Optimizing Patient Safety in an Adult Psychiatric Unit: A Literature Review

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Laurea University of Applied Sciences **Abstract**
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Patient safety is a critical component of healthcare delivery, particularly in adult psychiatric units. The prevalence of incidences of patient harm suggests that patient safety within adult psychiatric units is still a public health issue. The purpose of this thesis was to describe the measures used to optimize patient safety in an adult psychiatric unit using a literature review.

The methodological guidelines for the review were followed systematically in stages including data search, inclusion and exclusion, data selection, and data analysis. The electronic databases, PubMed, CINAHL and Google Scholar were used for literature search, having formulated the Keywords, “optimization”, “patient safety”, and “adult psychiatric unit”.

The findings revealed that the measures used to optimize patient safety in an adult psychiatric unit include monitoring and assessment, medication administration, infection control, and fall prevention. It is necessary to conduct further research on how to reduce the risk of hospital-associated infections while restraining adult psychiatric patients.

Keywords: Adult Psychiatric Unit, Patient safety, Optimization.

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1 Introduction

Patient safety is a critical component of healthcare delivery, particularly in adult psychiatric units where patients often require intensive care for mental health conditions (Slemon, Jenkins and Bungay 2017, 1). Adult psychiatric units cater for individuals with diverse psychiatric disorders, ranging from depression and anxiety to severe psychoses and personality disorders (Shoka, Lazzari, and Gower 2017, 249). Ensuring patient safety in such environments is inherently challenging due to various factors, including environmental factors, communication problems, human problems, technical failures, staffing patterns, inadequate policies and procedures, organizational knowledge transfer, and patient-related issues which affect patients' behaviors and interactions (De Santis, Myrick, Lamis, Pelic, Rhue and York 2015, 192). Psychiatric settings necessitate specialized approaches that address unique risks, including self-harm, aggression, medication refusal, and absconding (Slemon, Jenkins and Bungay 2017, 1). These adverse events (AEs) experienced in the care of hospitalized adult psychiatric patients globally raises concern regarding quality assurance, quality improvement, and patient safety (Slemon, Jenkins and Bungay 2017, 5).

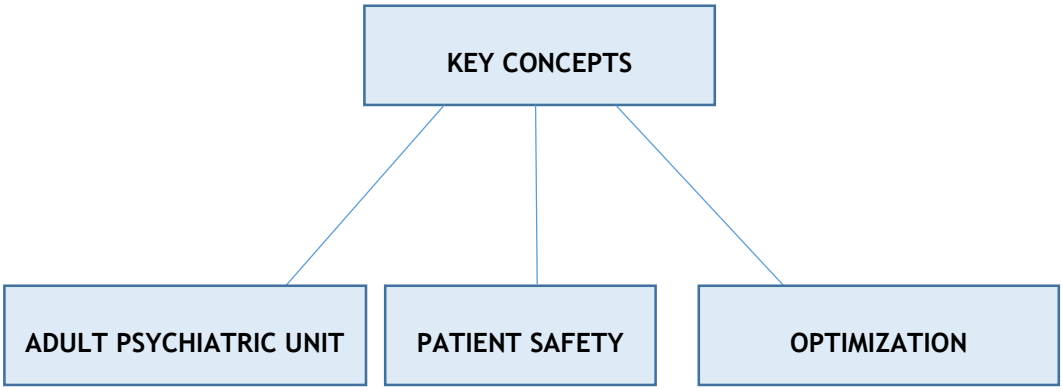
Patient safety risk within the adult psychiatric unit usually extends beyond affecting only the psychiatric adult patients to affecting healthcare staff and the public, which widens the scope of risk (Slemon, Jenkins and Bungay 2017, 1). Adverse events are the negative unintended effects of clinical care which result in impairment, injury, or other forms of harm (Vermeulen et al. 2018, 1087). Patient suicide is one of the incidences of adverse events in adult psychiatric units, and that suicidality is among the most challenging clinical conditions that nurses working within the adult psychiatric unit face, with the condition being one of the key reasons for patient admissions in the adult psychiatric unit (De Santis et al. 2015, 191). Falls are another common incident of adverse events in adult psychiatric unit, associating the incident with changes in coordination and reaction time linked with disorders, such as depression, and impacts of the medication prescribed for the management of the health problems, which potentially cause dizziness, and weakness (Kanerva, Lammintakanen and Kivinen 2016, 28).

The prevalence of incidences of patient harm in many adult psychiatric units worldwide suggests that patient safety within this clinical setting remains a public health issue that requires effective intervention. The mortality rate for persons battling serious mental conditions, such as bipolar disorder and schizophrenia is more than two times compared to the normal population (Daumit et al. 2016, 1068). Despite many studies focusing on the consequences of adverse events during patient hospitalization, such as in-hospital deaths, little scholarly attention has been devoted to the approaches capable of optimizing patient safety in an adult psychiatric unit. This thesis explores and describes the measures that have the potential to optimize patient safety in an adult psychiatric unit.

2 Theoretical Framework

The key concepts: “adult psychiatric unit”; “optimization”; and “patient safety” were formulated to help understand the thesis topic better, and they are in line with the title, purpose and aim of this study.

Figure 1: Key Concepts



2.1 Adult Psychiatric Unit

An adult is typically defined as an individual who has reached a stage of maturity, both physically and legally, enabling them to take responsibility for their own health and well-being. Adults are generally categorized as individuals aged 18 years and older, though this can vary slightly depending on cultural, legal, and institutional definitions. Within nursing, adults encompass a wide range of ages, including young adults, middle-aged individuals, and the elderly, each presenting distinct health needs and challenges. (Siu, Bibbins-Domingo, Grossman, Baumann, Davidson, Ebell, García, Gillman, Herzstein, Kemper and Krist 2016, 380.) Young adults may require care related to mental health, reproductive health, injury prevention, and the management of emerging chronic conditions. (Halverson and Scott Tilley 2022.) For middle-aged adults, nursing care frequently revolves around managing chronic illnesses such as hypertension, diabetes, and cardiovascular diseases, which often emerge during this life stage. Additionally, middle adulthood is often accompanied by increased responsibilities, such as caregiving for aging parents or raising children, which can contribute to stress and mental health challenges (Schulz, Beach, Czaja, Martire and Monin 2020, 635). Middle-aged adults often require both medical treatment and emotional support and guidance to help them maintain their well-being.

Nursing care also extends to caring for older adults, whereby nurses address age-related changes, managing multiple chronic conditions, and ensuring quality of life (Halverson and Scott Tilley 2022). Geriatric nursing emphasizes preserving dignity and independence while providing compassionate support to enhance the overall health and happiness of older adults. Nursing care for adults generally adheres to the principles of empathy, respect, and patient-centered care.

An adult psychiatric unit, also known as a mental health ward or psychiatric ward, is a specialized division within a hospital or a stand-alone healthcare facility dedicated to the treatment and care of patients with acute and chronic mental health disorders (Dymond and Branjerdporn 2021, 713). These units are designed to provide a safe, therapeutic environment for individuals experiencing significant psychological distress, behavioral issues, or psychiatric conditions that require intensive medical and psychological intervention. The primary goal of an Adult Psychiatric Unit is to stabilize patients, alleviate acute symptoms, and develop a plan for ongoing treatment and support. (Staniszewska, Mockford, Chadburn, Fenton, Bhui, Larkin, Newton, Crepaz-Keay, Griffiths and Weich 2019, 329.)

