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Behavioral Health Patients and Agitation in the Emergency Department: A Synthesis of Literature

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Behavioral Health Patients and Agitation in the Emergency Department:
A Synthesis of Literature

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Behavioral Health Patients and Agitation in the Emergency Department:

A Synthesis of Literature

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Abstract

Introduction: Patient agitation is a phenomenon that presents itself to the emergency department (ED) on a daily basis. Agitation can manifest from an array of physical or psychological complaints. Behavioral health patients presenting with agitation is a growing subset of the total agitation population within EDs. A better understanding of behavioral health patient agitation in the ED setting is needed to guide best practices in treating this fragile population with therapeutic, patient-centered care.

Methods: A review of literature was conducted on agitation and behavioral health in ED settings, using the search terms *emergency department, agitation, restraints, sedation, and behavioral health*. Peer peer-reviewed research articles published from 2015 through-2020 were returned from the CINAHL, Scopus, and APA PsycInfo databases. Nine articles were selected for inclusion in this review.

Results: Agitation is a patient presentation in the ED that requires immediate attention to ensure patient, staff, and health safety. Current interventions depend heavily on coerced de-escalation that should be used only as a last resort. New practice guidelines, adoption of an agitation scale, and a new framework for providing care are proposed for beneficial change.

Discussion: This literature review provides evidence that the current state of care for the agitated behavioral health patient needs is inadequate. A therapeutic, humane approach is needed to promote beneficial health outcomes to this marginalized patient population.

Key Words: *agitation, restraints, emergency department, sedation*

Contribution to Emergency Nursing Practice

- ED nurses' understanding of the etiology and complexity of patient agitation is essential to providing therapeutic, compassionate care.
- Psychological and physical trauma is associated with current ED interventions to manage agitated behavioral health patients.
- Implementation of best practices in treating agitated patients will aid ED nurses in care decisions that lessen the trauma and enable the provision of therapeutic, patient-centered care.

Introduction

Of the 140 million patients who visited an ED in 2017 (CDC, 2017), between 5 and 10 percent (7 to 14 million) were “agitated patients,” presenting for behavioral health issues. (Gottlieb et al. (2016). Behavioral health patients are the fastest-growing population presenting to the ED, outpacing the increase in overall visits by 41 percent (Wong, 2019). The surge in behavioral health patients in the ED is creating a crisis for hospitals that lack adequate resources to treat each patient with therapeutic, patient-centered care. Agitation can quickly escalate aggression or violence, putting the safety of the patient and ED healthcare team at risk. However, the implications of interventions that target staff safety are unclear on the care outcomes for the patients themselves, especially when invasive measures such as physical restraints and sedatives are used on a particularly vulnerable population Wong et al. (2018).

While hospital EDs cannot change the trends driving behavioral health patients to the ED, they can change the way this patient population is treated. This will require better tools and training and a change in perspective on meaningful care. Nurses, ethically, and professionally committed to improving the patient experience, have a critical role to play in transforming care for behavioral health patients in the ED. The aim of this synthesis review of the evidence is to better understand patient agitation in the ED setting to guide best practices in treating behavioral health patients with therapeutic, patient-centered care.

Methods

The synthesis review was guided by the Prisma 2009 Flow Diagram (Moher et al. 2009). The four-step process used was the identification of articles within search databases and other sources, screening of the articles to determine relevance and suitability, and selection of

both qualitative and quantitative articles for inclusion in the review. The database search engines used were CINAHL, PubMed, and APA PsycInfo, and Google Scholar. The search terms used were *emergency department, agitation, violence, and behavioral health*. The initial search with keyword combinations used returned 33 articles. Search parameters were narrowed to include only peer-reviewed, English language articles published between 2015 and 2020. Twenty-nine articles were returned and reviewed by reading the abstract of each article. Nine relevant articles that addressed patient agitation in EDs, current practices treating behavioral health patients in the ED, and evidence-based practices recognizing the need for change were chosen for inclusion in this review. Articles were excluded if the studies were conducted in outpatient settings or pediatric EDs.

