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#### **Title**

Follow Up After Burn Injury Is Disturbingly Low and Linked With Social Factors

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# Follow Up After Burn Injury Is Disturbingly Low and Linked With Social Factors



## INTRODUCTION

- Patients suffering from burns often require multiple follow up appointments.<sup>1</sup>
- Burns can lead to sequelae such as scars, contractures, infections, and physical and psychological distress, all of which can lead to challenges in social interaction and self-perception.<sup>2,3</sup>
- Studies in other areas of medicine have shown that lack of higher education, tobacco use, distance, and insurance type are factors associated with fewer follow ups attended.<sup>4,5</sup>

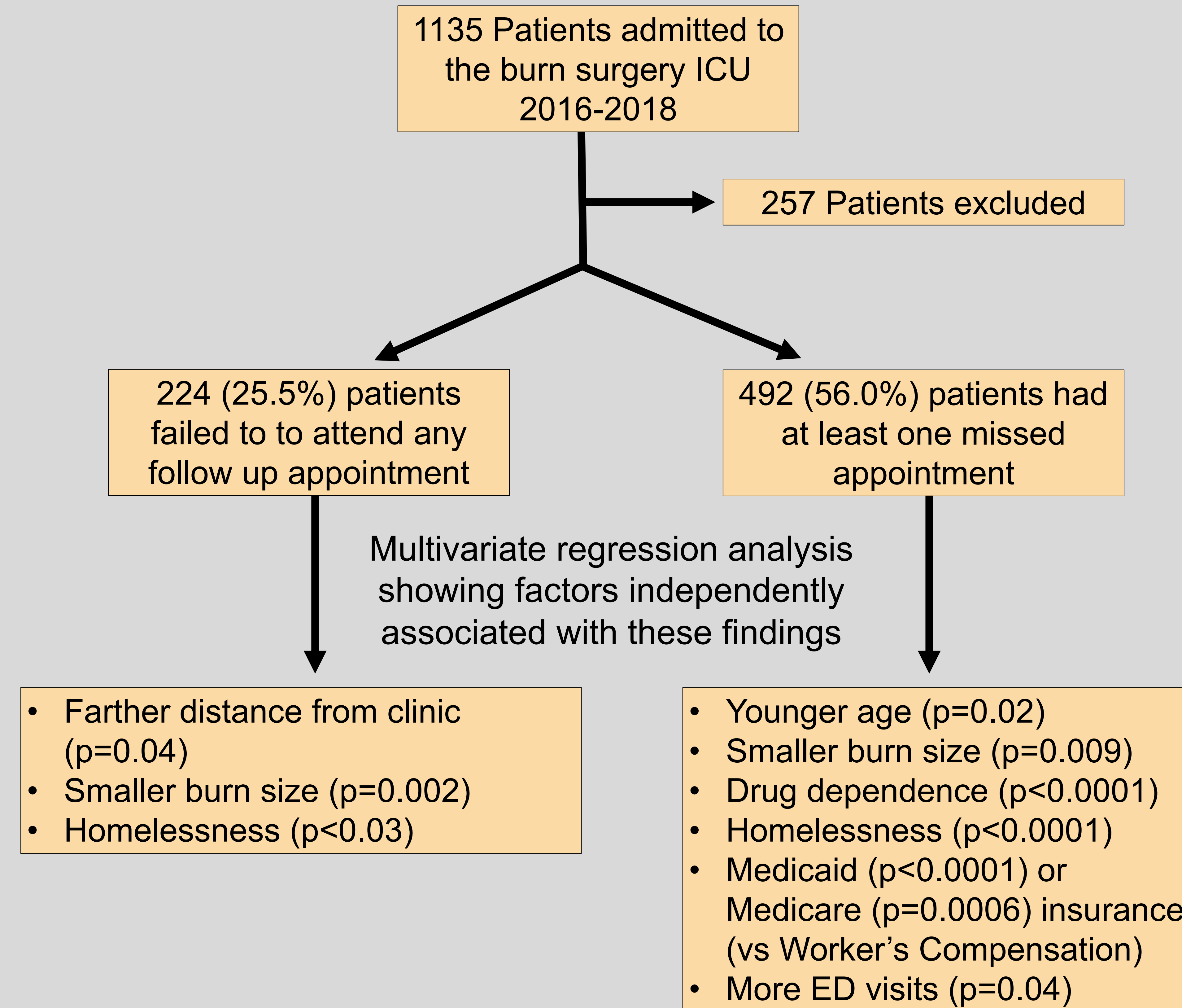
**Objective:** Examine the factors leading to missed follow up appointments in the burn center population.

