

DOI:10.12923/2353-8627/2023-0021

Czasopismo indeksowane  
na liście MNiSW - 70 pkt.

## You better stop hiding your true self! The relationship between perceived false self, academic burnout, and mental health problems

Katarzyna Tomaszek ABCDEFG, <https://orcid.org/0000-0001-7019-5403>,

Department of Psychology, Institute of Psychology, University of Rzeszow, Poland

### Abstract

**Introduction:** False self is defined as the discrepancy between what we show and what we truly think and feel, and is associated with mental health and social problems. The present study aimed to examine the perception of false self-relationships with emotions, and educational and mental health problems. Specifically, the mediation effects of emotional regulation strategies and academic burnout on the association between perceived false self and depressive symptoms as well as life satisfaction were tested.

**Material and methods:** The study design was cross-sectional. A paper-pencil method of data collection was used. The survey included the Academic Burnout Inventory (MBI-SS), the Perceived False Self Scale (POFS), the Depressive Symptoms Questionnaire (CES-D), and the life satisfaction scale (SWS). A total number of 149 participants took part in this study (aged:  $M=21.09$ ;  $SD=1.72$ ; 84.6% women).

**Results:** The findings indicate that the perceived false self, emotional suppression, cognitive reappraisal, and academic burnout explain 31% of depressive symptoms and 31% of life satisfaction. The perceived false self was associated indirectly with depressive symptoms and life satisfaction via (1) emotional suppression, (2) academic burnout, and (3) emotional suppression, cognitive reassessment, and academic burnout altogether.

**Conclusions:** Findings confirmed that inauthenticity is connected to mental health impairment and educational problems. Hiding the true self is associated with the suppression of true emotions, and for this reason, a person may experience tension. Consequently, a long-term struggle with distress generates burnout syndrome and an increased risk of mental health problems. In preventive interventions, it is important to include actions that strengthen authentic responses.

*Keywords:* life satisfaction, emotional regulation, academic burnout, perceived false self, symptoms of depression

### Streszczenie

**Wstęp:** Fałszywe ja, definiowane jest jako rozbieżność między tym, co pokazujemy, a tym, co naprawdę myślimy i czujemy. W świetle badań zjawisko to jest związane ze zdrowiem psychicznym i problemami społecznymi. Celem badania było przetestowanie mediacyjnej roli strategii regulacji emocji i wypalenia akademickiego na związek między postrzeganym fałszywym ja a symptomami depresji oraz postrzeganym fałszywym ja i satysfakcją z życia.

**Materiał i metody:** Badanie miało charakter przekrojowy. Wykorzystano metodę zbierania danych papier-ołówek. Badanie obejmowało Skalę Wypalenia Akademickiego (MBI-SS), Skalę Postrzeganego Fałszywego Ja (POFS), Kwestionariusz Symptomów Depresji (CES-D) oraz Skalę Satysfakcji z życia (SWS). W badaniu wzięło udział 149 osób (wiek:  $M=21,09$ ;  $SD=1,72$ ; 84,6% kobiet).

**Dyskusja:** Dane jakie uzyskano wskazują, że postrzegane fałszywe ja, tłumienie emocji, ponowna ocena poznawcza i wypalenie akademickie wyjaśniają 31% poziomu symptomów depresji oraz 31% wariacji w skali satysfakcji z życia w badanej próbie. Wyniki potwierdziły, że spostrzegane fałszywe ja było pośrednio związane z symptomami depresji i satysfakcją z życia poprzez (1) tłumienie reakcji emocjonalnych (supresja), (2) wypalenie akademickie oraz (3) tłumienie reakcji emocjonalnych (supresja), ponowną ocenę poznawczą sytuacji emocjonalnej oraz wypalenie akademickie.

**Wnioski:** Uzyskane wyniki potwierdziły, że nieautentyczność może wiązać się z zaburzeniami zdrowia psychicznego i problemami edukacyjnymi. Ukrywanie prawdziwego ja wiąże się z tłumieniem prawdziwych emocji i uczuć, z tego powodu osoba może doświadczać wyższego poziomu napięcia i stresu, a długotrwałe zmaganie się z dystresem generuje wypalenie i zwiększone ryzyko wystąpienia problemów zdrowotnych. W oddziaływaniach prewencyjnych ważne staje się zatem

uwzględnienie interwencji wzmacniających autentyczne reagowanie i akceptację aktualnie doświadczanych stanów emocjonalnych.

*Słowa kluczowe:* satysfakcja z życia, regulacja emocji, spostrzegane fałszywe ja, wypalenie akademickie, symptomy depresji

## Introduction

The nature and development of the self are at the heart of psychology, and a vast number of researchers tried to conceptualize this construct. The perceived false self (perceived inauthenticity) is the observed discrepancy in thoughts, feelings, and behaviors caused by social conditions [1]. The false self is formulated as the defense mechanism that hides authentic actions and feelings. Ignoring or falsifying the instructions flowing from the socially valued imperative “be nobody – but yourself” [2] may have negative effects related to mental problems (e.g. negative mood, depression, loneliness, maladaptive coping, lower resilience in the face of stress and adversity that makes setbacks seem more burdensome, substance abuse) [1,3,4-9]. Thus the aim of this study was to examine the association of perceived false self with educational and mental health problems.

## Current research

Given the importance of the false-self construct

in explaining various psychological processes, beyond identity crises, the main goal of this study was to test whether lower general life authenticity perceived by a person via emotional regulation heightened the risk of development educational problems e.g. academic burnout and adverse mental health outcomes e.g. depressive symptoms and life dissatisfaction. The central background of this research was the Study Demands-Resources (SD-R theory, an application of the Job Demands-Resources (JD-R) model into educational settings). The SD-R framework is currently the most popular health theory to investigate the associations between student burnout antecedents and consequences. This approach proposes that study resources (the positively valued physical, psychological, social, and organizational factors) allow for fulfilling high study demands or stimulating personal growth and development [10]. Within the SD-R framework, the process of school burnout is a part of health impairment caused by overwhelming study demands and resource depletion. Figure 1. presents examined relationships

