The Limits of Fear Appeals
Investigating Trust, Message Credibility, and Likelihood of Quitting in Anti-Alcohol Campaigns

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Abstract

This paper studies how different intensities of fear appeal in anti-alcohol campaigns affect perceived trust, message credibility, and the likelihood of quitting alcohol consumption. As public trust in health institutions continues to decline, due to disinformation and crises such as the COVID-19 pandemic, the effectiveness of emotional persuasion in health communication has become of utmost importance. Drawing on the Extended Parallel Process Model (EPPM) and the Transtheoretical Model of behaviour change, this study uses a quantitative, between-subjects experimental design to explore whether different levels of fear intensity (low, moderate, high) influence viewer responses.

A total of 140 participants, primarily young European adults, were randomly assigned to view one of three anti-alcohol campaign posters, each reflecting a distinct level of fear appeal. Following exposure, participants completed validated scales measuring trust (ADTRUST), message credibility (Appelman's Message Credibility Scale), and likelihood of quitting (SOCRATES Personal Drinking Questionnaire). The findings were analysed using one-way ANOVA to test three hypotheses: that high fear reduces trust (H1), moderate fear increases credibility (H2), and moderate fear increases quitting intentions (H3). The results offer only partial support for H1: perceived trust was significantly lower in the high-fear condition compared to the low-fear condition, but there was no significant difference between high and moderate fear. Neither H2 nor H3 were supported, as no statistically significant differences were found in message credibility or likelihood of quitting across fear conditions. These findings challenge assumptions in the literature that moderate fear offers optimal persuasion and suggest that fear alone may not meaningfully influence trust, credibility, or behavioural intentions unless accompanied by other factors, such as efficacy cues or message realism.

The study contributes to both academic and practical discussions on the ethical and strategic use of fear in health messaging. It proves that public health campaigns relying heavily on fear appeal must balance emotional impact with rationality and credibility. The findings highlight the importance of personalising campaigns to audience characteristics such

as age, media literacy, and trust in institutions. In conclusion, Fear-based messages remain a common tool in anti-alcohol campaigns. However, this research urges a deeper investigation into persuasion techniques and the many layers and factors that go into making them effective, in order to optimise public health communication.

Keywords: fear appeal, trust, credibility, likelihood of quitting, anti-alcohol

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1. Introduction

Alcohol has played a central role in societies around the world for centuries and is a major feature in social gatherings and customs. Despite its prevalence everywhere, alcohol is also responsible for 2.3 million deaths every year, making it a priority public health concern (Young et al., 2017, p. 303). The increase in alcohol-related injuries has led public health organisations to create campaigns aimed at reducing excessive drinking. However, the introduction of fake news and disinformation has significantly undermined the credibility of such organisations, making it increasingly difficult to change consumer behaviour. A good example was the confusion and mixed messages from public health authorities during the COVID-19 pandemic, which eroded their credibility (Kisa & Kisa, 2024, p. 15). Apart from that, trust is viewed as a crucial factor regarding the choice of information source, especially within health communication (Chen et al., 2018, p. 725). Alongside credibility, trust has also severely decreased since the COVID-19 pandemic (Kisa & Kisa, 2024, p. 2). This led to uncertainty and loss of credibility towards public health authorities and the scientific community. However, this study aims to understand a more specific aspect of health communication, which is anti-alcohol campaigns and the marketing strategies and appeals that they use to optimise their effectiveness.

Trust significantly shapes how people respond to fear-based health messages. Previous studies have shown that individuals with lower trust in institutions tend to experience more fear and are less likely to accept the message, while higher trust is linked to more hopeful or constructive reactions (L. Chen & Chen, 2022, p. 935). This suggests that trust can shape how fear appeals are processed. This is important in anti-alcohol communication, where it is proven that fear appeals are trusted and effective (Villiers & Nicolette, 2008, p. 13). Message credibility, defined as the perceived believability and accuracy of a message (Rosenthal, 1971, p. 394), is central to how individuals respond to health communication. In anti-alcohol campaigns, fear appeals are only effective if the message is viewed as credible and a reflection of reality. That is why, when fear appeals are exaggerated or of an extreme intensity, they can lose credibility, as people don't take them as seriously. Messages designed to evoke fear are frequently employed in anti-alcohol campaigns to encourage shifts in behaviour, such as choosing to drink less or stop entirely. Studies indicate that these messages can heighten a person's perception of risk, especially

when the message resonates with their current stage of readiness to change (Massey et al., 2025, p. 667; Watakakosol et al., 2020, p. 77).

Therefore, this study explores the effect of fear-based messaging on perceived trust, credibility of the message and likelihood of quitting alcohol consumption. Research shows that public health campaigns are essential in the fight against alcohol abuse, but their success depends on how they are communicated (Babor et al., 2023, p. 191).

1.1 Research Question

Using a quantitative survey design, this study will investigate the following research question:

To what extent does the use of fear appeals influence perceived trust, credibility of the message, and likelihood of quitting towards anti-alcohol media campaigns?

By analysing this intersection between fear-based messaging and trust within the media, the study will contribute to theory and practice, enabling the design of more effective and ethically responsible public health campaigns. In order to answer the research question, a survey experiment was conducted where a poster with a varying level of fear appeal was shown randomly to each participant, followed by questions to gauge their reaction and habits.

1.2 Academic Relevance

Fear appeals in public health campaigns have been widely studied, especially in anti-alcohol initiatives. Though few studies look at their effect on credibility and trust, research frequently looks at their significance in behaviour change. These factors influence the long-term success of a campaign. Existing studies show mixed results. Zhao et al. (2019, p. 36) found that fear appeals increase perceived risk and negative attitudes toward smoking. However, Engelbrecht et al. (2022, p. 9) showed that interactive fear-based narratives do not influence self-efficacy nor long-term behaviour change. A study in Denmark found no significant increase in treatment-seeking regarding alcohol disease behaviour after mass media alcohol campaigns (Finn et al., 2023, p. 5). This suggests that fear alone may not be

the best strategy. Moreover, most research focuses on tobacco or digital narratives, leaving a gap in alcohol-related campaigns. Trust in health campaigns has declined, especially after the pandemic (Kisa & Kisa, 2024, p. 2). Therefore, understanding how fear appeals affect trust and credibility will improve campaign effectiveness.

While these studies tackle fear appeals and anti-alcohol communication, they do so in specific ways. For instance, Engelbrecht et al. (2022, p. 4) do so through interactive digital narratives. Many of them are on tobacco consumption (Zhao et al., 2019, p. 36). Others focus on only one population sector, like Finn et al.'s (2023, p. 5) study specific to Denmark. However, this research paper aims to achieve a more general answer on how fear appeal influences three very relevant concepts, which can shape the effectiveness of the campaign: trust, message credibility and likelihood of quitting.

1.3 Social Relevance

The study is very topical in today's world, where misinformation and declining trust in public health institutions make it harder to promote responsible drinking. For instance, in Spain, where there are regular health campaigns, most youth still engage in binge drinking (Rodriguez-Sanchez et al., 2018, p. 365). Having the psychological effect of fear-based campaigns can help strike the right balance between emotional impact and ethical responsibility. Fear-based campaigns could help strike the right balance between emotional impact and ethical responsibility, but only if they are perceived as trustworthy and credible. As Erku et al. (2021, p. 3291) emphasise, credibility significantly affects how people engage with health messages and whether those messages lead to behavioural change. Trust plays a similarly crucial role, as higher trust in the communicator or institution increases the chance that people will act on the information they receive (Liebers et al., 2023, p. 783).

Beyond the public health context, the study also has implications for the alcohol industry. With the increased pressure on businesses to promote responsible drinking, brands can use these findings to ensure their messaging is ethical and impactful (Babor et al., 2023, p. 294).

2. Theoretical Framework

2.1 Emotional appeals in health campaigns

To understand how fear appeal affects trust, credibility and likelihood of quitting in anti-alcohol campaigns, it is first important to understand the theoretical context around emotional appeals in health communication. Health organisations use media to spread health communication in order for people to be knowledgeable about their behaviours and to inform them on how to act in certain situations (Kreslake et al., 2019, p. 1). Yousef et al. (2021, p. 195) suggest it is common knowledge that emotional appeals are more efficient than informational ones when it comes to changing social perceptions and behaviours. However, Garaus and Hudáková (2022, p. 6) found through their experimental research that, during the COVID-19 pandemic, air travel intentions and trust in the airline were higher when the consumer was presented with a more rational-based safety advertisement compared to one with an emotional appeal.

Emotional appeals can be presented in many ways. Dudley et al. (2023, p. 9) conducted a meta-analysis on articles studying health communication. They found that narrative strategies, which are used to evoke emotions, generally improved effectiveness, compared to strictly didactic campaigns. However, through a content analysis of social campaigns, such as smoking, cancer, blood donation, etc., Casais and Pereira (2021, p. 290) found that, in Portugal, rational messaging was more common than emotional. The main themes of the messaging were logical information and awareness building. Nevertheless, when the messaging was emotional, it tended to be negative. Through a quantitative survey of 337 Austrians, Koinig (2021, p. 1688) studied which type of message appeal is perceived more favourably by the public. Contrary to the previous study, Koining's (2021, p. 1688) findings reveal that emotional appeals were categorically more successful than informational ones. Also, they have a higher effect of portraying risk, as people have a higher tendency to ignore informational messages. However, they are risky as different individuals respond differently to the various types of emotional appeals, such as fear-inducing, hopeful or others (Yousef et al., 2021, p. 205). Looking at the research, it seems that different sources suggest varied results: emotional messaging can improve the effectiveness of the health campaign, but a more informational, educational and rational campaign can prove to be more trustworthy from the viewer's perspective.

From a meta-analysis of 31 studies, Yousef et al. (2023, p. 9) found that positive appeals were more successful in consumers' perceived response efficacy than negative or coactive appeals. In the general realm of health communication, another study that backs this up is the content analysis on HIV television ads by Casais and Proença (2021, p. 640), who found that positive emotional appeals were more frequently used and are correlated with a decrease in infection rates. However, when incidence rates grew, countries turned to more negative appeals, potentially to create urgency.

