19: ABS severity score N=200

AGITATED BEHAVIOUR SCALE	
Parameters	**Values**
Mean ± SD	36.37±7.84
ABS Severity score	**N(%)**
No significant agitation	6 (3.00%)
Mild agitation	41 (20.50%)
Moderate agitation	18 (9.00%)
Severe agitation	135 (67.50%)

Table 19 depicts the assessment of the level of agitation during the episodes. It was seen that the average score was 36.37±7.84 suggestive of moderate to severe agitation on an average in the episodes.

In the ABS Score distribution, the majority of patients (67.50%) exhibited severe agitation, followed by 20.50% with mild agitation and 9.00% with moderate agitation, while only 3.00% displayed no significant agitation. This indicates that a substantial proportion of the restrained population presented with high levels of agitation, emphasizing the need for intensive behavioural management strategies in acute care settings.

DISCUSSION

The objective of this study was to assess the socio-demographic and clinical profile and various factors related to the use of restraints among psychiatric inpatients. A total of 200 restraint episodes involving 77 patients were analysed. The study aimed to systematically evaluate the sociodemographic and clinical characteristics of these patients, as well as the contextual factors influencing the application of restraints. It also sought to document the frequency and types of restraints used. The severity of psychiatric illness was evaluated through the Clinical Global Impression – Severity (CGI-S) scale at the time of admission. Restraint-related parameters were assessed using the Staff Observation Aggression Scale–Revised (SOAS-R, and the intensity of aggressive behaviour was measured using the Agitated Behaviour Scale (ABS). The study findings were compared with existing national and international literature to contextualize the results and better understand the patterns, trends, and determinants of restraint use in psychiatric settings.

Age (Refer to table 11)

In our study, the average age of restrained patients was 36.56 ± 14.73 years, with a median age of 31 years and a predominant age group of 21–40 years (66.23%). These findings align with several previous observational studies that have reported a tendency for younger patients to be restrained. For instance, Singh et al [22] and Ros et al [44] both observed that younger patients were more likely to be subjected to physical or mechanical restraints. Similarly, Kuppili et al [7] reported an average age of 30.5 years among restrained patients, and Välimäki et al[46] found a mean age of 40 years in physically restrained individuals, which is comparable to the mean age in the current study. the study from Mangalore by Jayprakash et al [23] found that most restrained

patients were males (81%) aged 30 to 39 years which perfectly aligns with the finding of our study.

Mahin Nomali et al [47] also reported a slightly higher mean age of 45.8 years among restrained patients, further supporting the trend of restraint use in younger populations. Conversely, some studies have indicated restraint use to be more prevalent among older adults. Spennato et al [10] reported that older patients were more likely to be restrained, and Aaron Jones et al [45] observed a median age of 76 years in their sample of restrained patients, suggesting a different pattern possibly influenced by the clinical setting or population characteristics. The variations in age distribution across studies may reflect differences in patient profiles, psychiatric diagnoses, clinical environments, or regional practices. Nevertheless, the current study supports the existing evidence indicating that restraint use is frequently associated with younger patients.

Gender (Refer to table 11)

The findings of our study indicate that a significant majority of restrained patients were males (80.52%), while females constituted only 19.48% of the sample. This finding is consistent with several previous studies that have identified male gender as a key predictor of restraint use. Singh et al [22] and Ros et al [44] both reported that males, particularly younger males, were more frequently subjected to physical or mechanical restraints. Similarly, DePorre et al [48] observed that male sex was a significant predictor of restraint use in children, suggesting that this association may extend across different age groups. Caruso et al [49] also noted that younger and male patients were more likely to exhibit aggressive behaviours, which often precede the application of restraints. In line with these findings, Mahin Nomali et al [47] reported

that 64.7% of restrained patients in their study were male, and Kuppili et al [7] found that 63.16% of restrained individuals were males. However, Välimäki et al [46] reported an equal gender distribution (50% male, 50% female) among restrained patients, indicating possible regional or institutional differences in restraint practices. The predominance of males in the current study further supports the existing evidence suggesting that male gender is an important sociodemographic factor associated with increased likelihood of restraint use, possibly reflecting higher rates of aggression, impulsivity, or risk behaviours in this population.

Other variables (Refer to table 11)

In our study, the majority of restrained patients were educated up to the graduation level (49.35%) and were employed (92.21%). Most patients belonged to the middle socioeconomic class, with 28.57% from the lower-middle class and 27.27% from the upper-middle class. A slight predominance of patients from rural areas was also observed (51.95%). These findings are consistent with previous literature emphasizing the role of socioeconomic factors in restraint use. Singh et al [22] reported that patients from lower and middle socioeconomic backgrounds were more frequently restrained, while Jumriani et al [50] identified low socioeconomic status as a contributing factor to restraint use. Similarly, Kuppili et al [7] observed that a majority of restrained patients in their study were employed and belonged to middle-class families, which aligns with the socioeconomic profile observed in the current sample. The higher proportion of patients from rural areas in our study may be attributed to the geographical location of the hospital and the fact that the psychiatric ward is part of the charitable section, thereby attracting patients from rural and economically disadvantaged backgrounds. Additionally, with regard to religious distribution, a

study conducted in Mangalore [23] reported that 49% of restrained patients were Hindus, 27% Christians, and 24% Muslims. In contrast, in our study, 77.92% of restrained patients were Hindus. This variation likely reflects regional demographic differences, as the area where the present study was conducted has a predominantly Hindu population.

Primary diagnosis (Refer to table 12)

In our study, schizophrenia was the most common primary diagnosis among restrained patients in our study (20.78%), followed by alcohol-induced delirium (18.18%) and bipolar disorder type I with manic episode (15.58%). These findings are consistent with the existing body of literature that identifies certain psychiatric diagnoses as being more frequently associated with restraint use. Caruso et al [49] emphasized the strong association between schizophrenia, cognitive impairment, personality disorders, and aggression leading to restraint. Similarly, Hu et al [51] found that schizophrenia, schizotypal, and delusional disorders were the most common diagnoses among chemically restrained patients. Kuppili et al [7] also reported that bipolar disorder (44.74%), non-affective psychosis (31.57%), and substance use disorder (9.33%) were common diagnoses among restrained patients, findings that are broadly comparable to the diagnostic profile observed in the current study. Additionally, Zun et al [52] reported psychosis as the most frequent discharge diagnosis in restrained patients which also aligns with our study.

Several possible reasons may explain why patients with these diagnoses are more frequently restrained. Psychotic disorders such as schizophrenia and schizoaffective disorder are often associated with symptoms like paranoia, delusions,

hallucinations, severe agitation, and aggression, which may pose immediate risks to the safety of the patient and others. In such situations, restraints are often used as a last resort to prevent harm. Similarly, mood disorders, particularly bipolar disorder in manic or mixed episodes, can present with heightened psychomotor activity, impulsivity, irritability, and aggressive outbursts, making behavioural control challenging and increasing the likelihood of restraint.

The high prevalence of alcohol-induced delirium in the current study (18.18%) may be attributed to the acute onset of confusion, agitation, disorientation, and sometimes violent behavior commonly observed in patients experiencing delirium tremens, necessitating the use of physical or chemical restraints to ensure safety during the acute phase.

Moreover, studies such as that by Singh et al [22] have shown that substance use disorders, particularly alcohol use disorder with delirium tremens (46.9%), mood disorders with manic episodes (31.3%), and psychotic disorders (18.8%) were major contributors to the need for restraint. The study by Välimäki et al [46] from Hong Kong also reported a predominance of schizophrenia-spectrum disorders among restrained patients, accounting for 61% of cases. Similarly, Spennato et al [10] identified delirium as the most common clinical reason for restraint (64.6%), followed by fall prevention and aggressive behavior. Miodownik et al [54] further highlighted that patients with schizophrenia, bipolar disorder, and personality disorders were commonly subjected to restraints, particularly those with personality disorders, who experienced longer periods of restraint due to persistent behavioural disturbances. Even in our study 35% patients had personality disorders, but duration of restraint was not recorded.

The diagnostic profile in the present study is thus consistent with prior research, reaffirming that psychiatric conditions characterized by psychosis, mood instability, cognitive impairment, and substance intoxication or withdrawal are significant clinical predictors of restraint use. These diagnoses are frequently associated with behavioural dysregulation, aggression, impaired impulse control, and reduced insight, which may necessitate the use of restraints in emergency situations to prevent self-harm or harm to others.

Involuntary admission (Refer to table 13)

In our study, all patients (100%) who were subjected to restraint were admitted under high-support, involuntary admission as per Section 89 of the Mental Healthcare Act (MHCA), 2017. Section 89 of the MHCA, 2017, provides the legal framework for the admission of individuals with mental illness who lack the capacity to make mental healthcare and treatment decisions and require high levels of support, with the aim of protecting the rights and safety of such individuals and others.[80]

The association between involuntary admission and restraint use has been consistently highlighted in previous research. Pérez-Revuelta et al. (2021) identified involuntary admission as the strongest predictor of mechanical restraint use, with an odds ratio (OR) of 6.37 [62], indicating that patients admitted without their consent were significantly more likely to experience coercive measures. Similarly, a study conducted in Baden-Wuerttemberg, Germany, reported that psychiatric hospitals with a higher proportion of involuntary admissions applied coercive measures more frequently, underscoring the influence of patients' legal status on the likelihood of restraint use. [81] This association may be explained by the fact that patients admitted involuntarily often present with severe psychiatric symptoms, poor insight, or a risk of

harm to self or others, necessitating the use of restrictive interventions to ensure safety. Furthermore, Thomann et al. (2021) reported a strong association between care dependency and restraint use, with completely dependent patients being 25 times more likely to be restrained compared to independent patients. [56] This finding further supports the link between patients' functional status, autonomy, and the application of coercive measures. The exclusive inclusion of involuntary patients in the current study may, therefore, reflect the clinical and legal necessity to manage high-risk behaviours and impaired decision-making capacity through the use of restraints in accordance with the provisions of MHCA 2017.

Prevalence (refer to Figure 3)

In our study, out of the 1,057 patients admitted during the study period, 77 patients required the use of restraints, resulting in an overall restraint prevalence of 7.28%. This prevalence is comparable to several previous studies conducted in different settings and populations. For instance, Singh et al. (2024) reported a slightly higher restraint prevalence of 9.25% [22], while Thomann et al. (2021) observed a prevalence of 9.46% over the course of one year [56], which is marginally higher than the rate observed in our study. Similarly, a cross-sectional study conducted across Switzerland and Austria by Thomann et al reported a prevalence rate of 8.7% measured over a 30-day period [57], which is consistent with the findings of our study. In contrast, a retrospective cohort study by Spennato et al. (2023) reported a slightly lower prevalence of 6.4% among 11,979 psychiatric admissions [10], which is closely comparable to the findings of our study.

However, other studies have reported notably higher rates of restraint use. Sobhani et al. (2024) documented a restraint prevalence of 35.1%, with a patient

restraint rate of 8.15 per 1,000 inpatient days and an event rate of 26.1 per 1,000 inpatient days [55], indicating a substantially higher frequency of restraint application compared to the current study. Additionally, a systematic review by Beghi et al. (2013) highlighted the wide variability in restraint prevalence across institutions, reporting rates ranging from 3.8% to 20%, with certain facilities exhibiting a 10 to 20-fold difference, often influenced by institutional policies, clinical practices, and cultural attitudes toward restraint. [58]

The prevalence observed in the present study thus falls within the lower-to-moderate range of previously reported rates. Differences in prevalence across studies may be attributed to several factors, including variations in institutional protocols, patient population characteristics, availability of de-escalation resources, staffing patterns, and regional or cultural attitudes toward the use of coercive measures. The relatively lower prevalence in the current study may also reflect efforts to implement non-coercive interventions and prioritize verbal de-escalation before resorting to restraint.

Type of restraint used (refer to table 14 and figure 4)

In our study, a total of 200 restraint episodes were recorded. Of these, chemical restraints alone were used in 89 instances (44.5%), while a combination of both physical and chemical restraints was employed in 111 instances (55.5%). These findings reflect the complex clinical scenarios encountered in psychiatric settings, where chemical interventions are often used either independently or alongside physical restraints to manage acute behavioural disturbances.

