Individual Research Project Presentations Day 10th June 2024, Kent and Medway Medical School.

Is there Gender Bias in Medical Resources used in Undergraduate Medical Education? A Content Analysis Using the Gender Bias 14 (GB14) Measurement Tool.

Student[a]**:** Olivia Eva Woods | **Supervisor(s)**[b]**:** Dr Claire Parkin

Abstract

Background: Medicine has been conceived as a male led career for centuries, with 58% of higher trainee jobs in the national health service being occupied by men. Male gender biases and discrimination against women in Medicine have been found to contribute to women choosing certain specialties, such as General Practice rather than surgery. This is likely attributable to healthcare professional cultures, equipment and resources, as well as a lack of female role models in e.g., general surgery. What is not apparent from the literature is whether a gender bias exists at undergraduate level, especially within teaching resources, which may also be contributing to future career choices made by women in medicine.

Methods: This study was a content analysis of a selection of core medical education resources including 3 chapters of a single medical textbook and all year 1 reading lists. Using the GB14(c) *genderness* tool, these resources were quantitively measured for extent of gender bias within. The GB14(c) measures bias on a sliding scale, with male bias represented by a plus score (+) and female bias represented by a minus (-) score, therefore results are given as + or - respectively with both indicating gender bias in one direction or the other. The GB14© gives an overall outcome of low, moderate, high or extremely high bias, depending on the score.

Results: Results highlighted an overall *moderate* level male bias across the 3 chapters of the core medical textbook. The authors of the chapters within this book were also *moderately* male biased (+23). Chapter by chapter, there was male bias in all but reproduction as follows: Cardiovascular System = +*37*; Respiratory System = +*26*; Reproductive System = -*193*. The six year-1 module reading lists proved to be highly male biased with 267/305(88%) authors being male. % male authors per module were: FHD module 46/56(82%); HLB 42/47(89%); NME 33/36(91%); NB 61/67(92%); RE 54/59(91%); and MIS 35/45(77%).

Conclusions: There are male gender biases within medical education core teaching materials which may have impacts on female medical students, who aren't then exposed to female role models or female representation overall. This may impact women's future career

aspirations by leading women into specialities they are more represented in, such as family medicine or obstetrics, gynaecology, and reproductive medicine. This is likely attributable to historical dominance of men in medicine and science with a predominance of males writing these textbooks therefore leading to a general lack of available resources which are gender balanced. Recommendations are for medical schools to include a wider pool of gender balanced resources where possible, but for the medicine and STEM community to encourage more publications from women.

Keywords: Gender Bias | Medical Education | Content Analysis | Medical Students |

[a] 4th Year Medical Student, Kent and Medway Medical School, Canterbury, United Kingdom

[b] Associate Professor in Medical Education, Kent and Medway Medical School, Canterbury, United Kingdom

Main contact email: Kmmsoew4@canterbury.ac.uk