752 Baking Bread and Other New Hobbies: Characterizing Burn Center Admissions During the COVID-19 Pandemic

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Introduction: The effects of the ongoing COVID19 pandemic are wide-reaching and still emerging. Fear of the virus, public health messaging, and government-instituted lockdowns have altered how Americans live, work, and use the healthcare system. There is minimal data that assesses how the COVID-19 pandemic and associated stay at home orders have influenced the etiology of burn injuries. With the majority of burns occurring in the home, it is possible lock down orders have significantly impacted etiology of major burn injuries. This project aims to characterize the demographics and injury characteristics of burn patients seen at a regional burn center during the COVID-19 pandemic.

Methods: Following IRB approval, our institution queried its burn registry from March 2020-June 2021. Data on demographics, injury circumstance and details, interventions, COVID-19 status, and outcomes were collected. Descriptive statistics were obtained for the population.

Results: There were 622 inpatient admissions during the study timeframe. Patients were primarily Black (44.4%) or Caucasian (32.6%) males (65.6%) identifying as Non-Hispanic (81.8%). The mean age was 46.73±18.6 years. Mean total TBSA burned was 6.7±10.7%, 2nd and 3rd degree percentages were 2.11±4.64 and 0.62±5.2 respectively with 47 total inhalation injuries. Top burn etiologies were 244 (39.2%) scald and 175 (28.1%) flame with 249 (40%) coded etiology associated with food prep or consumption. The majority of the burns occurred at home (93%). Time from injury to admission was 616.98±2199.42 minutes and time to first excision from admission was 4314.3 ± 5657.3 minutes. ICU and hospital length of stay were 12.7±18.3 and 8.73±13.3 days. In-hospital mortality was 31 (5%). Nineteen patients tested positive for COVID-19 during this time.

Conclusions: Nearly half of all burn center admissions were for cooking related etiologies during this time. Time to admission was over 10 hours in a population dense area. More information of site specific pre-pandemic etiology and treatment data are needed to fully understand these initial findings. Further sub-analyses may also elucidate the influence of pandemic related behavioral changes as public health mandates evolved over time.

753 Segregation, Vulnerability, and Fundamental Causes: Understanding the Social Dimensions of Burn Injury

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Introduction: Sociologists have long investigated the enduring link between place and health. Despite prolific research in this field, there are health issues that remain obscured in the literature. The goal of this work is to examine the spatial-health relationship(s) between place of residence and burn injuries, the socially produced vulnerability of individuals living in high-risk areas, and the experience of being burned in these identified areas. Fundamental cause theory, which focuses on an individual’s ability to either avoid health risks or minimize the consequences of these risks, is employed to demonstrate the worsening effects of socioeconomic status (classism) and race (racism) on burn injuries. Managing health risks is dependent upon access to and utilization of flexible resources (knowledge, money, freedom, power, prestige, and social networks) that are differentially distributed across populations based on social conditions like age, race-ethnicity, socioeconomic status, and neighborhood infrastructure.

Methods: Exploratory spatial and cluster analysis using ArcGIS (a geographic information system) of accidental, at-home burn incidence in an historically redlined county.

Results: Analysis shows burn injuries tend to cluster in areas marked by low-income, higher numbers of racial-ethnic minorities, and poorer quality housing. Table 1 shows preliminary descriptive data about the study population.

Conclusions: Despite advances in treatment and prevention, there are socially-constructed and salient environmental risks that leave some communities vulnerable to burn injury. Historical practices, like racial residential segregation and redlining, have concentrated racial-ethnic minority communities marked by lower-income, poorer quality housing, and other burn-risk factors.