

## THE ROLE PLAYED BY RESILIENCE AND THE MEANING MAKING PROCESSES IN THE PERCEPTION OF STRESS AND QUALITY OF PROFESSIONAL LIFE IN A SAMPLE OF TRANSYLVANIAN HUNGARIANS

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**ABSTRACT.** Chronic daily hassles specific to personal and occupational life have a significant negative impact on the individual's emotional and mental health, simultaneously affecting his/her subjective and psychological well-being, as well as quality of life. The worldwide massive changes occurring in the economic, social, personal realms become sources of chronic stress, which necessitate continuous adaptation. In such conditions, the person's resilience, and his/her capacity to confer meaning to life and work, play a critical role as protective shields in the development of functional reactions and thriving. Our present study is a continuation of our previous investigations on a Transylvanian Hungarian population, concentrating on the following major aims: (i) the investigation of the role played by resilience and meaning making in experiencing chronic stress and the work related quality of life;(ii) the investigation of the relationship between resilience and one's ability to confer meaning to life and work, necessary for the development of effective stress management programs. Our results may be salient in the development of prevention and intervention programs targeting the improvement of emotional health, subjective and psychological well-being of Transylvanian Hungarians.

**Keywords:** *stress, resilience, meaning in life, meaningful work, subjective/psychological well-being.*

**ZUSAMMENFASSUNG.** Die Rolle der Resilienz und der Bedeutung Prozesse in der Wahrnehmung von Stress machen und die Qualität des Berufslebens in einer Probe von Siebenbürgischen Ungarn. Chronische tägliche Probleme, die für das persönliche und berufliche Leben spezifisch sind, haben einen erheblichen negativen Einfluss auf die emotionale und geistige Gesundheit des Individuums und beeinflussen gleichzeitig sein subjektives und psychologisches Wohlbefinden sowie die Lebensqualität. Die weltweiten massiven Veränderungen in

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den ökonomischen, sozialen, persönlichen Bereichen werden zu chronischen Stressquellen, die eine kontinuierliche Anpassung erfordern. Unter solchen Bedingungen spielen die Resilienz der Person und ihre Fähigkeit, dem Leben und der Arbeit Sinn zu verleihen, eine wichtige Rolle als Schutzschilde bei der Entwicklung von funktionalen Reaktionen und Gedeihen. Unsere vorliegende Studie ist eine Fortsetzung unserer bisherigen Untersuchungen an einer Siebenbürger ungarischen Bevölkerung und konzentriert sich auf die folgenden Hauptziele: (I) die Untersuchung der Rolle der Resilienz und Sinn machen im Erleben des chronischen Stress und der arbeitsbezogenen Lebensqualität; (II) die Untersuchung der Beziehung zwischen Resilienz und der Fähigkeit, dem Leben und der Arbeit Sinn zu verleihen, die für die Entwicklung wirksamer Stressbewältigungsprogramme notwendig sind. Unsere Ergebnisse können ausgeprägt werden, in der Entwicklung von Präventions- und Interventionsprogrammen, die auf die Verbesserung der emotionalen Gesundheit, des subjektiven und psychologischen Wohlbefindens der Siebenbürger Ungarn abzielen.

***Schlüsselwörter:** Stress, Resilienz, Sinn im Leben, sinnvolle Arbeit, subjektives / psychisches Wohlbefinden.*

## INTRODUCTION

Despite the fact that **stress** and **demand** are not new concepts (Quick, Quick, Nelson, & Hurrell, 1997), the number, frequency, and intensity of stressors and demands recent life conditions expose us to is on an ascending trend (Amundson, 2006). Even if our lives seem to be much disburdened by the facilities offered by the significant technological progress (most past activities are automated, life-conditions are to a considerable degree freed of physical labor), the stressors and challenges we have to confront with seem to be more numerous and different, compared to what humans in general were used to (Schwartz, 2004). The changes that have occurred in the past decades in the demographic, social, technological, political, economic life, family structures, force individuals to face an increasing number of challenges and deal efficiently with the corresponding demands (Amundson 2006; Feinstein, Vorhaus, & Sabates, 2010; Sparks, Faragher, & Cooper, 2001). Little wonder, that despite the enhancement of overt life-conditions, the number of individuals who are negatively impacted by these changes is also increasing: prevalence in depression, anxiety disorders, burn-out, and other manifestations of emotional dysfunctions are constantly increasing (Cunningham, Rapee, & Lyneham 2006; European Commission 2005; da Silva Lima, & de Almeida Fleck 2007).

