


# Creating Effective Post-Pandemic Psychiatric Nursing Clinical Experiences Using the Roy Adaptation Model

SAGE Open Nursing  
Volume 8: 1–8  
© The Author(s) 2022  
Article reuse guidelines:  
sagepub.com/journals-permissions  
DOI: 10.1177/23779608221142376  
journals.sagepub.com/home/son



Narciso Quidley-Rodriguez, PhD, PMHRN-BC, BSN, RN<sup>1</sup> ,  
Lila de Tantillo, PhD, MS, APRN, FNP-BC<sup>2</sup> and  
Lindsay J. Wolf, DNP, APRN, CPNP-PC, CNE, CLC<sup>2</sup>

## Abstract

**Introduction:** The COVID-19 pandemic significantly impacted students in psychiatric clinical rotations. Clinicals were frequently limited or canceled, restricting exposure of student nurses to this experience. Many modifications led to permanent changes in the psychiatric clinical setting.

**Objectives:** The purpose of this manuscript is to provide a cohesive approach to serving student nurses in the post-pandemic psychiatric clinical setting.

**Methods:** A theoretical exploration of the literature framed by the Roy Adaptation Model (RAM) was conducted.

**Discussion:** Results are presented using the four modes of the theory: Physiological, Self-Concept, Role Function, and Interdependence.

**Conclusions:** Findings include strategies to enhance student learning while supporting students' health and wellness. Educators and practitioners should provide high-quality, safe learning environments for student nurses.

## Keywords

COVID-19, clinical experience, mental health nursing, pedagogy, psychiatric nursing, Roy Adaptation Model

Received 22 August 2022; revised 7 November 2022; accepted 13 November 2022

## Introduction

In 2020, the COVID-19 pandemic brought about changes the world had not experienced in modern times. A global health crisis prompted the need to establish practices of ongoing physical separation from strangers and loved ones. For many, the pandemic was associated with psychiatric concerns such as experiences of isolation, increased substance use, and suicidal ideation (Czeisler et al., 2021; Gale, 2020). In the United States, rates of symptoms corresponding to anxiety or depression approximately tripled during the pandemic compared to figures for 2019 (Centers for Disease Control and Prevention [CDC], 2021). The era of COVID-19 can be characterized as a psychiatric crisis closely tracking the viral pandemic, which has been recognized as a “second pandemic” (Choi et al., 2020, p. 340).

The American Psychological Nurses' Association ([American Psychological Nurses' Association] APNA, 2019) reports that 56 million Americans experience a substance use or a mental illness and 20% of adults experience a mental health condition every year. However, the

repercussions of the pandemic on the nursing profession coincided with a shortage of nurses equipped to care for these patients (Lowman & Harms, 2022). More than 78% of the U.S. counties are short of mental health professionals (APNA, 2019). The United States Department of Health and Human Services ([United States Department of Health and Human Services] USDHHS, 2016) indicates that by 2025, mental health services will need an additional 250,000 health care professionals to meet the demand.

During this same period that the need for mental health care has increased, COVID-19 has negatively impacted the ability to educate student nurses in psychiatric settings.

<sup>1</sup>Nursing department, Florida Atlantic University's Christine E. Lynn College of Nursing, Boca Raton, FL, USA

<sup>2</sup>Nursing department, Jacksonville University Keigwin School of Nursing, Jacksonville, FL, USA

### Corresponding Author:

Narciso Quidley-Rodriguez, Florida Atlantic University's Christine E. Lynn College of Nursing, 777 Glades Rd, Boca Raton, FL 33431, USA.  
Email: NQuidleyRodrigue@health.fau.edu



Many clinicals shifted to primarily or exclusively online learning throughout the pandemic. Nursing schools experienced challenges finding meaningful clinical experiences for students due to clinical partners restricting student rotations or access to personal protective equipment (Morin, 2020). The psychiatric clinical setting has experienced restrictions on clinical placements since the earliest stages of the pandemic (Cheung et al., 2020). The experience of those students permitted to remain in-person clinical was frequently modified (Dewart et al., 2020; Ulenaers et al., 2021). Mental health clinicals were curtailed significantly to reduce risk of COVID-19 transmission and, in many cases, replaced with online case studies, virtual reality, and asynchronous instruction (Konrad et al., 2021).

The clinical environment has again shifted in the post-pandemic environment, in which the COVID-19 virus remains a risk, albeit a more familiar one. Educators are faced with managing pre-pandemic student nurse apprehensions associated with the psychiatric clinical setting (Abraham et al., 2018). While clinicals have been modified in response to transmission of the virus, additional concerns have developed regarding student mental health and well-being. One study conducted early in the outbreak indicated that symptoms of psychological distress and acute stress reaction were common among students of health professions (Li et al., 2020). Several additional studies supported that student nurses experienced psychological symptoms associated with their experiences during COVID-19 (Reverté-Villarroya et al., 2020; Savitsky et al., 2020).

