



## Short Communication

# Availability of Supplemental Nutrition Assistance Program-authorized retailers' voluntary commitments to encourage healthy dietary purchases using marketing-mix and choice-architecture strategies

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Submitted 21 May 2019; Final revision received 18 September 2019; Accepted 24 September 2019; First published online 17 March 2020

### Abstract

**Objective:** To examine public commitments for encouraging United States consumers to make healthy dietary purchases with their Supplemental Nutrition Assistance Program (SNAP) benefits among of prevalent SNAP-authorized retailers.

**Setting:** National SNAP-authorized retail landscape in addition to stores located in California and Virginia, two states targeted for a Partnership for a Healthier America pilot social marketing campaign.

**Participants:** SNAP-authorized retailers with the most store locations in selected settings.

**Design:** A review of retailers' publicly available business information was conducted (November 2016–February 2017). Webpages and grey literature sources were accessed to identify corporate social responsibility (CSR) reports and commitments describing strategies to encourage healthy consumer purchases aligned with the 2015–2020 Dietary Guidelines for Americans. Evidence was organised using a marketing-mix and choice-architecture (MMCA) framework to characterise strategies used among eight possible types (i.e. place, profile, portion, pricing, promotion, priming, prompting and proximity).

**Results:** Of the SNAP-authorized retailers ( $n$  38) reviewed, more than half ( $n$  20; 52.6 %) provided no information in the public domain relevant to the research objective. Few retailers ( $n$  8; 21.1 %) had relevant CSR information; grey literature sources ( $n$  52 articles across seventeen retailers) were more commonly identified. SNAP-authorized retailers in majority committed to increasing the number of healthy products available for purchase (profile).

**Conclusions:** Substantial improvements are needed to enhance the capacity and commitments of SNAP-authorized retailers to use diverse strategies to promote healthy purchases among SNAP recipients. Future research could explore feasible approaches to improve dietary behaviours through sector changes via public–private partnerships, policy changes, or a combination of government regulatory and voluntary business actions.

**Keywords**  
Corporate social responsibility  
Obesity epidemic  
Nutrition  
Choice architecture  
Marketing mix

Engaging with food retailers to create environments that encourage consumers to choose nutritious options aligned with the 2015–2020 Dietary Guidelines for Americans

(DGA)<sup>(1)</sup> may be an important step to address obesity in the USA<sup>(2–5)</sup>. Currently, food store retailers use marketing-mix and choice-architecture (MMCA)<sup>(6)</sup> strategies to prompt

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consumer purchase of foods and beverages high in saturated fats, added sugar and sodium<sup>(1,7–9)</sup>. As estimates indicate more than 71 % of US adults and 52 % of youth are high risk for adverse health conditions on the basis of BMI ( $\text{kg/m}^2 \geq 25$ )<sup>(10)</sup>, food retailers have been under increasing scrutiny for their influence on the quality of consumers' dietary choices<sup>(4,5,11–13)</sup>.

Underserved US consumers may be most vulnerable to business practices that favour the consumption of energy-dense and nutrient-poor dietary products<sup>(14,15)</sup>. For example, the US Department of Agriculture's Supplemental Nutrition Assistance Program (SNAP) participants may be disproportionately targeted for unhealthy product advertisements<sup>(16,17)</sup> and experience reduced access to foods and beverages aligned with the DGA<sup>(18,19)</sup>. These factors likely contribute to the lower dietary quality scores of SNAP consumers' food and beverage purchases when compared with the dietary purchases of higher-income consumers<sup>(20,21)</sup>. The identification of shared goals between food retail businesses and public health nutrition priorities may help to initiate feasible marketplace change within SNAP-authorized stores that support improved SNAP dietary quality and retailers' interests (e.g. profits)<sup>(22,23)</sup>.

Corporate social responsibility (CSR) is a voluntary platform for corporations to commit to using their reach to help improve social and environmental issues<sup>(24–26)</sup> and could be a useful tool for assessing the alignment/misalignment of public health nutrition objectives with business models (e.g. commercial viability)<sup>(27)</sup>. For example, researchers have explored food retailers' CSR commitments to improve food system sustainability<sup>(28)</sup> and consumer nutrition behaviours<sup>(29,30)</sup>. However, commitments to use MMCA strategies that favour DGA-aligned products could impact populations' dietary quality<sup>(5,6,31)</sup> and have not been assessed within the context of CSR or SNAP. Therefore, researchers explored the availability of SNAP-authorized food retailers' public commitments to encourage consumer purchase of products aligned with the DGA using a MMCA framework<sup>(6)</sup>.