2.1.1 Functions of an adult psychiatric unit

An adult psychiatric unit provides a structured environment for mental health assessment and diagnosis of adults suspected of acute mental health issues (Slemon, Jenkins and Bungay 2017, 2). Nurses conduct comprehensive evaluations upon admission of patients in an adult psychiatric unit, with the aim of identifying the root causes of their distress. Patient assessments conducted in this unit include interviews, physical examinations, and psychological testing to develop a thorough understanding of the patient's condition (Slemon, Jenkins and Bungay 2017, 2).

Another primary function of an adult psychiatric unit is to deliver crisis stabilization and immediate care for patients experiencing severe mental health episodes, such as suicidal ideation, psychosis, or acute anxiety. Treatment approach aimed at delivering crisis stabilization often includes a combination of medications, therapeutic interventions, and de-escalation techniques to stabilize the patient's condition (Halverson and Scott Tilley 2022).

A third critical function of an adult psychiatric unit is to provide therapeutic interventions and structured care plans tailored to the needs of each patient (Wong et al. 2022, 532). These interventions include individual therapy, group therapy, cognitive behavioral therapy (CBT), and skills-based programs, such as dialectical behavior therapy (DBT). In addition, patients often participate in psychoeducation sessions that help them better understand their conditions and develop coping strategies.

Adult psychiatric units also play a vital role in discharge planning and continuity of care, ensuring that patients transition smoothly from inpatient care to appropriate follow-up services. The

multidisciplinary team working in an adult psychiatric unit often collaborate with patients and their families to develop a comprehensive discharge plan that includes outpatient therapy, community mental health resources, and medication management. This function is essential for preventing relapses and promoting long-term recovery. (Plevris and Inglis 2017, 12.)

2.1.2 Special features of an adult psychiatric unit

An adult psychiatric unit is designed to provide a safe and therapeutic environment for individuals experiencing acute mental health crises (Slemon, Jenkins and Bungay 2017, 2). One of its special features is the emphasis on safety and security. These units are equipped with secure entry and exit points to prevent unauthorized access and ensure the safety of both patients and staff. Rooms are often designed with anti-ligature fixtures to minimize the risk of self-harm, and constant monitoring by trained professionals helps to de-escalate potentially dangerous situations. This focus on safety creates a stable environment where patients can begin their recovery without fear of harm to themselves or others.

Another key feature of an adult psychiatric unit is the multidisciplinary approach to care. Treatment is typically provided by a team of mental health professionals, including psychiatrists, psychologists, social workers, nurses, and occupational therapists. This collaborative approach ensures that each patient receives a comprehensive assessment and a personalized treatment plan tailored to their specific needs. Regular team meetings allow for ongoing evaluation of progress and adjustments to the care plan, ensuring that patients receive the most effective interventions throughout their stay. (Muench and Fraze 2022, 1.)

Therapeutic programming is another standout feature of these units (Plevris and Inglis 2017, 12). Patients have access to a variety of evidence-based therapies, such as cognitive-behavioral therapy (CBT), group therapy, and art or music therapy. These programs are designed to help patients develop coping skills, improve emotional regulation, and address underlying issues contributing to their mental health challenges. Structured daily schedules provide a sense of routine and purpose, which can be particularly beneficial for individuals struggling with instability or disorganization in their lives.

Adult psychiatric units often prioritize family involvement and education (Muench and Fraze 2022, 1). Recognizing the important role that family members play in a patient's recovery, many units offer family therapy sessions and educational workshops to help loved ones understand the patient's condition and learn how to provide support. This not only strengthens the patient's support system but also helps reduce stigma and fosters a more compassionate understanding of mental health issues. By involving families in the treatment process, these units aim to create a foundation for long-term recovery and reintegration into the community.

2.1.3 Types of patients in an adult psychiatric unit

An adult psychiatric unit serves a diverse population of individuals experiencing a wide range of mental health challenges. One common type of patient in adult psychiatric unit is one suffering from severe mood disorders, such as major depressive disorder or bipolar disorder (Fornaro et al. 2020, 7). These individuals may be admitted due to symptoms like intense sadness, hopelessness, suicidal ideation, or manic episodes that impair their ability to function (Vieta et al. 2018, 1). The structured environment of the psychiatric unit provides them with immediate stabilization, medication management, and therapeutic interventions to help regulate their mood and prevent harm to themselves or others (Ferro 2016, 462).

Another group frequently seen in adult psychiatric units includes patients with psychotic disorders, such as schizophrenia or schizoaffective disorder. These individuals may experience hallucinations, delusions, or disorganized thinking, which can make it difficult for them to distinguish reality (Lindenmayer and Kaur 2016, 590). Admission to the unit often occurs during acute episodes when their symptoms are severe and pose a risk to their safety or the safety of others. Treatment focuses on antipsychotic medications, psychotherapy, and support to help them regain clarity and stability. (Rolin, Aschbrenner, Whiteman, Scherer and Bartels 2017, 941.)

Patients with severe anxiety disorders, such as generalized anxiety disorder, panic disorder, or post-traumatic stress disorder (PTSD), also make up a significant portion of admissions (Gordon, Brandish and Baldwin 2016, 664). These individuals may be admitted if their anxiety becomes debilitating, leading to extreme distress, avoidance behaviors, or an inability to perform daily activities. In the psychiatric unit, they receive a combination of medication, individual therapy, and exposure-based techniques to help them manage their symptoms and develop healthier coping mechanisms (Qassem, Aly-ElGabry, Alzarouni, Abdel-Aziz, and Arnone 2021, 321.)

Adult psychiatric units also care for individuals with co-occurring disorders, such as substance use disorders alongside mental health conditions (Jones and McCance-Katz 2019, 78). These patients face unique challenges, as their substance use may exacerbate their psychiatric symptoms or vice versa. Treatment in the unit typically involves dual-diagnosis care, addressing both the mental health condition and the addiction simultaneously. This integrated approach helps patients break the cycle of substance use and mental health crises, paving the way for long-term recovery and improved quality of life. (Minkoff and Covell 2022, 686.)

2.1.4 Nurses' responsibilities in an adult psychiatric unit

Nurses in an adult psychiatric unit play a critical role in providing compassionate, patient-centered care to individuals experiencing mental health crises. One of their primary responsibilities is conducting thorough assessments of patients upon admission. This includes evaluating mental status, identifying risk factors such as suicidal or violent tendencies, and documenting medical and psychiatric histories. These assessments help inform the treatment plan and ensure that each patient receives appropriate care tailored to their specific needs. Nurses also monitor patients closely throughout their stay, observing changes in behavior or symptoms that may require immediate intervention. (Slemon, Jenkins and Bungay 2017, 2.)

Another key responsibility of psychiatric nurses is medication management. They administer prescribed medications, such as antipsychotics, mood stabilizers, or antidepressants, and monitor patients for side effects or adverse reactions. Nurses educate patients about their medications, including their purpose, potential side effects, and the importance of adherence. (Donaldson et al. 2017, 1680.) This role is crucial in helping patients stabilize and manage their symptoms effectively. Additionally, nurses collaborate with psychiatrists and other healthcare providers to adjust medication regimens as needed based on the patient's progress.

Psychiatric nurses also provide therapeutic support and crisis intervention. They engage in one-on-one conversations with patients to build trust, offer emotional support, and encourage participation in treatment. Nurses are trained to de-escalate tense or volatile situations using non-confrontational techniques, ensuring the safety of both patients and staff. They also facilitate group therapy sessions or educational workshops, helping patients develop coping skills, improve communication, and gain insights into their conditions. This therapeutic role is essential for fostering a healing environment and empowering patients to take an active role in their recovery. (Plevris and Inglis 2017, 12.)