The predominance of combined restraint use in our study is consistent with the findings of Gowda et al. (2018), who reported that 58% of patients received

chemical restraints, while 20% were physically restrained, and 66.5% of patients were subjected to one or more forms of coercive measures. [59] Similarly, Danivas et al. (2016) observed that intravenous injections were administered to 27% of all admitted patients, indicating the widespread use of chemical interventions in acute psychiatric care. [60] Bilanakis et al. (2011) also reported that chemical restraint was used in 10.5% of hospitalizations, with antipsychotics. [61]

In contrast, some studies have reported a higher prevalence of mechanical or physical restraint. Pérez-Revuelta et al. (2021) noted that mechanical restraint was used in 12% of total psychiatric admissions. [62] Thomann et al. (2021) reported mechanical restraint use in 55% of cases, with fall prevention and delirium being the primary reasons.[57] Similarly, Pawlowski et al. (2017) highlighted that mechanical restraint was the most commonly used form of direct coercion in their study population. [63] A cross-national comparison by Lepping et al. (2016) found that physical restraint was more prevalent in Wales, while seclusion was more common in the Netherlands, indicating regional and institutional variations in restraint practices. [64]

Further, Aaron Jones et al. (2022) observed that chemical restraint use was more frequent than physical restraint in psychiatric settings in Alberta and Ontario, supporting the trend seen in our study where chemical restraints, either alone or in combination, constituted a significant proportion of restraint episodes. [45] In a large-scale study conducted in Hong Kong, Välimäki et al. (2022) reported that limb holders were the most frequently used restraint method, followed by waist belts and safety vests, suggesting a preference for mechanical measures in certain settings. [46]

The findings of our study highlight a higher use of combined chemical and physical restraints, reflecting the severity of psychiatric symptoms and aggression in our patient population, and the need for immediate behavioural control. Unlike previous studies conducted in ICU settings or among medically fragile patients—where restraint practices were limited to physical or mechanical methods due to the risk of sedation worsening conditions like traumatic brain injury or cardiac illness—our study was carried out in a dedicated psychiatric inpatient unit, where patients primarily had psychiatric diagnoses without significant medical comorbidities. This clinical context enabled the safe use of chemical restraints, either alone or in combination with physical restraints, as a therapeutic intervention to ensure patient and staff safety.

Restraint-Related Parameters (refer to figure 5, table 15, 16, 17, 18,19)

Day of restraint (figure 5) and Frequency of restraint (table 15)- Regarding the timing and frequency of restraints, our study found that the majority of patients (97.4%) were restrained on the first day of admission. The frequency of restraint episodes ranged from 1 to 7, with a mean of 2.64 ± 1.42. Most patients (57.1%) experienced between 3 to 6 restraint episodes, while 41.5% had fewer than 3 episodes, and only 1.4% required 7 restraints. These findings are comparable to those reported by Kuppili et al. (2022), who found that restraint was most frequently applied within the first week of admission. [7] In their study, one patient experienced seven restraint events in a single day, indicating the variable and sometimes recurrent nature of restraint use in psychiatric settings. [7] The pattern of increased restraint use during the early phase of hospitalization observed in both studies likely reflects the acute severity of patients' psychiatric symptoms at the time of admission, necessitating

immediate intervention to manage behavioural disturbances until clinical stabilization is achieved.

Verbal de-escalation attempted (table 16)-In our study, verbal de-escalation strategies were attempted in 59.7% of cases prior to the application of restraint. This practice reflects an increasing emphasis on non-coercive interventions in psychiatric care. Richmond et al. (2012) advocated for the use of verbal engagement and collaboration with patients as a preferred alternative to physical restraint, emphasizing that effective communication can reduce the need for coercion and improve patient outcomes. However, despite such attempts, restraint became necessary in many cases due to the severity of aggression and the risk posed to patient and staff safety. [31]

CGI-Severity of Illness (table 17)-In this study, the mean CGI-Severity of Illness score at admission was 5.76 ± 0.77, indicating a high level of clinical severity among the sample. Nearly half of the patients (46.5%) were rated as markedly ill, followed by 27% who were severely ill and 16% classified among the most extremely ill. These findings are consistent with existing literature, which suggests that higher restraint use is often associated with greater illness severity. For instance, studies by Spennato et al., 2023, Burton et al., 1992, Cohen et al., 2024 have reported increased restraint use among critically ill medical inpatients and individuals with severe cognitive or functional impairments. [10,81,82] Additionally, research in ICU settings has demonstrated poorer outcomes, such as longer ventilation duration and higher mortality, among restrained patients, further underscoring the association between clinical severity and the likelihood of restraint use.

Our findings also align with two surveys conducted in China that revealed that 59.07% and 61.2% of critically ill patients were physically restrained. [4]

SOAS-AR (table 18)-We found out in our study, the primary reasons for the application of restraints, as assessed by the Staff Observation Aggression Scale–Revised (SOAS-R), were patient aggression provoked by interactions with other patients or requiring assistance with activities of daily living (ADLs). This finding is reflective of the behavioural disturbances frequently encountered in psychiatric inpatient settings, where interpersonal conflicts or frustration related to dependency on care can precipitate aggression. Spennato et al. (2023) similarly reported that the leading cause for the application of restraints was the prevention of behavioural issues, accounting for 72% of restraint instances in their study, particularly in the ICU environment where patient safety is of paramount importance. [10] Additionally, Danivas et al. (2016) highlighted the role of interpersonal conflicts in aggressive incidents, reporting that in 35% of cases, relatives were responsible for provoking the incident, while in 56% of cases, they were the target. [60] Their study further noted that family involvement in violence management was common, which occasionally led to the need for physical restraints. [60]

These findings are consistent with our observation that situational factors and interpersonal triggers are significant contributors to the use of restraint.

Regarding the personnel involved in restraint application, our study revealed that in the majority of cases (60%), restraints were carried out by the hospital staff, and in 39.5% of incidents, hospital security was also called to assist. This practice aligns with the study conducted in Mangalore by Jayprakash et al, which reported that nurses primarily performed restraints. [23] Similarly, Moss & La Puma, 1991 emphasized the ethical and procedural importance of healthcare staff implementing restraints only after obtaining consent from patients or their relatives. [65] The

involvement of security personnel in a significant proportion of incidents in the present study highlights the severity of aggressive behaviour encountered, necessitating additional manpower to safely manage such situations.

In terms of risk factors, our study identified that provocations related to other patients or assistance with ADLs were responsible for 44.5% of aggressive incidents leading to restraint. In 31% of cases, no clear provocation was identifiable, and in 24.5%, aggression arose when staff attempted to administer medication. These findings suggest that situational triggers, lack of insight, and impaired impulse control are key determinants of aggressive behavior in psychiatric settings. In the current study, staff members were the primary targets of patient aggression in 46% of incidents, followed by aggression not directed at any specific individual (42%). This pattern is supported by previous research, including the study by Stevenson et al. (2012), which highlighted the emotional and physical consequences of patient violence on healthcare workers, including fear, anger, and anxiety that may affect professional performance and personal well-being. [66]

The consequences of aggression in our study were relatively mild in most cases, with 65.5% of incidents resulting in no adverse outcomes for the victims. However, 27% of victims reported feeling threatened, 6% sustained visible injuries requiring treatment, and 1.5% of incidents involved damage to objects. These findings are in line with those reported by d'Ettorre and Pellicani (2017), who found that between 7.5% and 33% of healthcare workers exposed to violence developed psychological symptoms such as anxiety and depression, with some reporting serious physical injuries, including fractures and disabilities. [67] This highlights the importance

of preventive strategies and de-escalation techniques to mitigate the consequences of aggression.

Agitation Behaviour Scale (table 19)-As highlighted in the review article by Gautam et al. (2023), aggression is frequently observed in psychiatric patients, with studies reporting that approximately 18% to 25% display violent behavior. [20] This is consistent with our findings based on the Agitation Behavior Scale (ABS), which revealed that a significant proportion of patients (67.5%) demonstrated severe agitation. Additionally, 20.5% showed mild agitation, 9.0% had moderate agitation, and only 3.0% exhibited no notable agitation. These results underscore the prevalence of heightened agitation among restrained patients, highlighting the importance of implementing focused behavioural management strategies in acute psychiatric settings.

Overall, the findings of the present study are in line with existing literature, reaffirming that restraint use is closely associated with patient aggression, situational triggers, lack of cooperation, and acute symptom severity, particularly during the early phase of admission. These observations emphasize the need for early identification of risk factors, effective communication, and staff training in de-escalation techniques to minimize the need for coercive measures.

This is supported by prior literature. Zulian et al. (2020) and Dolan and Looby (2017) noted that in intensive care settings, agitation, sedation, and the presence of invasive devices were significant predictors of restraint use, often employed to prevent self-harm or interference with medical treatment. [68,69] Chieze et al. (2021) also identified factors such as aggressive behavior at admission, previous psychiatric hospitalizations, involuntary referrals, younger age, male gender, and cognitive

impairment as significant predictors of coercive measures. [70] Kuppili et al. (2022) emphasized that restraint use was frequently associated with a combination of behavioural risks, including physical assault, self-harm, attempts to abscond, and intrusive behaviours. [7] Similarly, the EUNOMIA project by Raboch et al. (2010) found that patient aggression towards others was the primary reason for applying coercive measures in 59% of cases, followed by threats to health, self-harm, and aggression toward property. [71] These findings are in line with the triggers identified in the current study, underscoring that situational provocation, lack of cooperation, and patient vulnerability are major determinants of restraint use.

Strengths:

1. In contrast to the majority of prior studies that have focused on restraint practices in dedicated psychiatric hospitals or intensive care units (ICUs), this study uniquely explores restraint use within a General Hospital Psychiatry Unit (GHPU) in a tertiary care hospital, addressing an important gap in existing literature.

2. The study employs standardized and validated tools such as CGI-S, SOAS-R, and ABS, enhancing the methodological rigor and reliability of findings.

3. The study systematically evaluates a broad range of clinical and sociodemographic variables, offering a comprehensive understanding of the factors associated with restraint use, which can directly inform clinical practices and guide targeted interventions

4. Strict adherence to ethical standards and compliance with India's Mental Healthcare Act (MHCA, 2017) ensures protection of patient rights and promotes ethical research conduct.

Limitations

1. Single-centre, cross-sectional design limits the generalizability of findings to other psychiatric settings.
2. This study was conducted exclusively in the General Hospital Psychiatry Unit (GHPU) of our hospital, whereas patients may also be subjected to restraint in other wards and intensive care settings, which were not included.
3. The study included a small sample size, which may not be sufficient to draw broad conclusions about restraint practices across all psychiatric wards. A larger sample size could provide more reliable data and insights into the practices used in different contexts
4. The observational, cross-sectional design restricts causal inference and does not provide information on longitudinal outcomes or patient experiences.
5. Without a comparative control group, it remains challenging to conclusively attribute identified risk factors directly to the use of restraints, limiting interpretation of findings.

Future Directions

Future multi-centre studies with larger sample sizes, control groups, patient and staff perspectives, and longitudinal designs are recommended to further enhance understanding and improve restraint management practices in diverse healthcare settings.

Adherence to Legal Framework

The present study was conducted in strict compliance with the legal and ethical framework governing mental healthcare in India. All procedures adhered to the principles outlined in the Mental Healthcare Act (MHCA), 2017, which emphasizes patient rights, dignity, and autonomy while ensuring safety and appropriate care.

In particular, the study abided by Section 89 of the MHCA, 2017, which pertains to the admission of persons with mental illness under supported admission. All patients included in the study who required high levels of support and were unable to make independent decisions regarding their care were admitted under this provision, following appropriate assessments and consent from their nominated representatives or legal guardians.

Furthermore, the study strictly followed the guidelines under Section 97 of the MHCA, 2017, which governs the use of physical restraint in mental health establishments. Restraints were employed only when absolutely necessary and under the conditions mandated by the Act—specifically, to prevent imminent harm to the patient or others, after exhausting all other de-escalation measures. Restraint episodes were duly documented, supervised by qualified mental health professionals, and the patient's nominated representatives were informed within 24 hours, in accordance with the statutory requirement. The details of each restraint event were also reported to the Mental Health Review Board as per the legal mandate.

The study protocol received prior approval from the Institutional Ethics Committee, further ensuring adherence to ethical research practices and patient rights.

CONCLUSION

Clinically and demographically, restraints were predominantly used in younger adults aged, males, employedp patients and those from rural areas Diagnostically, patients with schizophrenia, alcohol-induced delirium, and bipolar disorder were most frequently restrained. Additional significant clinical factors included severe agitation, a positive past psychiatric history, family history, previous violent behavior, and substance dependence. All restrained patients were admitted under high-support (involuntary) status as per India's Mental Healthcare Act (MHCA, 2017). Most restraint episodes occurred within the first day of hospitalization, highlighting the acute nature of clinical presentations and verbal de-escalation was attempted in majority of restraint episodes.

The results underscore the importance of early identification of risk factors, consistent application of verbal de-escalation techniques, and strict adherence to the principles laid down in the Mental Healthcare Act, 2017. Future efforts should focus on staff training, improving infrastructure, and developing structured de-escalation protocols to minimize the need for restraints and to ensure patient dignity, safety, and rights.

