



Is Canadian federal legislation effective in preventing youth access to vaping initiation products? A study using secret shoppers and online access in three Alberta cities

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ARTICLE INFO

Keywords:

Nicotine vaping initiation product
Youth access
Retail secret shopper
Online purchasing attempt
Tobacco and Vaping Products Act (Canada, 2018)

ABSTRACT

The *Tobacco and Vaping Products Act* (Canada, 1997) (the “TVPA”) aims to protect the health of young persons by restricting access to vaping products. We studied whether the TVPA achieves this goal by sending young ‘secret shoppers’ to 120 shops in Calgary, Edmonton, and Red Deer to attempt to buy nicotine-based vaping-initiation products, and by asking minors to purchase the same product online. We used three ‘improper’ shop scenarios: 1. a minor or minors; 2. a young adult with no or invalid identification (“ID”); and 3. a young adult with valid ID but clearly buying for an accompanying minor. Of total vendors, 42.5% (51/120) were willing to sell to the young people ($p < .001$). Most vendors requested ID in all scenarios (97/120, 80.8%). Of these, 28 vendors (28.9% of those requesting ID), were still willing to sell the product. All vendors who did not request ID (23/120, 19.2%) were willing to sell; vape shops were more likely than convenience stores not to request ID (25.4% v. 13.1%). In five online purchase attempts, 60% of deliverers did not meet the TVPA’s ID verification requirements. The TVPA does not require packages to reveal their contents; one parent inadvertently signed for the parcel. To prevent youth access, the TVPA should require: a minimum nicotine product purchase age of 21, positive obligations on vendors to request ID, prohibition of sales to adults buying for minors, and that manufacturers disclose the product on posted or delivered parcels. The TVPA should be strictly enforced.

1. Introduction

Electronic cigarettes and fluid (“e-cigarettes” and “e-fluid”) are hazardous materials frequently marketed as safer than combustible cigarettes (Glasser et al., 2017) and are perceived as safe by young people (Mulcahy, 2019). Usually containing nicotine, e-cigarettes and fluid have serious health risks when inhaled or ingested (Richmond et al., 2018). The short and long-term effects are uncertain and are likely harmful (Bhatta and Glantz, 2020; Chun et al., 2017). E-cigarette use (“vaping”) among youth has recently increased dramatically. In 2016–2017, past 30-day e-cigarette use was 45% higher in Alberta, the study site, compared to the national average (Thompson-Haile et al., 2018). Between 2017 and 2018, Canadians, 16–19 years, who reported vaping over the past 30 days increased 74%, from 8.4% to 14.6%, the

highest levels recorded (Hammond et al., 2019). This increase directly coincides with the May 2018 federal legislation (Tobacco and Vaping Products Act) that lifted the ban on e-cigarette importation and sales (excluding cannabis) without pre-approval (Health Canada, 2020) and the September 2018 entry of JUUL nicotine-based e-cigarette products into the Canadian market (Zochodne, 2018).

E-cigarette and e-fluid products provide consistent nicotine delivery at varied levels. Those products with high levels of nicotine when compared to traditional combustible cigarettes result in the rapid development of nicotine dependency (Goniewicz et al., 2012; Kaur et al., 2018; Reilly et al., 2018). Although promoted as a method to promote smoking cessation, combined use is far more common than vaping alone (Bhatta and Glantz, 2020; Worku and Worku, 2019). Chronic vaping is associated with increased risk of subsequent use of

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<https://doi.org/10.1016/j.pmedr.2020.101117>

Received 17 October 2019; Received in revised form 10 March 2020; Accepted 8 May 2020

Available online 15 May 2020

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combustible cigarettes (National Academies of Science, Engineering, and Medicine, 2018). Vaping has been associated with wheezing (Li et al., 2019), coughing, shortness of breath, and respiratory failure persisting despite appropriate medical treatment (National Academies of Sciences, Engineering, and Medicine, 2018; Centers for Disease Control and Prevention [CDC], 2019a). E-cigarette, or vaping, product use-associated lung injury (EVALI) has recently been associated with deaths and multiple cases of respiratory failure in the United States (Layden et al., 2019; CDC, 2019b; Davidson et al., 2019). These illnesses have been depicted on social media (Paige, 2019) and are now notifiable in Alberta (*Public Health Act*, Office of the Medical Officers of Health, South Zone, 2019). Vaping might also lead to adverse effects on the heart and blood pressure (Qasim et al., 2017).

