

Blame Attribution and Compliance with COVID-19 Measures in Australia: The Theory of Planned Behaviour

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Abstract: This study scrutinizes the influence of “blame attribution” and the Theory of Planned Behaviour (TPB) on compliance with COVID-19 public health measures in Australia. This study elucidates that blaming individuals rather than governments surprisingly augments support for governmental regulations, highlighting the complexities of blame attribution in shaping public adherence to health policies. It underscores the nuanced roles of TPB elements like subjective norms and behavioural control, revealing that feelings of empowerment, social responsibility, and recognizing personal roles in pandemic control enhance the inclination to support governmental directives. The outcomes emphasize the criticality of understanding blame attribution and TPB dynamics for devising efficacious communication and management strategies, promoting societal adherence to essential regulations and actions during health crises, and fostering a more resilient societal infrastructure for dealing with pandemics.

Keywords: health communication; public policy; theory of planned behaviour (TPB); COVID-19; attitude; Australia; China

1. Introduction

The COVID-19 pandemic, starting in Wuhan, China, in late 2019, significantly impacted global health, economy, and social practices, including in Australia, where the first case emerged in January 2020, leading to over 7700 infections by June [1–3]. Australia’s response included travel bans and social distancing, with Queensland declaring a public health emergency on 29 January 2020, followed by strict business and social restrictions [4]. Compliance with these measures, influenced by socio-political factors, was vital for their effectiveness. The pandemic has impacted Australians’ physical and mental health and economic stability.

This study delves into the concept of “blame attribution”, defined as how individuals perceive the degree of accountability for the cause of the COVID-19 outbreak. Blame attribution is crucial as it has the potential to influence emotions, intentions, and consequently, compliance with public health measures. To understand the elements that contribute to such compliance, this study employs the Theory of Planned Behaviour (TPB) as its guiding framework. The TPB is widely recognized for its utility in predicting and understanding health-related behaviours, and it serves as an apt lens through which to examine Australians’ attitudes and behavioural intentions towards COVID-19 policies.

The TPB, COVID-19, and the Australian Context: A Research Gap

While the Theory of Planned Behaviour (TPB) has been employed to investigate behavioural intentions during the COVID-19 crisis, these studies have primarily focused



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on populations outside of Australia. Su et al. [5] integrated the Risk Perception Attitude (RPA) framework with the TPB to assess travel intentions amid health crises, emphasizing health risk perception's indirect effect via self-efficacy and attitudes towards future travel. However, these studies did not explore the impact of geographical or national context, particularly perceptions of China, which played a crucial role in the virus's emergence and spread.

This study seeks to fill this critical gap by analysing Australian attitudes and behaviours towards COVID-19 policies, focusing on blame attribution towards China and its influence on compliance. Considering China's critical role in the early stages of COVID-19, understanding Australians' perspectives on China during the pandemic is vital. By investigating these factors, this study aims to reveal the underlying determinants shaping Australian attitudes towards both restrictive measures and international relations related to the pandemic. The findings could inform policy making and public health communication, ultimately improving adherence to COVID-19 containment measures in Australia.

Our study also extends the range of the Theory of Planned Behaviour by adding two emotional mediating variables and the blame attribution theory [6] and applying an innovative perspective to bring them together in the context of COVID -19.

2. Literature Review

2.1. Blame Attribution and Emotional Responses to COVID-19

The COVID-19 pandemic has sparked global negative attitudes like fear and anger, largely due to blame attribution. One key contributing factor to these emotional responses is blame attribution, the act of assigning responsibility for adverse events. This review concentrates on how blame attribution during COVID-19 shaped public sentiment.

Nurrahmi [7] and Metrick-Chen [8] explored how ethnicity and political discourse affect blame attribution towards Asian Americans, as the virus originated in Wuhan, China, leading to negative attitudes and discrimination against Chinese individuals. Similarly, Samson [9] explored how political leaders and social narratives fuel anti-Asian sentiments and prejudices. Consistent with these findings, Nguyen et al. [10] highlighted that blame directed towards Asian communities significantly increased in New Zealand during the pandemic, as media narratives often linked the virus to China. Such blame attribution has intensified public stigma, discrimination, and racism towards individuals of Asian descent.

Shin, Wang, and Song [11] examined the impact of social media on young Asians in Australia, revealing that the active use of social media during the pandemic was linked to an increase in both individual and vicarious experiences of racial discrimination. This discrimination led to heightened concerns about real-world racism, negatively affecting young Asians' well-being. Their study supports the notion that blame attribution through online narratives can exacerbate negative attitudes towards ethnic groups [11]. This aligns with the existing literature, such as Samson [9], which emphasizes the role of political leaders and social narratives in fuelling anti-Asian sentiments.

2.2. Blame Towards Government Responses

Blame is also cast on governments for their pandemic responses, with criticisms causing mistrust and increased negative attitudes [12,13]. Studies have shown that governments that failed to provide clear and consistent information were viewed negatively by the public. In Australia, Ben and Elias [14] demonstrated that criticism of the government's handling of COVID-19 led to negative sentiments and mistrust. These findings suggest that the blame assigned to governments during crises can significantly influence public attitudes, further exacerbating negative emotional responses.

2.3. Blame Attribution and Indigenous Australians

Bennett et al. [15] highlighted COVID-19's specific impact on Indigenous Australians, adding another dimension of blame and emotional distress. Indigenous communities experienced unique challenges during the pandemic, such as limited access to healthcare, which led to feelings of neglect and increased blame directed at governmental bodies. This highlights the importance of considering the intersectionality of different marginalized groups when examining blame attribution.

2.4. Blame Towards Individuals

Lastly, individual responsibility (IR) is often cited in blame attribution. There is a tendency to attribute contracting the virus to personal behaviour, which fosters further negative attitudes and lessens empathy [16]. Nguyen et al. [10] also found that fear of contact with COVID-19 led to increased stigma against individuals perceived as responsible for spreading the virus. This individual blame was associated with reduced empathy and a greater willingness to stigmatize those who contracted COVID-19, thus highlighting the detrimental impact of such attributions on collective public health efforts. Although some studies have examined the TPB [17,18], our study contributes a public relations perspective by addressing blame attribution in our COVID-19 communication research.

2.5. Implications of Blame Attribution

The selection of blame attribution categories (e.g., BA-China, BA-Australia, BA-Individuals) in this study is grounded in the novel consideration that while the TPB traditionally focuses on rational, logical processes underlying individuals' attitudes and behavioural intentions towards policy or campaign acceptance, emotional responses also play a significant role. This study aims to explore how blame, as an emotional construct, influences individuals' attitudes and intentions, proposing that these emotional attitudes derived from blame attribution could serve as precursors or modifiers to the TPB's dependent variables, thereby expanding its application to account for the interplay between emotion and rationality.

In summary, blame attribution profoundly affects emotional responses to COVID-19, impacting public sentiment towards ethnic groups, governments, and individuals who have contracted the virus. During the pandemic, individuals of Asian descent, particularly in countries like Australia and New Zealand, faced increased prejudice due to blame attribution, fuelled by media narratives and political rhetoric [10,11]. Furthermore, governments were often blamed for inadequate responses, which resulted in negative public attitudes [14]. Individual blame also played a crucial role in shaping public attitudes towards those who contracted COVID-19, as fear and anxiety about contagion led to increased stigmatization [10].

