

Facing the unvaccinated: emotions, stereotypes, and the desire for punishment during the COVID-19 Pandemic in Germany

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Crises like the COVID-19 pandemic bring along challenges for individuals and society. In the case of Germany, vaccination against COVID-19 was identified as the primary measure to overcome the pandemic. This put those individuals in the spotlight who did not decide for it. This paper aims to analyze how vaccinated people perceived the group of unvaccinated individuals and whether they wished to punish those who did not contribute to ending the pandemic by vaccination. For this purpose, an online survey was conducted in the spring of 2022. Two hundred eighty-five answered the questionnaire. As a result, many respondents tried to make the best of the pandemic, although many reported negative emotions. Stereotypes of unvaccinated individuals revealed prejudices. Data also demonstrate an attempt to reduce contact with unvaccinated individuals as far as possible and an openness to discrimination or a desire for punishment. Although data result from a relatively small study, they can provide an illustrative example that can stimulate considerations of possible consequences and to further research.

Keywords: COVID-19, perception, punitive attitudes, vaccination status

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The first COVID-19 cases occurred in Germany in spring 2020. Since then, about 37 million cases and 163 thousand deaths have been recorded (Our World in Data, 2023). Vaccination started in December 2020, at first only for prioritized groups. In June 2021, vaccines became available for everyone (BMG, 2022). During the vaccination campaign, a recurring narrative was that vaccination could end the pandemic (BMG, 2022a), and it would be a moral duty or an act of solidarity to take it (DW, 2020).

By January 2023, 76% had completed the initial vaccination protocol (Our World in Data, 2023). Politicians often were unsatisfied with the vaccination rate and tried many things to increase it. The logic was that a simple solution exists for problems caused by the pandemic. Hence, vaccination could protect from grief and suffering due to illness or death, and it was proclaimed to protect from other adverse consequences because lockdowns, physical distancing, etc., would become unnecessary. These were mentioned benefits. On the side of the costs, they were described as minor. Vaccines were proclaimed safe and effective (BMG, 2022b), even side-effect free (Lauterbach, 2021), free of costs for citizens – therefore, their only effort was to get the jab. Following this argumentation line, those who decided not to vaccinate were spotlighted. The focus shifted from the virus to a group.

Already in the early phase of the pandemic, the German government commissioned a study on how to increase the vaccination rate (Klüver et al., 2021). Suggested measures embraced positive incentives (e.g., to regain freedom and fundamental rights via the green passport) and negative sanctions, such as excluding the unvaccinated from social life as far as possible.

In order to motivate (hesitant) individuals to get vaccinated, various strategies could be found. One attempt was to ensure easy access to vaccination by establishing vaccination centers or enlarging the professions allowed to administer the vaccination. Therefore, pharmacists (ABDA; 2022), dentists (Bundeszahnärztekammer, 2022), or even veterinarians (Bayerische Landestierärztekammer, 2022) could administer the vaccine. Above, vaccination was offered to be fun, e.g. by receiving a free sausage (ZEIT, 2021), a free doner kebab (Tagesspiegel, 2021), a free carousel ride (Bayerische Staatsregierung, 2022) or free tickets for a soccer game (rnd, 2021), or a free ride with a luxury sedan to the vaccination center (rnd, 2021). Further, unvaccinated individuals were excluded from social life, and one lockdown was mainly addressed (documented by the COVID-stringency index, Mathieu et al., 2022). Besides, unvaccinated individuals were criticized or berated in public communication, e.g., they were called “COVIDiots” (Klaue, 2021), tyrants (Menke, 2021), or social varmint (Stephan, 2021). As the number of individuals with vaccination hesitancy could not be sufficiently reduced, the German government tried to enact a law on general mandatory vaccination in April 2022. However, this attempt failed because it did not receive the necessary votes in the German Bundestag. Thus, society had to accept that not everybody decided to vaccinate against COVID-19.

Emotional responses to the Pandemic

Ventriglio and colleagues (2020) describe stages individuals or social systems could pass through in crises. The first emotional response is fear, possibly stimulating stereotypes and promoting conspiracy theories (Chayinska et al., 2021). The pandemic raises anxiety or panic if individuals

realize their vulnerability. Some individuals try to regain control through rebellious behavior, also against measures enacted by the government. Anxieties and panic can transform into anger. If individuals were forced to stay home, e.g., during lockdown phases, anger could turn on them (e.g., depression, substance abuse) or hit their environment (e.g., domestic abuse or violence). These theoretical considerations emphasize that emotions can result from various causes, referring to personal concerns or environmental factors. Further, various emotional responses could occur, changing over time.

