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Collective wellbeing sacrifices versus superior ego – perspectives on adherence to COVID-19 recommendations in Stockholm, Sweden

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ABSTRACT

During the COVID-19 pandemic, Sweden adopted a recommendation-based approach rather than strict lockdowns. This approach relies on public willingness to adhere to guidelines and motivations for prosocial behaviour. This study aimed to explore the motivations behind adherence or non-adherence to COVID-19 recommendations in Sweden. Semi-structured interviews were conducted in 2022 with 20 participants aged 26 to 63, all residing and working in Stockholm. The interviews were conducted via online platforms, Teams and Zoom, transcribed and analysed using content analysis. The analysis yielded two overarching themes that motivated adherence or non-adherence, *Sacrificing comfort for collective wellbeing* and *A sense of being superior and able to handle national recommendations in your own way* derived from six categories: (i) Social pressure and the desire to appear prosocial, (ii) Embracing a new reality as a means to return to normalcy, (iii) The absence of punitive measures for non-adherence, (iv) Creating safe environments and circumventing the system, (v) Negotiating which recommendations to follow and (vi) Diminished adherence over time. Adherence to public health recommendations was driven by social pressure and a desire to protect loved ones, often requiring personal sacrifices and behavioural adjustments. Conversely, non-adherence stemmed from a sense of autonomy, mental well-being preservation and tiredness, highlighting the challenges of sustaining compliance over time.

IMPACT STATEMENT

- During the COVID-19 pandemic, Sweden adopted a recommendation-based approach rather than implementing strict lockdowns.
- Adhering to these recommendations often required sacrificing personal comfort for the greater good, driven by a desire to restore normalcy and avoid social stigma.
- Non-adherence was frequently rooted in confidence in personal judgement, perceived lack of consequences and mental health concerns.
- Effective message framing, whether emphasising self-interest or prosocial benefits, plays a crucial role in encouraging compliance with recommendations.

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Background

The novel SARS-CoV-2 virus, and global responses to it, quickly led to the most important health, humanitarian, economic and social crisis the world has faced in recent times [1] and disrupted communities and individuals in multiple ways, particularly certain groups such as the elderly, people with comorbidities and many ethnic minority groups [2], to mention but a few.

The first confirmed case of COVID-19 in Sweden was reported on 31 January 2020, and the virus started to spread in the Nordic countries a month later, mainly via individuals returning from winter holidays in central Europe, in particular the epicentre in Northern Italy [2]. In Sweden, the virus thereafter mainly spread in Stockholm and the northern region Jämtland-Härjedalen [2]. When the World Health Organization announced a pandemic on 13 March 2020, a similar number of cases had been reported in the Nordic countries Denmark, Norway and Sweden, with most concentrated in the urban regions [2].

Swedish government announcements of preventive strategies were made in mid-March 2020 and after

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a peak number of deaths during the first part of April, transmission and mortality decreased, with low values during the summer months and a bottom level of deaths in late August 2020 [3]. The northern part of Sweden, however, experienced a prolonged initial wave of infections which subsequently led to increased mortality rates, compared to other Arctic nations, largely attributed to the implementation of relatively lax or inconsistent public health measures [4].

Internationally, strategies from governments to slow the spread of COVID-19 have included regulations such as stay-at-home orders and travel bans or recommendations such as hand washing and social distancing [3]. The Swedish response to COVID-19 sparked significant academic and political debate due to its divergence from typical European and Nordic measures [5]. Sweden's strategy avoided stringent lockdowns, relying instead on public recommendations rather than enforceable mandates. This approach contrasted sharply with Denmark, Finland and Norway, where strict policies – including closure of non-essential businesses, restrictions on international travel and limits on social interaction – were swiftly enacted to curb virus spread. Iceland, while not adopting a strict lockdown, took a similar approach with a strong advisory role on international travel. Sweden, however, maintained a unique model of voluntary compliance, issuing guidelines to avoid public gatherings but allowing many businesses to remain operational. Neither international nor internal travel restrictions were not imposed, and most measures were framed as recommendations, particularly for vulnerable groups and the elderly [5].