The Canadian Government regulates nicotine-based e-cigarettes in the *Tobacco and Vaping Products Act* (2018) (the “TVPA”). The TVPA seeks to protect “the health of young persons by restricting access to vaping products” (which are defined to exclude cannabis (s. 2)). The TVPA: 1. chooses 18 as the minimum age for, *inter alia*, selling, giving, lending, or sending vaping products (ss. 8(1) & 9(1)); 2. exculpates persons who, in good faith, furnish or send to persons with falsified identification (ss. 8(2) & 9(2)); 3. permits online sales of e-cigarettes (a merchandising method banned in Quebec, *Tobacco Control Act*, 2018) provided the seller informs the delivery person of what is in the package and the deliverer inspects government-issued identification to ensure the recipient is over age 18 (ss. 9(2) & 9(3)); and 4. permits advertising at the point of sale (s. 30).

Focusing on these four policy choices, we sought to evaluate the TVPA’s effectiveness in protecting youth from accessing nicotine-based vaping products (*Tobacco and Vaping Products Act*, 2018). We employed a ‘secret shopper’ interventional study design with young confederate researchers attempting to purchase a JUUL Starter Kit (a “Starter Kit”). We investigated whether vendors will sell a JUUL Starter Kit to: (1) youth younger than 18 (“minors”) with or without being asked for proof of age identification (“ID”); and (2) youth age 18–21 (“young adults”) without being asked for ID or with inadequate ID. Because minors often obtain vaping products from young adults (Pepper et al., 2018), we also investigated whether: (3) vendors will sell a Starter Kit when the young adult is clearly purchasing for an accompanying minor. A survey of school-aged e-cigarette users reported that students commonly acquire vaping products by purchasing them online (Kong et al., 2017), so we investigated whether: (4) deliverers of online orders meet the federal requirements for deliverers. Finally, we sought to determine whether: (5) point of sale advertising is associated with success in purchasing by a minor, a young adult without ID or with false ID, or a young adult for a minor.

2. Methods

This study was approved by the University of Calgary-Alberta Health Services Conjoint Health Research Ethics Board (CHREB) and funded by the Alberta Children’s Hospital. Study subjects were vendors in vaping and convenience stores in three Alberta cities and the deliverers of vaping products ordered online. These subjects were not told that attempted purchases, delivery and in-store advertising behaviour were part of a study to observe their selling, delivery and promotion practices. The CHREB allowed this ‘secret shopper’ research without these subjects’ consent. Further, the CHREB permitted us not to debrief subjects (Government of Canada, 2014) to avoid the risk of employee dismissal for disregarding the statutory prohibition of sales to minors.

The confederate researchers were: six minors (15–16 years), seven young adults (19–21 years) and six drivers (> 22 years), recruited by word of mouth. Confederates were offered one week to withdraw their participation promise, and an \$100 honorarium upon study completion. To prevent vendors from knowing that secret shoppers would visit, the young confederates were advised not to speak about the study.

We identified vaping and convenience stores, prioritizing those

close to junior and senior high schools in Calgary (population: 1,392,609 [Statistics Canada, 2017b]) and Edmonton (population: 1,321,426 [Statistics Canada, 2017b]). We created routes of 15 shops per city quadrant. In Red Deer (population: 100,418 [Statistics Canada, 2017a]), a convenience sample of ten shops was based on proximity to the Calgary-Edmonton route (Queen Elizabeth II Highway). In Calgary, purchases were from June 19 to 21, 2019 by four teams (one per quadrant) in private vehicles transporting a team typically of two minors and two young adults. On June 22, 2019, researchers and confederates travelled to Red Deer, where attempted purchases and observation were conducted on foot. On the same day, in Edmonton, four cars were rented, and the Calgary procedure replicated. In each city, young confederates entered retail shops to buy Starter Kits and to observe in-store advertising. 120 shops were visited (Calgary 48, Edmonton 62, Red Deer 10). Ten of 58 intended Calgary shops could not be reached because of congestion and traffic (8) or selling only cannabis (1) or being permanently closed (1).

