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An exploratory comparison of resilience profiles of Swiss older adult survivors of child welfare-related maltreatment and controls

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Abstract

Child welfare practices in the last century have been linked to a high risk for child maltreatment and the subsequent development of mental ill-health. However, not all affected individuals develop clinically relevant psychopathology, which can be considered as a form of resilience. Such resilience is insufficiently understood in survivors of an advanced age. Therefore, this exploratory study aimed to depict a resilience profile of Swiss older adult survivors of child welfare-related maltreatment ($n = 132$; $M_{age} = 71$ years) and to contrast it with age-matched controls ($n = 125$). Approximately 30% of survivors did not meet the diagnostic criteria for any of the assessed current or lifetime DSM-5 disorders. These survivors were older, experienced less physical abuse, and had higher trait resilience, self-esteem, income, and satisfaction with their socio-economic status. They had lower levels of neuroticism and some empathy characteristics. Group differences in the resilience profiles suggest that resilience-related aspects may vary as a function of past adversity.

KEYWORDS
child maltreatment, child welfare practices, older adult survivors, resilience

1 | INTRODUCTION

Minors growing up in non-familial settings (e.g., residential childcare institutions) have an elevated risk of being affected by child maltreatment, particularly in welfare settings of the last century (Ferguson, 2007). Detrimental psychosocial adjustment and poorer physical and mental health have been reported by survivors (Carr et al., 2018). However, not all survivors develop clinically relevant psychopathology (Flanagan et al., 2009; Lueger-Schuster et al., 2014; Wolfe et al., 2006). This absence of mental ill-health, despite (severe) adversity in childhood, can be understood as mental health resilience.

Mental health resilience in survivors of child welfare-related maltreatment has predominantly been examined in younger samples and is insufficiently understood in older adult survivors (e.g., Lueger-Schuster et al., 2014). Therefore, this exploratory study aimed to depict a resilience profile of older adult survivors of child welfare-related maltreatment and to compare it to that of non-affected controls. A historically unique sample was investigated, consisting of Swiss older adults with high child maltreatment exposure (Thoma, Bernays, Eising, Maercker, et al., 2021). Resilience has commonly been conceptualized as the absence of clinically relevant psychopathology after high-risk exposure (for a systematic review, see Meng et al., 2018). To identify resilience-related aspects, a broad set

of variables that have previously been linked to resilience in various younger samples (e.g., Flanagan et al., 2009) were chosen for this study. These include socio-demographic and welfare-related information, personality- and stress-related factors, interpersonal variables, and psychological resources. These variables will be compared between survivors and controls with and without a lifetime history of the most common mental health disorders.

2 | METHODS

2.1 | Participants and procedure

Until 1981, welfare measures of the Swiss local authorities involved the enforced, and often arbitrary, placement of minors into care (Federal Office of Justice, 2020). Due to the high number of reports of child labour, abuse, and injustice, the Swiss Federal Council commissioned the *National Research Program 76* (http://www.nrp76.ch/en) to examine these welfare practices. The current study is part of this program. Inclusion criteria for welfare individuals (risk group, RG) and non-affected individuals (control group, CG) were Swiss-German speaking and minimum age of 50 years. An additional RG inclusion criterion was having been affected by welfare measures for a minimum of 1 year in childhood/adolescence (until age 18). The study was approved by the Ethics Committee of the Faculty of Arts and Social Sciences in the University of Zurich (ID: 19.4.3).

Participants provided written informed consent before completing two face-to-face assessments. Assessment 1 involved a structured clinical interview to assess current and lifetime mental health disorders. Assessment 2 involved questionnaires on child maltreatment, traumata, stress, and psychological resources (see Thoma, Bernays, Eising, Pfluger, et al., 2021, for an extensive description of the procedure).

2.2 | Measures

See Appendix A for a detailed description of the measures.