A considerable number of studies has evinced that not only the extremely stressful, traumatic events may lead to physical and psychological disturbances, but the concomitant confrontation with less intense stressful situations may have a cumulative effect, significantly affecting the individual's physical and mental health, as well as his/her subjective and psychological well-being (Amundson, 2006; Kopp & Réthelyi, 2004; Stauder & Konkoly Thege, 2006). The efficient psychological functioning comes to get a more profound meaning when we consider that the recent work conditions require better mental health than they did in the past (Weehuizen, 2008). Mental health problems affect not only the individuals and their immediate proximity (family, friends, co-workers), but may later on have significant influences on national economies as well (Weehuizen, 2008).

Before this period of accelerated changes, people could easier refer themselves, the attributed significance of the events they had to face to a stable system of ethical, moral, and religious norms and values, which were shared and respected by the majority (Crossley, 2000). In the absence of a stable framework it is extremely difficult to find a well-delineated frame of interpretation of events, which would lead to the much desired emotional comfort following a stressful encounter, translated in the concept of well-being.

Psychology has treated **well-being** as two distinct constructs (Lent, 2004):

- (i) **subjective (hedonic) well-being**, encompassing three distinct, nevertheless associated components: life satisfaction, positive affect, and the absence of negative affect (Diener, Lucas, & Oishi, 2002).
- (ii) **psychological (eudaimonic) well-being**: considers that well-being transcends mere happiness, and that a well-lived life is represented by one's attempt to fulfill own potentials (Waterman, 1993). Psychological well-being (PWB) is usually treated as a multidimensional construct, formed of six major components (Ryff & Singer, 2008):
  - (a) *self-acceptance*: the individual's capacity for unconditional self-acceptance, devoid of any kind of judgment of value.
  - (b) *positive relations with others*: one's capacity to establish and maintain warm and functional human relationships.

- (c) *autonomy*: one's ability to function independently of others' approval, and one's capacity to regulate emotions, cognitions, and behaviors from within.
- (d) *environmental mastery*: the person's ability to 'construct' an external environment that sustains and enhances his/her functioning and adaptive processes.
- (e) *purpose in life*: one's ability to find meaning in and for his/her life, to attribute meaning to different life events, establish proximal and distal goals, bounce back more quickly and more appropriately from negative encounters and present higher levels of positive mental functioning.
- (f) *personal growth*: one's ability to perceive life as a series of constant changes and challenges, as opportunities to enhance and strive towards one's true potentials increases the chances of attaining a well-lived life.

In order to prevent the appearance of psychological malfunctioning and to promote flourishing, this newly developed psychological environment requires the development of appropriate coping mechanisms, emotion- and behavior-regulation strategies, etc. According to Baumeister (1991), one of the most important strategies that could promote mental health and flourishing is the individual's capacity to find and attribute **meaning** to his/her life and work. According to Steger (2012), "*Meaning is the web of connections, understandings, and interpretations that help us comprehend our experience and formulate plans directing our energies to the achievement of our desired future*" (pp. 166). A bulk of research (e.g., King, Hicks, Krull, & Del-Gaiso, 2006; Mascaro & Rosen, 2005; Reker, 2005; Steger & Frazier, 2005; Steger, Frazier, Oishi, & Kaler, 2006) has repeatedly proved the strong relationship between a person's ability to attribute meaning to his/her life and different life events, and the experienced level of emotional health and well-being. The person's ability to find and attribute meaning to one's life (the feeling that our lives and experiences make sense and matter, Steger, 2012) facilitates the attainment and maintenance of emotional balance, and keeps the person motivated in order to attain his/her goals.

Research treats **meaning in life** under two major aspects: the **presence**, and the individual's **search for the meaning in life** (Steger, Kashdan, Sullivan, & Lorentz, 2008). **Presence of meaning** in life is experienced when people comprehend themselves and the world around them (Steger et al., 2008). When the presence of meaning in life is weakened by some event, people start searching for it (Steger et al., 2008, p. 200). The **search for meaning in life** is associated either with positive mental/emotional functioning (e.g., Frankl, 1963; Maddi, 1970), or a symptom of

dysfunction (Baumesiter, 1991; Klinger, 1998). Within his approach, Reker (2000) distinguishes between positive, healthy search (life-affirming), and negative, unhealthy search (deficit based) (c.f., Steger et al., 2008).

On the other hand, one's capacity to attribute and/or search meaning for his/her work resides in the desire of people to confer higher values for their professional activities (Šverko & Vizek-Vidović, 1995), and transcend the need for mere financial reward. Again, research has repeatedly demonstrated that those persons who consider that their work is meaningful experience higher levels of well-being, report greater job-related satisfaction, work-group cohesion, and intra-group collaboration (Arnold, Turner, Barling, Kelloway, & McKee, 2007; Kamdron, 2005). Moreover, the ability to build a meaningful career and to confer meaning to one's work was found to be related to (i) the desire to serve a greater good, (ii) the wish to make sense of one's self, (iii) the need to better understand one's work environment, (iv) the need to find purpose in one's work (Ashforth, 2001; Sparks & Schenk, 2001; Weick, Sutcliffe, & Obstfeld, 2005; Wrzesniewski, 2003).