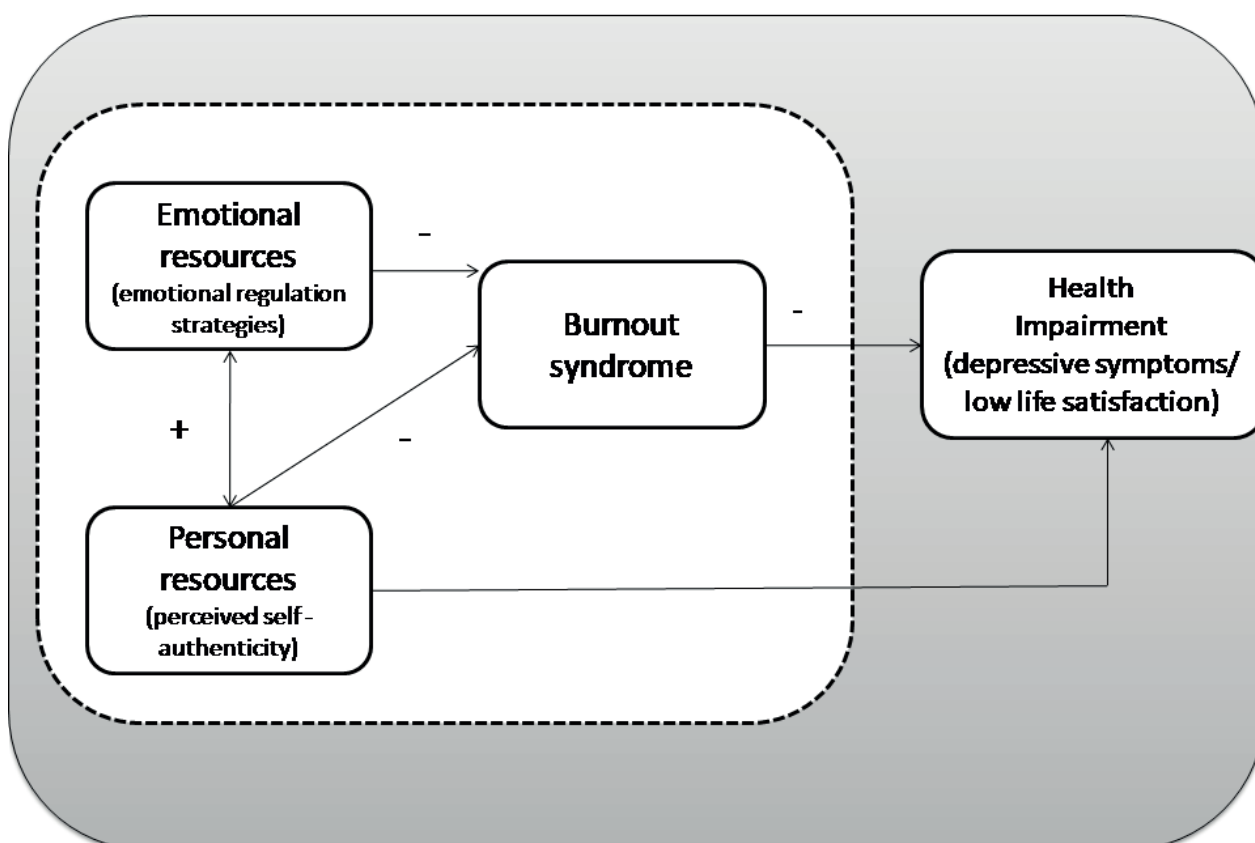


Figure 1. Examined relationships in the Study Demands-Resources Framework

*Personal and Emotional Resources as predictors of burnout and health impairment*

A substantial body of literature has confirmed that perceived authenticity is an antecedent of various aspects of positive outcomes, indicating high well-being and meaning in life. In particular, it predicts positive self-esteem [11], positive affect, and mood [12], both components of well-being e.g. its affective aspect - subjective happiness [13,14], and the cognitive one - life satisfaction [15]. A meta-analysis conducted by Sutton revealed a positive moderate relation between authenticity and well-being ( $r = 0.40$ ) [16]. Formulating (or reformulating) and expressing the true self is inevitable to mental health. Therefore, people who "lost touch" with their true selves because of parental or societal demands usually demonstrate a variety of clinical problems e.g. depression or anxiety [1,3,9,17]. From the conservation of resources (COR) theory perspective, authenticity may be understood as a valuable resource that favors the effectiveness of responses to stress. The empirical evidence suggests that a higher feeling of authenticity reduces depressive-anxious symptoms, physical responses to stressors, and cognition-thought-of helplessness [18]. According to the most popular burnout theory, the Job Demand - Resources (JD-R) individuals who are burned out from their activities (job/education), lose their enthusiastic approach to it and are no longer interested in making a positive contribution. The process of burnout is related to overwhelming work/educational demands and poor social and personal resources e.g. lack of social/organizational support, low self-esteem, and maladaptive structure of personality traits with higher stress-related vulnerability, etc. [19]. Moreover, a severe and chronic form of exhaustion, cynical attitudes toward work/education, and the feeling of professional inefficacy are accompanied by many other health and mental problems, such as impaired mood (anxiety/depression) [20]. Burned-out people are often engaged in maladaptive behaviors (confusion, aggression, conflicts) that increase obstacles because of either high work/educational demands or lack of self-control (self-undermining process) [19,20]. The recently proposed Burnout Assessment Tool (BAT) model may give another justification for the link between self-concept and burnout. In line with this approach, the feeling of extreme tiredness and fatigue is explained by an impairment of emotional and cognitive regulation processes. As a result, mental distancing, a form of self-protection reaction, rises [21]. Experiencing core symptoms of burnout (exhaustion, negative attitudes to activity, and self-inefficiency) may be linked to the loss of control in a major self-regulating system. According to Schaufeli et al., this is the main reason for developing secondary symptoms, e.g. psychological

distress, psychosomatic complaints, and depressed mood [22]. In line with the theoretical framework described above, it seems reasonable to expect that the lack of authentic self (the falseness of it) may be an antecedent of the dysregulation in the central self-organized system leading to the inability to live a fulfilling life. Drawing on the abovementioned psychological theories as well as evidence from the burnout literature, it was proposed that the true self-concept may serve as an important personal resource in coping with permanent work/educational distress. Therefore, it was hypothesized that perceived false self will predict higher burnout syndrome and health impairment e.g. depressive symptoms and life dissatisfaction. As it has been mentioned above, SD-R theory posed that academic burnout plays a mediating role in the relationship between personal resources depletion and the health impairment process. Thus it was also hypothesized that a perceived false self is indirectly associated with depressive symptoms and life dissatisfaction via academic burnout.

Another type of personal resource refers to emotions. Emotional regulation (ER) help people to cope with potentially overwhelming emotional demands. In accordance with the COR theory, when primary resources are threatened or lost, these losses evoke growing anxiety and distress, increasing physiological arousal and eventually resulting in exhaustion and health issues, loss of life satisfaction, and well-being [23]. Higher academic burnout was associated with emotional dysregulation (lesser cognitive reappraisal and more expressive suppression) among undergraduate dental students [24]. Furthermore, the association between emotional dysregulation and school burnout was mediated by personality characteristics e.g. dark personality traits and a low sense of coherence [25]. In this context the following hypothesis was posed: Emotional dysregulation will predict academic burnout. Based on the rationale of the prior hypothesis, it is also expected that academic burnout will be a mediator in the relationship between emotional dysregulation and health impairment indicators.

