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Does time really heal? Academic burnout and life satisfaction as predictors of post-traumatic growth during the Covid 19 pandemic

Katarzyna Tomaszek[a], Agnieszka Muchacka-Cymerman[a,1]

[a]*Uniwersytet Pedagogiczny – Kraków (Poland)*

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Abstract

The aim was to answer the question about the role of time from the trauma experience in associations between life-satisfaction, experiencing burnout and post-traumatic growth. The sample consisted of 199 university students. The participants were approached in the Internet by using university platforms, social media and e-mails. The study was performed in April 2020, during the peak of Covid19. Descriptive statistics, alfa Cronbach's, ANOVA and MANOVA were calculated to identify burnout level, traumatic growth and life satisfaction. Academic burnout indicators were significant predictors of post-traumatic growth in all groups, however different areas of problems were associated in relation to time from trauma. Past traumatic experiences and our attitudes toward the meaning of it in our lives changes over time. Due to these changes we may different react on a long-last crises and new threats in our life, like pandemic Covid 19. The positive effect of post-traumatic growth is not always connected with higher life satisfaction

KEYWORDS: Academic Burnout, Post-Traumatic Growth, Life Satisfaction, Time After Trauma.

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1. Introduction

Burnout syndrome as a long last crisis

Employee's or students' burnout from the role, does not occur overnight, it is a process lasting months or even years. Also, the person affected by burnout syndrome maintains symptoms for a long time. Cherniss (1992) indicates the importance of the moment when burn-in occurs. If it affects a group of people performing work recently, it is not a long-term process, while if an overwhelmed person performs work for a long period of time, it has many adverse consequences. In addition, Demerouti et al. (2002) note that burnout carries a long-lasting mental burden. This state is related mostly to individual, not environmental factors that are the basis for burnout. Therefore, the individual can struggle alone with the internal symptoms for a long time while looking for remedies. Some authors claim that burnout syndrome is a general term for various misdefined human crises. Burisch's theory of burnout is based on the theory of action (Burisch, 2002). According to the author burnout syndrome is best conceptualized as a highly nonspecific entity, the generic name for certain types of crises that manifest themselves in a multifaceted symptomatology (Burisch, 1993). One of the burnout core symptoms is loss of autonomy, which leads to functional disorder. Burisch's (1993) assumptions are based on episodes of action that can be any individual behavior lasting from several minutes to many years. Action episodes form a pyramid in which one-episode overrides others. The disturbances of action episodes contribute to the difficulties encountered by the individual in achieving personal goals or insufficient motivation to complete the task. According to the theory of action, burn-out refers to erroneously defined forms of collapse in monotone life. Burisch (1993) distinguished four types of disturbed episodes of action. These include difficulties experienced by burned–out person on the way to achieving goals, thwarting the motive, non-motivating reward or end result. According to the author, secondary stress leads to burn-out, which is the use of ineffective

[1] corresponding author - email: agnieszka.muchacka-cymerman@up.krakow.pl

remedial strategies and, as a consequence, the loss of autonomy. When an individual cope with secondary stress, this affects personality development and enhances human remedial skills. On the other hand, the experience of failure at every step, may affect an increase in burnout symptoms. It is worth to add that burnout was also defined as a structural (Leiter, 1992) or spiritual crisis (Moczydłowska, 2016), in which personal overwhelmed is related to experiencing psychological chronic distress induced by ineffectiveness in undertaking actions and burdensome requirements in the work environment, as well as previous idealistic beliefs, values and life goals break down (Zaręba et al., 2020). Oftentimes, the process of burnout results in negative self-concept, negative attitudes toward others and various psychosomatic and mental problems i.e. depression and anxiety (Koutsimani et al., 2019).