2.6. Hypothesis Development

Specifically, our first hypothesis (H1 see Figure 1) posits that blame attribution directed at various entities—such as the Chinese government, the Australian government, or individuals—intensifies negative attitudes towards COVID-19. Prior research corroborates the significant influence of blame attribution on emotional responses to crises, including attitudes towards preventive actions. In the context of the COVID-19 pandemic, blame aimed at specific governments or individuals has been shown to escalate negative attitudes [10,19].

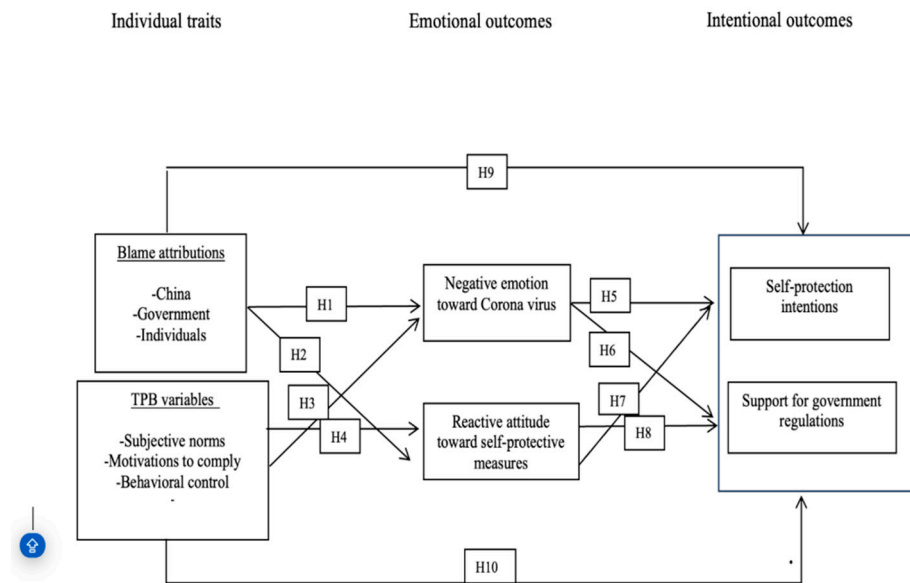


Figure 1. Theoretical model and Hypotheses.

H1: Blame attribution—categorized as (a) blame on the Chinese government, (b) blame on the Australian government, and (c) blame on individuals—will significantly increase negative attitudes towards COVID-19.

2.7. The Impact of Blame Attribution and Political Factors on COVID-19 Responses

Blame attribution has been shown to significantly affect emotional and behavioural responses in crisis situations, shaping both attitudes towards the crisis itself and preventive behaviours aimed at mitigating its effects. In the context of the COVID-19 pandemic, blame attribution has emerged as a crucial factor influencing how individuals react to public health guidelines and engage with preventive measures. Understanding how different forms of blame attribution—whether directed at external actors, governments, or individuals—affect compliance can offer valuable insights for public health strategies.

Blame attribution has been extensively studied in crisis contexts for its role in shaping emotional responses [20]. In the COVID-19 context, external blame, such as attributing responsibility to foreign governments like China or Australia, has been linked to heightened negative emotions, including anger and resentment [21], and regions (South Korea) subject to blame attribution experienced increased hostile attitudes towards multiculturalism and increased discriminatory preference [22]. On the other hand, self-blame tends to trigger more internalized emotions like guilt and shame, which may lead to different behavioural outcomes [23]. These emotional responses can subsequently influence how individuals engage with the crisis and the preventive actions they take.

Beyond emotional responses, blame attribution also plays a direct role in individuals' adherence to public health measures. Research from the U.S. has shown that individuals who blame China for the spread of COVID-19 are less likely to comply with preventive measures such as mask-wearing [24]. Similarly, an Australian study found that blaming the government for mismanaging the pandemic led to reduced compliance with health guideline [25]. These findings suggest that blame attribution not only affects emotional responses but also has concrete implications for behaviour, particularly in the context of public health compliance.

Political attitudes, especially those linked to anti-Chinese or anti-government sentiments, have been shown to mediate the relationship between blame attribution and

preventive behaviours [25,26]. Individuals with strong political biases may be more likely to direct blame at external entities, which, in turn, could exacerbate non-compliance with health guidelines. This interplay between political beliefs and blame attribution further highlights the complexity of managing public health crises in polarized environments.

'Reactive attitudes' provide a theoretical framework for understanding the emotional and psychological responses to blame attribution. Peter Strawson's concept of reactive attitudes includes emotional reactions such as gratitude, resentment, forgiveness, and hurt feelings which arise in response to perceived goodwill or ill will in others' actions. In the COVID-19 context, reactive attitudes can manifest as fear, distrust, or anger towards specific actors, influencing public behaviour towards preventive measures. These emotional responses are critical in shaping how individuals process information about the crisis and their subsequent actions.

Based on the literature, hypothesis 2 (H2) posits the following:

H2: Blame attribution—categorized as (a) blame on the Chinese government, (b) blame on the Australian government, and (c) blame on individuals—will significantly influence reactive attitudes towards adopting COVID-19 preventive measures.

This review highlights the crucial role that blame attribution plays in influencing both emotional reactions and behavioural responses during crises. As the COVID-19 pandemic has demonstrated, public compliance with health guidelines is not solely a matter of public knowledge or government mandates but is also deeply intertwined with how individuals emotionally process blame. By examining the specific forms of blame attribution and their effects on compliance behaviours, public health strategies can be better tailored to address emotional and political factors that influence adherence to preventive measures.

2.8. The TPB and COVID-19: An Examination of Behavioural Intention and Compliance

The Theory of Planned Behaviour (TPB), which builds on the Theory of Reasoned Action (TRA), emphasizes behavioural intention as a predictor of behaviour [27]. In the context of COVID-19, attitudes towards vaccination reflect these intentions: negative attitudes indicate apprehension, while positive attitudes suggest a higher likelihood of action. Social pressure, referred to as "subjective norms", also significantly influences behaviour.

Ajzen's work [27–30] refined the TPB into a robust theory, identifying attitudes, perceived norms, and behavioural control as predictors of intention. Studies by Bashirian et al. [31] and Auton and Sturman [32] applied the TPB to COVID-19, demonstrating how understanding the virus impacts perceived risk and guideline adherence, with clear communication being crucial for effective mitigation strategies.

2.9. Role of TPB in Attitudinal Responses to COVID-19

The TPB provides a comprehensive framework for examining how attitudes, beliefs, and intentions influence individual actions. In the COVID-19 pandemic context, the TPB is particularly insightful for understanding how these psychological elements affect attitudinal responses to the virus and adherence to public health guidelines.

For example, Prasetyo et al. [33] explored the determinants of customer satisfaction and loyalty in online food delivery services during Indonesia's "new normal" phase of the COVID-19 pandemic, utilizing an expanded TPB model. Similarly, Mohammed and Ferraris [34] found that key TPB components such as attitude, perceived behavioural control, and subjective norms significantly affect active participation among Twitter users during social media crises.

In this study, "motivation to comply" is considered an independent variable distinct from "subjective norm". This differentiation is based on the nuanced interpretation of the

survey wording. While “subjective norm” refers to the normative beliefs that an individual holds about the expectations of significant others, “motivation to comply” captures a more submissive or accepting attitude towards adhering to these external expectations. This suggests a difference in agency, with “motivation to comply” reflecting a more receptive and compliant disposition towards social influences, rather than merely the internalization of these norms.

