The different social stressors vilification, humiliation, and breach of trust lead to similar psychological consequences

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Abstract
Social stressors such as vilification, humiliation, or breach of trust are more frequent and more onerous than other burdens in life. The aim of the present study was to investigate whether these different social stressors cause different or similar psychological reactions. Data basis was an interview checklist, which therapists of a psychosomatic inpatient unit fill out routinely whenever they saw signs of aggressive ideations and/ or feelings of embitterment in their patients. The therapists also had to clarify and classify the type of the triggering event. In addition, the patients fill out the SCL-90-R (Symptom-Checklist-90), and the PTED self-rating scale (Posttraumatic Embitterment Disorder self rating scale). Out of 3300 patients 114 (3.5%) were identified suffering from severe embitterment due to a negative life event and 92 of these patients showed associated aggressive ideation. Triggers of aggressive ideations were personal vilification in 69.3%, breach of trust in 33.3%, and public humiliation in 28.1% of cases. Patients, who cited humiliation as triggering event had significantly higher PTED values and a higher probability for realization of aggressive ideations. Breach of trust as a triggering event was associated with living alone and employment, vilification solely with employment. There were no other significant differences for the three life events regarding sociodemographic patient characteristics, psychosomatic distress measured with SCL-90-R, embitterment, or aggressive ideation. However, significant correlations between feelings of embitterment and psychological stress as well as aggressive ideations were found. The data suggests that it is not so much the stressors per se that determine the extend of stress but rather the associated common experience of clinical relevant embitterment and injustice.

Keywords
Negative life events, social stressors, justice, embitterment, psychosomatic patients

Die verschiedenartigen sozialen Stressoren Herabwürdigung, Demütigung und Vertrauensbruch haben gleiche psychische Folgen

Zusammenfassung
Soziale Stressoren wie persönliche Herabwürdigung, öffentliche Demütigung oder Vertrauensbruch sind häufiger und oftmals belastender als andere Lebensbelastungen. Ziel der vorliegenden Studie war es zu untersuchen, ob diese verschiedenen sozialen Stressoren unterschiedliche oder ähnliche psychische Reaktionen hervorrufen. Datengrundlage ist eine Interviewcheckliste, die von den Therapeuten einer psychosomatischen Rehabilitationsklinik routinemäßig auszufüllen war, wenn sie bei einem Patienten Hinweise auf aggressive Fantasien und/ oder Verbitterungsgefühle sahen. Dabei wurde von den Therapeuten auch die Art des auslösenden Ereignisses erfasst und kategorisiert. Zusätzlich füllten die Patienten die SCL-90-R (Symptom-Checkliste-90) und den PTED Selbstbeurteilungsfragebogen (Post-Traumatic-Embitterment-Disorder Selbstbeurteilung) aus. Von 3300 Patienten klagten 114 (3.5%) über ein schwerwiegendes Verbitterungserleben im Kontext eines Lebensereignisses und 92 davon über damit verbundene Aggressionsfantasien. Als Trigger der Aggressionsfantasien benannten 69.3% der Betroffenen persönliche Herabwürdigung, 33.3% Vertrauensbruch und 28.1% öffentliche Demütigung. Patienten, die öffentliche Demütigung als auslösendes Lebensereignis angaben, hatten signifikant höhere PTED-Werte und es wurde eine höhere Realisierungswahrscheinlichkeit für die Umsetzung aggressiver Ideen angegeben. Vertrauensbruch gaben vorwiegend Alleinlebende und Erwerbstätige als auslösenden Stressor an, persönliche Herabwürdigung vorrangig Erwerbstätige. Ansonsten gab es keine signifikanten Unterschiede hinsichtlich der drei Lebensereignisse in Bezug auf Patientenmerkmale, psychosomatische Belastung gemessen mit der SCL-90-R, Verbitte-

rungsgefühle oder aggressive Fantasien. Es fanden sich signifikante korrelative Zusammenhänge zwischen Verbitterungsgefühlen und psychischer Belastung sowie aggressiven Fantasien. Die Daten sprechen dafür, dass die Art des sozialen Stressors nicht entscheidend für das Ausmaß der psychischen Belastung ist. Ein gemeinsamer Faktor der untersuchten drei Stressoren sind klinisch relevante Verbitterungsgefühle im Zusammenhang mit Ungerechtigkeitserleben.

