

SOCIAL WORK INTERVENTIONS AND EMERGENCY ROOM UTILIZATION

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ABSTRACT

Emergency Room (ER) resources are a valuable commodity that are often misused as a point of care into the health system. Families who have no medical home and psychosocial needs frequent the ER on a regular basis to access care and necessary resources. Primary care and psychosocial ER utilization is costly and inefficient. Reducing avoidable visits is an important health system goal that must be balanced with the desire to deliver quality care to every family in a fiscally responsible manner that promotes long term health and wellness. In pediatrics, the first step will be to better understand the frequent user population, the reasons for social worker consultations and the resultant interventions to determine through a retrospective chart review if social support provided to a patient and family during an ER visit decreased the likelihood of returning to the ER within two months. A case-control study compared patients aged 0-17 who had social work interventions with patients aged 0-17 who did not have any social work intervention. Psychosocial variables and barriers to health outcomes will be identified and correlated with ER utilization. These efforts will lay the groundwork for the future development of emergency room predictability and preemptive strategies to mitigate misutilization.

Keywords: Emergency Room, Misutilization, Social Work, Interventions, Pediatric

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CHAPTER ONE: INTRODUCTION

Overview

Emergency Room (ER) bedside and hospital resources are a valuable commodity which incurs significant charges for the insured and the uninsured as well as for the United States health care system overall. The Center for Disease Control (2022) reports approximately 130 million ED visits each year in the United States; 35 million of these are injury related visits and another 18 million resulted in a hospital admission. These 52 million patients had significant illness or injuries and sought appropriate care through the emergency room. However, this still leaves 77 million emergency room visits unaccounted for.

Pediatric visits account for 30 million of these 130 yearly visits. According to the CDC, 96.7% of these pediatric visits did not require further hospitalization, 23% of these visits could be treated at home, 24% could be treated in a primary care setting, 2% were related to mental health needs and could be assessed in a mental health facility and 7% were emergent but could have been preventable. This means only about 44% of pediatric emergency room visits were warranted; over half of the total emergency room patients presented to the ER for non-emergent needs.

Background

The Emergency Medical Treatment and Active Labor Act mandates the provision of care to all patients (Tsai, 2018). The ER, however, has long been a source of medical care for emergent and nonemergent illnesses. It is often the first point of care for many patients into the health system. This holds true especially for individuals who not only lack reliable access to primary and preventable care but for those with socioeconomic stressors (Ovalle et al., 2021). Individuals and families who are complex medically and psychosocially, may frequent the ER on

a regular basis to assist in obtaining the care and resources they need. This group accounts for up to 28% of all ER visits (Grover et al., 2018).

There is no standardized definition for the population of “frequent presenters”, “frequent flyers” and “high users” with varied articles defining these individuals from three to 10 visits a year with “ultra” frequent users making more than 20 visits (Bertenshaw et al., 2021; Grover et al., 2018; Korczak, 2019). Although these frequent flyers are a heterogenous group usually they are individuals from a lower socioeconomic background with chronic illnesses and mental health or psychosocial issues (Korczak, 2019). While the rationale for frequent visits may be quite complex, it represents a failure of our healthcare system to meet the social and medical needs of our society.

Misutilization occurs when patients seek care in the ER for minor health issues that could better be addressed at home, in a primary care setting, or in an urgent care center. While timely access to emergency healthcare is a critical part of the healthcare system, many healthcare institutions have found emergency room misutilization to be a significant issue (Supat et al., 2019). ER misuse is often a multi-factorial problem. Yarmohammadian et al., (2017) says emergency room use is a growing trend related to rising health insurance costs, lack of access to preventative care, gaps in insurance coverage, and lack of education around alternative healthcare options. Supat et al., (2019) describes the emergency room as the hotel lobby for entrance into the hospital system. Early intervention, primary care and specialty care lead to less ER misuse and better health outcomes

Primary care and psychosocial ER utilization is costly and inefficient (Tsai, 2018). When patients use the ER for non-emergent needs that could be treated outside of the ER, it results in higher costs for the hospital. A study done in 2020 by Bai & Zare (2020) found that 34.3% of a

hospitals operating costs came from the emergency room. This 47% included facilities, maintenance and utilities. This did not include any diagnostic tests, resources given or employee or administrative expenses. Efforts to reduce unnecessary ER utilization can help to mitigate some of the costs for healthcare institutions daily functioning.

Furthermore, ER utilization is ineffective when used outside of its intended purpose. The ER should be used for critical and acute emergencies. The ER cannot be effective if resources and care coordination are used inappropriately. Emergency room misutilization jeopardizes the well-being of patients with true emergencies, disrupts healthcare efficiency, detracts from preventative care and leads to lower quality of care, all while increasing provider burnout (Balk et al., 2022). Reducing avoidable visits is an important health system goal to promote lifelong health outcomes.

It is imperative to understand the “why” and “how” a pediatric ER is being overutilized. Presently it is needed to be able to understand the social and cultural context of the issue. At some point it can be used best to preemptively screen. It can also be used to identify usage patterns. As a social worker in pediatrics, one can understand the social determinants of health and the imposed inequality of a diverse population, that may influence health care choices now and historically.

Problem Statement

Frequent ER usage has been evaluated in hospitals whose care is primarily directed to adults. There is a paucity of research in pediatric ER usage whose population is unique. The socioeconomic factors and medical needs of children are hypothesized to be quite different from adults. Children with complex and chronic medical conditions represent less than 10% of the population covered by Medicaid, though they account for 40% of spending, according to the

Children's Hospital Association (CHA) (Williams et al., 2021). Medically complex children require the multispecialty services that are solely offered at a pediatric institution for treatment and continued care both acute and chronic needs. This population may or may not differ from children who are seen in the ER who are not medically complex.

A study by Byhoff (2019) evaluated patient perspectives on the acceptability of multi-domain social risk screening in healthcare settings. Four of the settings were in the ER and included both adults and pediatric caregivers. A questionnaire, offered electronically or in-person, was followed by a 1:1 recorded semi-structured interview for those who agreed to further participation. Sixteen percent of responses noted 3-5 social unmet risks. Only 7% responded that the screening was somewhat or very inappropriate while 80%, reportedly found the healthcare environment to be a safe place for discussions to occur about social risks and lifestyle needs. Participant consensus demonstrated a recognized association between social risks and health and that limitations exist as to what the healthcare sector can do to address the risks and unmet needs.

Social workers can intervene in the emergency room by doing a risk and needs assessment in real time. There are a few evidence based assessments that can be utilized to identify the reason for the ER visit that can reveal challenges to healthcare. The Global Appraisal Individual Needs-Short Screener (GAIN-SS) targets four main areas; mental distress, behavior needs, substance use and threat of violence. GAIN-SS is a self-report screening tool used by staff to quickly assess need and begin to understand presenting problems (Khanano et al., 2021). The Health-Related Social Needs Screening Tool (HRSN) focuses on housing instability, food insecurity, transportation concerns, utility needs and interpersonal safety. The HRSN is an easy tool used by social workers as part of their workflow to measure need, assess healthcare cost concerns and address healthy outcomes (Ruiz Escobar et al., 2021). Another evidence-based

assessment often used by social workers is the SWAAT or Social Work Admission Assessment Tool. Like similar assessments, this tool focuses on mental health status, living conditions, social services involvement, need for additional services, and discharge assistance (Boutin-Foster et al., 2005). Providing assessment and crisis intervention services can help to address non-medical needs promptly so patients will avoid misutilization of the emergency room in the future.

May (2018) did an objective study to explore the parental decision making behind seeking care in either a primary care office or an ER based on the level of need. What was found was centered around low and inadequate health literacy. Low health literacy has not been tackled by physicians but has been correlated with increased ER use as well as several other negative implications for overall child health and wellbeing (Morison, 2019). Low health literacy can reflect an inability to discern urgent from nonurgent needs and without proper care coordination with a social worker, patients will continue to be misdirected.

Purpose Statement

Social workers in a health care institution focus on promoting physical health as well as emotional, psychological and mental health. The National Association of Social Workers (NASW) states healthcare social workers should strive to utilize their clinical skills to avoid unnecessary harm, coordinate community resources, avoid unnecessary subsequent hospitalizations and implement safety plans (Gehlert & Browne, 2019). The purpose of this study is to determine if social work support provided to a patient and family during an emergency room visit decreases the likelihood of that patient returning to the ER within two months.

Addressing psychosocial needs in the emergency room helps to prevent unnecessary visits. Qualified medical social workers can provide services and support to patients and families while physicians and providers are free to focus on the medical needs (Flowers & Shade, 2019). The results of this study will provide a basis to better understand the ER frequent user population. This study will help to deliver reasons for referral so that in the future, interventions may proactively be implemented to reduce avoidable visits while still supporting our communities' children to the best of a healthcare institutions ability.

Social work intervention in a pediatric institution is critical. Care coordination in the emergency room depends on the presence and availability of a social worker to address social determinates of health, discuss need, provide resources referrals and help triage with assessments (Tom et al., 2023). An emergency room social worker provides a clearer understanding of patient needs and contributes to more comprehensive, efficient and effective care for patients in the midst of a crisis. Social workers can play a significant role in an emergency room by providing education and awareness.

Tom et al., (2023) says embedding social work in the emergency room allows for patient advocacy, successful transition, and safety planning while other medical providers can focus on the primary medical complaints and prioritize medical emergencies. In pediatric hospitals for children aged 0-17, social workers can provide interventions to decrease emergency room utilization by providing patients with more appropriate healthcare alternatives and educating them on when to seek care from a primary care physician, when to pursue an urgent care center, and when to utilize the emergency room.

Significance of Study

A descriptive study by Selby et al., (2018) analyzed 3 years of ER social workers referrals in a network of 4 acute care hospitals. In total 8% (46,970/572,804) of all ER patients within the study time period required a social work consult. Twenty-eight percent were less than 30 years of age with a mean age of 23.7; this was the youngest age bracket included in the description. The top three referral reasons were addiction to drugs, 24.1%, financial concerns 20.5% and homelessness, 15.4%. An assumption is that the referral reasons in pediatrics would be quite different if the age bracket in Selby's et al., (2018) study had been populated differently. Selby (2018) also identified the highest number of social work referrals occurred between 1000 and 1600. If peak hours were to be identified at a healthcare institution, planning of resources and ED social work staffing may help mitigate the burden of overcrowding and more efficiently implement appropriate support services to reduce the number of return visits.

Grover et al., (2018) identified that case management interventions implemented in ER frequent users, reduced the number of visits by 49%, the amount of time the ER per visit and the accumulated financial cost utilization by 41% (5.8 million dollars). Data included demographics, reason for referral, number of referrals per patient, presence of complex medical and psychosocial issues, secure housing and type of insurance which would also be collected in this study for comparison of pediatric to adult populations and the identification of potential predictive variables that may promote ER utilization reduction strategies. This information will allow a healthcare institution to highlight their strengths and identify any weaknesses that exist in the current support system overall and specifically target vulnerable and disadvantaged patients.

Research studies around the impact of social work interventions in the emergency room are important for the expansion of social work integration into the emergency room care delivery model. My study will focus on the influence of social workers to ultimately help healthcare providers, health entities and policy makers understand and make informed decisions about optimizing the delivery of care in an emergency room setting. The scope of practice for a social worker has previously been restricted to providing services to the poor, learning about social injustices, school integration, and family composition. However, social worker roles have expanded to macro level healthcare, prevention, promoting healthy outcomes, research, and advocacy (Conroy et al., 2021). My study calls for further exploration of risk factors, utilization patterns, variables that can predict unnecessary emergency room visits and the embedded beliefs about health and emergency room utilization. My study will focus on how social workers can provide support and comprehensive care to patients to decrease utilization by focusing on biopsychosocial health instead of focusing exclusively on medical need.

Research Questions

The purpose of this study is to explore the value of social work intervention in an emergency room. The following research questions are used to gain further knowledge and information on a medical social worker's impact in an emergency room in a pediatric institution.

RQ1: Do social work interventions in the emergency room cause a decrease in frequency of emergency room utilization in children ages 0-17?

RQ2: Are there variables identified in children aged 0-17 that influence emergency room misutilization?

RQ3: Are patients aged 0-17 who receive social work interventions in the emergency room less likely to utilize the emergency room for similar needs than patients aged 0-17 who did not receive social work interventions?