While there is a great academic discussion around whether positive or negative emotional appeals are more effective in health communication, Peinado and Nabi (2024, p. 3154) actually found that an emotional shift is the most effective at transmitting emotional intensity and also generating more message processing. Essentially, when the message goes through a shift (starts out positive/negative and ends in the opposite), regardless of the direction, it is most effective at making a longer-lasting impact on the viewer, likely because it adds a layer of emotional complexity that single-valence messages cannot reach. Another take on this discussion is the meta-analysis from Chen et al. (2022, p. 69), which studies the relation between emotional messaging and broader sharing of health communication in social media. The study finds that emotionally charged content is shared more often on social media, which makes it a good strategy for health organisations. Apart from that, it found that positive messaging, as well as a mix between positive and negative emotions, were more effective at being shared on social media than strictly negative, which is probably due to social posturing theory, which essentially says that people are more likely to share positive emotions, rather than negative ones on social media, (Chen et al., 2022, p. 69).

While many campaigns tackle alcohol's risks to health, other potentially harmful habits, such as smoking, sunbathing, and red meat consumption, also face campaigns against them. Carfora et al. (2021, p. 12) conducted a study to see which type of messages were most effective in stopping people from consuming red meat. They found that loss messages (fear-based messages with health disadvantages) led to a more positive interpretation of the information, gaining more precise attention than others. The discussion on positive vs negative emotional appeals in health communication is relevant as, in order to research fear, which is in the negative category of emotional appeals, there is a need to prove that it is an effective strategy to begin with. The previous research, while it is varied, proves that different

types of emotional appeals, with the right circumstances, are an effective way to create emotional intensity and gain the trust of the viewer, including fear-based appeals.

These studies demonstrate the importance of injecting an emotional approach into a media health campaign, allowing consumers to obtain authentic meaning and knowledge that sticks with them. Such research lays the groundwork to investigate deeper into the different emotions and how these influence many aspects of people's experiences with health communication. It is a topic that needs to be handled with care and precision.

2.2 Fear appeal in health campaigns

According to the meta-analysis conducted by Yousef et al. (2023, p. 1), the most common types of message appeal in health campaigns are fear and humour. However, only about one-third of the studies analysed were theory-based, which this research paper will aim to improve. Witte (1992, p. 329) defines fear appeal as a messaging tactic designed to scare the audience by showing explicit or unbearable consequences of ignoring the message. Witte (1992, p. 329) also developed the Extended Parallel Process Model (EPPM) to explain how individuals process these messages. According to EPPM, fear appeals trigger two responses, based on how they perceive the efficacy of the message, as well as the threat. If a person looks at a fear-inducing advertisement and perceives a high threat, then, depending on whether they believe something can be done about it (perceived efficacy), they are more likely to accept the message. However, if the threat perceived is high, but they don't see themselves as able to act upon it, then they reject the message to reduce their fear and other negative feelings, such as helplessness.

Fear control leads to defensive avoidance or message rejection. Danger control leads to behavioural adaptation and compliance with recommendations. Studies in public health communication suggest that fear appeals attract attention but pose risks. They are more effective when combined with positive emotions or alternatives to the discouraged behaviour (Yousef et al., 2021, p. 206; Kraak et al., 2023, p. 9). Through a study on the effectiveness of emotional appeals (fear vs efficacy messaging) and spokesperson type on public response to health announcements, Jiang et al. (2023, p. 11) found that fear messages are more effective in motivating self-protection, while efficacy messages promote willingness to protect others. Fear is often used in health messaging, such as anti-smoking campaigns, with campaigns

such as the "Real Cost Youth E-cigarette Prevention Campaign", which uses "unrealistic and exaggerated images of teens having worm-like creatures crawling underneath their skins from vaping" (Xuan & Choi, 2021, p. 210). While (Xuan & Choi, 2021, p. 210) look down on fear appeal messaging and propose more positive alternatives, in order to avoid an opposite effect of resistance from occurring, Jeong et al. (2021, p. 2108) found that a high amount of fear should be used in anti-smoking campaigns, as it is very successful at deterring non-smokers to pick up the habit, although little effect is present with current smokers. Conversely, a study on polydrug use in college students found that fear-based messages were more accepted and perceived as more believable than messages that focused on social norms, especially by regular consumers (Tran et al., 2021, p. 1401).

Ultimately, fear appeals are a powerful but tricky tool in health campaigns, as their impact depends on how people respond to the threat and whether they believe they can do something about it, highlighting the importance of using theory-based, balanced messaging that connects with audiences without pushing them away.

2.3 Fear appeal in anti-alcohol campaigns

Fear appeal is a common strategy in anti-drug campaigns. Fear appeals are common in anti-alcohol campaigns, especially when highlighting fatal consequences such as drunk driving. The high number of alcohol-related accidents and deaths makes this approach frequent in messaging (Šakinytė et al., 2021, p. 335). Through a survey experiment on health warnings in alcohol ads and their influence on cognitive and affective reactions in consumers, Filipova (2022, p. 2) found that fear appeal messages in such ads are more effective, such as shocking cancer messaging. Also, the study found that multiple messages on a warning label were less recalled than just one single message. Lopez et al. (2022, p. 946) support these findings through their study on alcohol related messaging, where they found that higher risk messaging evoked higher hypothetical intentions to reduce drinking. However, through a research process similar to the one used in this study, Odunfa (2023, p. 27) finds that there are no significant differences in behavioural intentions or emotional responses between fear and hope appeals in messages about binge drinking. These studies show that there is a great variety of outcomes in effectiveness and talk around fear appeal in anti-alcohol messaging, which is natural, as fear can be defined by various characteristics.

Zharekhina and Kubacki (2015, p. 288) divide fear in such campaigns into two different types: physical, which includes the dangers and risks the substance poses to your body, and social/psychological, which includes a wide range of mental facets. While all of the campaigns they review contain both of these types of fear, as time goes on, anti-alcohol campaigns are shifting towards the second type, a more emotional and mental kind of suffering. In fear-based campaigns, linking alcohol to lethal diseases, such as cancer, is inevitable. This is shown in the Australian anti-alcohol campaign *Spread*, which, through a cross-sectional survey of Western Australian drinkers, was found to have a positive relation with alcohol-related behaviour changes. Not only that, but it was also favourably perceived by high-risk drinkers in every way (Booth et al., 2023, p. 5). This shows that, while fear-based public health messages can trigger defensive reactions in people who try to downplay the possible health risks of their actions, it is considered a key step in moving individuals toward thinking about and eventually making changes to their behaviour.

Thus, the most effective way of creating such an anti-alcohol disclaimer is to have a singular fear appeal image or text.

Based on other research done on fear appeal messaging by Rhodes (2015, p. 967) and Rayner et al. (2014, p. 62), the following table was established to categorise the levels of fear intensity:

Table 2.3.1. Fear appeal intensity levels based on theoretical criteria

Category	Low	Moderate	High
Imagery (Rhodes, 2015, p. 967)	No injuries or trauma shown	Some depiction of injury (non-graphic)	Graphic imagery of crash victims or injuries
Harm (Rayner et al., 2014, p. 62)	Less graphic, minimal physical harm	Mild signs of injury or concern	Graphic depictions of harm, bodily disfigurement
Emotion (Rayner et al., 2014, p. 62)	Minimal emotional content	Discomfort	Shock
Severity (Rayner et al., 2014, p. 62)	Minimal consequences	Serious but not life-threatening (e.g., long-term illness)	Life-threatening or irreversible (e.g., cancer, death)

2.4 Trust in Health Communication

2.4.1 Defining Trust

As the three main concepts being researched in this paper, it is important to describe trust, credibility, and likelihood of quitting, as well as the theoretical background in relation to the research question. In this paper, which studies the influence of the fear appeal, trust is the first concept that is analysed. In order to do that, it must first be defined. Trust is a concept that has been studied in many different contexts; however, for this paper, it is analysed in the realm of health communication. Generally, trust is a multi-dimensional construct which encompasses credibility, integrity, and perceived intent (Mayer et al., 1995, p. 717). O'Hara (2012, p. 2) conceptualises a broad definition of trust. According to the author, trust is the attitude or belief that something or someone is trustworthy. Trustworthiness is looked at as the willingness, ability, and motivation to fulfil a representation of behaviour. Therefore, trust is a direct consequence of perceived trustworthiness (O'Hara, 2012, p. 2).

Within health communication, it is viewed as a crucial factor regarding the choice of information source (Chen et al., 2018, p. 725). Chen et al. (2018, p. 728) found that lower health literacy was associated with less trust in information from specialist doctors and dentists. It led to more trust in information from television and social media. Trust's presence in the health industry is imperative, as trust in public health organisations has been decreasing at a rapid pace since the confusion that the COVID pandemic caused in 2019 (Kisa & Kisa, 2024, p. 2). Therefore, regaining trust in health communication is important, as it is also a sign of self-efficacy: the higher the trust in the communicator or message, the higher the chance the viewer takes action (Liebers et al., 2023, p. 783).

2.4.2 Trust through Fear Appeal

After defining trust in general and within the context of health communication, the next step is to look at trust in fear appeals and relate it to the research question.

Beitelspacher et al. (2012, p. 155) highlight trust's influence on the effectiveness of fear appeals. Essentially, the authors suggest that pre-existing trust in a brand will define how effective a fear appeal is. As for this study, it can be interpreted that if individuals hold a pre-existing trust in the alcohol brands or the alcohol industry itself, an anti-alcohol fear appeal campaign targeting those entities might be less effective. Similarly, when it comes to trust in health communication, individuals who have higher trust in healthcare systems and their campaigns tend to experience less fear through an extension of Witte's (1992, p. 329) EPPM, L. Chen and Chen (2022, p. 69) analysed two additional concepts: fear and hope. The authors confirmed that fear is higher among low-trust users, while hope prevailed in those with higher trust. Therefore, it is proven that trust has a direct effect on how consumers perceive fear appeal. That is why it is one of the core concepts researched in this study.

One of the most common ways to study trust is by looking at it as a mediator. Limbu and Huhmann (2024, p. 17) used trust as a moderator in their study about fear appeal messaging in vaccination campaigns. The authors found results that back up the previous ones, suggesting that trust in the source of the message and the institution is imperative when it comes to the effectiveness of the fear-based message. However, they also looked at different regions and cultural contexts. Essentially, in a more collectivist context, such as China, where trust in institutions is higher, fear appeals were viewed as more acceptable and more persuasive. On the contrary, in more individualistic cultures, such as the US, the lack of institutional trust weakened the link between fear and compliance (Limbu & Huhmann, 2024, p 18). Therefore, while many studies suggest a direct link between trust and fear appeal, many factors can influence the actual output of the health campaigns that utilise this method of persuasion.