Schlüsselwörter:
Negative Lebensereignisse, soziale Stressoren, Ungerechtigkeit, Verbitterung, psychosomatische Patienten

1 Introduction

There is a high interest in reactive and traumatic mental disorders, which has led to the reformulation of the new chapter on "Stress-related Disorders" in the ICD-11 (Keeley et al., 2016; Lorenz, 2015; Maercker et al., 2013). There are many studies on life threatening stressful events and posttraumatic stress disorder (PTSD) (Boals, Riggs, & Kraha, 2013; Cloitre, Garvert, Brewin, Bryant, & Maercker, 2013; First, Reed, Hyman, & Saxena, 2015; Forbes et al., 2015; Karatzias et al., 2017; Keeley et al., 2016; Maercker et al., 2013; O'Donnell et al., 2014; Palic et al., 2016; Spitzer et al., 2000; Stein et al., 2014). Social stressors such as personal vilification, public humiliation, or breach of trust and the resulting psychological stress do not fulfill the criteria of PTSD. However, they can also severely and lastingly impair well-being and social functioning (Linden, Baron, & Muschalla, 2009).

Personal vilification is disrespectful behavior towards others. Related terms are harassment, bullying, emotional abuse, workplace aggression, or relational victimization (Crawshaw, 2009; Hoobler, Rospenda, Lemmon, & Rosa, 2010; Wang, Bowling, Tian, Alarcon, & Kwan, 2018). This includes verbal aggression, disrespectful or exclusionary behavior, isolation/exclusion, threats or bribes, and even physical aggression (Hoobler et al., 2010, p. 436). This is an important topic, especially in industrial and organizational psychology (Hoobler et al., 2010; Wang et al., 2018). Vilification is also associated with a sense of injustice, revenge, and aggressive ideation (Branch, Ramsay, & Barker, 2013; Parzefall & Salin, 2010; Wang et al., 2018).

"Humiliation" describes the feeling that one has been treated in a way that exceeds the normal expectations for fair and equal human treatment (Coleman, Kugler, & Goldman, 2007). This is accompanied by a sense of inferiority. Trumbull (2008, p. 657) describes humiliation as a "traumatic emotional state triggered by the narcissistic injury of disrespect". Humiliation can lead to counter-aggression and violent behavior (Walker & Knauer, 2011). Humiliation is a hybrid emotion involving anger towards the offender and shame focused on oneself along with powerlessness (Coleman et al., 2007; Leidner, Sheikh, & Ginges, 2012). Shame leads to withdrawal and sometimes even suicidal tendencies (Hartling & Luchetta, 1999), while anger leads to a desire for revenge and aggressive ideation (Coleman et al., 2007; Leidner et al., 2012; Walker & Knauer, 2011). Humiliation in public is usually perceived as a burden (Walker & Knauer, 2011).

Breach of trust or betrayal occurs when a person's belief is violated that others should make sincere efforts to uphold commitments and do not take advantage of that person given the opportunity (Child & Rodrigues, 2004). "Trust is a necessary, yet fragile, part of human relationships" (Walker, Kutsyuruba, & Noonan, 2011, p. 473) and is an "essential element to social exchange, economic processes and organizational effectiveness" (Chen, Saparito, & Belkin, 2011, p. 85). Breach of trust was studied in schools, the workplace, psychotherapeutic relationship, and politics (social systems) (Child & Rodrigues, 2004; Grabois, 1997; Sztompka, 1998; Walker, Kutsyuruba, & Noonan, 2011). The literature has shown that *trust* leads to improved predictability, increased freedom of action/-willingness to take risks, greater intimacy between people, encouraging tolerance, reducing hostility, and improving mutual collectivity. On the other hand, *distrust* hinders the functioning of society. It paralyzes the ability to act, leads to disintegration, degradation and isolation, hostilities, and conflicts arise. It damages social relationships and increases vigilance. People can feel hurt and embittered. Sztompka (1998) found that 1) normative certainty, 2) transparency, 3) stability, 4) accountability, 5) waiver of rights and duties, 6) enforcement of duties, and 7) preservation of recognition, dignity, integrity, and autonomy of every social member are important characteristics for building trust.

