COVID-19 Impact on Public Health and Safety: Literature Review

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Quantitative studies utilize measurable data, allowing researchers to assess cause and effect reactions in various case scenarios to determine relationships (Houser, 2023). Data collected and analyzed from other research studies through a literature review helps scholars form ideas for research based on the present data (Houser, 2023). The COVID-19 pandemic left a lot of unanswered questions, mainly on how the pandemic affected the general health and well-being of the public. Researching the effects of the COVID-19 pandemic helps researchers understand how the population reacts.

Original Quantitative Research – Pediatric Injuries in the Time of Covid-19

The article's authors include Keays, Friedman, and Gagnon, who researched the impact of the COVID-19 pandemic on pediatric emergency department (ED) visits (Keays et al., 2020). Previous research on past pandemics indicated a decline in ED visits, but not an analysis of the relationship on declining ED visits (Keays et al., 2020). The article discusses the impact of the pandemic on pediatric ED visits based on age, injury, and severity of the injury (Keays et al., 2020).

Key Points

Data collection from the Canadian Hospitals Injury Reporting and Prevention Program (CHIRPP) helped evaluate why the number of ED visits among children aged (Keays et al., 2020). CHIRPP provided measurable data to compare pediatric hospital visits each year from 1993 to 2020 between March sixteenth and May fifteenth (Keays et al., 2020). The study subjects included children aged zero to seventeen who had visited the ED (Keays et al., 2020).

The injuries analyzed were limited to motor vehicle crashes (MVC), sports-related injuries, fractures, minor TBIs (mTBIs), burns, and poisonings (Keays et al., 2020). SPSS software helped to determine the significance of impact in the data collected (Keays et al., 2020). The study found a significant decline in MVCs, sports-related injuries, mTBIs, fractures, burns, and poisonings (Keays et al., 2020). The overall finding was that COVID-19 impacted the number of injuries sustained to children.

Assumptions

The study provides evidence of the relationship between pandemics and emergency department visits for pediatric clients. The information found from the study helps future research in monitoring ED visits as the pandemic progresses (Keays et al., 2020). The present research has established a significant decline in pediatric ED visits during pandemics, but future research will determine the meaning behind the decline. Are the client not going to the ED because they are afraid of getting infected? Are the clients not visiting the ED because parents are home to supervise children better? Future researchers now have the potential to expand the findings to understand better the impact of COVID-19 on the health of the population.

Deficit/Conclusion

The line of reasoning from the article is establishing the correlation between COVID-19's impact on pediatric ED visits to provide a deeper understanding of the pandemics' relationship to public health is acceptable. The Canadian Hospitals Injury Reporting and Prevention Program (CHIRPP) helped determine a significant decline in ED visits based on the substantially lower numbers in every category in 2020 (Keays et al., 2020). Tracking the number, type, and severity of ED visits allowed researchers to connect the pandemics' influence on public health (Keays et

al., 2020). The relationship between the COVID-19 pandemic and pediatric ED visits helps establish future research to explore the details behind the pandemics' impact. Not accepting COVID-19's impact on pediatric ED visits in nursing would not show implications, but further investigations on the extent of COVID-19's influence on public help would be limited.

Injury-Related Pediatric Emergency Department Visit in the First Year of COVID-19

The article addresses the effects of COVID-19 on the severity of injuries for emergency department pediatric visits in correlation to declining injury-related ED visits (Wells et al., 2021). The article's authors include Jordee Wells, Jonathan Rodean, and Lawrence Cook, as well as other notable researchers in evaluating the injury severity of pediatric clients during the pandemic (Wells et al., 2021). Past research supports the facts on declining pediatric injury-related ED visits but does not discuss the disparity in the seriousness of injuries (Wells et al., 2021). The article develops a deeper understanding of the effects COVID-19 has on pediatric-related injury based on the type and severity of the injury (Wells et al., 2021).

Key Points

Measurable data collection of the types of injuries and the severity of the injury from March fifteenth twenty-twenty until March fourteenth twenty-twenty is analyzed to determine a relationship (Wells et al., 2021). The year of data collection was divided into three categories of time to establish an early, middle, and late period of the pandemic (Wells et al., 2021). The participants in the research included pediatric clients ranging from zero to seventeen years old who had visited the ED for an injury (Wells et al., 2021). Demographic characteristics such as race, ethnicity, gender, socioeconomic status, and residency assess other contributing factors to injury severity (Wells et al., 2021). The article assessed bites, stings, cuts, drowning, MVC,

abuse, overexertion, pedal cyclist, poisoning, sports-related, struck, suffocation, transportation-related, burns, firearms, and falls (Wells et al., 2021). The study discovered significant declines in ED visits associated with injury among school-aged and adolescent children (Wells et al., 2021). Emergency department visits associated with suicide were significantly more in the middle and late periods of the pandemic (Wells et al., 2021). Injury-related ED visits significantly increased for firearms, pedal cyclists, transportation-related, and suffocation (Wells et al., 2021).

Assumptions

The article provides a more in-depth view of the pandemic's effect on pediatric injury-related ED visits (Wells et al., 2021). Although pediatric injury-related ED visits declined during the COVID-19 period, the article defined an increase in severe and less mild injuries (Wells et al., 2021). Future research must eliminate variables in the study to find a more substantial relationship in research findings. The research helps establish future research in understanding behavioral change in the pediatric population during the pandemic (Wells et al., 2021). Are severe injuries increasing due to lack of parental supervision or another underlying factor not assessed (Wells et al., 2021)? The article's line of reasoning is to establish a relationship between COVID-19's impact on injury-related pediatric ED visits through increased severity (Wells et al., 2021).