In Calgary and Edmonton, each team typically attempted five sets of three scenarios of attempted purchases: 1. Minor(s); 2. Young adult without identification; and 3. Young adult clearly attempting to buy for minor using words such as, “You wanted the JUUL Starter Kit right?“, followed by “Is that the one you wanted?”. In Red Deer, three minors, four young adults, and three combinations (of one young adult and one minor) visited shops. Not all confederates could attend all three cities. The confederates were given no script and were not rehearsed. The only explicit instructions concerned the product (JUUL Starter Kit); using no or fake ID in the second scenario; and in the third scenario the need to make it obvious that the young adults were buying for the minor. The inexplicit script was intentional; we aimed to replicate how a minor or young adult might actually attempt to purchase such vaping products by not telling the confederates how to act or what to say. Immediately upon re-entering the car or bus, confederates documented the type of shop, scenario type, identification requested, success of sale, employee comments, and in-store advertising presence and type.

Five minors ordered a Starter Kit online from their homes. Minors who were blocked online used the name of a sibling or parent, to whom the package was sent.

The preliminary statistical analyses involved frequencies for each variable. Chi square tests of association were conducted, with $p < .05$ considered statistically significant.

3. Results

Of 120 visited shops, 48 were in Calgary, 62 in Edmonton, and 10 in Red Deer.

3.1. Overview of results

In total, 42.5% of vendors (51/120) were willing to sell to the young people. Most vendors requested ID of the minor, of the young adult, or of the young adult in the combination scenario (97/120, 80.8%). Of these, 28 vendors (28.9% of those who requested ID), were willing to sell. Of those who did not request ID (23/120, 19.2%), all were willing to sell. The association between willingness to sell and requesting ID was statistically significant ($\chi^2(1, N = 120) = 38.50, p < .001$).

3.2. Minors: willingness to sell to minors with and without requesting ID

Thirty-eight of the 120 interactions involved minors. Vendors requested ID in 37/38 attempts. In five cases, (13.2% 5/38) vendors were willing to sell. Of these five cases, four vendors requested identification ($\chi^2(1, N = 120) = 6.78, p = .009$) (Tables 1 and 2).

Table 1
Minors' attempted purchases without ID: Examples of Vendor Comments and Behaviour.

Vendor comments and/or behaviour	Vendor willing to sell?
"Sorry, you need to be 18. Have a good day."	No
"You're too young."	No
"No sale with no ID."	No
"I have to be strict with the rules because the government is hiring teenagers to test regulations' effectiveness."	No
"You know I would sell it to you, man. But there is a cop outside. I have to ID you. Sorry man."	No
"I won't sell to anyone under 25. I don't want people reselling to minors."	No
Employee did not ask for ID. He was vaping.	Yes
Asked for ID. Minor didn't have ID. "It's fine this time."	Yes

Table 2
Minors' attempted purchases with fake ID: Examples of Vendor Comments and Behaviour.

Comments	Vendor willing to sell?
ID did not resemble minor: different hair and eye colour.	Yes
ID did not resemble minor: different hair, eye colour, height, and six years older.	Yes

3.3. Young adults: Willingness to sell to young adults age 18 to 21-without asking for ID or when presented with inadequate ID

With no ID or ID that was invalid, young adults made 44 visits to shops. Of these visits, 14 (31.8%) vendors did not request ID; all were willing to sell. All 30 remaining, vendors requested ID (68.2%), but were still willing to sell in eight instances. In other words, in 26.7% of the times when vendors actually asked for ID, they were still willing to sell to a young adult who either 'talked his or her way out' of needing ID, or produced an invalid or fraudulent piece of ID. In total, 22 vendors (50%) were willing to sell to young adults who had no or invalid ID ($X^2(1, N = 120) = 20.71, p < .001$) (Table 3).

3.4. Willingness to sell to young adults over the age of 18 when it is obvious that the young adult is purchasing a Starter Kit for an accompanying minor

There were 38 visits by a combination of a young adult and a minor, where the young adult was clearly buying a Starter Kit for the minor. During these visits, eight vendors (21.1%) did not request ID; all were willing to sell. During the 30 visits where vendors did request ID, they were still willing to sell in 16 instances (53.3%). In total where a young adult was clearly buying a Starter Kit for a minor, vendors were willing to sell almost two thirds of the time (24/38, 63.2%; $X^2(1, N = 120) = 5.85, p = .016$) (Table 4).

3.5. Relationship of point of sale advertising to willingness to sell to young people

During each shop visit, the minor and/or young adult noted whether

Table 3
Young adults' attempted purchases without ID or with fake ID: Examples of Vendor Comments and Behaviour.