Responding effectively to the specific needs of the student nurse in the psychiatric clinical setting is a priority. The clinical learning environment is a crucial component of the growth of the mind of the psychiatric nurse. In the context of COVID-19, student nurses can be considered a uniquely vulnerable group with their own physical and psychological needs. Their role is complicated by continuously evolving demands for nurses equipped to provide mental health care. Currently, there is a shortage of qualified nurses willing to serve in the mental health arena while these services are increasing in demand. One systematic review indicated that new entrants to the mental health nursing workforce are most likely to leave (Adams et al., 2021). Notably, a qualitative study with data gathered before COVID-19 found nurses lacking interest in working in psychiatric wards perceive inadequate skills and knowledge for the role (Rahmani et al., 2021).

## Objectives

This paper aims to provide a cohesive approach for supporting students serving in the psychiatric clinical setting. This paper will utilize the Roy Adaptation Model (RAM) developed by Dr. Callista Roy (Roy, 1976; Roy & Andrews, 1991) to provide a framework for supporting student nurses in the psychiatric clinical learning environment. The RAM

posits that individuals use coping mechanisms to respond to the changing environment. The model has been used to guide theoretical and clinical research (Roy, 2011).

In this context, providing a post-pandemic psychiatric clinical environment that is safe and supportive is essential to educating student nurses and recruiting future graduates. In response to this need, the purpose of this paper is to use the RAM to create a cohesive examination of the literature and develop a model to guide education of nursing students in mental health clinicals.

## Methods

This analysis conducted in this paper is based on the Conceptual-Theoretical-Empirical Systems of Knowledge method by Fawcett (2009) to use the RAM to guide nursing practice. The goal is to delineate strategies to enhance the learning of the student nurse and support their pursuit of health, as defined by the RAM, becoming an integrated and whole person (Roy & Andrews, 1991).

The steps of the Conceptual-Theoretical-Empirical approach are (1) to develop an understanding of the model; (2) to conduct an examination of the literature related to the question, including any previous literature applying the RAM to the clinical issue; and (3) to undertake the construction of a Conceptual-Theoretical-Empirical model based on the findings.

As components of the first step, the authors reviewed foundational and contemporary works on the RAM (Roy 1976; 1988; 2011; 2021; Roy & Andrews, 1991). The core elements of the theory, which are to explain health as a process of adaptation in response to change, are examined in depth. These concepts will be applied to the phenomena of interest, psychiatric nursing clinical rotations in the context of a post-pandemic environment.

The second step conducted by the authors was a comprehensive review of the literature of the practice issue. Search terms included *COVID-19*, *Clinicals*, *Clinical Experience*, *Mental Health Nursing*, *Pedagogy*, *Psychiatric Nursing*, *Nursing Student*, and *Nursing Education*. Fawcett (2009) specifically recommends utilizing the CINAHL database; this was used as a starting point and supplemented with iterative searches on PubMed, Scopus, and Google Scholar.

The third step undertaken in accordance with this approach is the formation of the Conceptual-Theoretical-Empirical model. The RAM is the basis of the conceptual element of the model, which organizes elements of the psychiatric nursing clinical experience into five modes in which empirical, evidence-based recommendations are applied to the theoretical elements.

Using this method, this paper identifies potential barriers and opportunities in the clinical psychiatric learning environment in response to the consequences of the COVID-19 pandemic and proposes adaptive strategies to support the student nurse clinical learning environment and well-being.

## Discussion

This RAM can be interpreted within the four modes: Physiological, Self-Concept, Role Function, and Interdependence (Roy & Andrews, 1991). The Physiological mode involves immediate physical survival; the Self-Concept mode involves psychic integrity, beliefs, and feelings; the Role Function mode involves social well-being, communication, and decisions; and the Interdependence mode involves significant others and broader support systems. Figure 1 provides specific recommendations on using the RAM based on each mode.

### Physiological

The Physiological mode of the RAM relates to the entirety of a person's body, including cells, tissues, and organs and its basic needs and functions, such as oxygenation (Roy & Andrews, 1991). As applied to the student nurse, this mode requires schools of nursing to prioritize students to remain physically safe, despite being in a pandemic. However, COVID-19 has impeded conducting clinicals that are safe for students. In addition to the direct threat of the virus, concerns related to workplace violence can impact nurse well-being (Piras et al., 2021; Xie et al., 2021).

Application of the concepts of RAM provides several approaches to provide students clinical interaction with patients as an essential component of psychiatric nursing. Quidley-Rodriguez and de Tantillo (2020) recommend having patients and staff use masks and testing patients for COVID-19 before being admitted to the unit to minimize transmission of the virus among staff and patients. These recommendations should extend to students entering the mental health clinical as well. Additionally, students should be provided with necessary personal protective gear to meet any applicable health guidelines at the time of the clinical experience.