Other factors include tone of the message, realism and credibility of the source (Villiers & Nicolette, 2008, p. 83). While trust has been studied as a moderator for fear appeal and its effectiveness, this research paper looks at how fear-based messaging affects trust towards the message, particularly in anti-alcohol campaigns. Through their research on fear appeals in anti-alcohol abuse communication in South Africa, Villiers and Nicolette (2008, p. 77) found that moderate fear appeals were trusted the most, as well as being the most effective. This was especially prominent when the fear-messaging was accompanied by constructive, actionable advice, consistent with EPPM principles (Villiers & Nicolette, 2008, p. 77; Witte, 1992, p. 329). As previously mentioned, while trust is a main factor, it is not the

only concept that affects and is affected by fear appeals. In order to answer the research question, the other variables analysed are credibility of the message and likelihood of quitting, which are going to be discussed in the following sections.

2.5 Message Credibility in Health Communication

Aside from trust, this paper looks at fear appeals' influence on the credibility of the message and likelihood of quitting in anti-alcohol campaigns. This section will define the credibility of the message in general and in the context of health communication. Apart from that, it will connect it to the academic discussion on fear appeals, and more specifically, fear appeals in anti-alcohol communication. Shami and Islam (2022, p. 606) define credibility as the belief in a message or medium because of trust in the communicator due to qualification or certification of expertise. Plenty of studies use the credibility of the source in their research; however, this study analyses the credibility of the message itself (Erku et al., 2021, p. 3291). Rosenthal (1971, p. 394) suggests that message credibility is a "cognitive judgement" from an individual about whether the message content is believable and reflects reality.

Message credibility is a central concern for scholars and news organisations, especially in the digital age, where information is abundant and often unclear; credibility helps users judge content and decide whether to engage (Link et al., 2021, p. 577). Xu et al. (2021, p. 8) measure message credibility, and therefore imply its meaning, through three items: how accurate, believable and authentic the content is. This is the same scale that was used in this study to measure message credibility. Xu et al. (2021, p. 8) studied message credibility in vaccine information in online health communities (OHCs). The authors found that while message credibility did not directly lead to an increase in the number of vaccinations, it did boost engagement with and the seeking of health information. Essentially, people are more likely to look for and act on health information when they believe the message is credible.

The effect that credibility has on people's decision whether or not to pay attention or engage with a media campaign is essential to this paper. A study on the source credibility of health-related messages related to nicotine vaping products suggests that credibility is essential and has a significant effect when it comes to increasing engagement, as well as

likelihood of changing behaviour (Erku et al., 2021, p. 3291). This is relevant to this study on anti-alcohol messaging, as alcohol and nicotine, whether in the form of traditional smoking or vaping, are frequently grouped together in research for several reasons, such as legality and quantity of studies on them (Frie et al., 2022, p. 1141).

Rosenthal (1971, p. 393) looks at an example about persuasive messaging regarding abortion laws, where dire consequences are used to motivate behavioural change, which needs to be credible to be taken seriously. This can be applied to the fear appeal discussion, as it shows that its effectiveness is directly related to the credibility of the message. In order for a fear-based message to be effective, it needs to be believable and perceived as a reflection of reality, which can be a useful strategy for anti-alcohol campaigns. Therefore, if a fear-based anti-alcohol message shows consequences that are extreme or unlikely to be true from the viewer's perspective, its effectiveness could be lower than expected. Since fear appeal is a common persuasion technique used in anti-alcohol campaigns, this study will aim to find out whether different levels of fear intensity have an effect on message credibility.

2.6 Likelihood of Quitting in Health Communication

This paper aims to find out to what extent fear appeals in anti-alcohol campaigns influence trust, message credibility and likelihood of quitting. Therefore, the last concept to be discussed is likelihood of quitting. Selvam (2017, p. 369) defines the concept in the context of alcohol as the client's readiness and intention to change their drinking behaviour (motivation) and their ability to avoid returning to alcohol use (relapse prevention). Cuccia et al. (2021, p. 2) also separate the concept into two parts. The authors define likelihood of quitting in their study on e-cigarettes among youth and young adults by measuring past-year quit attempts and intentions to quit, either within 30 days (serious) or at any point in the future (general). The definition is validated in a fear appeal context in Massey et al.'s (2025, p. 667) study on the effectiveness of health warnings about alcohol consumption and breast cancer risk among young adult female participants. The authors found that fear was associated with the intention to reduce and quit drinking within the next 30 days. Apart from that, simple exposure to health warnings led to higher perceived severity of alcohol damage. Generally, it can be understood that likelihood of quitting is not a single measurement level, but rather can be divided into several aspects.

One theoretical framework that addresses this complexity is the Transtheoretical Model (TTM) of behaviour change, which suggests that individuals progress through certain stages when modifying behaviour: pre-contemplation, contemplation, preparation, action, and maintenance. This model is particularly relevant for understanding and addressing addictive behaviours, including alcohol use. Felicíssimo et al. (2014, p. 17) conducted a systematic review of the transtheoretical model of behaviour change and alcohol use. They explained the different stages in the following way. Pre-contemplation is the initial stage, in which individuals have no intention of changing their alcohol use. Contemplation is slightly different, as that is where individuals begin to consider the implications of changing their alcohol consumption for themselves and those around them. In the preparation stage, the decision to quit is made. The action stage represents the steps and strategies being put to use. Maintenance is the final phase, as it involves the effective and sustained change of lifestyle regarding alcohol use, with the ultimate goal of keeping the newly formed habit (Felicíssimo et al., 2014, p. 10).

These stages help explain how people move toward quitting alcohol, which connects directly to this study's focus on likelihood of quitting. Fear-based messages in anti-alcohol campaigns aim to shift people from just thinking about change to actually taking steps toward it (Vallance et al., 2020, p. 274). Watakakosol et al. (2020, p. 77) conducted a study on the intentions to reduce or stop alcohol use among Thai adolescents, integrating the TTM's stages of change (Pre-contemplation, Contemplation, Action, and Maintenance). The authors found that strategies must be adjusted to an individual's readiness to change, rather than applying a one-size-fits-all approach (Watakakosol et al., 2020, p. 77). Essentially, the article shows that interventions must be personalised to an individual's current stage to truly influence their behaviour.

Alcohol has countless damaging properties, yet it is still widely consumed, partly because consumers seem to be unaware of many of the risks (Pettigrew et al., 2021, p. 2). Therefore, the ultimate objective of most of the anti-alcohol campaigns out there is to not only inform consumers of risks but also to reduce consumption or, ideally, quit altogether (Vallance et al., 2020, p. 274). That is why likelihood of quitting is potentially the most important concept studied in this paper. It represents the extent to which a campaign is ultimately effective. It has been proven difficult to truly replicate the meaning or effect of an image, message or campaign in academic settings (Hohrath et al., 2024, p. 3326). However,

this study uses a validated scale which has been specifically developed to obtain information on the viewers' likelihood of quitting (Selvam, 2017, p. 369; Biswas, 2022, p. 6714).

In a study among older smokers, Zuloeta (2025, p. 45) applied Witte's (1992, p. 329) EPPM in order to contribute to reducing the health risks associated with smoking. The author found that fear-based messages alone were not effective in driving behavioural change. However, perceived fear did not align with perceived threat, suggesting that older smokers may be desensitised to fear appeals or feel a threat to their freedom. Ma and Ma (2022, p. 466) conducted a study that found that fear-based threatening language reduced quitting intentions when it threatened personal freedom. However, a differentiating factor was hedging language (using words like "might" or "may"), which increased likelihood of quitting, as people sought to disassociate from a negatively perceived group.

2.7 Hypotheses

2.7.1 Trust and Fear Appeal

This study aims to find out how the use of fear appeals in anti-alcohol campaigns influences perceived trust, credibility, and quitting intention towards anti-alcohol media campaigns. From previous literature, it has been established that, positive or negative, the exposure to fear appeal has an effect on the perceived trust of the message or campaign itself (L. Chen & Chen, 2022, p. 69). Studies have shown that extreme emotional tactics, such as high fear appeals, can trigger resistance, emotional distancing, or message avoidance, particularly when the viewer feels overwhelmed or manipulated (Keller & Block, 1996, p. 456; Yousef et al., 2021, p. 205; Xuan & Choi, 2021, p. 210). In contrast, messages that evoke lower or moderate fear may still convey urgency while allowing the audience to process the message constructively and maintain trust in the communicator. Ten Hoor et al. (2012, p. 6) tested people on their predictions regarding the effectiveness of threat-based health warnings. However, even after being presented with negative scientific evidence, people still couldn't understand that such appeals are not necessarily always trustworthy. Therefore, conducting a scientific experiment to test whether fear appeals in health warnings are trustworthy should show the reality that was misunderstood by the participants of ten Hoor et al.'s (2012, p. 6) study.

Keller and Block (1996, p. 456) conducted a study that explored different levels of fear arousal and what effects they cause. The findings show that low levels of fear appeal are not as effective, due to the lack of motivation they instil in the viewer. However, high-intensity fear appeals can lead to message avoidance and, especially, denial, which is a clear indication of a lack of trust in the message. Essentially, if the image is too extreme and the harmful consequences too strong, the viewers will not take it literally and will rather dismiss it altogether (Keller & Block, 1996, p. 456). These studies suggest a negative correlation between fear appeal, especially high levels of fear intensity, and perceived trust in the message. Based on this, the following hypothesis is proposed:

H1: High fear appeal intensity leads to lower perceived trust in the media campaign than low or moderate.

2.7.2 Message Credibility and Fear Appeal

While this study hypothesises that a higher level of fear appeal intensity would negatively influence perceived trust, message credibility has different qualities. Credibility is a core element in how audiences evaluate health communication. Research shows that while emotional appeals can increase engagement, their intensity plays a critical role in shaping how the message is interpreted (Shamim & Islam, 2022, p. 606). Extremely high fear appeals often risk reducing credibility, as they may be seen as exaggerated or manipulative, especially when not paired with effective solutions (Witte, 1992, p. 329; Yousef et al., 2021, p. 206). Previous findings suggest that moderate emotional intensity may provide enough threat to capture attention and signal importance, while remaining believable enough to maintain message credibility (Jeong et al., 2021, p. 2108). High fear messages are proven to be perceived as more credible than low fear (Ragsdale & Durham, 1987, p. 13). However, there is no significant difference when it comes to recalling either type of message.

