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Smoke Signals: Decoding the Multimodal Strategies of Cigarette Health Warnings in Australia

Shatha Hazim Sadallah^{1*}
Huda Halawachy²

¹Department of Sport Sciences, College of Physical Education and Sport Sciences, University of Mosul, Mosul 41003, IRAQ

²Department of English Language, College of Arts, University of Mosul, Mosul 41003, IRAQ

Abstract

This study examines the cigarette pack warnings of Australia, focusing on how textual and pictorial elements interact to communicate health risks. It identifies the cigarette companies' promotion adopting warning strategies, examines their functions, and investigates language influence on smokers' perceptions and behaviours within Australia's diverse demographic landscape. It employed a detailed case study approach within its qualitative design to examine warning strategies and semiotic elements (textual and pictorial) used on Australian cigarette packs. Data embraced health warnings given on seven cigarette packs purposively selected from various brands in Australia, then analysed according to Kress and van Leeuwen's model. The findings revealed that a multimodal strategy of warnings on cigarette packs was exploited effectively by incorporating powerful plain texts and pictures to engage the public and smokers in the severe health hazards. The warning strategies found in the data were alerting, threatening, frightening, advising, and suggesting. They were aimed at Australian smokers to help them grasp the health risks of smoking. The use of vivid pictures and symbols in health warnings on cigarette packs accentuated the severe health risks of smoking, making the dangers more tangible and potentially more emotionally compelling for smokers. Recommendations for improving these warnings include enhancing visual impact, modifying messages to specific audiences, and incorporating easily accessible cessation support information. In addition, legislative measures and complementary public health campaigns are suggested as ways to strengthen their effectiveness and contribute to broader tobacco control efforts.

Keywords: Australia, cigarette packaging warnings, health communication, multimodal communication, warning strategies.

* Corresponding author, email: shathahazim@uomosul.edu.iq

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1. INTRODUCTION

Smoking has negative implications for human health, leading efforts globally to try to curtail its prevalence. One of the most successful strategies that led to decreased smoking rates was introducing cigarette packets with health warnings (Mudey et al., 2023). These warnings, which consist of both printed words and pictures, are aimed at informing consumers about the dangers related to smoking while prompting them towards changing their behaviour (Brennan et al., 2017). In Australia, a country widely known for strict tobacco control policies, cigarette health warnings are part and parcel of public health programs (Miller et al., 2009). This country's approach to cigarette packaging offers an interesting case study, especially through its pioneering plain packaging laws implemented in 2012. These regulations require plain packs with the absence of brand imagery and large health warnings (Miller et al., 2009). Stringent tobacco control measures are in place in the country; optimizing these warnings is particularly crucial given the country's diverse demographic landscapes. The efficiency of health warnings on cigarette packages is key to solving tobacco-related health problems globally.

The present study aims to dissect the complex relationship of textual and pictorial elements in these cigarette health warnings and how effective they are in communicating health risks. A significant research gap exists in the current literature (e.g., Hammond, 2011; Kees et al., 2010) regarding how textual and pictorial elements in health warnings combine to affect both the perceptions and behaviors of smokers. Indeed, multimodal strategies, integrating both textual and pictorial elements, are commonly employed. Research on how these elements interact to enhance message effectiveness is still sparse, especially within the unique cultural context of Australia (Johnson et al., 2020). This study builds upon existing research by delving into the specific pragmatic functions of language used in health warnings on cigarette packages, an area that remains underexplored. Tripathy and Verma (2022) highlight the significant influence of linguistic complexities on smokers' perceptions of health risks, suggesting that even slight differences in wording can dramatically alter the perceived severity of smoking's dangers. However, there is a notable gap in research specifically examining the interaction of these linguistic features within the context of Australia's diverse multilingual society. The current study aims to fill this void by analyzing how textual messages are interpreted across different cultural and linguistic groups in Australia, thus providing a more comprehensive understanding of how language influences health communication in a multicultural setting. This approach not only addresses an identified research gap but also enhances our understanding of the pragmatic dimensions of public health messaging in a nation characterized by significant ethnic diversity.

In comparison with earlier research that supports the objectives of this study, the present work examines the multimodal strategies found in health warnings on the back of Australian cigarette packs. It explores how verbal and pictorial elements work together to communicate health risks effectively, focusing on their pragmatic purposes in shaping smokers' mindsets and behaviours. This multimodal perspective is important because it shows how different semiotic resources interact with language to influence public behaviour. While earlier studies such as Alhabuobi (2021) and Qadir (2022) focused on communicative strategies in specific cultural and linguistic contexts, this research situates health warnings within a broader cross-cultural setting, considering the global implications of cigarette packaging regulations. It also investigates how international health standards are localized in the Australian context, an area that remains underexplored in the literature.

