

## Review

# Embitterment during the COVID-19 Pandemic in Reaction to Injustice, Humiliation, and Breach of Trust

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**Abstract:** The COVID-19 pandemic has not only had an impact on the health of many people, but also on politics, the economy, and everyday life at large. It has been shown that some people respond with anxiety and depression, which is not surprising. Another reaction in the context of COVID-19 is embittered fights and disruptions between family members, friends, and neighbors, but also problems on a societal and political level, mutual public insults, political demonstrations, and even aggressive outbursts with a high number of participants. This calls for a separate explanation. One trigger may be embitterment, an emotion known to anybody in reaction to injustice, humiliation, and breach of trust, in association with helplessness. It comes along with a nagging desire to fight back and is usually accompanied by aggressive fantasies and combatively impulses towards the wrongdoer. This emotion also spreads indiscriminately to other people and the world. There are few initial studies which show that there is a significant increase in the rate of embitterment during the COVID-19 pandemic. Increased embitterment was related to financial losses, concern about restricted societal freedom, job insecurity, oppositional attitudes, helplessness, dissatisfaction with life, and inclination to join anti-COVID-19 demonstrations. These findings suggest that it is important to foster resilience against stressors, be it because of the virus itself, restrictions in daily freedom, negative comments by other persons, or imbalanced press releases. Of importance is also to abstain from insulting comments towards people who do not follow the mainstream, to allow adjustment of rules to given situations, and to take people along by listening to their grievances, instead of leaving demonstrations on the street as the only method to voice concerns.

**Keywords:** embitterment; COVID; corona; injustice; humiliation; breach of trust



**Citation:** Linden, M.; Arnold, C.P.; Muschalla, B. Embitterment during the COVID-19 Pandemic in Reaction to Injustice, Humiliation, and Breach of Trust. *Psychiatry Int.* **2022**, *3*, 206–211. <https://doi.org/10.3390/psychiatryint3030016>

Academic Editor: Paolo Girardi

Received: 13 April 2022

Accepted: 24 June 2022

Published: 28 June 2022

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## 1. General Psychological Reactions to the COVID-19 Pandemic

The COVID-19 pandemic has a global impact on the health of many people, but also on politics, the economy, and everyday life at large. The possibility of a deadly infection with serious medical consequences is also a psychological threat and stressor. However, it is not only the virus itself which has been a problem during this pandemic, there have also been many restrictions in daily life for reasons of managing the impact of the COVID-19 pandemic in general and on the health sector in particular. These have impacted daily life in many ways. People were secluded and had to stay at home, businesses had to shut down, shops were closed, and employees lost their jobs.

Meanwhile, there are many data on the psychological consequences of the pandemic [1–9]. People had to adapt to the pending but also unknown dangers of the virus. Fear of infection seems to be positively correlated with stress, anxiety, and depression [10,11]. Special groups of the population such as healthcare workers in close proximity to the virus and at greater risk of infection and spreading the virus to others have been found to show a higher risk of anxiety, anxiety disorders, depression, and sleep disturbances [12–14].

In the general population the rate of depression was found to be higher than before the COVID-19 pandemic [15,16]. One major risk factor for psychological consequences discussed in the literature is worrying about the virus and its health risks [17,18].

Psychological stress can also be caused by political restrictions and limitations in daily life. Social distancing and isolation has been discussed as a risk factor for depression [19–21]. Consequently, increased levels of adjustment disorder symptoms have been reported [22], and even a special “COVID stress syndrome” been discussed, which summarizes fear of infection, fear of socio-economic impacts, and general traumatic stress symptoms such as intrusions [23]. Even posttraumatic stress disorders have been described [24]. All of these psychological reactions are understandable.

## 2. Aggressive and Embittered Reactions to the COVID-19 Pandemic

A phenomenon which is more difficult to understand and in need of explanation is aggressive actions in the context of the COVID-19 pandemic. Embittered fights and disruptions have been observed between family members, friends, and neighbors [25–27]. On a societal and political level, mutual insults, political demonstrations, and even aggressive outbursts have occurred with a high number of participants [28,29].