By treating “motivation to comply” as a separate variable, we can better understand its unique impact on behavioural intentions and actions. This approach allows for a more granular analysis of how external pressures and internal acceptance interact to influence individual behaviour in the context of the COVID-19 pandemic.

2.10. Integrating TPB in Analysing Public Attitudes During COVID-19 Crisis

Within the framework of the Theory of Planned Behaviour (TPB) [28–31,35], behavioural intention is shaped by three primary constructs: attitudes, subjective norms, and perceived behavioural control. Attitudes refer to an individual’s positive or negative evaluation of a behaviour; subjective norms capture the perceived social pressure to perform or not to perform the behaviour; and perceived behavioural control reflects the individual’s perception of their ability to perform the behaviour. These three constructs, in their original form, are positioned on the same level as predictors of behavioural intention, which ultimately influences actual behaviour.

In the context of the COVID-19 pandemic, the TPB has proven particularly valuable in understanding behavioural responses to health-related guidance. Studies have shown that individuals’ attitudes towards preventive measures, such as vaccination, are shaped by their intentions, with positive attitudes predicting a higher likelihood of adherence, and negative attitudes reflecting hesitancy or resistance [32,33]. Social pressure, reflected in subjective norms, further influences compliance, while perceived behavioural control can either facilitate or hinder adherence depending on the individual’s sense of efficacy in following the guidelines.

Several researchers have applied the TPB to examine various behavioural and attitudinal responses during the COVID-19 pandemic. Wollast, R., Schmitz, M., Bigot, A., & Luminet, O. [36] found that perceived control and higher intentions were related to higher adherence to handwashing and limitations of social contact for both Belgian and French residents. These studies highlight the TPB’s flexibility in predicting both attitudinal and behavioural responses in crisis situations, reinforcing its value as a tool for understanding public behaviour.

A modification to the original TPB framework emerges in this study, wherein motivation to comply is treated as an independent variable distinct from subjective norms. Typically, subjective norms capture the social pressure felt by individuals based on their perception of what others expect them to do. However, this study posits that motivation to comply captures a more nuanced, personal disposition towards adhering to external expectations. While subjective norms reflect a more passive reception of social pressure, motivation to comply represents a more active and compliant disposition, highlighting the individual’s readiness and willingness to adhere to these expectations. This conceptual distinction is based on a closer interpretation of survey wording and allows for a clearer examination of how individuals internalize or resist social norms.

By treating motivation to comply as a separate variable, we allow for a more detailed analysis of the interaction between external pressures and internal receptiveness in shaping attitudes. In this framework, motivation to comply, subjective norms, and perceived behavioural control are no longer solely positioned as predictors of behavioural intention but are also considered predictors of attitudes. This shift acknowledges that in a public

health crisis like COVID-19, an individual's attitude towards the virus (e.g., negative or apprehensive feelings towards the threat of COVID-19) is shaped not only by personal evaluations but also by external influences and their willingness to comply with these influences. For example, those who feel motivated to adhere to public health measures may exhibit stronger negative attitudes towards the virus itself due to a heightened perception of risk, thereby reinforcing their intention to protect themselves and others.

Additionally, perceived behavioural control—typically associated with predicting behavioural intention—is applied here as a predictor of attitudes. The rationale is that an individual's sense of control over their ability to mitigate risk (e.g., through vaccination or mask-wearing) directly influences their attitudes towards the virus and the associated preventive measures. A greater sense of control may lead to more proactive attitudes, whereas a lack of perceived control could foster more negative or resistant attitudes. This expanded use of perceived behavioural control provides a broader understanding of how personal agency and control contribute to shaping public responses during health crises.

Therefore, this study proposes the following hypotheses:

H3: In the Theory of Planned Behaviour, (a) subjective norms and (b) motivation to comply will increase negative attitudes towards COVID-19, while (c) perceived behavioural control will not.

H4: In the Theory of Planned Behaviour, (a) subjective norms, (b) motivation to comply, and (c) perceived behavioural control will reduce reactive attitudes towards adopting COVID-19 preventive measures.

These hypotheses reflect an adaptation of the TPB in the context of COVID-19, suggesting that subjective norms and motivation to comply have a direct influence on attitudes, while perceived behavioural control also plays a critical role in shaping public attitudes towards both the virus and preventive measures.

2.11. The Role of Emotions in Shaping Attitudes and Behaviours Amid COVID-19

The COVID-19 pandemic, with necessary measures like social distancing and mask-wearing, underscores the importance of understanding factors driving compliance. Studies largely show that emotions, especially negative ones, significantly influence behavioural and attitudinal responses to these measures. However, some findings suggest that this relationship is influenced by cultural context or individual differences.

Negative attitudes like fear and anxiety correlate with higher compliance to preventive actions (H5). Seale et al. [37] noted that anxiety increases mask-wearing and handwashing, similar to trends during the H1N1 pandemic [38]. These emotions also shape views on government measures (H5), with fear and anger enhancing support for stricter actions [39,40].

Such emotions influence attitudes towards preventive measures (H6). Research by Dryhurst et al. [41] and Rabin et al. [42] indicates that fear and anxiety bolster support for measures like school closures. "Reactive attitudes", emotional responses that hinder adaptive behaviours towards preventive measures, are central to hypotheses H7 and H8.

Including two emotion-related mediating variables—negative attitudes and reactive attitudes—adds an important emotional dimension to the Theory of Planned Behaviour (TPB). Traditionally, the TPB focuses on rational decision-making, but emotions often play a key role in how we think and act. Negative attitudes reflect feelings like discomfort or aversion towards a behaviour, helping us understand emotional barriers that might stop someone from forming intentions. Reactive attitudes, which capture immediate emotional reactions to specific situations, show how emotions in the moment can shape the connection between intention and action. By including these emotional aspects, the TPB becomes more

relatable and better at explaining behaviour, offering a fuller picture of why people act the way they do.

In summary, emotions significantly impact behaviour and attitudes during crises like COVID-19, but other factors may mediate this relationship. This study seeks to deepen the understanding of these dynamics, focusing on reactive attitudes.

Therefore, we propose the following hypotheses:

H5: Negative attitudes towards coronavirus will increase behavioural intentions related to self-protection measures.

H6: Negative attitudes towards the coronavirus will enhance support for the implementation of government regulations.

H7: Reactive attitudes towards the adoption of COVID-19 preventive measures will decrease behavioural intentions related to self-protection measures.

H8: Reactive attitudes towards the adoption of COVID-19 preventive measures will discourage support for the implementation of government regulations.

2.12. Blame Attribution Factors in Crisis Communication

In times of crisis and uncertainty, individuals often attribute blame to certain entities or people [43]. The process of blame attribution plays a significant role in shaping public perception and behaviour during crises [44]. This section reviews factors affecting blame attribution during COVID-19, focusing on the Chinese government, the Australian government, and individuals.

2.13. Blame on the Chinese Government (BA-China)

The COVID-19 pandemic, originating in Wuhan, China, placed the Chinese government under global scrutiny. Numerous studies have explored how blame attribution towards the Chinese government influenced public behaviour. For instance, Tang and Wong [45] found that the attribution of blame to the Chinese government for the 2003 SARS outbreak led to increased fear and avoidance behaviours among the public. These findings suggest a link between attributing blame to the Chinese government and behavioural intentions related to self-protection measures. Similarly, Wang et al. [46] found that blaming the Chinese government during COVID-19 led to lower compliance with preventive measures.