*False-self construct and emotional resources relationship*

According to COR theory, the main cause of resource loss is stress, however, individuals may accumulate resources (gain) to offset the net loss. Noteworthy, stress may be rooted externally or internally e.g. if a person unsuccessfully invests resources [26]. In this context, Chen et al. proposed the term "commerce in resources" the interchange and exchange of valued personal (ideas, opinions, and sentiments), social, and material resources. Furthermore, people shepherd their resources to obtain, retain and protect them [27]. Theoretical principles of COR theory directly suggest the interrelationship

between different types of resources e.g. self-concept and emotions. Authenticity as one of the personal resources examined in the current research is generally assumed to be beneficial as it is related to a host of positive outcomes [28]. Additionally, lower authenticity predicts psychological dysfunction such as negative affect [15]. The intrapersonal consequences of perceived authenticity were highlighted by Liu and Perreve [29]. In this study, perceived authenticity was positively associated with the liking and trust of the focal person (pro-social attitude), as well as to affective domain of well-being. In a recently published study by Landa and English, variability in state authenticity (fluctuations over time in momentary congruence) predicted greater negative affect, lower positive affect, and greater effort to regulate emotion [30]. According to Grandey et al., self-regulatory system depletion (ego-depletion) was responsible for the resource loss spiral [31]. More particular, people who are forced to suppress the expression of their true feelings are more depleted and perform worse on self-regulatory tasks compared to people who are authentic. As a result, the environmental climate that prevents authentic behaviors blocks the process of replenishing resources i.e. emotional regulation and buffering against strain from emotional work/educational demands. Consequently, the chronic distress experienced by people leads to the development of burnout syndrome, which causes adverse mental health issues. Therefore, it was hypothesized that emotional dysregulation will mediate the association between perceived false self and mental health issues.

#### *Suppression and cognitive reappraisal interrelationship*

Cognitive reappraisal was recognized as an adaptive strategy because a person is re-evaluating the perception of an emotional situation by cognitively modifying its impact on one's affect, which, in turn, increases self-control [32]. On the contrary, suppression is defined as a behavioral maladaptive strategy because the person is coping with emotions by inhibiting their expressions. According to the process model of emotional regulation developed by Gross and Thompson, cognitive reappraisal which is the antecedent-focused strategy that alters the emotional trajectory before expressive suppression which is the form of response-focused strategy based on intervention that occurs later, and combat with a higher intensity emotional response [33]. However "emotion generation is a dynamic process that involves repeated cycles through the emotion-generative process" (p. 16-17) [33]. Interestingly, recently conducted studies highlighted the interrelationship between reappraisal and suppression, with the postulate of co-occurrence of these two different emotional processes [34]. Furthermore, reappraisal and suppression operate before and after

response tendencies are fully activated, respectively, and research in expressive suppression revealed that this behavioral response involves reducing emotion-related facial behavior, increasing peripheral physiological responses and not changing subjective experience [35]. The question of when reappraisal is activated is strongly related to emotional level. According to the timing hypothesis tested by Sheppes and Gross, "applying reappraisal during an intense emotional state may require effortful conflict monitoring and resolution, which may deplete the resources needed to ward off impulsive decision tendencies (p.329) [35]. Thus distraction (behavioral suppression) may be used as first aid for intensive emotional tension responses since it attenuates negative affect immediately and effectively [35].

*Table 1. Summary of study hypothesis*

H1.	Higher perceived false self, academic burnout, and suppression and lower cognitive reassessment will predict higher mental health problems (higher depressive symptoms and life dissatisfaction).
H2.	Emotional regulation will play a mediating role in the association between academic burnout and mental health indicators e.g. depressive symptoms and life dissatisfaction.

The current study differs from past research in that it was focused on the role of the self-concept as a personal resource that is linked to the ability to cope with chronic distress and burnout and, via this relationship, it is connected to the individual's subjective well-being. More specifically, it was suggested that a person's perception of him-/herself as inauthentic heightened the risk of distress related to his/her professional activities (studying/working) and the individual's emotional system impairment (problems with emotional regulation), and because of these unhealthy functioning his/her life is experienced as less satisfactory.

#### **Materials and Methods**

**Participants and Procedure:** 149 Polish university students (126 women, 84.6% of the sample) aged 19-37 years old (M=21.09; SD =1.72) from the pedagogical and teaching field took part in the study. Most of the recruited participants work and study (N=99, 66.4% of the sample). Almost 71% of the students had lower or the same university achievements than at the beginning of the studying (N=106). After providing instruction and informed consent, all participants completed a battery of methods e.g. The Perception of False Self (POFS) scale, The Center for Epidemiological Studies Depression (CESD-R) scale, The Maslach Burnout Inventory-Student Survey (MBI-SS) scale, The Life Satisfaction(SWS) scale, and The Emotional Regulation questionnaire(ER) scale(paper-

pencil method) during their lecture (the survey took about 20 minutes). The study was conducted during the 2019 and the 2020 years (before COVID 19 pandemic), was voluntary and unpaid. This study was conducted in accordance with the Helsinki Declaration for research on people, and was approved by the University Ethical Committee of the Institute of Psychology.

#### Measurement tools

**The POFS scale** developed by Weir and Jose is consistent with 16 items to assess generalized false self-perceptions defined as inauthenticity of behaviours in a social context (e.g. "I say what I think even if it is different to the opinion of others") [1]. Originally it was assessed to measure false self construct among adolescents aged 11-13 years, but Gil – Or et al. confirmed its suitability for use also in a group of university students [3]. The reliability of the total score was equal to  $\alpha, \omega=0.84$ . Originally, the perceived false self construct was consisted of two components: False self incorporated different aspects of false self behavior ( $\alpha=.83$ ), and social concern which captures people's hiding and resigning from presenting one's own thoughts and feelings for the sake of others ( $\alpha=.60$ ). Therefore, two false self baseline structures were tested with CFA analysis with Maximum Likelihood, estimation method on the total sample ( $N=369$ ) was calculated. CFA was performed by free software JAMOVI package version 1.8. The results of CFA with one-factor ( $\chi^2=284.08$ ,  $p<0.0001$ ; RMSEA = 0.069, 95%CI=0.059-0.092; SRMR=0.066; CFI=0.83; GFI=0.90;) and with two – factors ( $\chi^2=401.66$ ,  $p<0.0001$ ; RMSEA = 0.088, 95%CI=0.080-0.098; SRMR=0.065; CFI=0.83; GFI=0.87). Fit indices confirmed the appropriateness of both structures i.e. RMSEA was below 0.08, CFI value almost reached 0.85 [36,37], however slightly better was the one-factor solution.