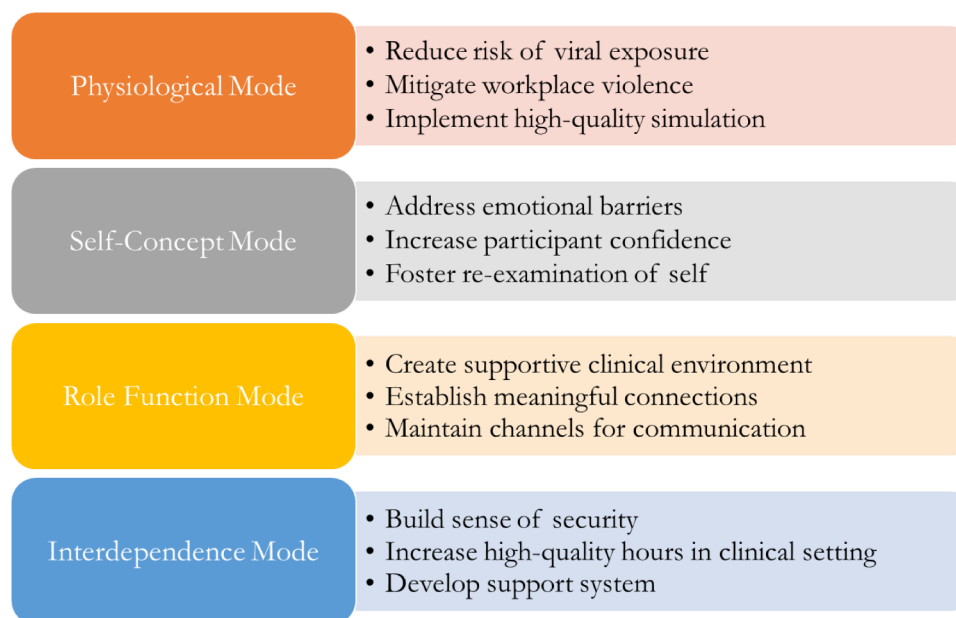
An alternative approach is to increase use of simulation, telehealth, and virtual reality to meet requirements for graduation and licensure (Morin, 2020). Simulation allows student nurses to demonstrate nursing care without the stress inherent in providing care to a live patient (Vandyk et al., 2018). High-quality simulation experiences can be a vital component of students' undergraduate education. Hayden et al. (2012) conducted a trial where students were randomized into three groups that spent 10% to 50% of their clinical experience in simulation. They concluded high-quality simulations could replace up to 50% of clinical experience. In the context of mental health, a systematic review by Brown in 2015 found that simulation augmented student skills in therapeutic communication and assessment for this specialty. Both quantitative and qualitative research disseminated during the pandemic has continued to support the role of simulation as a valuable component of the psychiatric nursing clinical experience (Arnone et al., 2021; de Presno et al., 2021; García-Mayor et al., 2021).

### Self-Concept

The Self-Concept mode of the RAM emphasizes the psychological and spiritual aspects of a person (Roy & Andrews, 1991). Research indicates that during mental health nursing clinicals, students initially experience barriers such as fear, anxiety, and distress. These may, in part, be due to a lack of experience, knowledge, understanding, and skills regarding mental health nursing, as well as preconceived notions regarding mental illness (Brown, 2015; et al. 2020; Happell, 1999, 2008; Melrose & Shapiro, 1999). Psychiatric clinicals can be very emotional and may trigger a student's past trauma. Examining nursing students' initial clinical practice experiences in psychiatric nursing, Cha et al. (2020) reported that these students first experienced emotional fluctuation and burnout, in part, related to inexperience and lack of sufficient skills to meet the needs of patients. Similarly, Melrose and Shapiro (1999) reported that nursing students felt anxiety in the clinical setting because these students did not know how best to work with patients. Simulation allows student nurses to adapt to this unfamiliar environment and can empower them to overcome perceived barriers. A systematic review focusing on use of psychiatric-focused simulation experiences (Vandyk et al., 2018) indicated that students benefit from reduced anxiety, improved knowledge, communication, confidence, and empathy.

Research indicates that simulation experiences should integrate three phases: simulation preparation or prebriefing, the simulated experience, and a debriefing session after the simulation are complete (Cant & Cooper, 2010; Jeffries, 2005; Vandyk et al., 2018). In a concept analysis of "prebriefing in healthcare simulation," Brennan (2021) described the different aspects of prebriefing. Before prebriefing, facilitators should consider the learning needs of the students, the simulation purpose and learning objectives, and how these objectives will be measured (Brennan, 2021). Activities to complete during prebriefing to better prepare students include logistic information such as orienting students to the simulated environment, describing the simulation process, and reviewing expectations. Activities to promote learning among the students include reviewing learning objectives, receiving information on the patient and scenario, expert role modeling, concept mapping, time to plan care, and an opportunity to ask questions (Brennan, 2021). Brennan (2021) indicates that well-executed prebriefing has many benefits, such as decreased anxiety, increased self-confidence, improved feelings of psychological safety, and enhanced learned and clinical competence among students.

Once the students have been prebriefed on the simulated experience, the students then engage in the active simulation. Evidence indicates that simulation can promote positive expectations and anticipatory adaptation to new scenarios. A multitude of simulation types, including virtual simulation and in-person simulation using a standardized patient, have been shown to enhance student learning through the



**Figure 1.** Conceptual-Theoretical-Empirical application of Roy Adaptation Model (RAM) to psychiatric nursing clinicals post-COVID-19 pandemic.

development of knowledge, skills, and confidence (Vandyk et al., 2018). Additionally, Garvey et al. (2021) state that engagement in simulation activities before attending clinicals may be beneficial to adapting nursing students academically and mentally for the psychiatric clinical experience. According to the authors, potential benefits may include alleviating feelings of insecurity and uncertainty, as well as preparing students to build rapport with patients, practice therapeutic communication, and conduct assessments.