Burnout and traumatic experiences

Experiencing traumatic event may be crucial for psychological disorders or ineffectiveness in various areas in life at a later stage in every plane, both family and professional as trauma triggers other problems (Fatwa et al., 2014). If the physical, mental or behavioral problems occur after a month with the ongoing maladaptive reactions and severe distress to a traumatic experience (re-experiencing trauma), Post-Traumatic Stress Disorder is recognized (Terr, 1988; Fatwa et al., 2014). Secondary traumatic stress is identified by Thomas and Wilson (2004) as part of a set of stress situations experienced by the individual, including trauma and fatigue. Whether the situation will be perceived by a person as traumatic depends on their resources (Wheeler, 2007). According to Jenkins and Baird (2002), traumatic stress is similar to burnout because they have a common ground, which is exposing individuals to emotional involvement in social relationships. In studies conducted by Galek et al. (2011) it has been shown that the higher the social support that an individual receives, the lower the level of burnout and traumatic stress. However, the authors of the study point out that not every type of social support received brings such an effect. Supervisory and family support are the most effective. PTSD symptoms lasts for months, or longer (Zlotnick et al., 2001), and its severity may differ from time to time. Chatard et al. (2011, p.47) stated that traumatic events generate disruptive effects, because they disrupt the capacity of the individual's meaning systems, self-esteem, and close relationships to perform their normal anxiety-buffering functions. Burnout is also often related to withdrawal and alienation and impairment of coping and emotional mechanism, as it is strongly associated with inability to reduce negative emotional states and sustain positive affect (Ferreira et al., 2019). In both abovementioned phenomenon the individual is more susceptible to anxiety, intrusive thoughts (ruminations), became oversensitive and avoid others, are related to change in self and worldview (American Psychiatric Association, 2013; Vandevala et al., 2017; Kumar, 2018). Vîrgă et al. (2020) found that psychological capital are protective factors in both burnout and secondary traumatic stress. Studies analyzing the relationship between academic burnout and post-traumatic growth (PTGI) are rarely undertaken. Ying et al. (2016) in longitudinal surveys analyzed relationships of PTGI, resilience and academic burnout in a sample of 788 adolescent survivors of the Wenchuan earthquake. The results indicated that students' burnout was negatively correlated to PTGI, what is more resilience moderated the longitudinal association between PTG and changes in academic burnout, with a stronger and negative correlations for individuals with low trait resilience.

PTSD, post-traumatic growth and life-satisfaction

Theories of posttraumatic growth (PTGI) include the concept of interpreting trauma as highly challenging life events, when the individual reflects on traumatic experience, and find positive outcomes or make a new sense of it as a result (Aftyka et al., 2020). PTGI, deriving benefits following potentially traumatic events, that manifest itself as profound transformations in various areas of life, and leads to improve in social relationships, finding new life paths, increasing life appreciation, openness to new deepened spiritual experiences and enhance awareness of self-strengths (Tedeschi, Calhoun 1996, 2004), widened sense of wisdom and well-being (Jayawickreme et al., 2014; Ragger et al., 2019), feel more empathy and compassion, and may look at their past experiences from a distance (Aftyka et al., 2020). PTG is often defined as a result of intentional rumination processes conducted in order to integrate a past difficulties into a previous view of the world, rather than a direct outcome of the traumatic event itself (Ragger et al., 2019). Satisfaction that the individual derives from life as well as the tasks performed is an important factor protecting against routine, boredom or even in traumatic situations faster recovery. As follows from studies carried out by Mosher et al. (2006) post-traumatic growth is synonymous with increase in life-satisfaction. However, in studies by Park et al. (2010) a relationship between post-traumatic growth and better adaptation was observed. Ruini and Vescovelli (2013) suggest that gratitude is an important predictor of satisfaction derived from the activities performed, and thus a positive attitude towards what the individual does in life. The literature is inconsistent on the time elapsed after trauma for growth to occur (Linley, Joseph, 2004). PTGI after trauma induced by chronic illness or disability in some studies was significantly related to time since it was diagnosed (positively or negatively) and some authors did not observe associations at all (Sörensen et al., 2019). Kunst (2011) found that distress may produce posttraumatic growth, however only until the level of distress is manageable, after which stage an individual is less likely to exhibit posttraumatic growth. According to PTGI

model proposed by Tedeschi and Calhoun (2004) the positive change is a complex process, which rarely occurs immediately after traumatic event.