This study addresses a significant gap by narrowing its scope to practical issues related to smoking's health impacts while adopting a multimodal analysis framework. In doing so, it highlights how verbal and pictorial warnings function pragmatically to influence perceptions and behaviours. The research is especially timely, as smoking continues to pose serious health and social challenges worldwide, including in Australia, despite its strong tobacco control policies. The persistence of smoking-related diseases and the cultural diversity of Australia's population stress the need to understand how warnings are received and acted upon. By analysing these multimodal strategies, the study provides understandings that can strengthen public health campaigns and ensure their ongoing effectiveness. Eventually, the findings may guide the

development of more targeted health communications for different demographic groups, thereby contributing to stronger tobacco control efforts.

Based on the rationale, the following research questions were developed for this study:

1. How do textual and visual elements interact within the multimodal strategies of health warnings on Australian cigarette packages, and what is their effectiveness in conveying health risks?
2. What are the pragmatic functions of textual and pictorial warnings on cigarette packages in Australia?
3. In what ways do language and graphic elements influence Australian smokers' perceptions and behaviours towards smoking, and which elements are most impactful?

2. LITERATURE REVIEW

2.1 Warning Strategies

Warnings are advisory information designed to alert individuals about imminent risks or discourage harmful actions. They are essential across various domains, from daily life safety to public health crises, helping individuals make informed decisions to mitigate risks (Wogalter et al., 2021). There are several strategies of warning in literature that serve different communicative functions depending on the context and the desired outcome. These strategies vary from mild requests to harsh threats in their usage within diverse communicative contexts. Requesting is done in a polite but authoritative manner, asking someone not to do something or perform certain tasks so as not to undermine autonomy, though still achieving urgency (Kellermann & Shea, 1996). On the other hand, the element of surprise makes surprising things noticeable so that they can be reconsidered (Celle et al., 2019). Alerting helps increase vigilance and awareness concerning potential risks, often expressed through non-confrontational language that is polite yet assertive (Luna et al., 2022).

Threatening conversely predicts severe repercussions for disobedience, mostly coercive, thus making one act due to fear based on perceived negative outcomes (Limberg, 2009). Suggesting gives indirect advice by offering suggestions for consideration, thereby giving room for choice while subtly guiding one towards safer or wiser behaviours (Antonietti & Martini, 2000). Begging approaches emotional bonds or moral obligations to influence behaviour the most intensively (Walton, 1989). Swearing is done to enhance the credibility of warnings by invoking holy names or values so as to show the seriousness and truthfulness of the message (Jay & Janschewitz, 2008). Advising gives instruction, guidelines, or suggestions for specific action in certain instances. It respects autonomy while intending to help rather than command, thus fits for situations that require direction but also personal choice. Finally, the purpose of frightening is to cause fear or alarm by showing bad consequences that result from continuing certain behaviours (Ruiter et al., 2001). Each of these strategies plays a crucial role in effective communication geared towards addressing specific situations, as one strategy represents a different level of authority or bluntness depending on relationships between communicating parties, the severity of the related risk, and the culture involved in communication.

2.2 Multimodal Strategies

The discourse on multimodal strategies in health warnings, particularly on cigarette packaging, is an emerging field that merges principles from semiotics, health communication, and psychology. Multimodal communication theory posits that the combined use of textual, visual, and other semiotic resources can create a more compelling message than the sum of its parts (Higham & Hebets, 2013). This integration not only attracts attention but also fosters deeper cognitive engagement with the content, essential for behaviour change in public health contexts.

Recent studies (e.g. Hammond, 2011) emphasise the effectiveness of these strategies in tobacco control. For example, research indicates that textual warnings that are accompanied by

graphic images of health consequences lead to higher recall rates and greater emotional impact compared to text-only warnings (Klein et al, 2015). The use of specific colours, for example, such as red for danger, can amplify these effects, making the health risks associated with smoking more vivid and immediate to consumers (Agaku et al., 2015). Moreover, the effectiveness of these multimodal warnings varies across different demographic groups, suggesting the need for targeted approaches in health communication (Thrasher et al. 2016). Gender, age, and cultural background have all been found to influence how warnings are perceived and acted upon. These differences show the need to adjust warning designs so they connect with specific groups. Using the same approach for everyone may be less effective, while culturally and demographically personalised messages can lead to better outcomes.

2.3 Previous Studies

The literature presents different ways of issuing warnings depending on various contexts and purposes considered. For example, Wogalter et al. (1998) provided an essential groundwork for warning strategies by categorizing and analysing the effectiveness of different types of warnings. The researchers explored the way visual elements, along with text, influence compliance and awareness, thereby enriching our understanding regarding how warnings could be created to enhance their perceptibility as well as persuasiveness. Al-Shboul (2023) analyses the speech act of making threats among Jordanian Arabic and American English speakers, identifying five threat strategies and their cultural variations through a questionnaire analysed with chi-square tests, revealing that Jordanian speakers often employ less direct methods compared to their American counterparts. In addition, Hussein and Khalaf (2018) examined the linguistic strategies used by Iraqi EFL university students, focusing on speech acts like warning and prohibition. Their findings provide useful insights into how EFL learners acquire warning strategies in a second language. Furthermore, Alhabuobi (2021) offered a comprehensive analysis where linguistic distinctions were made to categorize warnings based on Speech Act Theory (SAT) developed by Austin and Searle. The methodology was both descriptive and analytical, applying SAT. Key findings revealed that there were variations in speech verbs' usage across different warning levels, indicating a conscious choice of language that befits the urgency and severity of the communicated information.