Literature Synthesis

Current State of Agitation Management

The ED is a fast-paced, chaotic environment that can exacerbate any agitation that a patient presents with upon arrival. For the ED staff, dealing with a surge of acutely agitated patients has been likened to going multiple rounds in a street fight (New et al., 2017). Those first in line to intervene must rely on their eyes, ears, and professional training to quickly assess the situation; there may not be time to determine the source and status of the agitation or defuse a state that can quickly escalate to aggression or violence. Once the healthcare team is aware that an agitated patient will present to the ED, immediate attention should be directed to safety concerns for both the patient and the healthcare team (New et al., 2017). Agitated patients need to be placed on a gurney and separated from other patients upon arrival. Determining the underlying condition is the responsibility of the ED care team, and proceeds with nursing assessment, finger stick blood sugar assessment and laboratory tests, collaboration with the ED

physician to determine the complete plan. During this time, the risk of agitation escalation is high. If an initial attempt to verbally deescalate fails, the remaining intervention options are relatively few: giving emergent sedation medication, applying four-point restraints, or calling a Code Gray. Forcefully immobilizing a patient can result in mental trauma that has the potential to negatively affect patient-physician relationships, immediately and with long-term implications for care (Zeller, 2016).

These traumatic events can have profound repercussions for the ED team as well. Routinely witnessing aggression and violence, or participating in subduing or restraining a patient, subjects the ED team to psychological stress with consequences for their mental health and work performance. Physical and mental exhaustion, most acute during a patient surge, coupled with inadequate supportive resources, may leave the frontline ED staff feeling neglected and abandoned (Wong et al., 2020).

Etiology of Agitation

Understanding the etiology of the agitation is crucial to determine the course of care and ensure the safety of the patient and healthcare team. When an agitated patient presents to the ED, the triage nurse will first assess the patient's agitation by speaking with someone who accompanied the patient: emergency medical services (EMS), police officers, friends, or family. The information they can provide is vital to informing the course of treatment. The etiology of agitation is complex and variable, with substance use/abuse, acute psychiatric conditions, and medical illness, singly or in combination, the most frequently encountered agents (Wong et al., 2019). Agitation associated with psychosis requires immediate action to prevent escalation to a level that could put patients, staff, and others at risk (Zeller & Citrome, 2016). Patients experiencing psychotic episodes are part of a vulnerable population that may present by walking

in unaccompanied. In that case, no information from an outside source is available to guide treatment. Verbal deescalation, if ineffective, may be followed by working with the patient to encourage oral medication, but if that too fails, the next intervention is likely to be the use of physical restraints, which are associated with lasting physical injuries and psychic trauma (Wong et al., 2020).

Coercive Care

Subjection to physical restraint is psychologically traumatic and can be physically injurious to the agitated patient; it should only be used as a last resort (Wong et al., 2020). Sedation medication may produce less trauma and achieve better de-escalation outcomes. Treatment should start with an attempt to engage the patient's cooperation in taking oral medication. If the patient is not willing to engage, the ED nurse may need to initiate a Code Gray in order to administer parenteral sedation medications or apply four-point restraints. Yap et al. (2019) found that the majority of the acutely agitated patients presenting in an urban ED required parenteral sedation. Gottlieb et al. (2018) found that although the use of physical restraints has declined over several decades, they are still commonly used in the ED, with studies suggesting their use in over half of all acutely agitated patients.

The Patient Perspective

Coercive interventions such as physical restraints and parenteral sedation medication and increasingly recognized as infringing on the rights of patients (New et al., 2017). However, the patient's perspective on their care is not at the forefront in the minds of the ED staff. The ED team's goal is to concurrently decrease the agitation and prevent harm to the staff and other patients in the ED. The disconnect in perspectives was recently explored by Wong et al. (2020). Interviews with ED patients subjected to agitation management measures reported feeling

demeaned and ignored. One patient remarked, “They don’t care about you. They walk by you a hundred times.” Another remarked, “After all the times I’ve been restrained in the emergency room, it makes my PTSD and anxiety worse.” (Wong et al., 2020, p.1). Patients may feel they are being harmed rather than helped. A patient subjected to four-point restraints remarked, “I was sexually abused as a child. The little that I can remember because I was very young, there was some type of restraint, so I think that's the worst thing when they hold me down and restrain me like that.” (Wong, 2020, p.1).