2.14. Blame on the Australian Government (BA-Australia)

Blame attribution in crises extends beyond the outbreak's source to national government responses. During COVID-19, public perceptions of government effectiveness and transparency have influenced blame attribution. Lupton and Lewis [47] studied Australians' COVID-19 risk narratives, finding that the events and circumstances that contributed to people beginning to feel at heightened personal risk from COVID-19 or which helped them feel safe or less vulnerable using narrative analysis approach. While many interviewees in the study noted hearing that COVID-19 originated in China, they did not attribute blame to this aspect. Instead, they focused on the Australian government's response, often suggesting that more decisive actions could have been taken.

2.15. Blame on Individuals (BA-Individuals)

The process of blame attribution extends to individuals in society, especially regarding non-compliance with public health guidelines during the pandemic. Research by Van Bavel

et al. [48] and Webster et al. [49] has shown that blaming individuals for not following safety measures influences public support for government regulations, indicating that this type of blame can also affect intentions related to self-protection measures.

Attributing blame to the Chinese government could potentially reduce self-efficacy in preventing COVID-19. Anti-Chinese sentiments are inherently emotional, and this emotional response could plausibly compromise rational preventive behaviours.

Building upon the reviewed literature, we propose the following hypotheses:

H9: Blame attribution factors, including (a) blame on the Chinese government (BA-China), (b) blame on the Australian government (BA-Australia), and (c) blame on individuals (BA-Individuals), will impact the level of behavioural intentions related to self-protection measures.

H10: Blame attribution factors, including (a) blame on the Chinese government (BA-China), (b) blame on the Australian government (BA-Australia), and (c) blame on individuals (BA-Individuals), will impact the level of support for the enforcement of government regulations.

This study uses the Theory of Planned Behaviour (TPB) to understand individual responses to COVID-19, focusing on factors shaping behaviours and attitudes. It assesses the role of self-protective measures in controlling virus spread and explores the TPB's components—subjective norm (SN), motivation to comply (MC), and behavioural control (BC)—in shaping pandemic-related behavioural intentions.

Motivation to comply and subjective norms are conceptually differentiated in terms of agency, with the former being more passive and the latter more active. The value and contribution of this study to the TPB lie in examining how this issue of agency interacts with blame as a sense of victimhood.

Additionally, this study investigates how these TPB elements affect attitudes towards government regulations, a key aspect of pandemic mitigation. Although the TPB is established in social psychology for understanding health-conscious and self-protective behaviours, applying it to evaluate support for pandemic regulations in the field of communication is relatively new. Guo, Xiang, and Wang [50] conducted a pioneering study that revealed that self-protective behaviour was positively predicted by the components (subjective norms, attitude and self-efficacy/perceived behaviour control) of the TPB. Their survey data were collected in China, while the current study is based in Australia. This study aims to understand how TPB constructs influence individual stances on government regulatory enforcement, not on individually driven measures.

Therefore, we propose the following hypotheses:

H10-a: Elements of the Theory of Planned Behaviour (TPB), such as (a) subjective norm (SN), (b) motivation to comply (MC), and (c) behavioural control (BC), will impact the level of behavioural intentions related to self-protection measures.

H10-b: Elements of the Theory of Planned Behaviour (TPB), such as (a) subjective norm (SN), (b) motivation to comply (MC), and (c) behavioural control (BC), will impact the level of support for the enforcement of government regulations.

These research hypotheses guide the study's examination of the relationship between TPB constructs, individual intentions towards self-protection, and support for government regulations. As this study embarks on an analytical journey, it seeks to not only contribute to the theoretical understanding of pandemic responses but also to offer practical insights for policymakers grappling with the complex dynamics of public health management during crises.

The subsequent sections of this paper will present the research methodology, data analysis, and findings to test and validate these hypotheses in the specific context of the pandemic response.

3. Method

3.1. Participants

A nationwide online survey with 1101 Australian residents ($n = 1101$) was conducted using Qualtrics, known for its large, diverse panel network across 100 countries, offering ease of access and anonymity [51]. Qualtrics is valued for its ability to provide externally valid samples, enhancing result generalizability [51,52]. In June 2021, Australian Qualtrics panellists were invited via a survey link, including an IRB-approved consent form and questionnaire from a major Australian university. Participants received AUD 4.50 through Qualtrics.

The average age of the participants was 36.01 years ($SD = 14.88$). The sample was composed of 54.9% women ($n = 588$) and 42.1% men ($n = 464$). In terms of ethnicity, 76.11% ($n = 838$) identified as White (e.g., Caucasian), 12.03% ($n = 136$) as Asian, 5.7% ($n = 63$) as Indigenous (e.g., Aboriginal Australian), and 5.9% ($n = 65$) represented other races or ethnicities (e.g., Pacific Islander, Black, Latino, or people from a mixed ethnic background).

Educationally, nearly 40% of the participants held a high school degree or less (42.3%, $n = 453$), trailed by those with a 4-year college degree (20.3%, $n = 217$) or higher (13.6%, $n = 150$). Less than one-third of the participants had two-year associate degrees or less (22.8%, $n = 251$).

3.2. Survey Procedure

In June 2021, a survey was developed, outlining its purpose in brief statements. The primary variables measured included attribution of blame to China, the Australian government, and individuals, and TPB variables such as subjective norms, motivation to comply, ethical problem recognition, constraint recognition, situational motivation, emotional outrage, and ethical activism. It also collected participants' political ideology and demographics. Each participant was therefore tasked with responding to two topics, each with a series of subsequent questions; the two topics were covered with counterbalanced question sets to control order effects [53].

A preliminary test with 161 Australian residents ($n = 161$) was carried out via Qualtrics, assessing the survey's flow, structure, length, and clarity. Participants consented to this pre-test, approved by an IRB at a large Australian university.

The main survey was then conducted ($n = 1101$) following the same procedure validated in the pre-test. Out of the initial 1137 participants, 36 (representing 3.2% of the sample) were disqualified from the analysis due to failure to meet the minimum time requirement (5 minutes), patterned responses (e.g., providing the same answer for all questions), or excessively long completion times (more than 90 minutes). As a result, the final sample consisted of 1101 participants ($n = 1101$).

Participant attention was also monitored via a specific question in the questionnaire. All participants answered this question correctly (100%) in both the pre-test and main survey.

3.3. Measures

All primary variables in this study were adapted from prior research, using a 5-point Likert scale from 1 ("strongly disagree") to 5 ("strongly agree"), as detailed in Table 1.

Table 1. Regression analysis of influence of blaming attribution types on emotional outcomes.

DV	Negative Emotion Towards Coronavirus					Reactive Attitude Towards Policy				
	B	S.E	Beta	t	Sig.	B	S.E	Beta	t	Sig.
BA-C	0.139	0.020	0.209	7.655	<0.001	0.118	0.026	0.129	4.527	<0.001
BA-A	0.054	0.019	0.089	2.212	0.027	0.080	0.025	0.097	3.225	0.001
BA-I	0.115	0.022	0.087	3.131	0.002	0.038	0.029	0.039	1.296	0.195
SN	0.139	0.026	0.160	5.295	<0.001	-0.191	0.039	-0.161	-4.851	<0.001
MC	0.101	0.017	0.169	6.109	<0.001	0.144	0.025	0.175	5.780	<0.001
BC	0.038	0.023	0.048	1.672	0.095	-0.262	0.034	-0.243	-7.707	<0.001

Note: BA-C = blame attribution towards China; BA-A = blame attribution towards Australia government; BA-I = blame attribution towards individuals; SN = subjective norm; MC = motivation to comply; BC = behavioural control.