Subsequently, Qadir (2022) investigated Kurdish EFLs' communication strategies for issuing warnings, which can be classified into: requesting, alerting, threatening, and advising. The study identified certain techniques in this respect, showing how flexible they can be when it comes to using English while expressing cautionary remarks. Qadir's attempt contributed significantly towards better language education, wherein pragmatic use of English is being enhanced among students, particularly for those who learn it as a foreign language. In a nutshell, the aforementioned studies offer a wide-ranging perspective on warning strategies in different linguistic and cultural contexts. Among the similarities are emphasis on the effectiveness of diverse warning typologies and the influence of context on shaping such strategies as well. However, they differ in terms of their areas of focus; Wogalter et al. (1998) emphasized the visual and textual elements, while Al-Omari (2007) and Hussein and Khalaf (2018) considered linguistic and cultural complexities. Alhabuobi (2021) and Qadir (2022) tackled warning in specific communicative contexts like public health and EFL learning. These studies show that warning strategies are shaped by context, culture, and communicative goals, providing important perspectives for both language education and public health communication.

3. METHODS

3.1 Research Design

A qualitative design was adopted for data collection and analysis in this study. Focusing on how textual and pictorial elements in Australian cigarette health warnings shape consumer

perceptions and behaviours, this approach was considered essential (Guillaumier et al., 2015; Hardcastle et al., 2016). Qualitative methods allow researchers to capture the subtle ways individuals interpret both written and visual messages (Beg, 2001), making them particularly suited to this topic. In addition, examining how cultural context influences the meanings attached to these warnings requires approaches such as qualitative content analysis and discourse analysis, which reveal how regulatory environments and national cultures affect consumer responses.

3.2 Data Source and Research Instruments

The data for this study consist of health warnings on cigarette packages obtained from Australia, chosen for its distinctive tobacco control regulations and strict placement of warning labels. A total of seven packages were analysed, representing different brands available in the Australian market to capture both textual and pictorial elements of the warnings. Each package included mandatory health warnings as required by national regulations. Selection was based on two key criteria: the presence of both text and image warnings, and compliance with the latest tobacco control standards. Packages were chosen to reflect brand prevalence, market share, and design diversity, ensuring broad coverage of consumer exposure. Any packs that did not meet regulatory requirements were excluded to maintain accuracy and relevance.

To address the three research questions, two main instruments were developed. First, an analytical table of warning strategies, derived from Speech Act Theory and previous classifications (e.g., requesting, threatening, advising, frightening), was used to examine which strategies appeared in the textual elements; this answered the first research question on the interaction of textual and visual elements. Second, another analytical table based on Kress and van Leeuwen's (2001) multimodal discourse analysis model (covering visual-textual integration, semiotic modes, social semiotics, design principles, and cultural sensitivity) was applied to identify the pragmatic functions of the warnings, responding to the second research question. Finally, the third research question, concerning the impact of language and graphic elements on smokers' perceptions and behaviours, was approached by combining the two instruments to evaluate how verbal strategies and visual semiotic resources work together to influence meaning-making. Both instruments were systematically built by synthesizing theoretical foundations and adapting them into coding categories, thus ensuring reliability and consistency in analysing the seven selected cigarette packs.

3.3 Data Collection

The process of data collection began by applying inclusion and exclusion criteria to select cigarette packs legally sold in Australia with current text-image warnings. Seven diverse brands were purposively selected, photographed under a standardized protocol, and catalogued with metadata (brand, warning text, image description, colours/layout). Texts were transcribed verbatim, images saved and cropped, and all materials systematically organized in a structured repository for subsequent analysis.

3.4 Data Analysis

The data found were analysed based on two models in this study: the first one was developed by the researchers, relying on warning strategies identified in the literature, while the second one is Kress and van Leeuwen's (2001) model.

3.4.1 Models for analysing warning strategies on Australian cigarette packs

This model was developed to analyse multimodal strategies used in cigarette pack health warnings, drawing on theoretical foundations from previous research on public health communication. The strategies are classified according to their level of directness, either high or low. The framework clarifies the role of each strategy in shaping warning messages, providing a

structured understanding of their significance. The theoretical framework employed in the current study has been developed based the previous studies which proposed warning strategies including: Searle et al. (1980), Wierzbicka (1987), Walton (1989), Kellermann and Shea (1996), Antonietti and Martini (2000), Ruiter et al. (2001), Jay and Janschewitz (2008), Limberg (2009), Smith (2012), Cantor (2013), Zerfass and Franke (2013), Celle et al. (2019), Luna et al. (2022), and Stapleton et al. (2022). Table 1 shows the strategies in the developed model of warning strategies:

Table 1. Developed model of warning strategies.

