Examining the Relationship of Individual Resources and Burnout in Mothers of Children with Disabilities

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Abstract

The relationship between two key factors of parental burnout of mothers of children with disabilities was studied on a population of 69 women. Exhaustion and helplessness - two subscales of the new instrument: Parental Burnout Measure-12 - showed a decreasing correlation with coherence and personal resiliency. Multiple regression analysis showed coherence as more predicative of exhaustion, while personal resiliency of helplessness. The research did not present any relation between sociodemographic factors or the type of disability (Autism Spectrum Disorder versus Cerebral Palsy) and the level of parental burnout. The results can be considered as significant in designing actions that would support the activities of mothers in the rehabilitation of their children.

Keywords: *burnout of mothers of children with disability, Parental Burnout Measure-12, personal resiliency, sense of coherence, autistic spectrum disorder, cerebral palsy*

Introduction

Over the last forty years, the construct of burnout has attracted considerable attention among both researchers and practitioners. Burnout designates a state of chronic physical and mental fatigue (Kristensen, Borritz, Villadsen & Christensen, 2005; Burisch, 2006; Pines, 1993, 2000) and is often

experienced by people working in the helping professions. Whether its onset is sudden or slow, it is comprised of correlated physical and emotional symptoms. Thus, burnout is fundamentally a psychosomatic phenomenon. It is caused first of all by persistent stress that is not modified by the subject's coping activity measures (Sęk, 2000). Sources of occupational stress are multiple. It can originate from the experience of incongruity or discrepancy between professional expectations and actual job realities (Maslach & Leiter, 1997; Chan & Hui, 1995).

Professional burnout was first described by Freudenberger (1980), who listed the following symptoms characteristic of this chronic condition: irritability, chronic fatigue, dejection, aggravating apathy, emotional lability, frequent headaches and increased morbidity. Although discussions on the factors in and theoretical models of burnout have continued for decades now, no homogeneous, universal burnout model adequate to various professions has been developed yet. The very structure of burnout is still subject to controversy. In some frameworks, burnout is perceived as a coherent set of strongly correlated symptoms, which leads to regarding burnout as a homogeneous dimension (Pines, 1993, 2000). Other scholars argue that burnout is multidimensional (Maslach & Leiter, 1997; Schaufeli & Enzmann, 1998). Following Maslach (1976), three components of the professional burnout syndrome are distinguished (emotional exhaustion, depersonalization and reduced personal accomplishment), while their sources are located primarily in the individual him/herself, in interpersonal relationships, and in the conditions and organization of work, though macro-social and cultural factors are also considered relevant. Endorsement of the multidimensional model of burnout entails accepting that each of its components has its own complex buildup, which, theoretically, leads to generating more complex causal models of burnout. The multidimensional model demands also identifying interrelations among the components. The easiest solution is to assume that particular components are different indicators of the same phenomenon while the specificity of the components represents mainly measurement errors. On this account, burnout would be diagnosed if a person scores high in each component. But there is another possible solution, namely a sequential one. In this approach, particular burnout components are seen as causally related, or emerging as a result of expansion of the original disorder (dysfunction spreading over successive spheres of the individual's activities in life). Researchers differ on the causal sequencing of burnout components. Maslach argues for the following sequence: emotional exhaustion → depersonalization → reduced personal accomplishment. Golembiewski and Munzenrider (1988) put forward another model: depersonalization → reduced personal accomplishment → emotional exhaustion. As both accounts are empirically supported, it cannot be ruled out that they represent different mechanisms of initiating an equifinal process, which ultimately leads to accumulation of all three key symptoms of burnout by adding them in a particular succession. As the controversy still remains unsettled, we adopt the multidimensional model, however without positing any causal relations among its components. Consequently, we shall look for determinants of particular burnout components, taking into account also their sum as a dependent variable.