The effects of fear appeals can vary depending on their level of intensity. Rhodes (2015, p. 957) researched their influence on "message derogation", defined as the extent to which individuals believed the message was "biased, overblown, exaggerated, boring," or that they felt "manipulated, exploited,". Message derogation is closely related to message credibility, as Rosenthal (1971, p. 394) describes it as a cognitive judgement on whether something is believable or that reflects reality, which can be interpreted as the opposite of

feeling "manipulated" or "exploited" (Rhodes, 2015, p. 960). Rhodes (2015, p. 966) found that there is no significant difference in the level of fear intensity in a message and the perceived message derogation. If, instead of message derogation, the author looked at message credibility, results could differ. That is the aim of this paper. Therefore, this study assumes and will test that a moderate level of fear appeal in an anti-alcohol campaign will lead to higher message credibility. Based on this, the following hypothesis is proposed:

H2: Moderate fear appeal intensity leads to higher perceived credibility in the media campaign than low or high intensity.

2.7.3 Likelihood of Quitting and Fear Appeal

Fear appeals are often used in health communication with the goal of triggering behaviour change, such as reducing or quitting alcohol consumption. However, not all fear appeals have the same effect. According to the Extended Parallel Process Model (Witte, 1992, p. 338), the outcome of a fear-based message depends on the balance between the perceived threat and perceived efficacy. High fear intensity can backfire if the message overwhelms the audience, leading to avoidance or message rejection rather than motivation to act (Kraak et al., 2023, p. 9). However, low fear intensity might not be perceived as serious or urgent enough to change behaviour. Moderate fear appeals are then more likely to offer the optimal level of discomfort to increase awareness and lead to proactiveness. Roskos‑Ewoldsen et al. (2004, p. 62) conducted a study on fear appeals and their use for persuasion to achieve behaviour change. The authors found that low to moderate levels of fear achieved the highest effectiveness in encouraging healthy behaviours. Other studies show that moderate levels of fear are more likely to generate cognitive engagement and self-reflection, which are necessary steps in progressing through behaviour change stages (Watakakosol et al., 2020, p. 77; Yousef et al., 2023, p. 9). Based on this reasoning, the following hypothesis is proposed:

H3: Moderate fear appeal intensity leads to higher likelihood of quitting than low or high.

3. Methodology

3.1 Research Design

This study investigates how different intensities of fear appeal in anti-alcohol campaigns influence perceived trust, message credibility, and likelihood of quitting alcohol consumption. For the study, a quantitative experimental survey-based research design was used. A quantitative approach is appropriate because it allows for an objective comparison of fear levels, and it enables statistical analysis of relationships between fear appeal and the impact on trust, credibility and likelihood of quitting. Quantitative approaches allow for a quicker gathering of data, thus making it possible to collect a much larger quantity of it in an efficient manner (Ghafar, 2023, p. 29).

Surveying was the chosen methodology due to its efficiency in collecting data from a large sample while maintaining consistency in responses. Surveys are a very useful data collection method as they are simple, straightforward and inexpensive to conduct (Balayla et al., 2019, p. 901). Previous studies on fear appeal and media trust have successfully used surveys to assess public reactions to different communication strategies (Tannenbaum et al., 2015, p. 1182; Mayer et al., 1995, p. 717). In this study, the survey is used so the data is organised and collected with a certain amount of consistency in responses, thanks to validated scales and theory-based variables. The survey showed respondents an image of an anti-alcohol campaign and then followed up with questions to gauge their reaction and the impact it had had on them.

As it is hard to truly replicate a meaningful reaction in an academic context, the scales chosen and questions are designed to still extract the most authenticity possible (Hohrath et al., 2024, p. 3326). What was shown is an image of a media campaign that portrays the dangers of alcohol consumption in different scenarios, with the main point of attention being a type of fear appeal. As there are three types of fear that will be researched, the study is conducted as a between-subjects design, which means that all respondents will answer the same questions on trust, credibility of the message and likelihood of quitting. However, the anti-alcohol campaign poster they were shown was only one of the three. Demographic questions were used to ensure the respondents were valid responses, as well as to gather more information used to answer the research question.

The three campaign posters used as stimuli were constructed to reflect low, moderate, and high levels of fear intensity, based on criteria from Rhodes (2015, p. 967) and Rayner et al. (2014, p. 62). Visual elements such as imagery, perceived harm, emotional tone, and severity of consequences were varied systematically to manipulate fear while keeping other visual features constant. The constant theme of the campaigns was illness, in order to make sure that no other characteristics influenced the respondents' perspective and answers. As with most survey-based experimental designs, there is a limit to how deeply a single exposure can reflect the cumulative influence of media campaigns. However, this method remains useful for isolating the short-term psychological effects of fear-based communication in a replicable and statistically testable manner. Overall, this design offers the necessary structure to answer the research question, analysing how fear appeal affects trust, message credibility, and quitting intention, providing clear, measurable evidence in direct response to the research question.

These can range from amputated limbs to drunk driving accidents and more. There will be three levels of fear intensity represented: low, moderate and high.

3.2 Sampling

Considering the nature of this study, a random sample was chosen as the sampling method. Noor et al. (2022, p. 79) define this type of sampling as the process through which each participant can be chosen and has the same probability of being so. In the case of this study, this translates to basically anyone being eligible to conduct the survey, as long as they are over the age of 18, without any specific criteria. 18 is the MDLA (minimum legal drinking age) in most European countries. Therefore, it is an appropriate boundary to set up for the research. Random sampling was done in order to achieve a general collective of participants, which covers many different cultural and demographic factors, such as age, home country and highest education achieved. The questionnaire was created using the Qualtrics platform and was distributed via social media platforms, Instagram, LinkedIn, and in person. It was also encouraged to be shared with other people the participants were close to. The survey acquired 229 respondents; however, after data cleaning, 140 were analysed. Most of them were from European countries or other Western nations. To ensure an equal

number of respondents for each fear level, *Evenly Present Elements* was activated in the Qualtrics Survey Flow page.

The following tables depict the demographic representations of the respondents:

Table 3.2.1. Descriptive Statistics for Age

Gender	Frequency	Percentage
Male	80	57,1
Female	59	42,14
Other	1	0,76
Total	140	100

Table 3.2.2. Age distribution

Age	Frequency	Percentage
18-21	45	32,37
22-25	73	52,52
26-30	16	11,5
30+	5	3,60

Table 3.2.3. Age Descriptives

Statistic	Value
Mean age	22,5
Mode	22

Table 3.2.4. Educational Level distribution

Educational level	Frequency	Percentage
Middle school	0	0

Secondary school	25	17,86
Bachelor degree	89	63,57
Master's degree or above	26	18,57

Table 3.2.5. AUDIT-C scores (drinking habits)

Measure	Value (out of 15)	N of Respondents
Mean	7,67	-
Median	8	-
Standard deviation	2,52	-
Low AUDIT-C	-	67 (48,2%)
High AUDIT-C	-	72 (51,8)

3.3 Operationalisation

This study used a structured questionnaire with Likert-scale items. The survey was created using the Qualtrics platform. Respondents were introduced to the survey with a description page which featured a brief introduction mentioning a general decoy topic, *media effectiveness in public health communication*, so as not to influence the respondents' thinking patterns. Also, the introduction included a confirmation that only people of age 18+ could take the survey and that responses would be kept anonymous and confidential, followed by a description of what the survey experience would entail (an anti-alcohol campaign poster would be shown, and questions would be asked). Afterwards, as the chosen research design was a between-subjects design, one of three campaign posters was shown, randomly. The three posters differed in their level of fear appeal intensity (low, moderate or high). This was done in order to avoid potential carryover effects from one advertisement to another. Not only that, but to ensure an equal number of respondents for each fear level, *Evenly Present Elements* was activated in the Qualtrics Survey Flow page.

The independent variable researched is fear appeal level (low, moderate, high), manipulated through campaign messages. Dependent variables include perceived trust (Mayer et al., 1995, p. 717), perceived credibility (Shamim & Islam, 2022, p. 606), and likelihood of quitting (Watakakosol et al., 2020, p. 77). In order to achieve the best possible measurements of the concepts, validated scales will be integrated into the experiment. As established, the independent variable fear appeal was divided into three levels: low, moderate and high. Therefore, an individual poster was created for each of these levels. In order to do so, the table created from Rhodes (2015, p. 967) and Rayner et al. (2014, p. 62) and their definitions of each level shaped each of the posters.

In order to keep a consistent theme for manipulation and control purposes, the chosen topic for all posters was a very commonly associated one with alcohol consumption, which is illness. The survey included a manipulation check in the form of a question with a 7-item Likert scale. After measuring their reaction to the posters, the participants were asked what level of fear appeal they perceived after being exposed to the anti-alcohol campaign poster. They were able to answer on a 7-item Likert scale ranging from *Very Low* to *Very High*. This was done in order to check whether the manipulation (fear level intensity) was actually perceived as such, and the respondents were accurately presented and influenced as the study intended.

The first dependent variable that was tested is trust, in order to answer the research question, more specifically, how fear appeal affects perceived trust. Therefore, a validated scale for trust in a mediatic campaign was used. Trust was measured using the ADTRUST scale, in which respondents answered items on a 7-point Likert scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree) (Soh, 2006, p. 120). This scale has been used in studies analysing trust in health information sharing, so it directly tackles the issue of this research paper. The scale is a validated measurement tool developed to research audience trust in advertising messages, such as health communication campaigns. It looks at trust as a multidimensional construct, focusing on several aspects, such as perceived honesty, reliability, and dependability of the information presented. This is in line with Mayer et al.'s (1995, p. 717) definition of trust. The scale helped answer the research question as it allowed for a straightforward and precise measurement of trust in the poster shown right before it. Example items include:

- "The information conveyed in the health campaign is honest."

- "The information conveyed in the health campaign is reliable."

- "The information conveyed in the health campaign is dependable."