Several studies identified emotional responses to the COVID-19 pandemic. For example, Johnson and colleagues (2020) explored emotions and concerns in Argentina during the first stage of the pandemic. Respondents felt uncertainty, fear, and anguish. A study by Losada Diaz and colleagues (2020) in Spain, in which 1,823 took part, mainly revealed negative emotions, such as sadness (52%), anxiety (44%), fear (42%), and anger (20%). Positive facets, such as trust (24%) or pride (8%), were less frequent. Data from a US American study showed partly higher levels of fear (Sloan et al., 2021): 78% of the 990 respondents were worried about being exposed to the virus, 76% of falling ill of the virus, 72% of becoming seriously ill, and 61% of dying from the virus (“personal fear”). 62% worried about family members and 46% about friends (“altruistic fear”).

Stereotypes of unvaccinated people

This group would receive special attention if public communication identified unvaccinated individuals as the reason for the ongoing pandemic. The public discourse was also likely to produce assumptions of why this group had not decided on vaccination yet, and stereotypes or prejudices could originate from that.

A large study by Bor and colleagues (2022) analyzed antipathy between vaccinated and unvaccinated citizens in 21 countries (10,740 respondents). Unvaccinated individuals were stereotyped as untrustworthy and unintelligent – or failing to contribute to the collective good of epidemic control. Their analysis showed that “vaccinated people have high antipathy towards the unvaccinated, 2.5 times more than towards a traditional target: immigrants from the Middle East” (Bor et al., 2022, p. 1). However, also vaccinated were considered to be “untrustworthy for supporting authorities that they (the unvaccinated) deeply distrust (...) or to be incompetent for having exaggerated views about the risks associated with COVID-19.” Hence, diverging stereotypes were detected on both sides. Such stereotypes could also result in an intention to respond to the “deviant” behavior of the respective group.

Punitive attitudes toward unvaccinated individuals

Experiments by Claudy and colleagues (2022) demonstrated that people tended to attribute greater personal responsibility if individuals fall ill from COVID-19 who were not vaccinated. They responded with less sympathy and willingness to help. Instead, they experienced anger and developed the wish to punish them. Henkel and colleagues (2021) also explained punitive attitudes by the vaccination status. A study by Peng (2022) highlighted specific ideological components in shaping attitudes and showed that left-wing authoritarianism significantly predicted a stronger wish to punish unvaccinated individuals.

The present study

The present study represents a case study on emotions, stereotypes, and the desire for punishment during the COVID-19 pandemic in Germany. This paper follows this line of argument and is interested in emotions, stereotypes, and punitive attitudes during COVID-19. Thereby, it focuses on the perspective of vaccinated individuals, and it aims to answer the following research questions: (i) How did they feel during the

pandemic in general? (ii) How was their emotional response to the behavior of others, which they assessed to lack solidarity? (iii) Which stereotypes of unvaccinated individuals did they share? (iv) How did they respond to unvaccinated individuals? Did they have a desire to punish them?

Method

Participants

285 individuals answered the questionnaire. 29% were male, 69.5% were female, and 1.5% were divers. The educational level was high, with 71% of students. Nearly one-fourth were 24% employed. Most respondents were 20-29 years (65%), 12% were 30-39 years, another 13% were 40 years and older, and 8% were 19 or younger.

87% were vaccinated against COVID-19 – most of them three times. 13% were unvaccinated. Forty-three individuals feared the vaccination; twenty-two got vaccinated, and twenty-one hesitated. 18% said they would not have gotten vaccinated if it had been just up to them. Ninety-one individuals already had COVID-19.

Instruments

The questionnaire consisted of questions on information needs and used sources for information, wishes about and satisfaction with handling the crises, trust in politicians, scientists, and institutions, and attitudes towards vaccination and unvaccinated people, including punitive attitudes. All items of that part were self-constructed. Above, the questionnaire included scales on anomie (Fischer & Kohr., 2004), authoritarianism (Beierlein et al., 2014), political cynicism (Aichholzer & Kritzing, 2016), interpersonal trust (Beierlein et al., 2012) and readiness to take a risk (Beierlein et al., 2015). Finally, some items about my own experiences with the COVID-19 disease and vaccination and sociodemographic variables were added.

