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**64 Community Level Disadvantage Negatively Impacts Return to Work After Burn Injury**

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**Introduction:** The loss of income from injury, additional health care expenses, and inability to return work can lead to unsatisfactory outcomes. Community level disadvantage (e.g., low high school completion, low home ownership, low income) are more common among minority groups. We hypothesized community level disadvantage would negatively impact the ability to return to work after burn injury. This could serve to identify patients who need focused social, vocational, and financial support during rehabilitation.

**Methods:** Data from adult participants in a large multicenter database from 1998-2021 were linked by zip-code to three multi-domain community level-indices: i) Distressed Communities Index, ii) Social Vulnerabilities Index (SVI), iii) Social Deprivation Index (SDI). Cohort characteristics, the distribution of each index within cohort, and days to return to work were described. Fit and strength of association between the indices and return to work was assessed with multi-level logistic regression models. A non-responder analysis examining demographic and clinical differences between was performed using Chi-square tests and Wilcoxon rank sum tests to understand potential bias in the findings.

**Results:** A total of 1960 participants provided both zip code and employment data 6 months after injury. 75% of participants were male. Mean age was 39. Race/Ethnicity Data: 81.4% identified as White, 11% Black, and 7% as "other" race; 84% of the participants as non-Hispanic or Latino. Median burn size was 20% TBSA (IQR 0.1-95.0), and length of hospitalization was 30 days (IQR 0-379). Of the community indices tested, both DCI and SVI were associated with return to work with DCI having the strongest association with return to work after injury, irrespective of indices. However, when DCI and SVI were included in the model to represent community disadvantage, the impact of race on return to work was less. Participants who did not provide employment information were younger, sustained larger burn sizes, and had longer LOS compared to those who did.

**Conclusions:** DCI and SVI are associated with return to work after burn injury and can be used to focus limited social, vocational, and financial services. Minoritized participants were less likely to return to work but they live in communities with greater disadvantage (e.g. fewer employment opportunities), which highlights the public health impacts of structural racism.

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**65 Therapist Confidence Utilizing Virtual Range of Motion Methods**

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**Introduction:** Since the SARS-CoV-2 virus (COVID-19) was officially declared a pandemic, there has been a marked increase in virtual clinical care. Between 2019 and 2020, telehealth (TH) visits, including tele-rehabilitation (TR), increased from 11% to 46%. While many therapy interventions can be performed with verbal guidance or demonstration, objective tool-based outcomes such as goniometrics, a valuable tool to determine burn survivor progress, have proved more challenging. The purpose of this study was to evaluate the level of confidence of therapists using three different remote methods of measuring finger range of motion (ROM).

**Methods:** Therapists evaluated finger ROM position of a mannequin model via a simulated TH visit using three different methods: Goniometry (GON), Visual Estimation (VE), and Electronic Protractor (EP). Pre and post-questionnaires were used to assess the participant's experiences and comfort with each method of measurement. Descriptive statistics are used to report clinician opinions. A linear mixed effect model was used to determine the interaction of bias as a function of clinician characteristics (i.e., experience, familiarity, etc.).

**Results:** A total of 30 therapists and one hand surgeon participated. All reported some (30%) or a lot (70%) of familiarity with standard GON, and most reported some (30%) or a lot (40%) of familiarity with finger-specific goniometry. Post-testing, clinicians reported VE (80%) as the most difficult method and EP (73%) as the easiest. Only 7% reported feeling more confident with TR compared to in-person measurements, 27% felt equally confident, and 67% felt less confident. The average time to conduct the remote assessment measurement was 11:45 minutes using GON, 4:27 minutes using VE and 9:47 minutes using EP. There was not a significant relationship between performance bias and years of experience ( $p=0.587$ ), familiarity with GON ( $p=0.406$ ), familiarity with finger GON ( $p=0.709$ ) or profession ( $p=0.281$ ).

**Conclusions:** Despite the transition to virtual care, the mandate for valid and accurate documentation of functional outcome measures, including ROM, remains. Our study showed that the tools used for TR may not be the same as for in-person and clinicians need to adapt their approaches and skillsets. In addition, training with these new tools is essential for clinician confidence. In addition, there was not a relationship between experience and performance, suggesting that TR joint measurement is accessible to clinicians of all experience levels with proper training.