Attribution Variables for Blame: These variables were developed by the researchers. Blame attributed to China was measured with a question like “Did China initially spread the virus to the rest of the world”? (M = 3.8, SD = 1.01). Blame attributed to the Australian government was gauged with a question such as “Did the Australian government initially fail to put in place effective measures to prevent the virus”? (M = 3.37, SD = 1.13). Blame attributed to individuals was assessed with a question like “Did individuals typically not adhere to restrictive measures when the pandemic began”? (M = 3.36, SD = 0.98).

Theory of Planned Behaviour (TPB) Variables: These constructs were assessed using modified Teo [54] scales for the COVID-19 context. Subjective norm (SN) was measured with two items: “Most people, whose opinions I value, would strictly follow the COVID-19 restrictions enforced by the government” and “People important to me would support my adherence to the restrictions” (M = 3.84, SD = 0.72, r = 0.80). Motivation to comply (MC) used two items: “How much do you care about others’ views on your compliance with Covid-19 restrictions”? and “How much do you value friends’ opinions about adhering to these restrictions”? (M = 3.33, SD = 1.44, r = 0.86). Behavioural control (BC) was assessed by a single item regarding the ease of following COVID-19 restrictions (M = 3.91, SD = 0.86).

Emotions Towards COVID-19 and policies: Emotional attitudes towards coronavirus and preventive policies were gauged using Nabi’s [55] scale, modified to fit the COVID-19 context. Innate emotions towards coronavirus were measured via four items, including “I feel fear about becoming infected with the coronavirus” (M = 3.67, SD = 1.07, $\alpha = 0.55$). Reactive attitudes towards the implementation of preventive measures related to coronavirus were gauged via four items, such as “I feel annoyed with having to wear a mask” (M = 3.07, SD = 1.78, $\alpha = 0.79$).

Behavioural Intentions: The study created questionnaire items to measure behavioural intentions. Self-protection intentions were measured through five items, including “I am willing to take a COVID vaccine as soon as possible” (M = 3.07, SD = 1.40, $\alpha = 0.79$). Support for the enforcement of government regulations was gauged through five items, including “Until Australia is completely free of the COVID-19 virus, I am willing to support the implementation of mandatory vaccinations” (M = 3.69, SD = 1.29, $\alpha = 0.72$).

3.4. Regression Analysis

To test hypotheses H1 to H4, two regression analyses were conducted, one for each dependent variable: negative attitudes towards coronavirus and reactive attitudes towards implementing preventive measures. Each analysis included the same independent variables: age, gender, income, political leaning, education (first block), blame attribution (second block), and TPB behaviour variables (third block).

4. Results

4.1. Effect of Blame Attribution

4.1.1. Negative Attitudes Towards COVID-19

The influence of blame attribution on negative attitudes towards COVID-19 was assessed across three categories: the Chinese government (BA-China), the Australian government (BA-Australia), and individuals (BA-Individuals). When controlling for all other independent variables, BA-China was found to be significantly associated with negative emotions towards COVID-19 ($B = 0.139$, $\beta = 0.209$, $SE = 0.02$, $p < 0.001$), indicating that attributing blame to the Chinese government heightened negative attitudes. Thus, H1a was supported.

BA-Australia was also associated with negative emotions, though to a moderate extent ($B = 0.054$, $\beta = 0.087$, $SE = 0.019$, $p < 0.05$), and similarly, BA-Individuals was found to have a moderate association with negative emotions ($B = 0.115$, $\beta = 0.087$, $SE = 0.022$, $p < 0.05$). Therefore, both H1b and H1c were supported (see Table 1).

4.1.2. Reactive Attitudes Towards COVID-19 Preventive Measures

The effects of blame attribution on reactive attitudes towards the adoption of COVID-19 preventive measures were also analysed. The results revealed that blame on the Chinese government (BA-China) significantly predicted reactive attitudes towards the adoption of preventive measures ($B = 0.118$, $\beta = 0.129$, $SE = 0.026$, $p < 0.001$), thereby supporting H2a. Similarly, BA-Australia ($B = 0.08$, $\beta = 0.097$, $SE = 0.025$, $p = 0.001$) and BA-Individuals ($B = 0.038$, $\beta = 0.039$, $SE = 0.029$, $p < 0.05$) were found to significantly influence reactive attitudes, providing support for H2b and H2c as well (see Table 1).

4.2. Theory of Planned Behaviour (TPB) and Negative Attitudes

4.2.1. Impact on Negative Attitudes Towards COVID-19

The impact of elements of the Theory of Planned Behaviour (TPB) on negative attitudes towards COVID-19 was analysed using three variables: subjective norms (SN), motivation to comply (MC), and behavioural control (BC). The results indicated that subjective norms significantly predicted negative attitudes towards coronavirus ($B = 0.139$, $\beta = 0.160$, $SE = 0.026$, $p < 0.001$), thereby supporting H3a. Motivation to comply also had a significant positive effect on negative attitudes ($B = 0.101$, $\beta = 0.169$, $SE = 0.017$, $p < 0.001$), providing support for H3b. However, behavioural control did not significantly influence negative attitudes ($B = 0.038$, $\beta = 0.048$, $SE = 0.023$, $p = 0.106$), leading to the rejection of H3c.

4.2.2. Impact on Reactive Attitudes Towards Preventive Measures

The same TPB variables were analysed to determine their impact on reactive attitudes towards implementing COVID-19 preventive measures. Subjective norms significantly contributed to reducing reactive attitudes ($B = -0.191$, $\beta = -0.161$, $SE = 0.039$, $p < 0.001$), supporting H4a. Behavioural control also contributed to reducing reactive attitudes ($B = -0.262$, $\beta = -0.243$, $SE = 0.034$, $p < 0.001$), providing support for H4c. In contrast, motivation to comply increased reactive attitudes towards the adoption of preventive measures ($B = 0.144$, $\beta = 0.175$, $SE = 0.025$, $p < 0.001$), thus rejecting H4b.

4.3. Behavioural Intentions and Attitudes Towards COVID-19

Negative Attitudes and Behavioural Intentions

The influence of negative attitudes on behavioural intentions was also examined. The results showed that negative attitudes towards COVID-19 significantly increased behavioural intentions towards self-protection measures ($B = 0.292$, $\beta = 0.252$, $SE = 0.033$, $p < 0.001$), thus supporting H5. Additionally, negative attitudes were found to enhance

support for the implementation of government regulations ($B = 0.355$, $\beta = 0.274$, $SE = 0.036$, $p < 0.001$), confirming H6.

4.4. Reactive Attitudes and Behavioural Intentions

The influence of reactive attitudes towards the adoption of preventive measures on behavioural intentions was analysed. The findings revealed that reactive attitudes significantly decreased behavioural intentions towards self-protection measures ($B = -0.195$, $\beta = -0.231$, $SE = 0.022$, $p < 0.001$), thereby supporting H7. Furthermore, reactive attitudes also reduced support for the enforcement of government regulations ($B = -0.298$, $\beta = -0.315$, $SE = 0.024$, $p < 0.001$), confirming H8.