There were no obligatory questions. The respondent was free to answer or to proceed to the next block. This option was also offered because of the length of the questionnaire. Answering all questions took between 20 and 30 minutes.

Procedure

Data were collected via an online survey from 02/23/2022 until 04/30/2022 to answer the above questions. The questionnaire was mainly distributed by snowball sampling among students.

Statistical Analysis

Data were analyzed by using SPSS 27. At first, some descriptive results will be presented. With one exemption, only answers and hence the perspective of vaccinated individuals (n = 198) are described. Estimating parameters with robust standard errors analyzes whether emotions and stereotypes might explain punitive attitudes. For this purpose, items were summarized if statistically reasonable (see Table 5 in the appendix).

Results

Emotions

The questionnaire included various items on emotions. One block referred to how an individual felt during the pandemic in general. Another block addressed emotions referring to COVID-19. The third block was about emotional responses to the behavior of fellows that was assessed to lack solidarity.

The data reveal that most individuals feared the health of their family or friends (80%, see Table 1). Hence, altruistic fear was more prevalent in our sample than in the study by Sloan and colleagues (2021). Over half of the respondents feared falling ill from COVID-19 and one-fifth feared death. A noticeable number feared social isolation (43%) and suffered

from loneliness (49%). About 58% felt depressed, 47% helpless, and 45% unable to cope. Nearly 34% felt angry. Few feared discrimination (15%) or reported it (10%). Some results reflected the high number of students among the respondents, e.g., the relatively low number of those afraid to lose a job (13%) or their livelihood (18%). At the same time, a vast majority tried to make the best of the pandemic (81%), and nearly 19% said they felt good.

Although the majority tried to make the best of the

situation, the number of those, who felt depressed, lonely, unable to cope, and helpless, was noticeably high – and comparable to other studies.

Further, respondents were asked about their emotions; if they observed other people's behavior, they would feel as lacking solidarity. Most frequently, individuals would react with a lack of understanding and anger, followed by rage and shame. Only a minority would tolerate it or feel sympathy (see Table 2).

Table 1. Emotions during the pandemic (vaccinated N = 188), %, mean, SD

<i>How did you feel during the pandemic?</i>		Agreement	Mean	SD
1	I was afraid to get COVID-19.	52.1	3.30	1.278
2	I was afraid of death.	20.2	2.20	1.321
3	I was afraid of the vaccination.	11.7	1.85	1.109
4	I was afraid of social isolation.	43.1	2.84	1.497
5	I was afraid of discrimination.	14.9	1.79	1.256
6	I was afraid to lose my job.	13.3	1.70	1.188
7	I was afraid of a loss of my livelihood.	12.7	1.70	1.205
8	I feared financial problems.	29.3	2.38	1.467
9	I feared my family or friends would fall ill of COVID-19.	80.3	4.11	1.148
10	I suffered from loneliness.	49.2	3.12	1.418
11	I felt unable to cope.	44.9	3.04	1.406
12	I felt helpless.	47.0	3.11	1.385
13	I felt depressed.	58.3	3.42	1.327
14	I felt incapacitated.	26.9	2.42	1.405
15	I felt angry.	33.9	2.69	1.391
16	I felt good.	18.9	2.57	1.080
17	I tried to make the best of it.	80.7	4.16	.905
18	I felt to be part of a minority.	8.1	1.58	1.064
19	I experienced discrimination.	9.6	1.54	1.099
20	I felt to be part of the majority.	58.6	3.47	1.337

1: strongly disagree; 5: strongly agree; "agreement" represents % of values 4 and 5.

