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Nursing Health Care Leadership Strategies to Reduce Homeless Patient 30-Day Readmission Rates

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Walden University

College of Health Professions

This is to certify that the doctoral study by

Shavonda Greene

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Walden University
2022

Abstract

Nursing Health Care Leadership Strategies to Reduce Homeless Patient 30-Day

Readmission Rates

by

Shavonda Greene

MHA, West Coast University

BSBM, University of Phoenix

Doctoral Study Submitted in Partial Fulfillment of the

Requirements for the Degree of

Doctor of Health Administration

Walden University

January 2022

Abstract

Adult homeless patient 30-day readmission is a concern for nursing healthcare leaders who still have problems in providing effective strategies for revisit reduction in various acute care settings across the United States. The purpose of this quantitative comparative study was to examine the association between nursing healthcare leadership strategies, 30-day homeless patient readmission rates, and hospital discharge rates at hospitals in California. The theoretical foundation for the research study was Pender's health promotion model theory, which identifies preventative health measures and describes the critical function of nurses in helping patients to prevent illness by self-care and bold alternatives. Research questions focused on the relationship between nursing healthcare leadership strategies and 30-day readmissions of adult patients who suffered from substance abuse and mental health setbacks between 2013 and 2015. The most recent publicly available data was used from the database of California Health and Human Services. The Mann-Whitney *U* tests were used to determine whether there was a significant difference between the three variables. The findings indicated that homeless patients are more likely to be readmitted within 30 days in hospitals that do not practice patient placement programs and that homeless patients who suffer from substance abuse and mental health setbacks in California hospitals are more likely to be readmitted in 30 days in hospitals that do not practice postdischarge follow-up for routine medical and mental health visits. The study contributes to positive social change by enabling creative solutions and strategies that may positively impact the quality of the health services sector for the homeless community globally.

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Dedication

I dedicate my dissertation to my children: ShaMya (Meskerem), Skylar, Ace, and Alex, and to my granddaughters Savanna and Saegan, who at all costs kept me motivated, inspired, and eager to keep my dream alive. To my parents Steve and Carletta: I thank you for giving me the DNA to love and care for people genuinely. To my grandparents, William, Caffie, Melvin, and Doris: I thank you for your gifts of advocacy, determination, drive, and strength. May you all rest in heavenly peace, proud as ever. To Nichele Greer and Carline Herisse: I appreciate and respect you ladies immensely for having the courage to take on the journey with me. Finally, I would like to dedicate my dissertation to homeless communities everywhere seeking healthcare strategies and assistance. Help is on the way.

Acknowledgments

I would like graciously to thank my chair, Dr. Sally Willis for teaching me that quitting, and failure are not options in the DHA program at Walden. I appreciate her for setting the bar high, providing infinite support and unyielding patience and guidance. I would also like respectfully to thank my committee member Dr. Robert Hijazi for his scholarly feedback throughout my dissertation process. Together, along with Dr. Suzanne Richins, my URR, I had my very own dream team of knowledge. Without them, this wonderful process would not have been possible.

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Section 1: Foundation of the Study and Literature Review

Introduction

According to Capp et al. (2016), one in four homeless adults in the United States suffers from behavior disorders, mental health setbacks, and/or substance abuse. Of the homeless class of adults, the emergency room (ER) has been used more frequently by individuals who also suffered from behavior disorders, mental illnesses, and substance abuse. When visiting the ER, the primary complaints of adult patients with comorbid mental health setbacks, behavior disorders, or substance abuse often involve pain, injuries, and shortness of breath (Hardy et al., 2018). These complaints are intensified by the presence of their mental health or behavior disorders. With such complex cases, ERs may not be equipped to treat the underlying mental health or behavioral problems holistically, which could lead to incomplete treatment and, in turn, frequent revisits (Saab et al., 2016). Nurses and other healthcare professionals and leaders struggle to provide prevention strategies for adult homeless patients who often return to the ER within 30 days. Patient placement, such as triage systems and postdischarge follow-up or care, constitutes a healthcare strategy that may reduce the overuse of the ER (FitzGerald et al., 2010; Raita et al., 2019; Siekman & Hilger, 2018).

Nursing healthcare leadership strategies may be useful in preventing frequent visits among adult homeless patients. This is because repeated visits to the ER may be considered improper use of ER resources, as patients may seek emergency care for nonurgent complaints and illnesses, which would be better treated in primary care clinics (Adisa et al., 2018). Upon discharge, nursing healthcare leaders may provide strategies to

prevent patients from returning to the ER for comorbidities that are exacerbated in adult homeless patients by mental health setbacks and substance abuse (Capp et al., 2016). In addition, issues that nursing health care leaders encounter upon frequent readmissions of homeless adults include placement limitations, patient physical health setbacks, and follow-up (Andermann, 2016, Capp et al., 2016).

Background

Several studies have explored aspects of case management, seeking strategies to reduce 30-day readmission rates of homeless patients in the ER. Smelson et al. (2016) studied 107 individuals experiencing chronic homelessness and found that 75.7% of these individuals reported lifetime problems with anxiety while 76.6% reported lifetime problems with depression. Furthermore, 30.8% of chronically homeless individuals suffered from alcohol use problems, 31.8% used cannabis, and 15.9% used cocaine. Torrey (2019) stated that mental health issues could have an influence on homelessness, as individuals with severe mental health disorders can have difficulty living alone or with family. Lam et al. (2016) reported that 31% of homeless people who present with a mental illness, from behavioral issues to chronic disorders, are likely to return to the ER within 30 days after discharge. This population represents a vulnerable group that deserves attention to reduce its frequent visits to the ER (Lam et al., 2016).

Roncarati et al. (2018) emphasized the importance of shelter in determining a person's health, which leaves unsheltered homeless individuals especially vulnerable to disease and other health-related issues. D. T. Moore and Rosenheck (2016) claimed that the healthcare needs of homeless individuals were tied to their housing instability issues.

Chronically homeless adults who suffered from housing instability were more likely to make repeated visits to the ER. Kushel (2016) agreed that solving the housing problems of homeless individuals would be far more productive than temporary healthcare fixes. Transportation, scheduling, availability, and fragmentation were other barriers that homeless individuals faced when seeking primary healthcare, drawing the homeless population to the ER, which is more convenient (O'Toole et al., 2016). Kushel also addressed the healthcare systems that partner and make collaborative efforts with various other agencies and programs to address social change, the uninsured, and crisis accommodation. Kushel stated that solving the problem of homelessness may be the true solution to the healthcare issues of the homeless. More research is necessary, however, on healthcare strategies to reduce the readmission rates of this vulnerable population.

Problem Statement

The operational healthcare problem is that homeless patient 30-day readmission continues to be on the rise and is a concern for nursing healthcare leaders, who still have problems in providing effective strategies for revisit reduction in various acute care settings across the United States (Boonyaratanakornkt et al., 2017; LaWall et al., 2019, Roncarati et al., 2018). According to Saab et al. (2016), “few studies have examined readmission rates among patients who are homeless and suffer from substance abuse and mental health illnesses” (p. 1011). Previous studies have mentioned the need for nursing healthcare leaders to develop solutions to help to deal with patient placement and discharge follow-up options to help reduce the increased readmission rates among the homeless community in California (Adisa et al., 2018; Andermann, 2016). According to

the Los Angeles Homeless Services Authority (2019), between 2018 and 2019, homelessness has risen 12% in the city of Los Angeles. Additionally, according to Lam et al. (2016), homeless patients who suffer from mental health setbacks and substance abuse frequently use medical services from the ER as their primary source of care, causing preventable readmissions and worsening a healthcare system that is regularly overcrowded, making it difficult for nursing leaders to assist them effectively.

Studies have found that nursing healthcare leaders' concerns over homeless patients include substance abuse, mental illnesses, housing limitations, fewer discharge planning options, and increased 30-day readmission rates (Green, 2018; Laliberté et al., 2019; Lam et al., 2016). Nearly 15% of individuals who are homeless have mental illnesses, such as schizophrenia and behavior dysfunction (Torrey, 2019). Homeless individuals often present with complex cases that cannot easily be resolved by single acute care facility visits, such as visits to the ER (Huynh et al., 2016), which could then lead to further causes for readmission. There is a gap in the literature on the relationship between 30-day readmission rates from 2013 to 2016 and nursing healthcare leadership strategies (patient placement, postdischarge follow-up for routine medical work and mental health visits) for the homeless population over 21 who suffer from substance abuse and mental health setbacks in California.

Purpose of the Study

The purpose of this quantitative study was to research the association between nursing healthcare leadership strategies (patient placement, postdischarge follow-up for routine medical work and mental health visits) and 30-day homeless patient readmission

rates and hospital discharge rates at hospitals in California. The target was hospitals in California that admit homeless patients. Secondary data from California Health and Human Services (CHHS) provided readmission and discharge rates for hospitals in California. Each 30-day reoccurrence that is minimized may reduce costs, raise patient satisfaction, and educate staff, patients, and the community. The independent variables were nursing healthcare leadership strategies (patient placement, postdischarge follow-up for routine medical work and mental health visits) and the dependent variables were 30-day readmission rates and hospital discharge rates in California hospitals. The presence or absence of the nursing healthcare leadership strategies in each hospital acted as a binary variable. I compared the readmission and discharge rates of homeless patients based on the presence or the absence of a nursing healthcare leadership strategy. The results of the study determined whether the presence or absence of the nursing healthcare leadership strategy resulted in differences in readmission and discharge rates in California hospitals. The study may help to improve the understanding of and provide new knowledge regarding the correlation between 30-day readmission rates and nursing healthcare leadership strategies (patient placement, postdischarge follow-up for routine medical work and mental health visits) that impact social change for homeless patients in California.

Research Questions and Hypotheses

RQ1: What is the difference between 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals that

practice patient placement and in California hospitals that do not practice patient placement?

H_{01} : There is no difference between 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals that practice patient placement and in California hospitals that do not practice patient placement.

H_{a1} : There is a difference between 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals that practice patient placement and in California hospitals that do not practice patient placement.

RQ2: What is the difference between 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals that practice postdischarge follow-up for routine medical and mental health visits and in California hospitals that do not practice postdischarge follow-up for routine medical and mental health visits?

H_{02} : There is no difference between 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals that practice postdischarge follow-up for routine medical and mental health visits and in California hospitals that do not practice postdischarge follow-up for routine medical and mental health visits.

H_{a2} : There is a difference between 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals

that practice postdischarge follow-up for routine medical and mental health visits and in California hospitals that do not practice postdischarge follow-up for routine medical and mental health visits.