Nurses in adult psychiatric units are also responsible for coordinating care and advocating for their patients. They work closely with the multidisciplinary team, including psychiatrists, social workers, and occupational therapists, to ensure a holistic approach to treatment (Donaldson et al. 2017, 1680). Nurses also communicate with patients' families, providing updates on progress and offering guidance on how to support their loved ones after discharge. Additionally, they assist in discharge planning, ensuring that patients have access to ongoing care, such as outpatient therapy or community resources. By advocating for their patients' needs and facilitating continuity of care, nurses play a vital role in promoting long-term recovery and well-being. (Slemon, Jenkins and Bungay 2017, 2.)

2.2 Patient Safety

Safety is the state of being protected from harm, danger, or risk. It encompasses measures and practices designed to prevent accidents, injuries, and threats to physical, emotional, or environmental well-being (World Health Organization 2023). On the other hand, patient safety is the condition in which a patient is free from preventable harm, whereby nurses achieve the prevention of unnecessary harm. A patient is an individual who receives health care services offered by healthcare professionals, and who is commonly found in a variety of health care settings including hospitals, clinics, nursing homes, or at their home where they receive care. The need of the patient to receive health care services is usually motivated by an illness, injury, or a condition that hinders the patient from living their life comfortably. (World Health Organization 2020.) The healthcare professionals who provide patient treatment include physicians, psychiatrists, and nurses such as registered nurses (RNs), and nurse practitioners (NPs). Healthcare professionals typically work in collaboration to ensure effective patient care and quality of care. (Muench and Fraze 2022, 2.)

Patients' roles in healthcare have evolved over time, with many now taking a more active part in their care decisions. This shift toward patient-centered care emphasizes collaboration between patients and healthcare professionals, encouraging informed choices and shared decision-making. By empowering patients to understand their conditions, treatment options, and potential outcomes, healthcare providers help foster a sense of agency and self-efficacy. This dynamic is especially important in managing chronic diseases, where long-term adherence to treatment plans and lifestyle changes is essential. (Flagg 2014, 75.) Healthcare providers often strive to support patients in achieving not only clinical recovery but also a return to their desired quality of life. Recognizing the interconnectedness of health and broader life contexts ensures that care remains compassionate, comprehensive, and ultimately more effective. (Thomas, Thomas, Lorenzetti and Conly 2022, 58.)

2.2.1 Medical safety

Medical safety is the framework of organized activities, which create procedures, behavior, processes, cultures, environments, and technologies in health care to sustainably and consistently reduce risks, minimize the occurrence of preventable harm, reduce the likelihood of errors, and minimize the impact of any adverse event. The sources of patient harm that have the potential to impact patient safety include diagnostic errors, medication errors, health care-associated infections, surgical errors, patient falls, sepsis, pressure ulcers, patient misidentification, unsafe transfusion practices, unsafe injection practices, and venous thromboembolism. (World Health Organization 2023.)

Diagnostic errors as a high-priority issue in patient safety are inevitably experienced by patients at some point in their lifetime. Diagnosis in primary care of patients, including first-contact care, comprehensive care, continued care, and coordinated care is usually a high-risk area that is prone to

medical errors. The common diseases in primary care usually have undifferentiated presenting features that tend to be self-limiting and benign whereas the uncommon diseases tend to be critical and life threatening. (Singh, Schiff, Graber, Onakpoya, and Thompson, 2017, 484.) Patients may be diagnosed across the many episodes of care and over time, with healthcare professionals carefully balancing the risk of failing to identify critical illness (Singh and Sittig 2015, 345).

Diagnostic errors usually happen when the diagnosis of a patient is wrong, inappropriately delayed, and/or missed (Goyder, Jones, Heneghan and Thompson 2015, 839). Understanding diagnosis is contingent upon five process dimensions of the diagnostic process including: performance and the interpretation of diagnostic tests, patient-provider encounter and patient behaviors, engagement and adherence, referral-related with subspecialty, communication and coordination issues by tracking follow-up of diagnostic information over time. These process dimensions are susceptible to breakdown during primary care of patients and may involve one or more dimension in a diagnostic error. (Singh et al. 2017, 485.) Defining preventable diagnostic errors is based on three criteria: a case in which case analysis shows evidence of the chances of making timely and correct diagnosis has been missed, suggesting that it would have been possible to make the correct diagnosis earlier suppose something different could have been considered; a case in which the missed chance falls within the context of a diagnostic process that is evolving, suggesting that omission is evident; and a case in which the chance could be missed by the patient, the provider, the care team, or the system (Royce, Hayes and Schwartzstein 2019, 187).

Healthcare-associated infections (HAIs) are a significant patient safety concern capable of impacting the duration of hospitalization, health care costs and hospital mortality (Padoveze and Fortaleza 2014, 997). HAIs can be prevented through stringent hygiene protocols, sterilization of equipment, and the use of personal protective equipment (PPE). Hand hygiene has been particularly emphasized as a simple but effective way to prevent HAIs. (Haque et al. 2020, 1769.) Adult psychiatric patients are mostly affected with behavioral challenges and cognitive impairments which makes infection control compliance challenging. Implementation of isolation procedure and routine screening assists in preventing infection. (Houben et al. 2022, 2.) Infection control measures provide safety to both staff and patients thus making them feel secure and protected from healthcare-associated infections while supporting their mental health treatment. Training psychiatric nurses on infection control enables them to handle infection risk, enhancing compliance and improving patient outcomes. (Haley et al. 2017, 183.)

Medication errors as another critical issue in patient safety capable of causing patient harm, is one of the leading causes of death worldwide (Donaldson, Kelley, Dhingra-Kumar, Kieny and Sheikh 2017, 1681). The harms caused by medication errors are either preventable or unpreventable hence it is important to distinguish between the two to determine where to adequately invest in and maximize

care outcome (Mosadeghrad and Woldemichael 2017, 91). Furthermore, determining whether a medication error is preventable or unpreventable helps ensure that the care provided is patient-centered, capable of improving clinical outcomes, and capable of reducing the punitive concerns that are associated with the adverse events reporting methodology, and allowing the analysis of the unexpected results and promoting learning from the adverse events to help nurses continually improve the mechanisms for detecting preventable harm (Hodkinson et al. 2020, 2). During the prescribing stage, medication errors mostly occur due to inadequate knowledge of medications, miscommunication and lack of attention to patients. Ensuring the correct administration of medications includes giving the right drug, in the correct dosage, to the correct patient, at the right time. (Escrivá Gracia, Brage Serrano and Fernández Garrido 2019, 2.)

2.2.2 Safety of the equipment used

The safety of equipment used in healthcare facilities plays a significant role in determining patient safety (Plevris and Inglis 2017, 12). Medical equipment, ranging from simple tools like thermometers to complex machines like ventilators and Magnetic resonance imaging (MRI) scanners, play a critical role in diagnosing, treating, and monitoring patients (Wong, Rama, Caruso, Lee, Wang and Chen 2022, 531). The proper functioning of medical equipment potentially enhances the precision of care and reduces the risk of errors. Conversely, faulty or improperly used equipment can compromise patient safety, leading to misdiagnosis, delayed treatment, or harm to the patient. (Plevris and Inglis 2017, 12.) Ensuring the reliability and maintenance of medical equipment is, therefore, a fundamental aspect of delivering safe healthcare (Wong et al. 2022, 531).

Regular maintenance and inspection of medical equipment are crucial to prevent malfunctions that could endanger patients (Pradhan, Bhattacharyya and Pal 2021, 2). Equipment failure, such as a malfunctioning defibrillator or an infusion pump delivering the wrong dosage, can have life-threatening consequences. Establishing strict protocols for routine testing, calibration, and servicing of equipment can help healthcare facilities ensure optimal performance of the medical equipment used. Additionally, compliance with regulatory standards and guidelines is essential to upholding the safety and quality of medical devices. (Badnjevic 2023, 293.)