In Steger, Dik, and Duffy's (2012) approach, meaningful work is considered to have three major facets:

1. ***Psychological meaningfulness in work***: the degree to which people consider that their work is meaningful and matters.
2. ***Making meaning through work***: the degree to which people's meaning in life benefits from the way they attribute meaning to their work (Steger & Dik, 2010).
3. ***Greater good motivations***: the measure to which people desire to have a positive impact in the world, on other people through their work.

As we have seen this far, research indicated that there is strong relationship between attributing meaning to one's life/work, and different forms of well-being and mental-emotional health (Lent, 2004; Steger, Frazier, 2005).

Another, equally important ability that is partially related to our capacity to attribute meaning to our life and to the events we confront with is resilience, which Wagnild (2009) considers to be a system of strategies that facilitate efficient adaptation and prosperity in the aftermath of highly stressful encounters. The concept of psychological resilience encompasses the individual's psychological strength, optimism, self-esteem, sense of coherence, flexibility, mental and psychological capital (Wagnild, 2009). Research has demonstrated that resilience has a strong relationship with the individual's physical and mental health, and most importantly, that this ability can be significantly developed and enhanced in time (Black & Ford-Gilboe, 2004; Wagnild, 2007).

In the recently developed life-conditions, we consider of high importance the identification of stressful life-events (both in the personal and professional life), as well as the delineation of an optimal competence package (resilience, meaning making) (Gósi, 2007), that could function as a protective shield in front of new and frequently occurring stressful situations.

Thus, the major objectives of our study are:

(i) the investigation of the role played by resilience and meaning making in experiencing chronic stress and the work related quality of life

(ii) the investigation of the relationship between resilience and one's ability to confer meaning to life and work, necessary for the development of effective stress management programs.

## **RESEARCH**

### **Method**

#### ***Participants***

The present study focuses on the investigation of a less studied ethnic group, namely, Transylvanian Hungarians, including 129 male and 297 female participants, with mean age of 32.64 years ( $SD=13.09$ , minimum age =18 years, maximum age = 68 years). Our participants reside in the central and eastern part of Transylvania (Cluj, Mures, Harghita, and Covasna counties). Education levels ranged from high-school (70.8%), university (23.3%), and post-university degrees (5.9%).

Initially, we distributed 600 sets of self-report questionnaires, out of which we received 441 completed sets. After introducing the data and adjusting the data base for missing information, we remained with 427 participants with complete data sets.

#### ***Instruments***

After obtaining the written consent to participate in the study, all subjects completed a demographic questionnaire comprising variables as: gender, age, level of education, marital status, satisfaction with personal and family income. Next, all participants were assessed on the following dimensions of their functioning:

**Stress** was measured with the Perceived Stress Scale (PSS, Cohen, Kamarck, & Mermelstein, 1983). The PSS measures the degree to which situations in one's life are appraised as **stressful**. Items were designed to tap how unpredictable, uncontrollable, and overloaded respondents find their lives. The PSS is a 14-item self-report questionnaire, with answers being rated on a 5-point Likert scale (0- never, 4- very often). This scale was adapted for Hungarian population (Stauder & Konkoly Thege, 2006).

The **quality of professional life** was measured with the Work Related Quality of Life scale (WRQoL - Easton & Van Laar, 2012). The WRQoL is a 24-item self-report questionnaire. Answers are recorded on a 5-point Likert scale, ranging from 1= strongly disagree to 5=strongly agree. The WRQoL measures 6 sub-components of the construct; general well being (GWB), home-work interface (HWI), job career satisfaction (JCS), control at work (CAW), working conditions (WCS), stress at work (SAW), and it also has an item for measuring the overall quality of working life. The psychometric properties of the original scale are good, with Cronbach's alpha ranging from .87 to .94. This scale was translated into Hungarian by the author of this study.

**Resilience** was measured with the 25-item Resilience Scale (RS - Wagnild & Young, 1993). The RS is a 25-item self-report questionnaire, with answers being recorded on a 7-point Likert scale (1-disagree, 7 - agree). The RS measures two sub-components of resilience: (1) personal competence, and (2) acceptance of self and life. The psychometric properties of the RS are good, Cronbach's alpha ranging from .89 or .91. This scale was translated into Hungarian by the author of this study.

**Meaning in life** was assessed with the Meaning in Life Questionnaire (MLQ, Steger, Frazier, Oishi, & Kaler, 2006) a 10-item instrument measuring (i) the presence of meaning in life (how much respondents feel their lives have meaning), and (ii) the search for meaning in life (how much respondents strive to find meaning and understanding in their lives). Answers are recorded on a 7-point Likert-type scale ranging from 1 (Absolutely True) to 7 (Absolutely Untrue). For the original instrument, Cronbach's alpha was .86 for presence and .92 for search for meaning in life. Test-retest reliability was also good, .70 for presence and .73 for search for meaning in life. This scale was translated into Hungarian by the author of this study.