The second dependent variable examined in this study is message credibility. To measure this construct, the study employed Appelman's Message Credibility Scale (Appelman, 2015, p. 64), a validated instrument specifically designed to evaluate audience perceptions of message quality across media contexts. This scale has been widely used in communication research, including in recent studies exploring public reactions to emerging technologies and digital journalism, such as Jia et al. (2024, p. 7), who applied it to assess the credibility of AI-generated news content. The Message Credibility Scale is particularly appropriate for this study because it captures three core dimensions that are central to evaluating the perceived quality of health communication: accuracy, authenticity, and believability. This measurement is in line with the way Xu et al. (2021, p. 8) studied and defined message credibility. The scale helps answer the research question as it allows for a clear, quantifiable assessment of how viewers interpret the credibility of the campaign message after being exposed to different levels of fear appeal. Participants were asked to rate the message using a 7-point Likert scale, ranging from 1 (*Not at all descriptive*) to 7 (*Extremely descriptive*), in response to the prompt: "How well do the following adjectives describe the content you just saw?". The items were the following:

- Accurate

- Authentic

- Believable

The third and final dependent variable measured in this study is likelihood of quitting alcohol consumption. To capture this complex construct, the study employed the SOCRATES Personal Drinking Questionnaire, a widely recognised and validated instrument used in clinical and behavioural research (Selvam, 2017, p. 370; Biswas, 2022, p. 6714). The scale consists of 19 items, each rated on a 5-point Likert scale ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*), allowing for an accurate measurement of respondents' internal reflections and intentions. The SOCRATES scale has been extensively used in addiction research, particularly in studies evaluating alcohol dependence syndrome, motivational enhancement therapy, and relapse prevention strategies (Selvam, 2017, p. 370; Biswas, 2022, p. 6714). Its structure is designed to assess not only an individual's acknowledgement of problematic drinking but also their contemplation of change and readiness to take action, which is how it helped answer the research question, specifically how fear appeal influences likelihood of behaviour change after exposure to an anti-alcohol campaign. Example items include:

- "I really want to make changes in my drinking."

- "Sometimes, I wonder if my drinking is hurting other people."

- "I have serious problems with drinking."

The independent variable studied in this paper is fear appeal. In order to do so, it was divided into three levels, as per the table created through Rayner et al. 's (2014, p. 62) and Rhodes' (2015, p. 967) papers. The first poster was created on the basis of a low-intensity fear appeal, so a healthy, injury-free and trauma-free individual. Also, it does not contain any graphic images, as well as minimal to no physical harm (Rayner et al., 2014, p. 62; Rhodes, 2015, p. 967). Emotional content was also kept to a minimum, following the theory-based table on the characteristics of each level of fear intensity. Lastly, the poster also did not include any potential harmful consequences for the viewers, keeping a positive outlook on the concept (Rayner et al., 2014, p. 62; Rhodes, 2015, p. 967).

Figure 3.3.1 Low intensity anti-alcohol campaign poster

The second poster, which represented moderate fear appeal, was also created following the guidelines of the theoretical table on fear appeal characteristics. Injury is depicted through a person in a hospital bed, seemingly asleep or unconscious, however, without any graphic imagery of injuries or harm (Rayner et al., 2014, p. 62; Rhodes, 2015, p. 967). Compared to the first image, it is a discomfort-causing poster, due to the hospital setting. The text message suggests serious but not life-threatening illnesses (Rayner et al., 2014, p. 62; Rhodes, 2015, p. 967).

Figure 3.3.2 Moderate intensity anti-alcohol campaign poster

The third poster, which represents a high level of fear appeal intensity, depicts a woman with breast cancer, as well as graphic signs of injury caused by it (Rayner et al., 2014, p. 62; Rhodes, 2015, p. 967). It shows graphic depictions of harm and bodily disfigurement, as well as a textual message which indicates life-threatening and lethal illness caused by alcohol consumption (Rayner et al., 2014, p. 62; Rhodes, 2015, p. 967). Because of how graphic the images are, showing bodily disfigurement as well as mentioning cancer and death, a disclaimer was presented to everyone before showing it, which they could only bypass by clicking the continue button. The disclaimer warned that the poster "may contain content that could be distressing or triggering to some individuals. It may include explicit images of the human body, disfigured and ill. Please proceed with caution. If you feel uncomfortable or wish to withdraw at any time, you are free to do so without any consequence".
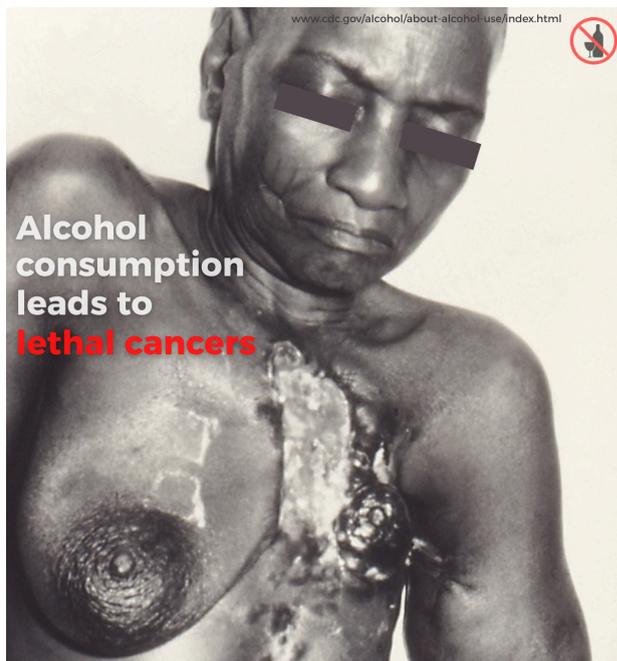

Figure 3.3.3 High intensity anti-alcohol campaign poster

Lastly, respondents answered a section with demographic questions, including:

- What is your age?

- What is your home country?

- What gender do you identify with?

- What is your highest level of education?

To assess participants' alcohol consumption habits, the survey concluded with the AUDIT-C scale, in order to find out how regularly respondents drank alcohol.

3.4 Data Collection

The data for this study were collected through a self-administered online survey, hosted on the Qualtrics platform. This method allowed for efficient and wide-reaching distribution, enabling participants to complete the survey remotely and anonymously. The survey was active for three weeks and distributed primarily via social media platforms such as Instagram, LinkedIn, and in person, where participants were also encouraged to share the link with others. This approach facilitated a diverse respondent pool while maintaining simplicity and accessibility. The survey was conducted in English, and all the content in the anti-alcohol posters was also in English. It was estimated that the survey would take anywhere between 2 and 4 minutes to complete.

The structure of the survey was designed to guide participants through a logical and consistent sequence while capturing their responses to the campaign stimuli. The survey began with an introduction page, which provided a brief overview of the study under a general decoy topic to avoid bias, and included information about consent and confidentiality. Participants were then randomly exposed to one of three anti-alcohol campaign posters, each representing a different level of fear appeal intensity (low, moderate, or high). In the case of the high-fear condition, a disclaimer was shown prior to the poster to warn participants of graphic content. Following the exposure, participants responded to three measurement sections in a fixed order. First was perceived trust, then message credibility, and, lastly, likelihood of quitting alcohol consumption. These were assessed using validated scales aligned with the study's theoretical framework. Next, participants completed a demographic section, which included questions on age, gender, country of residence, and education level,

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followed by the AUDIT-C to assess alcohol use. The survey concluded with an end page that displayed all three campaign posters and revealed the actual purpose of the study, offering participants full transparency post-participation.

3.5 Data Analysis

Following data collection, the dataset was exported from Qualtrics into SPSS for analysis. The first step involved data cleaning, which included the removal of incomplete responses that had passed the initial screening phase. Once the dataset was cleaned, new variables were created in SPSS to reflect the experimental conditions and average scores for the dependent variables. These included a new variable for fear appeal level (low, moderate, high), as well as a new one for the average scores of perceived trust, message credibility, and likelihood of quitting alcohol consumption, each based on the respective validated scales.

Descriptive statistics summarised demographic variables and general trends in perceived trust levels. To determine whether different levels of fear appeal had a statistically significant effect on trust, credibility, and likelihood of quitting, an ANOVA (Analysis of Variance) was conducted for each dependent variable. This technique allowed for the comparison of mean scores across the three fear conditions and was used to test the study's hypotheses, in order to answer the research question.

3.6 Validity, Reliability and Ethical Considerations

To ensure the validity of this study, several measures were taken. Construct validity was addressed through the use of three instruments previously validated in literature: the ADTRUST scale (Soh, 2006, p. 120) for perceived trust, Appelman's Message Credibility Scale (2015, p. 64) for message credibility, and the SOCRATES questionnaire (Biswas, 2022, p. 6714) for likelihood of quitting alcohol consumption. Each of these instruments has been previously validated in peer-reviewed studies. All three posters were centred around a consistent theme: illness caused by alcohol consumption. Participants were randomly assigned to one of the three conditions using the Qualtrics "Evenly Present Elements" function. Additionally, a manipulation check was embedded in the survey to verify whether the perceived fear intensity aligned with the intended design, thereby confirming the success of the experimental manipulation. With a final sample of 150 participants, the survey was pre-tested to assess both the clarity of questions and the effectiveness of the stimuli, with the intention to further enhance the validity of the research.

The survey was administered uniformly to all participants using the Qualtrics platform, with fixed question order and instructions. Random assignment to experimental conditions and the removal of incomplete responses during data cleaning further reduced the risk of inconsistency, supporting the overall reliability of the data. In order to assure the reliability of the scales, reliability analyses were conducted on each of the dependent variables. They all turned out with a high Cronbach's alpha, which confirms the reliability. The results are presented in the following table:

Table 3.6.1. Trust scale reliability

Variable	N of Items	Cronbach's alpha
Trust	20	.904
Message Credibility	3	.751
Likelihood of Quitting	19	.941

This study adheres to ethical research principles outlined by the European Code of Conduct for Research Integrity and the American Psychological Association (APA). This study includes several measures to maintain an ethical approach. Firstly, participants had to agree to the study terms before proceeding. These included: informed consent, confidentiality, as no personally identifiable information was collected, right to withdraw, as participants could exit the survey at any point and debriefing: a short explanation was provided before the survey about the study's purpose.

4. Results

This section presents the results of the quantitative experiment conducted to analyse how different levels of fear appeal in anti-alcohol campaigns influence perceived trust, message credibility, and the likelihood of quitting alcohol consumption. There are three hypotheses, introduced earlier, each addressing one of the core outcome variables of this study. To assess the effects of fear intensity (low, moderate, high) on the dependent variables, a one-way Analysis of Variance (ANOVA) was used. This method was appropriate due to the between-subjects design of the experiment, in order to compare the means across the three experimental conditions. Firstly, a descriptive overview of the data will be provided, including means and standard deviations for each dependent variable across conditions. Then, the results of the analysis of each hypothesis are reported. A summary of the outcomes of the ANOVA tests will conclude the section. The results offer insight into the reception of fear-based health messaging, and they raise important considerations for interpretation in the following discussion chapter.

4.1 ANOVA reporting

In order to accept or reject the hypotheses, ANOVAs were conducted to compare the means of the different dependent variables across the three fear appeal conditions: low, moderate, and high. The one-way ANOVA (Analysis of Variance) was used to examine whether there are statistically significant differences between the means of the three variables researched. In this study, the independent variable was fear appeal intensity, and the dependent variables were perceived trust, message credibility, and likelihood of quitting.