Theoretical Framework

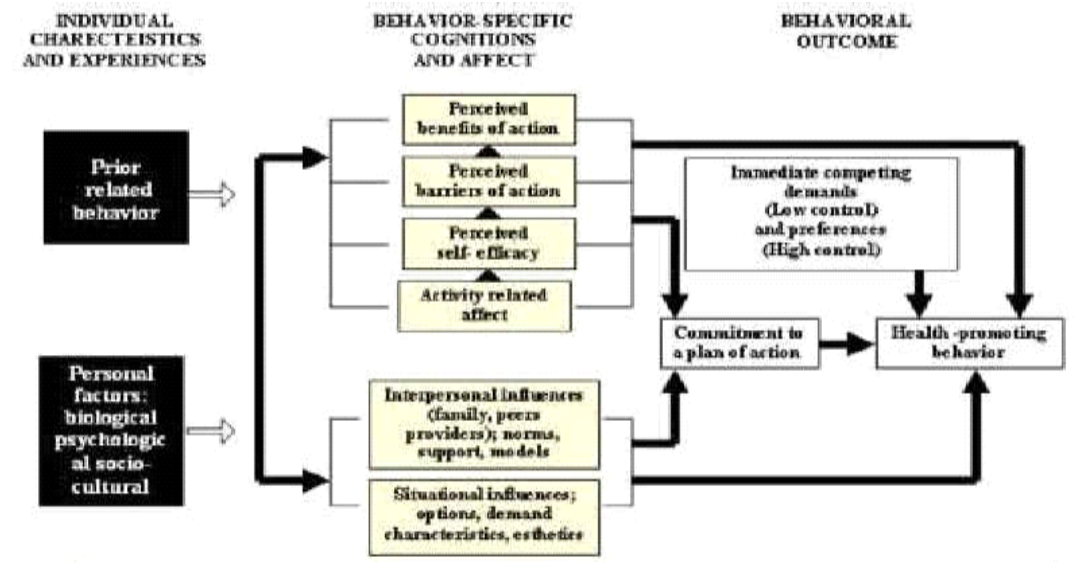
The theoretical framework for the research study was Pender's (1982, 1996) health promotion model (HPM) theory. In the realm of homelessness and nursing healthcare leadership, a psychosocial model can identify "preventative health measures and [describe] the critical function of nurses in helping patients prevent illness by self-care and bold alternatives" (Gonzalo, 2019, p.1.1). There are five critical elements to HPM theory: person, environment, nursing, health, and illness (Pender, 1982, 1996).

The study variables related closely to the components of HPM. The model places emphasis on nursing leadership, which aligned with the study's independent variables (patient placement, postdischarge follow-up for routine medical work and mental health visits) and the effects it may have on patient care (30-day readmissions). Nurses function as leaders in hospitals and studying the association between follow-up care postdischarge may help to improve the education of homeless patients, which may help them to execute a successful discharge plan, thereby not needing to return to the ER for non-emergencies. The five critical elements to Pender's theory are the person, the environment, the nurse, health, and illness. HPM first promotes the person, who in this study was the patient. The atmosphere covers the living space, social change, and community of homeless patients. The nurse is a leader, and the health or illness of patients may be essential in reducing homeless patient 30-day readmission rates. Finally, the theoretical components and

elements assist in comprehending the homeless community. Figure 1 displays the effects of homelessness

Figure 1

The Effects of Homelessness



Pender's HPM (Pender, 1982, 1996). Adapted from Pender (1996).

Nature of the Study

This study was a quantitative comparative study that utilized secondary data from CHHS to determine whether there were differences between the 30-day readmission rates and discharge rates of homeless patients who suffer from substance abuse and mental health disabilities in hospitals that have patient placement and postdischarge follow-up for routine medical and mental health visits and in hospitals that do not. I used Mann-Whitney *U* tests to determine whether these differences existed. I also conducted a

regression analysis to determine whether patient placement and postdischarge follow-up for routine medical and mental health visits significantly predicted the 30-day readmission rates in hospitals. In the regression analysis, I dummy coded the predictor variables as binary. I sent a permission request to CHHS to gain access to data focusing on the variables for the study. The findings may close the gap in the literature and permit nursing healthcare leaders to assist with solutions to reduce homeless patient 30-day readmissions.

Literature Search Strategy

I accessed the following databases for this study via Walden University Library: CINAHL, EBSCO eBooks, Medical Collection, MEDLINE with Full Text, Plus with Full Text, ProQuest Central, ProQuest Health & PsycARTICLES, PubMed, Sage Journals (formerly Sage Premier), Sage Knowledge (formerly Sage Encyclopedia), and Thoreau Multi-Database. I also used Google Scholar, Google, and SAMHSA. I used the following key terms for the search: *emergency department, behavior disorder, mental health, readmission, substance abuse, gender, age, insurance, homelessness, social factors, Medicaid, Medicare, race, ethnicity, poverty, crowding, triage, primary care, and SAMHSA outcome reports*. The literature search had an emphasis on peer-reviewed primary publications with a period spanning 3 years (2016–2019), and a couple of seminal works.

Literature Review

For the present study I explored the association between the variables of nursing healthcare leadership strategies (patient placement, postdischarge follow-up for routine

medical and mental health visits), 30-day homeless patient readmission rates, and hospital discharge rates. This literature review covers previous works relating to these variables, including prevalence rates, correlations, and recommendations. I first explore the population of homeless individuals, followed by repeated visits to the ER and contributing factors leading to nursing healthcare strategies. I also explore the healthcare strategies of patient placement and postdischarge care. Definitions of important terms follow at the end of this review.

Homeless Population

The present study was focused on the population of homeless individuals in Los Angeles, California. The homeless population is not limited to individuals who stay on the streets, but also includes individuals who stay in shelters, public facilities, abandoned buildings, and vehicles, as well as “couch surfers,” who have no permanent address and instead stay with another person (Saab et al., 2016). The reported prevalence of homelessness in the United States varies by researcher. According to Schick et al. (2019), homelessness in the United States has reduced by approximately 25% during the past 10 years, with at least 87,000 individuals each night who are considered homeless. Roncarati et al. (2018) presented data from 2017 suggesting around 192,875 homeless individuals each night. Torrey (2019) reported a significantly larger rate of 564,708 homeless individuals each night in 2015, with around 140,000 (25%) reportedly having a serious mental disorder at some point and around 250,000 (45%) having any mental disorder. The continuing prevalence of homelessness for individuals in the United States poses a critical societal problem.

Aside from the lack of a permanent residence, homeless individuals also tend to face health problems. The population of homeless individuals, in general, is at higher risk for diseases and death than the overall adult population (Boonyaratanakornkt et al., 2017). Staying in deleterious environments can expose homeless individuals to various risk factors for diseases (Andermann, 2016). Poverty, housing insecurity or instability, housing quality, food insecurity, unemployment, difficulty paying for health care or basic expenses, and lack of access to medications and other basic needs are unmet needs of homeless individuals who frequently visit the ER (Doran et al., 2016; Malecha et al., 2018). Homeless individuals often lack sources of nutrition, sanitation, and safe spaces. Homeless shelters may also be subject to crowding, reflecting unsuitable conditions for at-risk homeless individuals (Boonyaratanakornkt et al., 2017). Unsheltered homeless individuals have even worse living conditions, resulting in mortality rates around three times higher than the general homeless population and 10 times higher than the general adult population in Massachusetts (Roncarati et al., 2018).

Homeless individuals' healthcare use may be reflective of their living conditions. Chronically homeless individuals who had either frequently experienced homelessness or been homeless for longer periods were frequent users of ER services, with 30% reporting one or two ER visits and 12% reporting three or more ER visits within 3 months (D. T. Moore & Rosenheck, 2016). Saab et al. (2016) noted that homeless individuals were 4 times more likely to be readmitted within 30 days than other low-income people, even when controlling for age and sex. A study in Australia identified peak seasons of ER usage during February, June, and December, which the authors interpreted as related to

weather changes (Lloyd et al., 2017). These months represented the wet season and winter in Australia, making it particularly difficult for homeless individuals, especially unsheltered ones. Furthermore, Lloyd et al. (2017) noted that 43% of patients went to the ER at night, which they interpreted as related to the safety provided by the well-lit space of the ER. Considering the difficulties associated with homelessness, people may easily perceive the ER as a safe space.

Mental health is another important factor in homeless individuals' well-being. Rates ranging from 5% to 77% of ER visits in the United States can involve comorbidities of mental health disorders, including depression, anxiety, and suicidal ideation (Capp et al., 2016; Hardy et al., 2018; Schroeder & Peterson, 2018). Blonigen et al. (2017) found that psychosocial factors, such as mental health disorders, detoxification-related service use, and homelessness had greater influence in determining frequent ER use than chronic medical conditions. Health issues of homeless individuals present a national concern and result in increased health service use, and with it, increased costs (Laliberté et al., 2019). Homeless individuals often do not have family physicians or primary care physicians who can provide long-term care for them, leading to their repeated use of acute care services. It is thus important to explore the healthcare issues of the homeless population to alleviate not just the individual problems of the homeless, but also the larger issue of healthcare costs.

Another major issue in healthcare for the homeless is the numerous barriers they face in accessing healthcare. While healthcare needs for the homeless continue to increase, access and availability for such remain insufficient (Kushel, 2016; Wille et al.,

2017). In Wille et al.'s (2017) study on Native Americans who were homeless, participants expressed how difficult it was to keep a doctor's appointment. The difficulty they faced in keeping healthcare appointments also meant that their illnesses remained untreated and may have escalated until it was necessary to rush to the ER (Riley, 2017). When homeless individuals do succeed in accessing healthcare services, they may still encounter more issues such as stigma and discrimination, as some healthcare professionals believe that homeless individuals simply seek treatment to obtain drugs (Purkey & MacKenzie, 2019; Wille et al., 2017). Even the healthcare providers admitted that homeless patients may be treated differently, and that the current healthcare system is not suitable for their needs (Purkey & MacKenzie, 2019). Such thinking may lead to differential or unfair treatment. It is important to understand how the homeless manage their own health and how this affects the rates of ER use and other healthcare strategies.

Repeated Visits to Emergency Department

The repeated use of ER resources is a major problem in healthcare in the United States. The ER is federally mandated to provide care to any individual for any reason without further considerations (Doran et al., 2016). As such, individuals tend to use the ER as a primary care facility, which is not its intended purpose and can lead to further deterioration of and congestion in the healthcare system (Lam et al., 2016; Siekman & Hilger, 2018). The use of expensive diagnostic tools such as computerized tomography in the ER has increased over the years and currently makes up a large part of the costs of ER usage and crowding (Bellolio et al., 2017). It also represents a misuse of the ER as a diagnostic center rather than a facility for urgent treatment. Siekman and Hilger (2018)

reported that in 2012, 5% of the U.S. population were the highest users of ER, which cost the country at least \$43,000 annually per each patient. C. Sun et al. (2017), who gathered an expert panel of nurses and midwives in the Eastern Mediterranean region for their Delphi study, found that ER nursing healthcare strategies were also lacking in their region. There appears to be a global need to innovate ER nursing management to alleviate the issues of repeated visits to the ER.

The issue of repeated use is also not new. The United States has seen many strategies and policy changes aimed at addressing this very issue, such as the hospital readmissions reduction program (HRRP) in 2012 (Kushel, 2016). This program set standards that penalized hospitals with excessive 30-day readmission rates. The HRRP was reportedly effective in reducing such readmissions for certain conditions (Kushel, 2016); however, it did not appear to eliminate the problem completely. Lee et al.'s (2017) retrospective study of Medicare users between 2005 and 2013 indicated a high 14.2% rate of 30-day ER return. The average return time for patients was just 9 days. They further noted that 3.1% returned in just 3 days, while 6.1% returned in just 7 days. The significantly short time between ER visits has led researchers to examine whether ERs were meeting patients' needs.