The current study conceptual framework

The theoretical approaches described above suggest that burnout can be viewed as a long-last educational crisis of personal beliefs, values, and life goals related to education which is a gradually progressive process over time, leading to many adverse consequences, especially reducing the individual's ability to cope with new burdens **a**nd to be satisfied with life. However, to date, only a few studies have explored student burnout, life satisfaction, and PTGI altogether in the context of the time from the traumatic experience and situational crises, namely pandemic Covid 19. Thus, the main purpose of the study was to answer the question about the role of time from the trauma experience in associations between life-satisfaction, experiencing burnout and post-traumatic growth. In particular we were trying to get answers on a question what is the significance in post-traumatic growth of overlapping crises that last for a long period of time and may not be severe at first for a person (i.e. academic burnout whose symptoms escalate with the time past) with those that directly threaten the individual and affect every human being (pandemic Covid 19 - a new threat to life and health, however it is common and can be treated as a phenomenon inscribed in the everyday functioning of everyone), and those that relate to individual difficult life experiences from the past (Traumatic experiences from the past). Based on previous studies we assumed that: (1) the levels of post-traumatic growth (PTGI), life-satisfaction (SWLS) and academic burnout will be different in groups distinguished by time passing from trauma (2) the longer time from traumatic experience the higher PTGI and SWLS, and the lower academic burnout indicators; (3) higher academic burnout indicators will predict lower post-traumatic growth, and higher life-satisfaction will predict higher post-traumatic growth.

2. Materials and Methods

2.1 Participants

The sample consisted of 199 university students aged 18 to 48 years. Their mean age was M =21.92 years (SD = 5.00 years), and 84.9% of them were women. The participants were recruited in several universities from different fields of studying e.g. Teaching Faculties (44.4%), Social Sciences (15.4), Sciences (23.4%), Humanistic science (8.4%), Natural science (0.9%). One student did not mark the field of the study. Most of participants were satisfied with their academic achievements (N=134, 62.6%). 78.4% had positive attitude to the field of studying before pandemic period, and such positive attitude during pandemic time sustained the same approach 50.3%). Only 38.7% declared that online contact with teachers is comfortable for them, and 68.6% stated that they lack "face to face" contact with teachers.

2.2 Instruments

University student's burnout scale (USBS) is a 34-items scale with 4 - point Likert scale (1- strongly agree, 4- strongly disagree). The scale is based on SSBS scale originally proposed for secondary school students by Aypay (2012). It measures total level of burnout and its seven dimensions: Loss of interest in school (LIS), Burnout due to studying (BDS), Burnout due to family (BDF), Burnout due to doing homework (BDH), Being bored and tired of teacher attitudes (BTT), Need to rest and have fun (NRF) and Incompetence in school (ISS). In SSBS scale the higher score means the lower burnout.

Satisfaction with life scale (SWLS) by Diener et al. (1985) in polish adaptation of Jankowski (2015) measures specific life satisfaction domains and global cognitive judgments. A 5-item scale with 7-point Likert scale (1 - strongly disagree, 7 – strongly agree). The higher the overall score achieved by the individual, the higher the life satisfaction.

Post-traumatic growth scale (PTGI) by Tedeschi and Calhoun (1995) in polish adaptation of Ogińska-Bulik and Juczyński (2010) is 21-item scale with 6-point Likert scale (0 – strongly disagree, 5 – strongly agree). The higher the score, the higher the intensity of the positive changes. Inventory measures 4 factors that contribute to post-traumatic development: changes in self-perception, changes in relationships with others, greater appreciation of life, and spiritual changes.

2.3 Procedure

The participants were approached in the Internet by using university platforms, social media and e-mails. The study was performed in April 2020, during the at the peak of Covid19 cases in Poland. The responders volunteered for the study and received no payment for participation. Descriptive statistics, alfa Cronbach's, ANOVA and MANOVA were calculated with the SPSS version 22.0. Pearson's coefficients were performed by using STATISTICA 13.3 PL.

2.4 Ethics Consideration

The study was approved by the Ethic Commission. The respondents participating in the study were informed that they could resign from participation in the study at any time and that they would not receive any benefits for participating in the study. After the test, the participants could see their results and compare it with the average of people who took part in the study.