An explanation can be embitterment, an emotion known to anybody in reaction to injustice, humiliation, and breach of trust, in association with helplessness [30–32]. It frequently includes a nagging desire to fight back and is usually accompanied by aggressive fantasies and impulses towards the wrongdoer. This emotion and its consequences can then also spread indiscriminately to other people and the world [33]. When looking at the research on the political consequences of the COVID-19 pandemic, it is of interest that the emotion embitterment has hardly been recognized, in spite of the fact that there is much evidence that the political measures to fight COVID-19 have resulted in injustice, humiliation, and breach of trust [34–37].

Injustice is experienced when burdens are not spread equally across people, but when some have to carry more than others. Examples are that small boutiques with few customers a day had to close down, while big supermarkets with hundreds of costumers per hour could stay open. Restaurants, which invested money and time in the setup of tables, glass shields, and air filters systems had to close while public transport with cramped busses and trains stayed in operation.

Breach of trust is experienced if people realize that important persons and agencies are not reliable. Politicians made very apodictic promises on which they based multiple decisions and restrictions on, only to withdraw everything a couple of months or even days after, coming up with new truths. Data were presented by public agencies and interpreted with dire earnest, only to be forgotten sometime later. It was promised that the vaccination would save individuals and society; however, this was followed by infection breakthroughs, ever-increasing incidence rates, and calls for a fourth vaccination [38].

Humiliation is experienced if a person is belittled, insulted, and called names. People who dared to question the political decisions or had their own risk evaluation and did not accept vaccination were in private and in the press called to be unethical, irresponsible, and idiots.

This is all embedded in helplessness. People cannot circumvent political and legal provisions. They cannot raise their voice and make their standpoint heard. They cannot defend against downgrading. Given that little can be done as an individual and that restrictions have to be obeyed to not be legally punished, some people might feel being at the mercy of the situation.

In summary, the increase in embitterment and embitterment-related dysfunctional behavior on an individual and societal level must be expected for theoretical considerations, as discussed by De Souza and D’souza [39].

### 3. Studies on Embitterment during the COVID-19 Pandemic

There are a number of studies on embitterment in connection with the COVID-19 pandemic. Prior to the COVID-19 pandemic, a national online survey showed a prevalence rate of 2.5% to 3% of the general population for increased and clinically relevant levels of embitterment [40]. This survey was repeated over the course of the pandemic [8]. In total, 3208 people were included. Participants were given a choice of thirteen COVID-19-related events (e.g., having had a COVID-19 infection, having lost one's job) and were asked whether they experienced any of the listed burdens at the time of evaluation. Afterwards, participants filled in questionnaires in order to examine the current mental well-being status as well as embitterment level. Up to the time of investigation, 2% have had a coronavirus infection and 80% said that they perceived relevant burdens during the pandemic. In this 2020 investigation, the rate of high embitterment (score  $\geq 2.5$  on the PTED scale, ranging from 0–4 [41]) was significantly elevated to 16%. Embittered people reported a higher number of social and economic burdens than people without embitterment, e.g., job loss. It is interesting that embitterment was only weakly correlated ( $r = -0.258^{**}$ ) with unspecific mental well-being as measured with the WHO-5 scale [42]. This suggests that embitterment is an emotion to be discriminated from other forms of distress.

