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## Smokeless Tobacco Risk Comparison and Other Debate Messages in the News

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### Abstract

**Objectives**—Public health professionals have debated the use of smokeless tobacco (SLT) over cigarettes for harm reduction. This article describes SLT and cigarette risk comparisons and other SLT “debate” messages potentially reaching the public through news stories.

**Methods**—We conducted a content analysis of SLT-related 2006-10 articles from top newspapers and selected news wires.

**Results**—About 16% of articles (N = 677) referred to SLT as less harmful than smoking, attributing these messages to public health professionals as frequently as to tobacco company representatives. About 29% of articles included an “anti” SLT message, including variously phrased warnings that SLT is not a safe smoking alternative, or other potential consequences such as youth uptake.

**Conclusion**—Professionals should begin developing and using more consistent messages about SLT's risks.

### Keywords

content analysis; harm reduction; smokeless tobacco; risk communication; tobacco news analysis

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Smokeless tobacco (SLT) is non-combustible tobacco that includes conventional products (ie, chewing tobacco, moist snuff) and more novel forms (eg, snus, dissolvable tobacco) with recent introductions in the US market since 2006.<sup>1</sup> Smokeless tobacco is used in the United States primarily by males (6.8% of males ages 12 and older) versus females (0.4%),<sup>2</sup> and although the prevalence of smokeless tobacco use (3.5%) is much lower than that of

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smoking (23%),<sup>2</sup> consumption of some forms (ie, moist snuff, snus) is rising as smoking declines.<sup>1,3,4</sup> Like cigarettes, SLT is addictive and its use has been associated with several health risks including oral and pancreatic cancer<sup>5</sup> as well as cardiovascular health problems.<sup>6</sup> Although SLT is not without health risks, researchers have suggested its risks may be lower than those of smoking when used exclusively.<sup>7-11</sup> Thus, some argue that SLT may serve as a less harmful alternative for smokers who have not been able to or do not want to quit tobacco use, ie, that SLT may be used for “harm reduction.”<sup>7,8,12</sup> Proponents of harm reduction have pointed to data in Sweden as demonstrating the potential of low nitrosamine forms of SLT such as Swedish snus to lead to decreased smoking and public health benefits.<sup>8</sup>

Yet, the wisdom of promoting SLT as a smoking alternative has been debated in tobacco control.<sup>9,13</sup> Many argue that SLT promotion could result in unintended deleterious public health consequences<sup>11,14</sup> such as deterring individuals from quitting tobacco altogether, dual use of cigarettes and SLT, and misinterpretations that SLT is “safe,” leading former smokers to resume tobacco use or young people to start SLT use (who might later move on to smoking).<sup>9,11,14</sup> Additionally, some argue that describing SLT as less harmful than cigarettes while also warning about the potential risks of SLT may send a confusing “mixed message” to the public.<sup>14</sup>

In contrast, some authorities argue that even though the information may be complicated, individuals should be informed about the relative risks of different tobacco products,<sup>12, 15,16</sup> and that not doing so could prevent smokers from switching to lower harm products because they think all products are equally harmful.<sup>15</sup> Several studies have pointed out that a substantial proportion of people perceive SLT to be as (or even more) harmful as cigarettes<sup>16-18</sup> and some have concluded that US smokers are largely misinformed about the relative risks of SLT versus cigarettes.<sup>15-17</sup> Yet, few studies to date (all about a decade old) have examined public information about SLT<sup>12,19,20</sup> and research is needed to examine *current* messages presented to the public. This need is particularly timely given US cigarette companies' recent entry into the SLT marketplace and introduction of SLT products directed at smokers. Between 2006 and 2010, the 2 major US cigarette parent companies (ie, Altria, owner of Philip Morris USA, and Reynolds American, owner of RJ Reynolds) purchased the 2 major SLT companies in the US (ie, The United States Smokeless Tobacco Company and Conwood Tobacco Company) and also launched new SLT products under the most popular cigarette brand names – ie, Camel Snus and Marlboro Snus. Of additional relevance during this recent time period was the 2009 passing of the Tobacco Control Act, which now gives the Food and Drug Administration (FDA) authority to regulate (and change) the way SLT products are labeled and described. Our study aimed to describe SLT-related communication in the news, a channel with a long history of informing the public about tobacco dangers and policies.<sup>21,22</sup> Specifically, we aimed to explore messages about SLT risk comparisons and other possible SLT consequences potentially reaching and shaping the public's perceptions about these products.