Mental Health Needs

Psychiatric or mental health issues comprise a major part of ER users' unmet needs. The temporary urgent care that ERs provide cannot alleviate disorders such as depression, anxiety, and substance abuse (Adisa et al., 2018; Daniels et al., 2018; Hardy et al., 2018). Although pain is a frequently cited primary complaint for ER users, such

pain could be due to other factors. For instance, frequent experiences of pain could lead patients to feel more anxious about their health. Patients with underlying psychiatric conditions will inevitably have unmet psychiatric needs in the ER, leading to continuous revisits. Hardy et al. (2018) observed this in a study in which ER visits were clustered together, albeit with patients presenting with different primary complaints. These short periods of frequent revisits suggested peaks of mental health issues that drove patients' needs for urgent care. A possible cycle of health issues and health-related anxieties due to unmet needs may thus manifest as frequent ER use.

Possible drivers of mental health issues may stem from fear and uncertainty. Patients frequent the ER to seek diagnoses and answers about whether their symptoms are life-threatening, how they could manage their symptoms, and what the roots of such symptoms are (Gerolamo et al., 2018). In Rising et al.'s (2016) qualitative study on ER patients with diabetes or cardiovascular disease, 25 (88%) of their 40 participants identified the need for information about their symptoms as a major reason for visiting the ER. Furthermore, 14 (35%) of participants identified fear driven by uncertainty as a major determinant of ER use. Rising et al. (2019), in a later study, found that the construct of overall uncertainty, which the *U*-scale total score measures, had no relationship to 30-day ER visits, but that the specific subscales of treatment quality and decision to seek care had significant relationships to 30-day ER visits in different ways. Patients who were uncertain about the quality of the treatment they received tended to revisit the ER within 30 days, while those who were uncertain about when to seek care were less likely to revisit the ER within 30 days. Notably, the *U*-scale subscales of

diagnosis, worries and concerns, self-management, self-efficacy, and psychosocial concerns had no significant associations with 30-day ER visits. What is observable in these findings is that the fear and uncertainty these patients experienced are nuanced and may remain unmet in acute ER care.

A few studies on ER utilization showed nuanced or contrasting findings regarding psychosocial factors. Sirotich et al. (2016) noted that clinical needs have the strongest association with ER use. This suggests that psychosocial factors, such as homelessness, are not the problems themselves in terms of repeated ER use. D. T. Moore and Rosenheck (2016) likewise contested the idea that primary healthcare access barriers were significant factors in repeated ER visits. In their study, frequent ER users reported using up to six different outpatient services overall and up to 20 outpatient visits within 3 months. They stated that these frequent ER users either used all healthcare services extensively or had severe illnesses that required ER services despite outpatient usage. These findings showed that psychosocial needs may be secondary to physical or clinical needs when it comes to frequent ER utilization. Interestingly, the presence of depression, anxiety, and other psychosocial issues in hemodialysis patients had negative associations with 30-day readmission risks, while residential status did not (Adisa et al., 2018). Adisa et al. (2018) stated that these findings may reflect the added attention to such at-risk patients, thereby decreasing the need for frequent readmissions. The interactions between homelessness and clinical factors such as mental health disorders, rather than these factors alone, resulted in repeated ER use (Lam et al., 2016). Based on these findings, the role of psychosocial factors or needs, such as homelessness, in repeated ER use is still

unclear. It is thus imperative to continue exploring the nuances of ER use and the use of healthcare strategies to reduce the readmission rates.

Other Contributing Factors

The possibilities in terms of contributing factors to repeated ER visits are extremely complex, as they may involve clinical, social, environmental, and demographic factors among others (FitzGerald et al., 2010). For instance, older age has been identified as a factor for increased ER use (Bellolio et al., 2017; Huynh et al., 2016; Lee et al., 2017; R. Sun et al., 2018); however, there are certain nuances in the literature. Hategan et al. (2016), Daniels et al. (2018), and Singh and Yu (2016) all indicated more frequent ER visits by younger populations. McCormack et al. (2016) found another nuance in their study of ER use in Tennessee. They stated that older patients generally had fewer nonurgent visits to the ER; however, those who did have nonurgent visits were more likely to have multiple visits than younger patients. They then noted several other demographic factors that could influence nonurgent ER use, including race or ethnicity, urbanicity, percentage of federal poverty level, and gender. Women were 41% more likely to visit the ER for nonurgent matters. Blonigen et al. (2017), however, noted that men were 5 times more likely to visit the ER frequently overall than women. Daniels et al. (2018) and Feldman et al. (2018) indicated similar rates of ER visits between genders. Possible intersections with other factors may play a part in the gender-related nuances in ER use. Ryoo and Choo (2016) found that women were less likely to be referred to substance use treatment than men, but they were more likely to have comorbid mental health conditions such as depression and anxiety (Coates et al., 2019; Ryoo & Choo,

2016). Furthermore, women may also be more prone to faster progression of substance abuse than men. The evidence in the literature points to the complexities of patients who present in the ER, which nursing leaders should consider as they assess patients in the ER.

Substance use may also serve as a contributing factor for repeated ER use. Only one study in this review found no associations between substance abuse and ER use. Cheung et al.'s (2015) randomized controlled trial revealed no correlations between substance dependence and healthcare use or between daily substance use and ER use. Generally, previous researchers had noted that individuals who abuse substances may deny or underplay the severity of their disorders (Huynh et al., 2016; Riley, 2017). Individuals with substance abuse problems thus avoid using other healthcare services for fear of being treated as criminals (Riley, 2017). Interestingly, patients who used substances and who were also homeless were more likely to report their substance use when presenting in the ER (Doran et al., 2018). It is possible that individuals who are homeless and use substances may have more severe medical conditions that force them to seek ER services and report their substance use. Nursing healthcare leaders should consider these findings when interviewing patients in the ER about their substance use.

Interestingly, several researchers have noted that possession of insurance, such as Medicaid coverage, positively influenced frequent ER use (Capp et al., 2016; Moulin et al., 2018; Siekman & Hilger, 2018). Delcher et al. (2017) indicated that Medicaid enrollment was related to potentially avoidable ER use. Generally, individuals with insurance were more likely to frequently use healthcare services such as the ER (Capp et

al., 2016; D. T. Moore & Rosenheck, 2016; Moulin et al., 2018; Siekman & Hilger, 2018). Notably, Hardy et al. (2018) presented contradictory findings stating that uninsured patients were just as likely as insured patients to use both ER services and primary care services frequently. Other researchers noted, however, that while access to primary care was also covered by insurance, other healthcare specialists to whom patients may be referred may not be covered (Schroeder & Peterson, 2018; Siekman & Hilger, 2018). As such, patients may still prefer to visit the ER for easier and more affordable access to healthcare (Schroeder & Peterson, 2018). Overall, it appears that possession of insurance may play a role in ER use, especially for patients with complicated conditions that would require multiple specialist services.

Differences in states may play a part in healthcare use strategy. For instance, a comparison between Texas and Mississippi Medicaid use revealed a larger proportion (more than 50%) of potentially avoidable ER use in Mississippi than in Texas (around 25%; Delcher et al., 2017). States that had the largest Medicaid increase enrollment reported more ER visits (Nikpay et al., 2017). The Medicaid expansion from the Patient Protection and Affordable Care Act of 2010 was notably targeted toward childless adults. As such, the change in total ER visits since the enactment of this expansion was largest in Kentucky, where most childless adults used to be ineligible, as compared to Hawaii, wherein most childless adults had already been eligible for Medicaid. As another example, New York Medicaid provides stable shelter for patients for low rates of around \$50 per day, to avoid higher hospital rates of \$2,200 per day (Siekman & Hilger, 2018). Programs such as this may lower inpatient costs by 45.9% and ER visits by 15.4%. These

state-level differences in insurance policies represent another contributing factor in repeated ER use. Nursing leaders should consider possession of insurance as they assess the urgency of patients in the ER.

Overall, it appears that age, gender, comorbidities and disease complexity, and insurance coverage may play major roles in determining frequent ER use, and as such, represent vital considerations when employing healthcare strategies. Older patients were frequently cited as more likely to use ER services. Gender presented more nuanced findings, with most evidence pointing to women's overall help-seeking behaviors and higher risk for mental health comorbidities, which influenced ER use. Comorbidities, such as substance abuse, also predicted ER use. Having insurance coverage had links with increased ER use. These contributing factors have led to the repeated use of ER, which then called for the exploration of possible healthcare strategies to reduce cost and provide adequate and appropriate treatment at the same time.

Healthcare Strategies

Considering the numerous contributing factors to hospital readmission problems, researchers have explored potential healthcare strategies that may help to alleviate these problems. Since the enactment of the HRRP, hospital professionals have been trying to identify the risk factors for 30-day readmission, which is the standard for determining frequent ER use (Saab et al., 2016). The HRRP began implementation in October 2012, when penalties went to low-performance hospitals as determined by the national risk-adjusted average of 30-day readmissions. This policy served as motivation for healthcare leaders to seek strategies and interventions to prevent frequent patient readmission.

Raven et al. (2016) indicated a widespread interest in reducing ER utilization by developing various programs; however, they also noted that such programs still lacked concrete evidence in the literature. Complex cases involving the multiple factors cited above may be impossible to resolve in short-term treatment facilities such as the ER (Siekman & Hilger, 2018). Furthermore, emergency healthcare professionals, baffled by these complex cases, may instead choose simply to order more diagnostic assessments, procedures, and hospital admissions, which then adds to the already complicated medical history of the patient. As emergency healthcare professionals struggle with these complex factors, researchers continue to explore strategies relating to patient placement and postdischarge care.

Patient Placement

The Western approach to medicine and patient management involves acute treatment plans that quickly alleviate patient symptoms (Andermann, 2016). Indeed, healthcare professionals in Wolf et al.'s (2018) study admitted to using the "quick look" assessment technique, which relies on intuition to determine the severity of patients' illnesses (p. 261). While this approach may seem sufficient for some, it does not resolve underlying health issues (Andermann, 2016; Coohey & Easton, 2016). For instance, adverse childhood events, which are not usually discussed in acute care, may provide relevant information that affects treatment (Coohey & Easton, 2016). Furthermore, quick assessments present a higher risk of misdiagnoses and, in turn, delays in patient care (Wolf et al., 2018). Researchers have since recommended a more holistic approach to

patient placement that addresses underlying issues and needs (Andermann, 2016; Coohy & Easton, 2016).

A widely used strategy for patient placement in healthcare settings is the triage system. In this system, healthcare professionals determine the risk level and urgency of patients' needs and then categorize them according to these needs (FitzGerald et al., 2010; Raita et al., 2019). This system supposedly ensures fair allocation of time and other finite resources to patients. Healthcare professionals in triage often utilize tools such as the Emergency Severity Index to promote fair and standard categorization (Raita et al., 2019). Ideally, the time spent in the triage system should not exceed 15 minutes per patient to promote smooth flow (Jarvis, 2016). This long-standing practice of patient placement may reduce ER revisits by properly allocating services and resources to patients.