SUMMARY

This observational study aimed to assess the frequency and associated factors of restraint use among psychiatric inpatients in a General Hospital Psychiatry Unit (GHPU) of a tertiary care hospital. Unlike most existing literature, which focuses on dedicated psychiatric hospitals or intensive care units (ICUs), this research uniquely addresses an important gap by examining restraint practices in a general hospital psychiatry setting.

The study involved 77 patients with a total of 200 episodes of restraint. All patients included were admitted under high-support (involuntary) admissions as per Section 89 of India's Mental Healthcare Act (MHCA, 2017). The types of restraints used were either chemical alone (44.5%) or combined physical and chemical (55.5%). Data collection utilized validated tools including the Clinical Global Impression–Severity (CGI-S), Staff Observation Aggression Scale–Revised (SOAS-R), and Agitated Behavior Scale (ABS), systematically examining clinical, sociodemographic, and contextual variables.

Key positive findings included a restraint prevalence of 7.28% among all psychiatric admissions. Patients subjected to restraints were predominantly male (80.52%), younger adults aged 21–40 years (66.23%), employed (92.21%), educated up to graduation (49.35%), and from rural areas (51.95%). Clinically, most restrained patients had a diagnosis of schizophrenia (20.78%), followed by alcohol-induced delirium (18.18%) and bipolar disorder (15.58%). A significant proportion had a positive past psychiatric history (66.23%), family history (50.65%), personality disorders (35.06%), substance dependence (44.16%), and prior history of violence (48.05%).

Restraints predominantly occurred early in hospitalization (97% on Day 1), with an average of 2.64 episodes per patient. Verbal de-escalation was attempted before restraint in 59.74% of patients. Severity of psychiatric illness at admission was notably high, with 49.35% markedly ill and 32.47% severely ill. Episodes were frequently characterized by severe agitation (67.50%) as measured by the ABS scale. Aggression recorded by SOAS-R predominantly involved verbal aggression (66.50%), targeted mostly toward staff or the patients themselves (46.00%), often requiring physical restraint combined with parenteral medication (52.50%). Most incidents involved healthcare staff alone (60.50%), with security assistance in nearly 39.50% of episodes.

Strengths of the study include its unique clinical setting, robust methodology, comprehensive data analysis, and strict ethical compliance aligned with India's Mental Healthcare Act (MHCA, 2017). However, limitations such as single-centre design, absence of a comparative control group, lack of patient perspectives, and cross-sectional design necessitate cautious interpretation and suggest the need for further multi-centre, longitudinal studies. Despite these limitations, the findings provide valuable evidence for clinical practice, staff training for example, teaching verbal de-escalation and aggression management techniques to minimize restraint use and improve patient care in general hospital psychiatry units.

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ANNEXURE I:
KAHERs JNMC
BELAGAVI
INFORMED CONSENT FORM

"FREQUENCY OF RESTRAINT AND FACTORS ASSOCIATED WITH RESTRAINT IN PATIENTS ADMITTED IN GENERAL HOSPITAL PSYCHIATRY UNIT- A CROSS SECTIONAL OBSERVATIONAL STUDY"

Name of Student/Principal Investigator:

Introduction: We request you to give your valid consent to include your relative to be a subject in an observational study, the purpose of which is to study frequency and factors associated with physical restraints in the hospital conducted between 28th March 2023 to 28th March 2024.

We request you to give your consent to include your relative as a participate in this study as they are agitated due to their mental illness and needs intervention. You and your relative might not get benefited by participating in this study but it helps us to understand the need of physical restraint in agitated patients so that we can manage agitated patients in future effectively keeping in mind the safety as well as rights of the patient.

Explanation of procedure: If you consent for your relative to be a part of the study, the PI will interview you/your relative. Sociodemographic details and clinical variables of your relative are collected using the predesigned proforma. Details will be taken in a period of 30-40 minutes. Severity of the primary clinical condition will be determined at the time of admission. Agitation and aggression of your relative will be assessed at the time of restraint. Scores obtained are used to assess the association between demographic, clinical variables of patient and restraint.

Withdrawal from participation in the study: Participation in this study is voluntary. You will be free to decide whether your relative will participate in this study or continue participation once enrolled. In case you decide to withdraw the participation of your relative, you are free to do so. However, please convey the decision to the principal investigator.

Possible benefits from participating in the study: You or your relative will not get any benefits by participating in this study. The data gathered will help the population at large.

Possible risks from participating in the study: There are no risks involved in participating in this study.

Privacy and confidentiality: The information collected from you or your relative will be coded, to prevent any person from identifying you. Your relative's identity will never be revealed. The data collected will be kept confidential and only processed or aggregated data will be used for publication.

Financial incentives: You or your relative will not receive any payment for participating in this study.

Authorization for publication of aggregated data: Results obtained after processing of the aggregated data will be published for scientific purposes and or presented to scientific groups. However, your relative's identity will never be revealed.

Questions: In case of any questions with regard to this study, you are free to contact:

If you have any question or complaints with regard to study you may contact Dr Harsha Hegde, Chairperson, Ethical committee of JNMC, 0831-2473777 Extension 4052.

Legal rights: By signing this consent form, we are not waving any of your legal rights

CONSENT STATEMENT

I am making a voluntary decision to consent to recruit my relative to participate in the study "**FREQUENCY OF RESTRAINTS AND FACTORS ASSOCIATED WITH RESTRAINTS IN PATIENTS ADMITTED IN GENERAL HOSPITAL PSYCHIATRY UNIT- A CROSS-SECTIONAL OBSERVATIONAL STUDY**". My signature below indicates that I have decided to consent to recruit my relative to participate, and I have read the information provided above or the information provided above has been read to me in the language that I understand best. I was given the opportunity to ask questions and that they have been answered to my satisfaction.

Name of the participant:

Signature or left thumb impression of the participant:

Name of the witness:

Signature or left thumb impression of the witness:

Name of the investigator:

Signature of the investigator:

विद्यार्थ्याचे/मुख्याध्यापक अन्वेषकाचे नाव:

मार्गदर्शक/सह अन्वेषकांचे नाव:

परिचय: तुमच्या नातेवाईकाला एका निरीक्षणात्मक अभ्यासाचा विषय म्हणून विनंती केली जात आहे, ज्याच्या उद्देशाने 28 मार्च 2023 ते 28 मार्च 2024.

तुमच्या नातेवाईकांना या अभ्यासात सहभागी होण्याची विनंती करण्यात आली आहे कारण ते त्यांच्या मानसिक आजारामुळे अस्वस्थ आहेत आणि त्यांना हस्तक्षेपाची गरज आहे. या अभ्यासात भाग घेऊन तुम्हाला कदाचित फायदा होणार नाही पण त्यामुळे त्रासलेल्या रुग्णांमध्ये शारीरिक संयमाची गरज समजून घेण्यास मदत होते जेणेकरुन आम्ही भविष्यात रुग्णाच्या सुरक्षिततेबद्दल तसेच अधिकारांबद्दल विचार करून त्रासलेल्या रुग्णांचे प्रभावीपणे व्यवस्थापन करू शकू.

प्रक्रियेचे स्पष्टीकरण: जर तुम्ही अभ्यासाचा भाग होण्यास सहमत असाल, तर PI तुमची/तुमच्या नातेवाईकाची मुलाखत घेईल आणि पूर्वडिझा□न केलेल्या प्रोफॉर्मा आणि प्रश्नावलीनुसार तपशील घेईल.

अभ्यासातील सहभागातून माघार घेणे: या अभ्यासात ऐच्छिक सहभाग. या अभ्यासात भाग घ्यायचा की नावनोंदणी झाल्यावर सहभाग सुरू ठेवायचा हे ठरवण्यासाठी तुम्ही मोकळे असाल. तुम्ही तुमचा सहभाग मागे घेण्याचा निर्णय घेतल्यास, तुम्ही तसे करण्यास मोकळे आहात. त□ापि, कृपया मुख्य अन्वेषकांना निर्णय कळवा.

अभ्यासात सहभागी होण्याचे संभाव्य फायदे: या अभ्यासात भाग घेतल्याने तुम्हाला कोणतेही फायदे मिळणार नाहीत. (संकलित केलेला डेटा मोठ्या प्रमाणात लोकसंख्येला मदत करेल)

अभ्यासात सहभागी होण्यापासून संभाव्य धोके: या अभ्यासात सहभागी होण्यात कोणतेही धोके नाहीत.

गोपनीयता आणि गोपनीयता: कोणत्याही व्यक्तीला तुमची ओळख पटवण्यापासून रोखण्यासाठी तुमच्याकडून गोळा केलेली माहिती कोड केली जाईल. तुमची ओळख कधीच उघड होणार नाही. तुमच्याकडून गोळा केलेला डेटा गोपनीय ठेवला जाईल आणि केवळ प्रक्रिया केलेला किंवा एकत्रित केलेला डेटा प्रकाशनासाठी वापरला जाईल.

आर्थिक प्रोत्साहन: या अभ्यासात सहभागी होण्यासाठी तुम्हाला कोणतेही पेमेंट मिळणार नाही.

एकत्रित डेटाच्या प्रकाशनासाठी अधिकृतता: एकत्रित डेटाच्या प्रक्रियेनंतर प्राप्त झालेले परिणाम वैज्ञानिक हेतूसाठी प्रकाशित केले जातील आणि किंवा वैज्ञानिक गटांना सादर केले जातील. मात्र, तुमची ओळख कधीही उघड होणार नाही.

प्रश्न: या अभ्यासासंदर्भात काही प्रश्न असल्यास, आपण संपर्क करण्यास मोकळे आहात:

अभ्यास सहभागी म्हणून तुमच्या अधिकाराबाबत तुम्हाला काही प्रश्न किंवा तक्रारी असल्यास तुम्ही डॉ. हर्षा हेगडे, अध्यक्षा, JNMC च्या नैतिक समिती, 0831-2473777 विस्तार 4052 यांच्याशी संपर्क साधू शकता.

कायदेशीर अधिकार: या संमती फॉर्मवर स्वाक्षरी करून, आम्ही तुमचे कोणतेही कायदेशीर अधिकार गमावत नाही

ವಿದ್ಯಾರ್ಥಿ/ಪ್ರಧಾನ ತನಿಖಾಧಿಕಾರಿಯ ಹೆಸರು:

ಮಾರ್ಗದರ್ಶಿ/ಸಹ ತನಿಖಾಧಿಕಾರಿಗಳ ಹೆಸರು:

ಪರಿಚಯ: 28ನೇ ಮಾರ್ಚ್ 2023 ರಿಂದ 28ನೇ ಮಾರ್ಚ್ 2024 ರ ನಡುವೆ ನಡೆಸಿದ ಆಸ್ಪತ್ರೆಯಲ್ಲಿನ ದೈಹಿಕ ನಿರ್ಬಂಧಗಳಿಗೆ ಸಂಬಂಧಿಸಿದ ಆವರ್ತನ ಮತ್ತು ಅಂಶಗಳನ್ನು ಅಧ್ಯಯನ ಮಾಡುವ ಉದ್ದೇಶವನ್ನು ವೀಕ್ಷಣಾ ಅಧ್ಯಯನದಲ್ಲಿ ವಿಷಯವಾಗುವಂತೆ ನಿಮ್ಮ ಸಂಬಂಧಿಯನ್ನು ವಿನಂತಿಸಲಾಗುತ್ತಿದೆ.

ನಿಮ್ಮ ಸಂಬಂಧಿಗಳು ತಮ್ಮ ಮಾನಸಿಕ ಅಸ್ವಸ್ಥತೆಯ ಕಾರಣದಿಂದಾಗಿ ಉದ್ರೇಕಗೊಂಡಿರುವ ಕಾರಣ ಮತ್ತು ಮಧ್ಯಸ್ಥಿಕೆಯ ಅಗತ್ಯವಿರುವುದರಿಂದ ಈ ಅಧ್ಯಯನದಲ್ಲಿ ಭಾಗವಹಿಸಲು ವಿನಂತಿಸಲಾಗಿದೆ. ಈ ಅಧ್ಯಯನದಲ್ಲಿ ಭಾಗವಹಿಸುವ ಮೂಲಕ ನೀವು ಪ್ರಯೋಜನ ಪಡೆಯದಿರಬಹುದು ಆದರೆ ಉದ್ರೇಕಗೊಂಡ ರೋಗಿಗಳಲ್ಲಿ ದೈಹಿಕ ಸಂಯಮದ ಅಗತ್ಯವನ್ನು ಅರ್ಥಮಾಡಿಕೊಳ್ಳಲು ಇದು ನಮಗೆ ಸಹಾಯ ಮಾಡುತ್ತದೆ, ಇದರಿಂದಾಗಿ ನಾವು ಭವಿಷ್ಯದಲ್ಲಿ ಕ್ಷೋಭೆಗೊಳಗಾದ ರೋಗಿಗಳನ್ನು ಪರಿಣಾಮಕಾರಿಯಾಗಿ ನಿರ್ವಹಿಸಬಹುದು ಮತ್ತು ರೋಗಿಯ ಸುರಕ್ಷತೆ ಮತ್ತು ಹಕ್ಕುಗಳ ಬಗ್ಗೆ ಗಮನದಲ್ಲಿರಿಸಿಕೊಳ್ಳಬಹುದು.