## Methods

This study was conducted in 2011 as part of a larger content analysis of SLT news coverage and detailed methods are provided elsewhere.<sup>23</sup> Briefly, we analyzed unique SLT-related news articles between 2006-10 (a period coinciding with cigarette companies' movement into the SLT market, the launch of new SLT products, and passage of the Family Smoking Prevention and Tobacco Control Act) in 129 different news sources including: the top 3 national daily US newspapers (ie, *The Wall Street Journal*, *USA Today*, and *The New York Times*); the top 2-3 circulating daily newspapers in each state; 3 select news wire services (ie, the Associated Press [AP]), Reuters Health eLine, and UPI Consumer Health Daily); and 2 papers from the hometowns of Reynolds American and Philip Morris headquarters (ie, *The Winston-Salem Journal* and *The Richmond Times*). We included papers from the hometowns of these particular companies in our sample because of their major role in newsworthy and unique SLT events during this time period – ie, acquisition of the 2 leading SLT companies, and the test marketing (Camel Dip, Camel Dissolvables, Camel Snus, Marlboro Snus, Marlboro Moist Snuff) and national launching (Camel & Marlboro Snus) of new SLT products carrying cigarette brand names, a first in US history. A full list of the sampled news sources is available from the authors upon request.

Each article was coded for descriptive variables such as its date and source, and for the presence of various SLT/cigarette risk comparison messages and other arguments concerning SLT promotion, the focus of this analysis. For simplicity these messages are categorized as: “pro” SLT messages; “anti” SLT risk-related messages; and “anti” SLT–other concerns (Table 1). When any of these messages were identified in an article, the source(s) these messages were attributed to or presented by within the article was also coded (Table 1).

Study inter-coder reliability (based on a research assistant double coding 10% of articles) was good, with an average Kappa value of .89. Results presented here are limited to news/feature articles only (N = 677) (excluding opinion articles) and were prepared using SPSS 18.0.

## Results

### “Pro” SLT Messages

About 16.5% of all news articles (N = 677) included some indication that SLT (or some type of SLT) is or may be less risky, less harmful or safer than smoking cigarettes. This message was most frequently presented by or attributed to public health (PH) professionals (43.8%), academicians/researchers (32.1%), and tobacco company (TC) representatives (33.9%) (message 1, Table 1). Among articles with this message (N = 112), 33% referred to snus and about 12% referred to dissolvable SLT in particular as less risky than smoking, whereas 70% included such a reference to another type of SLT (eg, moist snuff) or to SLT in general (data not in table). Notably, articles with this less risky/harmful message also referred to SLT as addictive (58.9%), carcinogenic (33.9%), or as being associated with some particular health effect (eg, cancer) (44.6%) (data not in table).

Almost 7% of articles included a message that people should be provided with accurate comparative risk information about SLT versus cigarettes, and/or that SLT should be *marketed* as being a safer/reduced-risk product. This message was most frequently attributed to TC representatives (69% of cases), but also to PH professionals (29%) and academicians/researchers (13%) (message 2, Table 1).

### **“Anti” SLT Risk-Related Messages**

Over 5% of articles included a message indicating that, like cigarettes, SLT *also* comes with health risks and is harmful (with some additionally stating/suggesting that, as such, SLT is not a safer alternative to smoking) (message 3, Table 1). Fewer articles included a message that SLT is *just as* harmful or carcinogenic as cigarettes (2.2%) (message 7), or a message indicating that although some people suggest SLT might be a safer alternative, such a belief is not true (message 6) (3.7%). Few articles in general (2.2%) included a more complex message attributable to an individual in the article who both acknowledged that SLT may be safer than smoking (overall or in some ways) but indicated that SLT is not “safe” or without its own risks (message 8, Table 1). This was most frequently attributed to academics/researchers (60%).

In addition, about 5% of all articles included at least one of the following 2 message types: a reference to SLT being as (or more) addictive than cigarettes (message 4, Table 1); and/or a reference to the point that “there is no safe tobacco,” that “all tobacco is dangerous” or that “quitting all forms of tobacco is the safest course of action” (message 5).

### **“Anti” SLT - Other Concerns**

News articles also included messages about potential consequences of SLT promotion that were not specifically health-risk related. The most frequent of these (present in over 12% of articles) noted concern that SLT products are marketed to and/or may appeal to young people (message 9, Table 1). This message was most frequently attributed to PH professionals (62.4%) and legislators or other government-related individuals (37%). Additionally, 50.6% of articles with this message (N = 85) referred to SLT as tobacco “candy” or as candy-like (data not in table).