3. Results

3.1 Comparison analysis

The sample was divided into three groups differ with time period from traumatic experience. The first group experienced trauma in time period from 1 month to 1 year (N=47, 23.6%), traumatic situations of these participants mostly were connected with loosing somebody close to and work and financial problems. The most numerous group was group 2 with trauma that occurred from 1 to 5 years ago (90 students, 45.23%). The types of traumatic experiences that were most often indicated were the same as in group 1. In the last group the time from traumatic experience was over 5 years ago. In this group participants most often indicated loss of somebody close to and sickness or disability as the causes of the trauma (see Tab. 1).

Type of traumatic experience	Time from the trauma experience			Total sample (N=199)
	Group 1. From last month to one year (N=47)	Group 2. From 1 to 5 years ago (N=90)	Group 3. Over 5 years ago (N=62)	
Loss of sb close to	20	42	16	78
Work and financial problem	15	18	11	44
Family problems or divorce	2	12	12	26
Sickness or disability	5	10	19	34
Violent event (assault or accident	5	5	4	14
Other	0	3	0	3

Table 1 - The number and type of traumatic experiences in study sample (N=199).

The descriptive statistics for each of three group are presented in Table 2 and 3. According to one-way ANOVA significantly higher post-traumatic growth was found in groups with longer time period from traumatic experience (group 2, 1-5 years from trauma, and group 3, over 5 years from trauma) in comparison to group 1 (trauma experienced from 1 month to 1 year). The comparisons of the level of PTGI between group 2 and 3 was insignificant. MANOVA results indicated significant differences between groups in the burnout indicators and life satisfaction ($F_{(16,364)} = 2.00$, $p = .013$, $\eta^2 = .081$). However, these differences mainly are connected with higher level of life satisfaction in group 1 compared to group 3. Thus, hypothesis one was partially accepted, e.g. the levels of post-traumatic growth (PTGI) and life-satisfaction (SWLS) but not academic burnout was different in groups distinguished by time passing from trauma.

Variable: PTGI post traumatic growth total score						
	Group 1. From last month to one year (N=47)	Group 2. From 1 to 5 years ago (N=90)	Group 3. Over 5 years ago (N=62)			
Alfa	M (SD)	M (SD)	M (SD)	F	df	p
.92	56.43 (21.33)	64.38 (18.18)	67.13 (15.38)	4.83	2,186	.009

Table 2 - Descriptive statistics (Means and Standard deviations) of PTGI in three tested groups.

3.2 Correlation analysis

The longer time from trauma the higher post-traumatic growth (Pearson's $r = .21$, $p = .004$), and lower life satisfaction (Pearson's $r = -.22$, $p = .002$), and the lower burnout due to teachers' attitude (Pearson's $r = .16$, $p = 0.21$) (Statistics calculated for total sample).

There were a positive significant association between post-traumatic growth (PTGI) and life satisfaction in total sample ($r = .21$, $p = .004$), while burnout indicators did not significantly correlate with PTGI score. Burnout due to teachers' attitude (BDT) (Pearson's $r = -.46$, $p = .002$) and feeling of incompetence (ISS) (Pearson's $r = -.38$, $p = .012$) were significantly associated with post-traumatic growth in the group with the shortest time from trauma (Group 1). Feeling of incompetence (ISS) was also significantly correlated with post-traumatic growth in second group with time period from trauma experience from 1 to 5 years, however the correlations were positive (Pearson's $r = .24$, $p = .029$). In second group also life satisfaction positively correlated with PTGI total score (Pearson's $r = .55$, $p < .0001$). In the third group (over 5 years from trauma) all associations were insignificant.

Hence, the hypothesis two was partially accepted e.g. the longer time from traumatic experience the higher PTGI and SWLS, however only one academic burnout indicator was lower e.g. BDT.