**The CESD-R Scale** by Radloff in a Polish adaptation by Koziara, is a 20-item self-report scale to assess nine symptoms of depression in population-based samples e.g. sadness, loss of interest, changes in appetite, and sleep, problems with thinking or concentration, the feeling of a guild, tiredness, agitation, and suicidal ideation [38,39]. Items example: "I felt that I could not shake off the blues even with help from my family or friends". The reliability of CESD-R was high  $\alpha$ ,  $\omega=0.91$ .

**The MBI-SS** was developed by Schaufeli, et al. [40]. The Polish translation and adaptation was prepared by Tucholska [41]. The instrument measures three components of academic burnout e.g. emotional exhaustion, cynicism, and academic inefficacy (e.g., "I feel emotionally drained by my studies"). The reliability of this tool was equal to  $\alpha$ ,  $\omega=0.89$ .

**The SWS scale** by Diener et al. in a Polish version

by Juczyński is a 5-item instrument designed to measure the cognitive aspect of well-being (item example: "The conditions of my life are excellent") [42,43]. The reliability of the SWS scale was equal to  $\alpha=0.81/\omega=0.82$ .

**The ER** by Gross and John in Polish adaptation prepared by Kobylińska is a short 10-item method for assessing two emotion regulation strategies: cognitive reassessment and suppression (e.g. "When I am feeling negative emotions, I make sure not to express them") [32,44]. In this study, the reliability for these two emotional regulation strategies was equal to:  $\alpha=.69/\omega=.70$ ;  $\alpha=.60/\omega=.65$ , respectively.

#### Data Analysis

IBM SPSS Statistics version 22 with macros PROCESS 3.0 presented by Preacher and Hayes was used for statistical data analyses. Two linear regression models were examined for life satisfaction, and depressive symptoms as dependent variables, separately. In the next step, two multiple mediation models (Model 6) by Hayes were performed with PROCESS macro 3.3 (5000 numbers of bootstrap samples) to test all mediation effects. Hayes PROCESS was used for the mediation analysis because it is robust in detecting significant indirect effects [45]. The bootstrap samples applied in Hayes PROCESS allows for estimating unbiased indirect effect with minimal errors. The sample size requirements were calculated with G\*Power - free software [46]. Using a calculator, the sample size for linear multiple regression model with five predictors (small effect with 95% power) was equal to 132 subjects. Monte Carlo power analysis for indirect effects with three parallel mediators was performed [47]. The power of 0.97 ( $p < 0.05$ ) was reached with 150 participants (for conditions: moderate relationship ( $r = 0.5$ ) between all types of tested effects). Cohen's  $f$  statistics were calculated to measure the effect sizes of ANOVA in multiple regression models [49].

## Results

### Linear Regression Analysis for depressive symptoms and life satisfaction

Perceived false self ( $\beta=0.21$ ;  $p=0.014$ ), emotional suppression ( $\beta=0.21$ ;  $p=0.009$ ), cognitive reassessment ( $\beta=-0.20$ ;  $p=.010$ ) and academic burnout ( $\beta=0.30$ ;  $p<.0001$ ) explained 31% of the depressive symptoms level ( $F(5.142)=17.12$ ,  $p<0.0001$ ;  $R^2=0.32$ ; Adj.  $R^2=0.31$ ). Cohen's  $f$  effect size for the regression model with all predictors was large ( $f=.662$ ) [49].

In the second regression model perceived false self ( $\beta=-0.25$ ;  $p<0.0001$ ), emotional suppression ( $\beta=-0.25$ ;  $p=0.002$ ), cognitive reassessment ( $\beta=0.21$ ;  $p=0.005$ ), and academic burnout ( $\beta=-0.22$ ;  $p=0.002$ ) explained 31% of the life satisfaction ( $F(5.141)=17.26$ ,  $p<0.0001$ ;  $R^2=0.33$ ;

Table 2. Regression model for depressive symptoms

Predictor	beta	95% CI	t	p	F	p	F <sub>change</sub>	P <sub>change</sub>	$\eta_p^2$	Cohen's f
Academic Burnout	.29	[.15;.48]	3.80	<.0001	36.02	<.0001	36.02	<.0001	.198	.490
False Self	.21	[.09;.63]	2.61	.010	26.96	<.0001	14.55	<.0001	.271	.596
Cognitive Reassessment	-.20	[-1.23;-.19]	-2.71	.008	19.12	<.0001	4.15	.044	.291	.610
Suppression	.21	[.20;1.42]	2.61	.010	17.12	<.0001	6.84	.010	.324	.662

Table 3. Regression model for life satisfaction

Predictor	b	beta	95% CI	t	p	F	p	F <sub>change</sub>	P <sub>change</sub>	$\eta_p^2$	Cohen's f
False Self	-.17	-.25	[-.28;-.06]	-3.01	<.0001	35.81	<.0001	35.81	<.0001	.198	.487
Academic Burnout	-.10	-.22	[-.16;-.03]	-2.84	.002	25.17	<.0001	11.86	.001	.259	.573
Suppression	-.39	-.25	[-.63;-.14]	-3.12	.002	19.33	<.0001	5.91	.016	.289	.612
Cognitive Reassessment	.30	.21	[.09;.51]	2.86	.005	17.26	<.0001	8.16	.005	.327	.665

Adj. R<sup>2</sup>=0.31). Cohen's f effect size for the regression model with all predictors was large (f=.666) [49].

Direct and indirect effects of academic burnout on depressive symptoms and life satisfaction via perceived false self and emotion regulation strategies

Model 1. included perceived false self as a predictor, the three mediators e.g. emotional regulation strategies and academic burnout, accounted for 44% of depressive symptoms. Four significant indirect effects were found (1) via emotional suppression ( $\beta = 0.09$ ; 95%CI [0.02,0.17]),

(2) via academic burnout ( $\beta = 0.10$ ; 95%CI [0.03, 0.20]), and (3) via emotional suppression and cognitive reassessment ( $\beta = -0.03$ ; 95%CI [-0.07,-0.001]), and (4) via emotional suppression and cognitive reassessment, and academic burnout all together ( $\beta = -0.01$ ; 95%CI [-0.02,-0.0004]). In addition, the direct effect of perceived false self on depressive symptoms remained significant, but lower ( $\beta = 0.21$ , t= 2.61,p= 0.010, 95%CI [0.20, 1.42]), when the mediators were included in the model, thus suggesting a partial mediation (see Fig.2).