Deficit/Conclusion

The research from the article determines that the types and severity of injuries sustained by pediatrics correlated to the pandemic's impact on public health are acceptable (Wells et al., 2021). The research agreed with prior findings of the reduced ED visits from pediatric clients

related to injuries (Wells et al., 2021). The article analyzed data to find that the number of severe related injuries significantly increased with the reduced total number of various ED visits (Wells et al., 2021). Children have more MVC, pedal cyclists, firearms, transportation, and suffocation-related injuries (Wells et al., 2021). The number of injuries categorized as superficial, such as sprains and strains, was significantly less in pediatric clients in the ED during the pandemic (Wells et al., 2021). The study's results establish that the pandemic correlates to the health of the pediatric client. However, future research is needed to determine whether the pandemic established a behavior change or allowed children an opportunity for injury (Wells et al., 2021).

Pediatric Emergency Visits for Asthma Drop Significantly with COVID-19 School Closure

The article's authors include Elizabeth Secord, Pavadee Poowuttikul, Milind Pansare, Divya Seth, and Shweta Saini (Secord et al., 2021). Severe asthma exacerbation leading to emergency medical attention in pediatric clients results from stress, environment, and climate factors (Secord et al., 2021). School attendance is significantly stressful because children are changing their routines and exposed to various triggering factors by other students (Secord et al., 2021). The COVID-19 pandemic caused the cessation of children going to school to maintain social distancing and stop the virus's spread. The article addresses the pandemic's impact on pediatric emergency department visits for asthma exacerbations (Secord et al., 2021).

Key Points

The article collected measurable data with the ICD9 code to assess the total number of visits to the emergency department during the pandemic and analyzed it by SAS (Secord et al., 2021). The time of data collection was from March fifteenth to May thirty-first in twenty-twenty and twenty-nineteen for comparison (Secord et al., 2021). The research pertained to pediatric clients

who visited the emergency department for asthma (Secord et al., 2021). The Weather Underground online website compared differences in weather between twenty-twenty and twenty-nineteen (Secord et al., 2021). Pediatric ED visits for asthma significantly declined during the COVID-19 period from 1304 patients to 260 (p=0.001) (Secord et al., 2021). The pandemic caused children's removal from school buildings, impacting pediatric health by reducing asthma-related ED visits (Secord et al., 2021).

Assumptions

The article's authors' line of reasoning was to establish the school's contribution to asthma-related pediatric ED visits (Secord et al., 2021). The pandemic allowed the opportunity to establish the comparison of data in similar weather climates (Secord et al., 2021). The pandemic forced children to refrain from attending school in person, reducing their exposure to potential asthma triggers (Secord et al., 2021). The pandemic influenced the health of pediatric clients by reducing asthma triggers in school closures (Secord et al., 2021).

Deficit/Conclusion

The established correlation between asthma-related pediatric ED visits and school attendance is acceptable (Secord et al., 2021). The research collected data during school closures due to the COVID-19 pandemic, when schools were closed to protect the public’s health, to determine the removal of school attendance effect on asthma exacerbation (Secord et al., 2021). The Michigan Children’s Hospital ED had significantly fewer asthma visits during the March fifteenth to May thirty-first time frame (Secord et al., 2021). Future research must determine any contributing factors to the findings. Are parents not taking their children to the hospital in fear of contracting COVID-19? Are children not as active in their homes compared to school activities? The

pandemic allowed for the potential of future research to help establish safer environments for children with asthma (Secord et al., 2021).

Conclusion

The COVID-19 pandemic has directly and indirectly impacted pediatric clients' health. The pandemic has caused lower numbers of total pediatric ED visits and superficial and severe injuries related to sports injuries (Keays & Gagnon, 2020). However, the severity of injury-related pediatric ED visits has significantly increased (Wells et al., 2022). The pandemic has also caused global changes, such as school closures and addressing current pediatric health issues (Secord et al., 2021). The depth of COVID-19's effect on the health of the public is unknown and requires significant continuous research to establish a better understanding and capitalize on current issues.

The information collected during the COVID-19 pandemic will improve patient outcomes by analyzing the change it brought. The decline and improvement in health during the pandemic help show current factors they must address to improve health. Data collection from the pandemic helps understand the long-term effects of an unknown virus to settle the public's unease.

The information reviewed in the articles helps nursing practice establish ways to improve care. The results found in the review articles provided the potential for future research (Houser, 2023). Future research provides knowledge and evidence to help improve nursing practice and patient care (Houser, 2023).

Knowledge attained through the experience of assessing the outcomes and process of stressful situations, such as a pandemic, helps quality improvement (QSEN institute, 2020, Table 4). Using skills, such as collecting and comparing results and efforts from the pandemic and

before, improves quality improvement (QSEN institute, 2020, Table 4). The attitude toward quality improvement is improved by taking an unwanted cause or event and determining its effect on health and lack of care (QSEN institute, 2020, Table 4).

Research of a new phenomenon such as the pandemic provides an abundance of new information with the potential for future research to improve client care (Houser, 2023). Research on the action made, care not provided, or interventions provided throughout the pandemic are potential ways to improve nursing skills (Houser, 2023). The finding made from the analysis of the pandemic help to restore confidence in the healthcare system by the public, improving healthcare as a whole. The information collected during the COVID-19 pandemic will improve patient outcomes by analyzing the change it brought. The decline and improvement in health during the pandemic help show current factors they must address to improve health. Data collection from the pandemic helps understand the long-term effects of an unknown virus to settle the public's unease.

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