**Meaning in work** was measured with the Work and Meaning Inventory (WAMI, Steger, Dik, & Shim, in press). The WAMI is a 10-item self-report instrument, measuring three basic components of meaningful work: (i) the degree to which

people find their work to have significance and purpose, (ii) the contribution work makes to finding broader meaning in life, and (iii) the desire and means for one's work to make a positive contribution to the greater good. Items are rated from 1 (absolutely untrue) to 5 (absolutely true); The total MW scale internal consistency was high, Cronbach's alpha .93 (.89, .82, and .83). This scale was translated into Hungarian by the author of this study.

**Psychological well-being** was assessed with the 84-item Psychological Well-Being scale developed by Ryff (1989). The 6 subscales (14-items each) measure the basic components of psychological well-being: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. The psychometric properties of the Hungarian translation are satisfactory (Cronbach's alpha ranges within: .79-.88). This scale was translated into Hungarian by the author of this study.

**Subjective well-being** was assessed with the 5-item WHO well-being questionnaire (WHO Collaborating Centre in Mental Health, 1999), focusing on the assessment of positive affective states. Each of the five items is rated on a 6-point Likert scale from 0 (not present) to 5 (constantly present). Scores are summed, with raw scores ranging from 0 to 25. Then the scores are transformed to 0-100 by multiplying by 4, with higher scores meaning better well-being. This scale was adapted for Hungarian population by WHO (WHO Collaborating Centre in Mental Health, 1999).

**Depression** was assessed with the 21 item Beck Depression Inventory (BDI, Beck, Rush, Shaw, & Emery, 1979). The BDI is a 21-item, multiple-choice format inventory, designed to measure the presence of depression in adults and adolescents. After assessment, single scores are produced, which indicate the intensity of the depressive episode (normal levels, mild, moderate and severe symptoms of depression). Internal consistency indices of the BDI are usually above .90. This scale was adapted for Hungarian population (Rózsa, Szadóczky, & Füredi, 2001).

## Results

Firstly, we present the descriptive characteristics of our data (see Table 1).



**Table 1.** Descriptive statistics

Scale	Min.	Max.	M	SD	Shapiro-Wilk	p
<b>PSS</b>	5	54	26.58	7.36	.98	.01
<b>WRQoL - GWB</b>	10	26	20.41	3.56	.96	.01
<b>WRQoL - HWI</b>	3	15	9.25	2.57	.97	.01
<b>WRQoL - JCS</b>	10	30	21.20	4.38	.97	.01
<b>WRQoL - CAW</b>	3	15	9.66	2.80	.96	.01
<b>WRQoL - WCS</b>	3	15	10.44	2.61	.95	.01
<b>WRQoL - SAW</b>	2	10	5.94	1.98	.96	.01
<b>WRQoL- total</b>	43	114	80.86	14.16	.97	.01
<b>REZ- Personal competence</b>	58	115	89.02	12.56	.98	.01
<b>REZ - Acceptance of self and life</b>	19	49	34.88	5.94	.99	.03
<b>PWB positive relations</b>	34	82	62.41	10.10	.98	.01
<b>PWB autonomy</b>	35	80	56.98	9.46	.98	.01
<b>PWB environmental mastery</b>	30	80	56.98	9.46	.99	.02
<b>PWB personal growth</b>	33	81	63.23	8.56	.98	.01
<b>PWB purpose in life</b>	34	83	61.76	9.54	.98	.01
<b>PWB self-acceptance</b>	31	84	58.81	10.65	.99	.05
<b>BDI</b>	0	32	8.01	6.70	.91	.01
<b>WHO</b>	0	100	54.99	19.49	.98	.01
<b>WAMI positive meaning</b>	6	20	14.76	3.22	.96	.01
<b>WAMI meaning through work</b>	4	15	10.98	2.47	.94	.01
<b>WAMI greater good motivation</b>	2	14	7.99	3.70	.96	.01
<b>WAMI global</b>	14	49	33.75	8.32	.96	.01
<b>MLQ presence</b>	10	35	26.83	5.79	.95	.01
<b>MLQ search</b>	5	35	23.27	6.65	.96	.01

Next, we investigated differences in the assessed variables depending on *gender* (results are presented in Table 2), and *age categories* (Table 3). Due to the distribution of our data (see Table 1), we conducted the non-parametric Mann-Whitney U-test.

**Table 2.** Differences in perceived stress, work related quality of life, resilience, psychological well-being, depression, and subjective well-being, depending on gender.