3.3 Multiple regression analysis

A multiple regression analyses were performed to check if burnout indicators and life satisfaction were predictors of post-traumatic growth. The regression model for total sample was insignificant $F_{(8,172)} = 1.80$, $p = .081$, however lower burnout due to teachers attitude (ß = .21, $p = .05$) and higher life satisfaction (ß = .22, $p = .004$) were a significant predictors of PTGI. Similarly, according to the results, the model for group 3 (the longest time form trauma experience) appeared insignificant ($F_{(8,47)} = 1.72$, $p = .118$). Even though one variable - burnout due to parents' pressure (BDF) was significantly associated with the PTGI score in this group (ß = .49, $p < .01$). BDF was also significant predictor of PTGI in group 2 (with time period from 1 to 5 years from trauma experience). Life satisfaction turned out to be such a predictor only in the second group with time period from trauma between 1 to 5 years ago, (ß = .59, $p < .0001$). Loss of interest (LIS), burnout due to

Variables	Alfa	Group 1. From last month to one year (N=47)		Group 2. From 1 to 5 years ago (N=90)		Group 3. Over 5 years ago (N=62)		F	df	p
		M	SD	M	SD	M	SD			
LIS	.80	17.00	.56	16.99	.39	17.97	.49	1.40	2,188	.249
BDS	.81	17.07	.57	17.17	.39	17.79	.49	.65	2,188	.526
BDF	.79	15.19	.56	14.01	.39	15.24	.48	2.57	2,188	.079
BDH	.62	12.47	.41	13.57	.29	13.36	.36	2.49	2,188	.087
BDT	.72	10.47	.39	10.67	.27	11.48	.33	2.53	2,188	.082
NHF	.77	9.16	.42	9.09	.29	9.38	.36	.20	2,188	.820
ISS	.76	8.72	.40	8.53	.28	8.45	.35	.14	2,188	.874
USBS	.92	90.07	16.38	90.02	16.94	93.92	12.64	1.28	2,190	.281
SWLS	.85	25.21	.87	22.99	.60	22.21	.75	3.59	2,188	.029

Note: LIS - Loss of Interest in School; BDS - Burnout Due to Studying; BDF - Burnout Due to Parents; BDH - Burnout Due to Doing Homework; BDT - Being Bored and Tired of Teacher Attitudes; NRF - Need to Rest and Have Fun; ISS - Incompetence in School; USBS – Academic Burnout Total Score; SWLS – Life satisfaction

Table 3 - Descriptive statistics (Means and Standard deviations) of tested variables for three groups different in time period from traumatic experience.

studying (BDS), and burnout due to homework (BDH) significantly predicted PTGI in two groups i.e. group 1 with the shortest time period from trauma and group 2, 1-5 years from trauma (ß equal from -1.61 to 1.27). In group 1 also burnout due to teachers' attitude (BDT) (ß = -.69, $p < .01$) and in group 2 feeling of incompetence in school (ISS) (ß =.30, $p < .05$) significantly predicted PTGI (see Table 4). In a summary, the third study hypothesis, in which we assumed that higher academic burnout indicators will predict lower post-traumatic growth, and higher life-satisfaction will predict higher post-traumatic growth was also only partially accepted.

	Group 1. From last month to one year (N=47)	Group 2. From 1 to 5 years ago (N=90)	Group 3. Over 5 years ago (N=62)	Total sample (N=199)
Variables	ß	ß	ß	ß
LIS	1.27^{**}	$-.55^{**}$	-.01	.07
BDS	-1.61^{**}	$.76^{**}$	.25	.07
BDF	-.20	$-.22^{*}$	$.49^{**}$	.01
BDH	$.83^{*}$	$-.31^{*}$	-.08	-.08
BDT	$-.69^{**}$	-.08	-.35	$-.21^{*}$
NHF	.24	-.20	-.14	.09
ISS	-.20	$.30^{*}$	.12	.01
SWLS	-.08	$.59^{***}$	-.20	$.22^{**}$
F(df), p	$F_{(8,34)}$ =5.48, p<.0001	$F_{(8,73)}$ =9.41, p<.0001	$F_{(8,47)}$ =1.72, p=.118	$F_{(8,172)}$ =1.80, p=.081
$R^2/\Delta R^2$	.56/.46	.51/.45	.23/.10	.08/.03

Note: LIS - Loss of Interest in School; BDS - Burnout Due to Studying; BDF - Burnout Due to Parents; BDH - Burnout Due to Doing Homework; BDT - Being Bored and Tired of Teacher Attitudes; NRF - Need to Rest and Have Fun; ISS - Incompetence in School; SWLS – Life satisfaction

$^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$

Table 4 - Predictors of post-traumatic growth – results of regression analysis for three groups with different time period from traumatic experiences.