Nearly simultaneously with the publication of the first studies on professional burnout, Sullivan and colleagues (1979) explored burnout in another – non-occupational – context. Specifically, it concerned burnout in parents taking care of a child with disability. Parents of children with developmental disorders face increased tasks related to education, care, therapy. This situation can be a source of serious physical and mental strain for many parents, especially for mothers. Handling the burden requires adequate resources and coping skills. Sullivan concluded that mechanisms leading to professional burnout and parental burnout are similar. She proposed that parental burnout is a progressing process of strength depletion resulting from the daily needs of permanent child-care and accretion of various difficulties in everyday life. Mothers are particularly vulnerable to burnout. It is so probably because they are traditionally responsible for child-care and -rearing while active involvement in the education of the child with disability is also inscribed in their role. Mothers often report difficulties in coping with problems caused by the child's disability (Ryman & Kucyper, 1994). The daily problems most frequently reported by mothers include: too little sleep, necessity to constantly pay attention to the child, being with the child all the time, lack of leisure time, impossibility to rest, necessity to rely on the public means of transport, arduousness of frequent consultations with specialists, lack of physical strength, sense of being constantly "tied" to the child, other people's lack of understanding for the problems the mother of a child with disability confronts, unsatisfying conjugal life, estrangement from friends and colleagues, disappointment with them, considerable financial burdens, misery of giving up on earlier plans and dreams, hardships resulting form the child's continuing reliance on others, having no time for themselves ("I look so unkempt"), chronic fatigue, and fear of the future. These problems and concerns of daily life, combined with the constant care for the child, upset adaptive processes and coping. As a result, emotional tension persists, as do physiological reactions correlated with it. In a longer perspective, this may lead to a gradual depletion of strength and burnout.

A few years after the pioneering studies by Freudenberger (1976) and Maslach (1976), the first book addressing parental burnout was released (Procaccini & Kiefaber, 1983). Although the publication was a manual for parents rather than a strictly scholarly study, its authors proposed an interesting model of parental burnout. They drew on pioneering research on burnout in practitioners of the helping professions and referred to Selye's (1956, 1974) concept of stress as a general adaptive syndrome. The authors claimed that the burnout problem could be explored in relation to all people who become parents since not everybody is well prepared for performing parental roles, and the resultant problems – with child-care and -rearing – trigger burnout. According to the authors, parental burnout is a function of chronic stress that arises from enduring maladjustment between constant demands on and needs of parents, on the one hand, and the available possibilities to meet them, on the other. The pressure of requirements and responsibilities, combined with frequently experienced frustration, anxiety and guilt feelings, exhausts parents' energy and motivation. This account of parental burnout clearly corresponds to the notion of *psychological costs* (Ratajczak, 1996). The essence of psychological costs lies in that negative emotions (especially fear and anger) emerge and persist as an individual finds