Definition of Terms

Social Worker: A specialist that provides intervention and support designed to promote health, proactively prevent illness, diagnose, and treat psychosocial concerns and address barriers to access (VonHoltz et al., 2023).

Pediatric Institution: A facility that is designed and equipped to offer exclusive services and interventions to children from birth to age 18 (Casimir, 2019).

Emergency Room: A hospital facility equipped to provide an instantaneous medical service response to critically emergent patients and families for the treatment of onset illness and acute trauma (Wu et al., 2022).

Emergency Room Misutilization: A patient who goes to a facility that provides 24/7/365 treatment to alleviate symptoms or needs that are not life-threatening but rather due to the convenience of care (Fertel et al., 2019).

Assumptions

It's important to acknowledge assumptions when conducting research. This study will make claims about the impact of social workers. Social worker intervention in the emergency room can reduce misutilization when there is consistency in the range of interventions and interactions.

Assumption 1: We can assume everyone accesses healthcare when they consider it necessary.

Assumption 2: We can assume what one person deems as an emergency is not perceived as an emergency to everyone.

Assumption 3: We can assume there is a consistency in definitions. A consistency of definitions in research ensures the most reliable and valid research analysis (Held et al., 2019).

Criteria used to classify what constitutes as misutilization is consistent for all patients.

Assumption 4: We can assume that the documentation tool social workers use in the emergency room is valid, detailed and unbiased.

Assumption 5: We can assume that the documented purpose for a patient utilizing the emergency room for care parallels with the actual motivations of what the patient stated upon arrival.

Assumption 6: We can assume causality. Causality in research inspects the relationship between two variables to examine the cause and effect (Creswell & Poth, 2018). We can assume that any decrease in emergency room misutilization is the cause of social work intervention.

Assumption 7: We can assume other hospital providers and personal accept and respect a social workers ability and will therefore provide appropriate consults for social work intervention.

Research Organization Site

I will be doing my research at local children's hospital, a community based pediatric institution located in the heart of Kansas City, Missouri. This hospital is an independent nonprofit hospital focused on holistic care, translational research, innovation and education for staff, patients and families. This hospital has been around for over 125 years and serves half a million children each year. It is a level one trauma center providing a high level of complex care

to children across the region. There are more than 90 pediatric emergency medicine specialists and surgeons equipped specifically to work with pediatrics. Children utilize the emergency room for acute safety and health concerns. Children go through triage and receive a medical assessment by the medical team. After initial emergent needs are met, the medical team may reach out to other allied health professionals, including social work, for further interventions, resources, and assistance.

CHAPTER TWO: LITERATURE REVIEW

Overview

The goal is to determine if social work support provided to a patient and family during an emergency room visit decreases the likelihood of that patient returning to the emergency room within the next 60 days. The interventions social workers can provide in the emergency room are numerous. Social workers can be used to provide wrap around services, address unmet needs, gather insight on social determinants of health and decrease misutilization while improving and advocating for patient outcomes. The previous literature provided information on the emergency room interventions, cost analysis and follow up support. However, it did not provide specific interventions a medical social worker can deliver, nor did it provide a direct link between intervention and misutilization.

Literature was accessed by CINHALL, MEDLINE, OVID. ProQuest, PubMed and the Cochrane library search engines. Initially I had over 10,000 articles many of which were child abuse as I included pediatrics, emergency room, healthcare, and social worker as my primary search fields. I advanced my search to include only those articles which addressed interventions to reduce emergency room visits and added research as a qualifier. I was open to articles that

both supported and refuted a social workers need in the emergency room. I also looked at a variety of different types of research: descriptive, qualitative, retrospective, case-control study, thematic analysis, cross over and systemic reviews were selected and reviewed.

I also wanted to identify any variables or questionnaires that might be used to predict ER use by children, and I found a particularly intriguing article by Ovalle et al (2021). She implemented a modified social risk screening tool that was developed through review of validated questions from four different questionnaires. She executed the questionnaire during a pediatric well child visit and the identification and number of positive screen risk factors correlated with the use of an ER visit in the subsequent 12 months. This finding was significant to me as although my study seeks to decrease the number of ER visits after a formal social work consult had been placed, ideally, I would like to intervene preventatively.

Theoretical Framework

The Social-Ecological Theory considers the complex interplay between individual, relationship, community, and societal factors. Developed by psychologist, Urie Bronfenbrenner, this model is valuable when conducting a case-control study to observe how individuals are affected by interactions and environments (Kilanowski, 2017). The use of this model for this study, will aid in the recognition of the multiple levels of influence on health behaviors so future mitigation strategies to reduce avoidable emergency room visits will be successful for the pediatric patients.

The Health Belief Model discusses how a patient's behavior is influenced by perceived severity and barriers to health (Melkamu, 2021). It encourages health behaviors through the use of resource intervention and coping. The health belief model looks at the impact of contingencies

on expected outcomes. By focusing on this model, we can emphasize how social work interventions in the emergency room can work to change health behaviors and therefore, decrease emergency room misutilization.

Luhmann's system theory tries to understand social environments and dynamics. He looks at society as different subsystems (Kislov, 2021). With social work being a subsystem of a healthcare society, we focus on the unique role of addressing unmet social needs and providing resources. Luhmann can help us understand how social workers contribute to a patient's health needs and health utilization. This conceptual framework can help establish the significance of social workers by analyzing and understanding interventions within the broader context of society

Related Literature

Predictors of Frequent Emergency Room Use

Vogel (2019) sought to understand why patients opt for an ER over a primary care visit when seeking care for illnesses. Her qualitative meta synthesis, however, was limited to adults and therefore the concerns for a child's wellbeing did not play a role in her findings. Four themes were identified, only one of which had psychosocial implications. This was how the ER is seen as having an advantage of convenience by offering walk in access 24 hours around the clock. This allowed individuals to seek care at times when they were not at work, while their children were in school, and when transportation could more easily be arranged. Vogel (2019) notes the value of her meta synthesis is that it provides "an alternative overarching perspective about the phenomenon of patients who choose to visit the ER instead of primary care" (Vogel, 2019 p.2616) as often these patients have specific, cogent reasons for its use over primary care. She

suggests restructuring the primary care model to meet patients' healthcare needs effectively.

Vogel uses a transformative framework with an epistemological assumption. The relevant gap in her study as it relates to my intended population is the exclusion of pediatrics. Her research does validate the need to understand the patient's perspective.

O'Cathain's (2019) review article explored 32 qualitative research and mixed methods studies between 1980 and 2017 to contextually identify why clinically unnecessary ER and urgent care is utilized. She developed 10 overarching theories, 4 of which had a wider context that included pediatrics, and 6 that aligned with psychosocial variables that ranged from stress and frustration to social deprivation and lack of access to general practitioners. Her implications suggested that the definition of clinically unnecessary does not hold true "once the details of each person's situation are understood" (O'Cathain et al., 2019 p.36). She does not however define clinically unnecessary which is a gap in her study. O'Cathain (2019) does suggest 6 interventions to reduce ER use that extend beyond simply addressing an individual's behavior and hence I consider her an axiological pragmatist as she attempts to find solutions to real world problems based on valued views.

Graham et al., (2019) also attempted to understand ER utilization from the patient perspective and performed a qualitative meta-synthesis of published literature between 1997 and 2018. Patients with chronic or medically complex expressed frustration when ER providers did not consider their perspective and when their emotional needs of isolation, uncertainty and loneliness were not being met. Graham et al., (2019, p. 362) concluded that the aphorism that the patients "do not care how much you know until they know how much you care" was essential to the delivery of high-quality ER care and therefore improving patient perceptions would lead to improved outcomes. The delivery of care is on the provider but the compliance with medical

recommendations is on the individual. I agree that if there are defined mutual goals then the patient is more likely to be compliant because they took an active role and participated in the goal setting. The ER, however, is not the setting to receive this type of medical care; social work and nursing maybe.

Understanding frequent users in the emergency room is critical in understanding preventative care and long-term health outcomes. Bertenshaw et al., (2021) states that frequent use of the emergency room is defined as having 4-10 emergency room visits per year. He also states that emergency room utilization is related to unmet needs. Bertenshaw et al., focused a lot on mental health needs and in his study noticed an uptick in mental health needs in the emergency room on weekend evenings between 6pm and midnight. Alcohol and drugs, isolation, homelessness, and loneliness were identified as comorbid themes identified with the mental health concerns. Bertenshaw et al., performed a case-control study to better understand socially vulnerable patients and how their social determinants of health influenced their access and use of the emergency room. This study was also completed in adult patients.

This retrospective study focused on reducing avoidable emergency room visits in adults. Tsai et al., (2018) saw that 50% of hospital admissions were sourced from emergency room visits. While healthcare institutions are mandated to provide care to anyone who walks into an emergency room, the financial burden and the lack of resources make care challenging. This study paid specific attention to the uninsured adult population. Tsai et al., (2018) data shows overcrowding in emergency rooms can impact patient outcomes, safety, timelessness, effectiveness, equity and an increase in mortality. The intervention given to these patients was focused on frequent users and their need to establish a primary care provider while also

educating on the uses of the emergency room. This study did not look specifically at interventions provided by a social worker

Are there advantages to emergency room utilization? Butun et al., (2018) wanted to explore the reasoning for children presenting to the emergency room for minor, non-emergent needs. Pulling data from 24 previous studies showed reasons for utilizing an emergency room were based on perceived urgency, getting faster service, getting better resources, difficulty in obtaining a primary care professional, lack of insurance, convenience, and easy accessibility. Understanding these uses may help alleviate the burden of frequent emergency room users and target intervention options to reduce unnecessary visits (Butun et al., 2018). This study helped to understand utilization but did not discuss any detailed intervention options.

Frequent users in the emergency room puts a burden on resources. Chan et al., (2017) aimed to study characteristics of emergency room usage to help better understand the needs and demands for patient care. He saw that 70% of emergency room visits were made by patients who used the emergency room as their first stop for medical care, rather than a traditional primary care office or even urgent care centers. 109,383 patients were identified as frequent users and were responsible for 163,190 visits. He researched elderly patients with chronic illnesses and younger patients with low acuity needs. Although Chan et al., (2017) did not specify which specialties were involved in intervention, he concluded case management and community-based healthcare education are optimal in reducing emergency room misutilization.

Explorative Variables

Scott et al., (2020) research did identify statistically significance differences in ER utilization for low acuity illnesses when her population was analyzed by demographics. Her

large, n=7036, data set encompassed a diverse geographic area of 7 states, (Florida, Kansas, New Jersey, Ohio, Oregon, Texas, and Wisconsin). Independent variables included income, health insurance, state of health/chronic disease and if the subject had a primary care provider.

Associated ER utilization covariates included age, sex, ethnicity, race education and employment status. Scott et al., (2020) found that a greater percent of the non-white, low income, public insured and without a college education population were more likely to use the ED for low acuity needs than those who were white with a higher income, college educated and privately insured. When the participants were asked why they opted to use the ED over other alternatives, 33% reported concerns of an inability to secure a timely appointment, distance issues or hours of operations.

Murray et al., (2022) sought to identify social factors in the caregiver to evaluate if such factors had any influence on ER utilization for low acuity pediatric patients. Her approach was to specifically evaluate for the presence or lack of, adverse childhood experiences (ACE) that had occurred in the caregivers as children themselves and assess for correlation. This case control study of children 1- 12years of age, enrolled 114 cases and 134 controls from a large, urban, tertiary care pediatric emergency room over a 3-year time period. The control group was defined as those children who had not visited in ER and the case group consisted of frequent users meaning those who had been in the ER ≥ 3 times in the past year for low acuity health needs. Murray et al., (2022) hypothesized that the caregivers who had high ACE would utilize the ER for their children more often for non-urgent health care needs. If this hypothesis was correct, it would offer a unique perspective of understanding what contributes to ER misutilization. If we understand it, then perhaps we can take steps to mitigate it.

Okeson, et al., (2022) sought to determine if there was a pattern between the presence of ACE and ER utilization in the children themselves. These researchers performed a cross-sectional observational study of 1000 children between the ages of 1-17 who were evaluated in 2 different large urban ERs over a 6month period. Data was collected by a 52-question survey that combined two validated surveys, the National Survey of Children's Health (NSCH) and 1998 Centers for Disease Control and Prevention and Kaiser Permanente ACE Study (Okeson, et al., 2022). The NSCH questionnaire does not assess for sexual or emotional abuse, and it is for this reason that the researchers opted to combine with the Kaiser questionnaire.