Proper training for healthcare professionals in the use of medical equipment is another key factor in ensuring patient safety. Even the most advanced and well-maintained equipment can pose risks if used incorrectly (Goolsarran, Hamo, Lane, Frawley and Lu 2018, 1.) Comprehensive training programs and periodic refresher courses are some of the ways of equipping the healthcare staff with knowledge of operating medical equipment, understanding their limitations, and recognizing potential issues (Wong et al. 2022, 532). Furthermore, implementing user-friendly designs and intuitive interfaces in medical

devices can reduce the likelihood of operator error, particularly in high-stress situations such as emergency care (Bitkina, Kim and Park 2020, 4).

2.2.3 Safety of the care process

Safety of the care process involves communication, collaboration, and documentation. Safety of care processes involve implementing standardized procedures and protocols to avoid errors in patient care. This includes infection prevention measures, effective handovers between healthcare providers, and thorough patient assessments. (Ji, Han and Wang 2021, 9056.) Furthermore, clear communication and adherence to clinical guidelines significantly enhance the safety of care processes (Miller 2016, 1080).

2.3 Optimization

Optimization in healthcare refers to the process of improving systems, processes, and outcomes to achieve the highest level of efficiency, quality, and patient satisfaction (Ahmadi-Javid, Jalali and Klassen 2017, 3). This process typically involves leveraging data, technology, and evidence-based practices to streamline workflows, reduce errors, and enhance the overall delivery of care. In healthcare, the ultimate goal of optimization is to improve patient outcomes while maintaining cost-effectiveness and operational efficiency, creating a sustainable model for high-quality care. (Karunarathna et al. 2024, 5.)

In adult psychiatric units, optimization plays a critical role in enhancing patient safety. One way this is achieved is through the implementation of standardized protocols for risk assessment and intervention. By optimizing these protocols, the health care staff can systematically identify patients at risk of self-harm, aggression, or other safety concerns and respond promptly with evidence-based strategies. (Shrivastava, De Sousa and Shah 2022, 69.) Regular safety checks, environmental modifications, such as anti-ligature fixtures, and the use of predictive analytics to flag high-risk behaviors can significantly reduce the likelihood of adverse events. Optimization in this area ensures that patient safety remains a top priority while minimizing reliance on reactive measures (Harris, Beurmann, Fagien and Shattell 2016, 18.)

Another aspect of optimization in psychiatric units is the use of technology to improve monitoring and communication. Electronic health records (EHRs) optimized for mental health care allow for real-time documentation and sharing of patient information among the care team, reducing the risk of miscommunication or oversight (Madden, Lakoma, Rusinak, Lu and Soumerai 2016, 1145). Additionally, wearable devices or sensors can be used to monitor vital signs or activity levels, providing early warning signs of distress or agitation (Hickey et al. 2021, 2). By optimizing these technological tools,

staff can intervene proactively, preventing escalations that could compromise patient safety. This integration of technology not only enhances safety but also supports a more personalized and responsive approach to care. (Madden et al. 2016, 1146.)

Optimization in adult psychiatric units also involves continuous staff training and competency development (Minkoff and Covell 2022, 688). Regular training programs focused on de-escalation techniques, crisis management, and cultural competency ensure that staff are well-prepared to handle complex situations safely and effectively. By optimizing training programs and fostering a culture of continuous learning, psychiatric units can create a safer environment for both patients and staff. This proactive approach to optimization ensures that patient safety is embedded in every aspect of care delivery. (Brenig, Gade and Voellm 2023, 3.)

3 Purpose, aim and research question.

Purpose

The purpose of this thesis is to describe measures used to optimize patient safety in an adult psychiatric unit using a literature review.

Aim

The aim of this thesis is to provide valuable insights into how nurses can minimize the possibility of adverse events in an adult psychiatric unit through optimization of patient safety.

Research question

What are the measures used to optimize patient safety in an adult psychiatric unit?

4 Methodology

4.1 Research design

This literature review was conducted with a focus on describing the measures used to optimize patient safety in an adult psychiatric unit. The literature review method examines past studies, provides background about a topic that is already known, and establishes the basis for a change in practice (Baker 2016, 265). The methodological guidelines for the review were followed systematically in stages

including problem identification, data search, inclusion and exclusion, data selection, and data analysis.

4.2 Data search

The process of searching and researching literature with the aim of gathering data for analysis is crucial for literature review development (Bengtsson 2016, 8). Having formulated a research question that clearly defined the topic, the focus of the search was narrowed to make the search results feasible. The search for literature involved the collection of data from robust electronic databases, including PubMed, CINAHL and Google Scholar. The Keywords used as search terms included “optimization”, “patient safety”, and “adult psychiatric unit”, together with their synonyms in the Medical Subject Headings (MeSH). Boolean operators, "AND" and "OR", were also employed to refine search results and ensure comprehensive coverage of the topic (Fig. 1). Thus, the search strategy in the electronic databases (PubMed, CINAHL and Google Scholar) was as follows: (“Optimization” OR “enhancing” OR “maximizing” OR “maintaining” OR “promoting” OR “improving” AND “patient safety” AND “adult psychiatric unit” OR “adult mental health unit” OR “adult mental health ward” OR “adult psychiatric care unit”.

4.3 Inclusion and Exclusion criteria

Having clear inclusion and exclusion criteria is critical to achieving an effective literature search since it helps reviewers ensure that their topic or study is relevant. It is imperative that reviewers define the years of inclusion, which should be up-to-date, and provide the rationale for including older seminal studies that may play a pivotal role in the literature review. (Patino and Ferreira 2018, 84.)

Studies focusing on psychiatric or mental health units in healthcare settings were included in this literature review because they likely contained detailed information specific to this unique healthcare setting. On the other hand, articles focusing on non-psychiatric units were excluded since they contained general information, such as information on patient safety within the general healthcare setting, thus likely contained conflicting information with reference to the study topic. The second criterion for inclusion was research articles involving psychiatric patients. This would ensure that this thesis focused solely on patients experiencing the symptoms of mental health conditions. Thus, this category of patients formed the basis of exclusion, which defined the reason for excluding articles that focused on non-psychiatric patients. The third criterion for inclusion was research articles focusing on adult psychiatric patients (aged 18 years and above). This criterion ensured that this study focused specifically on the adult age group to determine the specific sources of patient harm for the adult psychiatric patients, which would possibly differ to some degree from the sources of harm for the pediatric psychiatric patients.

Another criterion for inclusion was research articles that focused on the measures used to optimize patient safety in an adult psychiatric unit. This criterion ensured that the information collected was primarily about the course of action taken to optimize patient safety. Therefore, studies that did not focus explicitly on the measures to optimize patient safety were excluded. The inclusion criteria also comprised studies published between 2014 and 2024. Choosing articles within this timeframe ensured that the information used for this literature review was up to date. Furthermore, original studies, journal articles, mixed method studies, empirical studies, and critical analyses focusing on patient safety in adult psychiatric units were included to ensure that the information used was original and relevant. Only studies written in English were considered to enhance understanding of the information contained in the studies by avoiding the issue of language barrier.