All three social stressors can associated with the experience of injustice. Justice is the basis of social behavior and mediates a feeling of empowerment and controllability of the world. All persons have an inborn "belief in a just world" (Anderson & Bushman, 2002; Coleman et al., 2007; Corey, Troisi, & Nicksa, 2015; Dalbert, 2011; Dolinski, 1996; Donat, Wolgast, & Dalbert, 2018; Janoff-Bulman, 1992; Lerner, 1980). When injustice happens, the inner core of a person is threatened. The person has to fight back in order to restore justice and one`s self-worth. Injustice is experienced as an aggressive act and is answered by helplessness or counter-aggression. Reactive embitterment can emerge. This emotion is familiar to everybody. It is associated with a nagging wish to undo the negative event, to fight

back, and get revenge. In higher intensity and duration, embitterment can result in a severe mental disorder, which is described as "Posttraumatic Embitterment Disorder" (Linden, 2003; Linden & Maercker, 2011; Linden, Rotter, Baumann, & Lieberei, 2007; Znoj, Abegglen, Buchkremer, & Linden, 2016). Embitterment is typically associated with ideations of aggression up to homicide. Not everybody who harbors aggressive ideation also has feelings of embitterment, while embitterment regularly includes aggression.

The present study was carried out as part of an overarching research project, which aimed to investigate the nature of aggressive fantasies in the context of feelings of embitterment (Linden & Noack, 2018). The data also made it possible to differentiate the three aforementioned social stressors with regard to their psychological consequences, which is the subject of this publication.

The first hypothesis (H_1) of the present study is that personal vilification, for example in the context of a bullying experience, is the most frequent social stressor that is experienced as aggression and answered with counter-aggression. The second hypothesis (H_2) is that *public humiliation* triggers feelings of embitterment in a special way. Based on the assumption that personal vilification and public humiliation are more often accompanied by aggression and hostility, the third hypothesis (H_3) is that breach of trust is primarily associated with depressive and psychosomatic symptoms. With regard to sociodemographic data, the fourth hypothesis (H_4) is that personal vilification and public humiliation is preferably experienced in working life and is thus reported significantly more frequently by employed patients. In contrast, the fifth hypothesis (H_5) is that patients, who are- married or live together, more often experience the stressor breach of trust. The sixth hypothesis (H_6) is that feelings of embitterment and aggressive ideation as well as feelings of embitterment and the psychological stress are related.

2 Method

2.1 Setting and patients

The study was done in an inpatient and day-care department of behavioral medicine. Patients are admitted on their own initiative or at the request of third parties (e.g. health or pension insurance), when their ability to work is endangered.

Whenever therapists (licensed clinical psychologists/psychotherapists and/or specialist physicians in psychiatry/psychosomatic medicine) saw signs of embitterment and/or aggressive or suicidal ideation in a patient during the intake assessment, a detailed exploration of the patient was obligatory following an interview checklist. The present data analyses only included patients in whom the therapist had identified a breach of trust, personal vilification and/or public humiliation as the triggering critical life event. Patients who reported death/loss of a person or other (physical violence/abuse) as the triggering life event were excluded.

2.2 Interview checklist

The interview checklist requires to ask for details of the triggering critical experience, classified as breach of trust, personal vilification, public humiliation, death/loss, and others (e.g. physical violence/ abuse). Multiple answers were possible. The perpetrator and the object of aggression ("who should be hit?"), and their relationship to the patient were determined. The nature and intensity of aggressive ideations were categorized as (1) banality, (2) easily problem, more slightly damage to property, (3) serious life event, (4) serious damage to property without personal damage, (5) personal damage, and (6) risk of death. In the data analysis, the categories (1) and (2) were combined into "banality", (3) and (4) into "fantasies of serious harm, without personal injury", (5) and (6) into "ideas of bodily harm". "Banality", for example, was defamation or damage to a car; "fantasies of serious harm, without personal injury" were, for example, financial losses, bankruptcy, problems in partnership or destruction of machines; "ideas of bodily injury" were personal injury or homicide.

The therapists also had to assess the emotional intensity of the feelings (4-point rank), the satisfaction or shame at the thought of revenge (4-point rank), the willingness to report the aggressive fantasies (5-point rank), the concreteness of the planning (5-point rank), the probability of realization (6-point rank), the ideations regarding suicidal tendencies (7-point rank) or enlarged suicidal tendencies (5-point rank).