4.5. Blame Attribution and Behavioural Intentions

Impact on Self-Protection Measures

The impact of different blame attribution types on behavioural intentions towards self-protection measures was assessed. The findings demonstrated that BA-China reduced behavioural intentions towards self-protection ($B = -0.076$, $\beta = -0.100$, $SE = 0.019$, $p < 0.001$), thereby supporting H9-1a. In contrast, BA-Australia moderately increased self-protective behavioural intentions ($B = 0.036$, $\beta = 0.052$, $SE = 0.017$, $p < 0.05$), supporting H9-1b. However, BA-Individuals did not significantly affect these intentions, leading to the rejection of H9-1c.

4.6. Impact on Support for Government Regulations

The influence of blame attribution types on support for the enforcement of government regulations was also explored. Neither BA-China nor BA-Australia showed a significant impact on support for the enforcement of regulations, resulting in the rejection of H9-2a and H9-2b. However, BA-Individuals had a moderate positive effect ($B = 0.046$, $\beta = 0.051$, $SE = 0.051$, $p < 0.05$), confirming H9-2c.

4.7. Theory of Planned Behaviour (TPB) and Behavioural Intentions

4.7.1. Impact on Self-Protection Measures

The effect of TPB elements on behavioural intentions towards self-protection measures was analysed. Subjective norms had a significant positive influence on self-protection intentions ($B = 0.230$, $\beta = 0.228$, $SE = 0.028$, $p < 0.001$), confirming H10-1a. Motivation to comply also positively affected self-protection intentions ($B = 0.091$, $\beta = 0.131$, $SE = 0.018$, $p < 0.001$), supporting H10-1b. Behavioural control significantly contributed to behavioural intentions ($B = 0.160$, $\beta = 0.176$, $SE = 0.024$, $p < 0.001$), providing support for H10-1c.

4.7.2. Impact on Support for Government Regulations

The influence of TPB elements on support for the enforcement of government regulations was also examined. The results indicated that subjective norms significantly influenced support for government regulations ($B = 0.240$, $\beta = 0.213$, $SE = 0.031$, $p < 0.001$), supporting H10-2a. Motivation to comply had a smaller yet positive effect ($B = 0.041$, $\beta = 0.052$, $SE = 0.020$, $p = 0.041$), supporting H10-2b. Finally, behavioural control positively contributed to support for government regulations ($B = 0.163$, $\beta = 0.160$, $SE = 0.027$, $p < 0.001$), confirming H10-2c.

5. Discussion

This section analyses our findings on following key aspects: (1) the role of political factors in shaping COVID-19-related attitudes and behaviors (H1-2, H9); (2) the confirmation of previous research on the Theory of Planned Behaviour (TPB) in terms of its impact on behavioural change (H3-4, H10); (3) the role of attitude in shaping behavioural

intention (H5-H8); (4) our contributions to the TPB according to the influence of subjective norm and motivation to comply on attitudinal reactions towards COVID-19 and policy implementations; (5) the differing roles of behavioural control in shaping stress/easiness in adopting changes and the roles of other TPB variables in the perception of fear/stress derived from the spreading of COVID-19 itself.

5.1. Political Factors and COVID-19-Related Emotions and Behaviours

Our study underscores the crucial role of political factors, including blame attribution towards the Chinese government (BA-China), the Australian government (BA-Australia), and individuals (BA-Individuals), in shaping public reactions during the COVID-19 pandemic. These attributions influenced negative attitudes, attitudes towards preventive measures, and support for government regulations.

The target of blame markedly affects reactions. Blame on the Chinese government (BA-China) notably increased negative attitudes, consistent with prior studies. Blaming the Australian government (BA-Australia) and individuals (BA-Individuals) also elevated negative attitudes to a moderate extent.

Moreover, blame attribution significantly influenced attitudes towards COVID-19 preventive measures. Assigning blame to the Chinese government (BA-China) led to more negative attitudes, with similar effects observed when blaming the Australian government or individuals, which is in line with previous research revealing an increase in hostile attitude towards China [21] or multiculturalism [22].

Interestingly, blame attribution had varied effects on behavioural intentions towards self-protection and support for government regulations. Blaming the Chinese government (BA-China) surprisingly decreased self-protection intentions, while blaming the Australian government (BA-Australia) moderately increased them. Blaming individuals (BA-Individuals) had no significant impact (Figure 2).

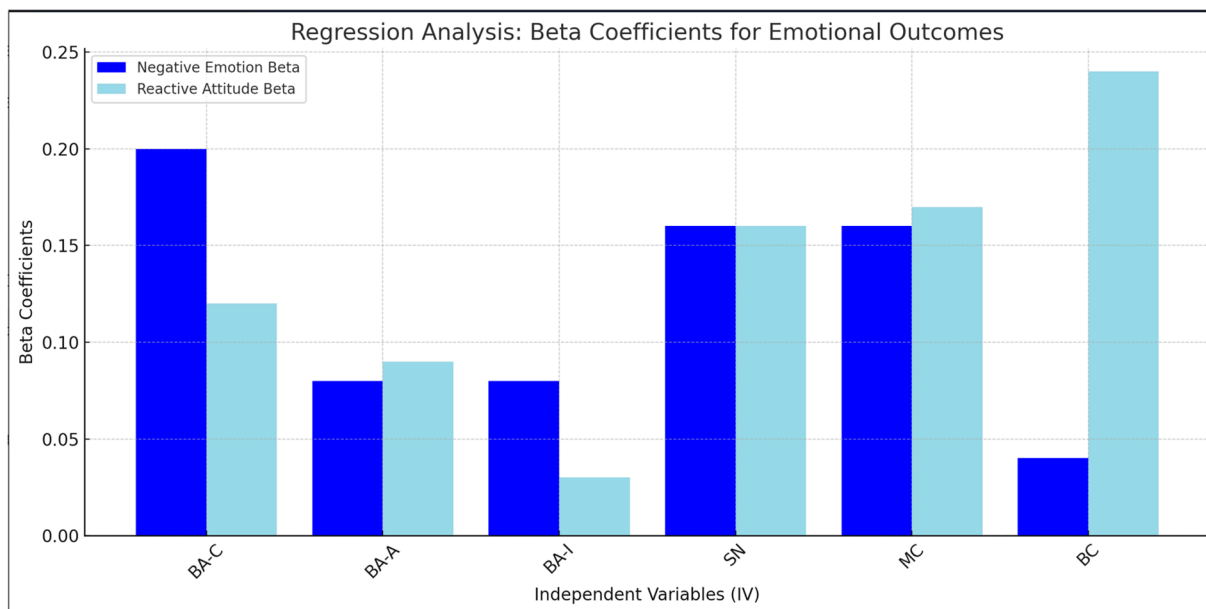


Figure 2. Regression analysis: beta coefficients for emotional outcomes. This chart compares the impact of different independent variables (IVs) on “negative emotion” (in dark blue) and “reactive attitude” (in light blue). Variables with higher beta coefficients indicate stronger relationships with the dependent variables, while negative coefficients (if present) would be highlighted in red to emphasize negative impacts.