H1: High fear appeal intensity leads to lower perceived trust in the media campaign than low or moderate.

A one-way ANOVA was conducted with fear appeal intensity as the independent variable and perceived trust as the dependent variable. The analysis revealed a statistically significant main effect of fear appeal intensity on perceived trust, $F(2, 137) = 4.31$, $p = .015$, partial $\eta^2 = .059$. Post-hoc Tukey HSD tests showed that trust scores were significantly higher in the low fear condition ($M = 4.74$, $SD = 0.99$) compared to the high fear condition ($M =$

4.24, $SD = 0.75$), $p = .021$, and marginally higher compared to the moderate condition ($M = 4.32$, $SD = 0.90$), $p = .054$. No significant difference was found between the moderate and high fear conditions ($p = .904$). These results offer partial support for H1.

Essentially, the experiment found that higher fear appeal intensity leads to lower perceived trust in the anti-alcohol campaign than the lower fear appeal stimuli. However, no significant difference was found when comparing it to the moderate level of fear appeal.

H2: Moderate fear appeal intensity leads to higher perceived credibility in the media campaign than low or high intensity.

An ANOVA was conducted with fear appeal intensity as the independent variable and perceived message credibility as the dependent variable. The analysis revealed no significant main effect of fear appeal intensity on perceived message credibility, $F(2, 137) = 1.43$, $p = .242$, partial $\eta^2 = .020$. Mean credibility scores were highest in the low fear condition ($M = 3.15$, $SD = 0.83$), followed by the high fear condition ($M = 3.02$, $SD = 0.84$), and lowest in the moderate fear condition ($M = 2.86$, $SD = 0.87$). These results do not support the hypothesis that moderate fear appeal increases message credibility more than low or high levels. Hypothesis 2 is rejected.

The experiment did not find that moderate fear appeal intensity leads to higher perceived credibility of the message compared to the other intensities. There is no significant difference between any of the intensities regarding credibility of the message.

H3: Moderate fear appeal intensity leads to higher likelihood of quitting than low or high.

An ANOVA was conducted with fear appeal intensity as the independent variable and likelihood of quitting as the dependent variable. The analysis revealed no significant main effect of fear intensity on quitting intention, $F(2, 70) = 0.29$, $p = .747$, partial $\eta^2 = .008$. The mean quitting score was highest in the low fear group ($M = 2.61$, $SD = 1.03$), followed by the moderate fear group ($M = 2.44$, $SD = 1.20$), and lowest in the high fear group ($M = 2.37$, $SD = 1.15$). These results do not support the hypothesis that moderate fear appeal increases the likelihood of quitting more than low or high fear levels. Hypothesis 3 is rejected.

An ANOVA was conducted with fear appeal intensity as the independent variable and likelihood of quitting as the dependent variable. The analysis revealed no significant main

effect of fear appeal intensity on quitting intention, $F(2, 137) = 0.76$, $p = .468$, partial $\eta^2 = .011$. The mean likelihood of quitting score was highest in the low fear group ($M = 2.75$, $SD = 1.15$), followed by the moderate fear group ($M = 2.57$, $SD = 1.14$), and lowest in the high fear group ($M = 2.46$, $SD = 1.11$). These results do not support the hypothesis that moderate fear appeal increases the likelihood of quitting more than low or high fear levels. Hypothesis 3 is rejected.

The analysis did not find that moderate fear appeal intensity leads to a higher likelihood of quitting. Actually, there is no significant difference between the effects of any of the intensities regarding likelihood of quitting.

In conclusion, the results of this study only partially support one of the three hypotheses. Fear appeal intensity, whether low, moderate, or high, did not significantly affect message credibility or likelihood of quitting alcohol consumption. However, high fear appeal intensity did significantly differ from low levels of fear appeal, but not from moderate intensity.

Perceived trust was significantly higher in the low fear condition compared to the high fear condition, and marginally higher than in the moderate condition. Message credibility was also highest in the low fear group, followed by the high fear group, and lowest in the moderate condition, though these differences were not statistically significant. Similarly, likelihood of quitting was slightly higher in the low fear condition compared to moderate and high, but again, the differences were not significant. These patterns were inconsistent with the hypotheses. The moderate fear condition did not produce higher credibility or quitting intention as expected, nor did the high fear condition significantly reduce trust beyond the moderate level. The following section will interpret and discuss these findings through the theoretical framework established and explore possible explanations and implications for campaign design and future research.

A manipulation check was conducted in order to make sure that the fear appeal was being perceived as intended. This was done by asking a question about the level of fear intensity that the respondent perceived. The answers were in the form of a 7-item Likert scale. An ANOVA was used to analyse whether the conditions were significantly different, therefore achieving success with the manipulation check.

A one-way ANOVA was conducted to examine whether perceived fear intensity differed across the three experimental conditions (low, moderate, and high fear appeal). The analysis revealed a significant main effect of the condition on perceived fear intensity, $F(2, 137) = 23.50$, $p < .001$, $\eta^2 = .255$, indicating that the manipulation was successful. A Tukey post hoc test showed that participants in the high fear condition ($M = 4.48$, $SD = 1.91$) reported significantly higher perceived fear than those in the moderate ($M = 3.27$, $SD = 1.38$, $p < .001$) and low fear conditions ($M = 2.26$, $SD = 1.31$, $p < .001$). Additionally, the moderate condition was perceived as significantly more fearful than the low condition ($p = .005$). These results confirm that the fear intensity manipulation functioned as intended across all three groups.

The following table summarises the findings of the statistical analysis:

Table 4.1.1. Summary of ANOVAS

Dependent Variable	F(2, 137)	p-value	Partial η²	Mean (Low / Moderate / High)	SD (Low / Moderate / High)	Significant Post-hoc Comparisons
Perceived Trust	4.31	.015	.059	4.74 / 4.32 / 4.24	0.99 / 0.90 / 0.75	Low > High (p = .021)
Message Credibility	1.43	.242	.020	3.15 / 2.86 / 3.02	0.83 / 0.87 / 0.84	None
Likelihood of Quitting	0.76	.468	.011	2.75 / 2.57 / 2.46	1.15 / 1.14 / 1.11	None

5. Discussion

The study used the statistical method ANOVA to analyse the hypotheses. The first idea was that a fear appeal message would make people trust the campaign less than a message that had a low or moderate fear appeal. The analysis found partial support for this: people who saw a low-fear message trusted it more than those who saw a high-fear message. However, there was no real difference in trust between those who saw a moderate-fear message and those who saw a high-fear message. This suggests that a moderate amount of fear doesn't necessarily help keep or improve trust. The second hypothesis was that a moderate level of fear would lead to higher message credibility than either low or high fear. This idea was not supported by the ANOVA analysis. While messages with low fear seemed slightly more believable on average, the differences between the fear levels were not statistically significant. This means that the level of fear intensity in a message is not a strong indicator of how credible people find it. The third hypothesis suggested that a moderate fear message would be better at convincing people to stop drinking alcohol than either a low or high fear message. The data did not support this either. Even though the group that saw the low-fear message had the highest average scores for wanting to quit, the differences among the three groups were not statistically meaningful. This means that the level of fear appeal intensity does not significantly influence the likelihood of quitting alcohol perceived from such a message.

In summary, only the first hypothesis received some limited support. It seems that the intensity of fear in a message had some effect on how much people trusted it, but it didn't really change how credible the message was perceived to be or how much people intended to quit drinking. These results suggest that the way people respond to messages that use fear might be more complicated than initially thought.

After studying fear appeal and whether different intensities have an effect on trust perception, credibility of the message and likelihood of quitting, several takeaways arise. The study analysed survey respondents' reaction to three different campaign posters, each presenting a specific level of fear appeal intensity (low, moderate and high). As alcohol is such a common, yet dangerous and harmful substance (Young et al., 2017, p. 303), it is important to find out how media campaigns can optimise and better target the audience, as well as push forward healthier lifestyles. That is why three posters were created following the

guidelines established in a table, created through Rhodes' (2015, p. 967) and Rayner et al.'s (2014, p. 62) research on fear appeal.

Low levels of fear appeal are presented through a lack of injuries or trauma shown, no graphic or physical harm, as well as minimal emotional content and consequences (Rhodes, 2015, p. 967; Rayner et al., 2014, p. 62). Moderate fear appeal lies between low and high, so it can be difficult to pinpoint exactly where it stands. However, thanks to the guidelines established, a moderate level of fear intensity can be represented with some depiction of injury, which is not graphic, but mild signs of concern and discomfort, without pushing the boundaries too far. Also, it shows serious consequences, yet not life-threatening, such as illness (Rhodes, 2015, p. 967; Rayner et al., 2014, p. 62). High fear appeal pushes the boundaries to the furthest level. It entails graphic imagery of injury and harm, such as bodily disfigurement, as well as shock and life-threatening consequences, such as cancer or death (Rhodes, 2015, p. 967; Rayner et al., 2014, p. 62). These levels of fear appeal were used to answer the research question: To what extent does the use of fear appeals influence perceived trust, credibility of the message, and likelihood of quitting towards anti-alcohol media campaigns? In order to completely answer it, three hypotheses were developed based on substantial literature:

H1: High fear appeal intensity leads to lower perceived trust in the media campaign than low or moderate.

H2: Moderate fear appeal intensity leads to higher perceived credibility in the media campaign than low or high intensity.

H3: Moderate fear appeal intensity leads to higher likelihood of quitting than low or high.

After statistically analysing whether these levels of intensity influence the three dependent variables perceived trust, credibility of the message and likelihood of quitting, the results enrich the already extensive literature and academic discussion around anti-alcohol campaigns and the effectiveness of fear appeals. The following section will look at each hypothesis individually and how its statistical significance or insignificance can be interpreted in a theoretical context.

5.1 Interpretation of Results

H1: High fear appeal intensity leads to lower perceived trust in the media campaign than low or moderate.

