

Self-reporting and social desirability: The implications for e-cigarette data collection

Dear Editor:

Re: Hammond D, White CM, Czoli CD, Martin CL, Magennis P, Shiplo S. Retail availability and marketing of electronic cigarettes in Canada. *Can J Public Health* 2015;106(6):e408–12. doi: 10.17269/CJPH.106.5105

Thank you for providing this study. Researching the disparities in both nicotine- and non-nicotine-containing e-cigarette product marketing and enforcement in Canada is a public health issue of great concern. The importance of this research is paramount, as many factors remain unknown on this issue.¹ We would like to comment on the format in which the survey protocol was conducted and the potential implications for validity and bias.

The methodology indicates that a standardized protocol was used for conducting the brick-and-mortar retail audits. However, no further explanation was provided on the type, quantity and scope of the interview questions. Additionally, the questionnaire was not provided as a table or figure. Provision of the questionnaire would have been useful for gauging both the reliability and validity of the protocol, which has implications for how well this protocol captured the true marketing of e-cigarettes and how generalizable the results are for future studies.² The protocol for the online audits only contained three questions, all to be completed online by the retailer. This method may in fact result in under-reporting, since the retailers may be reluctant to share true results for fear of retribution, or may not have ever read and accurately responded to the questions.

The interview structure for the brick-and-mortar audits may create a situation which fosters response bias and social desirability issues.³ The interview questionnaire was conducted in person by a trained research assistant. The role of the research assistant was disclosed to the retailer. Disclosure may create a situation where the retailer may feel pressured to under-report the sales of nicotine and non-nicotine products in fear of retribution.^{4,5} For the online retailers, anonymity may lead to inaccurate responses and thus skew the results.⁶

Data collection methods that rely on self-reporting measures increase the potential for social desirability to have an influence on response measures.⁴ This has further implications for policy and public health action when the magnitude of the problem may be undermined by such designs. Overall, we feel the questionnaires for both in-store and online retailers could have been 1) provided in the text and 2) standardized to decrease bias and increase validity and reliability. These issues could have been established by choosing an appropriate set of standardized survey questions that were transparent to the reader. We are suggesting that future studies incorporate a valid protocol that fosters replicability. This can be created by designing questionnaires examining the quantity of products sold, the demographic population(s), product accessibility, product promotion and factors that may be more inclusive to both urban and rural centres. Additionally, this questionnaire should be made available within the article to ensure transparency.

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REFERENCES

1. Centre for Population Health Impact. *Tobacco use in Canada: Patterns and trends. Special supplement: E-Cigarettes in Canada*. 2015. Available at: http://www.tobaccoreport.ca/2015/TobaccoUseinCanada_2015_EcigaretteSupplement.pdf (Accessed April 13, 2016).
2. Drost EA. Validity and reliability in social science research. *Educ Res Perspect* 2011;38(1):105–24.
3. Steenkamp JBEM, De Jong MG, Baumgartner H. Socially desirable response tendencies in survey research. *J Market Res* 2010;47:199–214. doi:10.1509/jmkr.47.2.199.
4. Pannucci CJ, Wilkins EG. Identifying and avoiding bias in research. *Plast Reconstr Surg* 2011;126(2):619–25. doi:10.1097/PRS.0b013e3181de24bc.
5. Devers KJ, Frankel RM. Study design in qualitative research-2: Sampling and data collection strategies. *Educ Health* 2000;12(2):263–71.
6. Lelkes YL, Krosnick JA, Marx DM, Judd CM, Park B. Complete anonymity compromises the accuracy of self-reports. *J Exp Soc Psychol* 2011;48(6):1291–99. doi:10.1016/j.jesp.2012.07.002.