ಕಾರ್ಯವಿಧಾನದ ವಿವರಣೆ: ನೀವು ಅಧ್ಯಯನದ ಭಾಗವಾಗಲು ಒಪ್ಪಿಕೊಂಡರೆ, PI ನಿಮ್ಮನ್ನು/ನಿಮ್ಮ ಸಂಬಂಧಿಯನ್ನು ಸಂದರ್ಶಿಸುತ್ತದೆ ಮತ್ತು ಪೂರ್ವನಿರ್ಧರಿತ ಪ್ರೊಫಾರ್ಮಾ ಮತ್ತು ಪ್ರಶ್ನಾವಳಿಗಳ ಪ್ರಕಾರ ವಿವರಗಳನ್ನು ತೆಗೆದುಕೊಳ್ಳುತ್ತದೆ.

ಅಧ್ಯಯನದಲ್ಲಿ ಭಾಗವಹಿಸುವಿಕೆಯಿಂದ ಹಿಂತೆಗೆದುಕೊಳ್ಳುವಿಕೆ: ಸ್ವಯಂಪ್ರೇರಿತವಾಗಿ ಈ ಅಧ್ಯಯನದಲ್ಲಿ ಭಾಗವಹಿಸುವಿಕೆ. ಒಮ್ಮೆ ದಾಖಲಾದ ನಂತರ ಈ ಅಧ್ಯಯನದಲ್ಲಿ ಭಾಗವಹಿಸಬೇಕೆ ಅಥವಾ ಭಾಗವಹಿಸುವಿಕೆಯನ್ನು ಮುಂದುವರಿಸಬೇಕೆ ಎಂದು ನಿರ್ಧರಿಸಲು ನೀವು ಸ್ವತಂತ್ರರಾಗಿರುತ್ತೀರಿ. ನಿಮ್ಮ ಭಾಗವಹಿಸುವಿಕೆಯನ್ನು ಹಿಂತೆಗೆದುಕೊಳ್ಳಲು ನೀವು ನಿರ್ಧರಿಸಿದರೆ, ಹಾಗೆ ಮಾಡಲು ನೀವು ಸ್ವತಂತ್ರರು. ಆದಾಗ್ಯೂ, ದಯವಿಟ್ಟು ನಿರ್ಧಾರವನ್ನು ಪ್ರಧಾನ ತನಿಖಾಧಿಕಾರಿಗೆ ತಿಳಿಸಿ.

ಅಧ್ಯಯನದಲ್ಲಿ ಭಾಗವಹಿಸುವುದರಿಂದ ಸಂಭವನೀಯ ಪ್ರಯೋಜನಗಳು: ಈ ಅಧ್ಯಯನದಲ್ಲಿ ಭಾಗವಹಿಸುವುದರಿಂದ ನೀವು ಯಾವುದೇ ಪ್ರಯೋಜನಗಳನ್ನು ಪಡೆಯುವುದಿಲ್ಲ. (ಸಂಗ್ರಹಿಸಿದ ಮಾಹಿತಿಯು ಹೆಚ್ಚಿನ ಜನಸಂಖ್ಯೆಗೆ ಸಹಾಯ ಮಾಡುತ್ತದೆ)

ಅಧ್ಯಯನದಲ್ಲಿ ಭಾಗವಹಿಸುವುದರಿಂದ ಸಂಭವನೀಯ ಅಪಾಯಗಳು: ಈ ಅಧ್ಯಯನದಲ್ಲಿ ಭಾಗವಹಿಸುವುದರಿಂದ ಯಾವುದೇ ಅಪಾಯಗಳಿಲ್ಲ.

ಗೌಪ್ಯತೆ ಮತ್ತು ಗೌಪ್ಯತೆ: ಯಾವುದೇ ವ್ಯಕ್ತಿ ನಿಮ್ಮನ್ನು ಗುರುತಿಸದಂತೆ ತಡೆಯಲು ನಿಮ್ಮಿಂದ ಸಂಗ್ರಹಿಸಿದ ಮಾಹಿತಿಯನ್ನು ಕೋಡ್ ಮಾಡಲಾಗುತ್ತದೆ. ನಿಮ್ಮ ಗುರುತನ್ನು ಎಂದಿಗೂ ಬಹಿರಂಗಪಡಿಸಲಾಗುವುದಿಲ್ಲ. ನಿಮ್ಮಿಂದ ಸಂಗ್ರಹಿಸಿದ ಡೇಟಾವನ್ನು ಗೌಪ್ಯವಾಗಿ ಇರಿಸಲಾಗುತ್ತದೆ ಮತ್ತು ಪ್ರಕ್ರಿಯೆಗೊಳಿಸಿದ ಅಥವಾ ಒಟ್ಟುಗೂಡಿದ ಡೇಟಾವನ್ನು ಮಾತ್ರ ಪ್ರಕಟಣೆಗಾಗಿ ಬಳಸಲಾಗುತ್ತದೆ.

ಹಣಕಾಸಿನ ಪ್ರೋತ್ಸಾಹಗಳು: ಈ ಅಧ್ಯಯನದಲ್ಲಿ ಭಾಗವಹಿಸಲು ನೀವು ಯಾವುದೇ ಪಾವತಿಯನ್ನು ಸ್ವೀಕರಿಸುವುದಿಲ್ಲ.

ಒಟ್ಟುಗೂಡಿದ ದತ್ತಾಂಶದ ಪ್ರಕಟಣೆಗೆ ಅಧಿಕಾರ: ಒಟ್ಟು ದತ್ತಾಂಶವನ್ನು ಸಂಸ್ಕರಿಸಿದ ನಂತರ ಪಡೆದ ಫಲಿತಾಂಶಗಳನ್ನು ವೈಜ್ಞಾನಿಕ ಉದ್ದೇಶಕ್ಕಾಗಿ ಪ್ರಕಟಿಸಲಾಗುತ್ತದೆ ಅಥವಾ ವೈಜ್ಞಾನಿಕ ಗುಂಪುಗಳಿಗೆ ಪ್ರಸ್ತುತಪಡಿಸಲಾಗುತ್ತದೆ. ಆದಾಗ್ಯೂ, ನಿಮ್ಮ ಗುರುತನ್ನು ಎಂದಿಗೂ ಬಹಿರಂಗಪಡಿಸಲಾಗುವುದಿಲ್ಲ.

ಪ್ರಶ್ನೆಗಳು: ಈ ಅಧ್ಯಯನಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ಯಾವುದೇ ಪ್ರಶ್ನೆಗಳಿದ್ದಲ್ಲಿ, ನೀವು ಸಂಪರ್ಕಿಸಲು ಮುಕ್ತರಾಗಿದ್ದೀರಿ:

ಅಧ್ಯಯನದಲ್ಲಿ ಭಾಗವಹಿಸುವ ನಿಮ್ಮ ಹಕ್ಕಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ನೀವು ಯಾವುದೇ ಪ್ರಶ್ನೆಗಳನ್ನು ಅಥವಾ ದೂರುಗಳನ್ನು ಹೊಂದಿದ್ದರೆ, ನೀವು JNMC ನ ನೈತಿಕ ಸಮಿತಿಯ ಅಧ್ಯಕ್ಷರಾದ ಡಾ ಹರ್ಷ ಹೆಗ್ಡೆ, 0831-2473777 ವಿಸ್ತರಣೆ 4052 ಅನ್ನು ಸಂಪರ್ಕಿಸಬಹುದು.

ಕಾನೂನು ಹಕ್ಕುಗಳು: ಈ ಸಮ್ಮತಿಯ ನಮೂನೆಗೆ ಸಹಿ ಮಾಡುವ ಮೂಲಕ, ನಿಮ್ಮ ಯಾವುದೇ ಕಾನೂನು ಹಕ್ಕುಗಳನ್ನು ನಾವು ಕೈ ಬೀಸಿ ಕರೆಯುತ್ತಿಲ್ಲ

ANNEXURE II:

PROFORMA

SOCIODEMOGRAPHIC DETAILS

IP NUMBER	
AGE	
GENDER	MALE FEMALE OTHER
EDUCATION	NOT FORMALLY EDUCATED SECONDARY SCHOOL GRADUATION POST GRADUATION
OCCUPATION	
RELIGION	HINDU MUSLIM CHRISTIAN OTHERS
SOCIOECONOMIC STATUS	LOWER UPPER LOWER LOWER MIDDLE UPPER MIDDLE UPPER CLASS
LOCALITY	URBAN RURAL
TYPE OF ADMISSON	INDEPENDENT HIGH SUPPORT
ADVANCED DIRECTIVE	PRESENT ABSENT
NOMINAL REPRESENTATIVE	

CLINICAL DETAILS

PRIMARY DIAGNOSIS	
CGI-S SCORE	
PAST HISTORY	-PSYCHIATRIC ILLNESS YES NO -TREATMENT DETAIL -NEUROLOGICAL ILLNESS YES NO -TREATMENT DETAIL -MEDICAL ILLNESS YES NO -TREATMENT DETAIL
FAMILY HISTORY	-PSYCHIATRIC ILLNESS YES NO -DEGREE RELATION 1^{ST} 2^{ND} 3^{RD} 4^{TH} -TREATMENT DETAIL -NEUROLOGICAL ILLNESS YES NO -DEGREE RELATION 1^{ST} 2^{ND} 3^{RD} 4^{TH} -TREATMENT DETAIL -MEDICAL ILLNESS YES NO -DEGREE RELATION 1^{ST} 2^{ND}

	3RD 4TH -TREATMENT DETAILS
COMORBID PERSONALITY DISORDER	YES TYPE OF PD NO
H/O VIOLENCE IN THE PAST	YES NO
ATTEMPT OF SUICIDE/SELF HARM IN PRESENT	YES -NUMBER OF ATTEMPTS -INTENTIONALITY -LETHALITY -METHOD NO ATTEMPTS
PAST H/O SUICIDE ATTEMPT	YES NO
VERBAL DESCALATION ATTEMPTED OR NOT	YES -SUCCESSFUL -UNSUCCESSFUL NO
FREQUENCY OF RESTRAINT	1 0R 2 OR 3
ABS SCORE EACH TIME	
SOAS-R SCORE EACH TIME EACH DOMAIN	
SUBSTANCE USE DISORDER	YES -NAME OF SUBSTANCE -USE PATTERN (RECREATIONAL/HARMFUL/DEPENDENT) NO
CLINICAL GLOBAL IMPRESSIONS SCALE	SEVERITY OF ILLNESS GLOBAL IMPROVEMENT EFFICACY INDEX

Clinical Global Impressions (CGI)

Patient Information					
Patient Name	Date			Time	
	Day	Month	Year	Hour	Min.
Personal Notes					

1. SEVERITY OF ILLNESS	
Considering your total clinical experience with this particular population, how mentally ill is the patient at this time?	❑ Normal, not at all ill ❑ Borderline mentally ill ❑ Mildly ill ❑ Moderately ill ❑ Markedly ill ❑ Severely ill ❑ Among the most extremely ill patients
2. GLOBAL IMPROVEMENT	
Rate total improvement whether or not in your judgment it is due entirely to drug treatment. Compared to his condition at admission to the project, how much has he changed?	❑ Very much improved ❑ Much improved ❑ Minimally improved ❑ No change ❑ Minimally worse ❑ Much worse ❑ Very much worse

3. EFFICACY INDEX				
	None	Do not significantly interfere with patient's functioning	Significantly interfere with patient's functioning	Outweigh therapeutic effect
Therapeutic Effect	**1**	**2**	**3**	**4**
4. Marked Vast improvement. Complete or nearly complete remission of all symptoms.	4.00	2.00	1.33	1.00

SOAS-RE

The Staff Observation Aggression Scale – Revised – Emergency primary care

The form is to be completed by the staff member who has exposed to aggressive behavior defined as: any verbal, nonverbal or physical behavior that was threatening (to self, others, property), or physical behavior that did harm (to self, others, property).

1. When was the incident?

   Date (dd/mm 20yy)

   ..... / ..... 20 .....

   Time .....

2. Where was the incident?

   At the clinic ☐

   Over the phone ☐

   At home visit ☐

   Other .....

3. **Staff member exposed to incident:**

   Age .....

   Occupation .....

   Sex: Female ☐ Male ☐

4. Were you alone in the situation?

   Yes ☐ No ☐

5. **Aggressor:**

   Who: Patient ☐ Next-of-kin ☐ Other .....