The outcome of such a strategy is vital to understand in-depth. While data on total COVID-19 infection is hard to compare given that testing behaviour and policies have varied across nations, data on COVID-19 mortality is more comparable [2]. A large difference in fatal COVID-19 cases was seen between Sweden and neighbouring Nordic countries during the first wave [3]. After the lockdown policy in the other Nordic countries, the number of deaths was significantly higher in Sweden, with mortality rates per 100,000 inhabitants, by 29 May 2020, reaching 43.1 in Sweden, while the corresponding numbers for Denmark, Finland, Norway and Iceland were 9.8, 5.7, 4.4 and 2.8, respectively, [2].

Particularly at the wake of the pandemic, governments´ inabilities to address the needs of its citizens led to a previously unseen rise in civil emphatic action around the world [6,7] aimed at helping those in need with, e.g. grocery shopping and delivery of medicines, or by offering financial support, help with child-caring or mental- and psychological support through phone, social media or even by singing together from the spaces of their balconies [7–10]. These are all prosocial acts. A common definition of prosocial behaviour is the emphasis on promotion of welfare in agents other than the actor, by the provisioning of, e.g. monetary, material, social or psychological support [11]. Another form of prosocial behaviour has been termed infection-reducing prosociality (IRP) [12]. IRP can be defined as the active behaviour of an individual to reduce the spread of a virus even at the cost of own comfort [12].

IRP shares similarities with climate prosociality, including challenges such as free-riding, and is motivated by both altruistic and egoistic concerns [12]. Jones and Linardi [13] further argue that, since individuals are highly sensitive to social norms, a positive relationship exists between visibility and prosocial behaviour, as people like being recognised for their good actions.

Worldwide, adherence to social distancing measures and public health recommendations quickly became the acceptable behaviour and perhaps even the social norm in society [14]. However, levels of adherence have not been uniform. The percentage of people reporting always wearing a face mask outside their home in the beginning of August 2020, differed substantially across countries, ranging from 3% in Denmark, to 93% in Spain [15]. In Sweden, Andersson et al. [16] found adherence to vary with recommendation, ranging from 69,7% for avoiding public transport to 95,7% for washing hands.

Classical economic theories of decision-making generally assume that people only care for their own welfare [17]. Indeed, at the wake of the pandemic, global reports alarmed us of inappropriate behaviours such as hoarding [9], but in contrast to popular disaster myths about mass panic and selfishness during crises, people tend to help friends and strangers alike [18]. Martela et al. [18] further argues that a sense of social identity and the emotional significance of being attached to a group are explanatory factors for prosocial behaviour. Tekin et al. [10] describes this as a sense of societal "we-ness", when facing a shared threat, such as the COVID-19 pandemic. Furthermore, people are generally motivated to cooperate during crises, and strive to avoid appearing selfish [10,17]. In a US setting, Jordan et al. [17] found the desire to appear prosocial to be a strong predictor for engaging in preventive COVID-19 behaviour.

Talevi et al. [19] further argues that restrictive measures such as isolation and social distancing not only have an impact on psychological wellbeing, but also on emotive reactions to the pandemic itself. These emotive reactions might manifest themselves in maladaptive behaviours and defensive responses such as feelings of boredom, loneliness, anger, depression, stress, fear

and frustration [19]. IRP in the context of COVID-19 might in other words inflict significant personal costs.

Many recommendations have been very drastic, involving a strong rupture in daily life, and requiring substantial behavioural change [18]. While response efficacy, the perceived effectiveness of recommended behaviour has been shown to strongly influence adherence to COVID-19 measures [15], some behaviours also carry greater response costs than others [20]. This would likely mean that the level of motivation to adhere to a specific recommendation varies with the recommendation in question.

Research on compliance to COVID-19 recommendations has typically revolved around possibilities to do so, highlighting how individuals in, e.g. segregated areas, crowded housing conditions, front-line occupations or in lower socio-economic segments have faced greater difficulties to adhere [2]. Not much is known about IRP, or compliance to authority recommendations in the specific sub-group of individuals – as opposed to previously mentioned groups – who have had the resources and option to adhere.