## Methods

A cross-sectional review of publicly available information was conducted from November 2016 to February 2017 among prevalent SNAP-authorized retailers. The availability of retailers within a geographic location may vary by format (e.g. grocery, convenience, dollar, drug) and parent corporation (e.g. national *v* regional chains)<sup>(32)</sup>. SNAP-authorized retailers with the most store locations nationally and in two regionally different states were selected based on a targeted social marketing campaign. For example, the Partnership for a Healthier America (PHA) aims to favourably influence food retailers' practices<sup>(33)</sup> and piloted a fruit and vegetable marketing campaign in one city in California and in Virginia<sup>(34)</sup>.

These states were chosen to identify prevalent SNAP-authorized retailers potentially influenced by PHA.

In 2016, the top fifteen retailer corporations/chains (by number of store locations) were systematically selected each at a national level, state level, and in urban and rural areas within each state (using Rural-Urban Continuum Code classifications)<sup>(35)</sup>. This method was intended to capture stores more widely available in rural but not urban areas (or vice-versa) to broaden the scope of research results for relevance to hard-to-reach areas. Stores were identified using the SNAP Retailer Locator<sup>(32)</sup>. SNAP-authorized retailer search results by location are available upon request; retailers identified for research inclusion using this method are listed in Table 1.

## Publicly available commitments

Methods for identifying relevant information included: (i) SNAP-authorized retailers' business reports and (ii) a grey literature search. To be noted as available, data needed to focus on the use of in-store strategies to encourage consumer purchasing behaviours aligned with the DGA. For example, the DGA recommends the consumption of foods and beverages low in saturated fats, added sugars and Na<sup>(1)</sup>, such as multiple forms of fruits, vegetables, lean and plant-based proteins and low-fat dairy products. This excluded gluten-free or natural products, for example. Also, due to the research focus on SNAP, all nutrition commitments were required to be US based. Figure 1 shows a visual representation of the search process for the identification of relevant, public information described below.

### Webpage searches

Retailers' corporate webpages were identified between 3 November 2016 and 7 November 2016 using Google. A researcher browsed materials to identify CSR reports and/or webpages describing business practices. If no CSR report was identified, annual or business reports were scanned for information aligned with the research focus. Sustainability reports were also scanned in this instance; however, none were found to include relevant information. It was assumed CSR reports indicated a stronger commitment by SNAP-authorized retailers to enhance consumers' dietary quality than press releases or statements.