In model 2. the direct and indirect effects of perceived

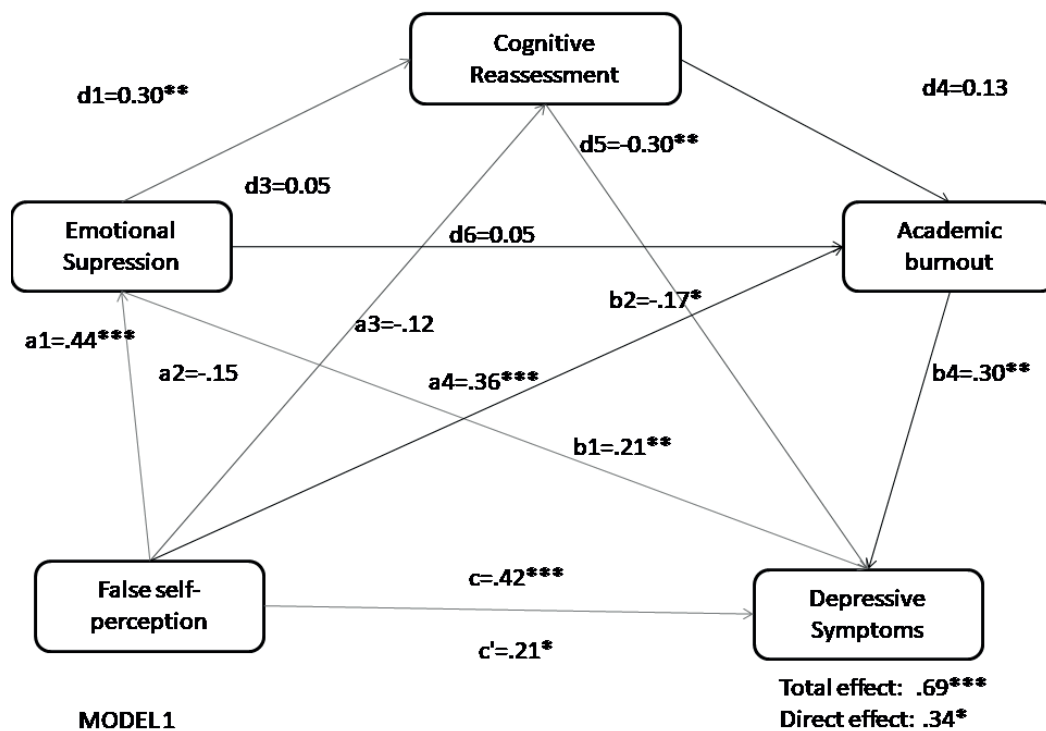
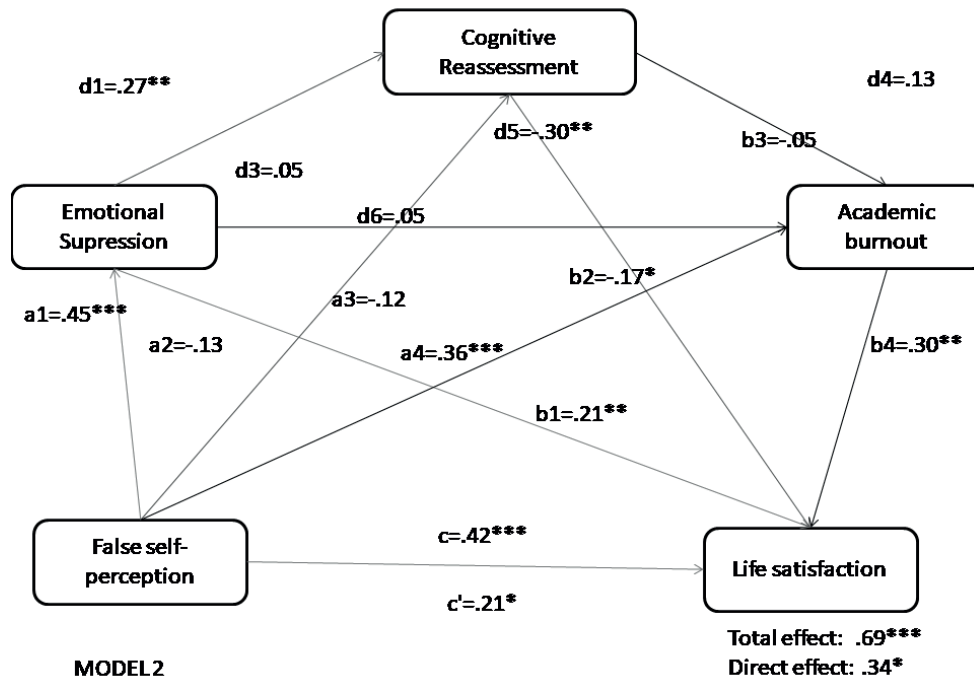


Figure 2. Total, direct, and indirect effects of perceived false self on depressive symptoms via emotion regulation strategies and academic burnout. Notes: All coefficients are standardized ( $\beta$ ); Total completely standardized indirect effect of perceived false self on depressive symptoms:  $\beta = 0.34$ , 95% CI [0.17;0.55].

false self on life satisfaction through three emotion regulation strategies and academic burnout (mediators) were tested. The model was significant and explained 57% of life satisfaction. Three significant mediation effects were found e.g. perceived false self was connected indirectly to life satisfaction (1) via emotional suppression ( $\beta = -0.07$ ; 95%CI [-0.13, -0.02]); (2) via academic burnout

( $\beta = -0.05$ ;95%CI [-0.10, -0.01]);and (3) via emotional suppression and cognitive reassessment ( $\beta = 0.02$ ; CI [0.0003,0.04]). The direct effect of perceived false self on life satisfaction after including mediators was significant but lower ( $\beta = -0.25$ ,  $t = -3.08$ ,  $p = 0.003$ , 95%CI [-0.28, -0.06]), suggesting partial mediating effect (see Fig.3).



Total, direct, and indirect effects of perceived false self on life satisfaction emotion regulation strategies and academic burnout. Notes: All coefficients are standardized ( $\beta$ ); Total completely standardized indirect effect of academic burnout on life satisfaction:  $\beta = -.13$ , 95% CI [-0.22;-0.06].