2.3 Posttraumatic Embitterment Disorders self rating scale

Patients were asked to fill in the "19-item PTED self-rating scale" (Posttraumatic Embitterment Disorders self-rating scale, Linden, Baumann, Lieberei, & Rotter, 2009). The questionnaire begins with the statement: "There has been a severe and negative life event during the past years…", which is followed by answers such as "…that hurt my feelings and caused considerable embitterment", "…that triggers feelings of satisfaction when I think that the responsible party has to live through a similar situation", or "…that caused me to draw back from friends and social activities". The answers are given on a five point Likert scale from 0=not true at all to 4=extremely true. Relevant embitterment is present from an average score of ≥1.5 and clinically sig-

nificant embitterment from an average score of ≥2.5.

2.4 Psychosomatic distress

Psychological complaints and symptoms were assessed with the SCL-90-R (self-rating Symptom-Checklist-90-R, Derogatis, 1977, German version Franke, 2011). The SCL-90-R has 90 items and covers a broad range of psychosomatic symptoms. The “Global Severity Index” (GSI) is the mean value of all symptoms and measures the basic psychological stress. In addition, the subscales anxiety and depression were calculated.

2.5 Sociodemographic data

Information on gender, age, marital status, living arrangements, level of education, and employment status were taken from the routine medical documentation of the hospital.

It is a post hoc analysis of anonymized data from the routine documentation of the clinic. The hospital management allowed the anonymized data to be used for scientific purposes.

2.6 Data analysis

The data analysis was done with SPSS. Patients with one of the three social stressors (personal vilification, public humiliation, breach of trust) were compared with the rest of patients in regard to sociodemographic variables, psychosomatic stress, aggressive ideations, and suicidality. Frequencies were calculated for each social stressor. T-tests were calculated to compare groups for SCL-90-R, the PTED scale, and age. The χ^2 was used to test whether there were significant differences between the three stressors with regard to gender, marital status, living arrangements, level of education, and employment status. Mann-Whitney-U-tests were calculated for the relationship between the stressors and the items on the interview checklist. Pearson correlations were calculated between the PTED scale and the SCL-90-R, and Spearman correlations between the PTED scale and the type of aggressive fantasies.

3 Results

During the study period, 3.300 patients were admitted to the department, of which 21.3% came to the hospital on their own initiative and 78.7% after being asked by third parties. The therapists saw clinically relevant signs of embitterment and/or aggression in 127 (3.8%) of the patients. One patient reported no triggering event and 12 patients reported loss/death of a person or other life events such as physical violence/abuse. These 13 patients were excluded from the analysis. The mean age of the remaining 114 patients was 52 years (*SD*=7.31; *R*=25-64) and 62.3% of them were female. 61.4% of the patients were married, 67.5% were employed, and 36.8% were living alone. 36% reported a high level of education (high school graduation/ university degree).

The treating psychiatrists or psychotherapists diagnosed neurotic, stress-related and somatoform disorders (ICD-10 F40-48) in 64% of the cases, affective disorders (ICD-10 F30-39) in 32.5%, personality disorders (ICD-10 F60-69) in 13.2%, organic mental disorders (ICD-10 F00-09) in 5.3%, substance abuse (ICD-10 F10-19) in 4.4%, schizophrenic disorders (ICD-10 F20-29) in 1.8%, and other diagnoses in 5.3% of patients.

On average, the patients had a score of 2.94 (*SD*=0.72, *n*=103) on the PTED scale. An average of ≥1.5 was found in 95.1% (*n*=103) of the patients. There were 20 of the 114 patients who did not report aggressive ideas, and in two patients there were missing data. Of the 92 patients with aggressive fantasies, 28.3% reported about a banality, 40.2% serious harm, without personal injury and 31.5% ideas of bodily harm. 93.5% of the 92 patients directed their aggressive ideations against the person who caused the problem, and 12% against other people. Colleagues or superiors were the target in 63.2%, spouse or a close person in 7.9%, an institution in 9.6%, and the person themselves as the object of revenge in 6.1% (Tab. 1) of cases (*n*=114).

Hypothesis 1

Triggering negative events were personal vilification in 69.3% of the patients, breach of trust in 33.3%, and public humiliation in 28.1% of the patients. Multiple answers were included. Personal vilification and public humiliation co-occurred in 12 patients, personal vilification and breach of trust in 9 patients, breach of trust and public humiliation in 2 patients, and all three social stressors in 6 patients. One triggering event only was reported by 85 patients. Of these patients, 61.2% reported personal vilification, 24.7% breach of trust, and 14.1% public humiliation as the triggering event.