There is another study which screened for embitterment even in several consecutive waves [43,44]. In a serial cross-sectional online assessment, with adjustment by age, gender, and region, about 1000 participants were regularly asked to fill in several questionnaires, including the PTED scale. Across all participants, levels of embitterment increased between the summer and winter of 2020 and remained elevated in fall 2021. Results showed that the rate of people with relevant high scores of embitterment had increased between the summer and winter of 2020 by about 70%. This increase in clinically relevant cases of embitterment (summer 2020: 5.3%, winter 2020/fall 2021: 8.8%) can again be compared to significantly lower levels of embitterment prior to the pandemic [40]. Elevated embitterment levels were preferably found in age groups of 18- to 49-year-olds (11%) in contrast to 50- to 74-year-olds (6%). Increased embitterment was related to financial losses ( $r = 0.39$ ), concern about restricted societal freedom ( $r = 0.36$ ), job insecurity ( $r = 0.33$ ), reactance and oppositional attitudes ( $r = 0.33$ ), helplessness ( $r = 0.31$ ), dissatisfaction with life ( $r = -0.28$ ), and willingness to participate in anti-COVID-19 demonstrations ( $r = 0.26$ ).

Another research group found associations between embitterment, vaccination intention, and tendencies for conspiracy beliefs [45]. In a convenience sample of 281 individuals, it was found that embitterment went along with increased feelings of social exclusion, which is in line with earlier literature and theory. Embittered people generally indicated a higher intention to get vaccinated against COVID-19. However, embittered individuals holding conspiracy beliefs had a decreased vaccination intention. The relationship between embitterment and the tendency to hold conspiracy beliefs was reinforced by the notion of an unsatisfactory style of communication by the government.

A qualitative study in Korean frontline healthcare workers found that poor organizational support and poor collaboration with community health center workers aggravated the conditions of the frontline healthcare workers [46]. Lack of social recognition and employment instability also presented challenges for their mental health. Problems occurred with partly burnout and embitterment effects.

This narrative review found a limited number of studies which investigated embitterment during the COVID-19 pandemic. Future research is needed in order to explore a broader perspective. Of particular interest are the post-pandemic levels of embitterment and whether clinically relevant levels of embitterment remain or subside when COVID-19-related events of injustice, humiliation, and breach of trust disappear. Of importance is also how many of those with high embitterment were mentally ill even before the pandemic. In some cases, a psychiatric diagnosis may play a role in explaining aggressive actions. Future research should focus on these aspects.

#### 4. Conclusions

These results suggest that the COVID-19 pandemic by itself and the restrictions imposed due to the pandemic have major psychological and pathological consequences. One important overlooked emotion which is essential during this pandemic is embitterment. Embitterment has to be taken into account on an individual as well as a societal level. Individual small and big injustices, breach of trust, and humiliation associated with helplessness evoke embitterment. Embitterment can explain aggressive and dysfunctional behavior. Embitterment is an emotion which no longer asks for solutions but for compensation by revenge. It can explain “embittered” fights in the family and on the streets. Threats and restrictions caused by the pandemic are projected onto the government, politicians, and anybody who demand obedience to the rules. There are many examples in history which show how embitterment in reaction to injustices can not only have severely negative individual consequences, but can also political consequences [47,48]. This should be taken into account in the management of the COVID-19 pandemic. There are several recommendations which can be derived from our considerations, be it in individual encounters or on the societal level.

There is generally the question of how to increase resilience against stressors, be it because of the virus itself, restrictions in daily freedoms, or negative comments by other persons or imbalanced press releases. This may include the improvement of social networks or general skills of coping with adversities such as wisdom training [49,50].

Another recommendation is to stop belittling and insulting everybody who is not following the mainstream, is not politically correct, and resists demands on how to cope with COVID-19. Instead, it should be accepted that there are many cost–benefit calculations, that scientific results are never as apodictic and never the only truth, and that it is general scientific practice to doubt your own findings and to contrast every finding with the null-hypothesis. So instead of belittling, empathy may be a good choice. The proclamation of definite truths should be substituted by realistic and moderate discussions.

This acknowledgement of the dignity of opponents does not exclude clear and general political decisions and the imposition of rules. However, it should be recognized that general rules may be counterproductive or even nonsense in concrete situations. Wearing a mask on a train is sensible; however, being forced to wear a mask while being alone in the compartment is bullying. Rules should allow flexibility. Finally, rules must be valid for everybody in a comparable way and burdens be spread in a just manner.

