

Osteopathic Medical Students: Transportation Access Research & Patient Care in Street Medicine

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Introduction

Literature Background: Transportation barriers limit healthcare access, yet data on clinic-based solutions is scarce.

People Experiencing Homelessness in Detroit vs United States

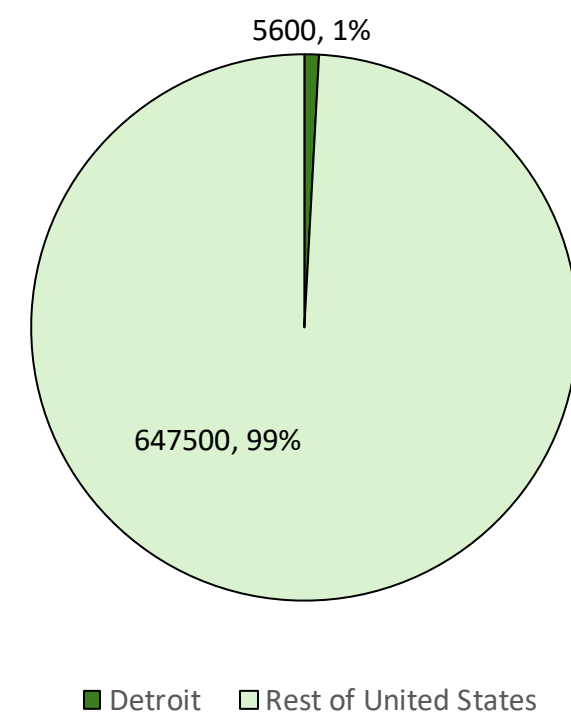


Figure 1: Statistics of Homelessness Prevalence in 2023 in the United States and Detroit[†]

Detroit Street Care (DSC): DSC at **MSUCOM** provides **free medical care** to Detroit's homeless, led by osteopathic medical students (OMS) under faculty guidance. OMS **engage directly with underserved communities**, gaining insights into **social determinants of health** and **patient-centered care**.

Objectives

1. Train OMS to build humanistic relationships with homeless communities to better understand and address their healthcare needs
2. Investigate **how transportation limitations affect healthcare access** and explore **potential solutions** for improving continuity of care

Methods

- **Study Design:** Cross-sectional observational
- **Training:** human research ethics and data collection methods tailored towards target population
- **Data collection:** verbal responses collected and transcribed on an anonymous validated electronic questionnaire (IRB: STUDY00010091)
- **Statistical analysis:** Chi-square tests, significance set at $p < 0.05$ (CI, 95%)