Provider/Patient Disconnect

Ensuring patient and staff safety is a theme that resonates through the articles reviewed. Patient agitation must be deescalated for the ED team to determine the etiology of agitation and define a course of care. With limited options seen as available to the ED team in the immediate situation, coercive care that leaves an indelible mark on agitated patients both physically and psychologically has regrettably become the standard of care. Caring for this patient population is physically and emotionally taxing for the staff. Wong et al. (2018) collected comments from the staff of two urban EDs, one in a tertiary care center and the other in a community hospital: “Sometimes these guys are here two, three times a day, spitting and scratching at you. You just spent half an hour getting them to relax, helped them walk out the door, and they are being wheeled in again yelling and screaming. It's upsetting; you feel defeated. On a bad night, finally, you might finally say, just put them in restraints because you’ve had enough.” (p. 286).

Synthesis of Findings

Agitation is a complex patient presentation that is increasingly characteristic of a marginalized, fragile patient population. Agitation can be caused by disparate medical and psychiatric conditions inducing head trauma, infection, thyroid disease, substance

abuse/withdrawal, psychotic disorders, and depression. Identifying the etiology, therefore, represents a significant challenge, which is made more difficult by the immediate need to calm the patient to avoid escalation (Zeller, 2016). Bringing the patient into a calm state to care for the patient is necessary to perform the interventions to elicit a diagnosis for the agitation.

Agitation is a concern that requires immediate interventions that may exacerbate a patient's presentation. This is an unfortunate byproduct of encounter and can lead to an increasingly agitated patient. The cause is still unknown to the ED staff, which requires more staff to help perform the interventions and spiral the patient into a further agitated state. This requires the staff to intervene using the resources of Code Grays, emergent sedation, and four-point restraints. This leads to more negative encounters for the patient, increasing the patient's previous trauma.

Recommendations for Change

Current practices in managing patient agitation in the ED create a downward spiral. The necessity of immediate intervention may exacerbate a patient's agitation, compelling the ED staff to use coercive measures without adequate time to assess the agitation etiology or the patient's mental or metabolic condition. As agitation escalates, encounters become increasingly negative, involving Code Grays, emergent sedation, and four-point restraints. The experience of trauma builds, leading to an even greater disconnect between the views of patients and providers. For the patient, the ED feels like a place where harm is inflicted rather than mitigated. For the ED care team, uncooperative patients force them to take measures they know may ultimately cause harm. Current practices place the ED team in an ethical dilemma (Jegade, 2017): while Code Grays, emergent sedation medication, and four-point restraints may be effective to ensure that aggressive patients do not pose a danger to themselves and others, injudicious use of

restraints can be psychologically injurious, traumatization by inducing feelings of terror, humiliation, and powerlessness.

New practice guidelines (Kleissel-Muir, 2019) are needed to move the ED culture away from interventions that lean heavily toward the use of physical restraints and emergent sedation medication. All medications currently used for sedation pose a risk for adverse events (Yap, 2019) and thus need to be used with the utmost caution and re-evaluated in light of pharmacological and nonpharmacological alternatives.

Adoption of an agitation scale to understand the patient's agitation status upon arrival to the ED could expedite appropriate decision-making on the course of care. Validated scales include three developed by Gottlieb (2016) the Behavioral Activity Rating Scale, Overt Agitation Severity Scale and Overt Aggression Scale, and three developed by Wong (2019) the Agitated Behavior Scale, Overt Aggression Scale, and Severity Scale. The scales range from four data points (Severity Scale) to 14 (Agitated Behavior Scale) to 16 (Overt Aggression Scale).

A change to the framework of care for treating agitated patients has been proposed by Wong (2018). In this framework, the resources of the entire healthcare system are utilized to provide a complete diagnostic evaluation and verify that the practices in place are adequately serving this patient population. This systems approach applies a patient safety lens and ensures reliable care at the patient, staff, ED microsystem, and healthcare macrosystem levels, and would transform the continuum of care in a hospital to improve patient care.

Limitations

The limitations of several of the studies reviewed include their small sample sizes. Results of studies conducted in urban ED environments may not be reflective of rural hospital

EDs and their patient populations. The observational studies reviewed introduce the possibility of investigator bias.