**Discussion**

The current study examined in general the role of perceived lack of authenticity in developing educational and mental health problems. The research contributes to a better understanding of the perception of inauthenticity construct, as well as the importance of self-knowledge and expressing the true self to human functioning. The results illustrate that perceived false self may be the risk factor of depressive symptoms development and lack of life satisfaction. As expected, it may also be connected to both mental health impairment indicators mentioned above via two emotional regulation strategies (e.g. emotional suppression, cognitive reassessment) and academic burnout. Across study analysis, it was confirmed that perceived false self is positively related to negative educational and health mental outcomes. Specifically, people who tend to perceive themselves as inauthentic may have problems with emotional functioning e.g. suppress their true emotions. It appears understandable that hiding the true self is to some extent related to suppressing real emotions and feelings, and for this reason, the person experiences higher levels of tension and stress, and prolonged struggling with distress generates burnout

and an increased risk of health problems. The findings are consistent with other studies that show the adverse effects of hiding true self on people’s daily functioning and mental health disparity [1,3-6,9]. Support for the inauthenticity role as a risk factor of educational and mental health problems (and true self as the opposite- protective factor) also comes from Job -Demands Resource model of stress and burnout (JD-R). The model pinpoints the role of high personal and social resources and optimal organizational strains (job/school), in the decrease of using maladaptive self-regulation strategies and combating the stress. Some of the most facilitative personal resources for higher academic/work success, engagement, and well-being are strongly related to personality characteristics and identity e.g.: identity – leadership, team-identification, self-directiveness, self-esteem, self-efficiency, belief in one’s capabilities, self-confidence, authenticity, inquiry-mindedness, perseverance, and intrinsic academic motivation [50,51]. The current research findings may indicate that the self-alienation process results in emotional dysregulation (e.g. maladaptive coping with emotions – dominance of suppression) and feeling of chronic fatigue because of personal costs of sacrificing

true self in order to gain positive others' judgments were too high. Although self-judgments about one's authenticity and well-being are thought to be intertwined [52], the mechanism underlying it is still not fully described. The results may suggest that emotional dysregulation may play a key role in explaining how perceived false self negatively affects professional and mental well-being indicators. The current research also provide further support for the BAT model of burnout [22]. Schaufeli and Taris posited two general processes of energy depletion (1) inability to spend effort – exhaustion (e.g., feeling fatigue and tired); (2) unwillingness to perform - mental distancing (e.g., increased resistance and aversion to activity) [53]. Additionally, this approach defined burnout as a condition that is characterized by first – ordered symptoms e.g. exhaustion, mental distancing, impairment to effectively regulate emotions and reduced functional capacity to adequately regulate one's cognitive processes, as well as second-ordered meta-symptoms e.g. depression, non-specific psychological and psychosomatic distress [54]. The emotional problems revealed in this study may be considered as a symptom of general coping system dysregulation. The indirect relation of perceived false self via emotional characteristics on academic burnout, depressive symptoms, and life satisfaction should be also explained in the light of conservation of resources theory (COR). Resources play a vital role in the burnout prevention through two distinct processes: (1) a resource-increase which negatively impacts burnout, and (2) a resource- loss in which burnout negatively affects resources. Thus, the personal resource-decrease indicated by falsifying true self may be one of the important factor initiating the burnout process.

### Study limitations, and future directions

Findings drawn from the current research must be considered in light of several limitations, the most serious being the cross-section nature of the data, relatively small and homogenous sample, and an overrepresentation of females. Thus, future replication in larger and more diverse samples would be beneficial. Notably, the current research was of particular interest in examining the false self-concept among university students, however, it may be of equal or even greater importance to tack the processes of developing false self and school burnout at an earlier age e.g. adolescence. Likewise, participant's self-concepts were assessed only at a single and subjective measure, and because of a strong tendency to desire positive self [55], the results may be biased e.g. overestimation or underestimation self discrepancy between “who they really are” and the tendency to falsifying it in social context. Nonetheless, subsequent studies could benefit from longitudinal investigations

to track the causal directions and to better understand the trajectory of developing false self and its possible reciprocal relationship with emotional dysfunctions. Similarly, from the current research it is still relatively little known about the processes underlying individual differences in developing academic burnout and the role of discrepancy between true and false self. Specifically, how falsifying true beliefs to get others' positive views may actually alter students' academic behavior and well-being. It should also be noted that this study was based only on an overall level of the perceived false self, however, in the future research multidimensional perspective may give more detailed information. Similarly, the educational burnout concept is certainly multidimensional (e.g. Aypay's model of school burnout), and such domains as: Loss of Interest in School; Burnout Due to Studying; Burnout Due to Parents; Burnout Due to Doing Homework; Being Bored and Tired of Teacher Attitudes; Need to Rest and Have Fun; Incompetence in School [56], may be shaped via very different processes. The research limitation also refers to mediation analysis as the main statistic used to verify the study hypothesis. For example, regression-based mediation models are not free from biased estimation, first due to an unobserved variable - the variable which potentially causes the changes in X, M, and/or Y [57]. Next, although macro PROCESS allows for assessing whether a mediating variable transmits the effect of an independent variable on a dependent variable, we only investigate whether a particular effect occurs, but with no information about fit indexes. Furthermore, the equivalent model criticism thesis requires a careful approach to the direction of the examined relationship. MacKinnon et al. described this problem by pointing out that “if X, M, and Y are measured simultaneously, there are other models that would explain the data equally well (e.g., X is the mediator of the M to Y relationship or M and Y both cause X), and in many situations, it is not possible to distinguish these alternatives without more information” [58]. Hence, the examined models, although based on conservation and burnout theoretical frameworks that have been well justified in the literature, do not answer the question about the inverse relationship. Moreover, theoretical and empirical evidence allows us to measure the opposite directions e.g. burnout may inversely decrease the perception of the availability or accessibility of personal resources in the self-undermining process. One must also take into account that cross-sectional approaches to mediation statistics usually generate substantially biased estimates of longitudinal parameters even under the conditions of full mediation. In such models, the proportion of the total effect mediated by M are often misleading [59], thus a longitudinal examination of the results is recommended. To conclude, although this



research project has some limitations, there are still some significant findings. The examined associations should rather be viewed as elements of interconnected systems of characteristics remaining in a dynamic relationship and creating a certain cycle leading to the loss of resources and health of the individual.

### Conclusion

This research is one of the few to examine how perceived lack of authenticity is related to people's emotional functioning and negative educational and mental health outcomes. The findings suggest that negative self-judgments about one's authenticity are linked to academic burnout, depressive symptoms, and lower life satisfaction directly and indirectly through emotional characteristics e.g. higher suppression and lower cognitive reassessment. These links may stem from the greater risk of ineffective emotional regulation or inadequate emotional reactions indicating general coping system dysregulation.

### Conflict of interest

The author has declared no conflict of interest.

