



Original article

Facemask memories: a qualitative approach to people's construal of protective health behaviours

*Souvenirs du port du masque: Une approche qualitative de l'appréhension des comportements de santé protecteurs*Rotem Perach ^{*}, Kyoko Murakami, Catherine Loveday

School of Social Sciences, University of Westminster, United Kingdom



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ABSTRACT

Background: Understanding how people construe new health behaviours is important for public health policy and pandemic preparedness. Research suggests that people are willing to adhere to facemask guidance over time, but that this willingness can depend on various factors. To understand people's construal of mandated protective health behaviours, we explored a previously untapped source of knowledge – people's memories from lockdown concerning facemasks – through the Value Belief Norm theory.

Methods: The sample comprised 68 participants aged 18–72, 53% female, who spontaneously identified facemasks as a lockdown-related object in their prompted memories. Memories were elicited via three open-ended questions involving a general period-cue (i.e., lockdown). The analytical procedure involved (1) Inductive thematic analysis, (2) Theory-led thematic analysis.

Results: Our thematic analysis showed that facemask wearing was predominantly viewed in self-enhancing, normative, and moral terms. Although participants' responses were not uniformly positive, they showed acceptance and adherence to mandated facemask wearing in memories elicited >9 months after UK guidance announcement. This variability was further evident in expressions of contrasting values.

Conclusions: The complexity and heterogeneity of the facemask memories revealed a storied and constructed nature of facemask memories, with a remarkable level of details and vividness. Our findings suggest that people's values and individual beliefs contributed to various ways of sensemaking around facemask wearing. In the current exploratory research, the overall picture of the public response to health guidance was that of psychological resilience – people's construed facemask-wearing as a protective health behaviour and supported its uptake. Future directions to enhance public health policy are discussed.

R É S U M É

Introduction: Comprendre comment les personnes perçoivent les nouveaux comportements de santé est crucial pour les politiques de santé publique et la préparation aux pandémies. La recherche suggère que les individus sont progressivement prêts à adopter le port du masque, mais que cette adhésion peut varier selon plusieurs facteurs.

Objectif: Pour comprendre la perception des recommandations des comportements de santé, nous avons exploré une source de données qui n'avait pas encore été exploitée : les souvenirs du confinement concernant le port du masque, et ceci à travers la théorie Valeur-Croyance-Norme.

Méthode: L'échantillon est composé de 68 participants, âgés de 18 à 72 ans, dont 53 % de femmes, qui avaient spontanément évoqué dans leur souvenir les masques de protection comme un objet lié au confinement. Les souvenirs ont été recueillis au moyen de trois questions ouvertes comprenant la mention d'un indice temporel (i.

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* Corresponding author.

E-mail addresses: r.perach@westminster.ac.uk (R. Perach), K.Murakami@westminster.ac.uk (K. Murakami), C.Loveday@westminster.ac.uk (C. Loveday).<https://doi.org/10.1016/j.erap.2026.101178>

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e., le confinement). L'analyse des données s'est déroulée en deux étapes : 1) une analyse thématique inductive, 2) une analyse thématique orientée par un cadre théorique.

Résultats: Notre analyse thématique a révélé que le port du masque était principalement appréhendé en termes d'auto-valorisation, de normalisation et de moralité. Bien que les réponses n'aient pas été uniformément positives, elles ont néanmoins montré une acceptation et une adhésion quant au port prescrit des masques de protection lors de souvenirs collectés plus de neuf mois après l'annonce des mesures de confinement au Royaume-Uni. Cette variabilité a également été mise en lumière par l'expression de valeurs contrastées.

Conclusions: La complexité et l'hétérogénéité des souvenirs liés aux masques de protection ont révélé leur nature construite et narrative, avec un degré remarquable de détails et de vivacité. Les constats issus de l'analyse montrent que les valeurs et les croyances des individus influencent leurs différentes manières de créer du sens autour du port de masques de protection. Lors de la présente recherche exploratoire, l'image globale illustrant la réponse du public aux recommandations de santé fut celle de la résilience psychologique – les personnes ont appréhendé le port du masque comme un comportement de santé protecteur, ce qui a favorisé son adoption. Les orientations futures susceptibles d'améliorer les politiques de santé publique sont discutées.

Introduction

The outbreak of new infectious diseases poses a major threat to public health (World Health Organization, 2023). Implementing new health guidance can require changes to people's everyday behaviours and routines, and promoting a collective response to such changes is part of pandemic preparedness (Higgs, 2024; O'Connor et al., 2020; Reicher, 2022). Facemask wearing is a protective health behaviour that can effectively reduce the risk of virus transmission to others and can be driven by a range of factors (Greenhalgh et al., 2024). In addition, facemask wearing can be a symbolic act of following health guidance in the interest of the greater good (Greenhalgh et al., 2024; Rieger, 2024). In this paper, we sought to provide insight and depth of understanding to the beliefs of individuals concerning facemask-wearing – a marker of adherence to health guidance. We conducted a qualitative analysis of people's prompted memories from lockdown that spontaneously generated facemask-related content (henceforth: facemask memories) during the third national lockdown in the UK in March-April 2021. To understand people's construal of mandated protective health behaviours, we examined the data using the Value-Belief-Norm theory (henceforth: VBN) (Stern, 1999, 2000). In applying our analytic approach, we explored a previously untapped source of knowledge concerning people's implicit beliefs – people's facemask memories.