Fifty-four percent of the children in Okeson, et al., (2022) study did not have any ACEs, over 28% had only 1 ACE and nearly 18% had ≥ 2 ACEs. The likelihood of these children having a primary care practitioner or having been seen by a provider in the past year, decreased respectively by 5 and 10% with each additional ACE. Results showed that the higher the ACE, the more frequent the ER utilization with the odds increase of 18% with each additional positive ACE. Interestingly, over 90% of caregivers recognized that their ACE exposed children were more likely to have long term physical, emotional and mental effects, yet only 15% of them were able to recall ever having had discussions about social risks by any provider.

Byhoff's study showed people felt comfortable answering psychosocial questions in the ED and identified that the healthcare arenas are perceived as a safe place to have these social risk type of discussions. This is a missed opportunity in a population who could greatly benefit from intervention, young children. It highlights the opportunity to not only screen in the primary care clinic as was demonstrated by Byhoff (2019) research but to also screen for ACE in the ER. This study excluded those children who were brought to the ER for medical trauma, behavioral related issues and any form of abuse so this may actually be an underrepresentation of ACE

incidence and impact. A strength of the study is that the convenience sample was obtained both day and night, weekday and weekend so overall representative in this case study approach.

Casimir (2019) studied the differences in adult versus children's hospitals. Casimir proclaims that pediatric specific hospitals provide better allied health and multidisciplinary centered care. Often retail clinics are concentrated in areas of high-income so accessibility to the target audience is less than ideal. This research included a "randomized, probability-based telephone poll" that was obtained from the "Patients' Perspectives on Health Care in the United States" survey, "conducted by the Harvard T.H. Chan School of Public Health, Robert Wood Johnson Foundation, and National Public Radio" (Casimir, 2019). Variables were self-reported and included ER and/or urgent care utilization, why the ER was selected over alternatives and the acuity at the time that prompted the individual to seek healthcare. Findings suggested that the most vulnerable and least resourced individuals relied on the ER regardless of acuity. This may represent an uneven distribution of urgent care retail clinics within the low-income communities; however, the survey has the potential for significant limitations of non-response bias.

Flowers & Shade (2019) completed a retrospective cohort study design to analyze high users in emergency room visits. The gap in literature here is that this study was done looking at adults 18 years of age and older who only had one emergency room visit within a year. This study found the positive impact coordination can have on health but did not result in a statistically significant number that showed the effect of multidisciplinary intervention in terms of frequent utilization and mismanagement of the emergency room. Further, this study concluded that external factors, such as age, sex and physical and mental health had more effects on emergency room utilization.

The study done by Markham et al., (2023) focused on pediatric patients under the age of 18 years old. Sociodemographic characteristics can influence health outcomes. Biases can contribute to differences in medical complexities, cost and length of stay. This study did focus on ethnic group and socioeconomic factors which would be identified by social workers. Much research shows disparities in pediatric health outcomes based on social environment, race, ethnicity and genetic and biological conditions and diseases. While social workers cannot necessarily change socioeconomic status, they may help provide guidance for children and staff when completing medical care plans.

Morrison et al., (2019) considered the role health literacy plays in healthcare utilization in pediatric patients. This study observed that 1 in 4 parents have low health literacy which effects the health decisions being made for their children. Morrison et al., (2019) stated healthcare providers can alleviate some effects and complications due to low health literacy but mentioned the limitations around providers being appropriately trained in how to talk about health literacy and provide interventions. This article does say health literacy contributes to inappropriate hospital utilization and highlights the need for acute and chronic care. Health literacy not only effects pediatric primary care but reflects the gaps in the health system to take responsibility for the lack of navigation and understanding.

Williams & Musumeci (2021) identified urgent food and transportation needs in 28% of emergency room patients. There was a statistically significant difference between ER and inpatient hospitalizations between those with social needs identified and those who did not. The study also performed descriptive statistics which identified that those with a social need were more likely to be black, >60%, and more likely to have public health insurance, 81%. Additionally, those with a complex chronic medical condition were also more likely to have

social needs identified (Williams & Musumeci, 2021). This work is congruent with other research findings that have identified a correlation between social risk and a higher likelihood of health care utilization and supports the need for research to further explore the social context of ER use.

Calicchio et al., (2021) aimed to identify variables causing pediatric emergency room visits. A retrospective observational study was used to evaluate emergency room encounters in a 5-year period. This study showed that 75.8% of emergency room visits within the 5-year period were inappropriate. It went on to show that most of these visits were made without the parent previously contacting a pediatric specialist in a primary care setting. A questionnaire was distributed to 64 patients in the emergency room. These questionnaires showed 51% of visits were for a fever, 20% of parents agreed there was a lack of urgency, and 49% were looking for a quick diagnoses or therapy. This study suggests a high use of inappropriate needs for children in the emergency room.

Greene et al., (2022) sought to compare social work needs and a willingness to accept services for families in a pediatric emergency room. This study linked social service needs with overall poor child health and subsequently increased patient risk factors. Negative home factors observed through Adverse Childhood Experiences (ACEs) and social determinants of health (SDoH) were linked to an increase likelihood of emergency room utilization. This study looked at abuse and neglect, substance use, mental health, domestic violence and patients with an incarcerated household member and associated these events with negative health outcomes and potential childhood trauma. This was a cross-sectional study and used a convenience sample of caregivers present with their children in emergency rooms. Greene et al., (2022) showed 73% of

patients in the emergency room had low acuity complaints and did not need emergency medical attention.

According to Koball et al., (2021), Adverse Childhood Experiences (ACEs) are related to poor health outcomes in children. This study explored pediatric patients ages 6 months to 17 years of age who had at least two health care visits. Children with documented ACEs were more likely to no-show for scheduled appointments and more likely to utilize the emergency room. Healthcare institutions see children with high ACEs have more developmental, behavioral, psychological, and physical health concerns. Without appropriate intervention, children with high ACE scores are at risk for mental health concerns, chronic medical conditions, and lifelong behavioral complications. The greater the ACEs score, the greater odds of utilizing emergency rooms due to the unmet needs of seeing a healthcare specialist (Koball et al., 2021).

There are certain family factors that contribute to repeat pediatric emergency room utilization. Leon et al., (2019) studied children aged 6-18 years old and saw mental health concerns lead to repeat emergency room visits. This study examined the contribution of family factors in predicting repeat emergency room usage. Factors associated with usage were demographics, family functioning, coping strategies, maternal depression, and family conflict. This study showed 85% of mental health visits had a patient come for a return visit within the next six months. These findings can be used to identify and mitigate inappropriate use.

Anyatonwu et al., (2022) recognized that social risk factors correlated with higher rates of health care utilization. Anyatonwu et al., (2022) left a significant gap by not developing the qualitative component of her research however her social risk screening was feasible. They did recognize that social history questions regarding mental health, food security, intimate partner violence, housing and transportation are becoming more common in the pediatric venue which

historically focused on growth and development type of questions. Mental health and safety questionnaires are a common occurrence in adult health care practices as a social health and well-being screen.

Social Work Impact

A retrospective chart review of the emergency room was completed by Grover et al., (2018). This study sought out to determine what impact case management has on frequent users in the emergency room and in inpatient settings. It focused on the length of stay, accrued costs and essential diagnostic tests. While social workers were part of this case management team, they were not the sole providers studied. Nurses, physicians, behavioral health specialists and case specific providers were also studied when assessing the impact intervention has on patients. This study pulled data from one year prior and one year after enrolling patients in the Emergency room Recurrent Visitor Program (EDRVP). Overall, the hospital decreased charges by 41% which was a reduction of \$5.8 million. This study concluded the use of a care management team did impact patients and the changes were statistically significant.

While this study did not focus specifically on emergency room interventions, Held et al., (2019) completed a study focused on the impact of social workers on an integrated health care team within a hospital. This study explored social work competencies and education and looked at a social workers ability to impact and advocate in a multidisciplinary team technique. Held et al., (2019) set out to prove social workers can help to facilitate medical and behavioral health outcomes, as well as patient satisfaction. A social workers role in assessing patient needs should be incorporated into the integrated healthcare models. Held et al., (2019) recognized the medical model of diagnosing and treating medical conditions and saw how limiting this was for social worker interventions with patients.

Akiva et al., (2021) did a study to focus on the alignment between social services and health services. Although Akiva et al., focused on older adults, she did infer that connecting patients to social services during hospitalization may reduce the need for health care services in the future. She examined patients who had social service referrals and followed them for 90 days and found that during the first 90 days of enrollment in a social service support system, patients were less likely to need rehospitalization. She also found that outside of the 90 days the same patients had higher emergency room visits than the patients who were never enrolled in any social service support system. We can only infer why this might be. One theory could be that these patients heavily relied on this support system and once the initial 90 day period had past, they lost this backing and found themselves now without the care and support they needed to continue on their health journey.

Exploring social workers intervention in a hospital care setting can help us understand their significance. Edmonds et al., (2021) looked retrospectively at social work in an inpatient setting. This study was done specifically with palliative care patients. They assessed the role of social workers and determined they were to help with family dynamics, support, therapeutic coping methods, resource reporting and help with access barriers. It was argued that social work is a growing need among healthcare systems. This study concluded that the length of stay for patients in the hospital was longer for those not seen by social work. He also concluded that patients not seen by social work had more pain and complexities. This study pulled data from a four-year period and looked at nearly 5000 patients.

According to Selby et al., (2018) the emergency room has been used as a safety net exposing the weaknesses in the healthcare system and access to care. This descriptive study pulled data from the past three years by identifying at patients who had social work support in

the emergency room. This study looked at what the social work consultations were for and worked to identify any patterns. In this data collection, it was found that most patients over the age of 75 years old were referred to social work for discharge planning and legal concerns, while patients less than 30 were most often referred for homelessness, drug and alcohol use and domestic violence. Selby et al., (2018) says social work integration should be universal in emergency rooms but confirms more studies need to be done to assess patient outcomes and other hospital supports.

VonHoltz et al., (2023) looked at social needs' programs in pediatric emergency rooms. An interdisciplinary initiative enrolled families in a social worker program if they spend at least one hour in the hospital. Reasons for social work intervention included counseling, mental health needs, applications for housing and food and transportation needs. VonHoltz et al., (2023) saw a need for social assistance from social workers and nearly 40% of the 73% of patients reached did in fact end up working with a social worker. After these stats, a full-time social worker was hired to better serve families following their emergency room visit. This study showed the effectiveness in social work intervention and continues to expand the role of social workers in the medical plan.

Wu et al., (2022) focused on social work engagement as an emergency response. This study showed 65% of patients who utilize the emergency room had at least one other trip within the past year. He linked the need to use the emergency room with the prevalence of homelessness. Wu et al., (2022) looked specifically at responses from disasters and how, although social workers have long since been engaged in emergency services, their professional training has limited their capacity to step in and help vulnerable patients in times of disaster and other extreme events. Building up social workers for emergency response is challenging and has

been a slow adaptation in many curriculums and within many hospitals. This study found through disaster, specially COVID-19, social workers advocated for social and environmental justice for patients which calls for social workers to be present for their expertise in rapid and resource heavy situations.

An analysis of social work support in a pediatric emergency room was conducted by Bardak et al., (2021) and focused on demographics, epidemiology and clinical characteristics aimed at describing the patient profile to identify needed social work support. This study pulled data from the previous 8 years and looked at consultation reasons and interventions from social work. Suspected abuse or neglect, trauma, suicide, behavioral problems and substance use were among the top reasons patients saw a social worker. Bardak et al., (2021) describes social workers as the only specialist who is able to provide these types of interventions needed. This study concluded that including social workers in emergency room care for pediatric patients is imperative for protecting a child's health.

Social workers help to improve patient outcomes. Petruzzi et al., (2022) explored the impact of social work in a healthcare setting. Social work consults were focused on transitional care, care coordination, behavioral concerns and care management in the emergency room. Medical social workers helped to promote appropriate utilization and educate patients on accessing care that would reduce their risk of readmission. In over 80% of studies, biopsychosocial assessments and care plans were used as intervention tools. Social work intervention helped to reduce readmissions for high-risk patients. Petruzzi et al., (2022) said by using their (social workers) skill set to improve patient outcomes, we can reduce unnecessary and costly healthcare utilization.