Hypothesis 2 and 3

Patients who reported public humiliation as the triggering event showed higher scores on the embitterment scale ($t_{(101)}$=-2.07, *p*=.041) and the probability of realizing aggressive ideas (*p*=.047) compared with patients who did not report public humiliation as the triggering event. This confirms the second hypothesis. There were no further differences regarding psychosomatic stress, so the third hypothesis cannot be accepted.

Table 1

Personal vilification, public humiliation, breach of trust in relation to sociodemographic data, psychological stress, embitterment, and aggression

	Personal Vilification		Statistics	Public humiliation		Statistics	Breach of trust		Statistics
	yes (*n*=79)	no (*n*=35)		yes (*n*=32)	no (*n*=82)		yes (*n*=38)	no (*n*=76)	
Socio-demographic data									
	Mean			Mean			Mean		
Age	51.41	52.40	$t_{(112)}$=.669 *p*=.505	51.44	51.82	$t_{(112)}$=.248 *p*=.804	51.97	51.58	$t_{(112)}$=-.271 *p*=.787
	Frequencies			Frequencies			Frequencies		
Female	60.8%	65.7%	χ^2(1)=.253 *p*=.615	62.5%	62.2%	χ^2(1)=.001 *p*=.976	73.7%	56.6%	χ^2(1)=3.16 *p*=.076
Married	60.8%	62.9%	χ^2(1)=.045 *p*=.832	56.2%	63.4%	χ^2(1)=.499 *p*=.480	55.3%	64.5%	χ^2(1)=.907 *p*=.341
Living alone	35.4%	40%	χ^2(1)=.216 *p*=.642	40.6%	35.4%	χ^2(1)=.274 *p*=.601	50%	30.3%	χ^2(1)=4.24 *p*=.039*
Higher education	34.2%	40%	χ^2(1)=.357 *p*=.550	43.8%	32.9%	χ^2(1)=1.17 *p*=.279	31.6%	38.2%	χ^2(1)=.476 *p*=.490
Employed	75.9%	48.6%	χ^2(1)=8.29 *p*=.004*	71.9%	65.9%	χ^2(1)=.381 *p*=.537	55.3%	73.7%	χ^2(1)=3.92 *p*=.048*
Psychosomatic distress									
	Mean			Mean			Mean		
GSI	1.39	1.49	$t_{(112)}$=.705 *p*=.482	1.45	1.41	$t_{(112)}$=-.218 *p*=.828	1.43	1.42	$t_{(112)}$=-.123 *p*=.902
SCL subscale anxiety	1.42	1.53	$t_{(112)}$=.671 *p*=.504	1.40	1.47	$t_{(112)}$=.381 *p*=.704	1.52	1.42	$t_{(112)}$=-.574 *p*=.567
SCL subscale depression	1.87	1.87	$t_{(112)}$=.008 *p*=.994	1.89	1.86	$t_{(112)}$=-.129 *p*=.898	1.88	1.86	$t_{(112)}$=-.093 *p*=.926
PTED-Scale	2.92	2.99	$t_{(101)}$=.470 *p*=.639	3.16	2.84	$t_{(101)}$=-2.07 *p*=.041*	2.91	2.96	$t_{(101)}$=.341 *p*=.734
Aggressive ideations									
	Mean rank			Mean rank			Mean rank		
Type of aggressive ideations	47.55	44.53	*U*=897 *p*=.582	48.70	45.44	*U*=864 *p*=.558	46.55	46.48	*U*=944 *p*=.989
Emotional intensity	50.05	42.56	*U*=834 *p*=.142	52.67	45.08	*U*=805 *p*=.143	43.40	49.52	*U*=849.5 *p*=.235
Satisfaction	46.59	46.32	*U*=940 *p*=.961	50.12	44.75	*U*=821.5 *p*=.331	46.12	46.69	*U*=918.5 *p*=.918
Degree of shame	46.23	48.53	*U*=913.5 *p*=.684	44.93	47.98	*U*=883 *p*=.593	47.72	46.66	*U*=923.5 *p*=.853
Willingness to report	43.53	53.94	*U*=746 *p*=.057	44.73	48.08	*U*=877 *p*=.544	48.85	46.12	*U*=889.5 *p*=.621
Planning	46.97	44.03	*U*=856 *p*=.530	49.22	44.42	*U*=818.5 *p*=.305	44.76	46.58	*U*=863 *p*=.699
Probability of realization	49.41	43.80	*U*=873.5 *p*=.301	54.97	44.00	*U*=736 *p*=.047*	44.97	48.75	*U*=898 *p*=.490
Ideations of homicide	57.17	56.61	*U*=1351.5 *p*=.793	56.77	57.09	*U*=1288.5 *p*=.881	55.00	58.01	*U*=1349 *p*=.149
Suicidality									
	Mean rank			Mean rank			Mean rank		
Suicidal ideations	56.16	60.53	*U*=1276.5 *p*=.427	64.19	54.89	*U*=1098 *p*=.100	59.38	56.56	*U*=1372.5 *p*=.600