Warning strategy	Characteristics	Functions
Requesting	Imperatives, directives, interrogatives	Politely yet urgently asks for specific actions, respecting autonomy while conveying urgency.
Expressing surprise	Interrogatives, 'wh-' questions, rhetorical questions	Draws attention to unexpected actions to urge reconsideration, using surprise effectively.
Alerting	Declarative sentences, Topic-Comment constructions, noun phrases	Increases vigilance about risks with a polite tone, emphasizing the need for caution.
Threatening	If-clauses, explicit or implicit threats	Predicts severe consequences for non-compliance, using coercion to invoke fear and compel action.
Suggesting	Questions like "How about...?" or "What if we try...?"	Offers indirect guidance, subtly guiding recipients towards safer behaviours while allowing freedom of choice.
Begging	Pleading tone expresses a deep-seated desire	Uses emotional appeals and moral obligations to influence behaviour.
Advising	Constructive suggestions, respect the listener's decision-making	Provides supportive, non-directive guidance, respecting autonomy and aiding informed decision-making.
Frightening	Use of fear-inducing language highlights intrinsic dangers	Instils fear by highlighting the intrinsic dangers of behaviours, leveraging instincts to avoid harm.

Table 1 shows the essence of warning strategies, their defining characteristics, and their functions in the context of health warnings on cigarette packages. To apply this model, every health warning on cigarette packages should be subjected to the steps outlined in the data analysis procedure.

3.4.2 Kress and van Leeuwen's (2001) model

This model offers a detailed framework for inspecting how different semiotic resources, textual, pictorial, and spatial, are used together to create meaning. Here are the parameters for data analysis based on this model:

- Visual and textual integration: illustrate how text works with images to communicate the health risks of smoking, such as tobacco use disorders, and how typographical choices like font size and colour draw attention. It also considers whether visual representations and written messages align coherently.
- Semiotic modes: focus on analysing colour, layout, typography, and imagery in relation to the reception of health warnings, while also considering how these elements guide viewer attention and interpretation.
- Social semiotics: examine how societal norms, values, and attitudes toward smoking influence the interpretation of warnings. In addition, it considers the effectiveness of messages across different age groups and cultural backgrounds.
- Design principles: look at how placement, prominence, and integration of packaging elements shape health messages. It also assesses how design techniques such as contrast, scale, and hierarchy influence the perceived urgency and seriousness of the warnings.
- Cultural and contextual sensitivity: explore the impact of culture on the interpretation of health warnings. It also investigates variations in the explicitness of imagery or directness of text in relation to cultural sensitivities.

In the present study, this model is utilized to analyse the integration of visual and textual elements on cigarette packages. It helps examine how text, images, typography, and layout work together to communicate health risks associated with smoking, and how these elements are perceived and interpreted by viewers. It also assesses the coherence between visual and written content, the influence of societal norms on message reception, and the effectiveness of design principles such as contrast and scale in enhancing the impact of warnings. This comprehensive application of the model highlights the multimodal strategies employed in health warnings and their effectiveness in conveying urgent public health messages to smokers.

3.4.3 *Procedures of data analysis*

The data was analysed through a systematic procedure beginning with the identification of the primary strategy in each warning, such as requesting, expressing surprise, alerting, or threatening. This was followed by an examination of the linguistic features, focusing on structures like imperatives, interrogatives, and declaratives. The functions of these strategies were then classified according to Table 1. The study also evaluated the effectiveness of each warning by examining how textual and pictorial elements combined to convey health risks and trigger emotional or cognitive responses. Contextual factors, including cultural and situational influences, were further considered to understand how warnings might be interpreted and acted upon.

The developed model categorizes strategies by directness and analyses their linguistic and pictorial elements within the framework of Australian tobacco regulations. At the same time, [Kress and van Leeuwen's \(2001\)](#) model was applied to assess how semiotic resources, text, image, and layout, shape consumer perception. This combined approach ensured a comprehensive evaluation of strategy use, function, and context, clarifying how design and content influence the effectiveness of public health communication.

3.5 Ethical Consideration

This study strictly adheres to ethical guidelines relevant to the analysis of publicly available materials. It upholds the principles of ethical research by ensuring that all data collected from these packages are treated with respect for the commercial sensitivity of the information depicted. Additionally, the research methods were designed to avoid any potential for misrepresentation of the brands or images analysed, aligning with ethical standards in scholarly research and public health advocacy. This approach ensures that the study contributes to academic and public discourse responsibly and ethically.