Emergency Room Screening

Ovalle's (2021, p.609) mixed methods cohort study of 26,509 children, was aimed to "assess whether responses to a standardized social risk screen administered during pediatric well-child visit were associated with emergency room (ER) or urgent care utilization." The questionnaire was a compilation of two validated tools with a write-in field which regrettably was not expanded upon in the article as this would have been a valued addition to her research. A literature search was repeated to identify if this portion of her research had been published elsewhere but it was not found. In Ovalle et al., (2021) findings, twenty percent of respondents responded positively to at least one of the social risk screening questions. Of those who had one positive risk identified, almost 47% of them had one or more ER visits within the subsequent 12months. Each additional risk factor that was reported, correlated with an increased rate of ER utilization by 4% and a hospitalization increase by 16%.

Hardy et al., (2021) also identified a social component to ER use. Her work included children from birth to 21 years of age whose primary care was provided in 11 different centers but who all utilized the same large pediatric hospital in the region which may have influenced the results secondary to a population bias simply by demographic location. A standardized screening tool for four social needs, stability of housing, security of food, access to transportation and the ability to pay for utilities, was implemented at each site. The outcomes were measured by the number of ER visits, hospital admissions, primary care well child visits and social work consultations that occurred either 6 months prior or 6 months after the needs screening.

Characterization of social risk factors and number of hospitalizations and ER visits in children was also researched by Rigdon et al., (2022). In his retrospective cohort study of 4674

patients, he identified children with risk factors were more likely to have attention deficit hyperactivity disorder, asthma, failure to thrive and were born premature. Rigdon et al., (2022) administered their screening tool in an outpatient primary care clinic and only included those children who had 3 or more visits between January 2017 and June 2021 which he used as a marker for the identification of a medical home. Although other studies have administered screening tools in an outpatient setting his is the first one to define a medical home which is critical when evaluating health care access. Just like food deserts there can be areas of health care deserts which subsequently leave urban, inner-city hospitals as the sole at venue for health care access.

May (2018) used the “Newest Vital Sign” (NVS) which is a widely used, reliable and valid instrument health literacy screening tool that only takes a few minutes to implement. After the NVS, parents of children ≤ 8 years of age underwent a semi-structured interview to understand why they sought care and why at the chosen location. Some themes, timeliness and the perception of better care were found common between the groups; first time mothers and those with young infants sought ER care more frequently. Other themes in the ER reflected the literacy level, such as inability to discern urgent from nonurgent medical needs and overestimating the illness severity. Demographic differences were not significant between the two which implies that “sociodemographic factors, although important, might more specifically affect health outcomes through health literacy” (May, 2018 p.295). The gap in this study is recognizing the variables that contribute to low health literacy.

Jonker et al., (2019) completed a retrospective cross-sectional study that looked at the impact of hospitals who focus on research. The outcomes of this study showed hospitals who highlighted research efforts gave better quality information to patients while patients felt more

confident in their treatment interventions, felt they were more part of the medical decision making and overall had a better experience. The limitations of this study for social work specifically are that this study does not specify which patients were given information by which specialty. Who handed out the surveys and which professionals were part of the patient's everyday care? This study did emphasize that research is only a fraction of patient care and therefore was limited to inpatient research patients.

Liberman's et al., (2022) study suggested implementing a screening tool for pediatric patients in emergency rooms. He collected data over a 14-month period. The Community Health Advocates Team (CHAT) used follow-up phone calls to screen for social needs and provide resources and community referrals. Of the 682 families, 294 completed a follow-up call, 134 reported contacting at least one of the provided resources, 100 reported they utilized the resources and 99 of them stated they planned on continuing to use the resources. The majority of families were given resources for healthcare, housing and food. The CHAT team consisted of 'pre-health undergraduates' but did not specify what healthcare specialties were included. Due to the success of CHAT, Liberman et al., (2022) concluded emergency rooms are critical for screening social needs.

Samuels-Kalow et al., (2021) focused on emergency room screenings to identify social needs. She noted emergency rooms have relatively limited resources and without preventatively screening and addressing health needs, misutilization will continue to occur. Most current screenings focused on food insecurity, housing instability, transportation, and violence. She noted emergency room providers showed interest in screening but felt they did not have time or knowledge to do so. Social workers were in charge of responding to these screenings but only

26% of the screenings were done when a social worker was present and available to respond. Only descriptive data was presented in this study due to inconsistent screening practices.

Cost Association

Frequent emergency room users contribute to the high costs of healthcare. Fertel et al., (2019) focused on social workers creation of individualized care plans to see if creating these plans could reduce costs, reduce the length of stay when in a hospital and reduce emergency room utilization. This four-year long retrospective study included 13 emergency rooms and did include pediatric centers. This study found a correlation between lower socioeconomic status and higher healthcare costs related to emergency room visits. Reducing costs can be done by implementing multidisciplinary teams. This study found that care coordination did in fact help with reducing the length of stay and decreasing the cost of care but was unable to provide evidence on the effectiveness of reducing emergency room utilization.

The cost and cost effectiveness of interventions in the emergency room were studied by Korczak et al., (2019). This study found frequent users of the emergency room to be from lower socio-economic backgrounds who presented with mental health issues, chronic illnesses and drug and alcohol use. This study took place in Australia and found that healthcare spending had increased by 50% in the past ten years. They looked at case management interventions, social work involvement and cognitive behavioral therapy. Patients were excluded if they did not meet the requirement of frequent use, cost data or getting care outside the emergency room. Further limitations of this study were that research was completed in adult populations with patients all over the age of 18. The study concluded despite the need for these services, they have been unable to prove the effectiveness specifically related to cost.

Lin et al., (2017) set out to see how to improve care-coordination and reduce emergency room utilization and costs. A randomized trial consisting of 72 patients were used to provide intervention. A community health worker assisted patients with care and identifying social needs. After a 7-month period, hospitalizations, emergency room visits, and costs were assessed from both the control and the case group. It was found that the case group who received health worker intervention had 35% fewer emergency room visits than the control group who did not receive intervention. This shows a decrease in costs and utilization with appropriate emergency room interventions.

Summary

My study aims to focus not only on the correlation of social work intervention and future misutilization but also focus on variables that can predict and impact pediatric patient emergency room utilization. Research has sought to identify care coordination strategies and interventions to reduce the use of the ER by frequent flyers. One study by Tsai (2018) assessed the efficacy of implementing a religious missionary based free, walk-in clinic that patients could access during the work week. It is open during the daytime hours for adult non-emergent visits. This clinic decreased the number of high ER users by 11.5% which is certainly significant; however, the feasibility of developing such a clinic and with the available access times for children is poor.

Other interventions such as case management, cognitive behavioral therapy, social work involvement, diversion strategies and care plans have been systematically reviewed by both Moe et, al (2016) and Korczak et al (2019) were found to decrease ER use by frequent flyers reduce cost and improve stable housing. Both systematic reviews included only adult populations over the age of 18 however, all outcomes assessed noted the interventions that involved a case management element were effective. A retrospective chart review by Grover et

al (2018) and a qualitative study by Galarraga et al (2020) also concluded that case management intervention reduced ER frequency and avoidable hospitalizations. These findings support my research and ideally these outcome benefits will be able to be replicated in the pediatric population that I intend to research.

CHAPTER 3: METHODOLOGY

Overview

The research will be an observational study design comparing those patients who received a social work consultation at the time of a non-emergent ER visit to those who did not and the frequency of repeated ER misutilization in the next 60 days. These two groups will be compared to determine if there is an association between social work intervention and future ER misuse. A case control study approach will be undertaken until a statistically defined number is reached. A correlational research method used to identify and measure the variables contributing to misutilization will provide a natural view of the data without influence and with limited bias. The variables will be analyzed descriptively to summarize the characteristics of the sample set and aid in the understanding of the data. Chi square testing will identify if any of the variables are associated. Chi square testing is used to determine if the data gathered was what was expected; chi square testing examines the gathered data to identify a relationship between variables (Creswell & Poth, 2018).

Study Design

A retrospective case-control study is commonly used in medical research to measure associations between exposures and outcomes. In this design, exposure will be defined as a formal social worker consultation and outcome as subsequent ER misuse. In a retrospective

study, we will look back at historical data to determine past exposure. The goal is to be able to identify any differences or similarities in exposure that may be associated with emergency room misutilization. Robert K Yin contributed to the design of case-control studies and focused on answering questions and understanding how much or how little control a researcher has on a body of people (Ridder, 2012). A case-control study allows researchers to study cases and controls in a specific and structured setting. Using a case-control study to assess the impact of social work in an emergency room can provide insights into the effectiveness and frequency of social work interventions.

A case-control descriptive research methodology will identify and measure the variables to provide a natural view of the data with limited bias. The variables will be analyzed descriptively to summarize the characteristics of the sample set and aid in the understanding of the data. Chi square testing will identify if any of the variables are associated. Identified variables could be demographic, reason for visiting the emergency room, type of intervention, primary diagnosis, time of day/day of week/time of month. This data will then be correlated with other variables to associate its impact on ER utilization via a Spearman statistical analysis. Significant relationships will be reviewed and those that are deemed potentially modifiable will be further explored. A case-control study offers more flexibility and can be conducted without disrupting systematic workflow and regular patient care.

Research Questions

The purpose of this study is to explore the value of social work intervention in an emergency room. The following research questions are used to gain further knowledge and information on a medical social worker's impact in an emergency room in a pediatric institution.

RQ1: Do social work interventions in the emergency room cause a decrease in frequency of emergency room utilization in children ages 0-17?

RQ2: Are there variables identified in children aged 0-17 that influence emergency room misutilization?

RQ3: Are patients aged 0-17 who receive social work interventions in the emergency room less likely to utilize the emergency room for similar needs than patients aged 0-17 who did not receive social work interventions?

Hypothesis

Ho1: There is no statistically significant differences in the frequency of emergency room utilization of children aged 0-17 who received social work intervention compared to children aged 0-17 who did not receive social work intervention.

Ho2: There is no statistically significant relationships or patterns identified in children aged 0-17 that influence emergency room utilization.

Ho3: There is no statistically significant difference in the likelihood of emergency room utilization for similar needs between patients aged 0-17 who received social work interventions and patients aged 0-17 who did not receive interventions

Participants and Setting

The target population are those individuals who present to the ER for non-emergent medical needs and then return in the next 60 days for non-emergent medical care. The visit may be for either the same symptom/complaint/concern or an unrelated need. Nonemergent care patients are defined as those who present to the ER with an Emergency Severity Index (ESI)

score of 4 or 5 as assigned by the triage nurse at the point of entry (Green et al., 2021). For the sake of this study, nonemergent patient care population equates to ER misutilization.

Emergency Room Misutilization is defined as a patient population who goes to a facility that provides 24/7/365 treatment to alleviate symptoms or needs that are not life-threatening but rather due to the convenience of care (Fertel et al., 2019).

The institution treats patients from birth until age 21 however those > 18 are primarily followed for their complex medical needs, chronic illnesses, or diseases such as cystic fibrosis and diabetes that extend throughout their lifespan. These population groups already have an established social worker as part of their care team. New patients who are not established by the age of 18, are limited to certain subspecialties such as oncology and will be assigned a social worker at the time of diagnosis. The ER also cares for the emergent medical needs of those already in the mental health system either inpatient, or residential services. These patients may be accompanied by their primary social worker or care provider

It is for these reasons that this study population will be defined as those patients from birth through 17 years of age without established community mental health support or an institutionally assigned social worker as part of their established care team who present to the emergency room with an ESI acuity score of 4 or 5.

This hospital is located in the heart of the city with a population of 2.2 million people. This city is ranked in the top six fastest growing cities in America (US Census Bureau, 2023). The hospital is classified as an Academic Medical Center (AMC) because not only is the care and education of patients emphasized, but also the education of healthcare providers in partnership with local medical schools. AMC's conduct academic research, medical research, and human subject research (Piper et al., 2020). This is a freestanding not-for-profit pediatric

care center, one of only 228 nationally. A freestanding pediatric hospital is categorized as a center whose sole focus is growth and development of children aged 0-17 years old (Connors et al., 2014). This is a 354-bed pediatric center, with 39 of these beds being in the emergency room. The emergency room is 100% focused on neonatal and pediatric patients. It serves the region as a level 1 trauma center and employs more than 90 pediatric medicine specialists specifically equipped to work in the emergency room.