Table 2. Emotional responses to non-conforming behavior during the pandemic (vaccinated N = 197), %, mean, SD

<i>If you thought about behavior which you assessed to lack solidarity: what would you feel?</i>		Agreement	mean	SD
1	tolerance	15.7	2.31	1.155
2	sympathy	12.6	2.20	1.120
3	indifference	25.8	2.62	1.248
4	anger	62.7	3.62	1.223
5	rage	47.4	3.18	1.413
6	hate	21.8	2.31	1.348
7	lack of understanding	70.6	3.89	1.175
8	envy	9.6	1.57	1.157
9	shame	44.0	3.08	1.403

Table 3. Assumed reasons for vaccination hesitancy – %, mean, SD

<i>"Why are people vaccine hesitant? How prevalent are the following reasons?"</i>		vaccinated (n = 197/198)			Unvaccinated (n = 31)		
		agree	mean	SD	agree	mean	SD
<i>I think they decided against vaccination because they...</i>							
1	distrust politics.	78.3	4.04	.776	93.5	4.32	.702
2	are "Querdenker."	41.9	3.24	1.100	9.7	2.35	.985
3	are illiterate.	33.5	2.87	1.151	0	1.45	.675
4	are overanxious.	51.5	3.27	1.208	16.1	2.35	1.142
5	do not care for facts.	59.4	3.55	1.231	12.9	2.06	1.263
6	are afraid of side effects.	82.8	4.12	.910	96.8	4.48	.570
7	are skeptical about the vaccine efficacy.	81.3	4.11	.931	90.3	4.45	.675
8	wait for a "conventional" vaccine.	31.2	2.91	1.116	29.0	3.13	1.056
9	rely on (new) drugs against severe courses of COVID-19.	17.3	2.37	1.116	19.4	2.55	1.207
10	rely on naturopathy, homoeopathy.	33.9	2.85	1.133	19.4	2.71	1.039
11	are too careless.	32.0	2.86	1.200	6.5	1.74	.930
12	are just too lazy.	28.3	2.65	1.240	3.2	1.35	.709
13	are utterly egoistic.	43.5	3.10	1.358	0	1.35	.661
14	do not care for other people.	27.8	2.74	1.282	0	1.26	.514
15	get advice from the wrong people.	65.9	3.74	1.192	6.5	1.90	1.012
16	know more than other people.	4.5	1.62	.926	32.3	2.71	1.346
17	critically question everything.	20.3	2.39	1.209	80.7	4.23	.956
18	made bad experiences with vaccination in the past.	20.7	2.49	1.134	42.0	3.23	.956
19	perceive more risks than benefits for themselves.	67.1	3.76	1.217	100	4.74	.445

1: nearly none, 5: nearly all of them; "agreement" represents % of values 4 and 5.

Table 4. Acceptance of arguments against vaccination – %, mean, SD (vaccinated, n = 198)

	<i>An individual does not decide for vaccination. Which reasons could you accept?</i>	Acceptance	Mean	SD
1	The risks of COVID-19 vaccines are too great.	31.8	2.90	1.230
2	Long-term effects of COVID-19 vaccines haven't been studied yet.	41.4	2.97	1.407
3	Tests for the approval studies were insufficient.	26.4	2.48	1.354
4	I would like to get vaccinated, but with a vaccine that has not been approved yet in Germany, like Sputnik V (RUS) or CoronaVac (China).	15.7	2.08	1.300
5	The vaccines do not prevent transmission.	31.8	2.59	1.396
6	The vaccines do not prevent to fall ill of COVID-19.	28.8	2.51	1.424
7	The vaccines cannot end the pandemic.	13.7	2.01	1.273
8	I tolerated another vaccination badly.	45.0	3.25	1.199
9	I have a doctor's certificate that I should not get vaccinated.	68.2	3.89	1.323
10	My religious conviction forbids this vaccination.	19.2	2.30	1.289
11	I believe the COVID-19 virus does not exist.	4.5	1.25	.835
12	I think the COVID-19 disease is not so severe.	9.6	1.68	1.129
13	I think it is sufficient if other people get vaccinated.	4.5	1.35	.882

1: I do not accept it at all; 5: I fully accept it; "acceptance" represents % of values 4 and 5.

Stereotypes

Stereotypes or prejudices aimed at cognitive and social competencies, personality, and attributed attitudes (see Table 3). The vaccinated individuals assumed most reasons for vaccination hesitancy were related to the vaccines: fear of side effects (82%) or skepticism about their efficacies (81%). Two third believed hesitant people had not decided on vaccination because of their risk-benefit assessment. Other attributed reasons were distrust in politics (78%) or advice from "wrong" people (66%). Most believed unvaccinated individuals would be overanxious (52%) or ignore facts (60%). Almost 42% thought most would be "Querdenker"¹ or utterly egoistic (44%). One-third were sure about their missing intellectual competencies. Fewer explained vaccination hesitancy by other reasons, such as waiting for a conventional vaccine (31%), trust in other drugs (17%), or side effects of other vaccines in the past (21%).