Table 2: Exclusion and Inclusion Criteria

INCLUSIONS	EXCLUSIONS
Psychiatric or mental health units in healthcare settings	Non-psychiatric healthcare settings
Studies involving psychiatric patients	Studies involving non-psychiatric patients or mixed populations where data specific to Adult Psychiatric Units is not separately analyzed.
Studies involving adult psychiatric patients (aged 18 years and above)	Studies involving pediatric psychiatric patients (aged below 18 years)

Studies focusing on the measures used to optimize patient safety in an adult psychiatric unit	Studies that do not specifically discuss or explore the measures used to optimize patient safety in an adult psychiatric unit
Originally published articles, journal articles, mixed method studies, empirical studies, and critical analyses.	Review articles, opinion pieces, news editorials, and opinion pieces
Studies published from 2014 to 2024	Studies published before 2014
Studies written in English.	Studies written in languages other than English, where translations are not available

4.4 Data selection

Table 1: Search results

Database	Search Terms	Results	Articles excluded	Articles acceptance based on title, full text, criteria
PubMed	(“Optimization” OR “enhancing” OR “maximizing” OR “maintaining” OR “promoting	85	82	3

	” OR “improving ” AND “patient safety” AND “adult psychiatric unit” OR “adult mental health unit” OR “adult mental health ward” OR “adult psychiatric care unit”)			
Google Scholar	(“Optimizat ion” OR “enhancing ” OR “maximizin g” OR “promoting ” OR “improving ” AND “patient safety” AND “adult psychiatric unit” OR “adult mental	247	242	5

	health unit" OR "adult mental health ward" OR "adult psychiatric care unit")			
CINAHL	("Optimization" OR "enhancing" OR "maximizing" OR "maintaining" OR "promoting" OR "improving" AND "patient safety" AND "adult psychiatric unit" OR "adult mental health unit" OR "adult mental health ward" OR "adult	72	71	1

	psychiatric care unit")			
Articles Selected		404	395	9

4.5 Data analysis

Elo, Krippendorff and Stemler (2014) states that content analysis is mostly used in qualitative and quantitative data which enables the researcher to distill large volume of information from diverse studies, interpret the findings meaning and facilitating trends, themes and patterns of different sources. In content analysis, research objectives and questions are analyzed to provide direction for analysis.

Categories and themes are defined to guide the organization of data by studying existing literature. The raw data is classified into main categories and sub-categories. When raw data is classified into sub-categories and main categories the author is able to read the raw data, review the articles and categorize topics related to research questions. Accurate classification of raw data ensures that the data is comprehensive. Content analysis relies on consistency and transparency to ensure that the findings are accurate and thus reliable conclusion across studies. (Bengtson 2016, 10.) The 9 articles selected in this study were analyzed using an inductive content analysis approach which started with raw data. Inductive content analysis involves the process of coming up with conclusions from the data gathered by putting together new data into theories (Bengtsson 2016, 10). The text was analyzed with an open mind to identify the meaningful subjects that answered the research question. The first step in conducting the inductive content analysis for this literature review involved understanding the data from the 9 articles that had been selected by reading through them, through the process of de-contextualization. A categorization matrix was then developed after which the 9 articles were reviewed for content followed by the process of coding the entire data for correspondence with the identified categories.

figures 2: Inductive content analysis process

RAW DATA	SUB-CATEGORIES	MAIN CATEGORIES
✓ Each patient receives the level of attention required to identify and address risks. ✓ Nurses detect subtle warning signs of agitation or withdrawal, which may precede harmful actions. ✓ Nurses are able to provide immediate intervention to prevent aggression or self-injury. ✓ Nurses work in a collaborative environment where they communicate observations and share responsibilities efficiently. ✓ Safety culture where nurses feel supported in their roles. ✓ Reduced stress and improved decision-making during high-pressure situations.	Staff-to-patient ratio	MONITORING AND ASSESSMENT
✓ Nurses are equipped with skills to de-escalate situations. ✓ Nurses can better assess and identify early warning signs of deteriorating mental health if well-trained. ✓ Well-trained nurses can properly administer psychotropic drugs critical to patient stability. ✓ Nurses have effective communication techniques, improving interactions with patients and interdisciplinary teams. ✓ Nurses are more confident in making critical decisions under pressure.	Training and skill level	
✓ Advanced communication systems ensure that nurses receive timely alerts during psychiatric emergencies, reducing response time. ✓ Digital records and real-time updates enable rapid sharing of critical patient information, allowing nurses to act swiftly and appropriately. ✓ Standardized communication protocols reduce errors during handoffs or crisis updates.	Communication and coordination	

✓ Nurses ensure correct medication dosages are administered to patients. ✓ Nurses deliver medications at prescribed times to maintain therapeutic effectiveness. ✓ There is proper use of medication administration routes, such as oral and intravenous.	Medication delivery	MEDICATION ADMINISTRATION
✓ Signs of adverse events are identified, such as allergic reactions or medication errors promptly. ✓ Nurses respond promptly to the adverse events. ✓ Appropriate procedures are activated, such as resuscitation or emergency medication. ✓ There is effective communication with the physicians and other staff during adverse events.	Response time to Adverse Events	
✓ Patients are taught about the importance of taking medications as prescribed. ✓ Issues like side effects, forgetfulness, or mistrust are identified and resolved. ✓ Patient adherence is checked through direct observation or self-reports. ✓ Tools like reminders or automated alerts are employed to improve compliance.	Medication adherence	
✓ Medications are ensured to be kept in locked cabinets or automated dispensing systems. ✓ Appropriate storage conditions are maintained, such as refrigeration for certain drugs. ✓ Stock levels are regularly checked to prevent shortages or expired medications. ✓ Regulations for storage and access to narcotics and other controlled drugs are adhered to. ✓ Medication access is limited to qualified personnel only to prevent misuse.	Medication storage and access	

✓ Adherence to hand hygiene protocols is regularly assessed and tracked. ✓ Nurses possess adequate knowledge about the importance of hand hygiene. ✓ There is sufficient access to soap, hand sanitizers, and paper towels.	Hand hygiene adherence	INFECTION CONTROL
✓ Nurses regularly clean frequently touched areas, such as doorknobs, bed rails, and light switches. ✓ Patient rooms are cleaned thoroughly and consistently. ✓ Spills, biohazards, or contaminated areas are regularly cleaned to prevent infection spread. ✓ Nurses select and use disinfectants effective against specific pathogens. ✓ Nurses are handling and disposing hazardous and non-hazardous waste.	Cleaning and disinfecting the healthcare environment	
✓ Nurses are identifying signs of infections or complications through routine assessments. ✓ Isolation measures for patients with contagious illnesses are implemented. ✓ Vitals to detect potential health issues early are regularly checked. ✓ Patients are informed about recognizing symptoms and the importance of reporting changes. ✓ Patients are referred to infectious disease specialists or other experts as needed.	Monitoring and managing patient Illnesses	

✓ Nurses conduct comprehensive fall risk assessments during patient admission. ✓ Nurses perform regular reassessments based on changes in the patient's condition or medications ✓ Standardized tools are used to quantify fall risk ✓ Individual risk factors like age, balance issues, or cognitive impairments are identified	Fall Risk Assessment	FALL PREVENTION
✓ Hallways, rooms, and shared spaces are kept free of obstacles. ✓ Collaborative staff balance workload. ✓ Non-slip mats and surfaces in high-risk areas, such as bathrooms are installed. ✓ Patient rooms and common areas are lit to prevent tripping hazards. ✓ Grab bars, walkers, and handrails are provided as needed to support mobility.	Safe Physical Environment	
✓ Nurses watch for dizziness, sedation, or muscle weakness caused by medications. ✓ Nurses encourage patients to report any changes in their mobility or stability. ✓ There is collaboration with prescribers to modify medications causing significant mobility issues. ✓ Nurses assist patients with walking or movement after new medications are introduced.	Monitoring Medication Effects on Mobility	