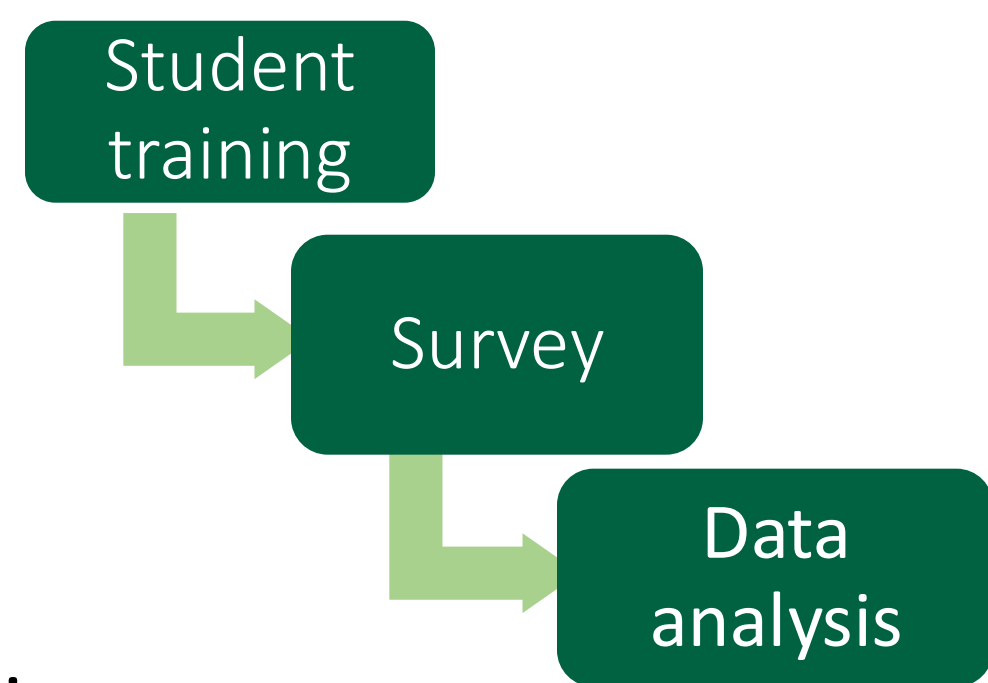
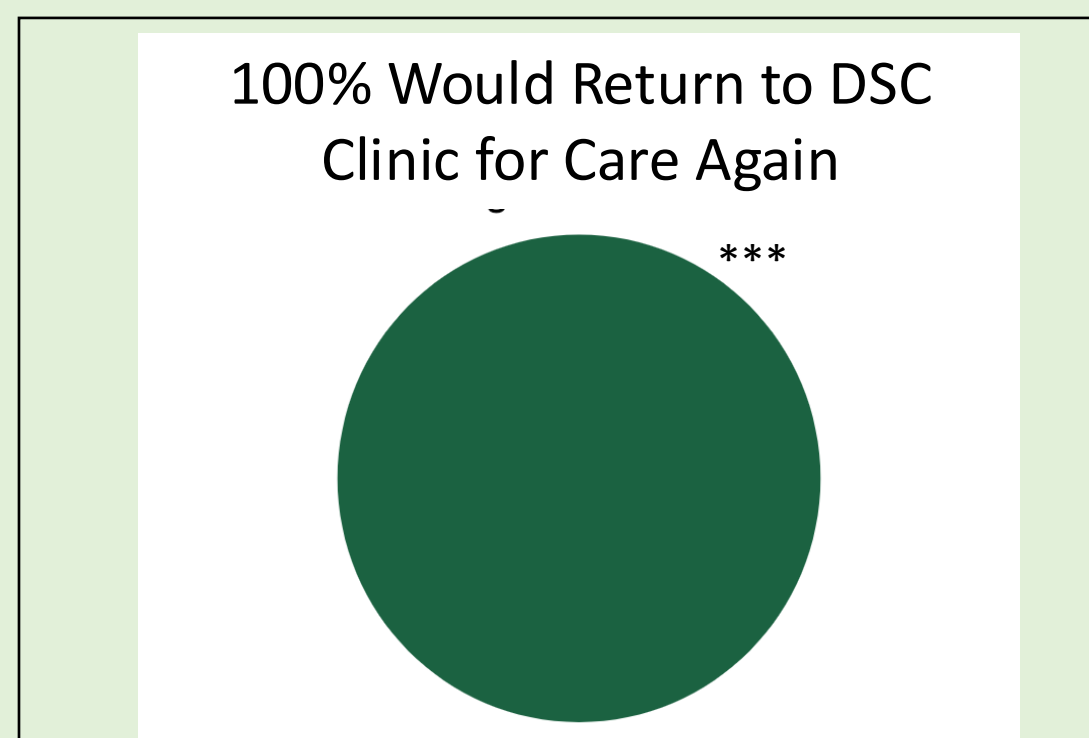