Facemask-wearing behaviour in response to health guidance

Adherence to facemask guidance has been studied with quantitative methods worldwide, with stricter country-level facemask policies associated with higher facemask use (Badillo-Goicoechea et al., 2021). In the UK, survey studies indicate high adherence to facemask guidance and other measures (Fancourt et al., 2020; Smith et al., 2022; Smith et al., 2023). In a series of cross-sectional surveys (Smith et al., 2023), wearing facemasks in shops in England between August 2020 and April 2022 has been associated with COReonaVIrus Disease of 2019 (henceforth: COVID-19) perceptions (i.e., worry, severity, risk to self and others in the UK, exposure), perceived COVID-19 exposure, perceived effectiveness of face covering, self-efficacy concerning facemask wearing, and perceived behavioural impact of facemask wearing. In addition, the rates were higher when a legal obligation was in place (Smith et al., 2023).

Qualitative studies concerning adherence to facemask guidance vary in terms of time of study, location, and sample, thus portraying a mixed picture (Bazrafshan et al., 2023; Carter et al., 2023; Hanna et al., 2022; He et al., 2023; Kwok et al., 2021; Moss et al., 2023; Williams & Dienes, 2021; Zimmermann et al., 2021). Reported barriers for facemask-wearing adherence are varied. These include perceptions (e.g., fear of racial profiling, maintaining freedom), emotions (e.g., embarrassment), access to facemasks (e.g. financial costs), and shifts in official advice (Bazrafshan et al., 2023; Bornand et al., 2023; Hanna et al., 2022; He et al., 2023; Moss et al., 2023). Reported facilitators of

facemask-wearing adherence include experience with wearing facemasks in previous outbreaks, trust in government, conformity, moral responsibility, and physical and psychological security (He et al., 2023; Kwok et al., 2021; Zimmermann et al., 2021). Overall, quantitative and qualitative findings suggest that people are willing to adhere to facemask guidance over time, but that this willingness can depend on various factors. In the current study, we drew on a theory of behavioural indicators, namely, the VBN (Stern, 1999, 2000), to understand people's construal of facemask wearing – a protective health behaviour.

Construal of protective health behaviours

The VBN outlines a sequence of several behavioural indicators (Stern, 1999, 2000): *values, beliefs, and personal norms*. In a later adaptation of VBN, the behavioural indicator of *emotional processes* has been added (Han et al., 2017). Originally conceptualized as a theory of pro-environmental behaviour (Stern, 1999, 2000), VBN has been applied to study a wide range of behaviours (Canlas et al., 2022) including travel behaviours during the COVID-19 pandemic (Kim et al., 2022), socially responsible consumption behaviour (Golob et al., 2019), and household behaviours (Harland et al., 2007). Given the conceptual overlaps between pro-environmental and pro-social behaviours (e.g., concerned with social goals beyond those of the individual) and VBN's capture of key indicators of behaviour that stands to benefit others (Stern, 2000), we selected VBN to understand people's construal of facemask wearing behaviour.

Understanding people's construal of health guidance is key to supporting public health and pandemic preparedness (Higgs, 2024) via avenues such as informing the design of health communications (Nan et al., 2022) and the appropriateness of preventative measures for different populations (Muccia et al., 2022). One debate that demonstrates the need for an informed understanding of people's construal of health guidance is that of *pandemic fatigue* – a term used to capture people's tendency to grow weary of adherence to health guidance (Haktanir et al., 2022).¹ The World Health Organization (2020) has described pandemic fatigue as an “expected and natural response to a prolonged public health crisis” (p. 4). Subsequent research has developed and evaluated self-report measures of pandemic fatigue (e.g., Caycho-Rodríguez et al., 2024), and reported on associations between pandemic fatigue health-related constructs (e.g., Haktanir et al., 2022). Others, however, have questioned whether the concept of pandemic fatigue represents a real phenomenon and an evidence-based portrayal of people's adherence to protective health guidance (Harvey, 2020; Michie et al., 2020; Reicher & Drury, 2021). There is evidence that adherence to protective measures was high and remained so for a long

¹ Note that definitions of pandemic fatigue differ. Conceptually overlapping terms including behavioural fatigue, emergency fatigue, public fatigue, and adherence fatigue.

period of time (Reicher & Drury, 2021). Whereas a pandemic fatigue account supports the idea that people find it increasingly difficult to cope with new protective measures and are therefore essentially frail, a contrasting account portrays people as highly resilient and adaptable in the face of challenges (Reicher, 2022; Reicher, 2023). Overall, the above supports the notion that knowledge concerning how people construe protective health behaviours can be key to optimizing the public response to guidance about health threats.