   Sex: Female ☐ Male ☐

6. Does the aggressor have a known mental illness?

   Yes ☐ No ☐ Unknown ☐

7. Was the aggressor under influence of drugs or alcohol?

   Yes ☐ No ☐ Unknown ☐

Mark at least one alternative in each of the six columns below

Provocation of aggressive behaviour	**Means used by the aggressor**	**Target of aggression**	**Consequence(s) for victim(s)**	**Measure(s) to stop aggression**	**Persons involved in measure(s) to stop aggression**
No understandable provocation ☐	Verbal aggression ☐	None ☐	None ☐	None ☐	Physician ☐
Provoked by:	Threat ☐	Furniture/objects ☐	**Objects**	Talked to person ☐	Nurse ☐
Person had to wait ☐	**Ordinary objects**	Physician ☐	Damaged ☐	Took the person aside ☐	Ambulance personnel ☐
The person was denied something ☐	Room contents/ objects ☐	Nurse ☐	**Person**	Withdrew from situation/ ended call ☐	Security guard ☐
The person disagreed about assessment/ advice ☐	**Parts of the body**	Ambulance personnel ☐	Psychological/ emotional stress ☐	Complied with the person's wish ☐	Police ☐
Involuntary assessment of health condition ☐	Hand ☐	Security guard ☐	Felt threatened ☐	Asked the person to leave the site ☐	Other patients ☐
Other, describe: ☐	Foot ☐	Police ☐	Pain ☐	Forced the person to leave ☐	Next-of-kin ☐
	Other, describe: ☐	Other patients ☐	Visible injury ☐	Held the person by force ☐	Others, describe: ☐
		Other persons, describe: ☐	Need for treatment by a physician ☐	Medication ☐	
	Dangerous objects or methods		Needed to be taken off duty ☐	Other, describe: ☐	
	Attempt of strangulation ☐		Other, describe: ☐		
	Used/had weapon ☐				
	Used/had pointed weapon ☐				
	Other dangerous objects incl. syringe ☐				

AGITATED BEHAVIOR SCALE

Patient _____ **Period of Observation:**

Observ. Environ._____ **From:** _____ a.m. p.m. ____/____/____

Rater/Disc._____ **To:** _____ a.m. p.m. ____/____/____

At the end of the observation period indicate whether the behavior described in each item was present and, if so, to what degree: slight, moderate or extreme. Use the following numerical values and criteria for your ratings.

1 = absent: the behavior is not present.
2 = present to a slight degree: the behavior is present but does not prevent the conduct of other, contextually appropriate behavior. (The individual may redirect spontaneously, or the continuation of the agitated behavior does not disrupt appropriate behavior.)
3 = present to a moderate degree: the individual needs to be redirected from an agitated to an appropriate behavior, but benefits from such cueing.
4 = present to an extreme degree: the individual is not able to engage in appropriate behavior due to the interference of the agitated behavior, even when external cueing or redirection is provided.

DO NOT LEAVE BLANKS.

_____ 1. Short attention span, easy distractibility, inability to concentrate.
_____ 2. Impulsive, impatient, low tolerance for pain or frustration.
_____ 3. Uncooperative, resistant to care, demanding.
_____ 4. Violent and or threatening violence toward people or property.
_____ 5. Explosive and/or unpredictable anger.
_____ 6. Rocking, rubbing, moaning or other self-stimulating behavior.
_____ 7. Pulling at tubes, restraints, etc.
_____ 8. Wandering from treatment areas.
_____ 9. Restlessness, pacing, excessive movement.
_____ 10. Repetitive behaviors, motor and/or verbal.
_____ 11. Rapid, loud or excessive talking.
_____ 12. Sudden changes of mood.
_____ 13. Easily initiated or excessive crying and/or laughter.
_____ 14. Self-abusiveness, physical and/or verbal.

_____ **Total Score**

SR NO	IP NUMBER	frequency of restraints	AGE	AGE	GENDER	EDUCATION	OCCUPATION	RELIGION	SES	locality	type of admission	PRIMARY DIAGNOSIS	CGI ON ADMISSION	Psychiatric Past History	Family History	Personality Disorder	Past Attempt Of Suicide	Past H/O Violence	Verbal Descalation	Frequency Of Restraint	Substance Use With Pattern	Orally Accepting Medication	EPS	ECT	DAY OF ADMSSION	TYPE OF RESTRAINT	SOAR-R: PROVOCATION	SOAR-R: MEANS USED BY AGGRESSOR	SOAR-R: TARGET OF AGRESSION	SOAR-R: CONSEQUENCE FOR VICTIM	SOAR-R: MEASURES TO STOP AGGRESSION	SOAR-R: PEOPLE INVOLVED	SOAR-R: TOTAL	ABS SCORE
1	10049325	5	25	25	1	1	Farmer	1	Lower Middle	2	High Support	Intellectual Disability Mod	5	0	0	0	0	0	0	5	0	0	0	0	1,2,3,4,5	2	1	2	3	3	6	STAFF	15	40
2			25		1	1	Farmer	1	Lower Middle	2	High Support	Intellectual Disability Mod	5	0	0	0	0	0	0	5	0	0	0	0	1,2,3,4,5	2	1	2	3	3	6	STAFF	15	39
3			25		1	1	Farmer	1	Lower Middle	2	High Support	Intellectual Disability Mod	5	0	0	0	0	0	0	5	0	0	0	0	1,2,3,4,5	2	1	2	2	6	6	STAFF	17	36
4			25		1	1	Farmer	1	Lower Middle	2	High Support	Intellectual Disability Mod	5	0	0	0	0	0	0	5	0	0	0	0	1,2,3,4,5	2	1	2	1	6	6	STAFF	16	31
5			25		1	1	Farmer	1	Lower Middle	2	High Support	Intellectual Disability Mod	5	0	0	0	0	0	0	5	0	0	0	0	1,2,3,4,5	2	1	2	1	6	6	STAFF	16	29
6	10057077	5	30	30	1	1	Unemployed	1	Lower	1	High Support	Schizophrenia Cont	5	1	1	0	0	1	1	5	1	1	1	1	1,2,3	2	2	2	3	0	6	STAFF	13	36
7			30		1	1	Unemployed	1	Lower	1	High Support	Schizophrenia Cont	5	1	1	0	0	1	1	5	1	1	1	1	1,2,3	2	0	1	2	0	6	STAFF	9	31
8			30		1	1	Unemployed	1	Lower	1	High Support	Schizophrenia Cont	5	1	1	0	0	1	1	5	1	1	1	1	1,2,3	2	0	0	0	0	6	STAFF	6	31
9			30		1	1	Unemployed	1	Lower	1	High Support	Schizophrenia Cont	5	1	1	0	0	1	1	5	1	1	1	1	1,2,3	2	0	2	2	6	6	STAFF	16	29
10			30		1	1	Unemployed	1	Lower	1	High Support	Schizophrenia Cont	5	1	1	0	0	1	1	5	1	1	1	1	1,2,3	2	0	0	0	0	6	STAFF	6	22
11	10051772	3	57	57	1	2	Clerk	1	Lower Middle	2	High Support	Alcohol Dependence, Alcohol Induced Psychotic D/O	6	1	1	1	0	1	1	3	1	1	0	0	1,2,3	2	1	2	3	6	6	STAFF	18	42
12			57		1	2	Clerk	1	Lower Middle	2	High Support	Alcohol Dependence, Alcohol Induced Psychotic D/O	6	1	1	1	0	1	1	3	1	1	0	0	1,2,3	2	1	2	3	6	6	STAFF	18	39
13			57		1	2	Clerk	1	Lower Middle	2	High Support	Alcohol Dependence, Alcohol Induced Psychotic D/O	6	1	1	1	0	1	1	3	1	1	0	0	1,2,3	2	1	2	3	0	6	STAFF	12	35
14	10030203	3	27	27	1	2	Buisness man	2	Upper Middle	2	High Support	Volatile Inhalant Induced Psychotic D/O	6	1	0	1	0	1	1	3	1	0	0	0	1,2,3	2	2	2	3	6	6	STAFF AND SECURITY	19	45
15			27		1	2	Buisness man	2	Upper Middle	2	High Support	Volatile Inhalant Induced Psychotic D/O	6	1	0	1	0	1	1	3	1	0	0	0	1,2,3	2	2	2	3	6	6	STAFF AND SECURITY	19	40
16			27		1	2	Buisness man	2	Upper Middle	2	High Support	Volatile Inhalant Induced Psychotic D/O	6	1	0	1	0	1	1	3	1	0	0	0	1,2,3	2	2	2	3	6	6	STAFF AND SECURITY	19	39
17	10614533	3	23	23	1	1	Farmer	1	Lower	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	0	0	0	0	1	3	1	0	0	1	1,2,3	2	2	2	3	6	6	STAFF AND SECURITY	19	45
18			23		1	1	Farmer	1	Lower	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	0	0	0	0	1	3	1	0	0	1	1,2,3	2	2	2	3	9	6	STAFF AND SECURITY	22	40
19			23		1	1	Farmer	1	Lower	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	0	0	0	0	1	3	1	0	0	1	1,2,3	2	0	0	0	0	6	STAFF AND SECURITY	6	31
20	10052450	3	71	71	1	0	Farmer	1	Lower	1	High Support	Psychosis Nos	7	0	0	0	0	0	1	3	1	1	0	0	1,2,3	1	0	2	3	0	2	STAFF AND SECURITY	7	42
21			71		1	0	Farmer	1	Lower	1	High Support	Psychosis Nos	7	0	0	0	0	0	1	3	1	1	1	0	1,2,3	1	0	2	3	6	2	STAFF AND SECURITY	13	39
22			71		1	0	Farmer	1	Lower	1	High Support	Psychosis Nos	7	0	0	0	0	0	1	3	1	1	1	0	1,2,3	1	0	2	3	6	2	STAFF AND SECURITY	13	36
23	10056801	4	28	28	1	2	Farmer	1	Upper Lower	2	High Support	Alcohol Induced Delirium	6	1	1	1	0	1	1	4	1	0	0	0	1,1,2,3	2	2	0	3	0	2	STAFF	7	46
24			28		1	2	Farmer	1	Upper Lower	2	High Support	Alcohol Induced Delirium	6	1	1	1	0	1	1	4	1	0	0	0	1,1,2,3	2	2	0	4	6	2	STAFF	14	41
25			28		1	2	Farmer	1	Upper Lower	2	High Support	Alcohol Induced Delirium	6	1	1	1	0	1	1	4	1	0	0	0	1,1,2,3	2	0	0	3	6	6	STAFF AND SECURITY	15	38
26			28		1	2	Farmer	1	Upper Lower	2	High Support	Alcohol Induced Delirium	6	1	1	1	0	1	1	4	1	0	0	0	1,1,2,3	2	0	0	3	0	6	STAFF	9	31
27	10045628	3	23	23	2	0	Unemployed	1	Lower Middle	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	0	0	0	0	1	3	0	0	0	1	1,2,3	2	1	0	0	0	4	STAFF	5	41
28			23		2	0	Unemployed	1	Lower Middle	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	0	0	0	0	1	3	0	0	0	1	1,2,3	2	1	0	2	3	4	STAFF	10	37
29			23		2	0	Unemployed	1	Lower Middle	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	0	0	0	0	1	3	0	0	0	1	1,2,3	2	1	0	3	0	4	STAFF	8	31