Additionally, communication that divides people into the rule followers (e.g., those who became vaccinated) and non-followers (people who even based on facts criticize absolute rules or do not vaccinate) has side effects in that it enforces group separation, conflicts, social exclusion, and embitterment. People should be taken along by listening instead of leaving demonstrations on the street as the only method to voice concerns. Obviously, political communication is a skill. The bottom line is to avoid injustice, humiliation, and breach of trust.

**Funding:** This research received no external funding.

**Institutional Review Board Statement:** Not Applicable.

**Informed Consent Statement:** Not Applicable.

**Data Availability Statement:** Not Applicable.

**Conflicts of Interest:** The authors declare no conflict of interest.

## References

1. Feter, N.; Caputo, E.; Doring, I.; Leite, J.; Cassuriaga, J.; Reichert, F.; da Silva, M.C.; Coombes, J.S.; Rombaldi, A. Sharp increase in depression and anxiety among Brazilian adults during the COVID-19 pandemic: Findings from the PAMPA cohort. *Public Health* **2021**, *190*, 101–107. [\[CrossRef\]](#)
2. Lo Coco, G.; Gentile, A.; Bosnar, K.; Milovanović, I.; Bianco, A.; Drid, P.; Pišot, S. A cross-country examination on the fear of COVID-19 and the sense of loneliness during the first wave of COVID-19 outbreak. *Int. J. Environ. Res. Public Health* **2021**, *18*, 2586. [\[CrossRef\]](#)
3. Ravens-Sieberer, U.; Kaman, A.; Otto, C.; Adediji, A.; Napp, A.-K.; Becker, M.; Blanck-Stellmacher, U.; Löffler, C.; Schlack, R.; Hölling, H.; et al. Seelische Gesundheit und psychische Belastungen von Kindern und Jugendlichen in der ersten Welle der COVID-19-Pandemie—Ergebnisse der COPSy-Studie. *Bundesgesundheitsblatt-Gesundheitsforschung-Gesundheitsschutz* **2021**, *64*, 1512–1521. [\[CrossRef\]](#)
4. Rosenberg, M.; Luetke, M.; Hensel, D.; Kianersi, S.; Fu, T.-C.; Herbenick, D. Depression and loneliness during April 2020 COVID-19 restrictions in the United States, and their associations with frequency of social and sexual connections. *Soc. Psychiatry Psychiatr. Epidemiol.* **2021**, *56*, 1221–1232. [\[CrossRef\]](#)
5. Bendau, A.; Petzold, M.B.; Pyrkosch, L.; Mascarell Maricic, L.; Betzler, F.; Rogoll, J.; Große, J.; Ströhle, A.; Plag, J. Associations between COVID-19 related media consumption and symptoms of anxiety, depression and COVID-19 related fear in the general population in Germany. *Eur. Arch. Psychiatry Clin. Neurosci.* **2021**, *271*, 283–291. [\[CrossRef\]](#)
6. Tang, F.; Liang, J.; Zhang, H.; Kelifa, M.M.; He, Q.; Wang, P. COVID-19 related depression and anxiety among quarantined respondents. *Psychol. Health* **2021**, *36*, 164–178. [\[CrossRef\]](#)
7. Varma, P.; Junge, M.; Meaklim, H.; Jackson, M.L. Younger people are more vulnerable to stress, anxiety and depression during COVID-19 pandemic: A global cross-sectional survey. *Prog. Neuro-Psychopharmacol. Biol. Psychiatry* **2021**, *109*, 110236. [\[CrossRef\]](#)
8. Muschalla, B.; Vollborn, C.; Sondhof, A. Embitterment in the general population after nine months of COVID-19 pandemic. *Psychother. Psychosom.* **2021**, *90*, 215–216. [\[CrossRef\]](#)
9. Santabábara, J.; Lasheras, I.; Lipnicki, D.M.; Bueno-Notivol, J.; Pérez-Moreno, M.; López-Antón, R.; Gracia-García, P. Prevalence of anxiety in the COVID-19 pandemic: An updated meta-analysis of community-based studies. *Prog. Neuro-Psychopharmacol. Biol. Psychiatry* **2021**, *109*, 110207. [\[CrossRef\]](#)