Health guidance concerning health threats is informed by a range of evidence including clinical findings, community engagement, and adherence research (Higgs, 2024; Michie et al., 2020). In the case of pandemic fatigue, the evidence-base is informed to a large extent by quantitative findings such as those obtained in systematic observational research and research of self-reported patterns of adherence behaviour (Harvey, 2020; Michie et al., 2020; Reicher & Drury, 2021). In the same vein, many have studied explicit, self-reported psychosocial beliefs as predictors of protective health behaviours (Liang et al., 2022). However, people's protective behaviour can also be shaped by implicit processes, typically measured by cognitive association tasks (St Quinton & Brunton, 2017), and little is known about people's implicit beliefs in this regard. Thus, people's prompted memories that spontaneously generated facemask-related content represent a valuable and previously unexplored resource for addressing the research gap concerning implicit beliefs that relate to protective health behaviours. Indeed, different sets of beliefs can be associated with different bodies of information in people's memory (Porot & Mandelbaum, 2021).

The current study

Facemask wearing is a protective health behaviour emblematic of adherence to health guidance. The current study is aimed at understanding of people's construal of protective facemask-wearing behaviour by exploring people's facemask memories. The data was collected for the Standstill research project led by the third author. The current study followed up and focused on the qualitative analysis of the data from Standstill project (Loveday et al., 2026; Loveday, Woy, & Pounder, 2026). In the current study, we analysed open-ended responses to prompts that involved a general period-cue (i.e., lockdown) to elicit a hierarchical retrieval strategy (Conway & Pleydell-Pearce, 2000) and considered facemask memories a source of data that provides insights into people's implicit beliefs relating to facemask wearing behaviour mandated in 2021. We explored facemask memories using the VBN (Stern, 1999, 2000). Our research question was: How did people construe the protective measure of wearing facemasks during the COVID-19 pandemic?

Method

The Standstill project team, led by the third author (the first and second authors were not part of the Standstill project), collected cross-sectional online survey data of 663 participants between 26th March and 14th April, 2021. Throughout the period of data collection, mandates by the UK government (2020) concerning facemask wearing on public transport (issued in June, 2020 and extended to many public indoor venues such as shops in July, 2020) were in place (Brown & Kirk-Wade, 2021; Hobbs & Bunn, 2020). For recruitment, the third author used the then-Twitter (now X) social media platform to post an invite (Fig. 1) to take part in a survey prompted by an open-ended question: 'How has your memory been over the last year?' The Standstill project aimed to recruit a diverse range of people so that the breadth of society and experiences can be represented. Accordingly, no criteria for inclusion or exclusion were specified in the Participant Information Sheet. The Standstill project team conducted a preliminary thematic analysis of the responses to these three open-ended questions and identified several themes, among them "COVID rules and isolation" (Loveday, Woy, & Pounder, 2026). Within this theme, the Standstill



Fig. 1. A screenshot of the Twitter post of the invite to take part in the research.

project team identified codes such as facemasks as a common (10%), spontaneously recalled item in people's memories. The first and second authors of the current study inherited the Standstill project data relevant to facemask memories in 2023 and conducted the qualitative analysis reported herein. To address our research question, we conducted a qualitative analysis of people's facemask memories elicited during the third UK national lockdown.

Survey procedure and materials

Participants completed a 20-minute online questionnaire that included questions about living, work, health, and social circumstances, as well as how these had changed in lockdown. The survey questions were developed around a research aim of the Standstill project to explore objective autobiographical memory in relation to subjective experience of memory function (for a detailed description see companion paper, Loveday et al., 2026). The survey included an adapted version of the 13-item Everyday Memory Questionnaire (Royle & Lincoln, 2008) to assess subjective rating of perceived memory changes during the period of lockdown. Key to the current analysis, participants were asked to complete three open-ended questions (see Table 1 for the exact

wording) involving a general period-cue (i.e., lockdown). Specifically, the participants were asked about (1) an event memory prompted by thinking of lockdown (lockdown event memory), and (2) an event memory prompted by thinking about an object (object-related memory)—participants were first invited to name an item that they associated with the experience, and then subsequently to describe any event memory that is prompted by thinking about this item. There were no further specific prompts, and participants were free to choose any item at all. Facemasks or facemask-wearing was not a pre-determined prompt, that is, facemask-related recall was spontaneously generated

Data preparation and participants

Building on the Standstill project’s preliminary thematic analysis findings, a qualitative analysis of the data, presented in Excel, was conducted focusing on facemask memories. The current thematic analysis started with collating the responses that include the words ‘mask’, ‘cover’ or ‘shield’ in the context of facemasks, using the search function in Excel. This resulted in a sample comprising 68 participants, all of whom referred to facemasks as a lockdown-related object either in their lockdown memory (n = 21), object-related memories (n = 50), or both (n = 5). Facemask-related responses from 68 participants were saved in a new Excel spreadsheet along with the original participant number (serial numbered). This subset of respondents was aged 18–72 (M_{age} = 44.88, SD_{age} = 14.84), 53% female, mostly UK residents (85%), 76.5% educated at diploma/degree level or higher, and 34% key workers.