2.2.1 | Socio-demographics and welfare-related information

A self-report questionnaire and a semi-structured survey assessed socio-demographics and (in the RG only) welfare-related information.

2.2.2 | Mental health disorders

A range of current and lifetime DSM-5 mental health disorders were assessed with a shortened version of the structured clinical interview for diagnosing mental health disorders (DIPS; Margraf, Cwik, Pflug, & Schneider, 2017; Margraf, Cwik, Suppiger, & Schneider, 2017).

Key Practitioner Message
- Resilience in older survivors of child welfare-related maltreatment is not uncommon.
- Resilience-related aspects include core demographic and psychological characteristics and interpersonal factors.
- To understand interindividual differences in resilience in older age, child maltreatment experiences must be considered.

2.2.3 | Personality-related variables

Personality-related variables were assessed with the following measures: *Brief Big Five Inventory* (BFI-10; Rammstedt & John, 2007), *Life Orientation Test – Revised* (LOT-R; Glaesmer et al., 2012), *General Self-Efficacy Scale* (GSE; Luszczynska et al., 2005), *Achievement Motive Scale* (AMS; Lang & Fries, 2006), and *Systems of Belief Inventory* (SBI-15R; Grulke et al., 2003).

2.2.4 | Stress- and coping-related variables

Stress- and coping-related variables were assessed with the following measures: *Childhood Trauma Questionnaire* (CTQ; Gast et al., 2001), *Brief COPE* (Knoll et al., 2005), and *Emotion Regulation Questionnaire* (ERQ; Abler & Kessler, 2009).

2.2.5 | Interpersonal variables

Interpersonal variables were assessed with the following measures: *Social Support Questionnaire – Short Form* (F-SozU-K-14; Fydrich et al., 2009), *Experience in Close Relationships Questionnaire* (ECR-RD; Ehrenthal et al., 2009), and *Saarbrückner Personality Questionnaire* (SPF; Paulus, 2009).

2.2.6 | Psychological resources

Psychological resources were assessed with the following measures: *Brief Resilience Scale* (BRS; Schumacher et al., 2005), *Posttraumatic Growth Inventory* (PTGI; Maercker & Langner, 2001), *Self-Compassion Scale* (SCS-SF; Hupfeld & Ruffieux, 2011), and *Rosenberg Self-Esteem Scale* (RSES; von Collani & Herzberg, 2003).

2.3 | Data analysis

Intergroup differences were analysed between participants *without* a history of (current and lifetime) mental health disorders (RG_no; CG_no) and participants *with* such a history (RG_yes; CG_yes),

separately for the RG and CG. See Appendix A for a detailed description of the statistical analyses.

3 | RESULTS

Socio-demographic and welfare-related information are reported in Appendix A (see Appendix A.3 and Table A1).

3.1 | Intergroup comparisons of welfare-related characteristics

No significant intergroup differences were observed between RG_no and RG_yes for any of the welfare-related variables.

3.2 | Resilience profile analyses

A non-parametric MANOVA including all study variables (except socio-demographics) revealed significant intergroup differences within the RG and CG (RG: RBT = 2.19, p = .004; CG: RBT = 3.92, p < .001). Subsequently, Welch's ANOVA was calculated to test which variables differed between RG_no and RG_yes and between CG_no and CG_yes (see Appendix A, Table A2).

3.2.1 | Personality-related variables

Within the RG, significant intergroup differences were found for *neuroticism* (p < .001), with RG_no reporting lower levels than RG_yes. Within the CG, significant intergroup differences were found for *neuroticism* (p < .001), *dispositional pessimism* (p < .014), *general self-efficacy* (p < .048), and *fear of failure* (p < .001). CG_no reported lower neuroticism, higher dispositional pessimism, higher general self-efficacy, and lower fear of failure.