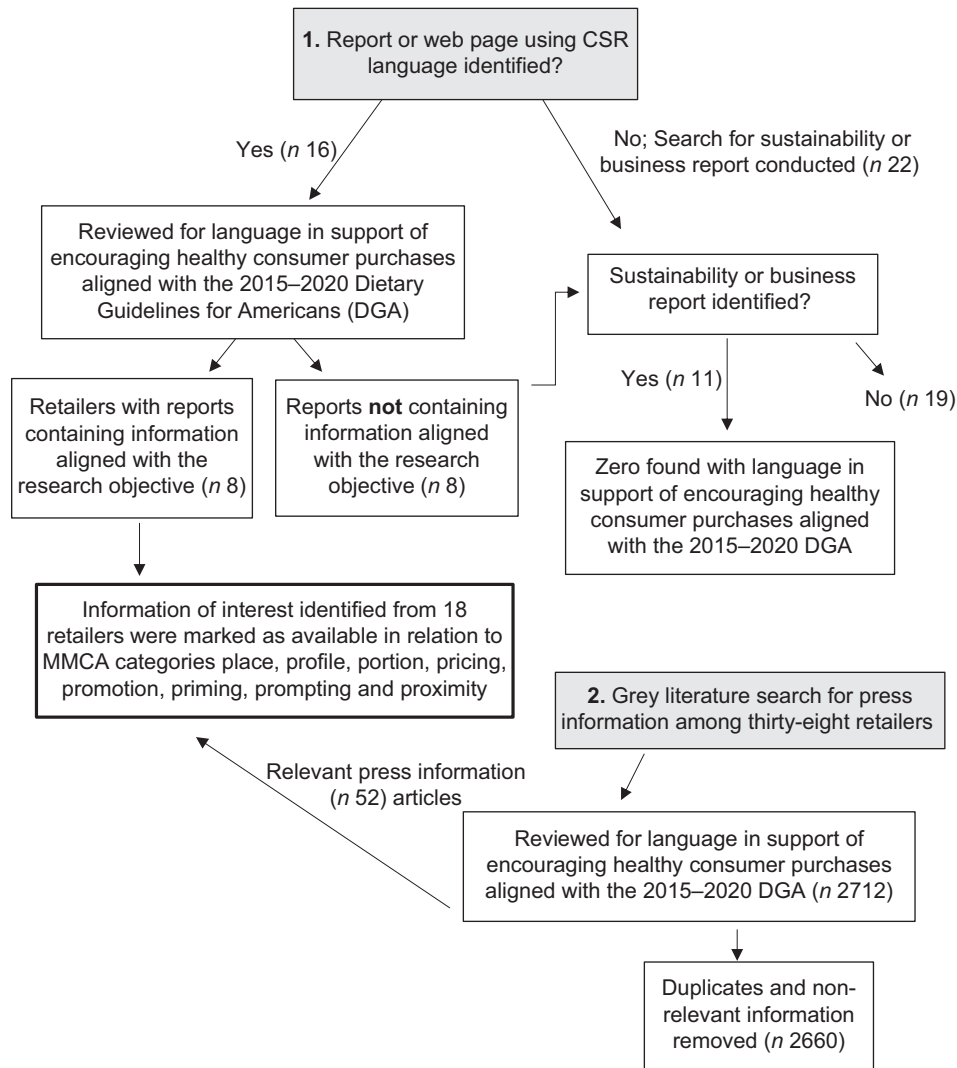
### Grey literature search

A Research Librarian helped form the search strategy and key terms. Three databases were used to capture national as well as regional information: LexisNexis Academic; Access World News; and Ethnic News Watch. Search terms included the SNAP-authorized retailers' name (Table 1) (e.g. 7-Eleven) along with key words: healthy food(s), nutritious option(s), dietary choice(s), healthy choice(s), fruit\*, vegetable\*, whole grain(s), low fat dairy, healthy snack(s), healthy diet(s) and nutrition. PHA began

**Table 1** Public corporate social responsibility (CSR) commitments of prevalent Supplemental Nutrition Assistance Program (SNAP)-authorised food retailers to use marketing-mix and choice-architecture strategies to encourage healthy consumer purchases aligned with dietary guidance in the USA, *n*38