10. Choi, E.P.H.; Hui, B.P.H.; Wan, E.Y.F. Depression and anxiety in Hong Kong during COVID-19. *Int. J. Environ. Res. Public Health* **2020**, *17*, 3740. [\[CrossRef\]](#)
11. Erbiçer, E.S.; Metin, A.; Çetinkaya, A.; Şen, S. The Relationship Between Fear of COVID-19 and Depression, Anxiety, and Stress. *Eur. Psychol.* **2022**, *26*, 323–333. [\[CrossRef\]](#)
12. Apisarnthanarak, A.; Apisarnthanarak, P.; Siripraparat, C.; Saengaram, P.; Leeprechanon, N.; Weber, D.J. Impact of anxiety and fear for COVID-19 toward infection control practices among Thai healthcare workers. *Infect. Control. Hosp. Epidemiol.* **2020**, *41*, 1093–1094. [\[CrossRef\]](#)
13. Marvaldi, M.; Mallet, J.; Dubertret, C.; Moro, M.R.; Guessoum, S.B. Anxiety, depression, trauma-related, and sleep disorders among healthcare workers during the COVID-19 pandemic: A systematic review and meta-analysis. *Neurosci. Biobehav. Rev.* **2021**, *126*, 252–264. [\[CrossRef\]](#)
14. Pappa, S.; Ntella, V.; Giannakas, T.; Giannakoulis, V.G.; Papoutsis, E.; Katsaounou, P. Prevalence of depression, anxiety, and insomnia among healthcare workers during the COVID-19 pandemic: A systematic review and meta-analysis. *Brain Behav. Immun.* **2020**, *88*, 901–907. [\[CrossRef\]](#)
15. Lakhan, R.; Agrawal, A.; Sharma, M. Prevalence of depression, anxiety, and stress during COVID-19 pandemic. *J. Neurosci. Rural. Pract.* **2020**, *11*, 519–525. [\[CrossRef\]](#)
16. Zhang, S.X.; Miller, S.O.; Xu, W.; Yin, A.; Chen, B.Z.; Delios, A.; Dong, R.K.; Chen, R.Z.; McIntyre, R.S.; Wan, X.; et al. Meta-analytic evidence of depression and anxiety in Eastern Europe during the COVID-19 pandemic. *Eur. J. Psychotraumatology* **2022**, *13*, 2000132. [\[CrossRef\]](#)
17. Bajaj, S.; Blair, K.S.; Schwartz, A.; Dobbertin, M.; Blair, R.J.R. Worry and insomnia as risk factors for depression during initial stages of COVID-19 pandemic in India. *PLoS ONE* **2020**, *15*, e0243527. [\[CrossRef\]](#)
18. Liu, C.H.; Erdei, C.; Mittal, L. Risk factors for depression, anxiety, and PTSD symptoms in perinatal women during the COVID-19 Pandemic. *Psychiatry Res.* **2021**, *295*, 11355. [\[CrossRef\]](#)
19. Kim, H.H.-S.; Jung, J.H. Social isolation and psychological distress during the COVID-19 pandemic: A cross-national analysis. *Gerontologist* **2021**, *61*, 103–113. [\[CrossRef\]](#)
20. Benke, C.; Autenrieth, L.K.; Asselmann, E.; Pané-Farré, C.A. Lockdown, quarantine measures, and social distancing: Associations with depression, anxiety and distress at the beginning of the COVID-19 pandemic among adults from Germany. *Psychiatry Res.* **2020**, *293*, 113462. [\[CrossRef\]](#)
21. Souza, A.S.R.; Souza, G.F.A.; Souza, G.A.; Cordeiro, A.L.N.; Praciano, G.A.F.; de Souza Alves, A.C.; Dos Santos, A.C.; Silva, J.R., Jr.; Souza, M.B.R. Factors associated with stress, anxiety, and depression during social distancing in Brazil. *Revista de Saúde Pública* **2021**, *55*, 5. [\[CrossRef\]](#)
22. Dragan, M.; Grajewski, P.; Shevlin, M. Adjustment disorder, traumatic stress, depression and anxiety in Poland during an early phase of the COVID-19 pandemic. *Eur. J. Psychotraumatology* **2021**, *12*, 1860356. [\[CrossRef\]](#)
23. Taylor, S. COVID stress syndrome: Clinical and nosological considerations. *Curr. Psychiatry Rep.* **2021**, *23*, 19. [\[CrossRef\]](#)