Analytic procedure

The analytical procedure involved two stages: 1) Inductive thematic analysis and 2) Theory-led thematic analysis. The first and second authors applied the complete analytic procedure.

1.) Inductive Thematic Analysis

Our inductive thematic analysis (Braun & Clarke, 2006) is detailed in Table 2.

2.) VBN Theory-Led Thematic Analysis

Reviewing the list of the labels/themes identified in our inductive thematic analysis (Step 4: Reviewing the themes, Braun & Clarke, 2006), we recognised the relevance of the VBN (Stern, 1999, 2000) and its later adaptation (Han et al., 2017) as an underpinning theoretical and analytical framework to address our research question. VBN constructs as themes helped us systematically explore the construal of facemask wearing behaviour.

Table 1
Prompts used in the current study.

1	For this section, we are interested in your memory for something that happened during the lockdown period. I want you to think of any event that happened during the lockdown period. The event could have happened at any time during any of the lockdown periods but please do not include memories from the last week. This event can be either important or trivial, but the memory should be a specific event (e.g. an event that lasted less than a day and occurred in a particular time and place). As an example: it would not be ok to say 'I enjoy going for walks' but it would be ok to say 'I saw a really interesting tree on my walk'. Please describe the memory in as much detail you can.
2	For this last section, please try and think of one item that you associate with the experience of lockdown. This could be, e.g. a piece of music, an object, a picture, an item of clothing, a piece of food etc. You may feel you can think of more than one thing or that your choice may change if you were to think about it again another day, but that is fine. Please write below item that come to your mind right now.
3	Thinking about this item, can you think of a specific moment or event during lockdown that this item reminds you of? Please describe the memory in as much detail you can.

Table 2
Inductive thematic analysis (Stage 1 of analytic approach).

Analytic procedure stage	Actions
1. Inductive Thematic analysis	We (first and second author) began by familiarising ourselves with the data collated in the Excel spreadsheet, which includes all answers that had mask, cover or shield in them in context of facemasks (Step 1: Familiarisation, (Braun & Clarke, 2006)). We conducted open coding (on Word) independently without preconceived categories (Step 2: Coding, Hsieh & Shannon, 2005) to assign initial codes to phrases or sentences to describe their content. Next, we discussed how similarly (or differently) we coded the same responses. With different codes assigned to the same response, we discussed how we arrived at assigning a particular code and sought more fitting codes that we mutually agreed. We jointly looked over the codes we had created and identified patterns among them and generating themes by clustering codes into a single theme (Step 3: Generating themes, Braun & Clarke, 2006). The most common themes reflected different aspects of adherence behaviour: following the guidance, the new normal, monitoring others, and emotion.

VBN’s operationalisation of behavioural indicators is specific to the context of pro-environmental behaviours² such that VBN’s original operationalisation did not match our focus on facemask wearing behaviour during the COVID-19 pandemic. Accordingly, we adopted VBN’s themes (Values, Beliefs, Emotional processes, Behaviours), broadly defined, while adjusting their operationalization to match our focus more closely, as follows.

Values. To enable us to identify a range of human values that may be relevant to our focus, we defined values in terms of the contrasting higher-order values described in Schwartz et al. (2012): openness to change vs. conservation, self-enhancement vs. self-transcendence (see Table 3 for definitions and examples of all our adjusted VBN constructs).

Beliefs. To enable us to identify a range of beliefs that may be relevant to our focus, we defined beliefs in terms of types of beliefs described by Kreidler and Kreidler (1972): beliefs about self, general beliefs, beliefs about norms and rules, and beliefs about goals (Table 3). Beliefs about norms and rules conceptually overlap with VBN’s behavioural indicator of personal norms – defined as “individual moral convictions which might be used as personal standards to evaluate behaviour” (Onwezen et al., 2013, p.145). Accordingly, we captured personal norms under this set of beliefs.

Emotional processes. VBN adaptations (Han et al., 2017) have incorporated future-oriented emotional processes. Given that the COVID-19 pandemic involved a high degree of uncertainty (Koffman et al., 2020), we adjusted the operationalization of emotional processes to focus on emotions that concern an event in the future and are experienced in the present, which are partly caused by the feeling of uncertainty (anticipatory emotions, Baumgartner et al., 2008).

Behaviours. We considered behaviours relating to facemask wearing.

In a modified Step 6: defining and naming themes (Braun & Clarke, 2006), we applied the adjusted VBN themes to the pooled labelled data and highlighted phrases and sentences relating to the above operationalisation of values, beliefs, emotional processes, and behaviours.

Ethical considerations

The Standstill project received ethical approval from the ethics committee of the School of Social Sciences, the University of

² For example, one operationalization of Values is biospheric values (that are concerned with the biosphere including non-human species).

Table 3

The operationalisation of VBN (Stern, 1999, 2000) constructs.