Research will be conducted at this hospital because it is easily accessible to the community due to the fact it is in a major metropolitan city. There are 20 RideKC buses that have stops within four blocks of the hospital. The bus line is free to use. This city also has a streetcar that runs through the downtown community and is free of charge. The streetcar stops half a mile from the hospital. There are citywide rideshare options with discounts through various employers. Bike lanes and docking stations encircle the hospital. This hospital also works closely with Medicaid transportation. A study done in 2021 surveying 350 patients identified that 45.8% feel access to a healthcare facility is a major problem and 38.2% report some type of difficulty or delay in obtaining healthcare services due to the inability to get to a facility (Healthy People 2030, 2023). Knowing and understanding the location of this hospital is critical for future assessments of access to care.

Demographics play a role in understanding patient population, care planning, unmet need, and prevalence of emergency room utilization. Looking at demographics can help social workers better anticipate and provide for patient needs when challenges and barriers arise. Since this hospital is located in the heart of the city, we see a diverse population of patients. According to the US census bureau, 29.2% of the city is made up of children aged 0-17. This city has a population of 59.7 % white, 26.5% African American, 10.7% Hispanic, 2.7% Asian, and .4%

American Indian. It is estimated that 15% of this city's population lives in poverty (US Census Bureau., 2023). Within this population, other variables to consider are insurance status, zip code, race, age of patient and age of caregiver and gender.

Type of insurance, or lack thereof, plays a substantial role in emergency room utilization. Uninsured patients may delay seeking medical care until the concern becomes an emergency. On the other hand, uninsured patients may seek care first from an emergency room because, according to The Emergency Medical Treatment and Active Labor Act, patients seeking care in an emergency room must be treated despite their ability to pay for services (Lulla et al., 2022). Conversely, patients who are insured do not want costly emergency room visits and typically have more access to primary care facilities (Montalbano et al., 2016).

Locations and zip codes impact utilization. Areas with limited healthcare access, high socioeconomic challenges and high crime rates may be more likely to use the emergency room routinely. Carlson et al., (2021) discusses how socioeconomic stressors impact emergency room utilization. He focused on housing instability, food insecurity, environmental hazards, and chronic conditions as contributing factors. Difficulty getting an appointment, transportation, office hours and cost of primary care prevention are all factors that need to be addressed when looking at a connection between zip code areas and emergency room utilization.

Disparities in healthcare can often be contributed to race. Minority patients frequently have higher utilization rates due to barriers accessing timely healthcare services. Many minority groups are disproportionately affected by poverty which result in fewer regular checkups and prevention which leads to an increase in emergency room visits. Concerns about discrimination or bias can also cause minority patients to navigate the healthcare system by way of the emergency room (Carlson et al., 2021). Various factors around race can influence utilization.

Young children and young parents are more likely to be seen in an emergency room. Pediatric patients more commonly experience acute illnesses, injuries, and traumas. Young parents often seek treatment for their children in an emergency room due to lack of experience and struggles to understand and communicate medical needs. Younger parents are often less confident in handling minor health issues and may be more cautious to provide care at home. The younger the child and the younger the parent, the more likely they are to utilize the emergency room for perceived health concerns (Greene, J. C. et al., 2019).

Gender can impact emergency room utilization. A pediatric research study done by Miller-Matero et al., (2018) found gender to be a contributing factor to the use of emergency rooms. She found that male children visited the emergency room almost 50% more often than female children. Her study focused on injury patterns, stating that boys play in riskier situations which can lead to more injuries. She also focused on how males are less likely to report moderate pain which leads to more severe needs down the road. To better understand my research of emergency room utilization, we must understand frequent user demographics and variables. It is important to identify potential relationships between our patients and their medical and psychosocial needs.

Procedures

Informatics Technology (IT) can obtain analytics for any department in the institution. A readily available required form on the institutional home page will be completed once IRB approval has been obtained to obtain the necessary data. The request will be for all ER patients in the past 12 months who are <18 years of age. The ESI is imbedded in a triage note and is not a separate data point that can be pulled. ER visits can however be filtered by age which will reduce

the volume of data to be reviewed somewhat; otherwise, every ER visit will need to be manually reviewed. The ER triage note is templated and will promote rapid review for qualified.

The institutionally provided software Research Electronic Data Capture (REDCap) will be used to collect and store data. The data set will include information on the cases and the controls and a binary outcome variable “1” for ER utilization and 0 for non-utilization respectively. It is a HIPAA secure program that will be customized for this study to collect all the defined data points and variables. Once a patient is identified, the chart will be reviewed and will be entered as either a group 1 case (SW intervention) or group 2 control (no SW intervention) and the date will be noted and considered to be the baseline date of service. Both groups EMR will be reviewed for ER visits in the next 60 days or identified for prospective monitoring if the baseline is <2months from today’s date of data. The two groups, those who received social work intervention to those who did not will be compared. Those who did not receive a SW consultation and intervention will be considered the control group. The case study group will be the patient population who had a SW consultation that was documented in the emergency medical record and included reason for consult, intervention, community or institutional referrals and follow-up needs/planning.

When opening the EMR, you have to click on ‘documents’ followed by the date range to pull relevant data. In the chart each specialty (social work, triage, child life, resident etc.) have a unique document. You can click on the ‘social work’ tab and see any interaction this patient had with a social worker. This can include phone calls and emails as well as any progress notes, follow-up documentation, and face-to-face interactions and appointments. While any professional who has access to the EMR can see these notes, only the specific specialty has access to the documentation template. For this reason, any data pulled from the ‘social work’

notes tab can assure you it was an interaction documented by an actual employed licensed medical social worker.

All ER patients are assigned a standardized Emergency Severity Index (ESI) score at the time of triage and can be found in documents in the hospital's electronic medical records. The ESI is a valid and reliable tool in pediatric emergency rooms. It is a five-level emergency room triage algorithm that stratifies patients into groups based on clinical relevance of acuity and resource needs. It helps to standardize prioritizing patient who need immediate attention versus those with low acuity. The ESI was initially funded by the Agency for Healthcare Research and Quality (AHRQ) and it is now used by 94% of emergency rooms in the United States (Green et al., 2012).

The ESI score ranges from 1 to 5 with 1 being the most urgent and 5 being the least urgent. This assigned score will provide an objective value and will be explored during research. May (2017) noted in her study that one variable to ER use over primary care was the patient's inability to discern urgent from nonurgent medical needs and the frequency of overestimating the illness severity. This score will also be obtained from the hospital's medical records. This assigned score will provide a consistent and objective value for determining nonemergent misutilization. Social workers can incorporate the ESI to ensure interventions are aligned with the urgency of need and helps them provide timely and tailored interventions and support to patients.

My first step would be information gathering; focusing on the number of ER visits and the ESI number. I would then break down this information according to the day of week and the time of day/shift to determine the current ER usage and patient demand as well as the available staffing resources. To understand my population and their needs as well as the strengths and

weakness of our current ER support system, I would engage key personnel such as other social workers in the ER, physicians, and nurses to present the information I have identified and illicit input for other possible data points to ensure that I am capturing all pertinent information across staff. The study by Selby (2018) collected 3 years' worth of data however with the lowest definition of a frequent ER user being defined as 3 visits a year (Bertenshaw et al., 2021; Grover et al., 2018; Korczak, 2019), I think my retrospective review would be an adequate representation if 12 months of data was collected. My study design and data collection sheets would then be submitted to the IRB prior to the initiation of any deidentified data collection.

Data Analysis

A data clean will be completed prior to any analysis to ensure completeness and accuracy. REDCap allows data to be queried, aggregated, and exported into a statistical program such as the Statistical Package for the Social Sciences (SPSS). Descriptive analysis will be used to recognize trends and identify any relationship in the current and the historical data for both the cases and the controls. Demographic variables, social worker consultation and interventions, and the outcome of ER utilization will be analyzed. Associations between variables will be examined through bivariate chi-squared analysis. As this is primarily a descriptive study with the intent to identify if there is a relationship between social intervention and ER misutilization statistical significance is unlikely to be identified. A consultation with a statistician will assist in identifying a population number that would be necessary to power a statistically significant association.

Social work consultations often include sensitive patient information, and it is well recognized that non-emergent complaints may indeed be a symptom of some sort of trauma or abuse. While those may have a high ESI on ER triage presentation, the value would be

reassigned by the social worker or physician. Another ethical consideration is the interpretive frameworks of critical theory, critical race theory, queer theory or disabilities theories that may be identified in this data analysis, reporting and interpretation.

Data collected from the electronic medical records (an order for a social work consult is trackable) would include the age of the patient and the primary caregiver, gender of patient, race of patient, reason for a social work consultation, type of insurance (government or private), zip code of the primary residence, and the number and reasons for their ER visits over the established time point. Creswell & Poth (2018) suggested using the chi-square test. This testing would determine whether there is a significant association between variables. In the big picture if I was able to identify which variables or combination of variables were associated with increased ER use, for nonemergency care needs, then I could further research and see if these can be predictive. Ideally these results would aid in identifying an at-risk group of frequent flyers who could benefit from social work interventions to keep them out of the ER. For further research, you would be able to develop such interventions and then test those.

Summary

The emergency room will continue to be misused causing overcrowding, unnecessary expenses, and gaps in healthcare unless proven interventions can be implemented. By doing a case-control study focused on the impact of social work, we can begin to identify variables related to emergency room misutilization. Focusing on children aged 0-17 in an easily assessable pediatric center will be used as the setting to explore variables related to utilization. Noting a patients Emergency Severity Index score and assessing current support systems will help us work towards mitigating unnecessary ER visits.

CHAPTER FOUR: FINDINGS

Overview

There are increasing demands on the healthcare system to optimize healthcare, increase access and recognize resource allocation. Understanding patterns and factors that may contribute to emergency room utilization is paramount. By analyzing retrospective data and identifying patterns, we can begin to examine the tangible benefits of social work integration in emergency room settings. This research aims to investigate the data surrounding instances where emergency rooms were utilized by patients inappropriately.

Research Questions

RQ1: Do social work interventions in the emergency room cause a decrease in frequency of emergency room utilization in children ages 0-17?

RQ2: Are there variables identified in children aged 0-17 that influence emergency room misutilization?

RQ3: Are patients aged 0-17 who receive social work interventions in the emergency room less likely to utilize the emergency room for similar needs than patients aged 0-17 who did not receive social work interventions?

Null Hypothesis

Ho1: There is no statistically significant differences in the frequency of emergency room utilization of children aged 0-17 who received social work intervention compared to children aged 0-17 who did not receive social work intervention.

Ho2: There is no statistically significant relationships or patterns identified in children aged 0-17 that influence emergency room utilization.

Ho3: There is no statistically significant difference in the likelihood of emergency room utilization for similar needs between patients aged 0-17 who received social work interventions and patients aged 0-17 who did not receive interventions

Descriptive Statistics

In a retrospective study encompassing 200 patients, half received social work intervention while the other half did not. These results identify the potential efficacy of integrating social work interventions into healthcare settings. Social work has the possibility of enhancing patient outcomes and overall well-being. Understanding population statistics is crucial for various analyses, including assessing potential correlations with health conclusions, treatment choices, and other family decision-making within the context of patient care. These findings help researchers understand the population being studied thereby increasing the potential for meaningful interventions.