At this point, a brief comparison with responses of unvaccinated individuals could highlight the polarization of stereotypes. As the number of this subgroup is minimal, the results need to be taken with great caution, however.² Unvaccinated individuals explained vaccination hesitancy mainly by risk-benefit-assessments (100%), skepticism about vaccine efficacy (90%) and fear of side effects (97%), or poor tolerance of other vaccines (42%). Above, hesitancy was ascribed to political distrust (94%). As expected, negatively connoted attributions, such as low intellectual level, Querdenker, and egoism, were rarely given as reasons; instead, they often referred to critical literacy (81%).

Dealing with unvaccinated individuals, discrimination, and punishment

Nearly one-third of the vaccinated respondents declared that society must be protected against unvaccinated individuals. They also declared they would try to avoid meeting others who were not vaccinated as far as possible (45.7%). Further, 20.1% thought those who did not decide to vaccinate should be punished (concrete wishes for punishment see Table

5). About one-half was for equal treatment of vaccinated and unvaccinated individuals. The other half supported some form of discrimination or punishment. Most respondents were in favor of travel bans (54%), high fines (50%), losing coverage of health costs in case of COVID-19 illness (31%), or financial withholding. 11% endorsed that only vaccinated individuals should be allowed to work. Nearly no one supported imprisonment or forced vaccination. 17% would not feel pity if an unvaccinated individual died of COVID-19.

Finally, we question whether stereotypes and emotions could explain these punitive attitudes. To do so, indices were used. The dependent variable is punitiveness. It summarizes all items referring to punishment (see Table 7), Cronbach's $\alpha = .91$). The predictors for Emotions were: (i) positive feelings during the pandemic: Spearman-Brown = .47; negative feelings during the pandemic, Cronbach's $\alpha = .88$; the feeling of exclusion, Cronbach's $\alpha = .77$; fear of the virus, Cronbach's $\alpha = .68$; fear of the pandemic's consequences, Cronbach's $\alpha = .69$. The predictors for stereotypes of unvaccinated individuals were perception of medical reasons, Cronbach's $\alpha = .65$ and perception of other reasons, Cronbach's $\alpha = .73$.

The result of a correlation analysis of the independent variables is displayed in Table 7. Variance inflation factor (VIF) was used to detect multicollinearity. VIF ranged between 1.1 to 1.7, clearly below recommended values of 10 or even 4 (O'Brien, 2007).

Estimating parameters with robust standard errors shows that the following constructs explain punitive attitudes to some extent ($R^2 .51$; see table 8): As to this analysis, general emotions people experienced during the pandemic did not explain punitive attitudes. Instead, the concrete emotion of fear addressed to the virus and existing stereotypes of unvaccinated individuals explain punitive attitudes. The stronger fear of the virus and the assumption of nonmedical reasons for vaccination hesitancy are, the more distinct are punitive wishes.

¹ "Querdenker" could be interpreted as thinking different. Some years ago, this term was positively connoted. For example, the German Society for Internal Medicine had awarded a "Querdenker"-prize for creative and innovative ideas in health care. As the interpretation of "Querdenker" became mere negative, they renamed the prize (<https://idw-online.de/en/news763239>, accessed 06/18/2022). Nowadays, "Querdenker" mainly describes a "follower, sympathizer of the political Querdenker-movement, which is addressed particularly against government measures to contain the corona pandemic, against vaccinations, etc. (and also spreads conspiracy stories)." (<https://www.duden.de/rechtschreibung/Querdenker> (accessed 06/16/2022).

² Due to unequal variance and the huge difference in the number of the subgroups, it does not make much sense to check the data for significant differences.