The last significant aspect of simulation is the debrief section, considered a dedicated time for discussion, feedback, and learning immediately after the simulation has concluded (Vandyk et al., 2018). Through reexamination and reflection on the simulation experience, students are encouraged to adapt learning to real-life situations experienced in clinical settings (Kirkbakk-Fjær et al., 2016). Kirkbakk-Fjær et al. (2016) indicated debriefing sessions might help students develop meta-cognitive and nontechnical skills in mental health nursing and a deeper understanding of therapeutic use of self in nursing.

### Role Function

The Role Function mode focuses on social integrity and how individuals behave toward one another (Roy & Andrews, 1991). By extension, this mode involves issues related to communication and decision making for the student nurse. It is helpful to consider the four assumptions of the RAM associated with humanism to apply these values within the context of the principles of this mode. These are that the individual “(a) shares in creative power, (b) behaves purposefully, not in a sequence of cause and effect, (c) possesses

intrinsic holism, and (d) strives to maintain integrity and to realize the need for relationships” (Roy, 1988, p. 32).

The COVID-19 pandemic provides an opportunity to provide student nurses with knowledge of their creative power and their capacity to use their experience to behave purposefully. During the clinical experience, student nurses do not consider a career as a mental health nurse for many reasons. Happell (1999) reported that over half of 793 first-year undergraduate student nurses ranked mental health as the least or second least popular nursing specialty. Reasons cited for this ranking included lack of knowledge and experience, greater interest in other nursing specialties, negative attitudes toward persons living with mental illnesses and the working environment, and the nature of the work. Similarly, DeKeyser Ganz and Kahana (2006) reported mental health nursing ranked among the lowest specialties in social prestige, student interest, and preferred area of work upon graduation. This finding was supported by Matarese et al. (2019) in a study that identified psychiatry, along with geriatrics, as the least desired area of future practice.

The psychiatric clinical setting can allow students to connect the concepts discussed in didactic lecture to real-life practice. Certain qualities should be present in clinicals to support student adaptation to their role. These criteria include hospitable clinical environments, welcoming and encouraging staff, and available clinical instructors. Melrose and Shapiro (1999) noted that students who did not feel included by staff during their clinical rotation eventually stopped being involved in staff groups, seeking out alternatives to use their time well. Alternatively, Vuckovic

et al. (2021) indicated that students viewed the mental health clinical placement as positive, in part, when they have an enriched learning environment where student preceptors and staff are available to meet the students' academic needs and provide emotional support. Students' connections and time with their preceptor or clinical instructor can profoundly influence their experience during mental health clinicals. Students who spent more than 30 min a day with their preceptor had a greater desire to pursue a career in psychiatric nursing and felt that psychiatric nurses positively contributed to the community (Gough & Happell, 2009). Similarly, Happel and Gaskin (2013) reported that nursing students tended to have more favorable attitudes toward mental health nursing when students received more instruction before attending clinical and undertaking extended clinical placements. Additionally, students appreciated clinical instructors who made time for students during the day to explore ideas and guide them to a deeper understanding of mental health nursing (Melrose & Shapiro, 1999).

Without adequate communication, students may feel disconnected from their educational institution while in the clinical setting. Communication between the didactic lecturer and the clinical instructor about content covered in the course is vital. This information may allow clinical instructors to adapt the learning experience to assign students to patients experiencing mental illnesses covered in class. The clinical instructor can then review this course content as applicable during the clinical and during debrief at the end of the day. Similar to simulation, at the end of a clinical day, the students should be given time to debrief with clinical faculty to discuss the occurrences of the day. Vuckovic et al. (2021) reported students discussed the importance of relating theoretical concepts to the individual patients in their care to develop concepts learned in the didactic lecture. In addition, checking in with students' emotional states throughout the day and during the debriefing period is essential (Melrose & Shapiro, 1999).

### *Interdependence*

The Interdependence mode focuses on the person's interactions with key individuals and support systems, such as the health care system (Roy & Andrews, 1991). According to the four assumptions of the RAM of veritivity, or the individual in society, there is "(a) purposefulness of human existence, (b) unity of purpose of humankind, (c) activity and creativity for the common good, and (d) value and meaning of life" (Roy, 1988, p. 32). The COVID-19 pandemic, however, has initiated barriers to creating and maintaining partnerships and systems that provide psychiatric nursing students security regarding their intrinsic purpose and value, or as described by Roy and Andrews, "affectional adequacy" (1991, p. 386).