Comments Made by Vendor	Vendor willing to sell?
"ID must have your date of birth and be government issued."	No
Immediately asked for ID. Buyer tried to justify his beard as proof of age. Vendor responded, "We ID everyone under 30."	No
"Sorry, certain people need IDs at the checkout."	No
Vendor was friendly, asked about flavour and nicotine level. Complained about job. Vendor then asked for ID.	No
Asked for ID but when young adult had none, the vendor asked whether he had anything on his phone that would work as ID.	No
Asked for ID but when young adult said, "I don't have it on me", vendor replied, "That's okay."	Yes
Asked for ID. Answer: "No, but I'm 21." Vendor responded, "Okay bring it next time."	Yes
Did not request ID. Very friendly. Just chatted about pod flavours.	Yes
Did not request ID. "Do you want me to put a hold on the Starter Kit until you come back with the money?"	Yes
Did not request ID. Asked if he would like to register in the vendor's loyalty program.	Yes

vaping device advertisements were visible at the point of sale or outside the building. In the minor only scenario vendors were willing to sell to minors in five instances; four (80%) were conducted near advertisements for vaping products and one (20%) when no advertisements were present. In the young adult scenario, vendors were less likely to sell when advertisements were present; vendors were willing to sell to young adults 44.8% of the time when advertising was present (in 13 of 29 locations), and 60% of the time when no advertising was present, (in 9 of 16 locations). In all trials (irrespective of which scenario was implemented), there was no statistically significant difference observed between the 42.3% of vendors willing to sell in the presence of advertisements and the 41.7% of vendors willing to sell when there was no advertisement present ($p = .949$).

3.6. Relevance of type of store

We considered whether the type of store made a difference to successful purchasing. The three groups visited 59 vape stores and 61 convenience stores (total: 120). Of 97 vendors (80.8%) who requested ID, 28 were willing to sell (28.9%). Convenience store vendors were more likely to sell after asking for ID. Of 53 convenience stores that requested ID, 17 (32.1%) were willing to sell. Of 44 vape shop vendors who requested ID, 11 (25%) were willing to sell. Vape shops, however, were less likely to request ID. 15 vape shops (25.4%) did not request ID and were willing to sell in all cases ($X^2(1, N = 120) = 25.53, p < .001$ for vape shops). Eight convenience stores (13.1%) did not request ID and were willing to sell ($X^2(1, N = 120) = 13.26, p < .001$ for convenience stores).

3.7. Whether deliverers of online orders meet the federal requirements for such deliveries

The TVPA requires deliverers of vaping products to ask the recipient (the child or parent) for government-issued ID with photo, date of birth, and signature, and to sign for the delivery. We sought to know if the deliverers followed this law. The parcels did not disclose the name of the manufacturer. Of the five attempts, three cases were in-person delivery attempts. In none of these three did the deliverer request government issued ID. None of the online purchase attempts resulted in a

Table 4

Young adults' obvious attempts to buy Starter Kit for minor with no, or fake, ID: Examples of Vendor Comments and Behaviour.

Vendor Comments and/or Behaviour	Vendor willing to sell?
"I'm going to need to see ID from you both. You both need to be 18."	No
"I need to see ID from both of you because there is no way I can tell that you aren't buying for her."	No
Requested ID. When none provided, vendor said he would not sell to the pair "for the next 24 h; Health Canada has been very strict on us lately."	No
"You guys look too young." Young adult responded that he was in university. Vendor did not request ID.	Yes
Vendor requested ID from young adult. Asked minor, "What flavour do you want?"	Yes
"Because you [the minor] have no ID, the older one has to buy this for you."	Yes
Young adult asked, "Can I give it to the minor?" Vendor replied, "What you do is your business."	Yes
Vendor did not request ID. Asked minor which one. She responded, "Pink". Young adult said, "Pink please."	Yes
Vendor did not request ID. In front of vendor, young adult asked minor, "You wanted the JUUL Starter Kit, right?" When vendor provided the Starter Kit, young adult asked the minor, "Is that the one you wanted?"	Yes
No request for ID. Young adult clearly buying for minor. Vendor asked minors, "What kind do you want? Minors: "JUUL. Can we get a JUUL?" Vendor: "A starter pack?" Minor: "Yes."	Yes

Table 5

Internet sales results. Interaction between postal worker and adult recipient.

Case Number	Request for Identification/Inspected Picture on Card	Sought Requested Signature	Compared Signature to that on Government Issued Identification
1	N/A (grandmother refused package at post office)	N/A	No (not asked prior to refusal)
2	No (mother refused package at the door)	Yes	No (not asked prior to refusal)
3	No (mother accidentally signed for product at door)	Yes	No
4	No (mother refused package at the door)	No	No (not asked prior to refusal)
5	N/A (minor could not attend post office to collect parcel)	N/A	N/A

minor receiving the Starter Kit. In two cases (case numbers 1 and 5), the parcel was delivered to the post office and not collected there. In the remaining cases, two parents refused delivery stating that they had not ordered the product while the third parent accidentally signed for the parcel and then called JUUL to return the product for reimbursement (Table 5).