Table 3: Characteristics of studies

Author	Title	Aim	Study design and methods	Participants	Findings
Kanerva et al., 2016	Nursing Staff's Perceptions of Patient Safety in Psychiatric Inpatient Care	To explore the perceptions of the nursing staff on patent safety in the psychiatric inpatient care	Semi-structured interviews	34 nurses working in psychiatric units	There is need to formalize organization policies and strategies to enhance patient safety
Schwappach and Niederhauser, 2019	Speaking up about patient safety in psychiatric hospitals – a cross-sectional survey study among healthcare staff	To examine reporting behaviors in the psychiatric unit and to evaluate the aspects of organizational environment applicable to reporting	Cross-sectional survey	817 healthcare workers	Hierarchical level and perceived risk of harm for the patient were significant predictors for the self-reported likelihood to speak up
Kuosmanen et al., 2019	Changes in patient safety culture: A patient safety intervention for Finnish forensic psychiatric hospital staff	To evaluate the impact of a 3-year patient safety intervention—specifically, the implementatio n of a patient	cross-sectional design: a web-based survey	663 hospital staff	Implementing a patient safety incident reporting system can significantly enhance various aspects of patient

		safety incident reporting system—on patient safety culture			safety culture within forensic psychiatric hospital settings
Pelto-Piri et al., 2019	Feeling safe or unsafe in psychiatric inpatient care, a hospital-based qualitative interview study with inpatients in Sweden	To enhance our understanding of feelings of being safe or unsafe in psychiatric inpatient care	Qualitative interview study	17 adult patients	Creating reliable treatment and care processes, a stimulating social climate in wards, and better staf-patient communication could enhance patient perceptions of feeling safe
Christodoulou-Fella et al., 2017	Exploration of the Association between Nurses' Moral Distress and Secondary Traumatic Stress Syndrome: Implications for Patient Safety in Mental Health Services	To explore the association of MD with the severity of STSS symptoms, along with the mediating role of mental distress symptoms	Cross-sectional survey	206 mental health nurses	Situations that may lead health professionals to be in moral distress seem to be mainly related to the work environment

Dewa et al., 2018	Identifying research priorities for patient safety in mental health: an international expert Delphi study	To identify future research priorities in the field of patient safety in mental health	Semistructured interviews	117 research priority statements	It important to understand the patient perspective on safety planning, self-harm and medication
Stensgaard et al., 2018	Implementation of the safewards model to reduce the use of coercive measures in adult psychiatric inpatient units: An interrupted time-series analysis	To investigate whether the implementation of the Safewards model reduces the frequency of coercive measures in adult psychiatric inpatient units	Descriptive statistics and chi-square test	12,660 observations	The implementation of the Safewards model in adult psychiatric inpatient units was associated with a decrease in forced sedation and potentially the overall use of coercive measures.
Berg et al., 2020	Safe clinical practice for patients hospitalised in mental health wards during a suicidal crisis: qualitative study of patient experiences	To explore suicidal patients' experiences of safe clinical practice during hospitalisation in mental health wards	Semistructured individual interviews	18 patients	Safe clinical practice needs to recognize rather than efface patients' variability

Zaheer et al., 2021	Acute care nurses' perceptions of leadership, teamwork, turnover intention and patient safety – a mixed methods study	To examine the relationships between nurses' perceptions of senior leadership, supervisory leadership, teamwork, turnover intention and a self-reported patient safety measure.	mixed-methods design	200 healthcare professionals	Healthcare organizations would benefit by considering the interactive effect of contextual factors as another lever for patient safety improvement.

5 Findings

Measures used to Optimize Patient Safety in an adult psychiatric Unit,

The measures that are used to optimize patient safety in an adult psychiatric unit are monitoring and assessment, medication administration, infection control, and fall prevention.

5.1 Monitoring and assessment

Monitoring and assessment as a measure used to optimize patient safety in an adult psychiatric unit involves staff-to-patient ratio, training and skill level, and communication and coordination

5.1.1 Staff-to-patient ratio

Maintaining an appropriate staff-to-patient ratio is crucial for optimizing patient safety in adult psychiatric units. Adequate nurse staffing ensures that each patient receives sufficient attention,

allowing for timely interventions and continuous monitoring. Nurses are also able to detect subtle warning signs of agitation or withdrawal, which may precede harmful actions. This vigilance is essential in preventing incidents such as self-harm or aggression, which are more prevalent in understaffed settings. (Christodoulou-Fella et al. 2017, 4.)

Appropriate staffing levels are also associated with reduced reliance on restrictive measures. Restrictive measures are the interventions that nurses handling adult psychiatric patients use to minimize risk and enhance treatment, including involuntary intramuscular medication, involuntary admissions, and physical restraint (Dewa, Murray, Thibaut, Ramtale, Adam, Darzi and Archer 2018, 2). Restrictive measures may be considered a violation of key bioethical principles, such as beneficence, autonomy, and non-maleficence, which may subject nurses to psychological discomfort (Christodoulou-Fella et al. 2017, 3). Appropriate staff-to-patient ratio in adult psychiatric units can enable nurses to implement alternative de-escalation techniques more effectively, fostering a therapeutic environment that prioritizes patient dignity and safety.

5.1.2 Training and skill level

Training mental health care nurses in assertiveness can optimize patient safety in an adult psychiatric unit. Assertiveness training equips nurses with the confidence and skills to challenge hierarchical barriers and advocate for patient needs when they perceive ethical concerns (Christodoulou-Fella et al. 2017, 14). By empowering nurses to speak up when institutional policies or colleagues' decisions conflict with their moral code, assertiveness training helps prevent potential safety risks, such as improper medication administration or inadequate intervention in crisis situations. This approach ensures that patient care remains ethical, evidence-based, and aligned with best practices. (Kanerva, Lammintakanen and Kivinen 2016, 29.)

Continuous education and professional development also foster a culture of accountability and teamwork among mental health care nurses (Kanerva, Lammintakanen and Kivinen 2016, 29). Training programs that enhance critical clinical thinking enable novice and lower-ranking nurses to make informed decisions and collaborate effectively within multidisciplinary teams. When nurses are well-trained and confident in their clinical judgment, they contribute to a more cohesive and responsive care environment, ultimately reducing the likelihood of errors or oversights that could compromise patient safety. Through ongoing education, mental health nurses become more adept at recognizing early signs of distress or crisis, allowing for timely interventions that improve patient outcomes. (Christodoulou-Fella et al. 2017, 14.)

5.1.3 Communication and coordination

Effective communication is the foundation of patient safety in adult psychiatric units (Kuosmanen, Tiihonen, Repo-Tiihonen and Hätönen 2019, 853). Clear and consistent communication among multidisciplinary team members ensures that safety protocols are understood and effectively implemented to minimize the risk of adverse events and the possibility of suboptimal care for the adult psychiatric patients. “Speaking up" is a critical communication strategy to prevent patient harm, thus, encouraging an environment where staff feel empowered to speak up about potential safety issues can lead to early identification and mitigation of risks, thereby enhancing patient safety (Schwappach and Niederhauser 2019, 1363).

5.2 Medication administration

Medication administration as a measure used to optimize patient safety in an adult psychiatric unit includes medication delivery, response time to adverse events, medication adherence, and medication storage and access.

5.2.1 Medication delivery

Ensuring accurate medication administration can optimize patient safety in adult psychiatric units. The responsibility of nurses in adult psychiatric units includes verification and delivery of the correct dosages of prescribed medications. Accurate medication delivery is critical to managing psychiatric symptoms effectively and preventing adverse reactions that could arise from medication errors. (Kanerva, Lammintakanen and Kivinen 2016, 28.) By adhering to the established protocols and double-checking medication orders, nurses can maintain the therapeutic efficacy of treatments and safeguard patients’ well-being.