30	10004050	5	33	33	2	3	Engineer	1	Upper Middle	2	High Support	Schizophrenia Cont	5	1	0	0	1	1	0	5	0	0	0	1	1,2,3	1	1	3	4	9	6	STAFF AND SECURITY	23	47
31			33		2	3	Engineer	1	Upper Middle	2	High Support	Schizophrenia Cont	5	1	0	0	1	1	1	5	0	0	1	1	1,2,3	1	1	3	4	9	6	STAFF AND SECURITY	23	43
32			33		2	3	Engineer	1	Upper Middle	2	High Support	Schizophrenia Cont	5	1	0	0	1	1	0	5	0	0	1	1	1,2,3	1	2	0	3	0	6	STAFF AND SECURITY	11	39
33			33		2	3	Engineer	1	Upper Middle	2	High Support	Schizophrenia Cont	5	1	0	0	1	1	0	5	0	0	1	1	1,2,3	1	2	0	3	0	6	STAFF AND SECURITY	11	39
34			33		2	3	Engineer	1	Upper Middle	2	High Support	Schizophrenia Cont	5	1	0	0	1	1	0	5	0	0	1	1	1,2,3	1	0	0	4	0	2	STAFF AND SECURITY	6	36
35	10006252	5	29	29	1	0	Driver	1	Lower	1	High Support	Cognitive Decline Due To Head Injury	7	0	0	0	0	0	0	5	1	0	0	0	1,2,3,4,5	2	2	2	3	6	6	STAFF AND SECURITY	19	48
36			29		1	0	Driver	1	Lower	1	High Support	Cognitive Decline Due To Head Injury	7	0	0	0	0	0	1	5	1	0	0	0	1,2,3,4,5	2	2	2	3	6	6	STAFF AND SECURITY	19	48
37			29		1	0	Driver	1	Lower	1	High Support	Cognitive Decline Due To Head Injury	7	0	0	0	0	0	0	5	1	0	0	0	1,2,3,4,5	2	0	2	3	0	6	STAFF AND SECURITY	11	42
38			29		1	0	Driver	1	Lower	1	High Support	Cognitive Decline Due To Head Injury	7	0	0	0	0	0	0	5	1	0	0	0	1,2,3,4,5	2	0	2	0	0	6	STAFF AND SECURITY	8	45
39			29		1	0	Driver	1	Lower	1	High Support	Cognitive Decline Due To Head Injury	7	0	0	0	0	0	0	5	1	1	0	0	1,2,3,4,5	2	0	0	0	0	6	STAFF AND SECURITY	6	40
40	10031220	4	22	22	1	0	Labourer	2	Lower	1	High Support	Schizophrenia Cont	6	1	1	0	0	1	1	4	0	0	0	0	1,2,3,4	2	2	0	3	6	6	STAFF	17	49
41			22		1	0	Labourer	2	Lower	1	High Support	Schizophrenia Cont	6	1	1	0	0	1	1	4	0	0	1	1	1,2,3,4	2	2	0	3	6	6	STAFF AND SECURITY	17	47
42			22		1	0	Labourer	2	Lower	1	High Support	Schizophrenia Cont	6	1	1	0	0	1	1	4	0	0	1	1	1,2,3,4	2	0	0	3	6	2	STAFF AND SECURITY	11	40
43			22		1	0	Labourer	2	Lower	1	High Support	Schizophrenia Cont	6	1	1	0	0	1	1	4	0	0	1	1	1,2,3,4	2	0	0	3	0	2	STAFF AND SECURITY	5	37
44	10007276	3	18	18	1	2	Student	1	Upper Middle	2	High Support	Schizophrenia Cont	5	1	1	0	0	1	0	3	0	0	0	0	1,2,4	1	2	2	3	0	2	STAFF AND SECURITY	9	45
45			18		1	2	Student	1	Upper Middle	2	High Support	Schizophrenia Cont	5	1	1	0	0	1	0	3	0	1	0	0	1,2,4	1	1	2	3	0	2	STAFF AND SECURITY	8	40
46			18		1	2	Student	1	Upper Middle	2	High Support	Schizophrenia Cont	5	1	1	0	0	1	1	3	0	1	0	0	1,2,4	1	2	0	0	0	2	STAFF AND SECURITY	4	39
47	10006990	3	38	38	1	2	Buisness man	1	Upper Middle	2	High Support	Schizophrenia Multiple Episodes	5	1	1	0	0	1	1	3	0	0	1	1	1,2,3	2	2	0	0	0	6	STAFF AND SECURITY	8	41
48			38		1	2	Buisness man	1	Upper Middle	2	High Support	Schizophrenia Multiple Episodes	5	1	1	0	0	1	1	3	0	1	1	1	1,2,3	1	1	0	0	0	2	STAFF AND SECURITY	3	37
49			38		1	2	Buisness man	1	Upper Middle	2	High Support	Schizophrenia Multiple Episodes	5	1	1	0	0	1	1	3	0	1	1	1	1,2,3	1	1	0	0	0	2	STAFF AND SECURITY	3	31
50	10008027	4	48	48	1	1	Factory Worker	2	Lower Middle	2	High Support	Amnestic D/O D/T Volatile Substance Inhalation With Mdd With Seizure D/O And Blindless	7	0	0	0	0	0	0	4	0	0	0	0	1,1,2,3	2	1	0	3	0	2	STAFF	6	49
51			48		1	1	Factory Worker	2	Lower Middle	2	High Support	Amnestic D/O D/T Volatile Substance Inhalation With Mdd With Seizure D/O And Blindless	7	0	0	0	0	0	0	4	0	0	0	0	1,1,2,3	2	1	0	3	0	2	STAFF	6	45
52			48		1	1	Factory Worker	2	Lower Middle	2	High Support	Amnestic D/O D/T Volatile Substance Inhalation With Mdd With Seizure D/O And Blindless	7	0	0	0	0	0	0	4	0	0	0	0	1,1,2,3	1	1	2	3	0	6	STAFF	12	45
53			48		1	1	Factory Worker	2	Lower Middle	2	High Support	Amnestic D/O D/T Volatile Substance Inhalation With Mdd With Seizure D/O And Blindless	7	0	0	0	0	0	0	4	0	0	0	0	1,1,2,3	1	1	2	3	0	6	STAFF	12	43
54	10057621	4	19	19	2	0	Unemployed	1	Lower	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	6	0	0	0	0	0	0	4	0	0	0	0	1,2,3,4	2	1	2	0	0	6	STAFF AND SECURITY	9	42
55			19		2	0	Unemployed	1	Lower	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	6	0	0	0	0	0	0	4	0	0	0	0	1,2,3,4	2	2	2	3	0	6	STAFF	13	40
56			19		2	0	Unemployed	1	Lower	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	6	0	0	0	0	0	0	4	0	1	0	0	1,2,3,4	2	2	0	3	6	6	STAFF	17	37
57			19		2	0	Unemployed	1	Lower	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	6	0	0	0	0	0	0	4	0	1	0	0	1,2,3,4	2	1	0	3	6	6	STAFF	16	31
58	10053956	6	26	26	1	0	Unemployed	1	Lower	1	High Support	Intellectual Disability Severe	7	0	0	0	0	1	0	6	0	0	0	0	1,1,2,3,3,4	2	1	0	0	0	6	STAFF AND SECURITY	7	47
59			26		1	0	Unemployed	1	Lower	1	High Support	Intellectual Disability Severe	7	0	0	0	0	1	0	6	0	0	0	0	1,1,2,3,3,4	2	1	0	0	0	6	STAFF AND SECURITY	7	47
60			26		1	0	Unemployed	1	Lower	1	High Support	Intellectual Disability Severe	7	0	0	0	0	1	0	6	0	0	1	0	1,1,2,3,3,4	2	2	2	3	6	6	STAFF AND SECURITY	19	49
61			26		1	0	Unemployed	1	Lower	1	High Support	Intellectual Disability Severe	7	0	0	0	0	1	0	6	0	1	1	0	1,1,2,3,3,4	1	2	2	3	6	6	STAFF AND SECURITY	19	47
62			26		1	0	Unemployed	1	Lower	1	High Support	Intellectual Disability Severe	7	0	0	0	0	1	0	6	0	1	1	0	1,1,2,3,3,4	2	1	0	0	0	6	STAFF AND SECURITY	7	45

63			26		1	0	Unemployed	1	Lower	1	High Support	Intellectual Disability Severe	7	0	0	0	0	1	0	6	0	0	1	0	1,1,2,3,3,4	2	1	0	0	0	6	STAFF AND SECURITY	7	40
64	10046923	3	36	36	1	0	Farmer	1	Lower Middle	1	High Support	Schizophrenia Cont	5	0	1	0	0	0	1	3	1	1	0	1	1,2,3	1	1	0	0	0	2	STAFF	3	43
65			36		1	0	Farmer	1	Lower Middle	1	High Support	Schizophrenia Cont	5	0	1	0	0	0	1	3	1	1	0	1	1,2,3	1	1	0	0	0	2	STAFF	3	40
66			36		1	0	Farmer	1	Lower Middle	1	High Support	Schizophrenia Cont	5	0	1	0	0	0	1	3	1	1	0	1	1,2,3	1	1	0	0	0	2	STAFF	3	39
67	10009243	2	28	28	1	2	Actor	1	Upper Middle	2	High Support	Bipolar Type 1 D/O Curren Episode Manic With Psychotic Symptoms	6	1	0	1	0	1	1	2	2	0	0	0	1,4	1	0	4	2	9	6	STAFF AND SECURITY	21	46
68			28		1	2	Actor	1	Upper Middle	2	High Support	Bipolar Type 1 D/O Curren Episode Manic With Psychotic Symptoms	6	1	0	1	0	1	1	2	2	0	0	0	1,4	1	1	0	0	0	2	STAFF	3	41
69	10068005	2	40	40	1	1	Unemployed	1	Lower	1	High Support	Schizophrenia Cont	5	1	0	0	0	0	0	2	0	1	0	0	1,2	2	0	0	0	0	6	STAFF	6	45
70			40		1	1	Unemployed	1	Lower	1	High Support	Schizophrenia Cont	5	1	0	0	0	0	0	2	0	1	0	0	1,2	2	0	0	0	0	6	STAFF	6	40
71	1158689	3	18	18	2	1	Student	1	Upper Middle	2	High Support	Schizophrenia Cont With Seizure Disorder	7	1	0	0	0	1	1	3	0	0	0	1	1,2,3	2	2	4	3	9	6	STAFF	24	41
72			18		2	1	Student	1	Upper Middle	2	High Support	Schizophrenia Cont With Seizure Disorder	7	1	0	0	0	1	1	3	0	0	0	1	1,2,3	2	2	4	3	9	6	STAFF	24	40
73			18		2	1	Student	1	Upper Middle	2	High Support	Schizophrenia Cont With Seizure Disorder	7	1	0	0	0	1	1	3	0	0	0	1	1,2,3	2	0	4	3	9	6	STAFF	22	44
74	1155275	3	29	29	1	0	Priest	2	Lower Middle	1	High Support	Schizophrenia Cont With Catatonia	6	0	0	0	0	0	1	3	0	0	0	1	1,2,3	2	1	0	0	0	6	STAFF	7	42
75			29		1	0	Priest	2	Lower Middle	1	High Support	Schizophrenia Cont With Catatonia	6	0	0	0	0	0	1	3	0	0	0	1	1,2,3	2	1	0	0	0	6	STAFF	7	40
76	1159209	3	54	54	2	0	Farmer	1	Lower	1	High Support	Schizophrenia Cont	6	1	0	0	0	0	1	3	0	1	0	1	1,1,2	2	1	0	0	0	6	STAFF	7	48
77			54		2	0	Farmer	1	Lower	1	High Support	Schizophrenia Cont	6	1	0	0	0	0	1	3	0	1	0	1	1,1,2	1	2	0	0	0	2	STAFF AND SECURITY	4	45
78			54		2	0	Farmer	1	Lower	1	High Support	Schizophrenia Cont	6	1	0	0	0	0	1	3	0	1	0	1	1,1,2	1	2	0	0	0	2	STAFF	4	41
79	1161653	4	38	38	1	1	Auto Driver	1	Lower Middle	2	High Support	Alcohol Induced Delirium	6	1	1	1	1	1	1	4	1	0	0	0	1,1,2,3	2	2	2	3	0	6	STAFF AND SECURITY	13	44
80			38		1	1	Auto Driver	1	Lower Middle	2	High Support	Alcohol Induced Delirium	6	1	1	1	1	1	1	4	1	0	0	0	1,1,2,4	2	2	2	3	0	6	STAFF AND SECURITY	13	40
81			38		1	1	Auto Driver	1	Lower Middle	2	High Support	Alcohol Induced Delirium	6	1	1	1	1	1	1	4	1	0	0	0	1,1,2,5	2	1	0	0	0	6	STAFF AND SECURITY	7	37
82			38		1	1	Auto Driver	1	Lower Middle	2	High Support	Alcohol Induced Delirium	6	1	1	1	1	1	1	4	1	0	0	0	1,1,2,6	2	1	0	0	0	6	STAFF	7	38
83	1164501	6	46	46	1	2	Farmer	1	Upper Middle	1	High Support	Schizophrenia Cont	7	1	0	0	0	0	1	6	0	0	0	1	1,2,3,3,4,5	2	1	0	0	0	6	STAFF AND SECURITY	7	47
84			46		1	2	Farmer	1	Upper Middle	1	High Support	Schizophrenia Cont	7	1	0	0	0	0	1	6	0	0	0	1	1,2,3,3,4,5	2	1	0	0	0	6	STAFF AND SECURITY	7	45
85			46		1	2	Farmer	1	Upper Middle	1	High Support	Schizophrenia Cont	7	1	0	0	0	0	1	6	0	1	0	1	1,2,3,3,4,5	2	2	0	0	0	6	STAFF	8	46
86			46		1	2	Farmer	1	Upper Middle	1	High Support	Schizophrenia Cont	7	1	0	0	0	0	1	6	0	1	0	1	1,2,3,3,4,5	2	0	0	0	0	6	STAFF	6	43
87			46		1	2	Farmer	1	Upper Middle	1	High Support	Schizophrenia Cont	7	1	0	0	0	0	1	6	0	1	0	1	1,2,3,3,4,5	2	0	0	0	0	6	STAFF	6	40
88			46		1	2	Farmer	1	Upper Middle	1	High Support	Schizophrenia Cont	7	1	0	0	0	0	1	6	0	1	0	1	1,2,3,3,4,5	2	0	0	0	0	6	STAFF	6	39
89	1166593	4	42	42	2	0	Housewife	1	Lower	1	High Support	Bipolar Type 1 D/O Curren Episode Manic With Psychotic Symptoms	6	1	1	0	0	0	1	4	0	0	0	1	1,1,2,5	2	2	4	3	6	6	STAFF AND SECURITY	21	41
90			42		2	0	Housewife	1	Lower	1	High Support	Bipolar Type 1 D/O Curren Episode Manic With Psychotic Symptoms	6	1	1	0	0	0	1	4	0	0	0	1	1,1,2,5	2	2	4	3	6	6	STAFF AND SECURITY	21	42
91			42		2	0	Housewife	1	Lower	1	High Support	Bipolar Type 1 D/O Curren Episode Manic With Psychotic Symptoms	6	1	1	0	0	0	1	4	0	1	0	1	1,1,2,5	2	1	0	3	0	6	STAFF AND SECURITY	10	44
92			42		2	0	Housewife	1	Lower	1	High Support	Bipolar Type 1 D/O Curren Episode Manic With Psychotic Symptoms	6	1	1	0	0	0	1	4	0	1	0	1	1,1,2,5	2	0	0	3	0	6	STAFF AND SECURITY	9	40
93	1167834	7	18	18	2	4	Student	1	Lower	1	High Support	Schizophrenia Cont	6	1	1	0	0	1	1	7	0	0	0	1	1,1,2,3,4,5,6	2	2	4	3	6	6	STAFF AND SECURITY	21	47
94			18		2	4	Student	1	Lower	1	High Support	Schizophrenia Cont	6	1	1	0	0	1	1	7	0	0	0	1	1,1,2,3,4,5,6	2	2	4	3	6	6	STAFF AND SECURITY	21	44
95			18		2	4	Student	1	Lower	1	High Support	Schizophrenia Cont	6	1	1	0	0	1	1	7	0	0	0	1	1,1,2,3,4,5,6	2	2	4	3	6	6	STAFF AND SECURITY	21	46
96			18		2	4	Student	1	Lower	1	High Support	Schizophrenia Cont	6	1	1	0	0	1	1	7	0	1	0	1	1,1,2,3,4,5,6	2	1	1	4	6	6	STAFF AND SECURITY	18	43