SNAP-authorised food retailer	CSR report identified?	Sustainability/business report or statements identified?	Grey literature yielded relevant information?
7-Eleven, Inc.	Yes <sup>(62)</sup>	Not applicable (N/A); relevant information identified in CSR	Yes <sup>(63–65)</sup>
<b>99 Cents Only Stores</b>	<b>No</b>	<b>No</b>	<b>No</b>
Ahold Delhaize	Yes <sup>(38)</sup>	N/A relevant information identified in CSR	No
ALDI	Yes <sup>(66)</sup>	N/A; relevant information identified in CSR	Yes <sup>(67–71)</sup>
Big Lots Stores, Inc.	No	No	Yes <sup>(50)</sup>
BP West Coast Products, LLC	No	No	<b>No</b>
C & K Market, Inc.	No	No	<b>No</b>
Casey's General Stores, Inc.	Yes; no relevant information identified	No	<b>No</b>
Chevron, Corp.	Yes; no relevant information identified	No	<b>No</b>
Circle K Stores and Alimentation Couche-Tard, Inc.	Yes; no relevant information identified	Yes; no relevant information identified	<b>No</b>
Colonial Group, Inc.	Yes; no relevant information identified	Yes; no relevant information identified	<b>No</b>
CVS Health	Yes <sup>(39)</sup>	N/A; relevant information identified in CSR	Yes <sup>(41,72–74)</sup>
Dollar General Corp.	Yes; no relevant information identified	Yes; no relevant information identified	Yes <sup>(75)</sup>
Dollar Tree, Inc.	No	Yes; no relevant information identified	Yes <sup>(45)</sup>
<b>E&amp;C Enterprises, Inc.</b>	<b>No</b>	<b>No</b>	<b>No</b>
<b>Family Dollar Stores, Inc.</b>	<b>Yes; no relevant information identified</b>	<b>Yes; no relevant information identified</b>	<b>No</b>
<b>GPM Investments</b>	<b>No</b>	<b>No</b>	<b>No</b>
Harris Teeter, LLC	No	No	Yes <sup>(76–78)</sup>
<b>K-VA-T Food Stores, Inc.</b>	<b>No</b>	<b>No</b>	<b>No</b>
<b>Anabi Oil Corp. (NMSO, Inc.)</b>	<b>No</b>	<b>No</b>	<b>No</b>
<b>Papa Murphy's International, LLC</b>	<b>No</b>	<b>No</b>	<b>No</b>
<b>Redwood Oil Co.</b>	<b>No</b>	<b>No</b>	<b>No</b>
<b>Riggs Oil Co.</b>	<b>No</b>	<b>No</b>	<b>No</b>
Rite Aid Corp.	No	Yes; no relevant information identified	Yes <sup>(79–81)</sup>
Safeway, Inc.	Yes <sup>(82)</sup>	N/A; relevant information identified in CSR	Yes <sup>(83–90)</sup>
<b>Sears Brands, LLC</b>	<b>No</b>	<b>Yes; no relevant information identified</b>	<b>No</b>
Sheetz, Inc.	No	No	Yes <sup>(91,92)</sup>
Royal Dutch Shell, plc.	Yes; no relevant information identified	Yes; no relevant information identified	Yes <sup>(52)</sup>
Smart & Final, Inc.	No	No	Yes <sup>(51,93)</sup>
<b>Speedway, LLC.</b>	<b>Yes; no relevant information identified</b>	<b>Yes; no relevant information identified</b>	<b>No</b>
Stater Bros. Markets	No	Yes; no relevant information identified	Yes <sup>(94)</sup>
Target Brands, Inc.	Yes <sup>(95)</sup>	N/A; relevant information identified in CSR	Yes <sup>(96)</sup>
The Kroger Co.	No	Yes; no relevant information identified	Yes <sup>(48)</sup>
<b>Trader Joe's</b>	<b>No</b>	<b>No</b>	<b>No</b>
Walgreen Co.	Yes <sup>(36)</sup>	N/A; relevant information identified in CSR	Yes <sup>(40,42–44)</sup>
Walmart Stores, Inc.	Yes <sup>(37)</sup>	N/A; relevant information identified in CSR	Yes <sup>(46,47,49,97–105)</sup>
<b>Wawa, Inc.</b>	<b>No</b>	<b>No</b>	<b>No</b>
<b>Wilco</b>	<b>No</b>	<b>No</b>	<b>No</b>

Bolded text indicates no relevant information identified among all searches.



**Fig. 1** Process used to review and identify relevant corporate social responsibility (CSR) commitments of prevalent supplemental nutrition assistance program-authorized retailers in the USA to use marketing-mix and choice-architecture (MMCA) strategies to encourage healthy consumer purchases

engaging with food industry stakeholders in 2010 to address childhood obesity<sup>(33)</sup>; therefore, all articles published during or after this time were of interest. The search was conducted between 19 January 2017 and 2 February 2017. Items (*n* 2712) were extracted to EndNote and reviewed for study relevance. Duplicate reports from multiple sources were removed, and fifty-two independent items were found to meet the study focus. Search results are available in Table 1, which displays the types of materials identified or not identified for research inclusion.

**Marketing-mix and choice-architecture framework**

Researchers extracted SNAP-authorized retailers’ commitments to a MMCA framework. Eight MMCA categories identified as relevant to food stores<sup>(23)</sup> were used to standardise and compare the availability of language in support of encouraging healthy consumer purchases: place, profile, portion, pricing, promotion, priming, prompting and

proximity<sup>(6)</sup>. For example, place strategies included changes to the structure or atmosphere of stores to encourage DGA-aligned food and beverage purchases. Profile strategies included commitments to improve the availability of DGA-aligned products. Portion strategies altered product sizes. Pricing strategies focused on improving the affordability of DGA-aligned choices. Promotion strategies included in-store marketing approaches to encourage healthy product purchases. Priming strategies included the use of subtle visual cues and prompting strategies the use of labelling. Last, proximity strategies included moving the physical location of DGA-aligned products to enhance their convenience to consumers<sup>(6)</sup>.