4. RESULTS

This section presents the findings by analysing selected Australian cigarette packages. Structuring the results by research questions was considered but deemed unsuitable, as each package simultaneously addresses all three: the interaction of textual and visual elements, the pragmatic functions of warnings, and the influence of language and graphics on smokers' perceptions. Dividing these dimensions would require repeating figures or fragmenting the discussion, reducing clarity. Instead, the section demonstrates how textual and pictorial features combine to convey health risks, outlining the strategies used and their communicative functions. Each example is discussed in detail with reference to both linguistic and visual components, supported by figures.

4.1 Data 1

The Australian cigarette pack (see Figure 1) has a strong health warning that utilizes combinations of both texts and images to convey to smokers how dangerous smoking is. The

warning likely uses a blend of alerting, threatening, and frightening strategies. Through an alerting element, it is possible to get information on the dangers related to smoking, like lung cancer and other respiratory diseases. This usually occurs in a non-confrontational, yet serious tone, which aims at informing the smoker rather than being aggressive. The threatening aspect manifests in the explicit mentioning of dire health consequences. To this end, medical knowledge is relied upon to communicate that severe and often permanent effects occur as a result of these practices, thereby encouraging change through the fear of those negative outcomes. Besides, there is also the frightening strategy, which vividly portrays an unhealthy lung. Unlike abstract threats such as disease, viruses' graphic images do not leave room for ambiguity about what smoking does. They elicit immediate feelings of fear from within us that can be even more powerful than text alone. Moreover, the abnormal colours of the affected lung, such as white and red spots, vividly highlight the severe damage as well as inflammation caused by smoking; this reinforces the impact of health warnings by visually emphasizing the seriousness of the consequences.



Figure 1. Australian cigarette *Winfield Blue*.

This multimodal approach's effectiveness lies in its ability to reach smokers at different cognitive and emotional levels. The text given on the cigarette pack, using clear, concise language, communicates the risks supported by the credibility of medical research while tapping into visceral reactions, and is much more effective than purely symbolic imagery could ever hope to achieve. This combination not only increases overall impact, but it also makes it difficult for smokers to look away or forget warnings since their retention value is higher.

To sum up, the relationship between textual and pictorial elements in the Australian cigarette pack warnings in Figure 1 is deliberately and strategically designed to maximize message influence. Addressing both the mindsets and emotional instincts of smokers, the warnings seek to create awareness concerning the severity of smoking-related health problems and stimulate behaviour change among them.

4.2 Data 2

Figure 2 displays a picture of a cigarette package with a health warning. The text, viz. "Do not allow children to breathe your smoke," and the child's image being in an emergency department is an instance of how advising and altering strategies are combined to promote the dangers of second-hand smoke. This multi-modal approach targets smokers' awareness of childhood risks. The verbal part of the warning is instructive, offering good advice: "Don't let children breathe your smoke." It respects the smoker's right to choose but also encourages safer choices. Hence, this method is particularly effective since it avoids an authoritarian tone while enabling clear action with benefits for all the involved parties without compromising personal freedom.

On the other hand, the visual content employs an alerting strategy as it depicts a child in an emergency. A graphic element like this shows that exposing children to second-hand smoke can be fatal. This strategy aims to catch attention immediately and reinforce the criticalness of the warning through direct, powerful illustrations of possible consequences. Additionally, the child's pale face, influenced by second-hand smoke, represents the loss of vitality as well as health, starkly conveying to smokers the severe and potentially life-threatening effects of their actions on innocent children. Together, the aforesaid strategies strengthen warning in that they address the viewer's cognitive and emotional reactions. The safety textual message helps and provides information on prevention around kids, whereas the awareness image causes strong emotions, thus making it memorable to viewers. This blending of polite advice with a quick visual alert works best in public health, as it hopes for immediate and lasting behaviour changes that protect children from second-hand smoke. Such a message has two purposes: first, to enlighten, and secondly, to motivate, which is crucial in public health safety improvement.



Figure 2. Australian cigarette *Variant*.

4.3 Data 3

As depicted in Figure 3, a cigarette package warning reads: “Smoking kills” accompanied by an illustration of a human foot bearing a toe tag frightfully stating out death penalties for smoking. It uses a simple language alongside effective pictures so that people can be highly scared about the dangers associated with tobacco use. The written component of the warning “smoking kills” directly refreshes the smoker’s mind of the danger that smoking can lead to their death. This single sentence is short but very straightforward; there is no doubt that its meaning refers to one thing, which is death. The design behind this is aimed at frightening people by showing them that smoking is dangerous in itself rather than an imposed consequence.