Scales	Mean	SD	Z	p	abs(r)
<b>PSS</b>	m=23.37	6.81	-5.56	.001	0.27
	f=28.04	6.89			
<b>WRQoL - CAW</b>	m=10.21	3.11	-2.44	.01	0.11
	f=9.49	2.53			
<b>REZ- Personal competence</b>	m=91.73	12.10	-3.00	.001	0.15
	f=87.43	12.16			
<b>REZ - Acceptance of self and life</b>	m=35.78	5.26	-2.50	.01	0.12
	f=34.22	6.07			
<b>PWB autonomy</b>	m=59.53	9.24	-3.84	.001	0.18
	f=55.94	8.72			
<b>PWB environmental mastery</b>	m=59.34	8.85	-3.80	.001	0.18
	f=55.40	9.50			
<b>PWB self-acceptance</b>	m=61.21	9.90	-2.59	.001	0.12
	f=58.08	10.45			
<b>BDI</b>	m=5.79	5.55	-4.82	.001	0.23
	f=8.99	6.86			
<b>WHO</b>	m=60.18	20.88	-3.68	.001	0.18
	f=52.59	18.20			

As presented in Tables 2, our results following the application of the Mann-Whitney test indicate that female participants experience significantly higher levels of perceived stress ( $Z=-5.56, p<.001$ ), and symptoms of depression ( $Z=-4.82, p<.001$ ), while male participants experience significantly higher levels of control at work (WRQoL ( $Z=-2.44, p<.01$ ), personal competence ( $Z=-3.00, p<.001$ ), and acceptance of self and life ( $Z=-2.50, p<.01$ ) components of resilience, autonomy ( $Z=-3.84, p<.001$ ), environmental mastery ( $Z=-3.80, p<.001$ ) and self-acceptance ( $Z=-2.59, p<.001$ ) components of psychological well being, and subjective well-being ( $Z=-3.68, p<.001$ ).

Our results after applying the Kruskal-Wallis test regarding **age** differences (presented in Table 3) indicate that participants younger than 33 years of age experience significantly higher levels of perceived stress ( $Z=-3.27, p<.001$ ), general well being ( $Z=-2.21, p<.05$ ) and job career satisfaction ( $Z=-3.07, p<.01$ )

on the dimension of work related quality of life, on the personal relationships ( $Z=-2.42, p<.01$ ) and personal growth ( $Z=-3.49, p<.001$ ) components of the psychological well-being, and on the meaning through work ( $Z=-2.37, p<.05$ ), and greater good motivation ( $Z=-4.35, p<.001$ ) components of meaning in work.

**Table 3.** Differences in perceived stress, work related quality of life, resilience, psychological well-being, depression, and subjective well-being, depending on age (under 33 and above 33 years of age, categories established on mean age, age<33 N=224, age>33 N=186).

Scales		Mean	SD	Z	p	abs(r)
<b>PSS</b>	age<33	27.57	7.02	-3.27	.001	0.16
	age>33	25.42	7.35			
<b>WRQoL - GWB</b>	age<33	20.91	3.14	-2.21	.05	0.10
	age>33	19.95	3.91			
<b>WRQoL - JCS</b>	age<33	22.03	3.94	-3.07	.01	0.15
	age>33	20.63	4.58			
<b>PWB - personal relationships</b>	age<33	63.96	8.99	-2.42	.01	0.12
	age>33	61.29	10.55			
<b>PWB - personal growth</b>	age<33	65.05	7.25	-3.49	.001	0.17
	age>33	61.54	8.53			
<b>WAMI meaning through work</b>	age<33	11.41	1.99	-2.37	.05	0.11
	age>33	10.67	2.75			
<b>WAMI greater good motivation</b>	age<33	8.94	3.14	-4.35	.001	0.21
	age>33	7.25	3.96			

Next, we investigated whether there are differences in the assessed variables depending on the *satisfaction with family income*. After applying the Kruskal-Wallis H test, our results indicate significant differences in almost all studied dimensions. Participants who report lower levels of satisfaction with family income have significantly higher levels of perceived stress [ $H(2)=24.41, p<.001$ ], significantly lower levels of general work related well-being [ $H(2)=53.33, p<.001$ ], home-work interface [ $H(2)=22.49, p<.001$ ], job-career satisfaction [ $H(2)=41.42, p<.001$ ], control at work [ $H(2)=37.96, p<.001$ ], and working conditions [ $H(2)=20.43, p<.001$ ]. Furthermore, those who report lower satisfaction with family income, also present significantly lower levels of resilience, personal competence [ $H(2)=15.31, p<.001$ ], acceptance of self and life [ $H(2)=31.84, p<.001$ ], significantly lower levels of psychological well-being: personal relationships

[H(2)= 24.49,  $p<.001$ ], environmental mastery [H(2)=26.13,  $p<.001$ ], purpose in life [H(2)=11.50,  $p<.001$ ], self acceptance [H(2)=23.37,  $p<.001$ ], significantly higher levels of depression [H(2)=17.23,  $p<.001$ ], significantly lower levels of subjective well-being [H(2)=26.56,  $p<.001$ ], positive meaning derived from work [H(2)=32.52,  $p<.001$ ], meaning through work [H(2)=26.44,  $p<.001$ ], and greater good motivation [H(2)=12.04,  $p<.001$ ], and significantly lower levels of the presence of meaning in life [H(2)=13.76,  $p<.001$ ].