Timely delivery of medications is another vital component in optimizing patient safety within psychiatric care settings. Psychiatric medications often necessitate strict adherence to dosing schedules to maintain stable therapeutic levels in the patient's system. Nurses ensure that medications are administered at prescribed intervals, thereby preventing fluctuations that could lead to symptom exacerbation or withdrawal effects. Consistent medication timing supports the stabilization of mental health conditions, contributing to a safer and more predictable treatment environment for patients. (Pelto-Piri, Wallsten, Hylén, Nikban and Kjellin 2019, 4.)

5.2.2 Response time to adverse events

Prompt response to adverse events is crucial in optimizing patient safety within adult psychiatric units. Patient safety events resulting from potential interactions between the psychotropic medications used to address behavioral issues are positively associated with physical harm and increased mortality rates

in hospitalizations for individuals with serious mental illnesses (Pelto-Piri, Wallsten, Hylén, Nikban and Kjellin 2019, 2). By ensuring rapid intervention when adverse events occur, healthcare providers can mitigate potential harms, thereby enhancing patient outcomes and safety.

Implementing structured early warning systems and rapid response protocols can significantly improve the timeliness of interventions in psychiatric settings. Early warning systems are designed to detect early signs of patient deterioration through regular monitoring of vital signs and behavioral changes, prompting immediate action from the care team. Such systems have been effective in reducing incidents of severe harm by facilitating early detection and response to potential adverse events. (Pelto-Piri, Wallsten, Hylén, Nikban and Kjellin 2019, 2.) Fostering a culture of safety and open communication within psychiatric units encourages nurses to promptly report and address adverse events (Kanerva, Lammintakanen and Kivinen 2016, 29). Regular training and clear protocols empower healthcare professionals to act swiftly, ensuring that patient safety remains a continuous priority (Christodoulou-Fella et al. 2017, 14).

5.2.3 Medication adherence

Medication adherence may be hindered by adverse events, mistrust, and cognitive impairments, which may make optimization of patient safety in an adult psychiatric unit challenging. Nurses ensure medication adherence by identifying and resolving medication-related events to ensure that patients feel comfortable with their prescribed regimen and that the prescribed medication is likely to produce desirable care outcomes. Nurses may also be forced to use restrictive measures, such as physical restraint and direct observation to ensure medication adherence, particularly for patients with severe mental illnesses or those at risk of noncompliance. (Stensgaard, Andersen, Nordentoft and Hjorthøj 2018, 147.)

5.2.4 Medication storage and access

The storage and access to medication in an adult psychiatric unit can affect patient safety, particularly for patients with suicide ideation. When patients are given unmonitored access to psychotropic medications, they are likely to take incorrect doses, which may put them at risk of adverse events. Nurses in adult psychiatric units can optimize patient safety by keeping medications in locked cabinets or automated dispensing systems to make them inaccessible to patients with severe mental issues or suicide ideation. (Berg, Rørtveit, Walby and Aase 2020, 7.)

Medication access should also be limited to qualified personnel only to prevent misuse. The frontline staff, including nurses, are the recommended actors for patient care in adult psychiatric units. Nurses trained in patient care, particularly psychiatric care, are able to utilize the opportunities in health care to ensure effective medication administration. Thus, limiting medication access to qualified

healthcare staff in adult psychiatric units ensures that medications are administered correctly and stock levels regularly checked to prevent shortages or medications expiry. (Kanerva, Lammintakanen and Kivinen 2016, 25.)

5.3 Infection control

Infection control as a measure used to optimize patient safety in an adult psychiatric unit includes hand hygiene adherence, cleaning and disinfecting the healthcare environment, and monitoring and managing patient Illnesses.

5.3.1 Hand hygiene adherence

Implementing standardized clinical interventions, including hand hygiene guidelines can reduce preventable diagnostic, medication, and surgical errors in adult psychiatric units (Zaheer et al., 2021, 2). Hand hygiene is a fundamental infection control practice that prevents the spread of pathogens, reducing the risk of healthcare-associated infections that can compromise treatment accuracy. Proper hand hygiene minimizes the risk of contamination when handling drugs, intravenous lines, or medical devices. Following standardized guidelines helps nurses reduce medical errors arising from infections that may alter patients' response to treatment. (Zaheer et al. 2021, 2.)

5.3.2 Cleaning and disinfecting the healthcare environment

Hospital-acquired infections are patient safety events associated with both physical harm and mortality. The use of restraints and sedation as a response to the behavioral issues aimed at reducing mobility put adult psychiatric patients at risk of hospital-acquired infections. Patients who are restrained or sedated may have reduced ability to perform personal hygiene, reposition themselves, or effectively communicate discomfort, increasing their susceptibility to pressure ulcers, urinary tract infections, and pneumonia. Additionally, prolonged contact with contaminated surfaces, bed linens, and medical equipment may further increase the risk of infection. Regular disinfection of the restraints, high-touch surfaces, and bed rails can minimize the spread of pathogens that contribute to hospital-acquired infections. (Zaheer et al. 2021, 9.)

5.3.3 Monitoring and managing patient Illnesses

Intensive monitoring and continual assessment of patient illnesses can reduce the likelihood of adult psychiatric patients experiencing adverse events or medical errors. Many psychiatric patients have coexisting medical conditions, such as cardiovascular disease, diabetes, or respiratory disorders, which require vigilant observation to prevent complications. Regular assessments help nurses detect early warning signs of deterioration, enabling timely interventions that can prevent medical emergencies. Additionally, continuous monitoring of medication effects ensures that psychiatric treatments do not

exacerbate underlying health conditions or lead to dangerous adverse reactions. (Kanerva, Lammintakanen and Kivinen 2016, 28.)

5.4 Fall prevention

Fall prevention as a measure used to optimize patient safety in an adult psychiatric unit includes fall risk assessment, safe physical environment, and monitoring medication effects on mobility

5.4.1 Fall risk assessment

Nurses can optimize patient safety in an adult psychiatric unit by conducting comprehensive fall risk assessments during patient admission, regular assessments based on the changes in the patient's condition or medications, and identifying individual risk factors, such as age, balance issues, and cognitive impairments. Psychiatric patients often have unique risk factors for falls, including medication side effects, cognitive impairments, and behavioral instability. By evaluating these risks, nurses can implement appropriate interventions, such as assigning high-risk patients to rooms closer to nursing stations, ensuring adequate supervision, and providing assistive devices when necessary. Additionally, identifying environmental hazards, such as slippery floors or inadequate lighting, allows for necessary modifications to create a safer setting that minimizes fall risks from the outset. (Kanerva, Lammintakanen and Kivinen 2016, 28.)

5.4.2 Safe physical environment

Nurses can maintain a safe physical environment in adult psychiatric units by ensuring that hallways, patient rooms, and shared spaces remain free of obstacles. Cluttered or poorly arranged spaces can increase the risk of falls, agitation, or injury, particularly for patients with mobility challenges or cognitive impairments. Regular environmental checks help identify and remove hazards such as loose wires, misplaced furniture, or spills that could lead to accidents. Additionally, ensuring that emergency exits remain unobstructed and that patients have clear pathways to essential areas, such as bathrooms or nurse stations, enhances both safety and accessibility within the unit. (Kanerva, Lammintakanen and Kivinen 2016, 27.)