### References:

- Weir, K. F., & Jose, P. E. (2010). The perception of false self scale for adolescents: Reliability, validity, and longitudinal relationships with depressive and anxious symptoms. *British Journal of Developmental Psychology*, 28(2), 393–411. 10.1348/026151009x423052
- Cummings, E. E. (1972). A poet's advice to students. *Journal of Humanistic Psychology*, 12, 75.
- Gil-Or, O., Levi-Belz, Y., & Turel, O. (2015). The "Facebook-self": characteristics and psychological predictors of false self-presentation on Facebook. *Frontiers in Psychology*, 6(99), 1-10. doi: 10.3389/fpsyg.2015.00099
- Wickham, R. E., Williamson, R. E., Beard, C. L., Kobayashi, C. L., & Hirst, T. W. (2016). Authenticity attenuates the negative effects of interpersonal conflict on daily well-being. *Journal of Research in Personality*, 60, 56–62. http://dx.doi.org/10.1016/j.jrp.2015.11.006
- Kim, J., Christy, A. G., Schlegel, R. J., Donnellan, M. B., & Hicks, J. A. (2017). Existential ennui: Examining the reciprocal relationship between self-alienation and academic amotivation. *Social Psychological and Personality Science*, 9(7), 853–862. https://doi.org/10.1177/1948550617727587
- Bryan, J. L., Baker, Z. G., & Tou, R. Y. W. (2017). Prevent the blue, be true to you: Authenticity buffers the negative impact of loneliness on alcohol-related problems, physical symptoms, and depressive and anxiety symptoms. *Journal of Health Psychology*, 22, 605–616. http://dx.doi.org/10.1177/1359105315609090
- Zhang, H., Chen, K., & Schlegel, R. J. (2018). How do people judge meaning in goal-directed behaviors: The interplay between self concordance and performance. *Personality and Social Psychology Bulletin*, 44(11), 1582-1600. http://dx.doi.org/10.1177/0146167218771330
- Rivera, G.N., Christy, A.G., Kim, J., Vess, M., Hicks, J.A., & Schlegel, R.J. (2019). Understanding the Relationship Between Perceived Authenticity and Well-Being. *Review of General Psychology*, 23(1), 113-126. https://doi.org/10.1037/gpr0000161
- Mun, I.B., & Kim, H. (2021). Influence of False Self-Presentation on Mental Health and Deleting Behavior on Instagram: The Mediating Role of Perceived Popularity. *Front. Psychol.*, 12, 660484. https://doi: 10.3389/fpsyg.2021.660484
- Lesener, T., Pleiss, S.L., Guso, B. & Wolter, Ch. (2020). The Study Demands-Resources Framework: An empirical introduction. *Int. J. Environ. Res. Public Health*, 17,5183.
- Heppner, W. L., Kernis, M. H., Nezelek, J. B., Foster, J., Lakey, C. E., Goldman, B. M. (2008). Within-person relationships among daily self-esteem, need satisfaction, and authenticity. *Psychological Science*, 19, 1140–1145. 10.1111/j.1467-9280.2008.02215.x
- Lenton, A. P., Slabu, L., Sedikides, C., & Power, K. (2013). I feel good, therefore I am real: Testing the causal influence of mood on state authenticity. *Cognition and Emotion*, 27, 1202–1224.
- Robinson, M. D., & Ryff, C. D. (1999). The role of self-deception in perceptions of past, present, and future happiness. *Personality and Social Psychology Bulletin*, 25(5), 595–606. https://doi.org/10.1177/0146167299025005005
- Sarıçam, H. (2015). Life satisfaction: Testing a structural equation model based on authenticity and subjective happiness. *Polish Psychological Bulletin*, 46, 278–284. 10.1515/ppb-2015-0034
- Goldman, B.M., Kernis, M.H. (2002). The role of authenticity in healthy psychological functioning and subjective well-being. *Annals of the American Psychotherapy Association*, 5,18–20.
- Sutton, A. (2020). Living the good life: A meta-analysis of authenticity, well-being and engagement. *Personality and Individual Differences*, 153, 109645. DOI: 10.1016/j.paid.2019.109645
- Sheldon, K. M., Ryan, R. M., Rawsthorne, L. J., Ilardi, B. (1997). Trait self and true self: Cross-role variation in the Big-Five personality traits and its relations with psychological authenticity and subjective well-being. *Journal of Personality and Social Psychology*, 73,1380–1393. 10.1037/0022-3514.73.6.1380
- Holmgren, L., Tirone, V., Gerhart, J., & Hobfoll, S. E. (2017). Conservation of resources theory. In *The handbook of stress and health: A guide to research and practice*; C. Cooper, & J. C. Quick Eds.; Cambridge, MA, USA: Elsevier Academic Press, pp. 443–457.
- Bakker, A. B. (2014). Daily fluctuations in work engagement: An overview and current directions. *European Psychologist*, 19(4), 227–236. https://doi.org/10.1027/1016-9040/a000160
- Bakker, A.B., & de Vries, J.D. (2021) Job Demands-Resources theory and self-regulation: new explanations and remedies for job burnout, Anxiety, Stress, & Coping, 34(1), 1-21. https://doi.org/10.1080/10615806.2020.1797695
- Hadzibajramović, E., Schaufeli, W. & De Witte, H. (2020). A Rasch analysis of the Burnout Assessment Tool (BAT). *PLoS ONE*, 15(11), e0242241. https://doi.org/10.1371/journal.pone.0242241
- Schaufeli, W.B., De Witte, H. & Desart, S. (2020). Manual Burnout Assessment Tool (BAT). Version 2.0. KU Leuven, Belgium: Unpublished internal report.
- Hobfoll, S. E. (2002). Social and psychological resources and adaptation. *Review of General Psychology*, 6, 307–324.
- Chalikkandy, S., Alhifzi, R.S.A., Asiri, M.A.Y., Alshahrani, R.S.A., Saeed, W.N.A., & Alamri, S.G. (2022). Burnout and Its Relation to Emotion Dysregulation and Social Cognition among Female Interns and Undergraduate Dental Students at King Khalid University. *Appl. Sci.*, 12, 1588. https://doi.org/10.3390/app12031588

