

### College Students Who Identify as Non-Binary and at Risk for Eating Disorders Exhibit the Lowest Eating Competence in the Context of COVID-19

Jordyn Fantuzzi, Sarah Haack, and Cristen Harris

University of Washington

**Objectives:** It has been shown that more males than females are identified as having Eating Competence (EC). EC among college students who do not identify as male or female is not well understood, especially in relation to other health behaviors. We evaluated a sample of undergraduates during the COVID-19 pandemic and hypothesized that lower EC would be associated with identifying as female or non-binary and having lower fruit and vegetable (F&V) intake, lower physical activity, following a weight control diet, and present or past eating disorder (ED).

**Methods:** An online survey was administered from October to December 2020 to undergraduate students at a public university. Validated instruments in the questionnaire included the Satter Eating Competence Inventory (ecSI 2.0<sup>TM</sup>) and the SCOFF survey for ED risk. Total ecSI 2.0<sup>TM</sup> scores ranged from 0–48; EC was defined as  $\geq 32$ . Questions about dietary pattern and ED presence or history were also included. Two-factor ANOVAs evaluated associations between ecSI

2.0<sup>TM</sup> score with gender identity and F&V intake, physical activity, diet pattern, ED history, and ED risk. Statistical analyses were conducted using SPSS (v.28.0).

**Results:** Among survey completers (N = 1996), 72% identified as female, 23% male, and 4% non-binary. 60% of participants were not EC. Males had the highest mean ecSI 2.0<sup>TM</sup> score of 32.8 ( $\pm 0.4$ ) versus females and non-binary students, respectively (27.7  $\pm$  0.3, 25.0  $\pm$  0.8;  $P < 0.001$ ). Interactions between gender and other factors were not significant. Mean ecSI 2.0<sup>TM</sup> score among participants with a current ED (19.3  $\pm$  0.6) was significantly lower than those without ED history (31.3  $\pm$  0.3,  $P < 0.001$ ). Participants with “at-ED-risk” SCOFF scores had significantly lower mean ecSI 2.0<sup>TM</sup> scores than those not-at-risk for an ED (23.7  $\pm$  0.4 vs. 31.4  $\pm$  0.3,  $P < 0.001$ ).

**Conclusions:** Mean ecSI 2.0<sup>TM</sup> scores were lowest for students who identified as non-binary and had presence or risk of an ED. Future interventions that focus on EC should consider the disproportionately low EC among non-binary populations and those at risk for ED.

**Funding Sources:** Jordyn Fantuzzi and Sarah Haack were supported by the University of Washington Nutritional Sciences Program through the Top Scholar Award. The use of REDCap was made possible through the Institute of Translational Health Science (ITHS) grant support: UL1 TR002319, KL2 TR002317, and TL1 TR002318 from NCATS/NIH.