5.4.3 Monitoring medication effects on mobility

Nurses can monitor medication effects on the mobility of adult psychiatric patients by closely observing patients for the medication side effects. Many psychiatric medications, including antipsychotics, mood stabilizers, and sedatives, can cause side effects such as dizziness, sedation, or muscle weakness, increasing the risk of falls and injuries. Regular assessments of the medication effects on patient mobility enables nurses to quickly identify patients experiencing impaired mobility and take proactive steps to prevent patient harm. (Kanerva, Lammintakanen and Kivinen 2016, 27.)

6 Discussion

The purpose of this thesis was to describe the measures used to optimize patient safety in an adult psychiatric unit. Optimizing patient safety in an adult psychiatric unit is a critical aspect of mental health care, requiring an approach that includes monitoring and assessment, medication administration, infection control, and fall prevention. Psychiatric units present unique challenges due to the complexity of mental health conditions, the potential for unpredictable behaviors, and the use of medications with significant side effects (Berg et al. 2020, 7). Ensuring patient safety in this environment necessitates adequate nurse staffing, adherence to evidence-based protocols, and effective communication among healthcare professionals. By addressing these key areas, psychiatric units can create a safer, more therapeutic environment for patients.

Monitoring and assessment are fundamental to patient safety, as they allow nurses to detect early signs of distress, deterioration, or behavioral changes. Continuous observation helps identify escalating agitation, suicidal ideation, or the onset of psychotic episodes, enabling timely interventions to prevent harm. (Kanerva, Lammintakanen, and Kivinen 2016, 27.) Thorough risk assessments are essential for identifying individuals at risk of self-harm or aggression. A well-staffed unit ensures that these evaluations are conducted comprehensively, leading to accurate care planning. Additionally, monitoring extends to the physical environment, where nurses must regularly check for hazards and secure potentially dangerous items to prevent incidents. (Zaheer et al. 2021, 3.)

Medication administration is another critical component of patient safety in psychiatric units. Nurses need to ensure precise dosing and timing of psychiatric medications to achieve therapeutic effects while minimizing the risk of adverse reactions. Proper staffing levels allow nurses to verify the "five rights" of medication administration, reducing the likelihood of medication errors (Kanerva, Lammintakanen, and Kivinen 2016). Given the potential side effects of psychotropic drugs, continuous patient monitoring is necessary to detect and manage adverse reactions such as sedation, metabolic changes, or orthostatic hypotension. (Berg et al. 2020, 9.) Educating patients about the importance of medication adherence can help nurses address concerns relating to non-compliance or misuse.

Infection control is vital in psychiatric units since patients tend to have difficulty maintaining personal hygiene due to their mental health conditions. Nurses need to enforce strict hygiene practices, including handwashing, proper use of PPE, and ensuring patient access to hygiene supplies. Maintaining a clean environment is equally important, requiring collaboration with housekeeping staff to disinfect high-touch surfaces and eliminate potential sources of contamination. Adequate staffing enables early

detection of infection symptoms, ensuring timely interventions to prevent outbreaks. Additionally, nurses educate patients and their families on infection prevention measures, reinforcing the importance of compliance with safety protocols. (Zaheer et al. 2021, 2.)

Fall prevention is particularly important in psychiatric units, as many patients experience increased fall risks due to medication side effects, impaired cognition, or underlying physical health conditions. Comprehensive fall risk assessments upon admission and throughout the patient's stay help identify individuals requiring additional supervision or mobility aids. Environmental safety measures, such as securing walkways and installing grab bars, reduce the likelihood of falls. Nurses must also monitor patients for medication-related side effects, such as dizziness or sedation, that contribute to fall risks. Providing education on safe mobility practices and ensuring direct supervision during high-risk activities further enhances patient safety. (Kanerva, Lammintakanen and Kivinen 2016, 28.)

Effective communication among healthcare professionals is essential for optimizing patient safety in psychiatric units. Nurses serve as frontline observers, relaying critical information about a patient's condition to psychiatrists, social workers, and other team members. This ensures that care plans remain dynamic and responsive to patients' evolving needs (Kanerva, Lammintakanen, and Kivinen 2016). Collaboration between disciplines promotes a holistic approach to patient care, reducing the likelihood of information gaps that could compromise safety. Structured handover processes and regular interdisciplinary meetings enhance coordination and facilitate timely interventions.

7 Reliability

Ahmed (2024, 1) argues that since qualitative research focuses on the complex details of human behaviour, experiences, and attitudes that emphasize the exploration of context and nuances, ensuring trustworthiness is important for establishing the reliability and credibility of qualitative findings. Trustworthiness includes elements such as transferability, credibility, confirmability, and dependability. Credibility involves associating research findings with reality (Ahmed 2024, 2). This can be achieved through prolonged engagement with the sources of information. This study ensured credibility by spending adequate time on data collection, interpretation, and analysis, which ensured that all the information collected was well-understood, including the perspectives of their authors. This helped gain nuanced insights into the authors' experiences regarding various health care topics.

According to Chowdhury (2015, 149), transferability is the ability of the study findings to be applied in other study contexts, times, populations, and situations. This study ensured transferability by providing detailed contextual information that has the potential to help readers evaluate the application of the findings and interpretation in their own situations or settings. Ahmed (2024, 2) defines dependability

as the consistency and stability of research findings over time. Dependability emphasizes transparency through documentation of research decisions. This study ensured dependability by thoroughly documenting every step undertaken during the research process, which ensured transparency. The dependability of this study creates an opportunity for other researchers to assess its findings and replicate the study.

The final strategy for ensuring trustworthiness is confirmability. Chowdhury (2015, 149) reveals that ensuring confirmability requires the researcher to provide study findings that exhibit high level of confidence, particularly by being based on the words of the people providing information for the study. This literature review established confirmability by detailing data collection, data analysis, and data interpretation processes

8 Ethical considerations

Dooly, Moore, and Vallejo (2017, 351) state that research ethics constitutes good scientific practice and data management. Ethical considerations were central to conducting the literature review on the optimization of patient safety in an adult psychiatric unit, as this research addressed sensitive issues that directly affected the well-being of patients. The Finnish National Board on Research Integrity (TENK) emphasizes quality of research and ethics by discouraging research misconduct in every scientific discipline. This thesis sought to meet TENK guidelines on ethics by citing studies and sources of information as a way of acknowledging the original authors.

According to Craft and Vos (2021, 175), ethical transparency is essential when interpreting findings to avoid any misrepresentation of data that could lead to misguided staffing policies. This thesis minimized bias by approaching the study topic objectively. Cherry-picking studies or overemphasizing particular results to support a predetermined stance tend to undermine the integrity of a literature review and could lead to biased recommendations that impact patient safety negatively (Nahrin 2015, 509). The researchers maintained ethical rigor by evaluating and reporting limitations in the literature, such as gaps in data, to provide a comprehensive and unbiased synthesis of evidence.

9 Limitations and recommendations

The major limitation encountered in this literature review process was the interchangeable use of theme concepts. This limitation manifested as a methodological issue, particularly when undertaking inductive content analysis of the information gathered. Graneheim, Lindgren, and Lundman (2017, 32) state that the results in qualitative content analysis are usually presented as themes and/or categories

while there may exist various and confusing descriptions, accompanied by an interchangeable use of concepts. Some of the concepts and themes that were found to be used interchangeably while undertaking this study were “work engagement and job satisfaction”, “learning and education”, “support and care”, “nurse supervision and monitoring”, “staffing level and workload”. This methodological challenge acted as a limitation to the categorization process by making it difficult to maintain the same congruent and logical level of abstraction as well as the level of interpretation from the raw data, to the sub-categories, and to the main categories.

This study recommends conducting further research on how to reduce the risk of hospital-associated infections while restraining adult psychiatric patients.

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