97			18		2	4	Student	1	Lower	1	High Support	Schizophrenia Cont	6	1	1	0	0	1	1	7	0	1	0	1	1,1,2,3,4,5,6	2	1	0	2	6	6	STAFF AND SECURITY	15	43
98			18		2	4	Student	1	Lower	1	High Support	Schizophrenia Cont	6	1	1	0	0	1	1	7	0	1	0	1	1,1,2,3,4,5,6	2	1	0	4	0	6	STAFF AND SECURITY	11	42
99			18		2	4	Student	1	Lower	1	High Support	Schizophrenia Cont	6	1	1	0	0	1	1	7	0	1	0	1	1,1,2,3,4,5,6	2	1	4	0	0	6	STAFF AND SECURITY	11	40
100	10108376	3	27	27	2	2	Housewife	2	Lower Middle	1	High Support	Schizophrenia Cont	5	1	1	0	0	1	1	3	0	1	0	1	1,2,3	1	1	0	0	0	2	STAFF		38
101			27		2	2	Housewife	2	Lower Middle	1	High Support	Schizophrenia Cont	5	1	1	0	0	1	1	3	0	1	0	1	1,2,4	1	1	0	2	6	2	STAFF		40
102			27		2	2	Housewife	2	Lower Middle	1	High Support	Schizophrenia Cont	5	1	1	0	0	1	1	3	0	1	0	1	1,2,5	1	1	0	3	6	2	STAFF		38
103	10102566	3	23	23	1	2	Farmer	1	Upper Middle	2	High Support	Schizophrenia Cont With Catatonia	7	1	1	0	0	0	1	3	1	0	0	1	3,4,5	2	1	2	3	6	6	STAFF AND SECURITY		40
104			23		1	2	Farmer	1	Upper Middle	2	High Support	Schizophrenia Cont With Catatonia	6	1	1	0	0	0	1	3	1	0	0	1	3,4,5	1	1	0	3	0	2	STAFF		36
105			23		1	2	Farmer	1	Upper Middle	2	High Support	Schizophrenia Cont With Catatonia	5	1	1	0	0	0	1	3	1	0	0	1	3,4,5	1	2	0	3	0	2	STAFF		38
106	10104003	2	31	31	2	2	Housewife	2	Upper Middle	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	1	0	1	1	1	2	0	0	0	1	1,2	2	0	0	0	0	6	STAFF		36
107			31		2	2	Housewife	2	Upper Middle	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	1	0	1	1	1	2	0	0	0	1	1,2	1	0	0	0	0	2	STAFF		36
108	10106205	3	58	58	1	0	Farmer	1	Lower	2	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	0	0	0	1	1	3	0	0	0	1	1,2,3	2	0	0	3	0	6	STAFF AND SECURITY		42
109			58		1	0	Farmer	1	Lower	2	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	0	0	0	1	1	3	0	1	0	1	1,2,4	2	1	0	0	0	6	STAFF		42
110			58		1	0	Farmer	1	Lower	2	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	0	0	0	1	1	3	0	1	0	1	1,2,5	1	0	0	0	0	2	STAFF		40
111	10209674	1	28	28	1	2	nurse	2	Upper Lower	1	High Support	acute and transient psychotic disorder	5	0	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	2	STAFF		36
112	10101762	3	28	28	1	2	Buisnessman	1	upper	1	High Support	Bipolar Type 1 D/O Curren Episode Manic With Psychotic Symptoms	7	1	0	0	0	1	0	3	0	0	1	1	1,2,3	2	2	0	0	0	6	STAFF AND SECURITY		46
113			28		1	2	Buisnessman	1	upper	1	High Support	Bipolar Type 1 D/O Curren Episode Manic With Psychotic Symptoms	7	1	0	0	0	1	0	3	0	0	1	1	1,2,3	2	0	0	0	0	6	STAFF AND SECURITY		40
114			28		1	2	Buisnessman	1	upper	1	High Support	Bipolar Type 1 D/O Curren Episode Manic With Psychotic Symptoms	7	1	0	0	0	1	0	3	0	0	1	1	1,2,3	2	0	0	0	0	6	STAFF AND SECURITY		40
115	10100389	4	38	38	1	2	Factory Worker	1	Lower	1	High Support	Alcohol Induced Delirium	7	1	1	1	0	1	0	4	1	1	0	0	1,2,3,4	2	0	0	3	6	10(parenteral, physcial and seclusion)	STAFF AND SECURITY		48
116			38		1	2	Factory Worker	1	Lower	1	High Support	Alcohol Induced Delirium	7	1	1	1	0	1	0	4	1	1	0	0	1,2,3,4	2	1	1	3	9	10(parenteral, physcial and seclusion)	STAFF AND SECURITY		40
117			38		1	2	Factory Worker	1	Lower	1	High Support	Alcohol Induced Delirium	7	1	1	1	0	1	0	4	1	1	0	0	1,2,3,4	1	0	2	3	6	10(parenteral, physcial and seclusion)	STAFF AND SECURITY		40
118			38		1	2	Factory Worker	1	Lower	1	High Support	Alcohol Induced Delirium	7	1	1	1	0	1	0	4	1	1	0	0	1,2,3,4	1	0	0	3	6	6	STAFF AND SECURITY		38
119	10094964	2	31	31	1	4	Engineer	1	Upper Middle	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	0	0	0	0	0	1	2	0	1	0	0	1,2	1	0	0	0	0	2	STAFF		24
120			31		1	4	Engineer	1	Upper Middle	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	0	0	0	0	0	1	2	0	1	0	0	1,2	1	0	0	0	0	2	STAFF		20
121	10098903	2	28	28	1	2	Factory Worker	1	Lower Middle	1	High Support	Alcohol Dependence, Alcohol Induced Psychotic D/O	5	0	0	1	0	1	1	2	1	0	0	0	1,2	1	0	0	0	0	2	STAFF		20
122			28		1	2	Factory Worker	1	Lower Middle	1	High Support	Alcohol Dependence, Alcohol Induced Psychotic D/O	5	0	0	1	0	1	1	2	1	0	0	0	1,2	1	0	0	0	0	2	STAFF		20
123	10099211	2	31	31	1	4	Buisnessman	1	upper	1	High Support	Psychosis Nos	5	1	1	1	0	1	1	2	1	0	0	0	1,2	2	0	2	4	9	6	STAFF AND SECURITY		38
124			31		1	4	Buisnessman	1	upper	1	High Support	psychosis Nos	5	1	1	1	0	1	1	2	1	0	0	0	1,2	2	0	0	4	0	2	STAFF		36
125	10100389	4	41	41	1	1	Farmer	2	Lower Middle	1	High Support	Alcohol Induced Delirium	6	0	1	1	0	0	0	4	1	0	0	0	1,1,2,3	2	1	0	3	0	6	STAFF AND SECURITY		30
126			41		1	1	Farmer	2	Lower Middle	1	High Support	Alcohol Induced Delirium	6	0	1	1	0	0	0	4	1	0	0	0	1,1,2,3	1	1	0	0	0	2	STAFF		28
127			41		1	1	Farmer	2	Lower Middle	1	High Support	Alcohol Induced Delirium	6	0	1	1	0	0	0	4	1	0	0	0	1,1,2,3	1	1	0	0	0	2	STAFF		24
128			41		1	1	Farmer	2	Lower Middle	1	High Support	Alcohol Induced Delirium	6	0	1	1	0	0	0	4	1	0	0	0	1,1,2,3	1	1	0	0	0	2	STAFF		24
129	10088011	3	38	38	1	2	Buisnessman	1	upper	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	0	0	0	0	1	3	2	0	0	1	1,2,3	2	0	0	2	0	4	STAFF		24
130			38		1	2	Buisnessman	1	upper	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	0	0	0	0	1	3	2	0	0	1	1,2,3	1	0	0	3	0	2	STAFF		28