3.2.2 | Stress- and coping-related variables

Within the RG, significant intergroup differences were found for *physical abuse* (p < .035), with RG_no reporting lower levels. Within the CG, significant intergroup differences were found for *emotional abuse* (p < .001), *humour* (p < .022), and *instrumental support* (p < .009). CG_no reported lower emotional abuse, more humour, and lower instrumental support.

3.2.3 | Interpersonal variables

Within the RG, significant intergroup differences were found for the empathy-related subscales *fantasy* (p < .001) and *personal distress* (p < .016), with RG_no reporting lower values on both. Within the CG,

significant intergroup differences were found for *attachment style anxiety* (p < .001) and *personal distress* (p < .017), with CG_no reporting lower values on both.

3.2.4 | Psychological resources

Within the RG, significant intergroup differences were found for *resilience* (p < .028) and *self-esteem* (p < .019), with RG_no reporting higher values on both. Within the CG, significant intergroup differences were found only for *resilience* (p < .001), with CG_no reporting higher resilience.

4 | DISCUSSION

Approximately 30% of participants (Swiss older survivors of child welfare-related maltreatment) did not meet the full diagnostic criteria for a DSM-5 disorder. In comparison to survivors with a history of mental ill-health, survivors without such a history were older, experienced less physical child abuse, had a higher income, and reported higher satisfaction with their socio-economic status. Furthermore, they showed lower levels of neuroticism and empathy-related characteristics, and higher trait resilience and self-esteem. While the resilience profiles of survivors and controls were comparable, several differences were detected.

Socio-demographic differences (e.g., age and income) between resilient and non-resilient survivors corroborate previous reports (Flanagan et al., 2009). That resilient survivors were older at their first placement may have been a protective factor. Earlier stress experiences can be more harmful to the biopsychological development than later-life (or later childhood) stress experiences (e.g., Heim & Nemeroff, 2001). The earlier stress experience (in the RG_yes) may have led to more substantially detrimental effects on the stress system (for instance, due to a sensitization of the hypothalamic–pituitary–adrenal axis), which may be linked to a higher vulnerability to future stress and thus to a higher probability for the development of mental health disorders. The absence of neuroticism was a robust resilience-related factor, a finding consistent with the widely supported literature on neuroticism as a common feature in individuals with depression and anxiety (Weinstock & Whisman, 2006).

While no intergroup differences were observed regarding contextual welfare-related factors (e.g., age at first placement), resilient survivors reported less physical abuse. This partially supports findings from Lueger-Schuster et al. (2014), which did not detect meaningful differences in abuse and violence between survivors with and without mental health symptoms. However, given the limited existing studies in this area, further research is needed to clarify the link between contextual aspects of child maltreatment and (a lack of) mental health resilience.

Resilient survivors (but not resilient controls) showed lower (empathy-related) fantasy. Having comparatively lower levels of fantasy may thus be specifically protective against adversity. Likewise, higher

self-esteem was also found in the resilient survivors only. Given that self-esteem can be increased with training/therapy, it may be a particularly relevant intervention target aimed at survivors of adversity (Thoma et al., 2020). Future studies may look beyond the factors explored here to identify further, specifically protective factors against adversity.

Several limitations must be mentioned: The operationalization of resilience as the absence of clinically-relevant psychopathology can be critiqued. Although a categorical approach is common (e.g., Meng et al., 2018), it does not capture the complexity of resilience or that it may co-occur with psychopathology. Additional limitations include the RG's historic particularities; the self-selection of participants; the lack of assessment of personality disorders; the small sample size (for the number of examined variables), and the cross-sectional, retrospective study design. To identify the direction of the effects between resilience-related aspects and mental health in older survivors of child welfare-related maltreatment, future research should apply prospective longitudinal study designs, using larger samples and advanced statistical analyses (e.g., Structural Equation Modelling).