One way to increase confidence and nursing skills is the amount of high-quality clinical hours spent in a clinical

setting. The clinical instructor is critical to providing a supportive, empowering environment (Wenzel et al., 2022). While exploring students' attitudes, preparedness, and satisfaction utilizing a pretest/posttest design during a mental health clinical rotation, Happel (2008) found that participants reported their experiences positively impacted attitudes regarding mental health. Furthermore, these experiences decreased students' anxiety, allowing for greater confidence in nursing abilities and understanding of mental health nursing. Similarly, Cha et al. (2020) reported with continued experience, student nurses grow from the clinical experience, breaking down preconceived notions of mental illness, eventually feeling comfortable caring for and developing rapport with psychiatric patients.

### *Implications for Nursing*

The COVID-19 pandemic has significantly altered clinical psychiatric nursing education. As expectations for student nurses are continuously revised and implemented, it is critical to consider a thoughtful approach to support long-term positive outcomes for student nurses. Integrating the concepts of the RAM in clinicals, both in-person and simulation, can ensure a high-quality educational experience for student nurses and serve a critical role in preparing students for the professional nursing environment.

As 2025 approaches, there is a significant need to increase the number of psychiatric mental health nurses (USDHHS, 2016). However, oftentimes nursing students rank psychiatric mental health nurses as one of the least popular options to work upon graduation, citing negative perceptions of persons living with mental illness and a lack of knowledge and experience as potential reasons (DeKeyser Ganz & Kahana, 2006; Happell, 1999; Matarese et al., 2019), which can be modified. Utilization of the RAM as presented could help address student concerns with psychiatric nursing and potentially increase the number of nursing students who consider a career in psychiatric mental health nursing.

### *Implications for Nursing Education*

At the height of the pandemic, many nursing schools adjusted the in-person psychiatric clinical experience (Dewart et al., 2020; Morin, 2020; Ulenaers et al., 2021) or moved to completely online settings (Konrad et al., 2021). Research indicates that the in-person clinical experience can be substituted with up to 50% virtual simulation (Hayden et al., 2012). Nursing schools may consider the use of virtual simulation as an alternative option to fully in-person clinicals if the school cannot find in-person clinical rotations, those rotations have been modified, or as preparation for the in-person clinical rotation.

Nursing schools should be cognizant of the mental health needs of their students. Research suggests some students may experience psychiatric distress related to the COVID-19

pandemic (Reverté-Villarroya et al., 2020; Savitsky et al., 2020) and due to a lack of experience, knowledge, skills, and understanding of psychiatric nursing (Brown, 2015; Cha et al. 2020; Happell, 1999, 2008; Melrose & Shapiro, 1999). The RAM provides a model to address the psychological needs of nursing students by encouraging schools to help mitigate psychological distress. Nursing schools may consider providing rudimentary knowledge and skills, as well as engage in virtual simulation, prior to in-person clinicals. Preparing nursing students for clinical rotations may provide a better learning environment, which may encourage nursing students to consider psychiatric mental health nursing as a specialty.

The recommendations outlined in this paper prioritize creating an environment of physical and psychological safety where a student nurse feels validated and valued as a nurse. Fostering student nurse well-being by creating a supportive environment can lead to future intellectual development in the long term. Further inquiry is needed regarding the process of adaptation during academic engagement and acquisition of skills and knowledge.

### *Implications for Nursing Practice*

As mentioned above, there is a significant need for mental health professionals, while at the same time, many students are choosing other nursing specialties to work (DeKeyser Ganz & Kahana, 2006; Happell, 1999; Matarese et al., 2019; USDHHS, 2016). Research indicates that students who feel uninvolved by staff during clinical rotations lose interest in the field (Melrose & Shapiro, 1999). In contrast, when students were in enriched learning environments where staff were engaging, students held more positive views of psychiatric nursing (Vuckovic et al., 2021). As health care organizations are faced with staffing shortages, the RAM can be used to encourage staff to welcome and involve nursing students during clinicals as a way to increase recruitment of nursing students.

Implementing efforts to minimize risk in the context of the pandemic and provide clinical experiences to nursing students offers a substantial benefit to current and future patients in the form of educated nurses with clinical experience (Carolan et al., 2020). Nursing practice must prioritize the mental health well-being of its own members as a strategy in caring for patients (Ward-Miller et al., 2021).

### *Implications for Nursing Theory*

This paper theoretically applies the RAM to psychiatric settings in hopes of increasing nursing student interest in the specialty and by extension, helps decrease the nursing shortage in psychiatric nursing, as well as provide care to the millions experiencing psychiatric conditions. This theoretical paper would benefit from researchers applying the theory within nursing schools and hospital organizations. A

nursing school could align itself with a hospital organization to implement the RAM, gathering data to see if a high-quality clinical experience encourages nursing students to consider psychiatric nursing upon graduation.

This paper explores the adaptation and intellectual growth of the student nurse, specifically in terms of the theoretical framework proposed by Dr. Roy. Academic and practice leaders can explore further applications of this theory in nurse education, for example, for the purpose of continuing professional development or other nursing specialties.

### **Limitations**

This paper has several limitations. First, these recommendations may not account for ongoing uncertainties intrinsic to the COVID-19 virus. Additionally, they may need to be modified to adjust for characteristics unique to each setting. It is imperative to be sensitive and aware of the needs of individual learners. When needed, adjustments should be made to support the psychiatric student nurse to thrive in the clinical environment.