We finished the investigation of differences produced by the demographic variables with those given by the **level of education**. We ran the Kruskal-Wallis non-parametric test, and the results are presented in Table 4.

**Table 4.** Significant differences in assessed variables depending on level of education (G=high-school, G2=college, G3=master/PhD)

Scale	M	Kruskal-Wallis	p
<b>PSS</b>	G1=27.57	23.42	.001
	G2=24.36		
	G3=23.75		
<b>WRQoL - HWI</b>	G1= 9.15	6.89	.05
	G2=9.90		
	G3=9.65		
<b>WRQoL - JCS</b>	G1=20.81	14.32	.001
	G2=22.73		
	G3=22.91		
<b>WRQoL - CAW</b>	G1=9.23	37.61	.001
	G2=10.65		
	G3=11.91		
<b>WRQoL - WCS</b>	G1=10.35	8.26	.05
	G2=11.02		
	G3=11.73		
<b>REZ- personal competence</b>	G1= 86.51	29.12	.001
	G2=93.21		
	G3=95.08		
<b>REZ - acceptance of self and life</b>	G1= 33.84	20.82	.001
	G2=36.09		
	G3=38.37		
<b>PWB positive relations</b>	G1= 62.05	7.59	.05
	G2=64.34		
	G3=65.70		
<b>PWB autonomy</b>	G1= 56.15	8.01	.05
	G2=59.26		
	G3=57.91		

Scale	M	Kruskal-Wallis	p
<b>PWB</b> environmental mastery	G1= 55.19 G2=59.40 G3=60.83	20.19	.001
<b>PWB</b> personal growth	G1= 62.91 G2=64.90 G3=66.79	7.18	.05
<b>PWB</b> purpose in life	G1= 61.04 G2=64.61 G3=64.62	10.53	.01
<b>PWB</b> self-acceptance	G1= 57.54 G2=62.18 G3=62.33	14.98	.001
<b>BDI</b>	G1= 8.81 G2=6.46 G3=5.43	19.45	.001
<b>WAMI</b> positive meaning	G1= 14.37 G2=15.90 G3=16.95	32.08	.001
<b>WAMI</b> meaning through work	G1= 10.83 G2=11.72 G3=11.65	10.05	.01
<b>MLQ</b> presence	G1= 26.50 G2=28.41 G3=28.08	10.40	.01

As it can be seen in Table 4, those participants who have higher levels of education report significantly lower levels of perceived stress and depression, and significantly higher levels of work related quality of life (HWI - home-work interface, JCS - job career satisfaction, CAW - control at work, WCS - working conditions), resilience (personal competence and acceptance of self and life), psychological well-being (positive relations, autonomy, environmental mastery, personal growth, purpose in life, self-acceptance), meaning derived from work (positive meaning, meaning through work), and the presence of meaning of life.

We continued our investigations by conducting correlation analyses in order to investigate the association patterns between perceived stress and work related quality of life, and the other assessed variables (Table 5). Finally, we conducted two hierarchical multiple regression (HMR) analyses in order to investigate the degree to which perceived stress (as measured with the PSS scale) (Table 6) and work related quality of life (Table 7) are predicted by the variables that correlated with them.

**Table 5.** Pearson correlation matrix between perceived stress and work related quality of life, and the other assessed psychological variables

Scale	PSS	WRQoL Total
PSS	1	-.44**
WRQoL - total	-.44**	1
REZ- personal competence	-.45**	.45**
REZ - acceptance of self and life	-.60**	.44**
PWB positive relations	-.38**	.35**
PWB autonomy	-.36**	.24**
PWB environmental mastery	-.73**	.54**
PWB personal growth	-.27**	.40
PWB purpose in life	-.46**	.48**
PWB self-acceptance	-.59**	.47**
WAMI positive meaning	-.30**	.69**
WAMI meaning through work	-.23**	.55**
WAMI greater good motivation	-.10*	.33**
MLQ presence	-.54**	.48**
MLQ search	.15**	NS

Note: \* $p < .05$ ; \*\* $p < .01$

Based on the correlation matrix for perceived stress in the first step of the HMR we entered age, gender, level of education, and satisfaction for family income since we intended to control for these demographic variables. In step two we introduced resilience. In the third step, we introduced the two components of meaning of life, in step four, the three components of meaning of work, and in step five, the components of psychological well-being. After running the regression analyses, we selected those variables which significantly predicted perceived stress, and rerun the HMR with them. Results are presented in Table 6.