4. Discussion

The data reveal that the *Tobacco and Vaping Products Act* has a significant effect on how vendors sell nicotine-based vaping products to young people: 80.8% (97/120) of vendors requested ID. Yet twenty-eight of those vendors who did request ID (28.9%) were still willing to sell to people under 22 years with no or false ID, or who were clearly buying for a minor.

This study might have revealed the effectiveness of enforcement because our finding of 13.2% vendor willingness to sell is below previous findings and occurred shortly after an enforcement warning. In 2015, prior to the *TVPA* ban on vaping product sales to minors, Health Canada conducted a national secret shopper study and reported that 22% of vendors were willing to sell to 15 year olds, and 28% to 16 year olds (Health Canada, 2016). In 2018, students Grade 7–12 reported to Health Canada (2019) that 25% of vendors were willing to sell them e-cigarettes. At that time, according to Calgary Police Service Acting Superintendent, *TVPA* enforcement was conducted by only one enforcement officer based in Edmonton (A. Rashid, personal communication, May 14, 2019). Consequently, we expected a willingness-to-sell-to-minors rate of about 25%. Yet our study observed that 13.2% of vendors were willing to sell to 15 and 16 year olds.

The significant decline in vendor willingness to sell to minors might be due to a Health Canada warning letter issued five days before data collection commenced. Health Canada warned vendors that its inspectors would "be visiting retail establishments, including 1000 vaping specialty stores and 2000 convenience stores, to verify compliance with the *TVPA*" (Health Canada, 2019a; Global News, 2019). Vendors might have feared that our confederate researchers were, in fact, Health Canada inspectors. Indeed, three vendors referred to that letter as reason to refuse to sell stating, for example, that "government is cracking down". Previous studies have found that legislation that effectively prevents youth access to controlled substances is characterized by strict

enforcement (Wagenaar and Wolfson, 1995; Sanson-Fisher et al., 1992; Jason et al., 1991). No vendor mentioned the penalty for furnishing a vaping product to a minor of \$3000 fine or \$50,000 for a subsequent offence (*TVPA* s. 45); yet vendors might have been reluctant to sell because of the Health Canada warning prior to our secret shopper visits and possible unspoken fear of a conviction and penalty.

Although vendors asked minors more often than young adults for ID (97.4% vs. 68.1%), some vendors were still willing to sell despite problems with ID. In four instances with minors and three instances with young adults, vendors permitted the young people to 'talk their way out' of needing to show valid ID. The minors and young adults did so by, for example, stating that they were at university or verbally offering an age over 17. In five instances, vendors were also willing to sell to young adults who had invalid ID. These findings suggest that vendors might be relatively tolerant of young purchasers and therefore lenient at best, or indifferent at worst, in complying with the *TVPA*.

Perhaps the most notable data is that obtained in the 'combination' scenario: where the young adult has valid ID and blatantly seeks to buy for the accompanying minor in the shop. The young adults were instructed to look directly at the accompanying minor and to use implicative language such as, "You wanted the JUUL Starter Kit, right?" and, "What flavour would you like?". Even though the young adult's intention to purchase for a minor was strongly implied, vendors did not request ID in 21.1% of these cases and were willing to sell to the young adult. Vendors did request the young adult's ID in 79.8% of these attempts yet were willing to sell in more than half (53.3%), even though the vaping initiation product was clearly being purchased by the young adult for a minor.

Such sales were not unlawful; the confederate researchers used valid ID to demonstrate that they had reached the age of 18. This combination scenario highlights a flaw in the *TVPA*: the statute does not prohibit an adult with valid ID from purchasing for a minor. Many vendors were described by the confederate researchers to be apathetic, unconcerned, or indifferent to the obvious intentions of the young adults as evidenced by vendor statements such as, "What you do is your business". Further, some vendors actively participated in the purchase by showing the minor the product and asking the minor about colour and flavour preferences; such actions implied that they thought the minor would be the ultimate vaping starter kit user. Many vendors (38.6%) did, however, ask both the young adult and the minor for ID and asked them to

leave the shop when the minor could not provide ID.