Some general factors have been described for adherence to COVID-19 recommendations, such as political belief, moral values, fear of the disease, lower susceptibility to disinformation about the pandemic, and a belief that COVID-19 interventions are effective [3]. Given the complexity and variability in factors affecting adherence, more studies are needed, in particular focusing on the in-depth analysis of factors behind behavioural change and failure to adhere to authority recommendations during the pandemic.

In sum, while all Nordic countries implemented public health measures, Sweden's reliance on recommendations rather than mandates positioned it as an outlier, prompting ongoing debate over public compliance, health outcomes and the role of policy in pandemic management [5]. As Sweden's COVID-19 approach was centred on recommendations rather than strict regulations, it provides a unique case for studying individual compliance behaviours in the absence of mandates. Understanding why some individuals chose to comply with these recommendations, while others did not, could offer valuable insights into public health psychology and policy efficacy. Limited research has been conducted on the motivational and demographic factors influencing voluntary compliance in such scenarios, highlighting a significant gap in knowledge. This lack of research restricts our understanding of how personal beliefs shape adherence to non-mandatory health guidelines, which is crucial for designing effective public health strategies in future crises.

This study aimed to explore individual motivations for adhering to, or not adhering to, COVID-19 public health recommendations in Sweden, and to assess how these motivations can be understood in relation to prosocial behaviour.

Method

The study employed a qualitative design with inductive content analysis to gain insights into motivations for adherence and non-adherence to COVID-19 recommendations in Sweden. This approach was chosen due to the limited existing research on this topic, and content analysis was deemed suitable as the data was collected through digital semi-structured interviews. The study was planned and reported according to the Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines.

A total of 20 informants were interviewed (see Table 1). The ages ranged from 26 to 66 years, with interviews averaging 45 min in duration. Two of the respondents were recruited through convenience sampling, identified via a post on the local community Facebook page. The remaining 18 respondents were selected through snowball sampling, allowing for descriptions and experiences related to both adherence and non-adherence to recommendations. While this nonprobability sampling technique possesses some limitations due to its subjective nature, it affords the opportunity to thoroughly explore variations in cases and seek explanations for atypical behaviour [21].

All respondents received an information letter outlining the study's aim and purpose, emphasising voluntary participation. Additionally, a consent letter was distributed and collected from participants before the

Table 1. Gender, age and occupational sector of the 20 respondents.

Respondent	Age	Occupational sector
Woman	26	Manager
Woman	28	Finance
Woman	30	Healthcare
Woman	35	Healthcare
Woman	36	Marketing
Woman	40	Administration
Woman	42	Social worker
Woman	47	Researcher
Woman	48	Marketing
Woman	58	Nursing
Man	28	Technical engineer
Man	33	Cabin crew
Man	35	Sales engineer
Man	37	Education
Man	42	Finance
Man	43	Administration
Man	45	Restaurant Manager
Man	45	Office Manager
Man	55	Business owner
Man	66	Retired

interviews. The interviews were conducted via the digital platform Teams.

The interview guide comprised seven open-ended questions, such as describing thoughts and motives regarding adherence to recommendations. Prior to the interviews, respondents were reminded of the eight main COVID-19 recommendations in Sweden, as summarised by Sigurhjonsdottir et al. [2]: (i) staying home when experiencing symptoms, (ii) avoiding bars/restaurants/cultural venues/public gatherings, (iii) refraining from visiting the elderly (illustrated by retirees), (iv) avoiding public transport, (v) limiting travel outside of Stockholm (excluding work-related travel), (vi) avoiding shopping during rush hour, (vii) refraining from dinners/parties with more than 10 persons and (viii) working from home if possible.

Data analysis

The interviews were recorded and transcribed verbatim within 24 h, and specific quotes used in the results section of the paper were translated into English. These translations were subsequently cross-checked with the respondents to ensure accuracy. Initially, the text was read several times to immerse in and comprehend the content as a whole. The manifest analysis began by identifying meaning units, i.e. sentences or paragraphs linked by content and context [22], which were labelled with codes. This process of abstraction followed a non-linear approach, involving constant de-contextualisation and re-contextualisation of data, breaking sections into pieces and recombining them to form new patterns [23]. The coding framework was developed based on theoretical interests guiding the research question, as well as prominent issues and recurring ideas identified in the text.