24. Carmassi, C.; Foghi, C.; Dell'Oste, V.; Cordone, A.; Bertelloni, C.A.; Bui, E.; Dell'Osso, L. PTSD symptoms in healthcare workers facing the three coronavirus outbreaks: What can we expect after the COVID-19 pandemic. *Psychiatry Res.* **2020**, *292*, 113312. [CrossRef]
25. Bradbury-Jones, C.; Isham, L. The pandemic paradox: The consequences of COVID-19 on domestic violence. *J. Clin. Nurs.* **2020**, *29*, 2047–2049. [CrossRef]
26. Lee, J.; Chin, M.; Sung, M. How has COVID-19 changed family life and well-being in Korea? *J. Comp. Fam. Stud.* **2020**, *51*, 301–313. [CrossRef]
27. Piquero, A.R.; Jennings, W.G.; Jemison, E.; Kaukinen, C.; Knaul, F.M. Domestic violence during the COVID-19 pandemic-Evidence from a systematic review and meta-analysis. *J. Crim. Justice* **2021**, *74*, 101806. [CrossRef]
28. Bloem, J.R.; Salemi, C. COVID-19 and conflict. *World Dev.* **2021**, *140*, 105294. [CrossRef]
29. Neumayer, E.; Pfaff, K.; Plümper, T. Protest Against COVID-19 Containment Policies in European Countries. *SSRN Electron. J.* **2021**, 3844989. [CrossRef]
30. Linden, M. *Verbitterung und Posttraumatische Verbitterungsstörung*, 1st ed.; Hogrefe Verlag: Göttingen, Germany, 2017; ISBN 978-3-8017-2822-9.
31. Linden, M.; Arnold, C.P. Embitterment and Posttraumatic Embitterment Disorder (PTED): An old, frequent, and still underrecognized problem. *Psychother. Psychosom.* **2021**, *90*, 73–80. [CrossRef]
32. Znoj, H. Embitterment—A larger perspective on a forgotten emotion. In *Embitterment*, 1st ed.; Linden, M., Maercker, A., Eds.; Springer-Verlag: Wien, Austria, 2011; pp. 5–16. ISBN 978-3-2119-9741-3.
33. Muschalla, B.; Lumma, L.; Linden, M. Induction of embitterment by information about historical relations between neighboring countries—an experimental study. *Prax. Klin. Verhalt. Und Rehabil.* **2021**, *116*, 53–62.
34. Buschmann-Steinhage, R.; Schmidt-Ohlemann, M. Corona-Pandemie und ihre Auswirkungen auf Menschen mit Behinderung. *Rehabilitation* **2022**, *61*, 10–13. [CrossRef]
35. Goecke, H.; Rusche, C. Corona-Schock für den Handel in deutschen Innenstädten. *IW-Trends-Vierteljahresschrift zur Empirischen Wirtschaftsforschung* **2021**, *48*, 25–44. [CrossRef]
36. Odunitan-Wayas, F.A.; Alaba, O.A.; Lambert, E.V. Food insecurity and social injustice: The plight of urban poor African immigrants in South Africa during the COVID-19 crisis. *Glob. Public Health* **2021**, *16*, 149–152. [CrossRef]
37. Shah, G.H.; Shankar, P.; Schwind, J.S.; Sittaramane, V. The detrimental impact of the COVID-19 crisis on health equity and social determinants of health. *J. Public Health Manag. Pract.* **2020**, *26*, 317–319. [CrossRef]