4. Discussion and Conclusions

The primary purpose of this study was to examine the relationship between academic burnout, life satisfaction, and post-traumatic growth in the context of time passing from trauma.

Our findings were partly in accordance with the first hypothesis, as the highest post-traumatic growth (PTGI) was discovered in group with the shortest time period from traumatic experience. Only life satisfaction significantly differs groups, with the lowest SWLS score in the sample with the longest time period from trauma. The findings confirmed that time past after traumatic experiences is related to higher post-traumatic growth, and surprisingly with lower life-satisfaction, and only one burnout indicator - lower burnout due to teachers' attitude. In particular, when considering time past from traumatic situation, post-traumatic growth (PTG) significantly correlated with higher life satisfaction only in a group with medium time from trauma (group 2), while such associations did not appear in the rest groups. PTGI also correlated with several indicators of burnout: in group 1 with higher burnout due to teachers' attitude (BDT) and higher feeling of incompetence in school and in group 2 with lower feeling of incompetence in school. In group 3 burnout was not associated with PTGI. Therefore, the second hypothesis was also only partially confirmed.

Finally, we also did not fully confirm the third hypothesis. The regression analysis revealed that apart from the insignificance of the model for total sample, higher life satisfaction and higher burnout due to family pressure were significant predictors of PTGI. Interestingly, higher life satisfaction significantly predicted PTGI, but only in group with medium time from traumatic situation (group 2). According to the results academic burnout indicators were significant predictors of post-traumatic growth in all groups,

however different areas of problems were associated in relation to time from trauma. Additionally, the model for group 3 was insignificant (with significant burnout due to family pressure as predictor of PTGI). In particular, some burnout variables played a different role in PTGI over time e.g. loss of interest, and burnout due to homework were positively associated with PTGI in group 1 (higher level of this burnout symptoms predicted lower post-traumatic growth) and negatively in group 2 (lower levels of these variables predicted lower post-traumatic growth). Similarly, burnout due to studying was negatively related to PTGI in group 1 and positively in group 2. Burnout due to family pressure was negatively connected to PTGI in group 2 and positively in group 3. These results may suggest that over time the meaning of the long last problems/chronic stress-symptoms changes. When we consider our crises connected with education in a perspective of traumatic experience and the meaning of it in our life, we may underestimate or overestimate these crises. Similarly, conclusion was made by Ragger et al. (2019), who stated that growth and stress after critical incidents are independent from each other and can co-exist.

As a summary, our studies indicated that academic burnout may be related to higher post-traumatic growth because we may minimize everyday overwhelming problems (such as lack of interest of university classes) in a perspective of our difficult experiences, but over time this effect starts to decrease. Even though some difficulties and education-stresses may be so disturbing that they suppress PTGI at first (duty to studying), yet with the time they start to dominate in our view of self, sense of actions, and the assessments of the surrounding social world. This may later reveal as a lower life satisfaction, because over time we feel more overwhelmed with the current crisis and may less positive interpret the meaning of traumatic past event. Despite the fact, that many models of PTGI and empirical results suggest that well-being is significantly related to changes induced by post- traumatic growth, not all studies confirmed such relations e.g. Hall et al. (2010) found no correlations between PTGI and well-being, even though they controlled several psychological and socio-demographic characteristics of participants such as: age, sex, ethnicity, education, religiosity, degree of terrorism exposure, self-efficacy, non-terrorism stressful life events, and loss of psychosocial and economic resources. In the light of our results, such lack of connections may be associated with the passing of time from trauma. Our findings suggest that positive change after trauma from the past, and experiencing long last crises are not associated with each other, after longer period of time from traumatic situation. Thus, the longer time from trauma is not connected with the weaker symptoms of long last crises, such as burnout. Interestingly, longer time period from traumatic experience was not related to higher life satisfaction, what suggests, that positive growth may not protect us from new and common threats. This may occur as we possibly interpret the new difficulties in negative way, as another burden we have to face in life, which in turn may decrease our life satisfaction.