This is the first study to portray a resilience profile of Swiss older survivors of child welfare-related maltreatment. Almost one-third of the RG never developed clinically-relevant psychopathology. Mental health resilience aspects included core demographic factors, psychological characteristics, and interpersonal factors. Older individuals with a history of abuse may benefit from tailored self-esteem interventions to support their resilience. Overall, the study findings reveal the necessity of considering past adversities in understanding the current differences in the mental health resilience of older adults.

CONFLICT OF INTEREST

No conflict of interest was reported by the authors.

DATA AVAILABILITY STATEMENT

Due to the sensitive nature of the data, the data cannot be published on a public data repository. Requests should be directed to m.thoma@psychologie.uzh.ch.

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APPENDIX A.

Note: RG = risk group; CG = control group.

See the Reference section of the main article for all references cited below.

A.1 | Measures

All data were collected in German, with the German versions of the measures referenced in the following sections.

A.1.1 | Socio-demographics and information related to the welfare experience

A self-report questionnaire and a semi-structured survey assessed socio-demographics and (in the RG only) information about the welfare experience, respectively. Regarding the latter, the following were assessed in the current study: age at first placement, duration, number of placements, and distress elicited by memories related to the welfare experience.

A.1.2 | Mental health disorders

A broad range of current and lifetime DSM-5 mental health disorders was assessed with a shortened version of the structured clinical interview for diagnosing mental health disorders (DIPS; Margraf, Cwik, Pflug, & Schneider, 2017; Margraf, Cwik, Suppiger, & Schneider, 2017). The following disorders were included: *anxiety disorders* (i.e., separation anxiety, panic disorder, agoraphobia, social phobia, specific phobia, and generalized anxiety disorder), *affective disorders* (i.e., bipolar disorders, dysthymia, and major depression), *obsessive–compulsive disorders* (i.e., compulsive thoughts and actions), *trauma- and stressor-related disorders* (i.e., acute and posttraumatic stress disorder), *somatic stress disorders* (i.e., somatic disorder, hypochondria), and *sleep–wake disorders* (i.e., insomnia, hypersomnia).

A.1.3 | Personality-related variables

The *Brief Big Five Inventory* (BFI-10; Rammstedt & John, 2007) consists of 10 items and measured the personality traits extraversion, neuroticism, openness, agreeableness, and conscientiousness. The *Life Orientation Test – Revised* (LOT-R; Glaesmer et al., 2012) consists of 10 items and measured individual differences in optimism and pessimism. The *General Self-Efficacy Scale* (GSE; Luszczynska et al., 2005) consists of 10 items and measured perceived self-efficacy in coping with difficult situations. The *Achievement Motive Scale* (AMS; Lang & Fries, 2006) consists of 10 items and measured hope of success and fear of failure. The *Systems of Belief Inventory* (SBI-15R; Grulke et al., 2003) consists of 15 items and measured religious attitudes (beliefs and practices) and social support through the religious organization.

TABLE A1 Socio-demographic and welfare-related information

	Risk group (n = 132)			Control group (n = 125)		
	RG_no (n = 40)	RG_yes (n = 92)	Group comparison	CG_no (n = 53)	CG_yes (n = 72)	Group comparison
Socio-demographic information						
Age: years, M (SD); range = 51–92 years	**77.17 (10.05)**	68.07 (12.21)	$t = 4.47^{**}$	**72.83 (6.99)**	68.96 (11.02)	$t = 2.39^*$
Gender (female): n (%)	12 (30)	43 (46.7)	$\chi^2 = 2.56$, ns	18 (34)	46 (63.9)	$\chi^2 = 10.94^{**}$
Highest level of education			$\chi^2 = 4.16$, ns			$\chi^2 = 8.38$, ns
Income class (per month): n (%)			$\chi^2 = 12.68^*$			$\chi^2 = 16.56^{**}$
<CHF 2001	7 (17.5)	25 (27.2)		2 (3.8)	9 (12.5)	
CHF 2001–3330	4 (10)	26 (28.3)		3 (5.7)	18 (25)	
CHF 3331–4670	9 (22.5)	15 (16.3)		8 (15.1)	11 (15.3)	
>CHF 4670	20 (50)	26 (28.3)		40 (75.5)	34 (47.2)	
Satisfaction with socio-economic status: M (SD); range 1–10	**6.28 (1.89)**	4.3 (2.09)	$t = 5.32^{**}$	**6.74 (1.53)**	5.75 (1.89)	$t = 3.21^{**}$
Characteristics related to welfare						
Age at first placement: years, M (SD); range = 0–16	7.18 (4.01)	6.12 (4.35)	$t = 1.35$, ns			
Placement duration: years, M (SD); range = 1–25	10.38 (5.84)	10.88 (5.28)	$t = 0.47$, ns			