Eight percent of articles included a more specific message expressing concern that SLT promotion could encourage new users (including young people) to start tobacco use, former users to resume tobacco use, and/or act as a gateway into smoking, messages that often occurred together (message 10, Table 1). Articles also included messages expressing concerns that SLT products could facilitate dual product use among smokers and/or lead to delayed cessation attempts and continued smoking (message 11, 7.7%), or that SLT products can be used to circumvent smoking bans (message 12, 6.1%). Finally, 3.7% of articles included a message expressing caution or skepticism that SLT could be used effectively to help smokers quit, that the “Swedish Experience” could translate in the US, and/or indicating that there is much about SLT still unknown (message 13).

## Multiple Perspectives, Controversy and Credibility

Overall, about 17% of all articles included at least one “pro-SLT” message, 29% included an “anti-SLT” message, and about 12% included at least one “pro” *and* one “anti” SLT message (Table 2). Among articles that included at least one message from both sides (N = 83), 35% explicitly referred to the existence of a “debate” or “difference in views” regarding SLT, differences which were sometimes characterized as being controversial or “moralistic,” as being between health professionals and tobacco companies and/or as being between health professionals themselves. Lastly, among articles with at least one pro-SLT message (N = 117), 8.5% included claims that the public was somehow being misled about SLT risks or related issues and 7.7% referred to research or a researcher mentioned in the article as being funded by the tobacco industry.

## Discussion

This study provides the first examination of news media messages comparing the risks of smokeless tobacco with smoking and discussing other SLT-related concerns. We found that a sizeable number of articles referred to SLT as being (or possibly being) less risky or harmful than smoking, references attributed to public health professionals and researchers as frequently as to tobacco companies, thereby potentially adding to their perceived legitimacy. In addition, such “less risky” attributions were not always clearly made with respect to low nitrosamine SLT products such as snus despite the fact that it is *these* forms of SLT that are largely discussed as potential harm reduction alternatives in tobacco control.<sup>11</sup> Overall, these findings are significant given that the tobacco control community has not yet reached a consensus about SLT in harm reduction and that no tobacco company has yet received FDA permission to make reduced risk claims about SLT in their advertising.

We also found that articles included various messages that SLT is *not* a safe/safer smoking alternative, phrased in somewhat subtly but potentially meaningfully different ways. Although articles were more likely to include messages indicating that SLT is *also* risky rather than *just as* risky as cigarettes, some have argued that even these messages, while literally true, may mislead individuals into thinking both are equally harmful.<sup>16,19</sup> In contrast, few articles included a more “nuanced” risk comparison message as some have called for<sup>15,16</sup> (eg, a single individual acknowledging *both* that SLT may be safer but not without risks).

Overall, the sense of conflict presented about SLT could potentially impact readers in different ways. Whereas it may in fact present readers with a deeper and more “nuanced” understanding of the matter, it could ultimately leave readers unclear of the overall “take away” message – is SLT a safer alternative or not? Unlike scientists more accustomed to gradients of risk, the public is more likely to dichotomize products and behaviors as either harmful or safe.<sup>24</sup>

Risk perception literature also has suggested that when risk information presented is complex, people may take “mental shortcuts” to decide how they feel about the object by accessing their existing affective (positive or negative) feelings about the object rather than trying to make sense of the information.<sup>25</sup>

It is also worrisome if for some readers these portrayed internal disagreements could call into question the credibility of public health agencies (that might be perceived as being over-protective or as “anti-tobacco zealots”) to the advantage of tobacco companies. Indeed, tobacco companies have used the media previously to fuel and benefit from controversy on issues such as secondhand smoke and smoking health effects.<sup>26,27</sup> Future research should explore how readers interpret the variety of SLT messages found in news stories and if and how these might impact their product risk perceptions, trial intentions, and support for related policies, as the presentation of such mixed information is likely to continue. Indeed, the use of conflicting viewpoints and perspectives is a common journalistic practice which may be used by journalists to provide “balance” and to appear objective, but which also fulfills a traditional news value for drama.<sup>28-30</sup>