Our findings should also be interpreted in the light of the psychological and social costs of the pandemic Covid 19. Specifically, the threat associated with the pandemic led to prolonged exposure to distress, fear of contagion, and social isolation. Meta-analysis of past studies pointed out that psychological effects related to the pandemic were separation from loved ones, loss of freedom, uncertainty about the advancement of the disease, and the feeling of helplessness, depression, and a rise in suicides (Saladino et al., 2020). The Covid 19 pandemic may also increase a feeling of fragility of life and one's mortality. Hence, anxiety about the sense of one's existence which normally stays on a latent level is updated and current crises cause us to start noticing the current recent problems but also past difficult experiences in a negative light. This state may force an individual to redefine the meaning of life, even if the past trauma was worked through. Moreover, our results partially confirm that changes in the core beliefs about self and the world caused by trauma, are also related to changes in the cognitive aspect of well-being, namely life satisfaction. This effect may be connected to the person's inability to experience satisfaction in the same way (or on the same level) as before the traumatic event. Trauma transforms people's feelings, but also factors that are taken into account when we evaluate our lives. People with trauma are also more prone to highly challenging life circumstances, which turn into fluctuation in life satisfaction. The overlapping of long-term (i.e. burnout syndrome) and situational crises (global health crises caused by Covid 19), combined with the activation of past traumatic experiences, seems to cause considerable difficulties in maintaining positive life satisfaction. Past and current threats to core beliefs and self-sense activate both intrusive and deliberate rumination related to traumatic experience (Triplett et al., 2011). Such subsequent deliberate thinking concentrates inter alia on finding the meaning of both life and the event, and ultimately producing a revised life narrative (Calhoun et al., 2010) and therefore may product changes in life satisfaction and growth. Triplett et al. (2011) stated that challenges to the assumptive world serve as a departure point for eventual growth. The authors found that the association between growth and life satisfaction is weak, however in this relation the presence of meaning in life plays a significant role. Therefore, posttraumatic growth will not necessarily be strongly associated with current levels of life satisfaction in a simple way. This regularity was also observed in our study. Abovementioned findings should also be considered in the light of type of PTGI. Boals et al. (2019) distinguished actual and perceived growth after trauma. They revealed that perceived PTGI is not significantly related to either actual PTG or perceived general growth. Furthermore, in their studies, higher levels of perceived PTG were significantly related to increases in distress and higher levels of avoidance coping. Our results partially confirm such regularity, and

the suggestion that perceived PTG may be more of a coping process than an accurate recall of posttraumatic change (Boals et al., 2019), as in our studies the directions of connections between PTGI and burnout indicators differ as the over time or lost its significance.

Our study revealed that positive effect of growth after traumatic experience is the strongest in longer-period of time, however group with medium (2-5 years after trauma) and the longest (over 5 years) were similar in PTGI. It therefore seems, that PTGI occurs and increase but only up to some point, and then persist on this level despite the passage of time. In addition, life satisfaction was the lowest in group with the longest time period from trauma. Hence, it is possible that we are enhanced but only on the type of situations that are connected with past trauma, however it not prepares as for new threats and seems not to be connected with crises that we experienced for a long period of time. The aforementioned regularity is partially confirmed by Łuszczyńska et al. (2012), who specified that post – traumatic growth may act as a palliative response to a life threat when it occurs shortly after a trauma (chronic or terminal illness diagnosis). However, in the long perspective PTGI may be linked to more profound positive life changes. It is also worth to add that results of longitudinal studies that measured growth showed that the highest rate of growth occurred from 2 weeks to 6 months after the assault (Ulloa et al., 2016).

Past traumatic experiences and our attitudes toward the meaning of it in our lives changes over time. Due to these changes we may different react on a long-last crises (burnout symptoms) and new threats in our life, like pandemic Covid 19. The positive effect of post-traumatic growth is not always connected with higher life satisfaction. Over time, this effect decreases, and when the new difficult situation that treats our life appears it may diminish our life satisfaction.

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