Model one with the demographic variables proved to be statistically significant ( $F_{4,365}=23.24$ ,  $p<.001$ ), predicting 20.5% of the variance with perceived stress. Next we introduced the two components of resilience which also proved statistically significant ( $F_{6,365}=48.28$ ,  $p<.001$ ), explaining an additional 23.6% of the variance. The introduction of meaning of life also resulted in a statistically significant model ( $F_{8,365}=54.39$ ,  $p<.001$ ), explaining an additional 10.8% of variance. Finally, the introduction of psychological well-being was also found statistically significant ( $F_{14,365}=47.70$ ,  $p<.001$ ), adding another 10.6% to the variance in perceived stress.

**Table 6.** Hierarchical regression model for perceived stress

Perceived stress	<i>R</i>	<i>R</i> <sup>2</sup>	<i>R</i> <sup>2</sup> <i>Change</i>	<i>t</i>
<b>Step 1</b>	.45	.20**	.20**	10.00**
Age				
Gender				
Levels of education				
Satisfaction with family income				
<b>Step 2</b>	.66	.44**	.23**	-8.07**
Resilience				
- personal competence				
- acceptance of self and life				
<b>Step 3</b>	.74	.54**	.10**	-8.67**
Meaning in life				
- presence				
- search				
<b>Step 4</b>	.81	.65**	.10**	-8.39**
<b>PWB</b> positive relations				
<b>PWB</b> autonomy				
<b>PWB</b> environmental mastery				
<b>PWB</b> personal growth				
<b>PWB</b> purpose in life				
<b>PWB</b> self-acceptance				

Note: \* $p < .05$ ; \*\* $p < .01$

Regarding work related quality of life, in the first model we introduced the demographic variables, which proved to be statistically significant ( $F_{4,354} = 20.05$ ,  $p < .001$ ), explaining 20.1% of variance in work related quality of life. Then we introduced the two components of resilience which also resulted a statistically significant model ( $F_{6,354} = 30.47$ ,  $p < .001$ ), adding another 14.3% of variance in WRQoL. In the third step, we introduced meaning derived from work ( $F_{9,354} = 51.79$ ,  $p < .001$ ), adding 23.1% of variance in WRQoL. In the final step we introduced

the components of psychological well-being, with ( $F_{15,354} = 36.80, p < .001$ ), adding 4.5% in the variance of WRQoL. Further results of the regression analysis are presented in Table 7.

**Table 7.** Hierarchical regression model for Work Related Quality of Life

<b>Depression</b>	<b>R</b>	<b>R<sup>2</sup></b>	<b>R<sup>2</sup></b>	<b>t</b>
			<b>Change</b>	
<b>Step 1</b>	.44	.20	.20**	23.83**
Age				
Gender				
Levels of education				
Satisfaction with family income				
<b>Step 2</b>	.58	.34	.14***	7.43**
Resilience				
- personal competence				
- acceptance of self and life				
<b>Step 3</b>	.75	.57	.23**	4.69**
WAMI				
positive meaning				
meaning through work				
greater good motivation				
<b>Step 4</b>			.04**	
<b>PWB</b> positive relations	.78	.62		3.70**
<b>PWB</b> autonomy				
<b>PWB</b> environmental mastery				
<b>PWB</b> personal growth				
<b>PWB</b> purpose in life				
<b>PWB</b> self-acceptance				

Note: \* $p < .05$ ; \*\* $p < .01$

As a final step to our research, we conducted a correlational analysis between the two components of resilience (personal competence, and acceptance of self and life) and the components of meaning of life and meaning of work. Our results are presented in Table 8.



**Table 8.** Correlation matrix between resilience, meaning attributed to life and meaning attributed to work

Scale	REZ Prs comp	REZ Accept	MLQ pre- sence	MLQ search	WAMI Pos mean	WAMI Mean through work	WAMI <i>Greater good</i>
REZ- personal competence	1						
REZ - acceptance of self and life	.71**	1					
MLQ presence	.48**	.47**	1				
MLQ search	NS	NS	-.13**	1			
WAMI positive meaning	.40**	.36**	.54**	NS	1		
WAMI meaning through work	.34**	.26**	.48**	.12*	.77**	1	
WAMI greater good motivation	.21**	.11*	.33**	.19**	.59**	.65**	1

As seen in Table 8, both components of resilience present a strong and significant association with all the components of meaning attributed to work, and the presence of meaning in life. However, we have not found any association between resilience and the search for meaning in life.