Discussion

Patient agitation is a frequent presentation in EDs. It is a complex phenomenon with etiologies that must be determined before patient care can progress. Deescalating patient agitation is necessary to decrease the potential for agitation to escalate into aggressive behavior that places the patient, ED staff, and other patients at risk (Zeller 2016). The interventions available to the ED care team are verbal de-escalation, sedation medication (taken voluntarily or involuntarily), Code Gray activation, and finally, physical restraint as a last resort. The entire intervention repertoire may be deployed in rapid succession. Patients are not predictable when they are agitated, and the ED team is not able to use a systematic approach. They have to be ready to react. Although effective, the interventions can be perceived by patients and other staff as overly antagonistic, coercive, and unprofessional (Wong, 2020). Changing agitated patient care in the ED is necessary but comes with system issues within the ED, hospital, and within the geographic area where the hospital and patients reside. The framework proposed by Wong (2018) highlights the interconnectedness of systems in the care of the agitated patient and moves the focus away from sole reliance on ED resources.

Conclusion

Patients presenting with agitation need to be evaluated quickly and efficiently. Increasingly, agitated patients come from a fragile and vulnerable population. While extremely challenging to treat, these patients deserve the best care the ED can provide. Current practices in treating agitated patients need to change to incorporate more therapeutic and less coercive

approaches. The changes required are many but are within the grasp of any ED that is willing to take on the challenge to provide better care to this marginalized population.

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Appendix A

Evaluation Table

Purpose of Article or Review	Conceptual Framework	Design / Method	Sample / Setting	Major Variables Studied (and their Definitions)	Measurement of Major Variables	Data Analysis	Study Findings	Level of Evidence (Critical Appraisal Score) / Worth to Practice / Strengths and Weaknesses / Feasibility / Conclusion(s) / Recommendation(s) /
<p>APA Citation:</p> <p>Gottlieb, M., Long, B., & Koyfman, A. (2017). Approach to the agitated emergency department patient. <i>The Journal of Emergency Medicine</i>, 54(4) 447-457. http://dx.doi.org/10/j.jemermed.2017.12.049.</p>								
Agitated patients present to the ED for number of reasons and need to determine the reasons quickly.	N/A	No design/method noted. This article is clinical practice guidelines.	None ED	N/A	N/A	N/A	Appropriate care is needed for patients presenting with agitation.	<p>Non-Research Evidence:</p> <p>Clinical Practice Guidelines Level IV.</p> <p>Quality: Good</p> <p>Worth: Acceptable, nothing new in treating agitated patients. Good reminder.</p> <p>Feasibility: Moderate</p> <p>Conclusion: Clinical guidance</p>

Purpose of Article or Review	Conceptual Framework	Design / Method	Sample / Setting	Major Variables Studied (and their Definitions)	Measurement of Major Variables	Data Analysis	Study Findings	Level of Evidence (Critical Appraisal Score) / Worth to Practice / Strengths and Weaknesses / Feasibility / Conclusion(s) / Recommendation(s) /
								and rapid treatment. Recommendations: useful to practice but should already be common practice in EDs.

Definition of abbreviations: ED: Emergency Department. N/A Not applicable

Purpose of Article or Review	Conceptual Framework	Design / Method	Sample / Setting	Major Variables Studied (and their Definitions)	Measurement of Major Variables	Data Analysis	Study Findings	Level of Evidence (Critical Appraisal Score) / Worth to Practice / Strengths and Weaknesses / Feasibility / Conclusion(s) / Recommendation(s) /
<p>APA Citation:</p> <p>Zeller, S., & Citrome, L. (2016). Managing agitation associated with schizophrenia an bipolar disorder in the emergency setting. <i>Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health</i>. 17(2), 165-172. http://dx.doi.org/10.5811/westjem.2015.12.28763</p>								
Guidance for clinicians in caring for agitated patients with primary dx: schizophrenia and bipolar.	N/A	Narrative Review	N/A	N/A	N/A	N/A	N/A	Clinical Practice Guidelines Level IV Low Quality Worth: guiding principles, low worth to practice. Strength: guidance Weakness: anecdotal information – not a study lead to zero conclusions. Conclusions: practice guidelines zero conclusions

Purpose of Article or Review	Conceptual Framework	Design / Method	Sample / Setting	Major Variables Studied (and their Definitions)	Measurement of Major Variables	Data Analysis	Study Findings	Level of Evidence (Critical Appraisal Score) / Worth to Practice / Strengths and Weaknesses / Feasibility / Conclusion(s) / Recommendation(s) /
								Recommendations: none