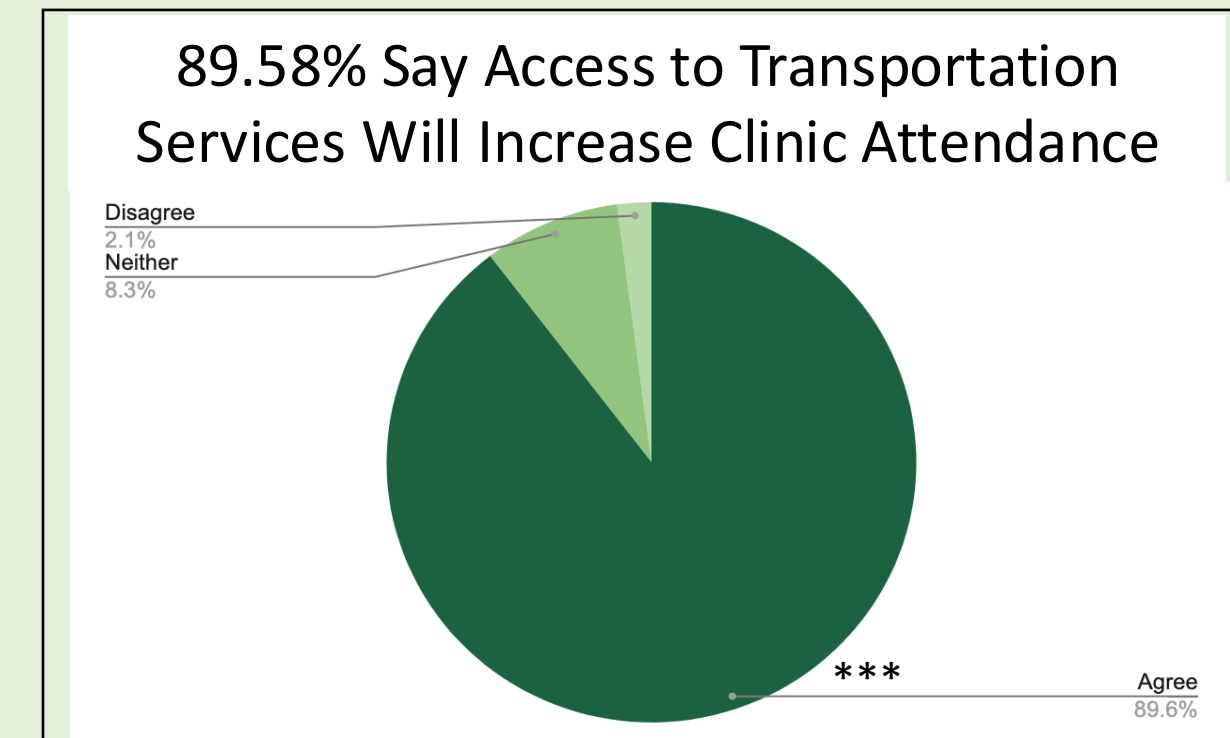
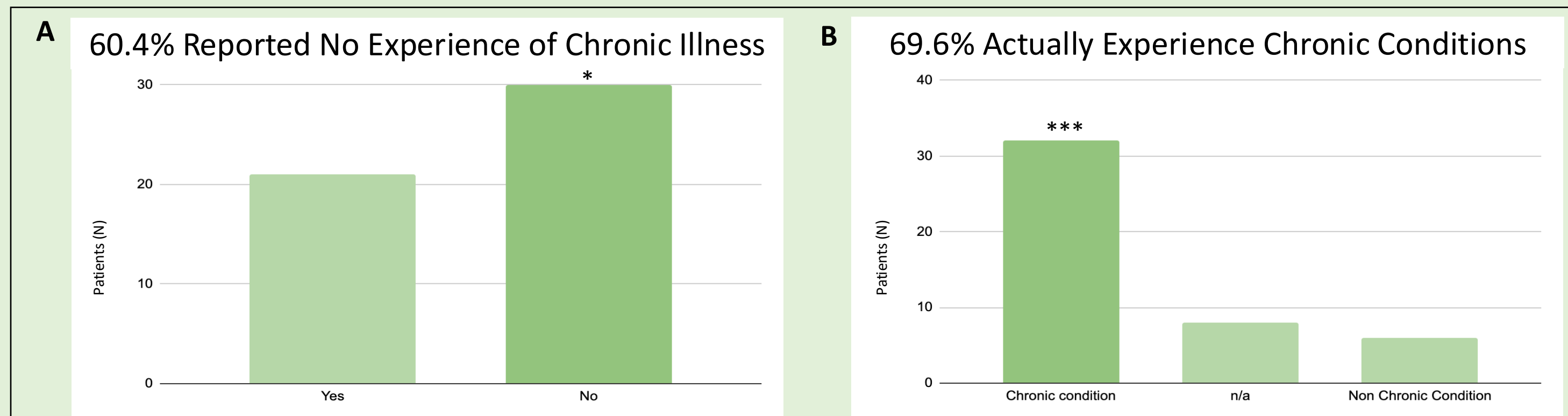