him/herself in an unacceptable situation that he/she can neither change nor pull back from nor prevent. Usually, cost-generating situations are characterized by an imbalance of desires, obligations, and capacities (the individual desires the impossible, must meet demands that exceed his/her capacities, and/or is forced to choose between desire and obligation). Most generally speaking, psychological costs are emotional outcomes of motivational conflicts and self-regulation competence deficits. Importantly, however, the regulation system overload is caused not only by emotional burdens but also by other kinds of efforts related to how the mind functions in task situations – for example, the strain caused by prolonged attention focus and/or necessity to control one's behaviors, thoughts, or feelings. This means that burnout is caused not by emotions and activities as such, but rather by excessive effort invested in regulating them in continually experienced, adverse circumstances. This corresponds to the definition of stress proposed by Kozłowski (1990; 1986), who insisted that stress is an organism's excessive response to any (emotional or neuropsychological) burden including neurohormonal changes. The strain is caused by maladjustment between the individual (with his/her resources and needs) and the environment (with its demands and resources). The maladaptation affects the regulation system in three ways: (1) by generating purposive activity in the sphere of mind and behavior; (2) by monitoring the course of this activity in unfavorable conditions; and (3) by the consequences of the activity (therein-possible decision errors and restoring the impaired balance in the regulation system). The individual fulfills his/her needs and meets the demands placed on him/her using the internally and externally available resources. To function normally, the individual must maintain the system of his/her internal and external resources in a dynamic equilibrium. The system of resources is permanently fluid, and as the resources are continually being used, they should be, on the whole, utilized with prudence, and, when running out, they must be immediately compensated for and, in a longer perspective, rebuilt. According to Hobfoll (2002), as an individual develops, he/she learns how to manage his/her resources – how to identify them, accumulate and replenish them after a loss, transform/utilize, improve and invest them, etc. In this context, stress can be understood as (1) a signal alerting the individual to harmful developments in his/her resources system (loss, risk, waste, or failure to replenish them, etc.); and (2) a source of strain for the regulation system, leading to increased expenditure of resources, while burnout can be comprehended as a persistent shortage of resources as compared to the individual's needs, demands and social roles, combined with entrenched disturbances in self-regulation processes. Hobfoll proposes various definitions and classifications of resources. He is not very precise with his terminology, which is explicable insofar that, from an adaptive or developmental perspective, it is hardly possible to produce a complete list of what an individual might find necessary or potentially useful in the adaptation process. In this sense, any classification of resources is only provisional, and can be legitimately contested on scholarly grounds. Attempts at inventorying human needs stumble over a similar obstacle. However, it is certainly valid to distinguish the category of *key resources* that is resources that are particularly relevant to the functioning of the entire system of resources and their regulation. Key resources are the ones on which utilization of all other resources depends as does the capacity to efficiently replenish them and

prevent their excessive depletion. Hobfoll (2002) lists a few personal resources that he sees as vital in this special sense. In our view, there are two key resources, namely *sense of coherence* and *personal resiliency*. They are essential because they reflect two important aspects of regulation. Sense of coherence represents the motivational aspect of regulation processes (it determines an individual's engagement in the realization of values and the building of the resources system by helping him/her understand the surrounding world, feel a sense of agency, and perceive his/her activity as valid and meaningful from a variety of perspectives). Personal resiliency reflects the competence aspect of regulation as it determines an individual's capacity to flexibly adjust to changing situations while retaining the integration of central personality components, such as attitudes, beliefs, life goals, self-concepts, etc.

Both these constructs – sense of coherence and personal resiliency – can be viewed as related to the effectiveness of coping with stress. However, they carry also another essential connotation, as they are involved in cognitive processes and decision-making. We believe that both features not only express resistance to adversity and character strength (cf. Peterson & Seligman, 2004) which derives directly from their scientific genesis (both constructs were generated by research on people in extremely adverse situations), but also – first of all perhaps – reflect wisdom (Sternberg, 1998), self-care capacity (Khantzian & Mack, 1983), and the ability to regulate emotions and establish constructive relationships with others (Goleman, 1995).

The aim of our research is to examine the relationship between the levels of these two key resources (sense of coherence and personal resiliency) and the level of burnout in parents of children with disability. Consistent with our earlier research findings, parental burnout has two major components: exhaustion and helplessness. We believe that exhaustion reflects the regulation system overload and/or entrenched deficits of energy resources while helplessness represents deficits in competences necessary to effectively solve problems arising from the role of the parent of a child with disability. The depersonalization/cynicism dimension is very rarely found in parental burnout since an overwhelming majority parents love their children with disability and feel responsible for them, which by default forestalls depersonalization and cynicism. Besides, even if some of the parents who report burnout are jaded with the excessively distressing circumstances surrounding their child, the social norm that commands caring for one's child impedes any expression of such attitudes.