	Definition
Values	
Openness to change vs. conservation	"Openness to change values emphasize readiness for new ideas, actions, and experiences. They contrast with conservation values that emphasize self-restriction, order, and avoiding change." (Schwartz et al., 2012, p.669)
Self-enhancement vs. self-transcendence	"Self-enhancement values emphasize pursuing one's own interests. They contrast with self-transcendence values that emphasize transcending one's own interests for the sake of others." (Schwartz et al., 2012, p.669)
Beliefs	
Beliefs about self	Beliefs about one's self. For example, "I am a good person"
General beliefs	Beliefs which express information about people (e.g., "people are trustworthy"), situations, events, and objects.
Beliefs about norms and rules	Beliefs relating to norms and rules. For example, "people should behave morally".
Beliefs about goals	Beliefs that express either desirable or undesirable future actions, objects, and situations (e.g., "I want to be more kind to others").
Emotional processes	
Anticipatory emotions	Emotions that are experienced in the present moment in response to possible future events, whether desirable or undesirable (Baumgartner et al., 2008), for example, experiencing fear in response to the prospect of catching COVID-19.
Behaviour	Any action or response to stimulation performed in real-life.

Westminster (ETH2021-1170 approved March 1st, 2021; ETH2021-1316 approved March 18th, 2021). In alignment with the British Psychological Society (2009) code of ethics and conduct, all the ethical principles were observed including informed consent, voluntary participation, anonymity (e.g., we arbitrarily assigned participant numerical codes), confidentiality, right to withdraw, and debriefing. The Standstill project team used GDPR-compliant survey platform Qualtrics to gather the data. For data analysis for the current study, the qualitative data relevant to the current research questions was imported into Excel and stored and managed securely in accordance with the Data Protection Regulation 2018 and the General Data Protection Act 2018.

Results

We present results of the thematic analysis per construct, within the VBN framework.³ In coding, some responses mapped onto more than one construct, or to multiple operationalizations within a single construct—we explicitly note these on several occasions.

Values

Openness to change

There were examples of openness to and embracing change: wearing facemasks whilst the participants went about everyday activities. For example, concerning the normative idea of taking pictures on a special day, one participant noted (NB: Responses are provided verbatim):

[G]iving the face masks my friend made to my parents on Father's Day then taking a picture of them wearing the masks with my Dad holding his Father's Day card through their back window. (B9)

³ References to future actions and goals were not present in the data and accordingly 'Beliefs about goals' are not described. This is consistent with the fact that participants were prompted to describe particular (past) memories.

A15 talked about an episode of driving his first new car a week before with a man from a garage: 'We both wore masks and we went through the paperwork in my carpark while socially distanced (which was a little difficult but we managed).' Another example of openness related to people differing in their uptake of protective behaviours. A41 participated in her daughter's school event, where she saw some children not wear their facemasks properly and the conversation between the mothers was depressing, yet '[she] wanted to leave but my daughter has not seen her friends for many months and she was happy. So [they] stayed for almost 3 hours'.

Conservation

Responses emphasized self-restriction, order, and avoiding change: '[It is t]he erosion of my basic human rights (A68).' 'It signifies everything about what we are currently experiencing, restricted living experiences (B33).' Participants (B16, B34) noted a sense of loss/sadness. One participant revealed a loss of a sense of connection as society:

[W]hen we were told on TV that we had to wear masks during every situation, and people even started wearing these in their homes - and I felt like we'd just lost all the efforts we had previously put into being connected as a society. (B16)

Another participant characterised the loss of order and having to change as sadness: 'No specific moment- just the need to wear it every day and the sensation of sadness of what it symbolises' (B34). As shown above, the examples of conservation ranged from loss of human rights to noting a sense of loss/sadness.

Self-enhancement

Responses highlighted pursuing the self-perceptions of being a "rule-keeper" and a protector of one's health. Rule-keeping behaviours that reflect positive self-perceptions are exemplified by statements such as "...we were the first few to adopt the wearing of masks..." (B64), and "...the cloth face mask I made once it became clear that face coverings were a good idea..." (A46).

Participants also highlighted facemask wearing as one of several behaviours aimed at protecting one's health. For example:

I walked to the postbox for the first time in March 2020 with a mask at the beginning of lockdown. I didn't have masks to hand so I used a mouth mask in the garage used for sanding wood. The mask felt tight and hot, and I wore gloves because I didn't want to touch the postbox with bare hands. It was evening and nobody was about. I hurried home and washed the gloves in soap with my hands still in them. (A47, similar to A7, A50, A67)

Self-transcendence

Self-transcendence values appeared in different ways. Concern and care for others beyond one's self-interests appeared explicitly, for example:

In the July heatwave I gave my Dad his first haircut in months, outside on the patio. We were both wearing face coverings, and it was very hot indeed. I remember the sweat rolling down my top lip into my mouth. I remember washing and sanitising my hands, and trying not to touch him with my hands... (A67, similar to B43, B63, A20)

Other responses described prosocial behaviour that implies attempts to protect others as in A15's description of car purchase (above).