Definition of abbreviations: DX: diagnosis

Purpose of Article or Review	Conceptual Framework	Design / Method	Sample / Setting	Major Variables Studied (and their Definitions)	Measurement of Major Variables	Data Analysis	Study Findings	Level of Evidence (Critical Appraisal Score) / Worth to Practice / Strengths and Weaknesses / Feasibility / Conclusion(s) / Recommendation(s) /
<p>APA Citation: New, A., Tucci, V., & Rios, J. (2017). A modern-day fight club? the stabilization and management of acutely agitated patients in the emergency department. <i>Psychiatric Clinics of North America</i>. 40(3) 397-410. http://dx.doi.org/10.1016/j.psc.2017.05.002.</p>								
Guidance in caring for acutely agitated patients.	N/A	N/A	None	N/A	N/A	N/A	Verbal de-escalation is key in decreasing agitation but if not feasible utilize other interventions, too.	<p>Non-Research Evidence Appraisal Organizational Experience Quality Improvement Level V.</p> <p>Worth: guiding principles that should already be in place in EDs but if they aren't. Use their recommendations.</p> <p>Strength: reminder to clinical staff to utilize other interventions prior to restraints.</p> <p>Weakness: Zero data to back-up their recommendations.</p> <p>Conclusions: Reminder of how</p>

Purpose of Article or Review	Conceptual Framework	Design / Method	Sample / Setting	Major Variables Studied (and their Definitions)	Measurement of Major Variables	Data Analysis	Study Findings	Level of Evidence (Critical Appraisal Score) / Worth to Practice / Strengths and Weaknesses / Feasibility / Conclusion(s) / Recommendation(s) /
								to treat the fragile population but clinicians should already treat them humanely as possible.

Purpose of Article or Review	Conceptual Framework	Design / Method	Sample / Setting	Major Variables Studied (and their Definitions)	Measurement of Major Variables	Data Analysis	Study Findings	Level of Evidence (Critical Appraisal Score) / Worth to Practice / Strengths and Weaknesses / Feasibility / Conclusion(s) / Recommendation(s) /
APA Citation: Yap, C., Taylor, D., Kong, D., Knott, J., Taylor, S. & Bird, S. (2019). Risk factors for sedation-related events during acute agitation management in the emergency department. <i>Academic Emergency Medicine</i> . 26(10) 1135-1143 https://doi.org/10.1111/acem.13826								
Discover the risk events	N/A	Randomized controlled	547 patients	Respiratory and Hemodynamic	Data extracted	13.5% 74/547	Elderly patients,	Quantitative Level II Meta-Analysis High Quality

Purpose of Article or Review	Conceptual Framework	Design / Method	Sample / Setting	Major Variables Studied (and their Definitions)	Measurement of Major Variables	Data Analysis	Study Findings	Level of Evidence (Critical Appraisal Score) / Worth to Practice / Strengths and Weaknesses / Feasibility / Conclusion(s) / Recommendation(s) /
that are incurred after the use of parenteral medication for agitation.		trial of parenteral sedation regarding acute agitation management and prospective observational study	were enrolled. 12 Eds in Australia	adverse events post sedation medication administered. Hypoventilation Oxygen desaturation Prolonged QTc Tachycardia Extrapyramidal side effects Vomiting Anticholinergic side effects Falls Anaphylaxis	from patient medical records. Number of patients that experienced an AE and total number of patients admitted to the study.	AE observed 95%CI + 10.9%-16.7% in the expected range.	intoxicated patients, patients managed with parenteral sedation medications have an increased risk of AEs. Closely monitoring these patient populations could decrease AEs.	Worth: Yes, this practice would be beneficial for patients and healthcare workers to use. Strength: Large population of patients, study performed over multiple sites. Weakness: medications used are not used in US. Feasibility: Yes it is feasible to implement the conclusions. Conclusions: Useful recommendations for care practice for the fragile population that receives sedation medication for agitation. Recommendations: Enacting into practice would increase

Purpose of Article or Review	Conceptual Framework	Design / Method	Sample / Setting	Major Variables Studied (and their Definitions)	Measurement of Major Variables	Data Analysis	Study Findings	Level of Evidence (Critical Appraisal Score) / Worth to Practice / Strengths and Weaknesses / Feasibility / Conclusion(s) / Recommendation(s) /
								safety for the patients and staff caring for them.