Some researchers have explored ways to improve the triage system. Chang et al. (2018), who examined the top and bottom 5% of Centers for Medicare and Medicaid Services and their ER, found that top-performing hospitals had more hands-on leadership involvement. In these hospitals, executive leaders expressed clear goals, provided resources, and appointed floor-monitoring leaders such as chief nurse executives who also worked with patients when necessary. The presence of nurse executives or senior nurses in the ER may have some disadvantages, though. For instance, van der Linden et al. (2016) performed a record review of patients in a medical center in the Netherlands between 2014 and 2015. They found that nurses' level of experience was positively related to longer waiting times in triage. Nurses with more experience also tended to refer

more patients to the general practitioner cooperative. While this may briefly alleviate ER crowding, this temporary fix may lead to delays in patient diagnosis and treatment planning. Regardless of the efficiency of these strategies, the fact that these nurses differed in how they run the triage system suggests a lack of an efficient standardized protocol.

Another strategy to alleviate ER overcrowding was restructuring the ER flow. Rathlev et al. (2018) tested a new operational leadership structure in the ER wherein a charge nurse coordinated overall care throughout the ER and was responsible for all the necessities of the patient, a flow coordinator nurse handled the traffic within the ER and balanced bed placement, and a pod lead nurse assumed coordination of care and managed communications with other providers. Furthermore, a standardized administrative decision-making tool containing plans to overcome barriers to patient flow or progress was provided, and the ER professionals were educated regarding these plans. Their study ran for 3 years, producing significant results showing a mean increase of 34 patients seen daily and a decrease of patients who left without being seen from 8.2% to 4.5%. Patient length of stay did not change in their study, and the authors concluded that the nurse appointments were the main contributors to the overall improvement.

Recently, researchers have been looking into approaches from other fields to apply to the ER setting. The lean approach, typically used in the automotive field, may produce positive outcomes in healthcare (Improta et al., 2018; Jarvis, 2016; Sanchez et al., 2018). The main principles of lean involve continuous flow and the elimination of waste by applying rapid assessment and standardized processes. Precision and avoiding

ambiguity are essential in lean practices (Improta et al., 2018). The standard application of lean for the ER involves five steps: lean education, ER observation, patient flow analysis, process redesign, and new process testing. For the ER setting, the lean practice would involve the assignment of teams consisting of doctors and nurses to individual patients, which would reduce unnecessary motion within the ER (Sanchez et al., 2018). Brief and standardized sequence and workplace organizations would also need to be followed, including charting methods, to reduce patient waiting times. Sanchez et al. (2018) applied the lean intervention in a hospital in Barcelona and found a significant improvement in length of stay for ER patients. Chang et al. (2018), however, found inconsistent data indicating that the ERs of both top- and bottom-performing hospitals used lean processes. The lean approach presents a possible standardized protocol that could efficiently reduce ER crowding, but that should be used with caution due to the inconsistent evidence surrounding it.

Communication With the Patient

Researchers have noted that communicating with patients and explaining the process of the ER, including the delays, may also help to alleviate patient anxieties (Blackburn et al., 2019; Roh & Park, 2016). Written information about the ER process could also be displayed in the waiting room to keep patients aware and reassured (Blackburn et al., 2019). Feuerwerker et al. (2019) recommended a new role of patient advocate for the ER. The patient advocate could act as a personal unifying entity that connects the patients to the ER, informing the patient about the process of the ER and answering any inquiries. Such a unifying role may also help to address the multiple needs

of patients, as the advocate could align and coordinate the necessary resources while the patient waits (O'Toole et al., 2016). Proper communication with patients is another nursing healthcare strategy to consider in the ER.

Communication between healthcare professionals is equally important.

Researchers have examined strategies regarding bedside handoff or the endorsement of patient information between nurses (Campbell & Dontje, 2018; Usher et al., 2018).

Bedside handoff requires two-way and face-to-face interaction of healthcare professionals at the patient's bedside to ensure that no information is missed (Usher et al., 2018). Usher et al. (2018) conducted a quality improvement project to evaluate a new standardized bedside handoff protocol in a medical–surgical unit. The new protocol emphasized interactive communication that allows for questions and answers among nurses, patients, and their families; a thorough review of the previous shift's care data by the receiving nurse; and the use of verification processes and standard tools such as the situation, background, assessment, and recommendations (SBAR). The results revealed that nurses felt more informed and better prepared for patient care due to the protocol. The protocol also significantly reduced handoff time by 2 minutes per patient. Another study utilizing a similar protocol, including the use of SBAR, took place in the ER of a Midwestern trauma center (Campbell & Dontje, 2018). The results revealed that nurses felt more accountable with the new protocol and that they appreciated the improved communication that allowed sufficient time for clarifications, thereby reducing the chances of errors. Patients also appreciated being part of the handoff and being updated about their conditions. Some nurses also preferred doing the handoff at the nursing desk

to decrease distractions and allow full disclosure. Campbell and Dontje (2018) found resistance from nurses with this new protocol 6 months into its implementation. They noted that more research is necessary to overcome the challenges with the new protocol and to provide better ER treatment.

Another strategy that provides a more holistic approach for treatment is screening. Some have cited the screening, brief intervention, and referral to treatment (SBIRT) approach as a possible model for providing holistic care (Doran et al., 2016; Serrano et al., 2018). The SBIRT model involves universal screening for substance abuse, followed by a brief intervention, and a referral to more specialized treatment (Serrano et al., 2018). A possible disadvantage to approaches such as SBIRT is the brief period of intervention (Merchant et al., 2018). Merchant et al. (2018) noted that the brevity of the intervention may not be enough for patients with particularly complex cases. They instead suggested more sustainable long-term interventions to meet the underlying needs of ER patients. The strategies for patient placement in this subsection represent relatively new strategies that could use further evidence. Nonetheless, advancement in these strategies shows some hope of reducing frequent ER use due to proper patient placement.

Use of Technology

Technology may present opportunities for healthcare strategies in the ER. Chang et al. (2018) emphasized the importance of data-driven management wherein previous records of hospital data may be useful to predict patterns of ER flow. Using data from previous years, nursing leaders may prepare and allocate resources based on predictions. Real-time data made available by multiple computer screens in top-performing hospitals

allowed ER professionals to make decisions more quickly, as opposed to low-performing hospitals, which only examined data on a retrospective basis every few months or so.

Raita et al. (2019) proposed a machine learning triage that applied approaches such as lasso regression, random forest, gradient boosted decision tree, and deep neural network to efficiently classify patients. Although this technology represents a novel and unexplored triage system, their study showed promising results, as the machine learning models could predict critical care as well as hospitalization outcomes quickly and accurately. These findings suggest that the triage system could use updating to provide a standardized and more efficient model that may help to reduce ER crowding.

Post-Discharge Care

The literature includes strategies for postdischarge follow-up and care to alleviate problems with ER care. The basic and simple act of following up on patients after they leave the ER is an important service for patients (Cullen et al., 2019; Gerolamo et al., 2018; Lee et al., 2017). Nursing leaders in Cullen et al.'s (2019) study were frustrated at the lack of follow-up in the protocol, leading to the patients' conditions worsening again and them returning to the ER. Lee et al. (2017) suggested a follow-up time of 1–2 weeks after the ER visit, especially for patients with mental health problems. Blackburn et al. (2019) proposed providing leaflets to patients that contained information and resources that they may need after being discharged. On a larger scale, M. Moore et al. (2019) noted that more outpatient alternatives to the ER are necessary resources for homeless individuals who do not have access to transportation. Siekman and Hilger (2018) likewise emphasized the difficulty in following up on patients who do not have permanent

addresses or phones. As much as following up on patients is important for their long-term health, the difficulties brought by homelessness call for better strategies for providing postdischarge care.

A potential solution for homeless patients' postdischarge care is the provision of housing policies. The existing program of permanent supportive housing can provide a better quality of life (Schick et al., 2019), as well as meeting specific personal needs of the aging homeless population (Brown et al., 2017). In Vancouver, the Housing First program provides a similar service of integrative care for homeless individuals, particularly those with mental health or substance use problems (Cheung et al., 2015). Individuals who used this program had lower ER utilization than individuals who received treatment as usual. Medical respite, which is less expensive than permanent supportive housing, may be an alternative for the homeless, particularly those whose illnesses are not severe enough to require hospitalization (Kushel, 2016). These housing programs may meet the underlying needs of homeless ER patients, which may in turn reduce their need for frequent ER utilization.

Aside from housing, community and support services may also be helpful for ER patients who are experiencing homelessness or other underlying needs. Boudreaux et al. (2016) presented a community mental health clinic that provided services such as case management, treatment programs, vocational and employment programs, and other support services. They indicated a mostly positive reception from patients who utilized these services. Case management, which many studies cite as a helpful postdischarge care strategy, involves multidisciplinary teams who can provide tailored care for patients or

connect them with necessary resources (Daniels et al., 2018; Moe et al., 2017; M. Moore et al., 2019; Raven et al., 2016). Lloyd et al. (2017) suggested using occupational therapists to train homeless patients in terms of functioning and even possible employment. Riley (2017) emphasized the need for these support services to allow walk-ins, considering the chaotic schedules of homeless individuals. Because primary care providers may not holistically meet the multiple needs of these homeless individuals, such community and support services are necessary to ensure their proper functioning, health, and well-being after leaving the ER (Jego et al., 2018). Applying needs screening to ER patients may also help to identify their material needs, which these communities could address upon discharge (Malecha et al., 2018). Such communities would provide convenient means to meet the needs of the underserved population of the homeless.

Often cited in many healthcare-related studies, the primary care provider or physician represents an important role of managing patients' cases holistically. Studies on ER utilization, however, indicated that these primary care providers may not sufficiently alleviate the issues of frequent ER use (Hategan et al., 2016; Raven et al., 2016; Saab et al., 2016). Saab et al. (2016) found that homeless individuals with primary care physicians still had higher chances of 30-day readmission than those without primary care physicians. Similarly, Hategan et al. (2016), who studied geriatric homeless individuals in Canada, found that the women who had access to a primary care provider still tended to overuse the ER. Raven et al. (2016), who explored strategies to reduce ER utilization, found no evidence supporting the influence of longer primary care hours on ER utilization. Primary care providers may be important case managers, but without the

proper resources and access to specialized healthcare or interventions, they may still be inadequate for complex cases such as in homeless individuals (Kushel, 2016). Doran et al. (2016) thus suggested that these primary care providers serve as advocates for patients, pushing for more resources and access to community and social services that may meet the needs of their patients.