This image also intensifies the text by showing a toe tag on a human foot, which immediately evokes symbols of morgues representing dead bodies. This symbolizes something beyond words as it depicts how smokers end up after years doing their habit of smoking cigarettes and tobacco pipes, among other things, consumed by fire through lighting in cigarette form only. It then plays on people’s natural aversion to pain and fear of dying, thus making sense as an alerting sign. The picture serves well as it brings into reality what is only initially known as abstract about threats caused by smoking, thereby enhancing the psychological impact of this intervention. Thus, the combination of frightening text and an alerting picture creates a very powerful message that resonates well with viewers. This is effective since it not only hints at an immediate threat but also speaks to audiences emotionally, making them more likely to act on it. In this case, fear is used as a tool of deterring smoking; it makes the very risk of dying seem immediate and real. This warning on cigarette packages adopts a multi-modal approach using two strategies, namely frightening and alert. Focusing on the terrifying reality of death due to smoking cigarettes in particular, the message intends to make smokers abandon this habit for good, per

public health goals aimed at reducing smoking prevalence due to a clear demonstration of its life-threatening outcome.

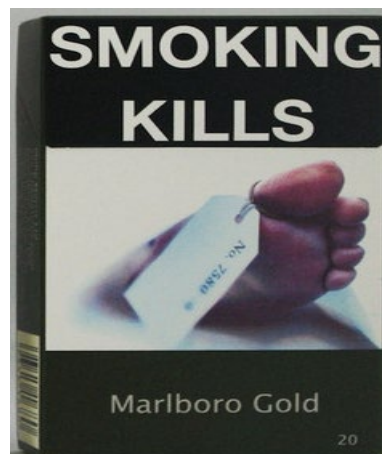


Figure 3. Australian cigarette *Marlboro Gold*.

4.4 Data 4

The cigarette package in Figure 4, featuring the text: “Smoking is highly addictive” along with an image of a human hand holding a cigarette, where the fingers are coloured black to indicate long-term smoking, uses a threatening strategy to convey the serious health risks associated with smoking. This method combines clear textual information and stark visual representation that emphasizes the dangers of addiction to cigarettes. Smokers are warned that “Smoking is highly addictive”. The risk factor here is very clearly pointed out in one sentence, connoting cigarette addiction. When used with smoke and not crack, this expression shows how hard it can be for someone to stop smoking after they have become addicted and hence give up such habits, especially among those who have yet to get addicted or are at an early stage of their addiction. The use of pictures enhances the impact of the text. A hand coloured black on its fingers signifies the long-term physical impacts resulting from smoking, such as tar accumulations, lung cancer, and heart disease. It is designed in a way that makes smokers afraid of ending their lives on their own. Viewing this image, one can feel any degradation occurring in his/her body since what a smoker sees is nothing but a reflection of their habit, i.e., tobacco addiction.



Figure 4. Australian cigarette *Variant*.

Figure 4 implies a blend between direct text and pictorial illustration that operates under a classic strategy where there is no external authority around; instead, threats come naturally from continued smoking. Fear would be instilled into someone’s mind, given that the harm of nicotine

dependence would be vividly portrayed. Therefore, highlighting continuing health deterioration associated with long-term cigarette abuse functions as a viable discouragement, making these risks evident and visually impressive. This multimodal approach utilizes both texts and images to communicate the hazards involved in smoking. The tone of warning, combined with the fearful display of physiological consequences, certainly hit home with audiences. Having described graphic consequences alongside its addictive nature, this warning aims to change smokers' attitudes towards what they do, consequently motivating them to either stop or prevent others from starting too soon, thus supporting public health purposes to reduce the prevalence rates of tobacco-related impacts since they may be permanent.

4.5 Data 5

The warning on the cigarette package in Figure 5 features the text "Quitting will improve your health" alongside before-and-after photos of a woman that visually demonstrate the benefits of quitting. This advising strategy emphasizes constructive guidance by highlighting positive outcomes and reinforcing personal choice and empowerment. The textual component directly communicates the health advantages of cessation in a supportive and encouraging tone, focusing on benefits rather than the harms of smoking. The contrast in the images, where the pale, unhealthy appearance of the smoker is set against a healthier version, visually reinforces the immediate and visible improvements that follow quitting. Together, the text and images present a hopeful and persuasive message that appeals to both reason and emotion.



Figure 5. Australian cigarette *Peter Jackson*.

The visual element in Figure 5 uses before-and-after photos to show that quitting smoking can lead to noticeable health improvements. One image depicts a woman with visible signs of smoking-related harm, such as poor skin or fatigue, while the other shows her looking healthier and more energetic. This contrast not only highlights the benefits of quitting but also offers hope for recovery. The advising strategy combines supportive text with motivational visuals, presenting a positive outcome while respecting the smoker's autonomy. Instead of relying on fear, the warning emphasizes achievable gains in health and quality of life. Through this multimodal approach, the warning delivers an encouraging message that aligns with public health policies promoting smoking cessation and better overall health. By focusing on self-belief and positive change, it avoids intimidation and reinforces the possibility of improvement.