Definitions: N/A not applicable, AE: Adverse Event, ED: Emergency Department

Purpose of Article or Review	Conceptual Framework	Design / Method	Sample / Setting	Major Variables Studied (and their Definitions)	Measurement of Major Variables	Data Analysis	Study Findings	Level of Evidence (Critical Appraisal Score) / Worth to Practice / Strengths and Weaknesses / Feasibility / Conclusion(s) / Recommendation(s) /
APA Citation: Wong, A., Ray, J., Rosenberg, A., Crispino, L., Parker, J., McVaney, C., Iennaco, J., Bernstein, S., & Pavlo, A., (2020). Experiences of individuals who were physically restrained in the emergency department. <i>JAMA Network Open</i> . 3(1) e1919381.								

Purpose of Article or Review	Conceptual Framework	Design / Method	Sample / Setting	Major Variables Studied (and their Definitions)	Measurement of Major Variables	Data Analysis	Study Findings	Level of Evidence (Critical Appraisal Score) / Worth to Practice / Strengths and Weaknesses / Feasibility / Conclusion(s) / Recommendation(s) /
http://dx.doi.org/10.1001/jamanetworkopen.2019.19381								
To elicit information from patients that have been restrained in emergency departments and their feelings associated with the event.	N/A	Qualitative Semi-structured interview 1:1.	25 adults over the age of 18. Sample was from 2 EDs in Urban Northeast city.	Demographic information Self-reported responses to the MacArthur Perceived Coercion Scale Physical restraint experiences	Transcripts were analyzed and coded into themes and sub themes. Harmful experiences of restraints use and care Diverse and complex personal contexts affecting visits Challenges in resolving their restraint experiences, leading to negative consequences	SPSS V.21.0 The themes of lack of care, coercion to be in the ED, long term psychological trauma, mostly negative experiences during their ED stay.	Care of this fragile population needs to be therapeutic, humanizing, and less traumatic. HCW need to realize the long-term trauma that goes with being restrained.	Qualitative Level III, High/Good Quality. Worth to practice: Yes, it should be brought up that being restrained is traumatic physically and psychologically to the patient. This is most important to be able to better care for this population. Strength: Personal interviews gives a in depth understanding of the trauma. Weakness: Not quantifiable Feasibility: Yes, it is treating everyone like a human. Conclusion: Caring for patients humanely is necessary as people are fragile and need to be cared for and not left with long term

Purpose of Article or Review	Conceptual Framework	Design / Method	Sample / Setting	Major Variables Studied (and their Definitions)	Measurement of Major Variables	Data Analysis	Study Findings	Level of Evidence (Critical Appraisal Score) / Worth to Practice / Strengths and Weaknesses / Feasibility / Conclusion(s) / Recommendation(s) /
					on well-being.			trauma. Recommendations: This should be reading for all individuals that care for patients in the emergency department.

Definition of abbreviations: ED: emergency department,

Purpose of Article or Review	Conceptual Framework	Design / Method	Sample / Setting	Major Variables Studied (and their Definitions)	Measurement of Major Variables	Data Analysis	Study Findings	Level of Evidence (Critical Appraisal Score) / Worth to Practice / Strengths and Weaknesses / Feasibility / Conclusion(s) / Recommendation(s) /

APA Citation:

Wong, A.H., Crispino, L., Parker, J.B., McVaney, C., Rosenberg, A., Ray, J.M., Whitfill, T., Iennaco, J.D., Bernstein, S.L. (2019). Characteristics and severity of agitation associated with use of sedatives and restraints in the emergency department. *Journal of Emergency Medicine* 57(5) 611-619.

Purpose of Article or Review	Conceptual Framework	Design / Method	Sample / Setting	Major Variables Studied (and their Definitions)	Measurement of Major Variables	Data Analysis	Study Findings	Level of Evidence (Critical Appraisal Score) / Worth to Practice / Strengths and Weaknesses / Feasibility / Conclusion(s) / Recommendation(s) /
http://dx.doi.org/10.1016/j.jemermed.2019.07.019								
Validate and research 3 different agitation scales in the ED	N/A	Primary prescriptive study Prospective study	95 patients Adult ED academic referral center in mid-size city in New England that has approximately 100,000 visits per year.	Subsets of agitated patients Restraints Sedatives administered 3 different scales	RA performed their assessment via direct observation or retrospective EHR review.	95 patients: Gender, Race, ethnicity, triage chief complaint EMS reports of etoh/drugs Apparent impairment Clinical analysis	Most patients received sedatives, low volume were restrained, demographics and restraint/sedative use was found to have no correlation.	Mixed methods, Level II Quantitative High Quality Level III Qualitative A/B High/Good Quality Explanatory Mixed Methods High Quality