Illustrating this further, the following response describes facemask-making as voluntary behaviour to benefit one's community:

I wanted to do something to help the village. I had a lot of scraps of fabric and made over 300 masks for people in the village to collect for free and for people to pick up at the post office and donate money to charity... (B6)

Beliefs

Belief about self

Beliefs about self in terms of facemask wearing revolved around identification as 'rule keeper', as also described in self-enhancement (above). For example, a participant recalled "...being extra vigilant with mask wearing and disinfectant" (A7), indicating the perception of oneself as adhering to facemask wearing guidance when meeting others. Another participant raised a similar self-belief concerning going out: '[e]very time I go out, the mask is there! Visiting Vet!' (B2).

General beliefs

General beliefs about facemasks and people's use of facemask ranged from positive to negative.

For example, facemasks were seen as providing protection from the cold, not just from COVID-19:

I wore a mask so my face wouldn't be cold, but it still was. (A52)

[The facemask/facemask wearing] would be a good idea as it would keep my neck warm to during the colder weather. (B18)

One participant expressed a humorous, creative take on facemask wearing:

We have a tree fern at the front of our house, it needs to be wrapped for the winter and it looks rather unattractive. We decided to draw a face on it and dress it in an elf hat with a mask - we called it stay Ealthy Elf. It gave people something to smile about. (A69)

On the other end of the spectrum, a great deal of responses pertains to beliefs about facemasks being restrictive, as seen in B33's response (similar to B36, B60) concerning 'restricted living experiences' above. Negative beliefs about people who do not wear facemasks are also frequently expressed (these are described in detail in the next section). For example, mockery of facemask wearing has been observed: "people were not sure of the seriousness of the virus and were saying that wouldn't wear masks outdoors cause they would look ridiculous" (B64).

Beliefs about norms and rules

Beliefs about norms and rules relating to facemask wearing revolved around personal morals and responses to their violation by self and others.

Responses often related to people's moral convictions concerning normative behaviour which participants used to evaluate the behaviour of others. One respondent expressed beliefs concerning people who do not adhere to health guidance:

We took a flight to the east coast, on the airplane these 2 guys had their masks around their necks, not wearing them correctly, and I told my husband that they were jerks, and wondered why the flight attendants didn't say anything. (A24)

Furthermore, people said that they felt uncomfortable when their behaviour is inconsistent with their personal norms (B61) and when observing others not engaging in protective behaviour (B63):

I accidentally forgot my mask when I went to the shop, but I had walked 20 min to get there, and I wasn't about to make another 40 min trip, so I just decided to go in anyway. A man asked me if I was exempt and I told him I wasn't. He looked annoyed, but went about his business and I went about mine. I felt bad when I left the shop. (B61)

I remember being in the queue for the supermarket, everyone was wearing face masks except the man in front of me, who was talking on the phone. He was wondering around a little bit and the man ahead of him kept moving himself to try and maintain social distancing, looking visibly frightened. (B63)

Others expressed the notion that there is joy to be had while performing normative protective behaviours, for example:

Playing table tennis with my Mum for the first time is ages. We weren't sure of the bubble rules (both of us single) so we both gloved and masked up and I went round to hers. She had all the doors open so I didn't touch anything, and we used the dining table (2 m long) for playing. Very fun (no-rules!) knock about with much laughter. Only there for 15 min max but such a relief to see each other and to have a laugh. (A11, similar to A41, B9)

The following seems to concern both belief about self as a rule-keeper and belief about norms and rules:

Travelling on the tube wearing a mask for the first time. It felt strange, uncomfortable yet at the same time reassuring. A man got into the carriage where I was sitting who was not wearing a mask. I upbraided him for being selfish. He simply ignored me. I found the experience really unpleasant, although I felt then, as I do now, that I was right to make this statement. (B43)

Emotional processes

The participants experienced a range of emotions, which were situated in a specific situation.

One participant described excitement on a family drive to pick up new puppies and wearing facemasks and maintaining social distance when doing so (A23). Another participant described her experience with a range of anticipatory emotions (e.g., happiness at getting together with parents, fear of contagion):

The day in the summer where I could see my parents for the first time when lockdown was lifted. I cried from happiness but also felt really odd as it was the first time I'd been near a human and I felt frightened. Going to my parents house was amazing (we were a bubble). I had spent so long in a very tiny studio flat working and spending my free time, it felt like escaping prison, I sat down on the sofa with so much light and my parents cat tigger came and said hello, it was so strange coming from my grim council flat. I kept sanitising my hands and with my mum bring redeployed to a covid ward previously I did not want to eat as even though ridiculous, I worried she might be carrying covid on my hands. I felt a bit overwhelmed and asked to be taken home, I put my mask on and got in the car. It was a happy but also overwhelming day. (A20)

The complex anticipatory emotions were described in the unfolding event in which putting facemask on was recalled in detail.

Negative anticipatory emotions in response to possible future events such as fear of contagion and worry about environmental harm were most common. For example:

I had to drive to pick something up from a Click and Collect point in a large store. Although I'd been out walking with my dog every day, in the rural area where I lived, I had very rarely been out in a built up area. I remember putting on the mask and feeling very nervous. I queued up, collected my order and then went straight back to my car. My nerves had dissipated quite quickly, even as I approached the shop but the contrast between that experience and my memory of just going out and about with a carefree manner, in similar settings, pre lockdown, struck me quite forcefully. (B4)

Buying a 10 pack of masks and knowing that buying masks was going to be part of regular shopping. Worrying about the pollution and disposal of them. (B50)

Many of the responses are imbued with anticipatory emotions in unique firsthand experiences.