Because of the inadequacy of the single primary care providers cited above, other researchers have highlighted the importance of coordination and collaboration in integrative care. Nursing leaders in Cullen et al.'s (2019) study expressed the need for better access to and more collaboration with mental health professionals. Of their 476 respondents, 15% believed that additional training, standardized policies, and resources were necessary to meet the mental health needs of ER patients. D. T. Moore and Rosenheck (2016) emphasized a trend in healthcare wherein the most frequent ER users tended to receive reduced coordination between their healthcare and social work providers. Schick et al. (2019) noted that a coordinated plan of care not only improved patient quality of life, but also reduced ER utilization by at least 70%. The geriatric population would particularly benefit from the management of their multiple medications in coordinated integrative care that includes pharmacists (Melady & Perry, 2018). Coordination and collaboration between healthcare professionals after ER discharge may be an important element of nursing healthcare strategies.

These strategies are reflected in the collaborative care framework. Collaborative care involves comprehensive, evidence-based, team-based, longitudinal care for patients (Whiteside et al., 2017). This framework may address multiple comorbidities through

team-based care and interventions (Serrano et al., 2018; Whiteside et al., 2017).

Whiteside et al. (2017) examined a collaborative care intervention in a medical center in Seattle. The intervention team comprised an emergency medicine physician, clinical psychologist, psychiatrist, and care manager. The intervention itself involved active care coordination, guidelines on medical safety and opioid use, longitudinal care management for 6 months, and use of electronic medical records. Patients generally reported receiving satisfactory and high-quality care from the intervention; however, there was no statistically significant decrease in prescription drug misuse over time. Nonetheless, Whiteside et al. found the collaborative care intervention a feasible and acceptable strategy for ER patients.

Previous researchers highlighted some possible nuances in collaborative care. The lack of access to transportation in the homeless population has elicited ideas of collocated services (Jego et al., 2018). In Gabrielian et al.'s (2017) study of support services collocated with ER, however, few providers found this collocation helpful. Some of these providers believed that collocation may reinforce patients' ideas that the ER functions to meet their psychosocial needs. These providers instead suggested building stronger ties with a homeless-tailored service provider without collocation that still reflected multidisciplinary collaboration. Additionally, collaboration may include the participation of the patients themselves. This strategy would empower patients to take control of their own treatments, which is especially important for patients suffering from mental health issues. With these nuances, it appears that collaborative care may serve as a potentially efficient strategy that may meet patients' multiple needs as well as empower them

(Tseris, 2019). Overall, the healthcare strategies in this section represent novel but underexplored ways to reduce ER utilization by providing adequate and holistic care, especially to patients with multiple needs such as the homeless population.

Literature Summary

This literature review has discussed topics relating to the homeless population, repeated visits to the ER, contributing factors leading to the use of nursing healthcare strategies, and existing healthcare strategies. The homeless population generally represents a vulnerable group that often suffers from complex health problems (Andermann, 2016; Laliberté et al., 2019). The homeless population faces multiple barriers and negative experiences relating to healthcare (Coohey & Easton, 2016; O'Toole et al., 2016; Purkey & MacKenzie, 2019; Wille et al., 2017). As such, the homeless often seek acute care instead of the necessary long-term holistic healthcare (Laliberté et al., 2019; Riley, 2017).

Cases such as those of homeless individuals have led to increases in repeat visits to the ER (Siekman & Hilger, 2018). The psychosocial needs of ER patients have driven their ER utilization (Adisa et al., 2018; Blonigen et al., 2017). At the same time, these needs remained untreated in such acute care settings (Daniels et al., 2018; Hardy et al., 2018). Fear and uncertainty regarding their illnesses were essential needs that drove ER utilization (Daniels et al., 2018; Gerolamo et al., 2018; Rising et al., 2016). Homelessness also highlighted the problem of unmet needs, as the homeless population frequently utilized ER services (Lloyd et al., 2017; D. T. Moore & Rosenheck, 2016; Saab et al., 2016). Other contributing factors in healthcare strategy use included age, gender,

comorbidities, and insurance coverage (Bellolio et al., 2017; Brown et al., 2017; Huynh et al., 2016; Lee et al., 2017; McCormack et al., 2016; Melady & Perry, 2018; D. T. Moore & Rosenheck, 2016; Moulin et al., 2018; Ryoo & Choo, 2016; Singh & Yu, 2016; R. Sun et al., 2018).

Considering these multiple factors and unmet needs, several healthcare strategies may reduce ER utilization and improve ER care. The triage system represents a long-standing strategy for reducing ER crowding (FitzGerald et al., 2010; Raita et al., 2019; van der Linden et al., 2016). Researchers also suggested communicating and providing information to patients while they wait for their treatment, as well as screening for their multiple needs (Blackburn et al., 2019; Coohy & Easton, 2016; Doran et al., 2016; Feuerwerker et al., 2019; M. Moore et al., 2019; Roh & Park, 2016). The lean approach may also improve patient flow (Jarvis, 2016; Sanchez et al., 2018). For postdischarge care, follow-ups and the provision of resources were important strategies for patients (Andermann, 2016; Gerolamo et al., 2018; Lee et al., 2017). Housing policies were especially helpful for recently discharged homeless patients (Cheung et al., 2015; Kushel, 2016; D. T. Moore & Rosenheck, 2016; Schick et al., 2019). Primary care providers, while admittedly important for case management, are inadequate without the proper resources (Hategan et al., 2016; Raven et al., 2016). As such, strategies involving multidisciplinary collaboration may also help to provide holistic care that may meet the complex needs of ER patients (Jego et al., 2018; Melady & Perry, 2018; Schick et al., 2019). Considering the findings in this literature review, I explored the association

between these nursing healthcare strategies and 30-day homeless patient readmission rates and hospital discharge rates within two hospitals in Los Angeles, California.

Definition of Terms

Emergency room: The ER is an acute care facility that serves any patient regardless of health complaint or ability to pay (Doran et al., 2016).

Emergency room crowding: This phenomenon describes the event wherein demands on the ER are greater than the capacity to provide proper care (Jarvis, 2016).

Homelessness: In this study, homeless individuals are those who do not have a permanent residence and reside in a shelter, a public facility, an abandoned building, a vehicle, or temporarily with another individual, for at least 7 days (Saab et al., 2016).

Primary care: Primary care is essential and holistic care that provides practical, scientifically sound, and socially acceptable care for individuals and families (Jego et al., 2018).

Social factors: These factors are environmental conditions that influence how individuals are born, how they develop, and how they live (Doran et al., 2016; Malecha et al., 2018).

Triage: The triage system is a strategy in medical care that allows for fair allocation of resources based on patients' needs (FitzGerald et al., 2010).

Assumptions

Throughout this study, I used the following assumptions. Each assumption is necessary to understand data that may not be readily available better.

- Case Management Nurse Health care leadership discharge reports constitute a valid method for collecting data about homeless adults who are discharged with posthealthcare instructions.
- Those preparing these discharge reports completed them accurately and fully.

Limitations

Issues of Internal Validity

The nature of this quantitative study allows mainly for comparative studies. As such, no causal relationships may be established in this study. The findings do not determine whether nursing healthcare strategies can cause reductions in ER utilizations; rather, they determine whether there is a difference between 30-day readmission rates and discharge rates of hospitals that practice the nursing healthcare strategies.

Issues of External Validity

The focus of the study was from 2013 to 2015. The original intention was to consider figures from 2016 to 2019 or 2020, but these data were not available, which presented a limitation.

Scope and Delimitations

This study focused on the differences between 30-day readmission rates and discharge rates of hospitals that practice nursing healthcare leadership strategies (patient placement, postdischarge follow-up for routine medical and mental health visits) in California. The study used secondary data from hospitals California that submit their reports to the CHHS. The data from CHHS included reports from 2013 through 2015 for frequent visits and readmission of homeless patients. The secondary datasets regarding

the healthcare facilities within California came from the office of the CHHS (CHHS, 2018). The focus of this study was on California because this state has the highest concentration of homeless discharges and readmissions. Moreover, the nursing leadership staff may have access to raw datasets that may be useful to examine case management prevention strategies for homeless patients. I used data for homeless adults aged 21 and over who frequently visit the ER within a 30-day window due to setbacks of mental illness and drug abuse and those who struggle with case management communication. This may limit the generalizability of the results.

Significance

Limiting the rise in healthcare expenditures may be a constant crusade for health care administrators in the United States. This study may help to contribute towards enhancing patient quality of care by helping healthcare administrators to understand how nursing leadership strategies may impact 30-day homeless readmission rates. The study may also increase the knowledge within the fields of case management to help to provide support to the homeless population in California.

The study contributes to social change by enabling creative solutions and strategies that may positively impact the quality of the health services sector for the homeless community of California. Studies have mentioned the need for nursing healthcare leadership to act toward creating solutions for the increased 30-day readmission rates for the homeless community of California (Adisa et al., 2018; Andermann, 2016). Furthermore, this study contributes to positive social change by assisting nursing healthcare leaders to provide more significant health care, enhance

financial solutions, initiate beneficial social services, and improve outcomes by reducing 30-day readmissions within the ER. Health care providers may learn of a possible correlation between the costs of 30-day readmissions and the re-entry of the homeless population in California. The research may also deliver new data to assist with solutions to the possible connection between homelessness and 30-day readmissions. The study is significant for healthcare administrators in that the findings may prove useful when addressing strategies that may affect the needs of the homeless population, the organization, and society, both socially and financially.

Potential for Positive Change

Findings from this study may advance knowledge regarding healthcare strategies and improve ER services. Nursing healthcare leaders may adapt strategies of patient placement and postdischarge follow-up for routine medical and mental health visits based on the results of this study. Such strategies may lead to developments and standardizations of ER care that promotes holistic treatment and, in turn, reduces repeated visits to the ER. The homeless population, a vulnerable population, may also benefit from the results of this study, as potential findings could reflect its needs.

Summary and Conclusion

This section has introduced the topic of homelessness and its relation to 30-day readmissions, which reflects a rising concern for nursing healthcare leadership (Boonyaratanakornkt, 2017; LaWall et al., 2019). Based on the findings from the existing literature and the gaps in knowledge, I studied the differences between 30-day readmission rates and discharge rates of hospitals that practice the nursing healthcare

leadership strategies (patient placement, postdischarge follow-up for routine medical and mental health visits) in California and those that do not based on available data in the CHHS database. Nola Pender's (1982) HPM theory guided this study, which had a quantitative comparative design. Section 2 gives further details of the methodology, such as the selected design, the study population, sampling, data collection, and data analysis.

Section 2: Research Design and Data Collection

Introduction

One in four homeless adults in the United States suffers from substance abuse, mental health problems, or behavior disorders (Capp et al., 2016), resulting in frequent visits to the ER. Often, the comorbidities of homeless patients in the ER can be better treated in primary care clinics (Adisa et al., 2018). Despite this, repeated ER visits for nonurgent complaints are common within the first 30 days after discharge (Lam et al., 2016), placing unnecessary stress on nursing healthcare leaders and already depleted hospital resources. The operational healthcare problem for this study was the rising number of homeless patients who are readmitted to the ER within 30 days of their initial discharge. This is a problem because nursing healthcare leaders struggle with developing effective strategies to reduce readmission rates among this population (Boonyaratanakornkt et al., 2017; LaWall et al., 2019; Roncarati et al., 2018).