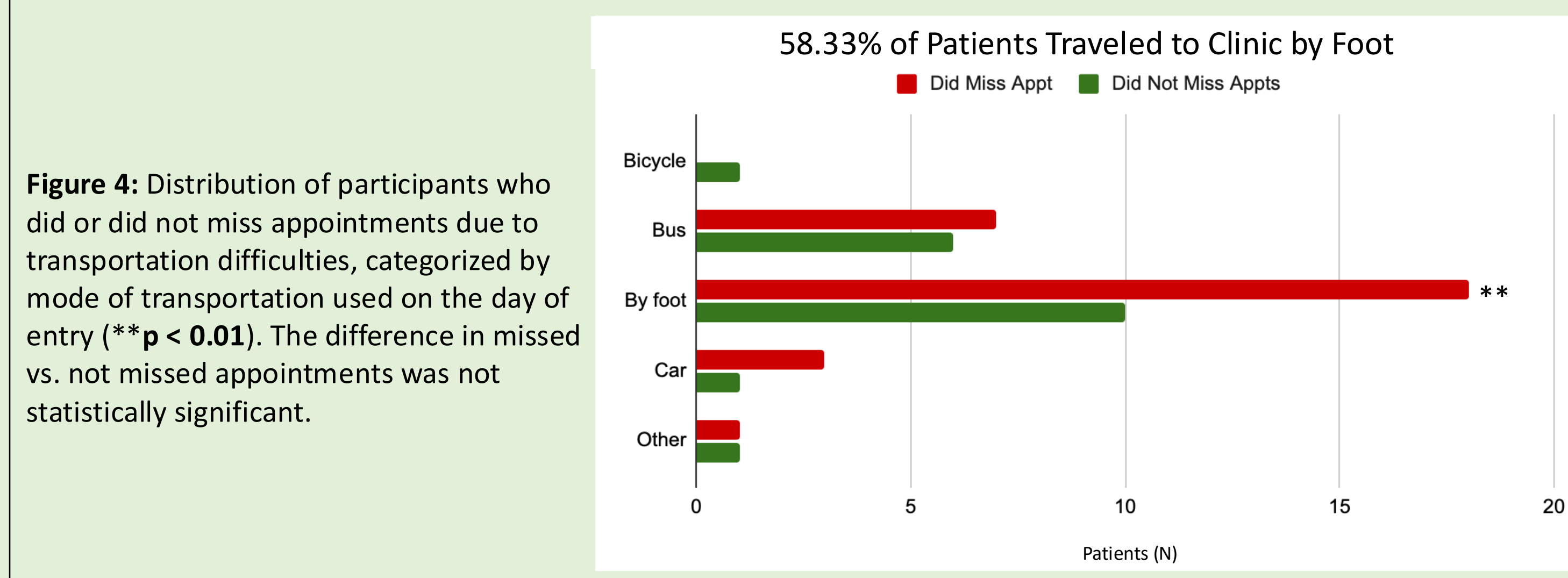
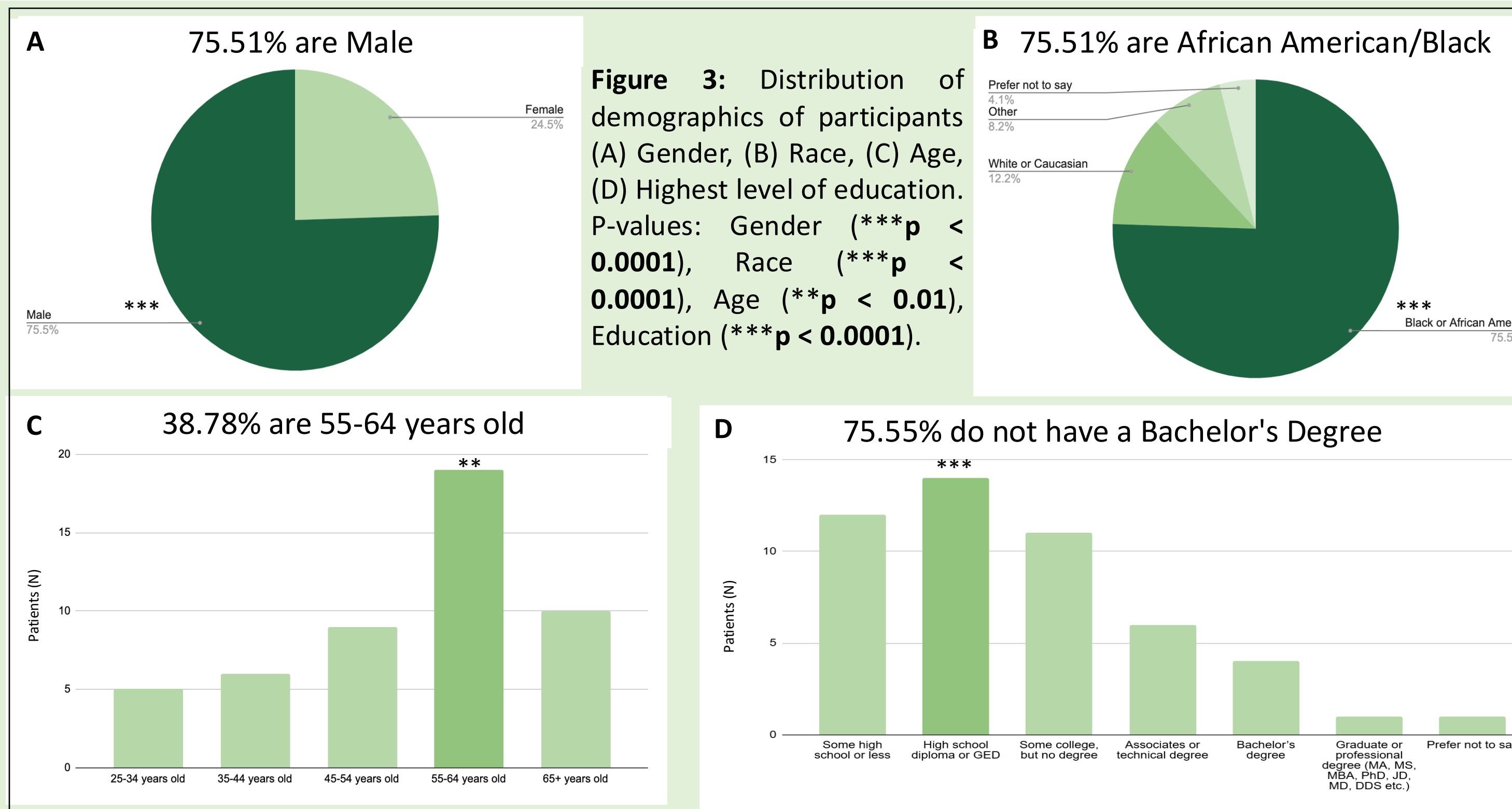