To facilitate category development and meaningful code structuring, four domains were established. Domains represent specific areas of text related to questions in the interview guide [22]. Categories, on the other hand, group codes with shared commonalities [24]. Consequently, decisions about grouping codes and content within categories were conducted, which involved an interpretative process facilitated by the initial allocation of data into the four domains.

Ethical considerations

The study obtained approval from the National Ethics Review Board under (2022-01,476-01-260,587). Respondents were provided with an information letter explaining the study's purpose, voluntary participation, the option to withdraw at any time, and the assurance of confidentiality. Written consent was obtained from all participants, and confidentiality was guaranteed. Respondents were given the opportunity to review and comment on the results before publication.

Results

Table 1 shows the characteristics of the 20 informants.

Table 2 shows how the domains *Need to adhere* and *Want to adhere*, representing the overarching adherence domain, together with two categories resulted in

Table 2. Latent analysis including domains, sub-categories, categories and themes.

Domain	Sub-category	Category	Theme
Need to adhere	Adhering to social norms	Social shaming and appearing prosocial	Sacrificing comfort for collective wellbeing
	Fear of social rejection		
	Adhering publicly to avoid discomfort		
	Regaining freedom and normality	Embodying new reality to return to normal	
Want to adhere	We-ness within private sphere		
	Adjusting for self and others		
	New ways to cope		
Dont need to adhere	Lack of legal motivation	Lack of punishment for not adhering	A sense of being superior and able to handle recommendations in your own way
	Post-infection adherence		
	Non-adherence with likeminded	Creating safe spaces and finding ways around the system	
	Getting around restrictions		
	Protecting some but not others	Negotiating which recommendations to follow	
Dont want to adhere	Finding middle way		
	Trust own judgement		
	Self-preservation		
	Information-saturation	Reduced adherence over time	
	Motivational loss		
	Weaker social norms		
	System failure		

the theme *Sacrificing comfort for collective wellbeing*. The two domains *Don't need to adhere* and *Don't want to adhere*, representing the overarching non-adherence, together with four categories, resulted in the theme *A sense of being superior and act in your own way*.

Adherence

The adherence domain revealed the theme *Sacrificing comfort for collective wellbeing*, which is derived from 2 categories, 7 sub-categories and 17 codes. The codes varied from, e.g. feelings of frustration over others non-adherence, a fear of being judged if not following recommendations oneself, and an underlying wish to return to normal and regaining freedom. To regain freedom, the overall mean was to adhere and find ways to adjust to the new reality, also expressed as sacrificing for ones´ family and friends. The theme can be divided into the two parts of social pressure, and to return to normality by adhering to recommendations for one-self, for family and for friends.

Social pressure

The social pressure to adhere was expressed in terms of social shaming, and a perceived pressure of all individuals to help out by following the recommendations. Many respondents referred to the importance of following the norm and how not following recommendations was countered by dislike from their surroundings, such as peers or co-workers. Several respondents explained how they followed recommendations mainly to avoid being criticised, as exemplified by one respondent, describing a visit to her holiday house in the northern part of Sweden, as follows:

> When we came there, our neighbours came out and was like: What are you doing here? You can't take thing from Stockholm and bring it here, you will be shopping in our shops and … It was like the plague had arrived, and … So we got isolated in our own house for several days and then we went back home (to Stockholm). And we got to hear, that: Don't come here again. Don't come here. And since then its been a bit like, we don't dare to go there anymore. (Woman, 42, Social worker)

Another respondent explained how social shaming could go both ways, being criticised and shamed for performing an altruistic act:

> I got a lot of shaming for being with my grandmother, but she couldn't be alone, she had serious panic about it, so I was there for her sake. But people still thought it was wrong and that I shouldn't be there. (Woman, 26, Manager)

