



Introduction

Although it has been recognized that patients with burn injuries have an increased risk of developing psychological disorders and experiencing emotional distress, the association between the location of burn and psychological distress has yet to be specifically examined. There are associations between psychological distress and burn injury visibility, scarring, and health-related quality of life. Therefore, it is possible that the location of burn injury may also be associated with psychological distress related to the burn survivor’s self-esteem, pain, visibility of burn, or functional outcomes. A cross-sectional analysis will be conducted on a cohort of burn outpatients presenting to the clinic of our verified burn center to investigate the association between the location of a burn and psychological distress.

Objective

To investigate if there is an association between burn location and psychological distress among outpatients with prior burn injury.

Methods

We have enrolled 20 participants of a projected 80. Inclusion criteria are English-speaking adults 18 years and older, with prior burn injuries of total burn surface area $\leq 5\%$, who are being treated in the outpatient burn clinic. Patients are pre-screened prior to presenting to the clinic and those who meet eligibility criteria are approached. Exclusion criteria are active psychosis, signs of imminent suicidality or homicidality, or being a member of a vulnerable population. Surveys are administered either electronically through REDcap using an iPad or with a paper/pencil version. Psychological distress is then measured using the following self-report scales: Burn Specific Health Scale, Rosenberg Self-Esteem Scale, Patient Health Questionnaire-9, Primary Care PTSD Screen for DSM-5, and Beck Anxiety Inventory - Primary Care. Participants who complete the survey are compensated with a \$20 gift card.

Results

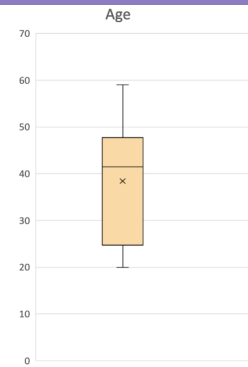


Figure 1. Age of survey participants ranges from 20-59 with a mean of 38.4. Box-and-whisker plot was generated in Microsoft Office Excel using survey data compiled by volunteer participants.

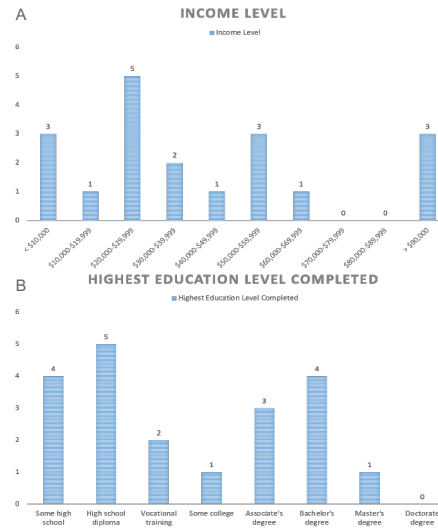


Figure 2. Income level and highest education level achieved in survey participants. Survey results were compiled and graphed in Microsoft Office Excel based on frequency distribution. A) Histogram data shows income data based on binning width \$10,000. B) Categorical histogram data showing number of participants based on highest education level achieved.

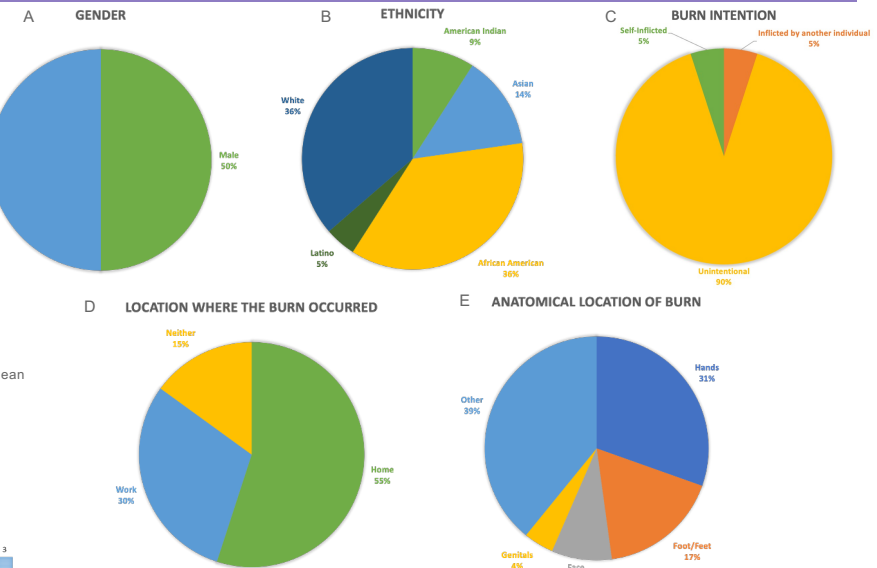


Figure 3. Comparison of demographic data in survey participants in relation to burn characteristics. Different demographic data were collected in survey participants and compared using pie charts generated in Microsoft Office Excel. A) Numerical comparison between male and female participants. B) Ethnicity breakdown of participants. C) Classification of the intention of the burn injury. D) Distribution of where injury occurred. E) Categorization of the anatomical location of the injury.

Conclusions

Once collection of the data has concluded, descriptive statistics will be conducted on the data and the primary hypotheses will be evaluated using a series of multiple linear regressions to assess whether the location of the burn predicts psychological distress. Using correlational analyses, supplemental analyses of the relationships between demographic variables and psychological distress will also be conducted. Though the study is not yet complete, we expect to find an association between the location of a burn and certain forms of psychological distress. Burn survivors experience psychological distress following their injuries at a significantly higher rate compared to a non-patient normative sample. Previous research has suggested that early interventions to reduce symptoms of depression and anxiety could produce long-term positive effects such as reduced pain, better functional outcomes, and improved mental health. Therefore, if our study shows there is a significant association between location of burn and certain forms of psychological distress, it may lead to earlier and more focused psychological intervention, which subsequently may lead to better quality of life for adult burn survivors.