## CONCLUSIONS AND DISCUSSIONS

The changes occurring in our environment (social, cultural, financial) significantly influence the processes involved in our adaptation, the quality of our life, and our general well-being. Despite our apparent physical comfort, the number and diversity of stressors we have to confront with is in permanent increase, and a considerable number of individuals are not adequately endowed with the most suitable coping strategies. The results of these malfunctioning processes is reflected in the constantly growing number of adults and children/adolescents affected by significant mental or emotional problems.

The major aim of our present study is to evince the importance of resilience in the perception of stress and its relationship to meaning attributed to life and work within a sample of Transylvanian Hungarians.

Our results have indicated, the assessed female participants experience significantly higher levels of stress and depression than the male population (Nolen-Hoeksema, 2001; 2012; Parker & Brotchie, 2010; Verma, Balhara, & Gupta, 2011). In the same time, the assessed female participants report significantly lower levels of: control at work, resilience, psychological and subjective well-being. These results are quite similar to those found in the literature, namely those women usually experience significantly higher levels of stress and depression, one explanation for this being that women generally assume more roles than men, which may negatively impact their capacity to efficiently confront stressful events.

Regarding age categories, the older generations reported significantly lower levels of stress. However, an aspect that is quite surprising for us is that parallel to these findings, the older generation also reported significantly lower levels of work related quality of life, resilience (both components), subjective well-being, and work related quality of life. A possible explanation for these counterintuitive results could be the fact that the older generations are not any longer very sensitive to the nuanced perception of stressful encounters, and are not very reactive to stressful events. Another explanation may be conceived if we interpret our results from the point of view of the *Socioemotional selectivity theory*, developed by Laura L. Carstensen, according to which as people age, and their temporal horizons narrow, people become more and more selective, and start investing greater resources in emotionally meaningful goals and activities (Carsten, 2006). However, the rest of our results may indicate that even if the older generations are not easily 'affected' by the hardships of life, the attitude towards, and coping mechanisms implied in adapting to new challenges may not be the ideal ones.

Our results regarding level of education sustain the conception according to which higher levels of education enriches the individual's resources of coping mechanisms, and his/her possibilities for a better adaptation to the protean conditions of life. Our participants with higher levels of education reported significantly lower levels of stress and depression, and their ability (and possibility) to attribute meaning to life and work is significantly higher. The same pattern can also be found in their resilience.

We continued our study with investigating the differences in the assessed variables depending on the participants satisfaction with family income. Our results indicate that lower levels of satisfaction with family income is associated with higher levels of stress and depression, as well as with lower levels of work related quality of life, lower levels of resilience, and meaning attributed to life and work.

The regression analysis we conducted in order to estimate the role played by different variables in predicting the level of perceived stress and work related quality of life, we found that both resilience and attribution of meaning to life, respectively to work, play a significant role. In the same time, different components of psychological (eudaimonic) well-being play a key-role in the perditions of stress and work related quality of life, especially if we consider the components of psychological well-being as subjacent strategies and not as results of a process. In both predictive models, a significant role is played by the demographic variables, which brings a supplementary benefit to the social aspect and implications of our study.

Finally, the correlation matrix involving the components of resilience and meaning attributed to life and work reveals a strong association pattern between the assessed variables. As an intriguing results we would present the fact that the presence of meaning in life is strongly associated with both components of resilience, but the search for the meaning in life is not significantly associated with either component of resilience. This result may indicate that the associative relationship between resilience and meaning attributed to life might be more stabile, and that the dynamic implied in the search of meaning in life may be associated with other variables. Since these aspects have significant implications for the development of efficient interventions, we propose that this aspect of our present research be further investigated in more detail.

The results yielded by our research may attain special significance if they are considered in the light of components involved in the constant process of adaptation, within a segment of a larger population (Transylvanian Hungarians). In the last years a plethora of research has been conducted in investigating the concept, components, effect and importance of resilience. Research indicated that resilience as an ability may significantly be developed and enhanced both in childhood/adolescence and in adulthood. From this point of view, our results are important, since we have delineated the major directions resilience may be enhanced within this specific cultural group, namely with maintaining and developing a strong meaning for work. These results may be important not only for therapists and counselors, but also for employers, in order to enhance the relationship between employer and employee. The implementation of interventions targeting the development of resilience both at work and in one's private life [e.g., cognitive-behavioral therapy (e.g., Abbott, Klein, Hamilton, & Rosenthal, 2009), acceptance and commitment therapy (e.g., Ryan, 2014), mindfulness-based therapy (e.g., Geschwind, Peeters, Drukker, Van Os, & Wichers, 2011), problem-solving therapy (e.g., Sahler, Dolgin, Phipps, Fairclough, Askins, Katz, et al., 2013), as well as stress inoculation (e.g., Farchi & Gidron, 2010)],

would significantly improve the repertoire of strategies that enables the individual to *navigate* as efficiently as possible through the increasing and diversifying difficulties of life.

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