**Results**

Of the SNAP-authorized retailers (*n* 38) reviewed, more than half (*n* 20; 52.6 %) provided no information in the



**Table 2** Available\* corporate social responsibility (CSR) or press information of prevalent Supplemental Nutrition Assistance Program (SNAP)-authorised retailers in the USA to use marketing-mix and choice-architecture strategies to encourage healthy consumer purchases

Corporation	Place		Profile		Portion		Price		Promotion		Priming		Prompting		Proximity	
	CSR	Press	CSR	Press	CSR	Press	CSR	Press	CSR	Press	CSR	Press	CSR	Press	CSR	Press
7-Eleven, Inc.			X					X		X						
Ahold Delhaize			X				X		X		X		X		X	
ALDI			X	X				X		X		X		X	X	X
Big Lots Stores, Inc.		X														
CVS Health	X		X	X								X	X	X	X	
Dollar General Corp.				X												
Dollar Tree, Inc.				X												
Harris Teeter, LLC				X												
Rite Aid Corp.										X						
Safeway, Inc.		X	X	X				X		X		X	X			
Sheetz, Inc.				X				X		X						X
Royal Dutch Shell, plc.				X												
Smart & Final, Inc.		X		X		X										
Stater Bros. Markets				X				X								
Target Brands, Inc.				X					X						X	X
The Kroger Co.				X							X					
Walgreen Co.			X	X					X		X					
Walmart Stores, Inc.			X	X			X	X		X			X	X		

\*The number of SNAP-authorised retailers committing to use marketing-mix and choice-architecture strategies were place, *n* 4; profile, *n* 16; portion, *n* 1; price, *n* 7; promotion, *n* 10; priming, *n* 2; prompting, *n* 5; and proximity, *n* 5.

public domain relevant to encouraging consumers' dietary purchases to align with the DGA (presented using bolded text in Table 1). Few retailers (*n* 8; 21 %) had relevant CSR information, and grey literature sources (*n* 52 articles across seventeen retailers) were more commonly identified (Table 1). Most retailers described business strategy commitments focused on increasing the number of DGA-aligned products available (profile strategies) (Table 2). Commitments minimally reflected retailers' use of other MMCA categories, with portion strategies the least regularly documented (*n* 1).

SNAP-authorised retailers' commitments in majority seemed to indicate broad reach regarding strategy implementation within all store locations; however, at times commitments identified within press sources indicated smaller-scale health promotion strategies used only in a regional subset of store locations<sup>(36–52)</sup>. For example, a Dollar Tree location discontinued the sale of sugar-sweetened beverages in response to the Berkeley soda tax and a select Shell store in Massachusetts partnered with practitioners to offer more healthful options<sup>(51,52)</sup>.

## Discussion

SNAP-authorised retailers have the potential to favourably influence the dietary behaviours of numerous US shoppers, including vulnerable SNAP consumers<sup>(5,20,32)</sup>. This research identified SNAP-authorised retailers with the most store locations in the USA and within two states influenced by a PHA campaign to examine commitments to alter the store environment to promote product purchases aligned with the DGA<sup>(6,23)</sup>. However, few commitments were identified

overall. Of available commitments, a limited number were committed to store changes beyond expanding consumers' selection of healthy foods and beverages.

These results align with other work that has in majority identified food retailers' commitments to environmentally sustainable practices rather than to obesity reduction strategies<sup>(28–30)</sup>. Sustainability commitments reflect consumer demand for environmentally friendly practices<sup>(53)</sup> and the focus on profile or product stocking changes that were most commonly identified in this research likely reflects an increased consumer demand for healthy products<sup>(54)</sup>. However, while food system sustainability is a necessary component of global health, food retailers are not advised to commit to one goal without the other as both are inherently interconnected<sup>(3)</sup>. Partnerships may help retailers and public health practitioners achieve goals for this sector in support of reducing high rates of consumer obesity<sup>(10)</sup>.

Results of this research may inform SNAP-authorised retailers who would be most open to healthy retail partnerships with local SNAP-Education organisations<sup>(27,55)</sup>, due to their public commitments to consumer health and store availability of DGA-aligned products<sup>(23,56)</sup>. In contrast, the many SNAP-authorised retailers with no identified commitments may indicate opportunities for dynamic teams (e.g. nutrition scientists, health economists, corporate marketing professionals) to create mutually beneficial CSR messaging to favourably impact business outcomes and consumers' dietary behaviours<sup>(26)</sup>. However, the recommended approach remains inconclusive, and more research is warranted to define best approaches.