A general wish to avoid the discomfort related to breaking the norms was expressed, with the overall motivation being fear of social reprimands. Respondents also explained how it became important to, if not actually adhering, then at least appear to be doing so. Appearing prosocial could be by, for example, not being honest about one's whereabouts if these included breaking a recommendation, or to be cautious with what to post on social media, particularly not posting when being at a restaurant or a bar. Appearing prosocial was also described in terms of behavioural adjustments like copying the behaviour of others:

> … I didn't really follow any recommendation, except if I was with people who did. Like, at work, and you saw that he or she for example opened the door with their elbow, then I didn't go and grab the handle myself, then I did the same thing. (Man, 37, Education)

Appearing prosocial also had a somewhat negative social impact resulting in less social contacts. A respondent explained it as follows, referring to her colleagues at work:

> … you wanted to show that you were good … And I was very careful in the beginning. Or at least people thought I was. And people maybe got in contact with me less because they thought I was a person that was very careful. Maybe it was both ways, that I felt I can probably not call that person because that one is very careful. (Woman, 35, Healthcare)

Return to normal and adhering for one-self, family and friends

A general referral was made to a longing of regaining freedom and normality. A sense of "we-ness" was repeatedly mentioned, and that the virus and the transmission of the virus is everyone´s responsibility to stop, by adjusting oneself to this new reality. This we-ness was, however, not referred to in terms of a societal we, but rather as a we within ones surrounding, such as one's family and friends. Family was repeatedly referred to as a motivation to adhere to recommendations, to avoid getting infected and be able to see them.

The actual means of adaption to adherence to recommendations was described as a necessary change in behaviour, towards spending more time at home and finding new ways to make the days go by. Some started exercising at home, some watched tv-series and yet others, like following respondent, found amusement in

the pandemic itself, watching videos of people`s reactions to the pandemic:

> Some just sat there crying. Some were angry. And I felt like, where is the world heading? Still laid there and watched that … I got a kick of getting this insight into what's going on in the that person's head right now (Woman, 36, Marketing)

Non-adherence

The non-adherence domain revealed the theme *a sense of being superior and able to handle national recommendations in your own way*, which is derived from 4 categories, 11 sub-categories and 30 codes. The codes varied from, e.g. a perceived lack of punishment for non-adherence, particularly over time, a sense that there was no obligation to adhere, the belief that early viral infection and antibodies made it safe to break the recommendations, to the creation of safe spaces and groups where non-adherence was deemed okay. Compensating for non-adherence was another recurring topic. Individuals compromised by adhering more to some recommendations, while breaking others. Common sense, and being street-smart, was also mentioned, as was a need to break some recommendations for the sake of own mental wellbeing. Over time, a numbness was described in reference to the situation at large and to an overload of information. The theme can be divided into the parts of being superior and having a sense of being able to handle national recommendations in your own way.

Being superior

The lack of punishment, in a legal manner, for not adhering to the recommendations was repeatedly discussed. Even though the social pressure to adhere was still acknowledged, there was still a sense of free will. One respondent explained it as follows:

> It has been a bit of common sense. So it became, ehm, yeah, some things you been more restrictive against, and others not, that you compensated. (Woman, 28, Finance)

Another way this lack of punishment was expressed was in the sense of not feeling that ill, or not having any symptoms of the disease, after being infected. One respondent framed it:

> I wasn't scared at all once I had had it. I didn't get it during the first two waves, but then I got it when everything had started to calm down a bit. But I only got a little bit sick. It felt better afterwards, that you had got it. And that you had gotten natural antibodies. (Man, 55, Business owner).

Having antibodies after infection was also repeatedly mentioned as a reason for not adhering to the recommendations, with respondents feeling that they would not risk infecting others nor acquire the virus themselves again. A respondent explained how he, after the infection, felt that he was not a "*danger to the society*" (Man, 45, Restaurant Manager), and could hence allow himself to not adhere to the recommendations.