The purpose of this study was to examine the difference between 30-day readmission rates and discharge rates of hospitals that practice nursing leadership strategies (patient placement and postdischarge follow-up for routine medical and mental health visits) and hospitals that do not practice nursing leadership strategies in California. Two practice-focused research questions guided this quantitative study. The research questions and hypotheses were as follows:

RQ1: What is the difference between 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals that

practice patient placement and in California hospitals that do not practice patient placement?

H_{01} : There is no difference between 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals that practice patient placement and in California hospitals that do not practice patient placement.

H_{a1} : There is a difference between 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals that practice patient placement and in California hospitals that do not practice patient placement.

RQ2: What is the difference between 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals that practice postdischarge follow-up for routine medical and mental health visits and in California hospitals that do not practice postdischarge follow-up for routine medical and mental health visits?

H_{02} : There is no difference between 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals that practice postdischarge follow-up for routine medical and mental health visits and in California hospitals that do not practice postdischarge follow-up for routine medical and mental health visits.

H_{a2} : There is a difference between 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals

that practice postdischarge follow-up for routine medical and mental health visits and in California hospitals that do not practice postdischarge follow-up for routine medical and mental health visits.

This section details the chosen research design for this study and the justification of a quantitative methodology as appropriate for this study. I review the methodology for this study, including the target population, sampling procedures, and instrumentalization and operationalization of constructs. Then I identify potential threats to the internal and external validity of the study's results, as well as the ethical procedures and standards for the project.

Research Design and Rationale

I used a quantitative comparative methodology for this study to determine whether a difference exists between the 30-day readmission rates and discharge rates of hospitals that practice nursing healthcare leadership strategies (patient placement, postdischarge follow-up for routine medical and mental health visits) in California and those that do not. As a result, the independent variable in this study was nursing healthcare leadership strategy, while the dependent variable was the rate of 30-day readmission rates and discharge rates. A quantitative methodology was a suitable approach for this study as it is best suited to determining whether there is a difference between two variables (Punch, 2013). While qualitative approaches can yield more in-depth information about a specific phenomenon and lead to a more holistic understanding of the problem in question (Weiss, 1994), such an approach is not well suited to examining the relationship between two variables. Qualitative methodologies aim to

answer “how” and “why” questions, and they cannot determine whether statistically significant relationships exist between two variables, while quantitative methodologies are more appropriate for answering “what” questions (Creswell, 2018) such as those in this study. Furthermore, quantitative methods are also useful when working with large sample sizes and generalizing the results across the target population, as was the case in this study.

In this study, data regarding the hospitals’ 30-day readmission rates and discharge rates as well as the use of nursing healthcare strategies came from the CHHS database. This database includes information on unplanned 30-day readmission rates in California. I used Mann-Whitney *U* tests to determine whether a difference exists between the 30-day readmission rates and discharge rates of hospitals that practice nursing healthcare leadership strategies (patient placement, postdischarge follow-up for routine medical and mental health visits) in California and those that do not. Numerous studies concerning the relationship between various factors and hospital readmission rates among veterans (Blonigen et al., 2017), patients with mental health disorders (Capp et al., 2016), and the homeless population (M. Moore et al., 2019; Saab et al., 2016) have used quantitative methods, demonstrating the utility of using a quantitative approach to investigate this topic. A comparative research design was the most appropriate for this study, because comparative research explores the nature of noncausal differences between variables without manipulation (Creswell, 2018). A correlational design is most appropriate for determining the relationship between two variables, while experimental designs involve the manipulation of variables and the comparison of different groups (Burkholder et al.,

2019). Because the purpose of this study was to determine whether a difference exists between the 30-day readmission rates and discharge rates of hospitals that practice nursing healthcare leadership strategies (patient placement, postdischarge follow-up for routine medical and mental health visits) in California and those that do not, a comparative research design was the most appropriate.

Methodology

This section details the target population, sampling procedures, and data analysis protocol for this study.

Population

The target population of this study was California hospitals that practice nursing leadership strategies and admit homeless patients. Specifically, I delimited the sample population to hospitals that have homeless patients who are admitted because of substance abuse or mental health illnesses. While there is no agreed-upon estimate for the number of people currently living on the streets in the United States (Roncarati et al., 2018; Torrey 2019), some estimate that one in four homeless people suffers from substance abuse or mental health disorders (Capp et al., 2016; Torrey, 2019).

There is no universally accepted standard for an adequate sample size for a quantitative study. Factors such as the size of the target population, sampling error, level of significance, and design effect need to be taken into consideration when determining a study's sample size (Martinez-Mesa et al., 2014). Power analysis is a common way to determine an appropriate sample size for a quantitative study. The statistical power of the hypothesis test and the significance level were necessary to conduct a power analysis

(Frost, 2020). A common significance level in statistical analysis is .05, which indicates there is a 5% probability that a given result was the result of chance (Ramsey & Schafer, 2013). The chosen significance level for this study was .05. To be consistent with other studies, the statistical power of this study, which refers to the probability that the hypothesis will correctly reject a false null hypothesis, was .80 (Frost, 2020). The correlation coefficient is also necessary. Because the correlation coefficient was unknown for this study, I used a value of .20 to indicate the presence of a weak-to-moderate correlation (see Rummel, 1976). With this information, I used the power analysis tool G*Power v3.1.0 to calculate the minimum number of samples for testing. The result showed that a minimum of 128 participants was necessary to achieve 80% power for the study.

Sampling and Sampling Procedures

I used convenience sampling to gather existing data from CHHS. Secondary data regarding hospitals' 30-day readmission rates and discharge rates came from the CHHS. The use of nursing leadership strategies also came from CHHS reports. The CHHS database provided specific data necessary for the study. These data include demographic characteristics of hospitals as well as variables for nursing healthcare strategy, readmissions, and diagnosis for substance abuse or mental health-related issues. CHHS also provided available data specific to hospitals catering to homeless patients, 21 years old and above, with diagnosis for substance abuse or mental health-related problems, in California. The data covered the period from 2013 to 2015.

In quantitative research, random and convenience sampling are the two main sampling methods (Maxwell, 2005). Probability sampling can allow for more fruitful generalizations from the sample to the population of interest due to the random nature of participant selection, and it is also useful when drawing from a large sample population. However, probability sampling can be more difficult when no specific data about the population of interest is available. Convenience sampling allows for a more targeted approach to participant selection and can be useful for drawing samples from a relatively small population, as was the case in this study. However, it is important to remember that its nonrandom nature means it is more difficult to generalize results across the target population.

A minimum number of samples is necessary to ensure validity of statistical findings. I conducted an *a priori* power analysis to determine the minimum number of samples necessary for the study. I used G*Power v3.1.0 to calculate the minimum sample size. Several factors went into the analysis. These factors include the power, effect size, significance level, and the type of analysis. For this study, I sought a medium effect size, a power of 80%, and a significance level of .05. The result of the power analysis determined that a minimum of 128 participants was necessary for the study.

Operationalization

Across the two research questions, there is one independent variable: nursing healthcare strategy, and one dependent variable: the 30-day readmission and discharge rates. Nurse healthcare strategy is a binary variable, and it is operationalized as either a patient placement strategy being used or not, or a postdischarge follow-up strategy for

routine medical and mental health visits being used or not. Strategies for patient placement include triage, in which patients are categorized according to their risk levels and the urgency of their needs (Raita et al., 2019). Strategies for postdischarge follow-up and care include following up with patients 1 or 2 weeks after their discharge from the ER (Lee et al., 2017), the provision of leaflets containing information and resources that patients might need after being discharged (Blackburn et al., 2019), and the provision of alternative community services including housing and employment assistance (Schick et al., 2019). I assigned the use of this type of healthcare strategy for patients (patient placement or postdischarge follow-up) a numeric value, with 0 for not practicing the strategy or 1 for using the strategy. The dependent variables in this study were the 30-day ER readmission rate and discharge rate, which is a numerical value ranging from 0 to 100%, from the secondary data obtained from the CHHS.

Data Analysis Plan

I used SPSS v25.0 statistical software used to analyze the results. Specifically, I used Mann-Whitney U tests to determine whether there was a significant difference between the 30-day readmission rates and discharge rates of hospitals that practice the nursing leadership strategy and hospitals that do not. When interpreting the results of the analysis, I compared the resulting probabilities for each explanatory variable (type of nursing strategy) with the chosen significance value of 0.05. If the p -value was smaller than or equal to 0.05, then the null hypothesis could be rejected. If the p -value was larger than 0.05, then the null hypothesis could not be rejected because there was no evidence of an association between the variables.

Threats to Validity

External validity refers to the generalizability of the results, while internal validity refers to the extent to which what was done in the study produced the given results and that the results were not influenced by other factors (Price et al., 2017). This section discusses threats to the external and internal validity of the study.

External Validity

Selection bias has one of the most profound effects on a study's external validity, since the way in which the researcher chooses samples will influence how generalizable the findings are from the samples to the rest of the population (Leviton, 2017). In quantitative research, the sample should ideally be representative of the larger population to maximize the generalizability of the findings. Random (probability) sampling is one way to reduce the presence of selection bias, since all the samples are drawn at random (Taherdoost, 2016). In other words, because each sample is equally likely to be chosen, the results are more likely to be generalizable to the rest of the population (and potentially to other populations) than they would have been had the samples been chosen purposefully or for convenience. When this sampling strategy does not result in a representative sample of participants, as can be the case for convenience sampling, it is important to consider how this might influence the generalizability of the results. It is important to note that the study's findings will only be generalizable to the target population, and that the specific characteristics that define the target population will make it difficult to apply these results to other groups.

Internal Validity

Internal validity refers to the extent to which the research design supports the conclusions (Price et al., 2017). Nonexperimental designs, like the one used in this study, typically have lower validity than other quantitative research designs because the researcher does not manipulate or control the independent variables. This makes it more likely that an unmeasured variable, called a confounding variable, could influence the study's results. An example of a confounding variable in the context of this study would be that 30-day readmission rates of homeless patients could be influenced by gender. Other potential threats to the internal validity of a study include changes in instrumentation, participant selection, maturation, and the administration of multiple tests (Da Costa & Schneider, 2016). The use of secondary data from hospitals, instead of primary data collected during interviews or from surveys, will help to increase this study's internal validity. The data cannot be influenced by patients' perceptions of the study, the number of tests that are administered, or the data-collection methods.

Ethical Procedures

Ethical considerations constitute a key component of the research process and should be considered through the design and implementation of a study (Bos, 2020). Getting approval from the university Institutional Review Board (IRB) was the first step in the process of addressing the ethical concerns of this study. Issues such as confidentiality and anonymity should be continuously renegotiated. For this study, secondary data came from the CHHS database. I sent a formal letter requesting the necessary data for the study to the administrator of the CHHS. The formal letter listed the

purpose of the study and the data I needed to collect from the database. Once I received permission to use the data, I requested access to the database on patient demographics, nursing healthcare strategy, readmission or not, and substance abuse or mental health diagnosis. I did not collect any identifiable information, and the data for the study were only accessible to me. I only used the data for the purpose of this study. Because I did not collect any primary data, informed consent was not necessary. I will store all the data in locked file cabinets and password-protected computer files for 3 years, after which I will destroy and permanently delete all information.