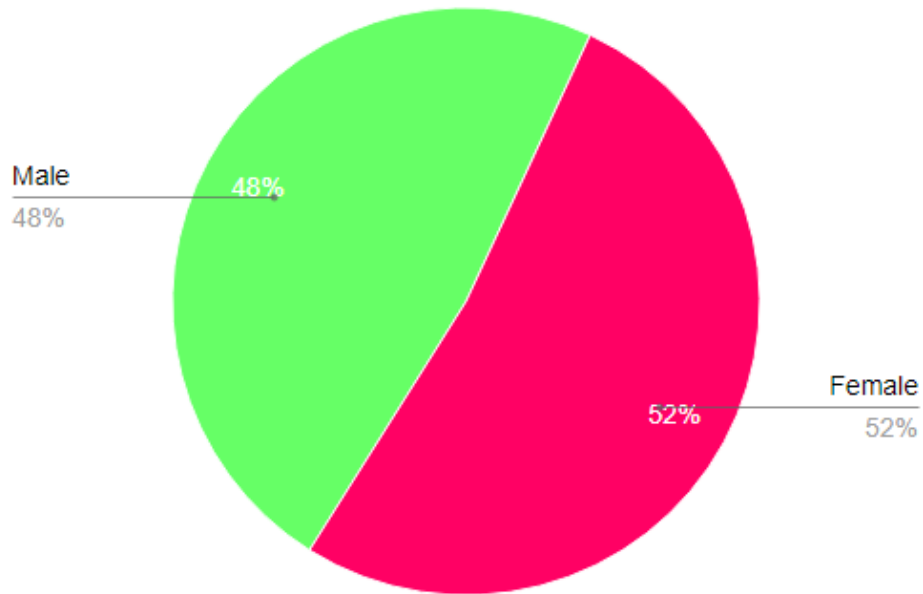
In this dataset, which comprised patient ages birth to 17years, the median age was 4 years; the lower quartile, was 1.71 years and the upper quartile was 9 years.

Variable	N	Median	Lower Quartile	Upper Quartile	Minimum	Maximum
pt_age	200	4.00	1.71	9.00	0.08	17.00
primary_caregiver_age	195	32.00	28.00	39.00	19.00	57.00

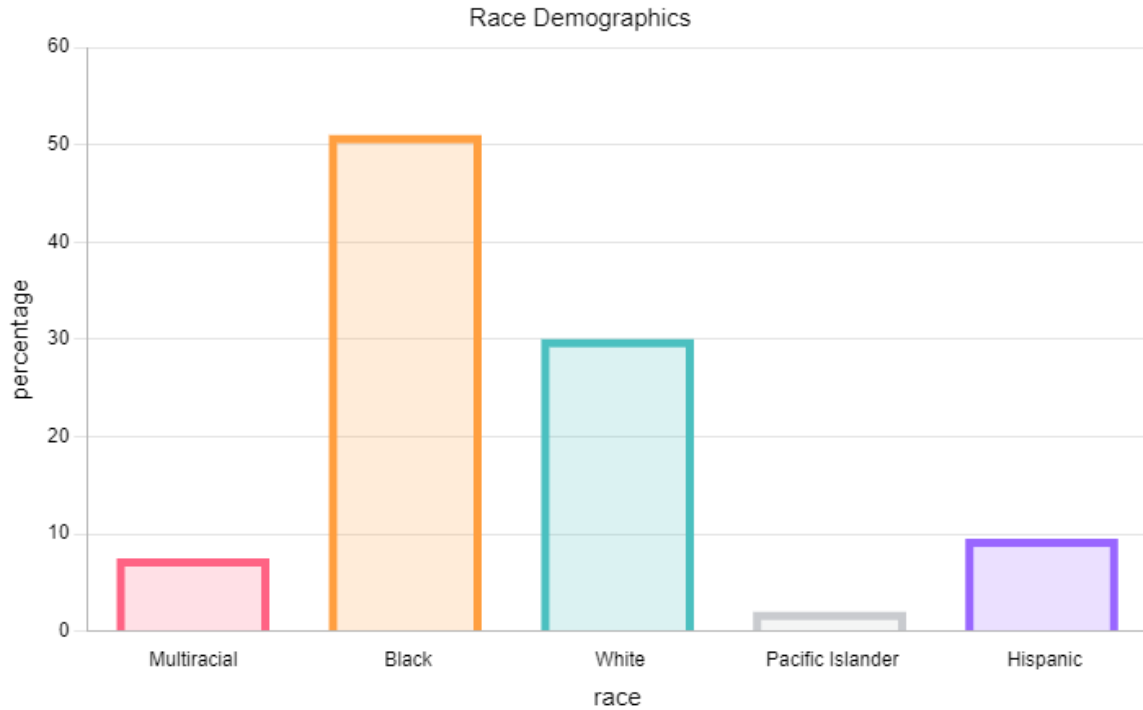
The age of the patients' parents was another consideration that may have been correlated with emergency room misutilization. In this population dataset, the median age was 32 years old. The age range within the dataset was 19 to 57 years old.

Patient gender data was collected. The below graph exhibits a relatively equivalent gender balance, with 52% being female and 48% male.

Patient Gender



Among the 200 patients studied, 15 identified as multiracial, 4 Pacific Islander, 102 are of Black heritage, 19 identified as Hispanic and 60 belong to the Caucasian demographic. Below are the percentages that make up this group.

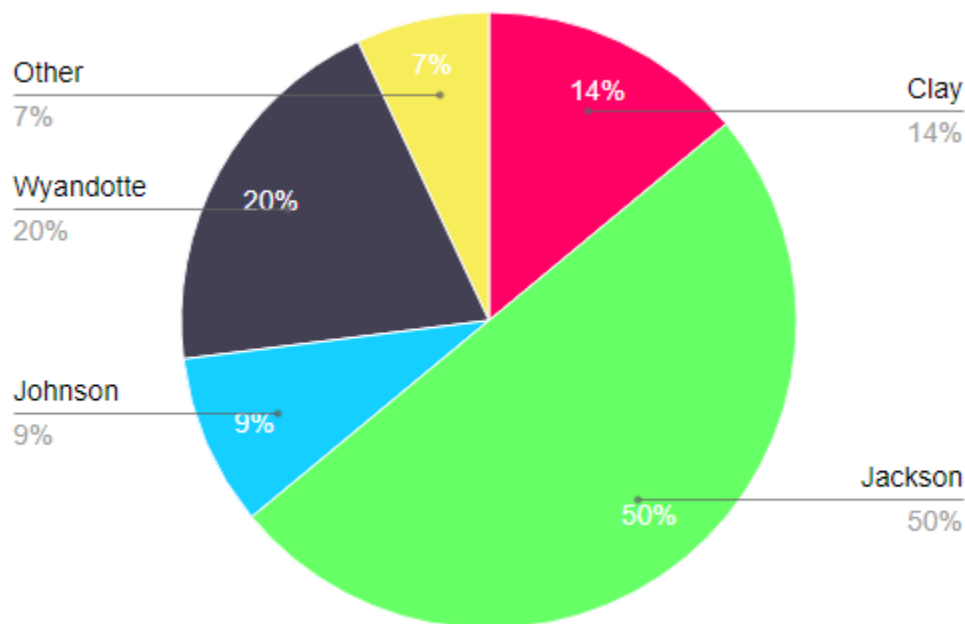


As a non-profit health care system, this hospital extends care to a spectrum of individuals, accepting various forms of payment. Whether patients are covered through Medicaid, private insurance or self-pay options, this hospital ensures accessibility of care. Of the 200 patients studied, 66% were insured through Medicaid, 28% were insured through private insurance agencies and 6% self-paid for services.

Insurance

Insurance	Frequency	Percent	Cumulative Frequency	Cumulative Percent
med	132	66.00	132	66.00
private	56	28.00	188	94.00
self	12	6.00	200	100.00

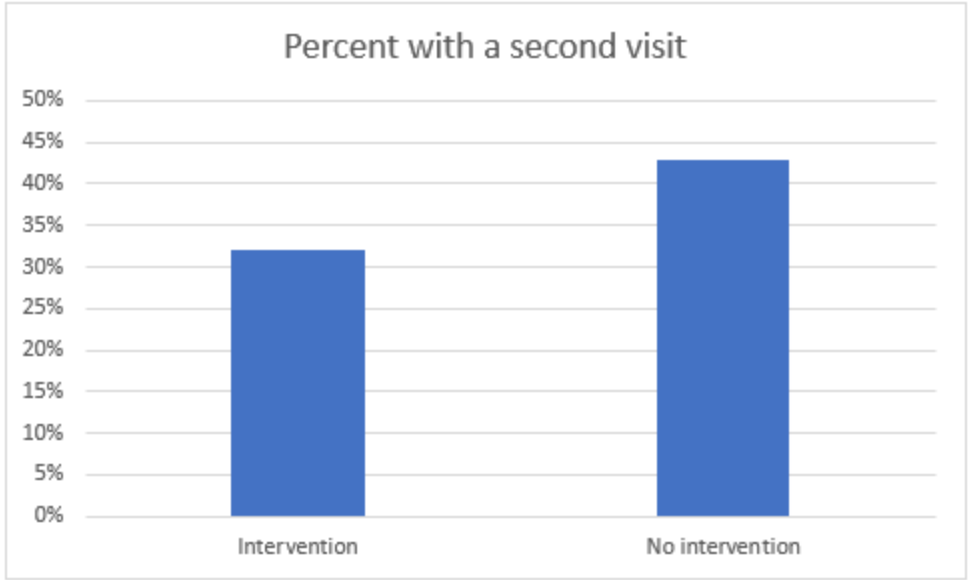
This hospital is located in downtown Kansas City which is in Jackson County. The urban location aims to provide easy access to medical treatment. Wyandotte, Clay and Johnson are surrounding counties. This is a breakdown of counties where the 200 identified patients reside.



Results

Ho1: There is no statistically significant differences in the frequency of emergency room utilization of children aged 0-17 who received social work intervention compared to children aged 0-17 who did not receive social work intervention.

I wanted to identify the relationship between having social work intervention at the first visit and the incidence of a second emergency room visit. Of the group studied, 50% had a social work intervention; of this group, 37.5% of the patients returned for a second visit within the established 60 days timepoint. I found that 43% (n=43) of those without a social work intervention had a second appointment within the 60 days.



Ho2: There is no statistically significant relationships or patterns identified in children aged 0-17 that influence emergency room utilization.

Next, I identified if there were other patterns and variables that affected whether a patient returned for a second visit. The data collected looked at gender, race, insurance, time of day, day of week, time of month, residing county, patient age and caregiver age. These are summarized in the tables below. I only found significant relationships between having a second visit and time of day and time of month.

Variable		Had a second visit n (%)	p-value
Gender	female	45 (43.3)	0.079
	male	30 (31.3)	
Race/ethnicity	black	40 (39.2)	0.350
	white	17 (28.3)	
	hispanic	10 (52.6)	
	multiracial	6 (40)	
	pacific islander	2 (50)	
Insurance	med	56 (42.4)	0.075
	private	14 (25)	
	self	5 (41.7)	
Time of day	morning	16(37.2)	0.042
	afternoon	27 (34.2)	
	evening	31 (47.7)	
	overnight	1 (7.7)	
Day of week	m	9 (32.1)	0.481
	t	9 (36)	
	w	15 (53.6)	
	r	10 (37)	
	f	10 (28.6)	
	sat	14 (43.8)	
	sun	8 (32)	
Time of month	beg	36 (45.6)	0.045
	mid	28 (37.8)	
	end	11 (23.4)	
County	Clay	10 (35.7)	0.288
	Jackson	37 (37)	
	Johnson	7 (38.9)	
	Wyandotte	19 (47.5)	
	Other	2 (14.3)	

H03: There is no statistically significant difference in the likelihood of emergency room utilization for similar needs between patients aged 0-17 who received social work interventions and patients aged 0-17 who did not receive interventions.

It is important to see if patients who returned a second time to the emergency room returned for the same reason or for a different reason. An Emergency Severity Index (ESI) score is a five-level algorithm for triaging patients who come into the emergency room. A score of 4 indicated 'semi-urgent' while a score of 5 indicates 'non-urgent.' A score of 4 or 5 in the

emergency room indicates non acute needs; these patients will not be prioritized. The below graphs indicate similar ESI's between the initial visits and the subsequent emergency room return visits.