Behaviours

We identified a wide range of behaviours, some of which appeared in the sections above (i.e., beliefs, values) and appear here as actions consistent with beliefs and values. For example, B43's upbraiding of a man not wearing a facemask (above) on the tube exemplifies rule-keeping behaviour.

B68's response pertains to rights-maintaining behaviours:

Being told that I can't enter a supermarket without a face covering, even though I'm medically exempt and taken legal action against that store and it's owner.

Furthermore, B61's response about not wearing a facemask in the shop (above) includes a mix of transgressive behaviours (with a justification) and rule-keeping behaviours along with the belief about self (in this case, not positive). Similarly, a complex set of behaviours, along with belief and values is compounded:

First delivery from Amazon - which was some face masks. The bell rang, and I opened the door to find the box left with nobody in sight. I'd not really used Amazon in years, so it seemed odd. I used and[] cold toddler knife to open the box in the porch, took the masks out and left the box in the recycling box. I came in, washed the shrink-wrapped masks and then my hands. So much of what I remember of lockdown is connected with these novel rituals that punctuated the day. (B47)

These behaviours/actions he took upon the Amazon delivery shows he carefully went about following the rules, attending to new behavioural routines, and showing openness to change in everyday life.

To recap, we outline below our findings based on the thematic analysis of participants' facemask memories during the COVID-19 pandemic, categorized under the VBN themes of Values, Beliefs, Emotional processes, and Behaviours. In terms of value orientation, participants showed openness to change, such as accepting facemask-wearing during everyday activities. Participants expressed a sense of loss/sadness over changes to normalcy, associating facemasks with loss of connection and restriction. Facemask-wearing was seen as a way to enhance self-image by adhering to rules and protecting one's health. Many valued caring for others, showing prosocial behaviours such as voluntarily making facemasks for the community. As for beliefs, many identified as "rule-keepers". Participants evaluated others based on adherence to facemask-wearing norms, experiencing discomfort when others failed to follow. Emotions were notable experience in situations with facemask wearing. They were varied, from excitement (e.g., during family activities) to anxiety about environmental harm from facemask waste. Mixed emotional experiences reflected anticipation of future events. Behaviours and actions were consistent with values and beliefs, ranging from confronting others for not wearing facemasks to maintaining personal rights regarding facemask exemptions. Many followed new routines, adapting to societal changes in daily life.

Discussion

We explored people's facemask memories from lockdown to gain insight into how people construed mandated facemask-wearing behaviour. Overall, our VBN-led analysis showed that people's responses surrounding facemask wearing were oriented towards using facemasks to protect their health. Participants saw themselves as a rule keeper or follower of the health guidance. They tended to perceive facemask

wearing as beneficial to themselves and others. Across the behavioural indicators outlined by VBN (Stern, 1999, 2000), facemask-wearing was predominantly viewed in self-enhancing, normative, and moral terms. Whereas some reportedly did not uptake facemask-wearing, others who observed transgressions of facemask wearing contrasted these with their own rule-following, prosocial beliefs, and behaviours. The participants overall showed adaptability and resilience in the face new mandated protective facemask-wearing behaviour (Reicher, 2022) in memories elicited >9 months after facemask mandates were introduced in the UK.

The responses on facemask wearing were linked to following the rules, embracing the new normal, and monitoring the behaviour of self and others to protect health. Considering that many of the responses are imbued with mundane details of everyday life, the overall picture is that participants seem to have accepted facemask-wearing as a necessary adjustment to their lives – they changed or adapted their behaviours to the new normal. This was evident across personal (e.g., following the guidance when on one's own) and social (e.g., upbraiding others in social situations) life domains. In the same vein, people reported voluntarily engaging in sewing facemasks for others, for example, providing community-based support when facemask availability was low. This prosocial behaviour may be seen as a way to obtain a sense of agency concerning facemask guidance, which possibly contributed to collective resilience, in line with a range of support initiatives by communities during the COVID-19 pandemic (Drury et al., 2022).