In addition to warning about potential health risks, news articles also communicated about other points of concern among public health professionals regarding SLT promotion, most frequently that SLT products are aimed at or would appeal to young people. The framing of tobacco as a youth-related problem in news stories is consistent with findings of previous tobacco news coverage studies.<sup>31,32</sup> Whereas concern about youth tobacco use and targeting is a legitimate public health issue, previous research has noted that such youth frames also can be especially powerful in terms of generating media coverage and as a tool for media advocacy,<sup>31</sup> as they can be easily understood and made by both health and non-health professionals alike (ie, they do not require in-depth knowledge of tobacco health and science issues). Indeed, in this study, concern about SLT's potential appeal to youth was the most frequent anti-SLT message used by legislators or other government representatives. It was also interesting to find that the framing and referral to various SLT products as “candy” or “candy-like” (particularly with regard to dissolvable tobacco) by public health professionals was one that stuck and appeared in a number of news articles. Such references helped frame these products as being “controversial” and likely contributed to news coverage of them given the value placed on conflict and controversy by the news media.<sup>28</sup>

Importantly, news articles also included other counter-SLT messages that did not exclusively focus on youth (albeit less frequently). News articles voiced public health professionals' concerns about the potential of SLT products to cause harm among existing smokers by providing an “easy out” from smoking bans (thereby minimizing the effect of such policies on motivating cessation), and facilitating dual product use. One survey study found that 1.1% of respondents (N = 10,108) were dual users of cigarettes and smokeless tobacco.<sup>33</sup> Dual product use may be harmful not only by acting to facilitate continued smoking and addiction, but also by increasing total tobacco consumption and providing more exposure to harmful constituents from both tobacco product types.<sup>9,11</sup>

This study has several limitations. Articles were drawn from top circulating newspapers and results may not be generalizable to other newspapers or other news media channels. However, our approach is similar to previous tobacco news content analysis studies in limiting the sample to top circulating papers<sup>34-36</sup> and on analyzing coverage in newspapers, which have generally been recognized by researchers as the official record for news events<sup>21</sup> and as a “proxy” for the news media in general.<sup>34,36</sup> In addition, the short time period studied (2006-10) did not allow for analysis of trends over time and the small sample size

for some of the individual messages identified may limit the reliability of those related findings. It is also not known to what extent people have read SLT news stories, nor how readers may have interpreted or been impacted by the content, questions that should be explored by future research.

## Implications for Health Behavior or Policy

This study documented that a variety of different messages are used to warn the public about using SLT as an alternative to smoking. Given the active promotion of a new generation of SLT products in the US, it is particularly timely and important for public health professionals and educators to have and begin making use of more consistent messages about the risks of SLT in general and in comparison to smoking. Although this study did not explore individuals' interpretations of different messages (and as such cannot be used to recommend which of these, if any, may be best), it seems reasonable to suggest based on what is currently known about SLT risks that messages which claim that SLT is *just as* risky or harmful as smoking are inaccurate and should be avoided to prevent misleading the public and potentially damaging professional credibility. It would also seem that those more “nuanced” types of risk comparison messages (ie, which acknowledge that SLT may be safer than smoking overall but may still pose certain risks) would potentially provide the most balanced, ethical and accurate responses, although research is still needed to explore how people might interpret these types of messages. In the meantime, public health professionals should continue to communicate about other potential concerns and consequences of SLT promotion that are not specifically limited to health effects (eg, dual use among smokers, delayed quitting, etc.) as public understanding of these types of concerns could be important for building support towards and understanding of policy initiatives intended to regulate SLT. Indeed, it has previously been indicated that an FDA procedure for granting “modified” or “reduced risk” status to tobacco products would consider not only reductions in risk to the individual but also the overall potential impact of such products on a population level.<sup>37</sup>

Finally, as consumption of SLT continues to rise, new products continue to be introduced into the marketplace and SLT related policy issues continue to be debated, public health professionals should track and be aware of the type of information about SLT that is being disseminated to the public through popular and trusted news sources. Knowledge about the existing types of information and messages reaching the public is an important factor in understanding public perceptions about SLT issues and in being able to develop responsive or corrective public health messages.

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**Table 1**  
**Frequency of Various SLT Messages Present in SLT News Article (N = 677) and Sources of Messages within (N) Articles Where Present**