5.2. Blame on Chinese Government (BA-China)

Contrary to expectations (H9-1a), blaming the Chinese government reduced intentions towards self-protection. This unexpected outcome suggests that associating blame with the Chinese government might trigger more emotional reactions in individuals. This might be due to emotional reactions like frustration or anxiety from the pandemic's effects, leading individuals to react to self-protection measures emotionally rather than rationally.

5.3. Blame on Australian Government (BA-Australia)

Conversely, blaming the Australian government led to a moderate increase in self-protective behaviours (H9-1b). This could be attributed to individuals perceiving blame as arising from logical or rational considerations regarding the virus's spread. Such attributions may prompt individuals to adopt self-protective measures based on scientific reasoning, emphasizing the role of rational thinking in this context.

5.4. Blame on Individuals (BA-Individuals)

Blaming individuals, however, did not significantly impact self-protective intentions (H9-1c). This suggests that such blame does not impact self-protective actions as much as government blame, which may carry stronger emotional or rational weight.

Our study reveals the intricate relationship between blame attribution and public reactions to the pandemic. It shows that responses are shaped by whether blame is emotional or rational. Blaming governments tends to provoke emotional reactions, whereas rational blame may lead to more scientifically informed self-protection reactions. This understanding is vital for effective public health communication and policy making during crises.

Regarding support for government regulations (H9-2), blaming the Chinese (BA-China) or Australian governments (BA-Australia) had no significant effects. However, attributing blame to individuals (BA-INDI) moderately increased support for government regulations (H9-2c). This indicates that different blame attributions have varied impacts on behavioural intentions and regulation support. The surprising result where blaming individuals (BA-INDI) moderately boosts support for government regulations (H9-2c) highlights a nuanced aspect of crisis response. Blaming individuals for non-adherence suggests a perceived need for more collective measures and stricter regulation enforcement.

This finding emphasizes the importance of collective responsibility and government roles during crises. When individuals blame others for not following safety measures, they may favour government action to address the crisis. This could be due to a desire for stricter enforcement to protect the broader community. It also shows the complex relation between blame attribution and public trust in government actions. Blaming individuals might paradoxically increase trust in authorities to implement necessary measures, leading to more support for government regulations.

5.5. Confirmation of TPB's Role in Behavioural Change

Our study examined how TPB elements—subjective norm (SN), motivation to comply (MC), and behavioural control (BC)—impact intentions towards self-protection and support for government regulations during the COVID-19 pandemic.

For self-protection measures (H10-1), all TPB components showed significant positive effects. SN, MC, IR, and BC each had a robust influence, suggesting that individuals with a greater perception of social influence, higher compliance motivation, and stronger behavioural control are more inclined to adopt self-protective behaviours. This is consistent with previous research [51] on the TPB and underscores the need for a comprehensive approach that integrates individual and societal factors in promoting health crisis protective measures.

Similarly, for support of government regulations (H10-2), TPB elements had a significant impact (see Table 2). SN and MC showed positive effects, while IR and BC had more pronounced impacts, indicating that individuals with greater control, social pressure awareness, motivation to comply, and pandemic involvement are more likely to support government actions. These findings highlight the TPB’s utility in predicting support for government measures during crises and emphasize the role of individual empowerment, social norm motivation, and pandemic awareness in fostering government regulation support. They stress the importance of developing effective policies that cultivate individual agency and social responsibility in crises.

Table 2. Regression analysis of influence of measured variables on behavioural intentions towards coronavirus-related policies.

Intentions Towards Self-Protective Measures						Support for Government Regulation					
DV						DV					
IV	B	S.E	Beta	t	Sig	IV	B	S.E	Beta	t	Sig
(Constant)	1.141	0.168		6.780	<0.001	(Constant)	1.168	0.188		6.225	<0.001
Gender	−0.002	0.002	−0.031	−1.312	0.190	Gender	0.000	0.002	−0.007	−0.289	0.773
Age	−0.004	0.001	−0.073	−2.976	0.003	Age	−0.004	0.001	−0.064	−2.616	0.009
Income	0.000	0.001	−0.008	−0.332	0.740	Income	0.000	0.002	0.001	0.026	0.979
Politics	0.064	0.021	0.069	3.016	0.003	Politics	0.018	0.024	0.017	0.762	0.446
Education	0.004	0.003	0.034	1.439	0.150	Education	−0.002	0.003	−0.012	−0.522	0.602
BA-C	−0.076	0.019	−0.100	−4.116	<0.001	BA-C	−0.026	0.021	−0.030	−1.242	0.214
BA-A	0.036	0.017	0.052	2.100	0.036	BA-A	0.025	0.019	0.032	1.289	0.198
BA-I	0.007	0.020	0.009	0.369	0.712	BA-I	0.046	0.023	0.051	2.049	0.041
SN	0.230	0.028	0.228	8.175	<0.001	SN	0.240	0.031	0.213	7.658	<0.001
MC	0.091	0.018	0.131	5.124	<0.001	MC	0.041	0.020	0.052	2.049	0.041
BC	0.160	0.024	0.176	6.598	<0.001	BC	0.163	0.027	0.160	6.023	<0.001
E_Corona	0.292	0.033	0.252	8.980	<0.001	E_Corona	0.355	0.036	0.274	9.791	<0.001
E_Policies	−0.195	0.022	−0.231	−9.010	<0.001	E_Policies	−0.298	0.024	−0.315	−12.330	<0.001

Note: BA-C = blame attribution towards China; BA-A = blame attribution towards Australia government; BA-I = blame attribution towards individuals; SN = subjective norm; MC = motivation to comply; BC = behavioural control; E_Corona = negative emotion towards coronavirus; E_policies = reactive attitude towards policies.

This study provides insights into the intricate relationship between political and psychological factors in shaping emotions and behaviours related to COVID-19, highlighting the need to consider various factors influencing emotions, attitudes, behavioural intentions, and government support. Additionally, our findings reaffirm the robustness of the Theory of Planned Behaviour (TPB) in predicting behavioural change during a global health crisis. The TPB components—subjective norm, motivation to comply, and behavioural control—are crucial factors in shaping both behavioural intentions and support for government regulations. These insights are vital for developing communication strategies and interventions that foster the desired behaviours and public support during pandemics like COVID-19.

Our research advances beyond traditional frameworks, highlighting how subjective norm, motivation to comply, and behavioural control shape emotions and attitudes towards COVID-19 and policy responses. This approach integrates TPB variables with emotional factors, showing how they evoke emotions and influence actions, enhancing our understanding of public adherence to health guidelines and the importance of clear communication in health crises.

Revisiting the TPB, our study focuses on perceived norms, including subjective norm and motivation to comply, and their emotional aspects in the context of COVID-19 preventive measures. While subjective norm can increase perceived threat and stress, it may

reduce reactions to government policies aiming to mitigate disease spread. Conversely, motivation to comply can elevate both perceived threat and stress but still encourage rule compliance. Interestingly, this result suggests increased stress due to coronavirus outbreak, but unlike subjective norm, it also intensifies reactions to policies. This implies that feeling affected by the pandemic also relates to discomfort or stress from policy implementation, not just virus threat.

Conversely, behavioural control, similar to self-efficacy, reduces stress and policy reactions, but does not heighten negative attitudes towards COVID-19. This suggests that those with high behavioural control experience less stress from both the pandemic and regulatory compliance, contrasting with norm-abiding individuals who may feel more stress due to virus spread. Essentially, self-efficacy through behavioural control helps mitigate stress in crisis and compliance scenarios.