Qualitative inquiry will be important to understand corporate retailers' rationale for limited CSR that supports



healthy consumer behaviours. While the lack of SNAP-authorized retailers' commitments to use MMCA strategies to encourage DGA-aligned purchases likely indicates poor fit with business models that balance social issues and profits (revenue minus costs)<sup>(22,27,57)</sup>, evidence suggests improving the selection of DGA-aligned products in isolation may not be enough to improve dietary behaviours and product sales<sup>(58)</sup>. Therefore, if retailers are committing to making healthy products available, it may be within their best business interest to use comprehensive MMCA strategies to nudge sales<sup>(31)</sup>. More research is needed to explore the impact of scaling up MMCA strategy implementation on outcomes of costs, revenue, and overall profit among corporate chain retailers.

SNAP-authorized retailers may also be committed to promoting consumer health in other ways, not captured by this research. A recently published Business Impact Assessment–Obesity (BIA–Obesity) tool scores retailers on store promotion variables as well as corporate relationships and strategies to improve consumer health more broadly<sup>(59)</sup>. Application of this tool among SNAP-authorized retailers with large reach in US communities is needed (forthcoming). Holistic knowledge of corporate strategies to improve consumers' dietary quality and reduce the prevalence of obesity may help leverage meaningful public–private partnerships and/or policy intervention within this sector<sup>(5,56,59)</sup>. However, despite the utility of scoring SNAP-authorized retailers using BIA–Obesity<sup>(59)</sup>, the tool does not include comprehensive MMCA strategy indicators<sup>(6)</sup>. Therefore, the approach used in this research could prove a useful complement to future, similar studies.

Finally, at the time of this investigation, three SNAP-authorized retailers identified for research inclusion were engaged with PHA to promote health among their consumer base<sup>(33)</sup>. This engagement likely influenced their CSR communications. To maximise the impact, PHA should consider the use of the MMCA framework<sup>(6)</sup> as a guide for future food retailer engagements that aim to improve store variables and improve consumer health outcomes. However, currently, there is a lack of information about how and if CSR translates to the food store environment to influence behaviour. Lam *et al.* (2018) found that corporate retailers' policies regarding healthy checkout lanes were linked with the purchase of healthy products<sup>(60)</sup>. More investigations are warranted that link CSR messaging to favourable food store change, as food retailers' accountability on this front is controversial<sup>(26,61)</sup>.

### Limitations

This research was a novel approach to understand prevalent retailers' commitments to improve the dietary quality of vulnerable US consumers. However, the captured commitments may underrepresent SNAP-authorized retailers' strategies to improve consumer behaviours using MMCA strategies as low-sodium, saturated fat, or added sugar were

not used for grey literature search terms. The selected databases may have been inadequate in identifying literature, as Google was not utilised and would have identified social media outlets where information may be posted. Despite these limitations, all SNAP-authorized retailers' webpages and potentially relevant reports were identified and searched systematically for CSR language about encouraging healthy consumer purchases. It was assumed that these sources would have provided robust evidence of SNAP-authorized retailers' health promotion strategies and were limited in number. Further, one author was responsible for extracting information meeting the research scope and there was potential for bias without multi-author agreement. The search for data occurred up to 3 years before publication and may not represent contemporary practices, and an 'available' commitment does not indicate strategy comprehensiveness at the store level.

### Conclusion

Substantial improvements are needed to enhance the capacity and commitments of SNAP-authorized retailers to use diverse strategies to promote healthy purchases among SNAP recipients. Future research could explore feasible approaches to improve dietary behaviours through sector changes via public–private partnerships, policy changes or a combination of government regulatory and voluntary business actions.

### Acknowledgements

*Acknowledgements:* Virginia Pannabecker, Health, Life Science and Scholarly Communication Librarian at Virginia Tech, for helping to construct the search syntax and select search databases. *Financial support:* None to report. *Conflict of interest:* Authors have no conflicts of interest to declare. *Authorship:* B.H. is responsible for leading the research including research inception, study design, data analysis, manuscript writing and revisions. E.S. contributed to the research inception, study design, data interpretation and editing. V.I.K., S.M.H., G.C.D. and S.M. contributed to study design, data interpretation and editing. All authors edited and approved the final manuscript. *Ethics of human subject participation:* This research did not utilise human subjects and was exempt from Virginia Tech's Institutional Review Board review.

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