The first hypothesis assumes that, when fear appeal intensity is highest, people lose trust in the anti-alcohol campaign. The statistical analysis revealed that there is only a significant difference between high fear appeal intensity and low fear intensity in regard to the amount of trust in the campaign. However, it does not find a significant difference when it comes to moderate fear appeal. Therefore, the hypothesis is only partly supported. One of this study's objectives is to discover efficient techniques to persuade people away from bad habits. This hypothesis was centred around the idea that high fear intensity is clearly inferior when it comes to gaining the viewer's trust. Therefore, even though it was partly supported, the analysis of the hypothesis did not show a clear pathway to take in order to achieve optimal trust. This can be explained since research on fear appeals in health campaigns generally achieves varying results (Filipova, 2022, p. 2; Odunfa, 2023, p. 27). Some researchers even argue that an emotional idea for a campaign, like fear-inducing in this case, is ineffective compared to a rational and informational one (Garaus and Hudáková, 2022, p. 6). However, when researching more specifically similar topics, such as fear appeal in anti-smoking campaigns, it was found to be very effective in getting abstainers to stay away (Jeong et al., 2021, p. 2108).

The mix of results is portrayed in the partial significance of the hypothesis, as people's perceptions of specific fears may vary a great deal. In addition, Kisa and Kisa (2024, p. 2) note that trust in health authorities has been sensitive and fragmented since the COVID-19 pandemic. In such a context, exposure to extreme content might not significantly lower trust because baseline trust is already under pressure, or because audiences have developed coping mechanisms that buffer the emotional impact.

From a theoretical perspective, the Extended Parallel Process Model (Witte, 1992, p. 329) provides a useful lens for understanding why the high fear appeal condition did not significantly lower trust. According to EPPM, messages that evoke high threat but low efficacy can result in fear control responses, such as defensiveness, denial, or message rejection. In this case, while efficacy was not a variable in itself, it could have disturbed the potential of influencing trust. The high fear stimuli may have elicited discomfort or

resistance, but not to a degree that significantly undermined the audience's trust in the campaign as a whole. The relatively small variation in mean trust scores across the groups suggests that a single exposure to a fear-based message, regardless of intensity, might not be enough to disrupt or increase trust in a measurable way.

Demographic characteristics of the participants may also help explain the partial support for this hypothesis. As seen in an earlier table, the average age of the respondents was 22.5. Through their study on fear appeals on teens (Xuan & Choi, 2021, p. 210), they look down on fear appeal messaging, as they propose better alternatives for young people. Therefore, such a young average age could be a determining factor in the way trust is perceived through fear appeals. A younger person could be more easily impressed, therefore trust more in a rather low level of fear appeal. As soon as the lever of fear appeal starts to grow into moderate or high intensity, trust seems to go down. Around half of the respondents were ranked as higher scorers in the AUDIT-C scale. Essentially, respondents were almost equally divided between frequent and infrequent drinkers. Therefore, that does not seem to be a determining factor for perceived trust. Also, more male individuals participated in the study, which could be why the hypothesis was accepted. Men tend to trust more easily than women (Rau, 2011, p. 20). Those two genders reflect more than 99% of respondents.

Another possible explanation is that trust in public health messages is not only shaped by emotional tone but also by perceptions of authority, clarity, and honesty. The ADTRUST scale used in this study captures these multidimensional aspects, which could mean that fear appeal alone does not strongly influence trust unless combined with other trust-related cues like message source or personal relevance. This could explain the muted effects observed across all three conditions.

H2: Moderate fear appeal intensity leads to higher perceived credibility in the media campaign than low or high intensity.

The second hypothesis suggests that, when fear appeal intensity is moderate, the anti-alcohol campaign's credibility is optimal. The statistical analysis revealed that there is no significant difference between any of the levels of fear intensity in regard to the amount of credibility of the message in the campaign. These findings challenge the theoretical assumption that moderate emotional arousal enhances message reception. Similarly to the previous hypothesis, it is worth mentioning the Extended Parallel Process Model (Witte,

1992, p. 329), which supports the idea that moderate fear, when combined with a clear efficacy message, encourages danger control responses and message acceptance. However, once again, there were no efficacy measurement items in the survey, which might explain why no condition, moderate included, resulted in significantly higher credibility scores, or even any difference.

The results suggest that credibility, like trust, may be driven more by structural message features than by emotional intensity alone. The Appelman scale used in this study evaluates accuracy, authenticity, and believability. This could explain why a moderate fear tone was not perceived as more credible. Without indicators of source expertise or evidence, participants may have rated all messages similarly regardless of emotional content. Another possible explanation is that moderate fear appeal lacks a clear psychological "edge." Compared to the low condition, which might have seemed informative and non-threatening, and the high condition, which might have captured attention more strongly, moderate fear could come across as emotionally vague or inconsistent. This aligns with findings by Peinado and Nabi (2024, p. 3154), who argue that emotional shifts, rather than moderate tones, are more effective in enhancing message processing and credibility.

The study had mostly participants who had completed a Bachelor's degree. As mentioned in the theoretical framework, Shami and Islam (2022, p. 606) defined credibility as the belief in a message or medium because of trust in the communicator due to qualification or certification of expertise. This can be an explanation for why a significant difference was not found. Completing a Bachelor's degree grants a certain amount of qualification to individuals, who are then potentially able to discern the fear-based message. Therefore, no matter what level of fear appeals, the credibility of the message remains similar, as participants can see through it.

H3: Moderate fear appeal intensity leads to higher likelihood of quitting than low or high.

The third hypothesis assumes that, when fear appeal intensity is moderate, the anti-alcohol campaign has an optimal effect on likelihood of quitting. The statistical analysis revealed that there is no significant difference between any of the levels of fear intensity in regard to likelihood of quitting after being presented with the campaign. While none of the fear intensity levels were found to be more prone to influence quitting intentions, that does

not mean that the campaigns are not effective at doing so, but rather that there is not one superior level of fear appeal intensity. As seen in the theoretical framework, fear appeal can be very effective in many different facets of health, such as smoking cessation (Jeong et al., 2021, p. 2108). Similarly to the credibility of the message, this variable also runs against the idea of the Extended Parallel Process Model (Witte, 1992, p. 329). According to EPPM, moderate fear should motivate behavioural change. However, if there is no clear indication on how or that it is possible to quit or reduce alcohol consumption, there is a chance that the effect of the intensity is in vain. Without a clear indication that quitting is possible or effective, the fear-based content might not have translated into concrete behavioural intentions.

The result that there is no significant difference between fear appeal intensity and likelihood of quitting is consistent with findings from Odunfa (2023, p. 27), who found no significant behavioural differences between fear and hope appeals in binge-drinking messages. In contrast, studies like Booth et al. (2023, p. 5) reported positive effects of fear-based messages only among high-risk drinkers; however, that is a more specific subgroup that this study did not take into account. A future study could specifically target those who are already experiencing consequences from alcohol consumption and are potentially more likely to respond to fear appeal messaging. Without such an audience, fear appeals may not yield strong behavioural intent outcomes. Finally, audience perception of fear intensity might vary. While the fear appeal categories were carefully designed based on established theory (Rayner et al., 2014, p. 62; Rhodes, 2015, p. 967), subjective interpretations of the intensity exist. If participants did not perceive the "moderate" condition as emotionally distinct from the other two, this could have diluted any potential effect on quitting intentions.

While most participants were young, there were still some older respondents. A reason for the insignificance of the hypothesis could be the desensitisation that was found in older people when being presented with fear appeals regarding their bad habits (Zuloeta, 2025, p. 69). Fear appeals were ineffective in encouraging behaviour change, which could now be generalised to a more general population. However, this study finds that there is not one specific level of fear appeal that acts in a significantly different manner on people compared to the others. That means that there is a possibility that they all work very well, or

most likely, that other factors play a bigger role when it comes to influencing the likelihood of quitting.

5.2 Theoretical Implications

After analysing the three rejected hypotheses and looking at the results, many more questions have arisen than have been answered. In regard to the Extended Parallel Process Model (Witte, 1992, p. 329), the insignificance of the hypothesised effects favours the idea that fear alone cannot be a predictor for trust, credibility and behavioural change. As there were no significant differences between low, moderate and high levels of fear intensity, it can be concluded that there are other facets that need to be considered, as they take part when influencing such behaviours. EPPM suggests that fear needs to be accompanied by efficacy. Had there been an element of efficacy, such as a step-by-step guide on how to reduce alcohol consumption until it stops, the results of the research could have been different. This is also supported by the Transtheoretical Model (Watakakosol et al., 2020, p. 77), which suggests that behaviour change is not typically triggered by a single exposure to a message, especially when the individual is not in the action or preparation stage of change. Therefore, participants who already had their minds made up about their habits or were not ready to prepare for change might have taken the poster less personally in order to reduce their anxiety, as fear-based messaging can provoke defensiveness from participants (Booth et al., 2023, p. 5). Similarly, participants who view alcohol consumption as something relevant and worth reflecting upon could have a different outlook and interpretation of the fear appeal. That type of participant tends to have a more favourable attitude toward moderate levels of fear appeal, while people who are uninterested in the topic at hand disregard that level, potentially looking for something more emotionally striking or attention-grabbing (Shen & Kim, 2020, p. 164).

While there is great debate on whether fear appeals are an effective communication and marketing strategy or if they essentially shift the potential consumer to defensiveness and distancing themselves from the message, the results of this study demonstrate that it is not necessarily a dealbreaker, in either direction. However, other strategies could provide a more precise analysis, as well as be more effective. An example is coping mechanisms, which

focus more on the benefits of the campaign, rather than focusing on specific amounts of fear, and lead to higher affection towards the message, while fear-based messages tend to lead to psychological distancing (Fu et al., 2023, p. 9).

5.3 Fear appeals influence on trust, message credibility and likelihood of quitting

The findings of this study show that fear appeal intensity has a limited influence on perceived trust, message credibility, and likelihood of quitting in anti-alcohol media campaigns. While low fear messages were associated with significantly higher trust compared to high fear messages, there was no significant difference between moderate and high fear levels, offering only partial support for the first hypothesis. For message credibility and quitting intention, the results revealed no statistically significant differences between any of the three fear conditions. This suggests that the use of fear-based imagery alone, whether low, moderate, or high, is not a consistent or reliable predictor of how audiences judge message trustworthiness, credibility, or their willingness to change behaviour. The data and theory suggest that other factors, such as message clarity, perceived efficacy, or individual readiness to change, likely play a more critical role in shaping these responses than fear intensity alone.