TABLE A1 (Continued)

	Risk group (n = 132)			Control group (n = 125)		
	RG_no (n = 40)	RG_yes (n = 92)	Group comparison	CG_no (n = 53)	CG_yes (n = 72)	Group comparison
Number of placements: n (%)			$\chi^2 = 1.41$, ns			
One	20 (50)	39 (42.4)				
Two	5 (12.5)	15 (16.3)				
Three	7 (17.5)	13 (14.1)				
Four or more	8 (20)	25 (27.2)				
Distress elicited by memories: n (%)			$\chi^2 = 5.42$, ns			
Most of the time	9 (22.5)	29 (31.5)				
Sometimes	15 (37.5)	44 (47.8)				
Rarely	13 (32.5)	15 (16.3)				
Never	3 (7.5)	4 (4.3)				

Note: No/yes subgroups are based on diagnoses from the structured clinical interview; no/yes indicates whether or not there is a lifetime history of mental health disorders.

Abbreviations: CG, control group; CHF, Swiss Francs; *M*, mean; *n*, number of observations; ns, not significant; RG, risk group; *SD*, standard deviation; *t*, unpaired Welch's *t* test; χ^2, Pearson's χ^2 test.

*$p < .05$.

**$p < .001$.

A.1.4 | Stress- and coping-related variables

The *Childhood Trauma Questionnaire* (CTQ; Gast et al., 2001) consists of 28 items and assessed five types of child maltreatment. The *Brief COPE* (Knoll et al., 2005) consists of 28 items and measured 14 coping responses to negative experiences. The *Emotion Regulation Questionnaire* (ERQ; Abler & Kessler, 2009) consists of 10 items and measured two emotion regulation strategies of suppression and reappraisal.

A.1.5 | Interpersonal variables

The *Social Support Questionnaire – Short Form* (F-SozU-K-14; Fydrich et al., 2009) consists of 14 items and measured perceived social support. The *Experience in Close Relationships Questionnaire* (ECR-RD; Ehrenthal et al., 2009) consists of 36 items and measured two attachment styles of attachment avoidance and attachment anxiety. The *Saarbrückner Personality Questionnaire* (SPF; Paulus, 2009) consists of 16 items and assessed empathy (i.e., compassion for others).

A.1.6 | Psychological resources

The *Brief Resilience Scale* (BRS; Schumacher et al., 2005) consists of six items and measured a form of psychosocial resistance. The *Posttraumatic Growth Inventory* (PTGI; Maercker & Langner, 2001) consists of 21 items and measured positive change or growth after a traumatic event. The *Self-Compassion Scale* (SCS-SF; Hupfeld & Ruffieux, 2011) consists of 12 items and assessed self-compassion. The *Rosenberg*

Self-Esteem Scale (RSES; von Collani & Herzberg, 2003) consists of 10 items and measured self-worth.