### **Conclusions**

The mental health nursing clinical provides an essential opportunity to provide core education in caring for and managing patients experiencing mental health diagnoses. It is vital to ensure nurses entering the workforce are adequately prepared to care for patients experiencing psychiatric concerns. This requires providing a supportive environment that promotes student nurse well-being and the capacity to adapt (Cha et al., 2020; Wenzel et al., 2022). Furthermore, foundational knowledge provided by mental health nursing clinical simulations can support the education of student nurses to serve as safe and competent professional nurses in the mental health setting (Arnone et al., 2021; de Presno et al., 2021; García-Mayor et al., 2021). Implementing practices that provide safe, high-quality clinical learning environments for student nurses is essential to improve mental health outcomes in the wake of the COVID-19 pandemic.

### **Declaration of Conflicting Interests**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

### **Funding**

The author(s) received no financial support for the research, authorship, and/or publication of this article.

### **ORCID iD**

Narciso Quidley-Rodriguez  <https://orcid.org/0000-0001-9808-9530>



## References

- Abraham, S. P., Cramer, C., & Palleschi, H. (2018). Walking on eggshells: Addressing nursing students' fear of the psychiatric clinical setting. *Journal of Psychosocial Nursing and Mental Health Services, 56*(9), 5–8. <https://doi.org/10.3928/02793695-20180322-01>
- Adams, R., Ryan, T., & Wood, E. (2021). Understanding the factors that affect retention within the mental health nursing workforce: A systematic review and thematic synthesis. *International Journal of Mental Health Nursing, 30*(6), 1476–1497. <https://doi.org/10.1111/inm.12904>
- American Psychological Nurses Association. (2019). Expanding mental health care services in America: The pivotal role of psychiatric-mental health nurses. Retrieved from <https://www.apna.org/publications/issue-statements/>
- Arnone, J. M., Conti, R. P., & Preckajlo, J. H. (2021). Roleplay simulation of therapeutic communication for nursing Students in a psychiatric nursing course. *International Journal of Nursing, 8*(2), 1–7. <https://doi.org/10.15640/ijn.v8n2a1>
- Brennan, B. A. (2021). Prebriefing in healthcare simulation: A concept analysis. *Clinical Simulation in Nursing, 56*, 155–162. <https://doi.org/10.1016/j.ecns.2021.04.015>
- Brown, A. M. (2015). Simulation in undergraduate mental health nursing education: A literature review. *Clinical Simulation in Nursing, 11*(10), 445–449. <https://doi.org/10.1016/j.ecns.2015.08.003>
- Carolan, C., Davies, C., Crookes, P., McGhee, S., & Roxburgh, M. (2020). COVID-19: Disruptive impacts and transformative opportunities in undergraduate nurse education. *Nurse Education in Practice, 46*, 1–2. <https://doi.org/10.1016/j.nepr.2020.102807>
- Cant, R. P., & Cooper, S. J. (2010). Simulation-based learning in nurse education: Systematic review. *Journal of Advanced Nursing, 66*(1), 3–15. <https://doi.org/10.1111/j.1365-2648.2009.05240.x>
- Centers for Disease Control and Prevention. (2021). Anxiety and depression: Household Pulse Survey. <https://www.cdc.gov/nchs/covid19/pulse/mental-health.htm>
- Cha, S., Moon, H., & Park, E. (2020). Korean Nursing students' first experiences of clinical practice in psychiatric nursing: A phenomenological study. *Healthcare (Basel), 8*(3), 215–225. <https://doi.org/10.3390/healthcare8030215>
- Cheung, T., Fong, T. K., & Bressington, D. (2020). COVID-19 under the SARS cloud: Mental health nursing during the pandemic in Hong Kong. *Journal of Psychiatric and Mental Health Nursing, 28*(2), 115–117. <https://doi.org/10.1111/jpm.12639>
- Choi, K. R., Heilemann, M. V., Fauer, A., & Mead, M. (2020). A second pandemic: Mental health spillover from the novel coronavirus (COVID-19). *Journal of the American Psychiatric Nurses Association, 26*(4), 340–343. <https://doi.org/10.1177/1078390320919803>