131			38		1	2	Buisness man	1	upper	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	0	0	0	0	1	3	2	0	1	1	1,2,3	1	0	0	4	0	2	STAFF		22
132	10104378	3	31	31	2	2	Housewife	1	upper	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	1	0	1	1	1	3	0	0	0	0	1,1,2	2	1	0	0	0	6	STAFF		30
133			31		2	2	Housewife	1	upper	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	1	0	1	1	1	3	0	0	0	0	1,1,3	1	0	2	3	6	2	STAFF		24
134			31		2	2	Housewife	1	upper	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	1	0	1	1	1	3	0	0	0	0	1,1,4	1	1	0	3	6	2	STAFF		20
135	10010889	3	20	20	2	2	Student	1	Upper Middle	1	High Support	acute and transient psychotic disorder	5	0	0	0	0	0	0	3	0	0	0	0	1,1,2	2	0	2	3	0	6	STAFF		36
136			20		2	2	Student	1	Upper Middle	1	High Support	acute and transient psychotic disorder	5	0	0	0	0	0	0	3	0	0	1	0	1,1,2	1	0	0	3	0	2	STAFF		36
138			20		2	2	Student	1	Upper Middle	1	High Support	acute and transient psychotic disorder	5	0	0	0	0	0	0	3	0	0	1	0	1,1,2	1	1	0	4	6	2	STAFF		28
139	10102207	4	21	21	1	2	mechanic	2	Lower Middle	2	High Support	cannabis induced psychosis	6	0	0	0	0	0	0	4	1	0	0	1	1,1,2,3	2	1	0	0	0	6	STAFF AND SECURITY		36
140			21		1	2	mechanic	2	Lower Middle	2	High Support	cannabis induced psychosis	6	0	0	0	0	0	0	4	1	0	0	1	1,1,2,3	1	1	1	3	0	2	STAFF		37
141			21		1	2	mechanic	2	Lower Middle	2	High Support	cannabis induced psychosis	6	0	0	0	0	0	1	4	1	0	0	1	1,1,2,3	1	0	1	3	0	2	STAFF		34
142			21		1	2	mechanic	2	Lower Middle	2	High Support	cannabis induced psychosis	6	0	0	0	0	0	1	4	1	1	0	1	1,1,2,3	1	0	1	3	0	2	STAFF		28
143	10027181	1	28	28	2	0	Unemployed	1	Upper Lower	1	High Support	Intellectual Disability Severe	5	0	0	0	0	0	0	1	0	0	0	0	1	1	1	2	3	9	2	STAFF		28
144	10011967	1	18	18	1	1	Student	1	upper	1	High Support	Schizophrenia Cont	6	0	1	0	0	0	1	1	0	0	0	0	1	1	0	2	4	9	2	STAFF		24
145	10102348	3	21	21	1	2	Student	1	Upper Middle	1	High Support	acute and transient psychotic disorder	6	0	0	1	0	0	1	3	0	0	0	0	1,2,3	1	1	0	0	0	2	STAFF		28
146			21		1	2	Student	1	Upper Middle	1	High Support	acute and transient psychotic disorder	6	0	0	1	0	0	0	3	0	0	0	0	1,2,3	1	1	0	0	0	2	STAFF		30
147			21		1	2	Student	1	Upper Middle	1	High Support	acute and transient psychotic disorder	6	0	0	1	0	0	1	3	0	0	1	0	1,2,3	1	1	0	0	0	2	STAFF		24
148	10116458	3	29	29	2	1	Housewife	1	upper	2	High Support	acute and transient psychotic disorder	5	1	0	1	0	0	1	3	0	0	0	1	1,1,2	2	2	0	3	6	6	STAFF		32
149			29		2	1	Housewife	1	upper	2	High Support	acute and transient psychotic disorder	5	1	0	1	0	0	1	3	0	0	0	1	1,1,2	1	2	0	3	0	2	STAFF		28
150			29		2	1	Housewife	1	upper	2	High Support	acute and transient psychotic disorder	5	1	0	1	0	0	1	3	0	0	0	1	1,1,2	1	0	0	3	0	2	STAFF		22
151	10115906	1	30	30	1	2	Farmer	1	Lower	2	High Support	Schizophrenia Cont	6	1	1	1	0	1	0	1	1	0	0	0	1	1	1	0	0	0	2	STAFF		24
152	10115926	1	23	23	1	2	mechanic	1	Lower	2	High Support	cannabis induced psychosis	5	0	1	1	0	0	0	1	0	1	0	0	1	1	1	0	0	0	2	STAFF		24
153	10115780	3	50	50	1	0	Farmer	1	Lower	2	High Support	Alcohol Induced Delirium	6	1	1	1	0	1	0	3	1	0	0	0	1,2,3	2	2	0	3	6	6	STAFF AND SECURITY		38
154			50		1	0	Farmer	1	Lower	2	High Support	Alcohol Induced Delirium	6	1	1	1	0	1	0	3	1	0	0	0	1,2,3	2	2	0	3	6	6	STAFF AND SECURITY		30
155			50		1	0	Farmer	1	Lower	2	High Support	Alcohol Induced Delirium	6	1	1	1	0	1	0	3	1	0	0	0	1,2,3	1	1	0	0	0	2	STAFF		28
156	10111605	1	71	71	1	0	Farmer	1	Lower Middle	2	High Support	Alzheimer's with behavior disturbances	6	0	0	0	0	0	0	1	1	0	0	0	1	1	1	0	0	0	2	STAFF		26
157	10111340	1	40	40	1	4	Engineer	1	Upper Middle	1	High Support	Alcohol Induced Delirium	5	1	1	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	2	STAFF		24
158	10222451	1	52	52	1	2	Farmer	2	Lower Middle	2	High Support	Alcohol Induced Delirium	5	1	1	1	0	1	0	1	1	0	0	0	1	1	1	0	0	0	2	STAFF		28
159	10111522	1	40	40	1	2	Farmer	2	Lower	2	High Support	Schizophrenia Multiple Episodes		1	1	1	0	0	0	1	1	1	0	0	1	1	1	0	0	0	2	STAFF		24
160	10321200	3	38	38	1	2	Buisness man	1	upper	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	0	0	0	0	1	3	2	0	0	1	1,2,3	2	0	0	2	0	4	STAFF		24
161			38		1	2	Buisness man	1	upper	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	0	0	0	0	1	3	2	0	0	1	1,2,3	1	0	0	3	0	2	STAFF		28
162			38		1	2	Buisness man	1	upper	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	0	0	0	0	1	3	2	0	1	1	1,2,3	1	0	0	4	0	2	STAFF		22
163	10118210	4	38	38	1	2	Factory Worker	1	Lower	1	High Support	Alcohol Induced Delirium	7	1	1	1	0	1	0	4	1	1	0	0	1,2,3,4	2	0	0	3	6	10(parenteral, physcial and seclusion)	STAFF AND SECURITY		48
164			38		1	2	Factory Worker	1	Lower	1	High Support	Alcohol Induced Delirium	7	1	1	1	0	1	0	4	1	1	0	0	1,2,3,4	2	1	1	3	9	10(parenteral, physcial and seclusion)	STAFF AND SECURITY		40
165			38		1	2	Factory Worker	1	Lower	1	High Support	Alcohol Induced Delirium	7	1	1	1	0	1	0	4	1	1	0	0	1,2,3,4	1	0	2	3	6	10(parenteral, physcial and seclusion)	STAFF AND SECURITY		40
166			38		1	2	Factory Worker	1	Lower	1	High Support	Alcohol Induced Delirium	7	1	1	1	0	1	0	4	1	1	0	0	1,2,3,4	1	0	0	3	6	6	STAFF AND SECURITY		38
167	10029831	1	71	71	1	0	Farmer	1	Lower Middle	2	High Support	Alzheimer's with behavior disturbances	6	0	0	0	0	0	0	1	1	0	0	0	1	1	1	0	0	0	2	STAFF		26
168	10022187	1	40	40	1	4	Engineer	1	Upper Middle	1	High Support	Alcohol Induced Delirium	5	1	1	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	2	STAFF		24
169	10023298	1	52	52	1	2	Farmer	2	Lower Middle	2	High Support	Alcohol Induced Delirium	5	1	1	1	0	1	0	1	1	0	0	0	1	1	1	0	0	0	2	STAFF		28
170	10015906	1	30	30	1	2	Farmer	1	Lower	2	High Support	Schizophrenia Cont	6	1	1	1	0	1	0	1	1	0	0	0	1	1	1	0	0	0	2	STAFF		24

171	10118926	1	23	23	1	2	mechanic	1	Lower	2	High Support	cannabis induced psychosis	5	0	1	1	0	0	0	1	0	1	0	0	1	1	1	0	0	0	2	STAFF		24
172	10111505	1	71	71	1	0	Farmer	1	Lower Middle	2	High Support	Alzheimer's with behavior disturbances	6	0	0	0	0	0	0	1	1	0	0	0	1	1	1	0	0	0	2	STAFF		26
173	10111380	1	40	40	1	4	Engineer	1	Upper Middle	1	High Support	Alcohol Induced Delirium	5	1	1	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	2	STAFF		24
174	10098703	2	28	28	1	2	Factory Worker	1	Lower Middle	1	High Support	Alcohol Dependence, Alcohol Induced Psychotic D/O	5	0	0	1	0	1	1	2	1	0	0	0	1,2	1	0	0	0	0	2	STAFF		20
175			28		1	2	Factory Worker	1	Lower Middle	1	High Support	Alcohol Dependence, Alcohol Induced Psychotic D/O	5	0	0	1	0	1	1	2	1	0	0	0	1,2	1	0	0	0	0	2	STAFF		20
176	10108386	3	27	27	2	2	Housewife	2	Lower Middle	1	High Support	Schizophrenia Cont	5	1	1	0	0	1	1	3	0	1	0	1	1,2,3	1	1	0	0	0	2	STAFF		38
177			27		2	2	Housewife	2	Lower Middle	1	High Support	Schizophrenia Cont	5	1	1	0	0	1	1	3	0	1	0	1	1,2,4	1	1	0	2	6	2	STAFF		40
178			27		2	2	Housewife	2	Lower Middle	1	High Support	Schizophrenia Cont	5	1	1	0	0	1	1	3	0	1	0	1	1,2,5	1	1	0	3	6	2	STAFF		38
179	10101566	3	23	23	1	2	Farmer	1	Upper Middle	2	High Support	Schizophrenia Cont With Catatonia	7	1	1	0	0	0	1	3	1	0	0	1	3,4,5	2	1	2	3	6	6	STAFF AND SECURITY		40
180			23		1	2	Farmer	1	Upper Middle	2	High Support	Schizophrenia Cont With Catatonia	6	1	1	0	0	0	1	3	1	0	0	1	3,4,5	1	1	0	3	0	2	STAFF		36
181			23		1	2	Farmer	1	Upper Middle	2	High Support	Schizophrenia Cont With Catatonia	5	1	1	0	0	0	1	3	1	0	0	1	3,4,5	1	2	0	3	0	2	STAFF		38
182	10104001	2	31	31	2	2	Housewife	2	Upper Middle	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	1	0	1	1	1	2	0	0	0	1	1,2	2	0	0	0	0	6	STAFF		36
183			31		2	2	Housewife	2	Upper Middle	1	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	1	0	1	1	1	2	0	0	0	1	1,2	1	0	0	0	0	2	STAFF		36
184	10107205	3	58	58	1	0	Farmer	1	Lower	2	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	0	0	0	1	1	3	0	0	0	1	1,2,4	2	0	0	3	0	6	STAFF AND SECURITY		42
185			58		1	0	Farmer	1	Lower	2	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	0	0	0	1	1	3	0	1	0	1	1,2,4	2	1	0	0	0	6	STAFF		42
186			58		1	0	Farmer	1	Lower	2	High Support	Bipolar Type 1 D/O Curren Episode Manic	5	1	0	0	0	1	1	3	0	1	0	1	1,2,4	2	1	0	0	0	6	STAFF		42
187	10122098	1	71	71	1	0	Farmer	1	Lower Middle	2	High Support	Alzheimer's with behavior disturbances	6	0	0	0	0	0	0	1	1	0	0	0	1	1	1	0	0	0	2	STAFF		26
188	10127829	1	40	40	1	4	Engineer	1	Upper Middle	1	High Support	Alcohol Induced Delirium	5	1	1	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	2	STAFF		24
189	10122824	1	52	52	1	2	Farmer	2	Lower Middle	2	High Support	Alcohol Induced Delirium	5	1	1	1	0	1	0	1	1	0	0	0	1	1	1	0	0	0	2	STAFF		28
190	10122828	1	30	30	1	2	Farmer	1	Lower	2	High Support	Schizophrenia Cont	6	1	1	1	0	1	0	1	1	0	0	0	1	1	1	0	0	0	2	STAFF		24
191	10228256	1	23	23	1	2	mechanic	1	Lower	2	High Support	cannabis induced psychosis	5	0	1	1	0	0	0	1	0	1	0	0	1	1	1	0	0	0	2	STAFF		24
192	10122184	1	71	71	1	0	Farmer	1	Lower Middle	2	High Support	Alzheimer's with behavior disturbances	6	0	0	0	0	0	0	1	1	0	0	0	1	1	1	0	0	0	2	STAFF		26
193	10123524	1	40	40	1	4	Engineer	1	Upper Middle	1	High Support	Alcohol Induced Delirium	5	1	1	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	2	STAFF		24
194	10197602	3	57	57	1	2	Clerk	1	Lower Middle	2	High Support	Alcohol Dependence, Alcohol Induced Psychotic D/O	6	1	1	1	0	1	1	3	1	1	0	0	1,2,3	2	1	2	3	6	6	STAFF	18	42
195			57		1	2	Clerk	1	Lower Middle	2	High Support	Alcohol Dependence, Alcohol Induced Psychotic D/O	6	1	1	1	0	1	1	3	1	1	0	0	1,2,3	2	1	2	3	6	6	STAFF	18	39
196			57		1	2	Clerk	1	Lower Middle	2	High Support	Alcohol Dependence, Alcohol Induced Psychotic D/O	6	1	1	1	0	1	1	3	1	1	0	0	1,2,3	2	1	2	3	0	6	STAFF	12	35
197	1018456	3	27	27	1	2	Buisnessman	2	Upper Middle	2	High Support	Volatile Inhalant Induced Psychotic D/O	6	1	0	1	0	1	1	3	1	0	0	0	1,2,3	2	2	2	3	6	6	STAFF AND SECURITY	19	45
198			27		1	2	Buisnessman	2	Upper Middle	2	High Support	Volatile Inhalant Induced Psychotic D/O	6	1	0	1	0	1	1	3	1	0	0	0	1,2,3	2	2	2	3	6	6	STAFF AND SECURITY	19	40
199			27		1	2	Buisnessman	2	Upper Middle	2	High Support	Volatile Inhalant Induced Psychotic D/O	6	1	0	1	0	1	1	3	1	0	0	0	1,2,3	2	2	2	3	6	6	STAFF AND SECURITY	19	39
200	10098723	1	34	34	1	2	teacher	2	Upper Middle	2	High Support	Schizophrenia Cont	6																					