Figure 2: Diagram outlining the steps taken to train OMS-I's at MSUCOM, collect and analyze data

Results



Conclusion

- Majority of those traveling by foot missed appointments
 - Transportation barrier exists in access to medical care for those experiencing homelessness
 - Eliminate barrier \Rightarrow increase healthcare accessibility

Limitations:

- Variations in health literacy \Rightarrow question misinterpretation \Rightarrow data inaccuracy
- Small sample size and pilot study

Next Steps

- Integrate **patient-centered care** with **medical education** and **research**
- Potential for **sustainable inclusion in street medicine services and future research**.
- Arrange for a DSC health van to eliminate transportation barrier
- Empower the homeless to voice their needs, helping us identify service gaps

Acknowledgments

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References:

1. HAND. (2021). 2021 annual report. Housing Assistance Network of Detroit. https://static1.squarespace.com/static/5344557fe4b0323896c3c519/t/63a066f857311e7733196f5ef/1671456510691/FINAL_2021+ANNUAL+REPORT_HAND_8.5X11+SINGLE+PAGES+LOW+REZ.pdf
2. Hill, C. F., Powers, B. W., Jain, S. H., Bennet, J., Vavas, A., & Oriol, N. E. (2014). Mobile health clinics in the era of reform. The American journal of managed care, 20(3), 261–264.
3. Ramsay N, Hossain R, Moore M, Milo M, Brown A. Health Care While Homeless: Barriers, Facilitators, and the Lived Experiences of Homeless Individuals Accessing Health Care in a Canadian Regional Municipality. Qualitative Health Research. 2019;29(13):1839-1849. doi:10.1177/1049732319829434
4. Yu, S. W. Y., Hill, C., Ricks, M. L., Bennet, J., & Oriol, N. E. (2017). The scope and impact of mobile health clinics in the United States: a literature review. International journal for equity in health, 16(1), 178. <https://doi.org/10.1186/s12939-017-0671-2>