Purpose of Article or Review	Conceptual Framework	Design / Method	Sample / Setting	Major Variables Studied (and their Definitions)	Measurement of Major Variables	Data Analysis	Study Findings	Level of Evidence (Critical Appraisal Score) / Worth to Practice / Strengths and Weaknesses / Feasibility / Conclusion(s) / Recommendation(s) /

Definition of abbreviations: ED: emergency department, RA: research assistant, HER: electronic medical record, EMS: emergency medical service, N/A: not applicable

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APA Citation:

Jegede, O., Ahmed, S., Olupona, T., & Akerele, E. (2017). Restraints utilization in a psychiatric emergency room. *International Journal of Mental Health*. 46(2)

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125-132 http://dx.doi.org/10.1080/00207411.2017.1295781								
Restraint use in a psychiatric emergency department	N/A	Systematic retrospective case by case review of restraint orders	95 patients between January and June 2016 ED New York	Self-reported drug use Primary diagnosis Documentation of type and duration of restraint used Demographic characteristics	Males required restraints more than females, age difference between males and females noted that older females versus younger males Manual hold restraint was the most common.	Males more likely to be restrained than females. Marijuana was the drug of choice and then polysubstance.	Correlation between primary dx and use of restraints.	Quantitative Level III Good Quality Worth: valuable information Strength: six-month retro study Weakness: Urban environment, need further study in other environments. Conclusions: UDS/primary dx are reminders that substance abuse and hx of psych can lead to use of restraints. Recommendations: need further study in different environments and demographics.

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<p>APA Citation:</p> <p>Kleissl-Muir, S., Rahman, M., Raymond, A., (2019). Analysis of patient related violence in a regional emergency department in victoria, australia. <i>Australasian Emergency Care</i> 22(2) 126-131. https://doi.org/10.1016/j.auec.2019.01.006.</p>								
Violence and substance abuse in an ED.	N/A	Retrospective cohort study	548 incidents of code grey and code black in an emergency department over 5.5 years.	Code Grey violence without weapon Code Black violence with weapon	Using risk management data base to deduce the number of incidents. Data mining of the incident reporting system.	Intoxication was leading cause of violence. Males under the influence had higher instance of violence.	Substance abuse and mental health are common triggers for violence.	Quantitative Level III. Good Quality Worth: reminder that substance abuse and hx of psych dx correlates to higher probability of violence. Strength: large sample size, large date period Weakness: violence not always reported, narrative information versus visualization of incidents. This research is informative and needs to have prospective study for validation of incidents of violence in an ED.

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Definition of abbreviations: ED: emergency department, N/A: not applicable, HX: history, DX: diagnosis

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<p>APA Citation: Wong, A., Ruppel, H., Crispino, L., Rosenberg, A., Iennaco, D. & Vaca, F. (2018). Deriving a framework for a systems approach to agitated patient care in the emergency department. <i>The Joint Commission Journal on Quality and Patient Safety</i>. 44(5) 279-292. https://doi.org/10.1016/j.jcjq.2017.11.011</p>								
System framework to care for the agitated patient in EDs.	N/A	Mixed Methods	57 participants at academic site and community site.	Simulated agitated patient encounter (watching) Then focus groups to speak about the encounter they witnessed. Survey of violence exposures.	Variables were 57 participants version of the agitated patient encounter they had to watch.	SPSS Version 21.0 Five member interprofessional coding team used Dedoose for thematic analysis and data organization.	Effective communication within the teams, mutual support, conflicting emotions from staff on agitated patients and how to care for them.	<p>Mixed Methods</p> <p>Quantitative Level III Good Quality</p> <p>Qualitative Level III Good Quality</p> <p>Convergent Good Quality</p> <p>Worth to Practice: Good idea for a overall framework</p> <p>Strength: differing views of the same incident leads to better understanding of team members understanding of the agitated patient and their responses to the situation.</p> <p>Weakness: Unable to quantify the perceived difference.</p>

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								<p>Feasibility: Not feasible to initiate in EDs at this time.</p> <p>Conclusion: Study highlights the differences of perception of incidents in the emergency department.</p> <p>Recommendations: Low probability of actual implementation.</p>