

## **A KISS IS NOT JUST A KISS: KISSING AS A RISK FACTOR FOR OROPHARYNGEAL GONORRHOEA IN MEN WHO HAVE SEX WITH MEN**

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**Background:** Our aim was to determine whether exposure to the anatomical sites (oropharynx, penis, or anus) of male partners of men who have sex with men (MSM) were independent risk factors for oropharyngeal gonorrhoea after adjusting for exposures to these sites.

**Methods:** Between November 2018 and December 2020, we invited MSM who attended the Melbourne Sexual Health Centre (MSHC) in Victoria, Australia, to complete a survey of their sexual practices in the past three months. We collected data on the number of male partners with whom men engaged in sexual activities that exposed their oropharynx to their partners' oropharynx (kissing), penis (fellatio), and anus (rimming). We conducted univariable and multivariable logistic regression analyses to investigate associations between oropharyngeal gonorrhoea and the three exposures to the oropharynx.

**Results:** The mean age of the 2,322 men who completed the survey was 34.9 years (SD=12.1), and 5.2% ( $n=120$ ) were diagnosed with oropharyngeal gonorrhoea. Our univariate analysis showed that oropharyngeal gonorrhoea was significantly associated with increasing number of kissing ( $p_{\text{trend}} < 0.001$ ), rimming ( $p_{\text{trend}} < 0.001$ ) and fellatio ( $p_{\text{trend}} < 0.001$ ) partners. After adjusting for all three exposures, oropharyngeal gonorrhoea was associated with increasing number of kissing ( $p_{\text{trend}} = 0.014$ ) and rimming partners ( $p_{\text{trend}} = 0.037$ ) but not fellatio ( $p_{\text{trend}} = 0.605$ ).

**Conclusion:** These data do not support the currently accepted transmission route where gonorrhoea is transmitted to the oropharynx of men primarily through performing fellatio. Our data suggest kissing and rimming are important practices in gonorrhoea transmission.

**Disclosure of Interest Statement:** EPFC and JJO are each supported by an Australian National Health and Medical Research Council (NHMRC) Emerging Leadership Investigator Grant (GNT1172873 for EPFC and GNT1193955 for JJO). CKF and CSB are supported by an Australian NHMRC Leadership Investigator Grant (GNT1172900 for CKF and GNT1173361 for CSB). JSH is supported by an NHMRC Senior Research Fellowship (GNT1136117). ETA is supported by Australian Government Research Training Program (RTP) scholarship from Monash University and Research Entry Scholarship from the Chapter of Sexual Health Medicine, Royal Australasian College of Physicians. JT is supported by Australian Government Research Training Program (RTP) Scholarship from Monash University.