4.6 Data 6

To explain danger related to tobacco consumption through risk perception level, the overt message would look different: "Smoking clogs your arteries.... Just Smoke." The tone changes from the serious consequence mentioned in the first sentence: "smoking clogs your arteries" to a

mocking statement, which reads: “Just smoke”. It may be viewed as an ironic twist that reveals how self-destructive smoking can be despite being aware that it is harmful to one’s organism. Stating that cigarettes “clog your arteries” straightforwardly enforces remembrance of serious health hazards due to nicotine addiction, resulting in stenosis thereof, leading to heart attacks and strokes. Moreover, the text is accompanied by a picture of an obstructed artery. Most likely, it shows the narrowing of an artery due to plaque build-up caused by smoking, implying physical damage and hindrance to normal blood supply in the body. So, this warning, arterial clogging becomes less abstract but real and more perceptible, as shown in Figure 6. It is a vivid demonstration of how smoking causes internal problems, thereby making the message even more terrible. Besides, the white mass represents plaque that clogs the arteries and signifies the severe build-up of fatty deposits caused by smoking. The pictorial warning highlights the dangerous and life-threatening internal damage smoking inflicts on the circulatory system of the body.



Figure 6. Australian cigarette *Bond*.

This combination of a text and a picture operates under a threatening strategy that concentrates on the natural effects of smoking rather than external enforcement threats. This method is intended to create urgency and fear by showing that smoking leads to inevitable health decline. This note serves as a warning aimed at keeping smokers from indulging their vices, as it graphically demonstrates the real and serious consequences of such actions, which will make them quit due to the horrible health effects. This multimodal approach effectively utilizes both texts and pictures to reveal the various dangers associated with smoking. The message threatens smokers even more when the image shows blockage in the arteries. By explaining what it means for an artery to be blocked, this caution encourages smokers’ perceptions of their behaviours, intending to change them or stop them from starting. This strategy supports public health goals for decreasing smoking rates by highlighting some serious, often permanent outcomes of tobacco use.

4.7 Data 7

Figure 7 features an image of decayed teeth and mouth cancer, accompanied by three texts: “Smoking causes mouth and throat cancer,” “Smoking kills,” and “Call the quit line 131 848.” Together, these elements combine fear-based and advisory strategies, emphasizing both the severe health consequences of smoking and the availability of support for quitting. The textual warnings serve multiple functions. Statements such as “Smoking causes mouth and throat cancer” and “Smoking kills” are designed to instil fear by drawing attention to life-threatening risks, pushing smokers to reflect on the seriousness of their habits. At the same time, the inclusion of the quit line provides a practical solution, transforming the message from one of fear to one of immediate action by offering accessible help.

The visual element reinforces the textual message. Graphic depictions of gum disease and mouth cancer make the health risks tangible and emotionally disturbing, intensifying the urgency of the warning. The blackened teeth, discoloured gums, and lesions vividly illustrate the physical damage caused by smoking. By combining shocking imagery with direct verbal warnings, the package delivers a powerful message: tobacco use poses extreme health dangers and requires urgent cessation.



Figure 7. Australian cigarette *Dunhill*.

5. DISCUSSION

In revisiting the study's core research questions, it is found that the interaction of textual and visual elements within multimodal strategies on Australian cigarette packages may enhance the effectiveness of health warnings, both in conveying risks and impacting smoker behaviours. The data analysis demonstrates that the combination of stark visuals and direct text boosts message retention and emotional engagement (Yotam et al., 2019), while the diversity in warning tones, ranging from advisory to threatening, addresses a spectrum of psychological responses among smokers (Kees et al., 2006). Particularly impactful are graphic images and strategic colour use, which strongly influence perceptions and behaviours (King & Lazard, 2020), highlighting the critical role of specific language and graphic elements in public health communication.

The findings revealed that Australian cigarette packs design health warnings including words and pictures to convey a variety of messages to smokers. For instance, it is found that a statement like "Smoking causes lung cancer" coupled with an image of diseased lungs or "Smoking kills" beside a picture showing a toe tag being placed on a human foot, notes the stark contrast between text and graphics used to make the message more memorable. Such warnings can either be direct reflections of physical impact, such as rotted teeth or blocked veins, or metaphoric pictures, including toe tags, which effectively illustrate the severity and even death caused by tobacco smoking. Moreover, the data analysis publicized that the tone and clarity of textual warnings differ from advisory, such as "Quitting will improve your health," to threatening, such as "Smoking clogs your arteries...". These different tones address multiple aspects of smokers' psychology, instilling hope through positive messages or fear through direct warnings, thereby broadening their appeal to a wider range of smokers (Shen, 2015).