A less predominant reason for not adhering related to a time-perspective. Several respondents expressed a motivational loss in adhering to recommendations due to information saturation, and a sense that society at large became less motivated, leading to a sense of decreased social pressure to adhere. One respondent explained:

> I was very careful in the beginning … But after some time, I got the feeling like, if I get it, then I get it. I felt that I'm not going to let it control my life. You know. This was in the end. (Woman, 47, Researcher)

Another respondent explained that his decreased adherence over time was a result of him no longer being scared of the virus, especially after his first vaccination:

> With time, when I wasn't afraid anymore, then I lowered it, didn't follow it as much, as strict as before. And after the first vaccination, then I didn't follow it at all, then I felt that I can't get infected. (Man, 43, Administration)

Handling recommendations in your own way

Non-adherence was motivated by self-preservation, and more specifically to preserve ones´ mental wellbeing by continue meeting friends and family, going to restaurants and bars, having afterwork and afterparties or travel both between regions and abroad. A respondent explained it as follows:

> … I think it is more important to hang out and be social, just for the sake of your mental health, and … so about two weeks, after the restrictions and the recommendations came, we all hugged just like normal. (Woman, 40, Administration)

The mental aspect of breaking the recommendations and specifically to not isolate was expressed by another respondent as follows:

> For me it doesn't work to be locked in … isolated. It just doesn't. I can't handle it psychologically. Then I would have probably become a burden for the health-care system myself. So, no. I didn't care about the recommendations, but did what I knew would make me feel good. (Man, 37, Education)

A trust in one´s own good judgement was repeatedly mentioned, which manifested itself in a sort of bargaining process in regards to different recommendations. One respondent expressed how "*recommendations are only there for people who don't understand anything*" (Woman, 35, Healthcare), and others felt it was okay to break the travelling between regions recommendation, for reasons such as protection of own wellbeing and to be able to see family. As a compromise, several respondents kept more strictly to other recommendations. This bargaining process for own wellbeing was described by one of the respondents as follows:

> I went up to go skiing, so I didn't restrict myself over there. When it came to skiing. The hardest (with the pandemic) would have been to let go of the skiing. That would be a huge sacrifice. But you keep to yourself in a cabin. So I don't see it as any difference from being home, except from in the ski-lift And you go there by car, I wouldn't put myself on a train. (Man, 28, Technical engineer)

Another way non-adherence took place was through the creation of safe spaces and by finding like-minded individuals and groups where non-adherence was deemed okay. Recurring codes were relating to finding ways to get around the recommendations, or to find loopholes and spaces where they could break the recommendations together with other likeminded. As one respondent explained:

> We had a boat. And for the boat restrictions it wasn't about the same things, so at the summer we went out with the boat, and there it wasn't like you can't lay next to each other. So we were out all the time … that's probably why there was such an enormous demand for boats during this pandemic, especially in Stockholm archipelago. We saw so many boats, so many families with children … lot of sailing boats. But with people that can't sail, but they bought sailing boats because they have a lot of beds and its quite big underneath, but they went by motor. So, it was like 100 kids there in the front and no one knew how to sail, and no one knew how to drive and no one really knew anything. It was crazy. (Woman, 48, Marketing)

Another respondent even chose airline depending on whether they had a policy of wearing face mask onboard or not, preferring the latter. When this was not possible, she found another loophole:

> … I had to fly with (airline) once, but then it was like, if you eat, you don't need to have the facemask, so I had a muffin that I was sitting and chewing on very slowly for the entire flight (laughing). (Woman, 40, Administration)

Many codes in the non-adhering domains also related to criticism against the restrictions that were put in place, such as the limit of four people per table at restaurants, and the closing of restaurants and bars at 8 p.m.. This was considered ineffective, and several respondents explained that they took the party home instead, which was argued to be contra productive and increase the risk of transmission. As one respondent framed it:

> And that queue to Systembolaget (Sweden government-owned chain of liquor shops). For real! It was a queue from the entrance to Coop, people stood there like idiots. It was like Monday to Saturday, to buy alcohol. You stood there and queued to Systemet just so you could sit home and drink. (Man, 35, Sales engineer)

Another respondent, on the other hand, explained that the impact was the other way around, with an earlier start rather than an early finish:

> The restriction about closing hours at bars was the most stupid (laughing). Really. Since the only thing that happened was that you, instead of going for an afterwork at five, you went there at three a clock instead, then you had the time to still drink until eight anyway. (Man, 45, Office Manager)

Discussion

The aim of this study was to explore, in-depth, individual motivations for adhering to, or not adhering to, COVID-19 public health recommendations in Sweden, and to assess how these motivations can be understood in relation to prosocial behaviour.