Summary

This section has presented the research design for the present study, and it has discussed procedures for data analysis and concerns relating to study validity and maintaining an ethical code of conduct. This study has a quantitative comparative design, and it examines whether there is a statistically significant difference between the 30-day readmission rates and discharge rates of hospitals that practice patient placement and postdischarge follow-up for routine medical and mental visits in California and those that do not. I gathered data from the CHHS database. To determine whether there was a difference between the dependent variables based on the independent variables, I used Mann-Whitney *U* tests. This statistical test is appropriate for this study because it can determine the differences between the two identified groups. Potential validity threats include selection bias and confounding variables. I followed all the ethical procedures the university IRB required, reassuring participants that all information would remain secure and anonymous. Section 3 presents the results.

Section 3: Presentation of the Results and Findings

Introduction

The purpose of this quantitative study was to research the association between nursing healthcare leadership strategies (patient placement, postdischarge follow-up for routine medical and mental health visits) and 30-day homeless patient readmission rates and hospital discharge rates at hospitals in California. I addressed the following research questions through the statistical analyses in this study:

RQ1: What is the difference between 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals that practice patient placement and in California hospitals that do not practice patient placement?

H_01 : There is no difference between 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals that practice patient placement and in California hospitals that do not practice patient placement.

H_a1 : There is a difference between 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals that practice patient placement and in California hospitals that do not practice patient placement.

RQ2: What is the difference between 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals that practice postdischarge follow-up for routine medical and mental health visits and in

California hospitals that do not practice postdischarge follow-up for routine medical and mental health visits?

H_02 : There is no difference between 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals that practice postdischarge follow-up for routine medical and mental health visits and in California hospitals that do not practice postdischarge follow-up for routine medical and mental health visits.

H_{a2} : There is a difference between 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals that practice postdischarge follow-up for routine medical and mental health visits and in California hospitals that do not practice postdischarge follow-up for routine medical and mental health visits.

Section 3 presents the secondary data set and the analyses I used to address these RQs. This section includes a discussion of the statistical analyses, crosstabulations, chi-square analysis, frequency distributions, counts between groups, and statistical hypotheses I used to address the proposed questions. It also presents the statistical significance of the findings to address whether I rejected or accepted the null hypotheses. In the following section I discuss the data-collection procedures for the secondary dataset.

Data Collection from Secondary Dataset

Prior to collecting data, I obtained IRB approval (approval number 04-23-21-0975855). I wanted to gather publicly available data from the CHHS to measure the

number of readmissions in California hospitals from 2013 to 2016. However, the most recent available data from CHHS were for 2015. Therefore, the analyses for this study covered 2013 to 2015. The data for the three variables included in the dataset addressed the research questions. The dependent variable was the number of readmissions while the independent variables were the use of patient placement and the use of postdischarge follow-up routines. I compared the number of readmissions for the hospitals based on whether they use patient placement and postdischarge follow-up routines. The number of readmissions is continuous in nature, while the use of patient placement and the use of postdischarge follow-up routine are binary in nature.

The data for the study came from reports of all Californian hospitals from 2013 to 2015. This dataset included the necessary variables for the study. A total of 2,586 hospital reports were included in the study. There were 848 reports in 2013, 840 reports in 2014, and 898 reports in 2015.

Data Analysis

I imported all the gathered data into SPSS v25.0 statistical software to prepare for the data analyses. I used all the available data. I coded nominal data such as the hospital placement and postdischarge follow-up variables numerically to match the requirements of the statistical tests. I presented the data using frequencies and percentages. I conducted a Kolmogorov–Smirnov test to determine whether the dependent variable of hospital readmissions was normally distributed. Based on the normal distribution test, the data for 30-day readmissions were not normally distributed. Therefore, I conducted the nonparametric counterpart of the independent samples t test called the Mann-Whitney U

test. In interpreting the results of the analysis, I compared the resulting p -values for each explanatory variable (type of nursing strategy) with the chosen significance value of .05. If the p -value was smaller than or equal to .05, then I would reject the null hypothesis, as a p -value smaller than .05 indicates that there is an association between the explanatory variable (nursing strategy) and the response variable (30-day readmission rate). I included the hospital placement, postdischarge follow-up, and 30-day readmission rates in the SPSS analyses. If the p -value was larger than .05, then I would not reject the null hypothesis because there was no evidence of an association between the variables.

Results

The focus of the analyses was to examine whether differences exist in the number of readmissions for hospitals that practice nursing leadership strategies and hospitals that do not. I measured nursing leadership strategies using binary variables for patient placement and postdischarge follow-up routine. Table 1 shows that there was a total of 1,783 hospitals (68.9%) with hospital placements, while 803 hospitals (31.1%) had no hospital placements. The hospital placement and the postdischarge follow-up variables were the independent variables of the study. There were about equal numbers of hospitals that did not practice postdischarge follow-up routines ($n = 1,296, 50.1%$) and hospitals that did ($n = 1,290, 49.9%$).

Table 1*Frequencies and Percentages of Independent Variables*

Variable	Yes/No	Frequency	Percentage
Hospital placement	Yes	1,783	68.9%
	No	803	31.1%
Postdischarge follow-up	Yes	1,290	49.9%
	No	1,296	50.1%

Prior to conducting the analyses, it was necessary to determine whether the dependent variable followed a normal distribution. The descriptive statistics of the number of readmissions are in Table 2. The minimum number of recorded readmissions was one, while the maximum was 35,459. The mean number of readmissions was 3,927.72 ($SD = 4,953.08$). I conducted a Kolmogorov–Smirnov test to determine whether the data followed a normal distribution. The result of the Kolmogorov–Smirnov determined that the number of readmissions was not normally distributed ($K-S = .214, p < .01$). Therefore, nonparametric tests were necessary to test both sets of hypotheses.

Table 2*Descriptive Statistics of Number of Readmissions in California Hospitals*

	<i>N</i>	Minimum	Maximum	Mean	SD
Readmissions	2,534	1.00	35,459.00	3,927.72	4,953.08

The first research question focused on whether there was a significant difference in the number of readmissions based on the patient placement variable. I conducted a Mann-Whitney *U* test to determine whether there was a significant difference in the

number of readmissions based on the patient placement variable. The result of the Mann-Whitney U test is in Table 3. The result showed that there was a significant difference between the mean ranks of hospitals that practiced patient placement and hospitals that did not ($Z = -7.710, p < .01$). Specifically, the mean rank was higher for hospitals with patient placements than hospitals without them. Therefore, the analysis determined that there is sufficient evidence to reject the first null hypothesis, which stated that there is no difference in 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks between California hospitals that practice patient placement and California hospitals that do not practice patient placement.

Table 3

Mann-Whitney U Test for Patient Placement

Patient placement		N	Mean rank	Sum of ranks
Readmissions	With patient placement	1,766	1,341.40	2,368,907.00
	No patient placement	768	1,097.58	842,938.00
Total		2,534		

Note. Mann-Whitney $U = 547,642.00, Z = -7.710, p < .01$.

The second research question focused on whether there was a significant difference in the number of readmissions based on the postdischarge follow-up routine variable. I also conducted a Mann-Whitney U test to determine whether there was a significant difference in the number of readmissions based on the postdischarge follow-up routine variable. The result of the Mann-Whitney U test is in Table 4. The result showed that there was a significant difference between the mean ranks of hospitals that practiced postdischarge follow-up routine and hospitals that did not ($Z = -21.617, p <$

.01), specifically, that the mean rank was higher for hospitals without postdischarge follow-up routine than for hospitals that with such a routine. Therefore, the result of the analysis determined that there was sufficient evidence to reject the second null hypothesis, which stated that there is no difference in 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals that practice postdischarge follow-up for routine medical and mental health visits and California hospitals that do not.

Table 4

Mann-Whitney U Test for Postdischarge Follow-Up Routine

Postdischarge FF		<i>N</i>	Mean rank	Sum of ranks
Readmissions	No postdischarge follow-up routine	1,274	1,579.96	2,012,864.50
	Postdischarge follow-up routine	1,260	951.57	1,198,980.50
Total		2,534		

Note. Mann-Whitney $U = 404550.50$, $Z = -21.617$, $p < .01$.

To analyze the data further, I conducted regression analysis to examine the relationship between the variables. This analysis determined whether variables of patient placement ($B = -1,356.575$, $p < .01$) and postdischarge follow-up routine ($B = -4,459.474$, $p < .01$) significantly predicted the readmission rates of participants (Table 5).

Table 5*Regression Analysis of Readmission Rates*

Model	Unstandardized coefficients		Standardized coefficients	<i>t</i>	Sig.
	<i>B</i>	Std. Error	Beta		
1 (Constant)	7,912.866	275.192		28.754	0.000
Patient placement	-1,356.575	189.280	-0.126	-7.167	0.000
Postdischarge FF	-4,459.474	173.984	-0.450	-25.631	0.000

Note. a. Dependent Variable: Readmissions; $F(2, 2533) = 354.843$, $p < .01$, R -squared = .219.

These results determined that both patient placement and postdischarge follow-up variables significantly predicted the readmission rates among participants. The negative coefficients imply that patient placement and no postdischarge follow-up routine results in higher readmission rates among participants. The predictors of patient placement and postdischarge follow-up also explain 21.9% of the observed variation in the readmission rates.

Summary

I gathered secondary data from publicly available data on the CHHS website. A total of 2,586 hospital reports were included in the analyses. The purpose of the analyses was to examine the association between nursing healthcare leadership strategies (patient placement, postdischarge follow-up for routine medical and mental health visits) and 30-day homeless patient readmission rates and hospital discharge rates at hospitals in California. I conducted a normality test to determine whether parametric testing was possible. Based on the normality test, the data for number of readmissions were not

normally distributed. Therefore, I conducted Mann-Whitney U tests to test the hypotheses for the study. For RQ1, the result showed that the mean rank was higher for hospitals with patient placements (Mean Rank = 1,341.40) than for hospitals that did not (Mean Rank = 1,097.58). Therefore, there is sufficient evidence to reject the null hypothesis, which stated that there is no difference between 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals that practice patient placement and in California hospitals that do not practice patient placement. For RQ2, the result showed that the mean rank was higher for hospitals without postdischarge follow-up routine (Mean Rank = 1,579.96) than for hospitals that practiced postdischarge follow-up routine (Mean Rank = 951.57). Thus, there is also sufficient evidence to reject the null hypothesis, which stated that there is no difference between 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals that practice postdischarge follow-up for routine medical and mental health visits and California hospitals that do not. Section 4 gives an application to professional practice and the implications for social change of the results of this study.

Section 4: Application to Professional Practice and Implications for Social Change

Introduction

In this study, I applied a quantitative approach to explore the association between the independent variables nursing healthcare leadership strategies (patient placement, postdischarge follow-up for routine medical and mental health visits) and the dependent variables 30-day homeless patient readmission rates and hospital discharge rates at hospitals in California. The target population included hospitals in California that admitted homeless patients. I used secondary data from the CHHS to gather readmission rates and discharge rates of hospitals in California. Each 30-day reoccurrence that is minimized may reduce costs, raise patient satisfaction, and educate staff, patients, and the community.