Visit 1				
ESI_1	Frequency	Percent	Cumulative Frequency	Cumulative Percent
4	121	60.50	121	60.50
5	79	39.50	200	100.00

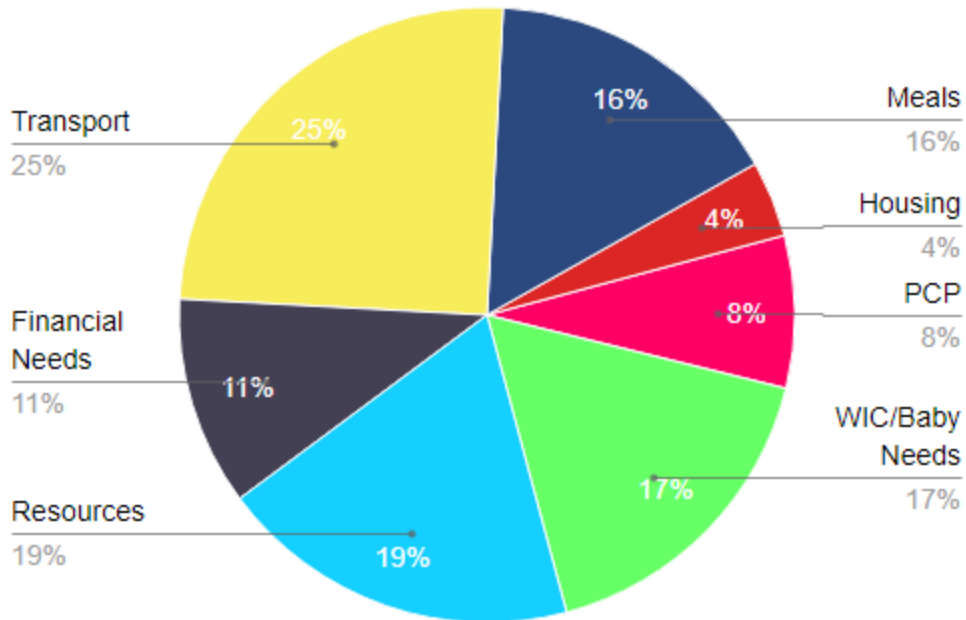
Visit 2				
ESI_2	Frequency	Percent	Cumulative Frequency	Cumulative Percent
4	44	58.67	44	58.67
5	31	41.33	75	100.00

Frequency Missing = 125

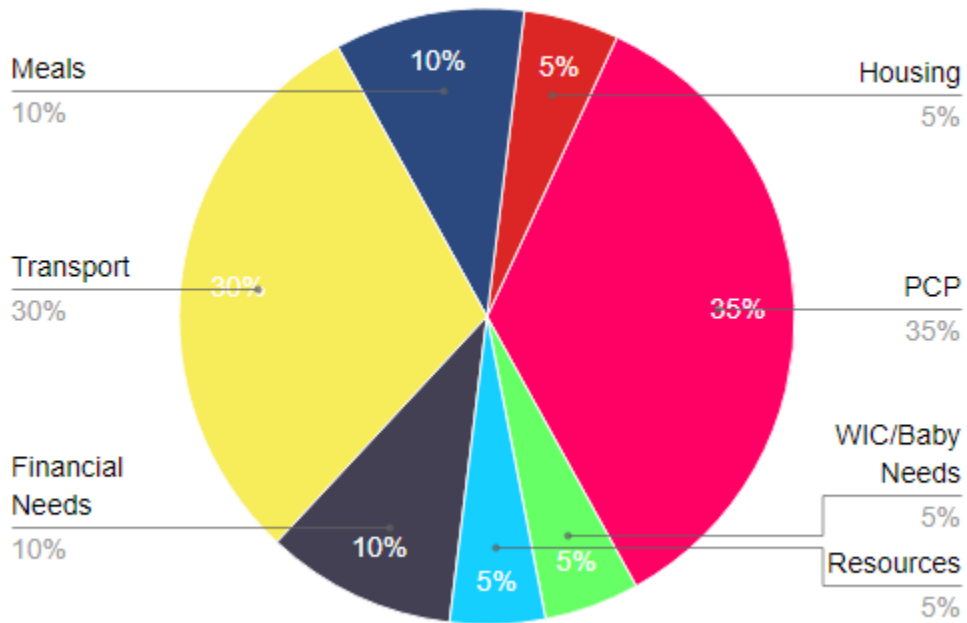
I found that of those that had a second visit, 52 (69%, 95% confidence interval 58.9-79.8%) came back for the same reason. I then sought to see if this differed by whether or not they had a social work intervention. When examining those with a second visit, 59.4% of those with a social work intervention came back for the same reason compared to 76.7% of those without a social work intervention.

Below are reasons why social work was consulted at first visit and reasons why social work was consulted at the time of the second visit.

Visit 1 Consult



Visit 2 Consult



Summary

Social work intervention within healthcare settings represents a vital component in holistic care and can work to identify demographic trends, socioeconomic factors, and access concerns. The descriptive statistics outlined in this study explored the relationship between emergency room utilization and demographic information, as well as variables relating to time of day, day of week and time of month. The research questions in this study looked to explore social work intervention as related to frequency, external variables and needs that arise while in the emergency room setting.

CHAPTER FIVE: CONCLUSIONS

Overview

Social work intervention in the emergency room setting has the potential to address patient needs, identify barriers, recognize patterns and decrease unnecessary emergency room utilization. Through a retrospective study, several conclusions have emerged regarding patient misutilization. Having analyzed the data, we can now begin to interpret the data. Looking at what the results of the study are, finding implications and discussing limitations, can tell us more about social work intervention and patient utilization. After data interpretation, we can pinpoint how this study will help with current policies and practices and can provide future recommendations of study.

Discussion

The purpose of this study is to analyze the impact social workers have on emergency room misutilization for patients ages 0-17.

RQ1: Do social work interventions in the emergency room cause a decrease in frequency of emergency room utilization in children ages 0-17?

The rationale for this research question was to begin to study the impact social work has on pediatric patients and their utilization of emergency room health services. The results of this study showed a slight decrease in return visits for those who had social work intervention. Looking at patients who had a return visit within 60 days, 32% of them had social work intervention on their initial visit, while 43% of them did not have social work intervention at the time of their initial visit. This 11% difference does show practical significance.

Practical significance differs from statistical significance, which is typically measured by P values. There is a growing awareness and acceptance that P values do not provide the whole story and cannot often be applied to real world situations. Carpenter et al., (2021) has begun to study the relevance and applicability to P values, specifically in healthcare settings. He found that in the health science field, relevant impactful research has more practical significance than what P values, which are considered statistically significant, can offer. This study, researching 200 patients, does show practical significance due to the ability to observe the impact of social work intervention and how intervention can be associated with a decrease in return visits among those who met with a social worker.

It is important for medical providers to understand the role of social work in an emergency room setting so they can better utilize their skills, training and background. Molina, et al., (2020) completed a retrospective study examining patients in an urban hospital. In this study, only 5% of patients saw a social worker. Of this 5%, it was estimated 40% of them would not need to be seen by medical staff if proper assessment and intervention by social work had taken place. She concluded the availability of social workers in the emergency room reduces

demands on medical staff to provide resources, provides cost-saving interventions and reduces the frequency of patients coming for non-acute needs. This study was not specific to pediatric patients.

The value of social work interventions was observed by Auerbach & Mason (2010). They extrapolated data from a three-year period observing social workers and emergency room outcomes; the sample size was 3370. They did not specify what the ESI score was which indicates acute versus non-acute needs. However, they saw that only 16% of patients that were seen by social work ended up being admitted to the hospital. They concluded these findings to be because of the importance of social work assessment. These results support the importance of having social work in emergency rooms to help with supporting and addressing psychosocial factors that can contribute to emergency room utilization.

RQ2: Are there variables identified in children aged 0-17 that influence emergency room misutilization?

The rationale of this research question was to examine which, if any, variables influence emergency room utilization. Being able to foresee utilization will help to gain actionable insights that can influence emergency room social work integration needs. Variables acknowledged include gender, race, insurance, county and time of visit.

Gender

After studying 200 patients, I found 52% of the patients to be female and 48% of the patients to be male; this is not statistically significant. Between 2000 and 2017, a 17-year period, PubMed found only 22 articles related to gender patterns in the emergency room. Of these, there was no conclusive evidence to show a statistical significance in utilization in regard to gender.

This research became increasingly hard to compare, as these studies focused on overall emergency room utilization. No articles found focused specifically at ESI scores or other acute misutilization identifiers. There were inconsistent findings regarding gender gap disparities in relation to emergency room utilization.

Zachariasse et al., (2020) did a study of roughly 115,000 patients during a four-year period. He found the majority of emergency room visits were completed by males. In a separate study completed by Sarkar et al., (2020), identifying nearly 2000 patients, she concluded that more females (61%) had visited the emergency room, compared to males (39%). She implied this was due to females' tendency to report symptoms, exaggerate severity and the fact they have a higher level of comfortability in expressing need. A third study done by Rabon et al., (2019) reports there is a gender gap when it comes to pediatric emergency room utilization. In this study of 163 patients, 58% were female and 42% were male. When researching other pediatric studies, the research on gender influence is limited, particularly in relation to emergency room medical services.

Race

Race was compiled into five categories: multiracial, black, white, Pacific Islander and Hispanic. The results of this study showed the largest represented population was black, comprising 51% of the studied visits. These results are consistent with other studies that have looked at emergency room utilization. Darraj et al., (2023) looked at emergency room utilization for 292 patients. Of these patients, 58% identified as being black.

A study completed by Parast et al., (2021) paid attention to emergency room utilization with a focus on patients race and ethnicity. She observed a three-year period and found 40% of

patients were black. She found this to be due to black patients lacking a usual source of medical care. In this study, black patients also reported receiving better care in the emergency room than any other race. If black patients consistently feel they are receiving good care in the emergency room and therefore do not need a primary care professional, it can lead to continued higher utilization and more frequent visits.

Brown et al., (2024) looked at factors influencing emergency room preferences for care. She pulled 292 patient files and saw that 58% of the visits were done by black patients. She also reported of the 58% of black patients, there were three times as many visits to the emergency room than any other race. The most common challenge with current literature is examining race utilization in pediatrics separately from utilization in adults. There is an incomplete understanding of how racial disparities in healthcare affect pediatric emergency room misutilization. More research needs to be done breaking down access to care, disposition, resource allocation and other socioeconomic factors.

Insurance

This study showed results that 66% of patients who received care in the emergency room have Medicaid as their insurance provider. Medicaid patients have routinely utilized the emergency room at high rates than patients who have out of pocket expenses or privately funded insurance; other literature has substantiated these claims. A study done by Zhou et al., (2017) found emergency room utilization was 40% higher in patients who have Medicaid. This study does not identify a specific reason for increased utilization but does go on to describe these visits as not only more frequent, but also visits were for illness and concerns that could have been treated in less time and for less money in a healthcare setting that was not for emergent needs.

Marye (2021) synthesized current research on the correlation between emergency rooms and type of insurance. The study did not look specifically at misutilization but did conclude 54% of patients with Medicaid had one or more emergency room visits within a year compared to only 24% who did not have Medicaid. Mayre (2021) inferred Medicaid patients frequent the emergency room because they have more barriers to accessing appropriate care, however; she did not get into specifics about what ‘barriers’ there may be.

In 2019 the CDC showed Medicaid insured patients more frequently visited the emergency room than patients with other insurance coverage. Data was compiled from roughly two-million patients. This study talked about how emergency rooms who participate in Medicaid, which is almost all major hospitals in the United States, cannot turn anyone away, regardless of the level of care they need. The results showed Medicaid patients were 5 times more likely to utilize the emergency room (*NHIS - National Health Statistics Reports*, n.d.). Reasons as to why Medicaid patients misutilize and overutilize the emergency room can be inferred but remains elusive.

County

There are several factors that can contribute to higher utilization rates between counties. Socioeconomic status, healthcare infrastructure and biopsychosocial needs of patients and the community are major contributors. 50% of emergency room visits studied in this time period were from Jackson County, the county where this hospital is located. Wyandotte County was the next biggest with 20% of patients residing here. The lack of appropriate health literacy and education are the biggest contributors to emergency room misutilization. According to Parast (et al., 2022), we can assume areas that have higher poverty rates and lower education status are

more likely to misutilize the emergency room for non-acute health services; this is in sync with the results of my study.

Time

For this study we broke down the time of day into four categories, morning, afternoon, evening and overnight. The highest percentage of emergency room utilization happened in the evening which was between 5:00pm-11:59pm. I also looked at day of week; Wednesday had the highest percentage of misutilization rates. I saw the highest rates of misutilization in the beginning of the month which was classified as the 1st-10th. There was not a lot of current data on how dates, times and days affect utilization. I did find a study done by Morley et al., (2018) that was given to community members in 115 countries and yielded 17,000 responses. Of these responses, they did find peak hours to be in the late afternoon and early evening; this is believed to be because it coincides with times people are more flexible, such as, after work hours and school days. This study found Tuesday to be the busiest day for emergency room utilization which does not match my results. This study found this to be due to delayed care over the weekend. Time of month was not explored in this study. Further research needs to be done regarding busiest utilization practices to ensure appropriate staff, increased resources, wait time reduction and to explore the potential impact of patient care and outcomes.