Infection reducing prosociality can be understood as a form of prosocial behaviour that entails making sacrifices – such as adjusting routines, foregoing personal comfort and potentially compromising own well-being – for the benefit of others and the society at large. Just like Jones and Linardi [13] argues about prosocial behaviour, the findings of this study indicate that the extent of prosocial contribution varies with individual motivations, social norms, personal characteristics and available resources.

Adherence was motivated by social pressure and a wish to be seen as prosocial. This aligns with findings by Jordan et al. [17] on the importance of being seen as prosocial in influencing attitudes towards recommendations. Respondents in this study were motivated to appear prosocial, adjusted their behaviour to align with perceived social norms, and refrained from meeting with people they believed to be more cautious. In some cases, the pressure to conform and the fear of social shaming were stronger motivators for adhering to recommendations than the fear of the virus itself.

Adherence was also motivated by a desire to return to normalcy. Individuals described making sacrifices, by adhering to recommendations, for the well-being of themselves, their families, and their friends. This partly aligns with the findings of Martela et al. [18] who suggest that during crises people tend to help friends and strangers alike, and that a sense of social identity and the emotional significance of feeling attached to a group are explanatory factors for prosocial behaviour. Tekin et al. [10] further describes a sense of societal "we-ness", but the results of this study suggest that this sense of "we-ness" does not refer to a broader societal unity, but rather to the respondents' closer circles.

Over time motivations to adhere decreased, partly due to a perceived decline in social pressure to adhere or to perform prosocial behaviours. This supports the findings of Jordan et al. [17], showing that while prosocial messages were initially effective in encouraging adherence during the first wave of the pandemic, their impact weakened as the pandemic progressed, with no measurable difference in adherence based on the type of messages used in a later set of studies. This suggests that sustaining IRP long-term can be challenging. Perhaps a sense of "we-ness" helped making prosocial messages effective during the first wave, but as the pandemic progressed, it is likely that, as Floyd et al. [20] have discussed, the perceived response cost of adherence started to influence levels of adherence, such as by outweighing the perceived benefits, at least if these benefits revolved around unknown others or the society at large. A better understanding of the underlying reasons for this decline in motivation would be an important direction for future research.

Non-adherence was linked to a sense of superiority and the belief that individuals could interpret and manage recommendations on their own terms. Some respondents described themselves as "street-smart", confident in their ability to judge which guidelines were worth adhering to. Additionally, the lack of penalties for non-adherence coupled with a desire to protect mental well-being were key motivators to disregard recommendations. To the authors' knowledge, this aspect of non-adherence as a strategy for mental health preservation has not been widely explored, possibly due to variations in enforcement across different countries.

Bargaining was another key factor involved in non-adherence, with respondents explaining how they selectively followed some recommendations while disregarding others. This supports the findings of Andersson et al. [16] showing that compliance varied across recommendations, arguing that adherence is influenced by how a recommendation aligns with an individual´s core values. They argue that the potential gains offered by adherence are weighed against the perceived likelihood and severity of harm for non-adherence [16]. This study supports these claims, adding that non-adherence also varies based on alignment of recommendations with individual values, and that respondents also weighed the benefits of non-adherence (e.g. improved mental well-being through social connections) against the likelihood and severity of harm from adherence (e.g. isolation or decreased mental well-being). In many cases, the desire to preserve mental health through social interaction outweighed the fear of social shaming.

This is in line with Hyun-soo et al. [25], who argue that the pandemic has negatively affected individual well-being by diminishing social integration. The fear of being judged or shamed, also resonates with Erlandsson [12], who suggests that IRP may be driven by both altruistic motives (e.g. preventing harm to others) and short-term egoistic motives (e.g. to avoid social shaming). The fear of social shaming for non-compliance was mitigated when individuals broke recommendations within closed groups or safe spaces. Jordan et al. [17] and Tekin et al. [10] highlight that people strive to avoid appearing selfish in the eyes of others and are highly sensitive to social norms, and this study extends these claims by suggesting that social desirability may explain non-adherence within like-minded groups in "safe spaces", where individuals feel less exposed to judgement.