A.2 | Data analysis

Statistical analyses were performed using R Studio version 4.0.4. Data showed less than 5% missing values, which were imputed with a multiple imputation technique (package "missRanger"), using a chaining random forest algorithm (5000 trees, including predictive mean matching). For all analyses, intergroup differences were analysed between participants *without* a history of (current and lifetime) mental health disorders (RG_no; CG_no) and participants *with* such a history (RG_yes; CG_yes), separately for the RG and CG. With unequal sample sizes, two-tailed Welch's *t* tests and chi-squared tests were applied to examine intergroup differences in socio-demographic variables. Fisher's exact test was applied for cell frequencies ≤5, and Yate's correction was applied for 2 × 2 contingency tables.

As heteroscedasticity was present, a nonparametric multivariate analysis based on permutation and randomization methods (10,000 permutations) was computed separately for the RG and CG (rank-based test statistic [RBT] of ANOVA type was reported). This tested the hypothesis that there would be no difference in the multivariate distributions across the variable's factor levels between participants *with* or *without* a history of mental health disorders. Welch's one-way ANOVA was then calculated, while controlling for age and gender, to investigate which intergroup differences reached significance. When *F* values reached significance, Hedge's *g* effect sizes were calculated to estimate the practical significance of the results.

TABLE A2 Results of the resilience profile analyses

	Risk group (n = 132)			Control group (n = 125)		
	RG_no (n = 40)	RG_yes (n = 92)	Group comparison	CG_no (n = 53)	CG_yes (n = 72)	Group comparison
Personality-related variables						
Big Five Personality Traits						
Extraversion	3.44 (1.06)	3.35 (1.11)	$F = 0.63$, ns	3.51 (0.92)	3.27 (0.95)	$F = 2.45$, ns
Openness	3.69 (1.00)	3.71 (1.07)	$F = 0.01$, ns	3.91 (0.84)	4.12 (0.76)	$F = 1.45$, ns
Agreeableness	3.42 (0.98)	3.42 (0.93)	$F = 0.01$, ns	3.49 (0.65)	3.43 (0.80)	$F = 0.15$, ns
Neuroticism	**2.49 (1.00)**	**3.04 (1.04)**	**$F = 5.23$****	**2.43 (0.87)**	**3.20 (1.05)**	**$F = 11.67$****
Conscientiousness	4.24 (0.75)	4.32 (0.69)	$F = 0.55$, ns	4.16 (0.68)	4.20 (0.76)	$F = 0.34$, ns
Life Orientation Test Revised						
Optimism	8.80 (2.61)	8.1 (2.84)	$F = 0.39$, ns	8.89 (2.30)	7.97 (3.03)	$F = 0.84$, ns
Pessimism	6.62 (2.23)	6.15 (2.86)	$F = 0.27$, ns	**9.25 (1.91)**	**8.06 (2.53)**	**$F = 6.12$***
General Self-Efficacy	29.62 (6.33)	28.64 (6.09)	$F = 0.31$, ns	**31.15 (4.13)**	**28.93 (4.94)**	**$F = 3.97$***