RQ3: Are patients aged 0-17 who receive social work interventions in the emergency room less likely to utilize the emergency room for similar needs than patients aged 0-17 who did not receive social work interventions?

Of the 200 studied patients, 75 returned for a second visit within the next 60 days. Of these 75 patients, 69% returned to the emergency room for the same non-emergent need. The

most common reasons found for return visits were cough (17%), fever (24%) and nausea/vomiting (13%). While using the ESI score, none of these reasons for return are considered emergent or acute and could have been more properly assessed in a primary care setting. Health literacy is predicted to be the biggest influence when it comes to hospital misutilization. Morley et al., (2018) discusses how lower educated families tend to misutilize the healthcare system at higher rates due to not understanding how to properly navigate the system and the inability to ask appropriate questions.

Burokiene et al., (2017) did a study focused on determinants of why children repeatedly visit the emergency room for minor illnesses. 381 parents were surveyed. The questionnaire assessed parental decision to come to the emergency room via a Likert scale; demographics were also assessed. The most common reasons found for return visits were there was no established primary care provider, uncertainty of what to do regarding illness and the convenience of walking in for immediate care.

Another study done by Vogel et al., (2019) had the same conclusions. This study looked at return visits to the emergency room and tried to understand parents' perspectives of urgent needs. Through a mixed-methods study, 282 patients were observed at within a 9-month period. Of these patients, 43% had return visits. This article did not specify if the return was for the initial need or a different need. This study concluded the reason for emergency room utilization was due to lack of intervention, barriers of accessing primary care, misunderstanding of urgency and incentives and advantages of using the emergency room. Reducing emergency room misutilization starts with enhancing health literacy and patient education regarding appropriate healthcare utilization and emergency services.

Implications

This study can help to improve social work presence by looking at policies and procedures for patients who come into the emergency room for non-emergent needs. Social workers should be part of the triage process for patients, regardless of their ESI score. The findings show the impact social work interventions have on reducing return visits for patients 0-17 years. Advanced studies are needed to pave the way for social work integration for effective intervention strategies. This study has the potential to influence policy, economic, practice and social & health practices within the healthcare system.

Policy Implications

Policy changes need to happen at local, state and national levels in order for social work to be more integrated into emergency rooms. Stakeholders, institutions and administrators need to be engaged in legislation around the goal behind social work presence in emergency rooms. The first step is providing advocacy and awareness of the need for social workers in emergency room settings. The US Patient Protection and Affordable Care Act has discussed the expansion of social workers in healthcare settings due to their ability to incorporate individuals' health considerations into healthcare decision making and discharge planning (Miller et al., 2017). Engaging other healthcare professionals and patients in conversations can highlight the importance and impact of social workers.

To change policy, evidence showing the positive impacts of social work must be highlighted. The hospital where this research was completed does have social workers embedded in the emergency room, however, not every patient sees social work. This study showed patients without social work intervention had a higher percentage of return visits compared to those who did see social work. Social workers can work to improve access to primary care, educate families

on appropriate healthcare use and enhance communication and care coordination between patients and staff. Social workers can provide valuable resources and information on improving overall health needs of patients. These findings can help to inform policy regarding funding decisions.

Clear and practical policies need to be established to help define the scope of social workers' abilities, roles and responsibilities. Social workers and their advocates need to work with already established organizations and regulators to promote the inclusion of social workers in the coordination of medical care. The National Association of Social Workers (NASW) is the largest organization of professionally licensed social workers in the world. The NASW should be working with like-minded stakeholders and legislators to promote social work expansion. The Center for Medicare & Medicaid Innovation, The Patient Centered Outcomes Research Institute and the American Public Health Association are just a few federally recognized organizations that could partner with the NASW to ensure social work is no longer a neglected partner in healthcare settings. Tadic (et al., 2020) argues the social work profession is undervalued, under-resourced and underpaid. If policymakers can become social work allies, they may be more likely to support the development of healthcare policies that include social workers on multidisciplinary teams.

Economic Implications

As we have discussed, emergency room utilization accounts for over \$76 billion in spending each year (*National Health Statistics reports*, (n.d.)). This study focused specifically on the misutilization of emergency rooms, specifically, needs that could have been better served in a primary care setting. Completing a retrospective study on 200 patients, I found that 69% of them came back for a return visit within the next 60 days. Integrating social workers into the

emergency room can help to quantify these savings. Not only can we see direct savings in regard to return visits, but we can also be aware of resource allocation. Having social work see patients in the emergency room and provide resources in real-time, can be a cost-effective way to create more efficient healthcare models. Reducing unnecessary emergency room visits can lead to long term cost savings for hospitals and the healthcare system as a whole.

Non-profit hospitals are required to maintain their tax-exempt status by providing certain community benefits. Hospitals who are part of the Children's Hospital Association (CHA) are required to complete a Community Health Needs Assessment (CHNA). The CHNA scrutinizes the connection to the community, health behaviors and outcomes and healthcare utilization (Community Health Needs Assessment, 2023). Through the CHNA, social workers can help to address community health needs and improve overall wellbeing beyond the walls of the emergency room. Improving access to care, enhancing health literacy and advancing community health all have a significant impact on the cost of care. By maintaining tax-exemption, the economic impact of hospitals can be lessened. By leveraging government agencies and seeking out community-based reimbursement incentives, hospitals can begin to reduce costs while still improving care.

Public hospitals may also be eligible for certain funding, grants and reimbursement opportunities if they can demonstrate the integration of social work in care coordination and healthcare decision making. The Department of Health and Human Services (HHS) offers grants for programs that demonstrate improved patient outcomes, have fewer readmissions and focus on mitigating social determinates of health (Department of Health and Human Services, 2024). Social workers can help providers with safety planning and post-discharge care and resources to reduce the likelihood of returning to the emergency room. Social workers can also help to

address non-emergent and non-medical needs in the emergency room to help provide better patient care and more effective care-coordination. Medicaid reimbursement policies can cover social work services in emergency rooms leading to less economic impacts to the hospital.

Practice Implications

The results of this study can work towards providing more training and education for social workers. Social workers can be better trained in healthcare settings while emphasizing strategies that are most effective in terms of utilization and misutilization. Looking at best practices and how social workers can more effectively and efficiently intervene in emergency room settings can help to enhance care coordination. Focusing on discharge planning and patient education, social workers who are appropriately trained can help to reduce the need for patients to have unnecessary return visits to the emergency room.

Social & Health Implications

Although this study did not specifically identify any predictive factors for utilization, such as age, race, or gender, it is important to understand how these factors can influence future health decisions. Social workers can work on addressing social determinants of health while reducing health disparities. Patients who are underserved and more vulnerable are often overrepresented in emergency rooms (Sarkar et al., 2020). This study did show patients with Medicaid were almost twice as likely to misutilize the emergency room compared to those with private insurance or self-pay. Improving health literacy can improve overall community health by increasing patient awareness and support and by reducing the burden on emergency room professionals.

Limitations

When conducting retrospective research, the role of the researcher is to design, analyze and interpret preexisting data in hopes to gain knowledge and advance the body of professionals (Edmonds et al., 2021). This topic of study is important to me because I work as a social worker in the emergency room in a pediatric institution. Having experienced an increase in misutilization of the emergency room for non-emergent needs, I determined this topic is worth further exploration. As a researcher and an employee of this pediatric institution, a potential limitation could be analyzing data with a biased lens and predetermined ideas about what the data will say.

The biggest limitation of this study was the fact I only documented the initial timepoint and any visits that happened within the next 60 days. While this can provide insight into frequent flyer patients, there is much more to see outside this 60-day period. While examining individual charts, I did see social work interactions outside the 60-day mark that I could not include in the results. There is a possibility that expanding the time period would have allowed for more patients to be captured.

This study was limited to focusing on ESI scores of 4s and 5s. While this study wanted to look specifically at the misutilization, social workers main interactions and interventions come from more acute needs, so the scope of practice is limited. While a patient can come in for a 4 or 5 ESI score this time, that does not mean they didn't previously come in for an emergent need. Looking at 4s and 5s limit the ability to see more of the story. We also are limited in seeing what a social worker could have missed on a previous more acute visit that now made them return for a seemingly non acute need.

Another limitation could be sampling bias. Sampling bias can occur when a certain population is analytically more likely to be sampled (Zhu, 2022). When pulling data there is a possibility of a sampling bias which would limit a certain type of patient. We do know that patients with Medicaid are overrepresented in the emergency room. Having a sampling bias could potentially fail to represent the full spectrum of patients seen by social work in the emergency room.

Conducting a study in one specific pediatric institution can create generalizability. Yegidis et al., (2018) warns that generalizability can decrease the validity of a study by not being applicable across all institutions. While this study did show a slight difference between patients who did and did not have social work intervention, that doesn't mean it can be applied elsewhere. The findings of this study may be beneficial to this specific institution; however, they may not apply to other pediatric institutions in dissimilar service areas, with different demographics, diverse social workers and fewer resources.

This study has the potential for measurement bias. Measurement bias can limit the study by not accurately measuring data by distorting variables (Markham et al., 2023) There is no set evidence-based tool that accurately measures the impact of interventions. This study could be subjective by estimating the influence of social work intervention while in the emergency room.

Factors beyond a social worker's intervention can also be a limit to this study. This study cannot take into account a patient's external variables. A social worker can provide acute interventions in the emergency room but due to confounding variables such as familial support, home environment or comorbid conditions, it can be hard to determine the impact of intervention. Confounding variables can skew the association between two factors (Yegidis et

al., 2018). In this case, the association between social work intervention and ongoing external barriers.

Social work consultations are subject to selection bias. Selection bias happens when there is not proper randomization in a study (Smith, 2020). Social workers in the emergency room typically only intervene in certain cases where there are more acute needs. If a social worker is consulted for a non-acute need, there could be many factors in why this patient was selected at this time as opposed to another patient with similar, non-acute needs. This could create an overestimation or an underestimation of the effectiveness of a social workers intervention.

Threats to Reliability

In a case-control study, measuring the impact of social work interventions and understanding internal and external reliability are important for validation and findings. One threat to reliability would be if a social worker did not document their interaction. This could be an exposure assessment threat. An exposure threat can happen when there is insistent documentation leaving interventions inaccurate (Higgins & Straub, 2006) If a social worker met with a family for any amount of time it should be documented. However, if a social worker was busy, they may have forgotten to document or if a social worker did not find their intervention meaningful, they may have thought it did not need to be documented. This would give an inaccurate representation of the intervention.

Another threat to reliability would be if an official consult was not placed but there was still an intervention provided. This is subject to data collection consistency concerns. Data collection consistency can threaten reliability if policies and procedures are not done in the same way each time (Appelbaum et al., 2019). There are times where a provider may see a social

worker and pull them aside briefly for an intervention without placing a consult in the patients' medical record. In this case, there will not be a documented consult request that could be tracked in the same way.

It is not uncommon for a patient who is a frequent user to present to the emergency room on weekends or evenings. Many of the frequent flyers are already connected with a primary social worker. In this case, an official consult could be made but if it is a non-acute need or if the patient is getting admitted, the emergency room social worker has the option to bump the consult to wait until the primary social worker is on duty. This is an example of a contextual factor threat which is when other factors, such as hospital policies or social worker availability influences interventions (Higgins & Straub, 2006). A consult was still made and can be tracked; however, since the patient was already connected and, in the system, no actual intervention was conducted.

Recommendations for Future Research

1. Complete similar studies in other pediatric hospitals throughout the country to see the potential for differences among regions and enhance generalizability.
2. Look at other variables not discussed in this study that could affect emergency room usage.
3. Have a larger sample size for data analytics when examining how demographics affect emergency room utilization.
4. Increase evidence-based tools for social workers to use specifically in the emergency room.
5. Complete more research that will lead to greater support for social workers as part of a multidisciplinary team.

6. Conduct more specific research on why patients utilize the emergency room when alternative healthcare services are available.
7. Complete similar research with a larger time frame window to capture more timepoints and data.
8. Compare the cost of social workers embedded in the emergency room with the cost of social workers only being consulted.
9. Explore how Telehealth can enhance patients access to social workers.
10. Examine how social work can influence the time providers need to spend with patients and families.

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