In sum, this study lends support to Jones and Linardi [13] claiming that individuals are highly sensitive to social norms, and arguing that a positive relationship exists between visibility and prosocial behaviour. The findings of this study adds that this positive relationship extends to include the opposite, i.e. acts that are not deemed prosocial by society, are performed in the shadows. Some implications can be drawn from this. When people conceal their non-compliance to recommendations, assessing the true extent of adherence becomes problematic. First of all, it might lead to assumptions that most people in society are adhering to the recommendations, giving rise to a false sense of security. Arguably, this risk leading way for increased free-riding behaviours, as perceived consequences of non-adherence, such as the risk of viral transmission, could be thought of as marginal.

Finally, it is important to clarify that IRP is, to some extent, inherently contradictory, as it may involve reducing other forms of prosocial behaviour, such as visiting elderly individuals who may feel isolated. Adhering to recommendations thus involves not only a conflict between personal and public interests, but also a tension between competing moral values and obligations.

Implications

The Swedish approach to the COVID-19 pandemic, which focused on appealing to citizens' prosociality, and on voluntary adherence to health guidelines, carried significant risks and uncertainties. However, this does not automatically imply that Sweden's strategy was less effective in the long term compared to a lockdown-based approach.

Assessing the direct consequences of Sweden's strategy compared to stricter lockdown measures remains challenging. While Sweden's approach carried inherent risks – such as uneven adherence to guidelines, with some individuals fully complying, others disregarding them, and yet others adopting a mixed approach – this variability does not necessarily indicate that the outcome would have been worse than that of a lockdown-based strategy. Pizzato et al. [26] estimated age-standardised excess mortality across Europe, finding rates ranging from 1.8 per 10,000 population in Sweden to 24.7 in Bulgaria during 2020–2023. Notably, Sweden had the lowest age-standardised excess mortality rate among all Nordic countries, suggesting that its strategy may have effectively mitigated mortality in the longer term, despite the associated uncertainties involved.

Limitations and future directions

Credibility involves accurately identifying and describing research participants and evaluating the chosen methods and procedures [27]. In this study, the research process has been outlined to allow readers to follow the analytical decisions. The findings were also confirmed with the involved respondents, who had the opportunity to provide feedback before the report's completion. However, data collection occurred roughly 2 years after the pandemic's onset, which could affect respondents' recall of their motivations, and thereby the dependability. Bias may also influence responses due to the sensitive interview content regarding adherence to social norms.

Transferability, a form of external validity, pertains to the potential for findings to be applied to other settings or groups [24]. Descriptions of the selection process, participant characteristics, data collection and the analytical process are provided to assist readers in making judgements about transferability.

Policymakers should consider how public health recommendations influence social norms and, in turn, impact adherence. It is equally important to focus on sustaining adherence over time, particularly when individuals must forego personal well-being for the greater good, and in the absence of legal consequences for non-compliance. Additionally, prosocial appeals such as "We are all in this together" merit closer evaluation to determine whether they effectively foster unity and encourage adherence, or if they inadvertently lead to social shaming that undermines compliance.

Several key questions remain unresolved, including the effectiveness of public health recommendations in reducing viral spread and strategies for enhancing adherence in the absence of legal consequences for non-compliance. Furthermore, the role of social shaming in influencing non-adherence – particularly within closed environments or groups – warrants further exploration. Future research could benefit from interviewing individuals about their experiences with social shaming in relation to public health guidelines.

Conclusion

The study highlights the complex dynamics of adherence and non-adherence to public health recommendations during the pandemic. Adherence was often motivated by social pressure and a desire to protect family and friends, requiring individuals to sacrifice personal comfort and adapt to new norms. However, non-adherence reflected a sense of autonomy, mental well-being preservation and creative negotiation with recommendations, often influenced by a perceived lack of consequences and fatigue over time. These findings underscore the nuanced interplay between societal norms, personal motivations and the effectiveness of public health strategies in fostering collective compliance.

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