* $p< .05$

Hypothesis 4 and 5

There were significant results between the stressor breach of trust and living alone ($\chi^2_{(1)}$=4.24, *p*=.039) and between the stressor breach of trust and employment ($\chi^2_{(1)}$=3.92, *p*=.048) as well as between the stressor of personal vilification and employment ($\chi^2_{(1)}$=8.29, *p*=.004). Therefore only the H_4 and H_5 could be partially confirmed. No further differences were found in regard to age, gender, marital status, and education.

Hypothesis 6

Significant correlations were found between the PTED scale, the type of aggressive ideations (*r*=.256, *p*=.02, *n*=82), and the SCL-90-R GSI (*r*=.412, *p*<.001, *n*=103).

4 Discussion

The first result is that there is a clear ranking in the frequency of social stressors. In accordance with expectations, the most common stressor is personal vilification, followed by breach of trust, and public humiliation. There is substantial research on personal vilification in the workplace, especially under the heading of "bullying", which encompasses many forms of downgrading, exclusion and negative work environment, and which can lead to considerable psychological stress (e.g. Branch et al., 2013; Einarsen, Raknes, & Matthiesen, 1994; Samnani & Singh, 2012). Our data suggest that such problems are quite common, which is particularly important for the work context in terms of creating jobs with high institutional and interactive justice (Fergen, Pickshaus, & Reusch, 2012; Ferris, 2009; Muschalla & Meier-Credner, 2019; Resch & Schubinski, 1996). Following the transactional stress model (Lazarus 1966), a question which cannot be answered is, which characteristics of perpetrator, victim, or organizational characteristics interact with each other to result in the subjective appraisal of what happened. Nevertheless, it is advisable that employers, trade unions, and society are aware of dysfunctional interactions at the workplace and that clear organizational and legal regulations are installed to prevent this (Branch et al., 2013; Duffy, 2009; Ferris, 2009; Resch & Schubinski, 1996).

The second result is that there are no significant differences between the three stressors in terms of psychosomatic reactions, aggressive or suicidal ideas, or embitterment. All stressors show similar rates of stress and are associated with clinically relevant feelings of embitterment. As expected, public humiliation is associated with a little higher intensity of embitterment, suggesting that this is a social stressor that hurts the most. Contrary to expectations, breach of trust is not more often associated with depressive or psychosomatic symptoms.

The third result of the study is that there are no major differences between the three stressors in relation to sociodemographic variables. There is only a trend that breach of trust is mostly experienced as a private and job-related problem, while personal vilification is mostly a job-related problem. This only in part confirms our hypotheses. Public humiliation seems to be experienced regardless of context.

Finally, it could be shown that feelings of embitterment and aggressive ideas as well as psychological stress are related, which corresponds to other findings from the literature (Linden, Baumann, Lieberei, & Rotter, 2009).

In summary, the data help to expand research findings on stress-related disorders. The overall finding, that the different social stressors result in similar psychological reactions can be explained by the fact that independent of the cause, there are similar psychological processes. In accordance with the transactional stress model by Lazarus (1966), it is not the type of the critical life event that explains a person's reaction, but the subjective appraisal. This includes the violation of a person's basic belief of a "just world". All stressors are associated with experiences of injustice and therefore associated with embitterment, ideations of aggression, and reduced well-being.

According to the authors' knowledge, this is the first study that relates different types of social stressors to sociodemographic factors and psychological responses, including embitterment. The study included only patients who, according to clinical assessment, suffered from feelings of embitterment and/or aggressive ideas and were exposed to very stressful, critical, negative life events. Thus, these were not patients who were confronted with everyday stressors. This is a limitation of the study and also a strength, as it identified a special risk group with feelings of injustice/embitterment and aggressive ideations. Further research with non-clinical samples is needed.

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