Achievement Motivation						
Hope of success	14.05 (2.76)	13.65 (2.94)	$F = 0.15$, ns	15.23 (2.69)	13.71 (3.61)	$F = 2.08$, ns
Fear of failure	11.12 (2.27)	12.12 (2.89)	$F = 2.70$, ns	**9.98 (2.12)**	**11.90 (3.19)**	**$F = 7.20$****
System of Belief Inventory (SBI)						
Support	11.03 (4.75)	10.92 (4.32)	$F = 0.01$, ns	9.60 (4.10)	10.71 (4.19)	$F = 1.31$, ns
Belief	17.15 (9.46)	17.22 (8.75)	$F = 0.17$, ns	16.55 (9.16)	16.54 (9.29)	$F = 0.01$, ns
Stress- and coping-related variables						
Childhood Trauma – Total	73.05 (15.54)	80.36 (16.54)	$F = 3.15$, ns	49.49 (9.44)	56.57 (14.88)	$F = 3.91$, ns
Emotional abuse	13.28 (5.87)	15.61 (5.10)	$F = 2.69$, ns	**8 (3.30)**	**11.71 (5.94)**	**$F = 8.16$****
Emotional neglect	20.27 (4.17)	20.74 (4.22)	$F = 0.23$, ns	12.13 (5.49)	14.93 (5.44)	$F = 3.13$, ns
Physical abuse	**10.72 (3.88)**	**12.99 (5.15)**	**$F = 5.70$***	6.28 (2.20)	7.32 (3.54)	$F = 2.33$, ns
Physical neglect	14.25 (4.14)	15.49 (4.20)	$F = 2.58$, ns	7.47 (2.64)	8.22 (3.36)	$F = 0.31$, ns
Sexual abuse	9.22 (5.27)	11.10 (6.80)	$F = 0.69$, ns	6.32 (2.95)	6.89 (3.95)	$F = 0.02$, ns
Brief-COPE						
Self-distraction	5.38 (1.53)	5.42 (1.53)	$F = 0.09$, ns	4.87 (1.43)	5.15 (1.43)	$F = 0.57$, ns
Denial	3.58 (1.57)	3.85 (1.67)	$F = 0.57$, ns	2.79 (1.26)	3.14 (1.20)	$F = 1.68$, ns
Emotional support	4.28 (1.66)	4.30 (1.68)	$F = 0.16$, ns	4.34 (1.42)	4.90 (1.68)	$F = 1.19$, ns
Behavioural disengagement	3.85 (1.39)	3.59 (1.41)	$F = 0.05$, ns	3.25 (1.47)	3.15 (1.35)	$F = 0.03$, ns
Positive reframing	5.18 (1.93)	5.34 (1.77)	$F = 0.20$, ns	5.19 (1.68)	5.18 (1.58)	$F = 0.01$, ns
Humour	3.28 (1.36)	3.47 (1.70)	$F = 1.47$, ns	**3.72 (1.47)**	**3.15 (1.16)**	**$F = 4.24$***
Active coping	5.35 (1.61)	5.82 (1.47)	$F = 0.15$, ns	5.45 (1.38)	6.06 (1.53)	$F = 2.53$, ns
Substance use	2.17 (0.68)	2.82 (1.67)	$F = 1.95$, ns	2.34 (0.71)	2.71 (1.25)	$F = 2.06$, ns
Instrumental support	3.90 (1.75)	4.37 (1.97)	$F = 0.21$, ns	**3.75 (1.41)**	**4.65 (1.58)**	**$F = 6.66$***
Venting	4.10 (1.63)	4.17 (1.57)	$F = 0.30$, ns	3.91 (1.47)	4.19 (1.43)	$F = 0.01$, ns
Planning	5.65 (1.79)	5.88 (1.65)	$F = 0.05$, ns	5.45 (1.38)	6.08 (1.51)	$F = 3.10$, ns
Acceptance	5.53 (1.58)	5.78 (1.61)	$F = 0.70$, ns	5.72 (1.47)	5.53 (1.52)	$F = 0.71$, ns
Self-blame	4.10 (1.46)	4.17 (1.70)	$F = 0.17$, ns	3.79 (1.45)	4.04 (1.53)	$F = 0.07$, ns
Religion	3.10 (1.45)	3.82 (2.04)	$F = 1.88$, ns	3.55 (1.96)	3.85 (1.98)	$F = 0.58$, ns
Emotion Regulation Strategies						
Appraisal	4.74 (1.13)	4.63 (1.16)	$F = 0.01$, ns	4.63 (1.27)	4.45 (1.24)	$F = 0.13$, ns
Suppression	4.56 (1.29)	4.20 (1.48)	$F = 0.04$, ns	3.69 (1.41)	3.56 (1.26)	$F = 0.07$, ns

TABLE A2 (Continued)