**Hypothesis:** Patients with burn injuries have low clinic follow up attendance, with social factors and socioeconomic status playing a significant role.

## METHODS

- Study: A retrospective chart review using electronic medical records of all adult patients admitted to the burn center from 2016-2018.
- Exclusions: Non-burn injuries, died in the hospital, transferred to a different hospital, follow up at a different institution, no follow up appointment scheduled, and prisoners.
- Data collected: Information on the burn injury, hospital course, post-discharge follow up appointment attendance, social status, substance use, and zip code demographics.
- Analysis: SAS statistical software used to run a Wilcoxon Rank Sum test, Chi-square test, and univariate and multivariate regression analysis.

## RESULTS



- Increased **number** of follow ups attended were independently associated with:
  - more ICU days (p<0.0001)
  - having an ED visit (p=0.0008)
  - not being homeless (p=0.005)
  - not having drug dependence (p<0.0001)
  - not having major psychiatric illness (p=0.04)
- Increased **number** of missed appointments were independently associated with:
  - having an ED visit (p<0.0001)
  - being homeless (p=0.0003)
  - having drug dependence (p<0.0001)

## DISCUSSION

More than half of the patients admitted to our institution's burn unit had at least one missed appointment and a quarter of the patients failed to attend any follow up at all.

Homelessness and small burn size are a key factor in both outcomes.

Homelessness being a factor associated with missed appointments, along with drug dependence and insurance type, shows the impact that social determinants of health have on patient attendance at follow ups.

Limitations due to the retrospective nature of the study include having to depend on EMR accuracy in recording appointments and discharge information, as well as missing information on patient hospital visits at outside institutions.

## CONCLUSION

These results indicate that there may be a subset of patients who need more intensive intervention or more support to attend follow up appointments and targeted outreach plans to address the needs of this at-risk patient group may improve patient outcomes.

## REFERENCES

1. Massman NJ, Dodge JD, Fortman KK, Schwartz KJ, Solem LD Burns follow-up: An innovative application of telemedicine. *J Telemedicine and Telecare*. 1999;5(1\_suppl):52-54. doi:10.1258/1357633991932540
2. Spronk I, Legemate CM, Dokter J, van Loey NEE, van Baar ME, Polinder S. Predictors of health-related quality of life after burn injuries: a systematic review. *Crit Care*. 2018 June 14;22(1):160. doi:10.1186/s13054-018-2071-4
3. Ohrtman EA, Shapiro GD, Simko LC, et al. Social Interactions and Social Activities After Burn Injury: A Life Impact Burn Recovery Evaluation (LIBRE) Study. *J Burn Care Res*. 2018 Oct 23;39(6):1022-1028. doi: 10.1093/jbcr/iry038.
4. Tejwani NC, Takemoto RC, Nayak G, et al. Who Is Lost to Followup?: A Study of Patients with Distal Radius Fractures. *Clin Orthop Relat Res*. 2010 Feb;468(2):599-604. doi:10.1007/s11999-009-0968-6
5. Whiting PS, Greenberg SE, Thakore RV, et al. What factors influence follow-up in orthopedic trauma surgery? *Arch Orthop Trauma Surg*. 2015 Jan 24;135:321-327. doi:10.1007/s00402-015-2151-8