Our findings indicate that all four TPB variables greatly influence intentions towards self-protection and support for government regulation, demonstrating the TPB’s effectiveness in affecting health behaviours and policy compliance. However, the emotional drivers behind these behaviours vary based on motivational triggers.

While the role of emotions, such as fear appeal or self-efficacy appeal, has been a topical subject in health behaviour change campaigns, our findings—which show that behavioural control is a stress mitigator and thus an action booster—are noteworthy. However, concerning the impact on behavioural triggers, subjective norm is the most crucial factor, aligning with previous research [35] and implying that a normative mindset might exert more control over people’s behaviour through governmental control or enforced actions (Figure 3).

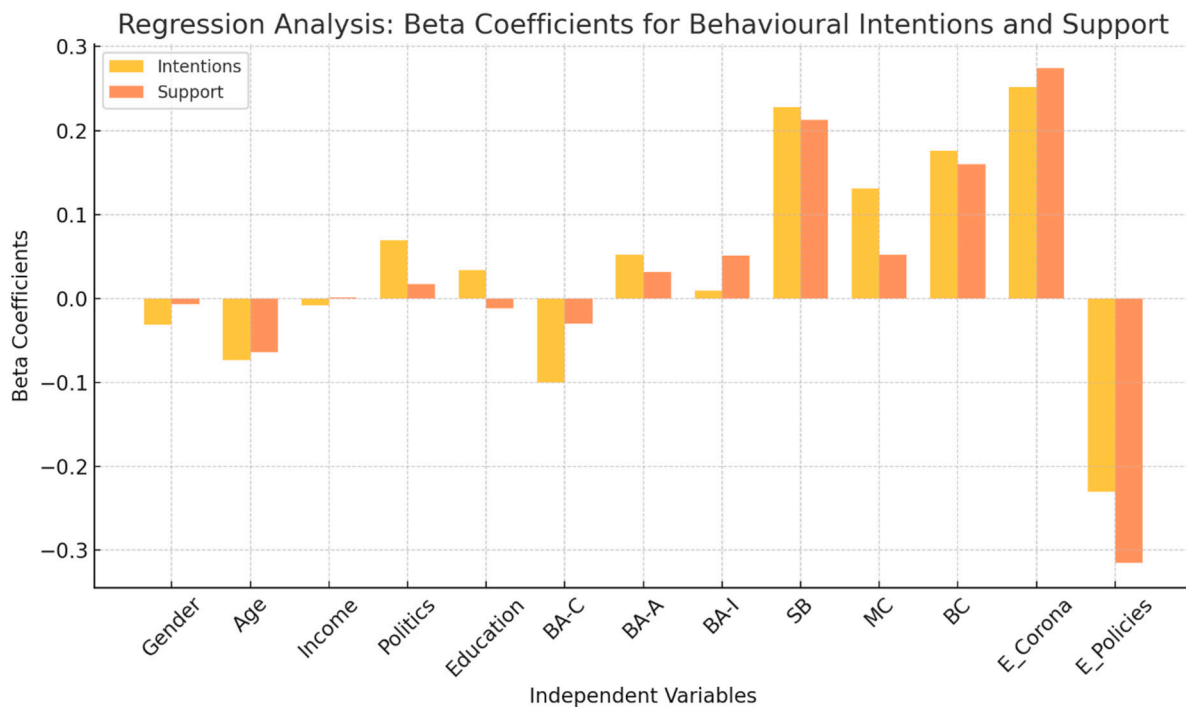


Figure 3. Regression Analysis: beta coefficients for behavioural intentions and support. This chart illustrates the relationship between various independent variables (IVs) and two dependent variables: “intentions” (yellow bars) and “support” (orange bars). Positive and negative beta coefficients highlight the strength and direction of these relationships, with larger absolute values indicating stronger effects. Negative beta coefficients indicate an inverse relationship.

Our analysis subtly hints at a distinct and somewhat paradoxical role of motivation to comply, illustrating a divergent impact on self-protective measures and governmental

regulations. Subjective norm relates more to self-assurance in adhering to health protective measures influenced by the perceived viral threat. Conversely, motivation to comply is influenced more by societal valuation than personal confidence. This suggests that an intensified concern about societal perceptions may elevate stress levels and resistance to governmental enforcement actions.

In summary, subjective norm indicates self-driven action, whereas motivation to comply suggests reliance on societal norms, potentially hindering effective communication for government measures. Considering how behavioural control affects stress and ease in adapting to COVID-19, as well as perceptions of fear/stress, these factors should be integrated into campaign messaging and the targeting of policy recipients.

5.6. Academic and Practical Implications

Enhancing the analysis of the interaction between emotions and TPB elements contributes to the extension of TPB studies. Recent findings during the COVID-19 pandemic have highlighted that emotional factors, such as political sentiments and blame attribution, are as critical as rational judgments in influencing behaviour change.

A deeper exploration of how emotions like fear and anger interact with TPB constructs is warranted. For instance, in the United States, highly politicized blame towards China during the pandemic correlated with resistance to preventive measures, such as mask-wearing and compliance with regulations, particularly among individuals with strong political biases. This phenomenon underscores how emotional and political reactions can irrationally undermine rational preventive behaviours. These findings suggest the need for research into the mechanisms linking political ideology, emotional responses, and preventive behaviour.

Furthermore, it is essential to expand policy implications aimed at reducing anti-Chinese sentiment. Government efforts should focus on reframing pandemic issues from a nationalistic perspective to a disease-focused narrative. Such framing can help mitigate emotional and political biases, promoting more rational public health responses.

In this regard, there is a need to craft emotionally impactful and personally relevant health communication campaigns that address identified emotional barriers, such as fear or hope, through evidence-based strategies tailored to specific audiences, such as college students [56]. Also, these research findings can contribute to developing communication strategies that consider the political–emotional gap for diverse population groups.

Aligning with Nurrahmi [7] and Metrick-Chen [8], this study emphasizes blame attribution's role in driving negative attitudes during COVID-19, showing that blaming entities like governments or individuals intensifies these emotions. It underscores the need for careful crisis communication to reduce negative reactions and discrimination, particularly against certain ethnicities.

This study corroborates findings that blame attribution contributes to negative attitudes and reinforces the academic understanding of how political factors, including blame attribution, influence public sentiment during crises. It underscores the necessity of transparent government communication in addressing public concerns during pandemics.

The results suggest practical implications for countering anti-Chinese sentiments and related discrimination. Governments and health organizations should use inclusive messaging and stress collective responsibility to mitigate these negative impacts. This highlights the importance of culturally sensitive and inclusive public health campaigns during crises.

Furthermore, this study extends the Theory of Planned Behaviour (TPB) into COVID-19 research, aligning with Bashirian et al. [31] and Auton and Sturman [32], and brings this together with and extends the blame attribution theory [6]. It broadens the understanding

of the TPB's impact on emotional responses in crises and highlights the need to consider individual and societal influences in public health interventions.

This study reaffirms the TPB's relevance in predicting support for government regulations during a pandemic. TPB components, especially subjective norm, motivation to comply, and behavioural control, are crucial for encouraging support for government actions. This suggests that interventions should enhance individual agency and highlight social expectations and involvement in pandemic responses.

In conclusion, this study provides valuable insights into the complex interplay between political factors, psychological determinants, and public responses during the COVID-19 pandemic, with practical implications for managing crisis communication, combating discrimination, and shaping public health strategies.

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