	Risk group (n = 132)			Control group (n = 125)		
	RG_no (n = 40)	RG_yes (n = 92)	Group comparison	CG_no (n = 53)	CG_yes (n = 72)	Group comparison
Interpersonal variables						
Social Support	11.12 (2.27)	12.12 (2.89)	$F = 2.69$, ns	57.74 (10.08)	55.10 (11.44)	$F = 1.67$, ns
Attachment Style						
Avoidance	3.23 (1.42)	3.36 (1.24)	$F = 0.51$, ns	2.63 (1.09)	2.97 (1.08)	$F = 1.10$, ns
Anxiety	2.44 (1.29)	2.98 (1.36)	$F = 3.11$, ns	**2.05 (0.81)**	**2.84 (1.37)**	**$F = 7.67$****
Empathy						
Empathic concern	15.12 (2.54)	15.88 (2.23)	$F = 2.84$, ns	15.21 (1.91)	15.18 (2.32)	$F = 0.05$, ns
Perspective taking	14.45 (2.95)	14.25 (2.08)	$F = 0.01$, ns	14.38 (2.40)	14.60 (2.55)	$F = 1.02$, ns
Fantasy	**10.90 (3.41)**	**13.12 (3.97)**	**$F = 8.52$****	12.28 (3.24)	13.18 (2.62)	$F = 1.17$, ns
Personal distress	**9.35 (2.84)**	**10.84 (3.61)**	**$F = 5.95$***	**9.19 (2.31)**	**10.92 (2.87)**	**$F = 5.87$***
Psychological resources						
Brief Resilience Scale	**3.64 (0.69)**	**3.23 (0.90)**	**$F = 4.39$***	**3.89 (0.74)**	**3.35 (0.82)**	**$F = 7.69$****
Posttraumatic Growth Inventory – Total	40 (11.14)	25.52 (9.81)	$F = 0.15$, ns	23.13 (11.19)	23.41 (11.23)	$F = 0.03$, ns
Self-Compassion – Total	35.92 (2.85)	35.58 (2.97)	$F = 0.25$, ns	35.13 (2.91)	35.42 (2.11)	$F = 0.24$, ns
Self-Esteem	**23.20 (4.75)**	**20.50 (5.38)**	**$F = 4.55$***	**24.21 (3.84)**	**21.92 (5.46)**	$F = 2.44$, ns

Note: No/yes subgroups are based on diagnoses from the structured clinical interview; no/yes indicates whether or not there is a lifetime history of mental health disorders.

Abbreviations: CG, control group; *F*, F values from Welch's one-way test: RG = $F(1, 218)$; CG = $F(1, 121)$; M, mean; *n*, number of observations; ns, not significant; RG, risk group; SD, standard deviation.

*p < .05.

**p < .001.

A.3 | Sample characteristics

From the complete sample ($N = 257$), 63.8% ($n = 164$) of participants were diagnosed with at least one current or lifetime mental health disorder, that is, 69.7% of the RG (RG_yes; $n = 92$) and 57.6% of the CG (CG_yes; $n = 72$). All other participants did not meet the full criteria for any of the assessed disorders. Within the complete sample, participants reported 2.57 disorders on average, with RG_yes reporting an average of 4.5 disorders (current = 1.75; lifetime = 2.75) and CG_yes reporting an average of 3.43 disorders (current = 1.16; lifetime = 2.26).

Within the RG (age: $M = 70.83$ years, $SD = 12.30$, age range = 49–94 years; 41.6% women), intergroup comparisons (RG_no vs. RG_yes) revealed significant differences in age, income, and satisfaction with socio-economic status (SES): RG_no was significantly older ($MD = 9.1$ years), reported higher income, and higher satisfaction with SES ($MD = 1.98$, range 1–10). Within the CG (age: $M = 70.60$, $SD = 9.68$, age range = 50–95 years; 51.2% women), significant intergroup differences (CG_no vs. CG_yes) were observed: CG_no contained more males, was significantly older ($MD = 3.87$ years), reported higher income, higher satisfaction with SES ($MD = 0.99$).