25. Tomaszek K., Muchacka-Cymerman A. (2021). The mediation effect of dark personality traits and sense of coherence on the association between emotional dysregulation and student burnout. *International Journal of Work Organization and Emotion*, 12(4). DOI: 10.1504/ijwoe.2021.10041630
26. Bon, A. T., & Shire, A. M. (2022). Review of Conservation of Resources Theory in Job Demands and Resources Model. *International Journal of Global Optimization and Its Application*, 1(4), 236–248. <https://doi.org/10.56225/ijgoia.v1i4.102>
27. Chen, S., Westman, M., & Hobfoll, S.E. (2015). The commerce and crossover of resources: resource conservation in the service of resilience. *Stress Health*, 31(2), 95-105. doi: 10.1002/smi.2574.
28. Wickman, R.E. (2013). Perceived authenticity in romantic partners. *Journal of Experimental Social Psychology*, 49(5), 878-887.
29. Liu, Y., & Perreve, P.L. (2006). Are they for real? The interpersonal and intrapersonal outcomes of perceived authenticity. *International Journal of Work Organisation and Emotion*, 1(3), 204 – 214. DOI: 10.1504/IJWOE.2006.010788
30. Landa, I., & English, T. (2022). Variability in state authenticity predicts daily affect and emotion regulation. *Emotion*, 22(8), 1995-1999. doi: 10.1037/em0001017.
31. Grandey, A., Chuen Foo, S., Groth, M., & Goodwin, R.E. (2012). Free to be you and me: a climate of authenticity alleviates burnout from emotional labor. *Journal of Occupational Health Psychology*, 17(1), 1-14.
32. Gross, J.J., & John, O.P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85, 348-362.
33. Gross, J. J., & Thompson, R. A. (2007). Emotion Regulation: Conceptual Foundations. In J. J. Gross (Ed.), *Handbook of emotion regulation* (pp. 3–24). The Guilford Press.
34. Liang, L., Zhu, M., Dai, J., Li, M., & Zheng, Y. (2021). The Mediating Roles of Emotional Regulation on Negative Emotion and Internet Addiction Among Chinese Adolescents From a Development Perspective. *Front. Psychiatry*, 12, 608317. doi: 10.3389/fpsy.2021.608317
35. Sheppes, G., Gross, J.J. (2011). Is timing everything? Temporal considerations in emotion regulation. *Pers Soc Psychol Rev*, 15(4), 319-31. doi: 10.1177/1088868310395778.
36. MacCallum, R.C.; Browne, M.W., & Sugawara, H.M. (1996). Power Analysis and Determination of Sample Size for Covariance Structure Modeling. *Psychol. Methods*, 1, 130–149.
37. Kline, R. B. (2005). Principles and practice of structural equation modeling: Methodology in the social sciences (2nd ed.). New York, NY: Guilford Press.
38. Radloff, L.S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1(3), 385-401.
39. Koziara, K. (2016). Ocena depresyjności w populacji. Psychometryczna ocena polskiej wersji skali CESD-R, *Psychiatria Polska*, 50 (6), 1109–1117. <https://doi.org/10.12740/PP/61614>
40. Schaufeli, W. B., Martínez, I. M., Pinto, A. M., Salanova, M., Bakker, A. B. (2002). Burnout and engagement in university students: A cross-national study. *Journal of Cross-Cultural Psychology*, 33, 464–481.
41. Tucholska, S. (2001). Christiny Maslach koncepcja wypalenia zawodowego: etapy rozwoju. *Przegląd Psychologiczny*, 44, 301–317.
42. Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment*, 49, 71-75.
43. Juczyński, Z. (2001). Satisfaction with Life Scale. In: Juczyński Z. (Eds.), *Measurement tools in the promotion of health and health psychology*. Pracownia Testów Psychologicznych Polskiego Towarzystwa Psychologicznego.
44. Kobylińska, D. (2015). *Kwestionariusz Regulacji Emocji* (tłumaczenie za zgodą autorów – J. J. Gross i O. P. John. Pobrane z: <http://spl.stanford.edu/pdfs/erq10-polish.pdf>.
45. Hayes, A. F. (2018). *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach (Methodology in the Social Sciences)* (2nd ed.). New York, NY: The Guilford Press.
46. Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G\*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41, 1149-1160.
47. Schoemann, A.M., Boulton, A.J., & Short, S.D. (2017). Monte Carlo Power Analysis for Indirect Effects Application. [https://schoemanna.shinyapps.io/mc\\_power\\_med/](https://schoemanna.shinyapps.io/mc_power_med/) (Date of access: 03.04.2023)
48. Uanhoru, J. O. (2017). Effect size calculators. Available online at: <https://effect-size-calculator.herokuapp.com/>. (Retrieved: 29.07.2023)
49. Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.
50. Mannetje, J., Heijne-Penninga, M., Mastenbroek, N., Wolfensberger, M., & Jaarsma, D. (2021). Personal resources conducive to educational success: high achieving students' perspectives. *Journal of the European Honors Council*, 5(1), 1-20. <https://doi.org/10.31378/jehc.147>
51. van Dick, R., Cordes, B.L., Lemoine, J.E., Steffens, N.K., Haslam, S.A., Akfirat, S.A., Ballada, C.J.A., Bazarov, T., Aruta, J.J.B.R., Avanzi, L., & et al. (2021). Identity Leadership, Employee Burnout and the Mediating Role of Team Identification: Evidence from the Global Identity Leadership Development Project. *Int. J. Environ. Res. Public Health*, 18, 12081. <https://doi.org/10.3390/ijerph182212081>
52. Seto, E. & Schlegel, R.J. (2018). Becoming your true self: Perceptions of authenticity across the lifespan. *Self and Identity*, 17(3), 310-326. <https://doi.org/10.1080/15298868.2017.1322530>
53. Schaufeli, W.B., & Taris, T.W. (2005). The conceptualization and measurement of burnout: Common ground and worlds apart. *Work Stress*, 19, 256–262. doi:10.1080/02678370500385913.
54. Otto, M.C.B., Van Ruysseveldt, J., Hoefsmit N., & Van Dam, K. (2021). Examining the mediating role of resources in the temporal relationship between proactive burnout prevention and burnout. *BMC Public Health*, 21, 599. <https://doi.org/10.1186/s12889-021-10670-7>
55. Christy, A. G., Seto, E., Schlegel, R. J., Vess, M., & Hicks, J. A. (2016). Straying from the righteous path and from ourselves: The interplay between perceptions of morality and self-knowledge. *Personality and Social Psychology Bulletin*, 42, 1538–1550.
56. Aypay, A. (2012). Secondary School Burnout Scale (SSBS). *Educational Sciences: Theory & Practice*, 12(2), 782-787.
57. Kim, S.B., & Lee, J. (2021). Regression-based mediation analysis: a formula for the bias due to an unobserved precursor variable. *J. Korean Stat. Soc.*, 50, 1058–1076. <https://doi.org/10.1007/s42952-021-00105-9>
58. MacKinnon, D.P., Fairchild, A.J., Fritz M.S. (2007). Mediation analysis. *Annu Rev Psychol.*, 58, 593-614. doi: 10.1146/annurev.psych.58.110405.085542.
59. Maxwell, S.E., Cole, D.A., Mitchell, M.A. (2011). Bias in Cross-Sectional Analyses of Longitudinal Mediation: Partial and Complete Mediation Under an Autoregressive Model.

Multivariate Behavioral Research, 46(5) ,816-841,DOI:  
10.1080/00273171.2011.606716

**Corresponding author**

Katarzyna Tomaszek  
e-mail: ktomaszek@ur.edu.pl  
Department of Psychology, Institute of Psychology,  
University of Rzeszow, Poland

Otrzymano: 16.07.2023

Zrecenzowano: 27.07.2023, 17.08.2023

Przyjęto do publikacji: 25.09.2023