5.4 Methodological Reflection

The methodology used in this study allowed for many advantages, as well as leaving some holes that need to be fixed in future studies. The survey design was ideal for the research question, as it provided precise data on the variables being researched. The between-subjects design allowed for an even number of respondents for each fear appeal intensity; however, there was a smaller count for each one, as participants were only shown one condition. This was done in order not to have any carryover effects. Also, while the fear appeal levels were based on a theoretically grounded classification system (Rayner et al., 2014, p. 62; Rhodes, 2015, p. 967), perception of fear is inherently subjective. Although a manipulation check was included to confirm that participants recognised varying levels of fear, the actual psychological impact of each image might still be different based on personal

background, prior experience with alcohol, or any other reason. Apart from that, while the study employed validated scales, such as ADTRUST, Appelman's Credibility Scale, and the SOCRATES questionnaire, the translation of these instruments into the context of a brief, image-based online survey may have influenced how respondents interpreted the items. Measuring concepts such as trust and behavioural intention after only a few seconds of exposure may not fully capture the depth of the context.

This study had several limitations. Firstly, it encompassed a global demographic sector. More precise results could appear if the study were concentrated in a specific area or population. Then, the use of a between-subjects design, while avoiding carryover effects, limited the number of participants exposed to each condition. The study did not have a large sample of participants, so conducting a between-subjects design limited the exposure to each stimulus even more. As a result, the sample size per group may have reduced statistical power, especially when detecting more subtle differences between conditions. A larger overall sample or a within-subjects design, if carryover could be properly controlled, might allow for clearer distinctions in future research. Also, the manipulation of fear intensity was based on theoretically grounded visual criteria (Rhodes, 2015, p. 967; Rayner et al., 2014, p. 62), but fear perception remains subjective. Although a manipulation check confirmed that participants perceived some variation across conditions, the internal experience of fear could have varied due to personal factors such as prior exposure to similar campaigns, personal relevance, or alcohol consumption history. Future research could strengthen this by including psychophysiological or qualitative measures to more directly capture emotional responses to the stimuli. Future research could implement a within-subjects design, where more participants are exposed to stimuli, as well as for a longer time, in order to really be influenced by it.

The findings of this study have several implications for both society and public health practitioners. Although fear appeals are commonly used in anti-alcohol messaging, this study supports previous research suggesting their effects are not uniform (Odunfa, 2023, p. 27; Filipova, 2022, p. 2). The lack of strong differences between low, moderate, and high fear intensities highlights the need for more nuanced approaches in campaign development. Campaigns that overuse fear without building credibility, through clear, authentic, and realistic messages, risk being perceived as manipulative or exaggerated (Rhodes, 2015, p. 967; Rosenthal, 1971, p. 394).

Practitioners should take into account that younger audiences, such as the one in this study, might respond differently to fear depending on their media literacy and trust in institutions (Xuan & Choi, 2021, p. 210; Kisa & Kisa, 2024, p. 2). Fear messages targeting youth must be credible, supported by facts, and, when possible, combined with positive reinforcement or behavioural alternatives. For society, the results highlight the importance of maintaining trust in public health institutions, especially after the reputational damage experienced during the COVID-19 pandemic. In line with Beitelspacher et al. (2012, p. 156), this study confirms that trust is a prerequisite for message acceptance. Without it, even emotionally powerful campaigns may fall short in shifting behaviour, making long-term trust-building a necessary goal for effective public health communication. Practitioners can now think twice before showing viewers a fear-based message, knowing that there are many other factors involved in the success of the campaign.

6. Conclusion

This study set out to answer the central research question: *To what extent does the use of fear appeals in anti-alcohol media campaigns influence perceived trust, message credibility, and likelihood of quitting?* Drawing on established theories such as the Extended Parallel Process Model and the Transtheoretical Model, the research suggested three hypotheses. H1: High fear appeal intensity leads to lower perceived trust in the media campaign than low or moderate. H2: Moderate fear appeal intensity leads to higher perceived credibility in the media campaign than low or high intensity.H3: Moderate fear appeal intensity leads to a higher likelihood of quitting than low or high. However, the results of the quantitative experiment did not primarily support these assumptions. The ANOVA analyses only revealed one significant difference, which was between high fear appeal intensity and trust. Therefore, H1 received partial support; trust is especially low when respondents were shown a high fear appeal image. However, there were no significant differences in trust, credibility, or quitting intention across low, moderate, and high fear appeal conditions. The theoretical framework provided a foundation for why fear appeals matter in public health communication. The methodological choices allowed for a controlled comparison of fear levels, and the results section highlighted the definitive answers of the research. While the study was carefully designed, it is not without limitations.

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Appendix A
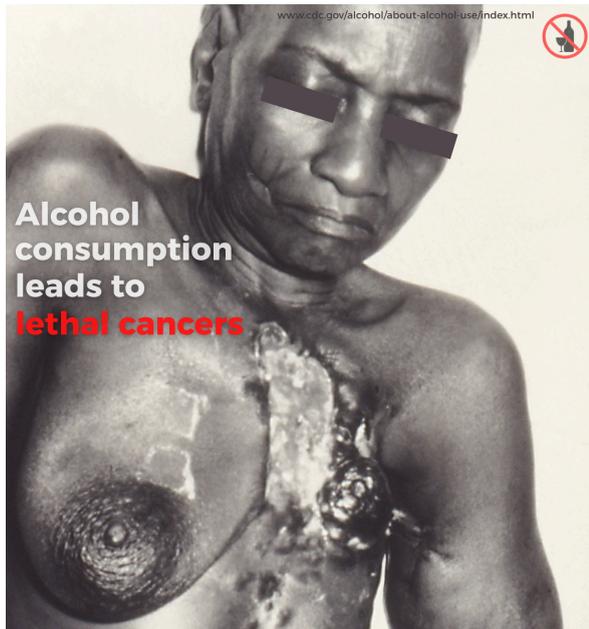
A1. Anti-Alcohol Posters

Low Fear Intensity Poster:

Moderate Fear Intensity Poster:

High Fear Intensity Poster:

Appendix B

B1. Survey Questionnaire

1. Introduction Page

    a. Dear participant, Thank you for your interest in this research study. As part of my Master's thesis in Media and Business at the Erasmus School of History, Culture and Communication, Erasmus University Rotterdam, I am exploring media effectiveness in public health communication. In this survey, you will be shown an anti-alcohol campaign, followed by a few questions related to the image and to your own habits. Completing the questionnaire will take approximately 2-4 minutes. Your participation is entirely voluntary, and you may choose to withdraw from the study at any time without providing a reason. Your responses will remain anonymous and confidential. By participating you confirm that you are at least 18 years old.

2. Explainer Page

a. You will now be shown an anti-alcohol campaign poster. After looking at it, you will be asked some questions regarding what you think of it and some of your habits.

3. Fear Appeal Stimuli

   a. One of the three posters (random)

   b. In case of High Intensity, disclaimer:

      i. Disclaimer: The following poster may contain content that could be distressing or triggering to some individuals. It may include explicit images of the human body disfigured and ill. Please proceed with caution. If you feel uncomfortable or wish to withdraw at any time, you are free to do so without any consequence.

4. Trust Measurement (Likert scale 1-7)
   a. After looking at the image, please answer to what extent you agree with the statements: The information conveyed in the health campaign is…
      i. Honest
      ii. Truthful
      iii. Credible
      iv. Reliable
      v. Dependable
      vi. Accurate
      vii. Factual
      viii. Complete
      ix. Clear
      x. Valuable
      xi. Good
      xii. Useful
      xiii. Helps people make the best decision
      xiv. Likeable
      xv. Enjoyable
      xvi. Positive

xvii. I am willing to rely on information conveyed in a health campaign when making purchase related decisions.

xviii. I am willing to make important purchase related decisions based on information conveyed in a health campaign.

xix. I am willing to consider the information conveyed in a health campaign when making purchase related decisions.

xx. I am willing to recommend the product or service that I have seen in health campaigns to my friends or family.

5. Message credibility Measurement (Likert scale 1-5)

    a. Please indicate how well the following adjectives describe the content you just saw

        i. Accurate

        ii. Authentic

        iii. Believable

6. Likelihood of quitting Measurement

    a. After looking at the image, describe how the following statements describe you

        i. I really want to make changes in my drinking.

        ii. Sometimes I wonder if I am an alcoholic.

        iii. If I don't change my drinking soon, my problems are going to get worse.

        iv. I have already started making some changes in my drinking.

        v. I was drinking too much at one time, but I've managed to change my drinking.

        vi. Sometimes I wonder if my drinking is hurting other people.

        vii. I am a problem drinker.

        viii. I'm not just thinking about changing my drinking, I'm already doing something about it.

        ix. I have already changed my drinking, and I am looking for ways to keep from slipping back to my old pattern.

        x. I have serious problems with drinking.

        xi. Sometimes I wonder if I am in control of my drinking.

        xii. My drinking is causing a lot of harm.

       xiii.   I am actively doing things now to cut down or stop drinking.

       xiv.   I want help to keep from going back to the drinking problems that I had before.

       xv.   I know that I have a drinking problem.

       xvi.   There are times when I wonder if I drink too much.

       xvii.   I am an alcoholic.

       xviii.   I am working hard to change my drinking.

       xix.   I have made some changes in my drinking, and I want some help to keep from going back to the way I used to drink.

7. Perceived Fear Intensity

    a. 7-item Likert scale (Very Low - Very High)

8. Demographic Questions

    a. What is your age?

    b. What gender do you identify with?

    c. What is your home country?

    d. AUDIT-C

       i.   How often did you have a drink containing alcohol in the past year?

          1. Never

          2. Monthly or less

          3. 2-4 times a month

          4. 2-3 times a week

          5. 4 or more times per week

       ii.   On days in the past year when you drank alcohol how many drinks did you typically drink?

          1. 0, 1 or 2

          2. 3 or 4

          3. 5 or 6

          4. 7 - 9

          5. 10+

       iii.   How often did you have 6 or more (for men) or 4 or more (for women and everyone 65 and older) drinks on an occasion in the past year?

          1. Never

          2. Less than monthly

3. Monthly
4. Weekly
5. Daily or almost daily

9. Disclaimer:
   a. Disclaimer: The following page may contain content that could be distressing or triggering to some individuals. It may include explicit images of the human body disfigured and ill. Please proceed with caution. If you feel uncomfortable or wish to withdraw at any time, you are free to do so without any consequence.

10. End page:
    a. Thank you for your participation. Your responses have been recorded successfully.

    Your input will contribute to a study aiming to understand how fear-based appeals influence public attitudes towards anti-alcohol campaigns and their effects. More specifically, I am exploring the influence of fear appeals in anti-alcohol campaigns on trust, credibility and likelihood of quitting. If you have any questions or would like to learn more about the research, feel free to contact me at 610717vs@eur.nl.

    For your information, the following are the posters used for the study: (3 posters)

    Thank you again for your contribution to this important research. Viktor Saparev