Section 4 gives a review of the results with a focus on interpretation of the findings and the limitations of the study. Next, the section includes recommendations taken from the results. Section 4 also includes a discussion of the implications of this research for professional practice and social change.

Interpretation of the Findings

Data for this study came from hospital reports from 2013 to 2015. The final data set included 2,586 hospital reports. During 2013, there were a total of 848 reports, 840 reports in 2014, and in 2015, there were 898 reports. My aim for the study was to examine whether differences existed between the number of readmissions for hospitals that practice nursing leadership strategies and hospitals that do not. I analyzed the measurements for nursing leadership strategies using binary variables for patient

placement and postdischarge follow-up routines. The findings indicated that a total of 1,783 hospitals (68.9%) have hospital placements, while 803 hospitals (31.1%) have no hospital placements. There were about equal numbers of hospitals that did not practice postdischarge follow-up routines ($n = 1,296$, 50.1%) and hospitals that did ($n = 1,290$, 49.9%).

The aim of the first research question was to examine the difference between 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals that practice patient placement and in California hospitals that do not. The analysis determined that there is sufficient evidence to reject the first null hypothesis, which stated that there is no difference between 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals that practice patient placement and in California hospitals that do not. Tables 4 and 5, which detailed the postdischarge follow-up routine and a regression analysis of readmission rates, display these findings.

The findings regarding the first research question indicated that homeless patients are more likely to be readmitted within 30 days to hospitals that do not practice patient placement. Table 1 and Table 2 show readmission rates, patient placement, and readmittance likelihood. Table 3 gives the results of the Mann-Whitney U Test examining readmission rates for patient placement in comparison to hospitals without patient placement. These findings are significant, as previous research demonstrated that patient placement programs, such as triage and postdischarge follow-up, may reduce the overuse of the ER, which is a significant issue among homeless populations (FitzGerald

et al., 2010; Raita et al., 2019; Siekman & Hilger, 2018). The data from the first research question illustrates that there is a continued need among nursing healthcare leaders to home in on issues such as triage and postdischarge follow-up as a means of reducing 30-day readmission rates and overuse of the ER by homeless patients (Green, 2018; Lam et al., 2016; Laliberté et al., 2019). These findings further demonstrate that there is a need to focus critical attention on the use of patient placement programs as a means of addressing the overburdening that is occurring in ERs across the United States. Previous data confirmed that homeless populations are most likely to use the ER as a primary form of medical care. However, if hospitals fail to provide patient placement programs, as indicated by this data, then readmission rates and overuse of the ER are likely to continue.

The aim of the second research question was to examine the difference between 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals that practice postdischarge follow-up for routine medical and mental health visits and in California hospitals that do not. The results showed that there is sufficient evidence to reject the second null hypothesis, which stated that there is no difference between 30-day readmissions of homeless patients who suffered from substance abuse and mental health setbacks in California hospitals that practice postdischarge follow-up for routine medical and mental health visits and in California hospitals that do not.

The findings regarding the second research question demonstrated that homeless patients who suffer from substance abuse and mental health setbacks in California

hospitals are more likely to be readmitted in 30 days in hospitals that do not practice postdischarge follow-up for routine medical and mental health visits. Tables 3, 4, and 5 display relevant data regarding readmission rate differences of homeless patients for California hospitals that practice postdischarge follow-up and those that do not. These findings are significant, as they further demonstrate that follow-up care and postdischarge practices may be central to prevention of overuse of ER by homeless patients (FitzGerald et al., 2010; Raita et al., 2019; Siekman & Hilger, 2018). However, hospitals that are failing to utilize these programs may ultimately contribute to an increased reliance on ERs as well as 30-day readmissions among homeless populations. These findings also positively corroborate the work of Lam et al. (2016), who indicated that homeless patients who suffer from mental health and substance abuse setbacks are more likely to use ERs as a primary form of medical services and care. However, if hospitals do not engage with follow-up care and postdischarge practices, then the overuse of ERs as primary care facilities by homeless populations is likely to continue.

The data in this study confirmed that the lack of follow-up care and postdischarge practices contribute to 30-day readmission rates among homeless populations with mental health and substance abuse setbacks. This indicates that there is a continued need to ensure that nursing healthcare leaders address the betterment of discharge planning options and follow-up care as a means of addressing the increased 30-day readmission rates among homeless populations (Green, 2018; Lam et al., 2016; Laliberté et al., 2019). These findings are also important as the reduction of 30-day readmission rates is central

to the aim of healthcare leaders to reduce costs, increase patient satisfaction, and better meet the needs of the growing homeless population in the United States (CHHS, 2018).

Regression analysis for RQ2 identified that both patient placement and postdischarge follow-up variables significantly predict the readmission rates among participants. The negative coefficients imply that patient placement and no postdischarge follow-up routine result in higher readmission rates among participants. The predictors also explain 21.9% of the variance in the readmission rates. The findings of the regression analysis were important for this study, as well as making a positive contribution to the medical literature. First, the increase in readmission rates is a costly issue for healthcare organizations across the United States. As the homeless population rises in California, these issues are likely to rise as well. These findings demonstrate that to address rising readmission rates, costs, and the overuse of the ER, it is important to address the variables of patient placement and no postdischarge follow-up routine among homeless populations as identified in this study.

The findings regarding both patient placement and postdischarge follow-up variables fall in line with the guiding theoretical framework regarding the importance of preventative health measures to address homeless populations (Gonzalo, 2019). In this setting, the preventative care of patient placement and postdischarge follow-up routines can be crucial to reducing overuse of the ER and readmission rates through better patient care and follow-up. These findings also have important implications for nursing leaders. Nursing leaders can identify these key variables (patient placement, postdischarge follow-up for routine medical and mental health visits) and address them as means of

prevention of rising 30-day readmission rates. Further, the improved treatment of patients through these practices may lower morbidity and mortality rates, as well as increasing patient satisfaction (Lam et al., 2016; Siekman & Hilger, 2018).

Limitations of the Study

The first limitation of this study was the focus on data from 2013 to 2015, which was necessary as it was the most recently available data. Furthermore, the findings of this study cannot establish causal relationships between the identified variables. Thus, the findings do not demonstrate whether healthcare strategies can cause reductions in ER use and 30-day readmission rates. However, the findings may be useful to inspire social change and future research that will benefit healthcare leaders and intervention strategies.

Recommendations

The following are the guiding recommendations for practice and research regarding the findings of this study:

- Nursing leaders should actively practice patient placement to reduce 30-day readmission rates in homeless patients who suffer from substance abuse and mental health setbacks. They should implement patient placement as a standard of care to address the overuse of the ER as well as the 30-day readmission rates of homeless populations in California hospitals.
- Nursing leaders should actively practice and implement postdischarge follow-up for routine medical and mental health visits for homeless patients who suffer from substance abuse and mental health setbacks. They should implement these practices as a standard of care to address the overuse of the

ER as well as the 30-day readmission rates of homeless populations in California hospitals.

- Interventions should address the lack of patient placement and postdischarge follow-up amongst hospitals with high readmission rates. The use of these interventions may provide relief for overburdened ERs, as well as reducing costs and increasing patient satisfaction.
- Further research should examine the relationship between 30-day readmission rates among homeless populations of differing backgrounds (e.g., veteran status, gender, and age) as means of social change and further extending the understanding of how best to target interventions for these vulnerable populations across the United States.

Implications for Professional Practice and Social Change

The findings of this study contribute positively towards academic research through addressing the recommendations of Saab et al. (2016) regarding the need to examine readmission rates among homeless patients who suffer from substance abuse and mental health illnesses. The findings of this study positively contribute data regarding homeless patient 30-day readmission, which continues to rise and is a concern for nursing healthcare leaders, who still have problems in providing effective strategies for revisit reduction in various acute care settings across the United States (Boonyaratanakornkt et al., 2017; LaWall et al., 2019, Roncarati et al., 2018). This is an important issue to address due to the growth of homeless populations in Los Angeles, California (Los Angeles Homeless Services Authority, 2019).

The implications for professional practice focus on the alternatives to reducing 30-day readmission rates based upon the evidence in this study. First, it is recommended that nursing leaders and hospitals in California implement and practice patient placement as a standard of care to reduce the 30-day readmission rates among homeless populations. Second, nursing leaders should also implement and practice postdischarge follow-up for routine medical and mental health visits among homeless populations. These recommendations, in line with the evidence of this study, imply that the professional practice can be improved through ensuring that these standards of care are available to homeless populations. The improvement of these standards of care may reduce the burden upon ER staff and nursing leaders and improve the treatment of homeless populations. These implications for professional practices also offer an opportunity for extended research. The extended research may include exploring best practices in terms of patient placement and follow-up discharge across differing homeless populations. Ideally, these key findings will extend the understanding of how nursing leaders can meet the needs of homeless populations while also addressing rising 30-day readmission rates.

In terms of contributing to positive social change, the findings indicate a positive relationship between 30-day readmission rates and lacking patient placement and postdischarge follow-up programs in hospitals in California. This relationship may be useful to develop interventions to address the rising issue of hospital readmission rates among homeless populations in California. These findings may also be useful to grow research outside the California setting and to examine best practices regarding lacking patient placement and postdischarge follow-up programs to reduce 30-day readmission

rates. The reduction of 30-day readmission rates and overuse of the ER are important not only for the reduction of cost and staff burdens in healthcare field, but also for patients. Patients who are less likely to return for hospitalization after 30 days, receive follow-up care, or meet with primary doctors after their exit from the ER are more likely to experience better outcomes in mental and physical health care (Green, 2018; Lam et al., 2016; Laliberté et al., 2019). The improvement of mental and physical health for homeless populations is critical to their personal recovery as well as the possibility of finding housing and career opportunities (Green, 2018; Lam et al., 2016; Laliberté et al., 2019).

Conclusion

The aim of this quantitative study was to explore the association between the independent variables of nursing healthcare leadership strategies (patient placement, postdischarge follow-up for routine medical and mental health visits) and the dependent variable of 30-day homeless patient readmission rates and hospital discharge rates at hospitals in California. This section has reviewed the limitations, recommendations, and implications for professional practice and social change. For the first research question, the findings indicated that homeless patients are more likely to be readmitted within 30 days in hospitals that do not practice patient placement programs.

The findings of the second research question revealed that homeless patients who suffer from substance abuse and mental health setbacks in California hospitals are more likely to be readmitted in 30 days in hospitals that do not practice postdischarge follow-up for routine medical and mental health visits. Regarding these findings, it was

recommended that nursing healthcare leaders closely implement both patient placement and follow-up discharge procedures for medical and mental health visits. The findings of this study may help to encourage these practices to reduce 30-day readmission rates and improve the medical care of homeless populations throughout California hospitals. Furthermore, the findings of this study may contribute to other hospitals globally that may benefit from leadership strategies that improve medical care for the homeless and reduce 30-day readmission rates.

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