Table 5. Punitive attitudes – %, mean, SD (vaccinated, n = 198)

<i>“There is much discussion on how to deal with unvaccinated people. What is your opinion about the following statements?”</i>		Acceptance	Mean	SD
<i>I would support that unvaccinated individuals...</i>				
1	have different limitations of fundamental rights than vaccinated or recovered individuals.	46.7	3.07	1.457
2	get no pay while they are in quarantine.	41.2	2.95	1.517
3	do not receive a COVID-19 bonus that is granted to their vaccinated colleagues.	50.2	3.24	1.532
4	have to pay for health costs in case of a COVID-19 illness by themselves.	30.8	2.62	1.512
5	have to pay higher health insurance contributions.	38.9	2.77	1.523
6	get no artificial respiration in case of limited oxygen resuscitation apparatus.	23.6	2.36	1.377
7	are not accepted on an ICU, if beds are limited, and die subsequently (“triage”).	23.7	2.37	1.389
8	are not allowed to travel abroad anymore.	53.7	3.34	1.489
9	are not allowed to vote in elections.	2.5	1.27	.664
10	do not receive unemployment payment anymore.	7.0	1.51	.989
11	are treated the same way as vaccinated people.	42.9	3.30	1.301
12	pay high fines (e.g., 2,500 Euro), if they were controlled and not able to show a vaccination certificate.	49.5	3.21	1.506
13	were dismissed if the employer demanded a vaccination pass.	29.8	2.65	1.391
14	are sent to prison if not willing to get vaccinated.	3.0	1.25	.733
15	get vaccinated against their will by force.	4.0	1.51	.933

1: strongly disagree; 5: strongly agree; “agreement” represents % of values 4 and 5.

Table 6. Items and factors used for the regression analysis

Dimension	Factor	Items	reliability
General emotions during the pandemic	Positive emotions	I felt good.	.47 ³
		I tried to make the best of it.	
	Negative emotions	I suffered from loneliness. I felt unable to cope. I felt helpless. I felt depressed. I felt incapacitated. I felt angry.	.88
General emotions with regard to raised fears	Feeling of exclusion	I felt to be part of a minority. I experienced discrimination. I felt <i>not</i> to be part of the majority.	.77
	Fear of virus	I was afraid to get COVID-19. I was afraid of death. I feared my family or friends would fall ill of COVID-19.	.68
	Fear of consequences of the pandemic	I was afraid of social isolation. I was afraid of discrimination. I was afraid to lose my job. I was afraid of a loss of my livelihood. I feared financial problems.	.69
Stereotypes	Medical reasons	are afraid of side effects are skeptical about the vaccine efficacy wait for a “conventional” vaccine rely on (new) drugs against severe courses of COVID-19 rely on naturopathy, homoeopathy made bad experiences with vaccination in the past perceive more risks than benefits for themselves	.65
	Other reasons	non-medical distrust politics are “Querdenker” are illiterate are overanxious do not care for facts are too careless are just too lazy are utterly egoistic do not care for other people get advice from the wrong people know more than other people critically question everything	.73
Punitive attitudes		All items of table 5 including occupational ban for all	.91

³ Spearman Brown coefficient.

Table 7. Correlations of independent variables

	Stereotype medical reasons	Stereotype other reasons	Positive emotions	Negative emotions	Feeling of exclusion	Fear virus	Fear consequences
Stereotype medical reasons	1						
Stereotype other reasons	,124	1					
Positive emotions	,080	,132	1				
Negative emotions	,086	-,029	-,341**	1			
Feeling exclusion	,121	-,457**	-,213**	,180*	1		
Fear virus	-,161*	,273**	-,025	,172*	-,373**	1	
Fear consequences	,017	-,195**	-,159*	,401**	,368**	,003	1

** . significant at .01 level, * . significant at .05 level

Table 8. Estimation of parameters with robust standard errors, dependent variable: punitiveness

	Regression coefficient b	Robust standard error	Standardized coefficient Beta	t	p
(Constant)	1,261	,482		2,616	,010
Positive emotions	,030	,060	,031	,492	,624
Negative emotions	,032	,048	,044	,664	,508
Feeling of exclusion	-,095	,059	-,120	-1,602	,111
Fear virus	,227	,054	,277	4,182	,000
Fear consequences	-,159	,061	-,170	-2,616	,010
Stereotype medical reasons	-,256	,077	-,198	-3,307	,001
Stereotype other reasons	,568	,091	,411	6,231	,000

a: HC3 method; R² .51.