- Czeisler, M. É., Lane, R. I., Wiley, J. F., Czeisler, C. A., Howard, M. E., & Rajaratnam, S. M. (2021). Follow-up survey of US adult reports of mental health, substance use, and suicidal ideation during the COVID-19 pandemic, September 2020. *JAMA Network Open, 4*(2), e2037665–e2037665. <https://doi.org/10.1001/jamanetworkopen.2020.37665>
- de Presno, Å. K., Øgård-Repål, A., & Fossum, M. (2021). Simulations with standardized patients for nursing students in preparation for clinical placements in mental health care. *Clinical Simulation in Nursing, 54*, 70–76. <https://doi.org/10.1016/j.ecns.2021.01.009>
- DeKeyser Ganz, F., & Kahana, S. (2006). Perceptions of Israeli student nurses regarding clinical specialties and factors that influence these perceptions. *Journal of Advanced Nursing, 56*(1), 88–98. <https://doi.org/10.1111/j.1365-2648.2006.03983>
- Dewart, G., Corcoran, L., Thirsk, L., & Petrovic, K. (2020). Nursing education in a pandemic: Academic challenges in response to COVID-19. *Nursing Education Today, 92*(1), 1–2. <https://doi.org/10.1016/j.nedt.2020.104471>
- Fawcett, J. (2009). Using the Roy adaptation model to guide research and/or practice: Construction of conceptual-theoretical-empirical systems of knowledge. *Aquichan, 9*(3), 297–306. <https://doi.org/10.5294/aqui>
- Gale, A., (2020). Preventing social isolation: A holistic approach to nursing interventions. *Journal of Psychosocial Nursing and Mental Health Services, 58*(7), 11–13. <https://doi.org/10.3928/02793695-20200616-03>
- García-Mayor, S., Quemada-González, C., León-Campos, Á., Kaknani-Uttumchandani, S., & Gutiérrez-Rodríguez, L., A del Mar Carmona-Segovia., & C Martí-García. (2021). Nursing students' perceptions on the use of clinical simulation in psychiatric and mental health nursing by means of objective structured clinical examination (OSCE). *Nurse Education Today, 100*, 104866. <https://doi.org/10.1016/j.nedt.2021.104866>
- Garvey, L., Willetts, G., Sadoughi, N., & Olosoji, M. (2021). Undergraduate nursing students' experience of mental health simulation post-clinical placement: A qualitative study. *International Journal of Mental Health Nursing, 30*(1), 93–101. <https://doi.org/10.1111/inm.12801>
- Gough, K., & Happell, B. (2009). Undergraduate nursing students' attitude to mental health nursing: A cluster analysis approach. *Journal of Clinical Nursing, 18*(22), 3155–3164. <https://doi.org/10.1111/j.1365-2702.2008.02764.x>
- Happell, B. (1999). Who wants to be a psychiatric nurse? Novice student nurses' interest in psychiatric nursing. *Journal of Psychiatric and Mental Health Nursing, 6*(6), 479–484. <https://doi.org/10.1046/j.1365-2850.1999.00249.x>
- Happell, B. (2008). The importance of clinical experience for mental health nursing part 1: Undergraduate nursing students attitudes, preparedness and satisfaction. *International Journal of Mental Health Nursing, 17*(5), 326–332. <https://doi.org/10.1111/j.1447-0349.2008.00555.x>
- Happell, B., & Gaskin, C. J. (2013). The attitudes of undergraduate nursing students towards mental health nursing: A systematic review. *Journal of Clinical Nursing, 22*(1–2), 148–158. <https://doi.org/10.1111/jocn.12022>
- Hayden, J., Jeffries, P., & Kardong-Edgren, S. (2012). The NCSBN national simulation study. *Clinical Simulation in Nursing, 8*(8), e407–e407. <https://doi.org/10.1016/j.ecns.2012.07.070>
- Jeffries, P. R. (2005). A framework for designing, implementing, and evaluating simulation used as teaching strategies in nursing. *Nursing Education Perspectives, 26*(2), 96–103. <https://go.gale.com/ps/i.do?p=AONE&u=gale15691&id=GALEIA131607707&v=2.1&it=r>
- Kirkbakk-Fjær, K., B. Hedelin, & Ø. L & Moen. (2016). Undergraduate nursing Students' evaluation of the debriefing phase in mental health nursing simulation. *Issues in Mental*

