

# Evaluating Attitudes and Educational Gaps in Transgender Healthcare Among Healthcare Professionals at a University Medical Center

Elizabeth Schumacher<sup>1\*</sup>, Mani K. Askari<sup>2</sup>, Sara Zandvakili<sup>1</sup>, Hoda Shabpiray<sup>2</sup>, Lori DeShetler<sup>3</sup>, Basil Akpunonu<sup>4</sup>, Anand Mutgi<sup>2</sup>

<sup>1</sup>Student, College of Medicine and Life Sciences, 3000 Arlington Avenue, University of Toledo, Toledo, OH 43615

<sup>2</sup>Division of Internal Medicine, Department of Medicine, 3000 Arlington Avenue, University of Toledo, Toledo, OH 43615

<sup>3</sup>Department of Medical Education, 3000 Arlington Avenue, University of Toledo, Toledo, OH 43615

<sup>4</sup>Faculty and Chair, Department of Medicine, 3000 Arlington Avenue, University of Toledo, Toledo, OH 43615

**Email:** elizabeth.schumacher2@rockets.utoledo.edu

**Received:** 2024-08-07

**Accepted:** 2024-09-16

**Published:** 2025-06-30

**Introduction:** Of the estimated 1.6 million transgender individuals (TI) in the USA (1), many do not seek regular medical care due to fear and stigma (2). Studies demonstrate healthcare providers struggle to provide appropriate gender-affirming care to this group. This deficit is often linked to inadequate knowledge and training (3-4). Educating providers about the needs of TI is the most effective way to improve healthcare for this population (3, 5, 6). Our study assesses healthcare professionals' attitude, comfort, and prior education of TI's care.

**Methods:** A survey was delivered to the target group across different specialties. The data are multi-institutional, with preliminary data collected from students and physicians working in a tertiary university-based medical center. Survey participation was voluntary with no reward or penalty tied to submission, and no identifying data was collected. The 25-question, Likert scale rating, survey assesses attitudes regarding transgender care. The survey received IRB approval for distribution and use of human subject data. Written informed consent was collected.

**Results:** Demographic analysis showed 51% of the respondents were female at birth, 45% male at birth, and 4% did not disclose. Eighty-four percent of the respondents were <40 years old. Female respondents showed more positive attitudes toward transgenders than males ( $P < 0.0001$ ). Males were more likely to believe they received appropriate education to medically manage TI than females ( $P = 0.002$ ). Medical students' interest in more education on healthcare needs of TI was statistically significantly higher than of faculty ( $P = 0.038$ ).

**Conclusions:** Preliminary results from 168 respondents demonstrated that women and younger participants show more positive attitudes towards TI. Females and medical students showed greater interest in more

education on healthcare needs of TI. The preliminary results of this ongoing multi-institutional study demonstrate a need for more exposure and education to healthcare needs of TI for all medical professionals.

**Keywords:** Transgender, Attitudes, Education

---

## References

1. Boskey ER, Quint M, Xu R, Kremen J, Estrada C, Tham R, Kane K, Reisner SL. *Gender Affirmation-Related Information-Seeking Behaviors in a Diverse Sample of Transgender and Gender-Diverse Young Adults: Survey Study*. JMIR Form Res. 2023 Aug 15. **7**:e45952. doi: 10.2196/45952
2. Safer JD, Coleman E, Feldman J, Garofalo R, Hembree W, Radix A, Sevelius J. *Barriers to healthcare for transgender individuals*. Curr Opin Endocrinol Diabetes Obes, 2016 Apr. **23**(2):168-71. doi: 10.1097/MED.0000000000000227
3. Brooks H, Llewellyn CD, Nadarzynski T, Pelloso FC, De Souza Guilherme F, Pollard A, Jones CJ. *Sexual orientation disclosure in health care: a systematic review*. Br J Gen Pract, 2018 Mar. **68**(668):e187-e196.doi: 10.3399/bjgp18X694841
4. Hashemi L, Weinreb J, Weimer AK, Weiss RL. *Transgender care in the primary care setting: a review of guidelines and literature*. Fed Pract, 2018. **35**(7):30–37.
5. Arthur S, Jamieson A, Cross H, Nambiar K, Llewellyn CD. *Medical students' awareness of health issues, attitudes, and confidence about caring for lesbian, gay, bisexual and transgender patients: a cross-sectional survey*. BMC Med Educ, 2021. **21**(1):56.