Discussion

Data from our study disclose various emotional responses to the crises. The results are partly comparable and partly different from other studies. First of all, differences can be explained by the way of asking and including different foci of emotions in our study, resulting in a differentiated picture of emotional responses. Above, Johnson and colleagues (2020, p. 2447) conclude that emotional responses and their effects on mental health can differ “by gender, educational level, and perceived comfort in the home.” The results of our study are probably influenced by the specifics of the respondents on the one hand and German policies on the other hand. E.g., for younger individuals, social isolation could be more relevant as they were in a sensitive phase of establishing social networks. At the same time, they were probably less anxious about job loss.

Further, different social and health security systems, as well as policy measures enacted by the government, could explain some differences. For example, the German government provided considerable financial support during the pandemic. This could explain fewer fears compared to the US data, for example, to some extent.

Emotions influence the perception of crises, crisis communication, and management (Losada Diaz et al., 2020). Of course, it is also the other way round: crisis communication and management can influence perception, e.g., the severity of a threat, and cause emotional reactions. If fear was the primary emotional response, this could have positive and negative consequences. Fear can help individuals be cautious, seek relevant information, and protect themselves and their social environment. However, fear can also impair mental health. Swami and Gupta (2021) highlight the problem of fear-based messages, further amplified if people use social media for information. The authors describe possible consequences: “Many individuals suspected of COVID-19 or asymptomatic patients are expressing severe health anxiety or contemplating suicide due to fear of stigma and discrimination.” Others try to cope by hoarding “essentials.”⁴ The authors emphasize that an important factor is self-efficacy: If people were exposed to fear-based messages and experienced low self-efficacy simultaneously, this could lead to maladaptive behavior. In the case of the COVID-19 pandemic, self-efficacy was probably limited due to missing knowledge of how to protect oneself. In that respect, individuals might even rely more on the statements of politicians.

Sometimes, political communication is based on emotional framing. Emotion framing is “part of policy frames, media, political and communication strategies” (Verbalte et al., 2022, p. 8). It influences the perception and support of policies as well as measure compliance. Fear might be convenient for politicians because it leads to a higher acceptance of political decisions and civil liberty restrictions

(Vasilopoulos et al., 2022). However, a strategy using fear for political communication is risky. Uncertainty and fear can destabilize self, self-identity, and social cohesion (Abrams et al., 2020, p. 201). The authors argue, “In the face of the pandemic, initial national or global unity is prone to intergroup fractures and competition through which leaders can exploit uncertainties to gain short-term credibility, power, or influence for their groups, feeding polarization and extremism.” If people already fear the source of the threat, the virus, and political framing further uses this fear, it can be intensified. If the source is gradually shifting from a non-human source (virus) to a social group (unvaccinated individuals), this could bring along negative emotions addressed on them. At the same time, as stated above, some individuals try to escape fear through rebellious behavior that could amount to non-compliance with policy measures.

Subsequently, the interaction of fear, stigma, and discrimination must be considered. Our study revealed an interrelation between fear of the virus, missing fear of the social consequences of the pandemic, and an intention to punish unvaccinated people. However, also other groups can be stigmatized and discriminated against. For example, according to a study by Cassiani-Miranda and colleagues (2021, p. 728), about one-third of 1,687 Colombian adults are highly afraid of COVID-19. “Stigma-discrimination towards COVID-19 is frequent in the Colombian population and is associated with high levels of fear towards said [!] disease, mainly people who are not health workers.” Adom and colleagues (2021) stressed the problem of the stigma of people who had COVID-19 or work in health care in Ghana. Their qualitative study with 28 individuals on stigmatization and discrimination showed that COVID-19 victims “have faced various forms of stigma such as stereotyping, social exclusion, mockery, finger-pointing, and insults.” In turn, this reduces self-esteem and self-dignity and exacerbates social isolation. In the worst case, it could provoke suicidal motivations.

Further, racial prejudices and discrimination were aggravated during the COVID-19 pandemic, as demonstrated by Mandalaywala and colleagues (2021). The intensity of the threat can fortify racial outgroup prejudice and reduce willingness for cross-group interaction. These examples demonstrate that various groups could cause fear (fear of those who have/had COVID-19 or care for patients with COVID-19 who can transmit the virus). In some cases, this might be linked to the assumption that they had COVID-19 only because they did not take a vaccine. Then, unvaccinated individuals are at risk of becoming the scapegoat (Graso et al., 2022).