Given that minors report using social sources to access vaping products (65%) and cigarettes (84%) (Health Canada, 2019b), an increase in the minimum purchase age for nicotine products to 21 might address the problem highlighted in this study: that young adults can and do buy vaping products for minors. This policy option was adopted in 2019 in Canada by Prince Edward Island (Neatby, 2019) and by the United States (US Food and Drug Administration, 2019). The implication of not creating and enforcing a prohibition against adults purchasing for minors is two-fold: the short and long-term health risks of vaping, and the risk of initiating or perpetuating nicotine addiction in minors.

Online orders for Starter Kits did not end with a minor receiving the parcel. The age verification system established by JUUL.ca meant that only one of the five minors was able to 'verify' her age and to place an order on the first attempt. Nevertheless, each savvy minor circumvented the online processes by using other people's names. No deliverer to the door (3/5 cases) asked for government issued ID with photograph, date of birth, and signature, as is required by the TVPA. Only one of five online purchase attempts resulted in a minor being available to speak to the courier when the package arrived, preventing understanding of what happens when minors answer the door. The lack of the product name on the box led to one adult addressee inadvertently signing for the purchase at the doorstep.

Advertisements at the point of sale generally appeared irrelevant to whether a vendor was willing to sell to a confederate researcher. Four of the five successful sales by minors were near advertisements (80%). By comparison, vendors were less willing to sell to young adults (13/29, 44.8%) when point of sale advertisements were present.

5. Conclusion

In 42.5% of 120 attempted purchases in three Alberta cities, vendors were willing to sell in improper circumstances (a sale to a minor, to a young adult with no or invalid ID, or to a young adult clearly purchasing for a minor). This outcome suggests that the *Tobacco and Vaping Products Act* does not adequately achieve its goal of protecting the health of young persons by restricting access to vaping products. To prevent youth access, the TVPA clearly needs stricter enforcement of its provisions. The TVPA should be amended to require a minimum nicotine product purchase age of 21 and that vendors have a positive obligation to request ID; to prohibit nicotine product sales to adults who are buying for minors, and to require that products delivered by post or courier clearly state the name of the manufacturer and the product type. The TVPA should be strictly enforced. As of this writing, the Government of Alberta is contemplating regulation of vaping and might attend to problems identified in this research.

6. Limitations

The study's online portion had limited data that identified deliverer failure to follow the TVPA in three cases. A more accurate depiction of a minor's ability to obtain vaping products ordered online might be obtained with a greater sample size and increased availability of minors to meet the couriers. Whether advertising promotes youth access to vaping products is a matter we could not determine.

This study did not aim to reveal vendor motive for not requesting ID or for ignoring no or false ID. Such motive might be related to lack of fear of enforcement, a desire for profit, apathy, or a misguided desire to 'help out' the young prospective buyer. Motive to sell vaping initiation products to young people might be the subject of future study.

CRedit authorship contribution statement

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Conceptualization, Methodology, Writing - original draft, Writing - review & editing. **Seong Eon Ha:** Conceptualization, Methodology, Writing - review & editing. **Kirsten Ebbert:** Investigation, Writing - original draft, Writing - review & editing. **Lea Restivo:** Methodology, Writing - original draft, Writing - review & editing. **Mary-Claire M. Verbeke:** Investigation, Writing - review & editing. **Ally Hays-Alberstat:** Investigation, Writing - review & editing. **Lorcan Cooke:** Investigation, Writing - review & editing. **Cameron Mackay:** Investigation, Writing - review & editing. **Mark Anselmo:** Conceptualization, Methodology, Writing - review & editing. **Ian Mitchell:** Conceptualization, Methodology, Writing - review & editing. **Christopher J. Doig:** Conceptualization, Writing - review & editing. **Juliet R. Guichon:** Conceptualization, Methodology, Project administration, Writing - original draft, Writing - review & editing, Supervision.

Acknowledgements

The authors gratefully acknowledge the invaluable help of the minor confederate researchers: CC, SF, CJK, EM, FM, ST, SCV, SB, GO; the young adult confederate researchers, Geoff McKinnon, EGP, Cristina Santamaria-Plaza; Jack Hampton, Christy Holdsworth Duggan, Pliny Hayes and Frances Wright for their help in the field; and Susan Crawford for her statistical analysis. We thank the anonymous reviewer and P. Timothy Pollak for insightful and helpful comments. The study was funded by the Alberta Children's Hospital.

Conflict of interest statement

No authors have declared a conflict of interest.

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