In some instances, warnings were approached via fearsome and threatening language to scare people into changing their behaviour. A graphic display of the physical harms of smoking aims to evoke visceral reactions by compelling smokers to rethink their habits. Conversely, some other warnings suggested or advised strategies for supportive guidance respecting the autonomy of smokers. The examples were actions done directly, such as calling the quit line, bringing knowledge into practice, and taking steps towards cessation. This indicates that Australian cigarette packaging relies heavily on strategic multimodal elements that engage both cognitive

and emotional faculties of smokers, which makes them effective in terms of communication with this group. The smart choice of words paired with images strikes a balance between fear-instilling, hopeful, and directive information, which are all critical in reducing smoking rates as part of public health initiatives. These findings align with earlier research by [Hammond \(2011\)](#) and [Klein et al. \(2015\)](#), who showed that combining vivid images with concise textual warnings significantly enhances message retention and emotional impact, reinforcing the role of multimodal strategies in shaping smokers' behaviour.

The choice of colours used along with all cigarette packs being studied is very instrumental in conveying the message about hazards associated with cigarette smoking ([Stone et al., 2023](#)). For example, it displays the affected lung in Figure 1 with unusual colours, including white and red patches, which vividly show the consequences of smoking, that is, immediate injuries. The pale colour of the child in Figure 2 symbolizes the loss of vitality and health due to second-hand smoke, making the impact on innocent children visceral and heart-wrenching. In Figure 4, the pale face color of the unhealthy woman due to smoking highlights the detrimental effects on physical appearance and overall health, reinforcing the benefits of quitting. Additionally, Figure 6 shows the image of a white mass to represent plaque clogging the arteries, clearly demonstrating the internal damage smoking causes to heart attacks and strokes. Figure 7 also uses blackish-yellow teeth that symbolize serious decay; while its lips have white-red marks; such visual evidence makes smokers aware of how dangerous this habit might be. All these colours combine to create a clear, striking message that strongly resonates with viewers ([Lempert & Glantz, 2016](#)) and makes the warnings more effective in encouraging smokers to quit.

Additionally, the study argued that well-designed health warnings have a profound impact on public health by influencing perceptions and behaviours related to dangerous activities like tobacco use. By effectively communicating risks and giving concise advice on how to quit smoking, these warnings contributed towards broader public health goals aimed at reducing rates of smoking while improving overall health outcomes ([Hammond, 2011](#)). The current study also highlighted strategic communication in smoking cessation programs, emphasizing how persuasive messages influence smoker behaviour and public health. These findings imply that policymakers and health authorities can use multimodal warning strategies not only as deterrents but also as proactive tools for encouraging and inducing smoking prevention and cessation ([Golechha, 2016](#)). This means that cigarette packaging is not merely informative but can serve as a low-cost, high-impact public health intervention, particularly when warnings are tailored to diverse demographic groups.

On the whole, this study shows that multimodal strategies on Australian cigarette packaging, combining images and text, greatly improve message retention and emotional impact. By juxtaposing stark images, like diseased lungs, with explicit messages stating the dangers of smoking, the packaging employs a robust multimodal approach that aligns with [Kress and van Leeuwen's \(2001\)](#) theories on semiotic resources, enhancing message engagement and persuasion. The study shows that warnings tailored to various psychological states, ranging from advisory to threatening, effectively cater to diverse smoker demographics and support [Rogers' \(2003\)](#) notion that targeted communication can influence behaviour change. The strategic use of fear appeals corroborates [Witte's \(1992\)](#) Extended Parallel Process Model by necessitating both threat and efficacy to motivate action. Moreover, the specific use of colour and images in warnings not only underscores the grave physical repercussions of smoking but also triggers affective responses, which [Meadows \(2008\)](#) identified as significant in affecting individuals' behaviours. By situating these observations within the broader theoretical framework of multimodal discourse analysis, the study emphasises the sophisticated interaction of visual and textual strategies in public health initiatives and highlights their critical role in not just conveying health risks but also in engaging smokers psychologically to push behaviour change. This approach, which combines different communication strategies, provides valuable awareness for improving public health campaigns against smoking while also advancing theoretical understanding in the field.

6. CONCLUSION

The findings showed that cigarette pack warnings employed a multimodal approach, combining clear textual messages with striking images to convey the seriousness of smoking-related health risks. The strategies identified included alerting, threatening, frightening, advising, and suggesting, all aimed at raising Australian smokers' awareness of these dangers. Vivid imagery and symbolic representation emphasized the severity of smoking's consequences, making the risks more concrete and emotionally persuasive. The effectiveness of these warnings lies in their ability to engage smokers both cognitively and emotionally, using stark visuals alongside concise text. By employing a range of warning strategies, they maximize their reach and effectively illustrate the grave consequences of smoking, such as cancer, heart disease, and dental decay.

This study presents the effectiveness of multimodal warning labels on Australian cigarette packaging but notes limitations in scope and generalizability. Broader research across demographics and cultures, with direct behavioural measures, is needed. To strengthen impact, warnings should use vivid visuals, alter messages to age groups, stay updated through surveys, and be backed by strong legislation, cessation services, and counter-advertising, ensuring a comprehensive approach to reducing smoking rates and improving public health.

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