Facing unvaccinated individuals, various stereotypes seem to explain their vaccination hesitancy. While some attributions address medical concerns, others explain vaccination hesitancy by personality traits or prevailing negative attitudes. The results might present a fundamental attribution error. For the vaccinated respondents, only a

⁴ During the first lock down phase, the most important “essential” seem to have been loo paper in Germany. It was sold out quickly and then rationalized.

few medical reasons are acceptable for vaccination hesitancy. Stereotypes attributing other than medical reasons to vaccination hesitancy can contribute to punitive wishes. In the attempt to gain understanding or cope with crises, individuals might generate or share stereotypes. Stereotypes and negative emotions can lead to stigmatization, discrimination, and a desire for punishment. Kashima and colleagues (2021) describe potential cultural adaptations to prevalent pathogen threats. They accentuate that collectivism, characterized by in-group favoritism and outgroup avoidance and tightness, can induce conformity and the wish for severe punishment of norm violations.

Polarized stereotypes could reflect social fragmentation and mutual antipathy. Although the group of unvaccinated respondents is tiny in our study, looking at their answers showed significant differences, disclosing polarized stereotypes. These were found in the study by Bor and colleagues (2022) mentioned above. The authors warn of policies relying on framing vaccination as a moral obligation to increase uptake because this strategy could aggravate social problems, such as social fragmentation between vaccinated and unvaccinated people. For both groups, vaccinated and unvaccinated individuals, the psychosocial effects of the pandemic have become an additional burden (Cassiani-Miranda et al., 2021; Henkel et al., 2022). In June 2022, the media reported WHO data showing negative mental health development due to the pandemic. During the first year of the pandemic, an increase of 25% in mental health problems had been recorded. The WHO also points to the subsequent problem of stigmatization of mental health problems.⁵ If stigmatization was causing mental health problems and these provoked stigmatization, the problem would worsen.

Questions on discrimination and a desire for punishment showed very interesting results. They hint that part of the respondents are in favor of discrimination. Other studies confirm such tendencies. For example, Schuessler and colleagues (2022, p. 1) find “significantly (both statistically and substantively) higher support for restrictive policies when targeted exclusively toward the unvaccinated, which we interpret as support for unequal treatment of this group.” Facing the wish to punish non-conforming individuals, Lynch (2020) warns that COVID-19 should not create a new class of “criminals.”

From a psychological point of view, a desire for punishment can originate from revenge, “a magical solution to aggressive conflicts that reverberate on many levels” (Lafarge, 2006, p. 447). Motivations of

revenge will not produce a sustainable solution but perpetuate a problem. “One does not fall out of hate as readily as one falls out of love. Revenge pushes for action but is not satiated by it. The wish for revenge tends toward obsession, as the avenger, who consciously aims to dominate a painful situation, becomes dominated by his vengefulness” (Lafarge, 2006, p. 447).

Some individuals in our study are not only in favor of discrimination but also of social division. Nearly half of the respondents avoided contact with unvaccinated individuals, and one-third wished society to be protected against unvaccinated individuals. If parts of the social environment were perceived as a source of risk or even foes, this could have impacted psychological well-being and social cohesion. This resulted in social problems that could persist even after the pandemic.

Limitations

Due to some study limitations, the results can only inspire discussion or further research. First of all, the small number of respondents has to be considered. Further, there is a high number of students in the sample. Hence, the results reflect disproportionately the attitudes of younger and highly educated individuals.

The self-constructed questionnaire had strengths and weaknesses. For example, asking individuals about their general emotional states and affective responses to concrete issues makes sense. An assessment of the relevance of emotional responses for mental health, health behavior, or for society and politics should also consider whether they are general emotions or concrete emotional responses to something or someone. Effects on communication and behavior were largely omitted from the questionnaire due to its length. Thus, we needed to refer to other studies for possible conclusions. The questionnaire length could have been improved, as it affected the small number of participants. The low Spearman-Brown coefficient of the generally positive feelings shows that adding different positive emotions might have been helpful. Moreover, the list of emotions could be completed by revenge. The estimation of parameters with robust standard errors provided some ideas for discussion. In light of R^2 adj. of .51, however, it is evident that other relevant factors are missing.

Nevertheless, this paper contributed some impulses for further research on emotions, stereotypes, and a desire for punishment during health crises.

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⁵ <https://www.tagesschau.de/ausland/europa/who-corona-anstiege-psychische-krankheiten-101.html> (accessed 06/17/2022).

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