38. CDC. COVID-19 vaccine breakthrough infections reported to CDC—United States, January 1–April 30, 2021. *Morb. Mortal. Wkly. Rep.* **2021**, *70*, 792. [CrossRef]
39. De Souza, A.; D'souza, R. Embitterment: The Nature of the Construct and Critical Issues in the Light of COVID-19. *Healthcare* **2020**, *8*, 304. [CrossRef]
40. Muschalla, B.; Grove, H.; Morawietz, J. *Fähigkeiten, Arbeitsängste und Verbitterungserleben in der Allgemeinbevölkerung. Eine Zusammenstellung von Repräsentativdaten. Abschlussbericht zum Forschungsprojekt im Bereich der Rehabilitation*; Technische Universität Braunschweig, Psychotherapie und Diagnostik: Braunschweig, Germany, 2020. [CrossRef]
41. Linden, M.; Baumann, K.; Lieberei, B.; Rotter, M. The post-traumatic embitterment disorders self-rating scale (PTED scale). *Clin. Psychol. Psychother.* **2009**, *16*, 139–147. [CrossRef]
42. Topp, C.W.; Østergaard, S.D.; Søndergaard, S.; Bech, P. The WHO-5 wellbeing index: A systematic review of the literature. *Psychother. Psychosom.* **2015**, *84*, 167–176. [CrossRef]
43. Betsch, C.; Wieler, L.H.; Habersaat, K. Monitoring behavioural insights related to COVID-19. *Lancet* **2020**, *395*, 1255–1256. [CrossRef]
44. Betsch, C. COSMO. Ressourcen und Belastungen. Available online: <https://projekte.uni-erfurt.de/cosmo2020/web/topic/vertrauen-zufriedenheit-ressourcen/20-belastungen/#verbitterung-stand-16.11.21> (accessed on 7 April 2022).
45. Koroma, D.; Pestalozzi, M.I.; Znoj, H. How Social Exclusion, Embitterment, and Conspiracy Beliefs Mediate Individual's Intention to Vaccination against COVID-19: Results from a Moderated Serial Mediation Analysis. *Psychopathology* **2022**, *55*, 93–103. [CrossRef]
46. Kang, B.A.; Kwon, S.; You, M.; Lee, H. Perceived sources of occupational burn-out and embitterment among front-line health workers for COVID-19 control in Gyeonggi province, South Korea: A qualitative study. *Occup. Environ. Med.* **2022**, *79*, 245–252. [CrossRef]
47. Linden, M.; Maercker, A. *Embitterment: Societal, Psychological, and Clinical Perspectives*, 1st ed.; Springer-Verlag: Wien, Austria, 2011; ISBN 978-3-2119-9741-3.
48. Linden, M.; Rutkowski, K. *Hurting Memories and Beneficial Forgetting: Posttraumatic Stress Disorders, Biographical Developments, and Social Conflicts*, 1st ed.; Elsevier: London, UK, 2013; ISBN 978-0-323-28268-0.
49. Allan, J.F.; McKenna, J. Trajectories of Resilience in University Inductees following Outdoor Adventure (OA) Residential Programmes. *Psychiatry Int.* **2022**, *3*, 7. [CrossRef]
50. Linden, M. Promoting resilience and Well-being with wisdom and wisdom therapy. In *Increasing Well-Being in Clinical and Educational Setting*; Interventions and cultural context; Fava, G.A., Ruini, C., Eds.; Springer: Berlin/Heidelberg, Germany, 2014; pp. 75–90.