Participants' facemask memories referred to a range of beliefs, values, and behaviours that link to coping and health (Carver & Vargas, 2010; Rosenstock, 1974; Rosenstock et al., 1988). The participants made references to laughter, invoking humour and ridicule. Participants seemed to have used humour to make light of a difficult situation (Billig, 2005). For example, one participant used the facemask to create an elf character from a tree fern outside their house; in this instance, a common negative connotation of facemask wearing (e.g., restrictive) was reformulated into a positive, aesthetic (i.e., reduces unattractiveness), and entertaining one (i.e., something to smile about). The construal of facemask-wearing was not a uniform phenomenon, for example, some participants associated facemasks with restrictive living conditions and a sense of disconnection with others in society, in line with previous research (Bazrafshan et al., 2023; Rieger, 2024). This variability was further reflected in expressions of contrasting values: openness to change vs. conservation, self-enhancement vs. self-transcendence, highlighting the complex and multifaceted nature of facemask-related experiences. Our finding of contrasting value expressions in facemask memories is consistent with theory concerning polarized cultural dimensions (i.e., Autonomy vs. Embeddedness) that relate to both individual pursuits and to the social realm (Schwartz, 2006). Indeed, cultural value orientations within the cultural dimension of Autonomy vs. Embeddedness show notable correlations with health behaviours (Mackebach, 2014). Also, facemask wearing-related indices (favourable perceptions, intention to wear, respectively) have been positively associated with collective interdependence as well as with independent self-construal (Kemmelmeier & Jami, 2021). Overall, our findings support the notion that individuals assign diverse—and at times contradictory—meanings to mask-wearing (Schönweitz et al., 2022) and provide nuanced insights into how these meanings are constructed.

Future directions

In line with a critical view towards the incorporation of pandemic fatigue into public health strategy (Harvey, 2020; Michie et al., 2020; Reicher & Drury, 2021), in the current exploratory research, the overall picture of the public response to mandated facemask-wearing behaviour was that of psychological resilience. In the current study, people were prompted to describe their spontaneously generated memories relating to facemasks, but importantly the Standstill project did not set out to explore this research question so there was no reference to protective health behaviours in the questionnaire or participant information sheet.

This method therefore enabled us to capture people's authentic, unmediated beliefs concerning health behaviours and minimise recall bias. Attesting to the validity of our procedure, we did find a range of evidence to support other existing bodies of knowledge concerning people's indicators of adherence behaviour, for example, relating to prosocial beliefs (Martinelli et al., 2021; Wakefield & Khauser, 2021) and to risk compensation (Aranguren et al., 2023), for example, a response prioritising socially distancing when others around are not wearing facemasks properly. In addition, considering our finding that facemask memories can capture multiple behavioural indicators in a detail-rich vivid way, memory-based personal stories about facemasks can potentially be used to appeal to people's values and beliefs (e.g., collective efficacy) in public health communications (Nan et al., 2022). In the same vein, our participants referred to playful, absurd uses of facemasks, which could potentially be harnessed to support public health communications (Miller et al., 2021). Finally, future research could build on our qualitative method to investigate additional dimensions of coping with health threats such as the range of people's health beliefs (e.g., perceived severity, perceived benefits) (Subedi et al., 2025; White et al., 2022), and the intersections of sociodemographic factors (e.g., ethnicity, gender) that contribute to health inequalities (Qureshi et al., 2022). These considerations warrant further research and have the potential to serve significant grounds for advancing research in health and communication studies.

Limitations

We comment on the limitations on the current study pertaining to the theoretical framework, approach and methods taken. This study's data was based on a self-selected sample and cross-sectional data. Many of the online respondents were UK residents, but a minority of participants resided outside the UK (e.g., five US residents). The VBN (Stern, 2000) enabled us to analyse the data beyond the initial descriptive codes and led us to see patterns in a refined thematic analysis and synthesis that covers a wide conceptual range of behavioural indicators. However, it was difficult at times to pigeon-hole a response to a single behavioural indicator, or to a single operationalization within a construct. In line with previous research (He et al., 2023), facemask wearing behaviour was related to a range of factors, namely, beliefs, values, and emotions. Some responses were ambiguous, dilemmatic or ambivalent toward facemask-wearing. These limitations notwithstanding, our work may serve as a stepping-stone to the application of qualitative methods in novel ways to understand COVID-19-related meaning-making (Braun et al., 2020) in public health research. Indeed, object memories can have meanings that are central to identity management (Phenice & Griffore, 2013). The complexity and heterogeneity of the facemask memories revealed a storied and constructed nature of facemask memories, with memories spanning social, health, and leisure life contexts described with a remarkable level of details and vividness.

Conclusions

We conducted an analysis of facemask memories elicited >9 months after the introduction of facemask mandates in the UK. Our findings suggest that people's values and individual beliefs contributed to various ways of sensemaking around facemask wearing (Schönweitz et al., 2022), and to coping with the threat of COVID-19 more broadly. Overall, people's construed facemask-wearing as a protective health behaviour and supported its uptake – people identified as rule keepers, monitored the facemask-wearing behaviour of others, and expressed moral and prosocial beliefs around facemask wearing. In other words, although people's responses were not uniformly positive, people showed acceptance and adherence to mandated facemask wearing. The current findings seem to support the notion that people tend to be adaptable and psychologically resilient (Reicher, 2022) with regards to the wearing of facemasks to protect their health.

ORCID ID

Rotem Perach: 0000-0002-8647-4367
Kyoko Murakami: 0000-0002-8342-6079
Catherine Loveday: 0000-0001-8082-8665

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Data availability statement

The anonymized summary data that support the findings of this research is openly available on the Open Science Framework (<https://osf.io/ka9mf/overview>).

Declaration of competing interest

The authors declare no conflict of interest.

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