

# Embitterment in the General Population after Nine Months of COVID-19 Pandemic

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Dear Editor,

As recently pointed out by Linden and Arnold [1] in *Psychotherapy and Psychosomatics*, embitterment can occur as a reaction to perceived injustice or critical life events [1, 2]. During the COVID-19 pandemic, along with the restrictions imposed on people's daily lives due to infection risk management, a range of many smaller or severe injustices have occurred. Beside the often-discussed increased rates of general mental health load during the pandemic [3–5], embitterment should be taken into consideration. We investigated how frequently embitterment is occurring during the COVID-19 pandemic. We conducted an online survey involving the general population in November and December 2020, i.e., the phase during which a second lockdown took place with shops, restaurants and cultural and activity sites having to remain closed.

A total of 3,208 people participated. They were asked first to report if they had experienced burdens so far during the pandemic, and if so, which ones. A selection of 13 COVID-19-related events was given, e.g., having had a COVID-19 infection, having lost one's job, having lost a person close to one, suffering from having to maintain social distance, or having experienced a breakdown of medical treatments. The participants then provided a self-rating of their current well-being (WHO-5 [6]) and level of embitterment (PTED scale [7]). The instruction for filling in the embitterment scale was as follows: "In the

past few months, I've had to deal with a life event, which made me ..." followed by 19 items ("...feel embittered..."), mood, thoughts of revenge, etc.

Participants had a mean age of 47.5 years (SD 13.6; range 14–92) and 55% were female. Half of them had a college or university diploma (54.3%), 39.9% had finished an apprenticeship, and 5.8% had no professional qualification. Most (69.3%) were married or in a relationship. Previous treatment for mental illness was reported by 29.9%; this is similar to the general epidemiology of mental disorders, which is constantly at about 30% [8]. It was reported by 2% of the participants that they had had a coronavirus infection and 80% said that they experienced relevant burdens during the pandemic.

A high degree of embitterment (score  $\geq 2.5$  on the PTED scale [7]; range 0–4) occurred in 16% of the sample. There were more people with embitterment (E: 9.5% of the total sample) than with embitterment and mental illness (EM: 6.17%); 60.87% reported no mental illness and no embitterment (NN) and 23.4% had mental illness but no embitterment (M). Embitterment was only weakly correlated with unspecific mental well-being ( $r = -0.258^{**}$ ). The embittered individuals reported a higher number of social and economic burdens than those without embitterment (e.g., job loss; E: 6%, EM: 12% vs. NN: 3%, M: 6%).

The occurrence of embitterment of 16% during the pandemic is quite a high rate in comparison with 3% in

pre-pandemic times in the same region [9]. When looking into the literature, we found that embitterment has already been brought into the discussion in the context of the coronavirus pandemic [10], and also that increased rates of embitterment of up to 15–45% may occur in contexts of critical life events [1]. Our research reports the first empirical data on embitterment occurring concurrently with events happening during the COVID-19 pandemic.

One possible reason for this increased rate of embitterment is that critical events and injustices may have happened more often than usual during the pandemic, or else that people have perceived the ongoing and fast-changing conditions during the pandemic with increasing anger. Embitterment is one of the few mental health conditions that occurs in an event-related manner [2]. It can be triggered in healthy persons by events of injustice [2]. Embitterment is distinguishable from general mental disorders. The economic and social consequences of pandemic management should be carefully recognized and prevented by policy.

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## Conflict of Interest Statement

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## Author Contributions

B.M. provided the research question and study design and analyzed the data and wrote the manuscript. A.S. and C.V. collected the data and contributed to data analysis.