|   | Presence of messages among all news articles <sup>a</sup> (N=677) | Frequency with which various SLT messages were attributed to different spokespersons, among (N) news articles in which those messages appeared <sup>b</sup> |   |                                  |                                |          |          |                |  |
|---|---|---|---|----------------------------------|--------------------------------|----------|----------|----------------|--|
|   |   | Academic Researcher   | Public Health/Anti-tobacco Professional | Government/FDA Rep or Legislator | Tobacco Company Representative | Citizens | "Others" | Article Writer |  |
| <b>"Pro" SLT messages/arguments</b>   |   |   |   |                                  |                                |          |          |                |  |
| 1. SLT is/may be less risky/harmful than smoking (N=112)                          | 16.5%   | 32.1%   | 43.8%                                   | 5.4%                             | 33.9%                          | 1.8%     | 13.4%    | 19.6%          |  |
| 2. Should be able to provide comparative risk info (N=45)                         | 6.6%  | 13.3%   | 28.9%                                   | 4.4%                             | 68.9%                          | 0        | 8.9%     | 4.4%           |  |
| <b>"Anti" SLT— risk related messages</b>  |   |   |   |                                  |                                |          |          |                |  |
| 3. Like cigarettes, SLT is also risky/harmful (N=38)                              | 5.6%  | 18.4%   | 63.2%                                   | 7.9%                             | 2.6%                           | 0        | 10.5%    | 2.6%           |  |
| 4. SLT is as/or more addictive than cigarettes (N=36)                             | 5.3%  | 16.7%   | 41.7%                                   | 5.6%                             | 2.8%                           | 2.8%     | 0        | 38.9%          |  |
| 5. There is no safe tobacco/quitting all tobacco is best (N=34)                   | 5.0%  | 26.5%   | 58.8%                                   | 0                                | 14.7%                          | 0        | 5.9%     | 0              |  |
| 6. Though some think SLT is safer than smoking, it isn't (N=25)                   | 3.7%  | 20.0%   | 48.0%                                   | 4.0%                             | 0                              | 4.0%     | 16.0%    | 16.0%          |  |
| 7. SLT is <i>just as</i> harmful/carcinogenic as cigarettes (N=15)                | 2.2%  | 60.0%   | 33.3%                                   | 6.7%                             | 0                              | 0        | 0        | 6.7%           |  |
| 8. SLT may be safer than smoking in some ways but is not without its risks (N=15) | 2.2%  | 60.0%   | 40.0%                                   | 0                                | 0                              | 0        | 0        | 6.7%           |  |
| <b>"Anti" SLT— other concerns/messages</b>  |   |   |   |                                  |                                |          |          |                |  |
| 9. SLT products aimed at/may appeal to young people (N=85)                        | 12.6%   | 12.9%   | 62.4%                                   | 36.5%                            | 2.4%                           | 4.7%     | 5.9%     | 2.4%           |  |
| 10. SLT can facilitate new users/act as smoking gateway (N=54)                    | 8.0%  | 29.6%   | 68.5%                                   | 9.3%                             | 0                              | 0        | 5.6%     | 1.9%           |  |
| 11. SLT can facilitate dual use, delay smoking cessation (N=52)                   | 7.7%  | 40.4%   | 65.4%                                   | 0                                | 0                              | 0        | 11.5%    | 0              |  |
| 12. SLT use can circumvent smoking bans (N=41)                                    | 6.1%  | 29.3%   | 58.5%                                   | 2.4%                             | 0                              | 2.4%     | 7.3%     | 2.4%           |  |
| 13. SLT may not help smokers quit/much unknown (N = 25)                           | 3.7%  | 52.0%   | 60.0%                                   | 4.0%                             | 0                              | 4.0%     | 8.0%     | 8.0%           |  |

Note.

<sup>a</sup> = read as column percentages

<sup>b</sup> = read as row percentages

**Table 2**  
**Communication of Multiple Perspectives, Debate, Controversy and Potential Credibility**  
**Issues in News Articles**

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|   |       |
|---|-------|
| <b>Among all news/feature articles (N=677)</b>                                      |       |
| Inclusion of at least one “Pro-SLT” message   | 17.3% |
| Inclusion of at least one “Anti-SLT” message  | 28.7% |
| Inclusion of at least one “Pro” <i>and</i> one “Anti” SLT message                   | 12.2% |
| <b>Among articles that included at least one Pro <i>and</i> Anti message (N=83)</b> |       |
| Reference to “debate” or “difference in views” regarding SLT                        | 35.0% |
| <b>Among articles referring to debate or “difference” in SLT views (N=29)</b>       |       |
| Reference to differences as between health professionals                            | 79.0% |
| Reference to differences as between health professionals & tobacco companies        | 24.1% |
| Reference to debate as being controversial or “moralistic”.                         | 17.0% |
| <b>Among articles that included at least one Pro message (N=117)</b>                |       |
| Claims that the public is misled about SLT risks                                    | 8.5%  |
| Reference to research/researcher funded by SLT industry                             | 7.7%  |