- Health Nursing*, 37(5), 360–366. <https://doi.org/10.3109/01612840.2015.1136716>
- Konrad, S., Fitzgerald, A., & Deckers, C. (2021). Nursing fundamentals—supporting clinical competency online during the COVID-19 pandemic. *Teaching and Learning in Nursing*, 16(1), 53–56. <https://doi.org/10.1016/j.teln.2020.07.005>
- Li, Y., Wang, Y., Jiang, J., Valdimarsdóttir, U. A., Fall, K., Fang, F., Song, H., Lu, D., & Zhang, W. (2020). Psychological distress among health professional students during the COVID-19 outbreak. *Psychological Medicine*, 51(11), 1–3. <https://doi.org/10.1017/S0033291721000714>
- Lowman, G. H., & Harms, P. D. (2022). Addressing the nurse workforce crisis: A call for greater integration of the organizational behavior, human resource management and nursing literatures. *Journal of Managerial Psychology*, 37(3), 294–303. <https://doi.org/10.1108/JMP-04-2022-713>
- Matarese, M., Lommi, M., Piredda, M., Marchetti, A., & De Marinis, M. G. (2019). “Where would I prefer to work after graduation?” career preferences of students attending Italian nursing schools. *Nurse Education Today*, 83, 104204. <https://doi.org/10.1016/j.nedt.2019.104204>
- Melrose, S., & Shapiro, B. (1999). Students’ perceptions of their psychiatric mental health clinical nursing experience: A personal construct theory exploration. *Journal of Advanced Nursing*, 30(6), 1451–1458. <https://doi.org/10.1046/j.1365-2648.1999.01231.x>
- Morin, K. H. (2020). Nursing education after COVID-19: Same or different? *Journal of Clinical Nursing*, 29(17–18), 3117–3119. <https://doi.org/10.1111/jocn.15322>
- Quidley-Rodriguez, N., & de Tantiillo, L. (2020). Preventing COVID-19 infection in mental health units: Recommendations for best practices. *Issues in Mental Health Nursing*, 41(11), 969–975. <https://doi.org/10.1080/01612840.2020.1820646>
- Piras, I., Minafra, F., Tusconi, M., Piras, G., Portoghese, I., Azara, A., Piana, A., Contu, P., & Galletta, M. (2021). A qualitative study on the consequences of workplace violence in psychiatric settings. *European Journal of Public Health*, 31(Supplement\_3), 165–599. <https://doi.org/10.1093/eurpub/ckab165.599>
- Rahmani, N., Mohammadi, E., & Fallahi-Khoshknab, M. (2021). Nurses’ experiences of the causes of their lack of interest in working in psychiatric wards: A qualitative study. *BMC Nursing*, 20(1), 1–8. <https://doi.org/10.1186/s12912-021-00766-1>
- Reverté-Villarroya, S., L Ortega, A Lavedán., O Masot., M. D Burjalés-Martí., D Ballester- Ferrando., C Fuentes-Pumarola., & T Botigué. (2020). The influence of COVID-19 on the mental health of final-year nursing students: Comparing the situation before and during the pandemic. *International Journal of Mental Health Nursing*, 30(3), 694–6702. <https://doi.org/10.1111/inm.12827>
- Roy, C. (1976). *Introduction to nursing: An adaptation model*. Prentice-Hall.
- Roy, C. (2011). Research based on the Roy adaptation model: Last 25 years. *Nursing Science Quarterly*, 24(4), 312–320. <https://doi.org/10.1177/0894318411419218>
- Roy, S. C. (1988). An explication of the philosophical assumptions of the Roy adaptation model. *Nursing Science Quarterly*, 1(1), 26–34. <https://doi.org/10.1177/089431848800100108>
- Roy, S. C. (2021). Nursing theory makes a practice turn in the 21<sup>st</sup> century. *Aquichan*, 21(4), 1–11. <https://doi.org/10.5294/aqui.2021.21.4.2>
- Roy, C., & Andrews, H.A. (1991). *The Roy adaptation model: The definitive statement*. Norwalk, Conn.
- Savitsky, B., Findling, Y., Erel, A., & Hendel, T. (2020). Anxiety and coping strategies among nursing students during the COVID-19 pandemic. *Nurse Education in Practice*, 46, 102809. <https://doi.org/10.1016/j.nepr.2020.102809>
- Ulenaers, D., Grosemans, J., Schrooten, W., & Bergs, J. (2021). Clinical placement experience of nursing students during the COVID-19 pandemic: A cross-sectional study. *Nurse Education Today*, 99, 104746. <https://doi.org/10.1016/j.nedt.2021.104746>
- United States Department of Health and Human Services. (2016). National projections of supply and demand for selected behavioral health practitioners: 2013–2025. Retrieved from <https://bhw.hrsa.gov/data-research/projecting-health-workforce-supply-demand/behavioral-health>
- Vandyk, Lalonde, M., Merali, S., Wright, E., Bajnok, I., & Davies, B. (2018). The use of psychiatry-focused simulation in undergraduate nursing education: A systematic search and review. *International Journal of Mental Health Nursing*, 27(2), 514–535. <https://doi.org/10.1111/inm.12419>
- Vuckovic, V., Carlson, E., & Sunnqvist, C. (2021). “Working as a real nurse”: Nursing students’ experiences of a clinical education ward in psychiatric care. *Issues in Mental Health Nursing*, 42(11), 1038–1047. <https://doi.org/10.1080/01612840.2021.192959>
- Ward-Miller, S., Farley, E. M., Espinosa, L., Brous, M. E., Giorgi-Cipriano, J., & Ferguson, J. (2021). Psychiatric mental health nursing in the international year of the nurse and COVID-19: One hospital’s perspective on resilience and innovation—past, present and future. *Archives of Psychiatric Nursing*, 35(3), 303–310. <https://doi.org/10.1016/j.apnu.2020.11.002>
- Wenzel, C., Melrose, S., Lane, A., & Kent-Wilkinson, A. (2022). Clinical instruction in mental health nursing: Students’ perceptions of best practices. *International Journal of Nursing Education Scholarship*, 19(1). <https://doi.org/10.1515/ijnes-2021-0147>
- Xie, X. M., Zhao, Y. J., An, F. R., Zhang, Q. E., Yu, H. Y., Yuan, Z., Cheung, T., Ng, C.H., & Xiang, Y. T. (2021). Workplace violence and its association with quality of life among mental health professionals in China during the COVID-19 pandemic. *Journal of Psychiatric Research*, 135, 289–293. <https://doi.org/10.1016/j.jpsychires.2021.01.023>