We expect that both dimensions of parental burnout – exhaustion and helplessness – are associated with both sense of coherence and personal resiliency. Besides these correlations, we intend to examine possible connections between parental burnout levels and selected sociodemographic characteristics, though this is a secondary issue in our research design. Importantly, the analysis results presented below are part of the validation program of our tool for measuring parental burnout. In nearly all, rather scarce, quantitative studies of parental burnout so far, modified professional burnout tests have been used based on the MBI questionnaire (*Maslach Burnout Inventory*) developed by Maslach, or on the SMBM questionnaire (*Shirom-Melamed Burnout Measure*) developed by Shirom and Melamed, (2006). Parental burnout or mental health scales are used more frequently, but

they only help infer about parental burnout without diagnosing it directly. Therefore, we have concluded that a special instrument should be constructed to measure burnout in parents of children with disabilities (see Sekułowicz & Kwiatkowski, 2013; Sekułowicz, 2013; Kwiatkowski & Sekułowicz, 2016).

Method

Participants

This cross-sectional study targets a population of mothers of children with a disability (Autism Spectrum Disorder and Cerebral Palsy) Non-randomly selected subjects (N=69) agreed to complete a questionnaire (burnout measure, measures of sense of coherence, personal resiliency, and socio-demographic variables). The study was granted approval by the institutional review board of research ethics prior to the study being initiated. The characteristics of the study's sample are presented in Table 1.

Table 1. Sample characteristics (N=69).

Variable	Statistics
Mothers - gender (% female)	100.00%
Mothers - age, avg±sd	33.89±4.40
Mothers – in education (%)	
Primary or basic vocational	13.04%
Secondary degree	37.68%
Higher degree	49.28%
Child with disability - gender (% male)	69.56%
Child with disability - age avg±sd	6.48±3.44
Disability type (%):	
Cerebral palsy	55,07%
Autism Spectrum Disorder	45.93%
Family type (%):	
Both parents	84.05%
Mother only	15.96%
Number of children in the family (%)	
One	43.47%
Two	37.68%
Three or more	18.84%
Residency (%):	
Rural	24.63%
Small town	40.58%
Big city	34.78%

Measures

Parental Burnout Measure (PBM-12). The questionnaire was explained in our previous publications (Sekułowicz & Kwiatkowski, 2013; Sekułowicz, 2013; Kwiatkowski & Sekułowicz, 2016). It is a simple instrument with a 4-point Likert scale. The measurement is carried out in two dimensions: exhaustion (E) and helplessness (H). Both dimensions are measured as a sum of 6 items (see Table 2).

Table 2. Parental Burnout Measure (PBM-12). Items of subscales – Exhaustion (E) and Helplessness (H).

1. I feel very tired of taking care of my child. (E)
2. I feel completely exhausted with my family situation. (E)
3. I find the world a gray place. (E)
4. I get irritated. (H)
5. I raise my voice at my child with disability. (H)
6. I feel that I work too hard with my child; this situation depresses me. (E)
7. I feel hopeless taking care of my child. (H)
8. Taking daily care of my child at home is a true struggle for me. (E)
9. I feel that my efforts providing care for my child are inefficient. (H)
10. I feel as if I was on my last legs; I cannot cope anymore. (E)
11. I think I'm trying really hard but I'm not reaching the goals I set up for my child's development (H)
12. I feel bad because of the way I treated my child. (H)

In previous studies (Sekułowicz, 2013), confirmative factor analysis PBM-12 was conducted on the sample of mothers of children with disabilities for three solutions: one-dimensional, two-dimensional orthogonal and two-dimensional oblique structures. The two-dimensional orthogonal model was least supported. The one-dimensional model showed somewhat better results. The best fit was noted for the two-dimensional oblique model. In the case of two-dimensional models, subscales were tested in line with previously established keys in the former studies. The results corroborate the theoretical assumption that parental burnout is a relatively coherent composition of two factors: exhaustion and helplessness. Therefore, both factors should be taken into account in the measures of parental burnout, in parents of children with disabilities. Fully satisfactory internal reliability indicators (Cronbach's alpha) were reached by all burnout measures – PBM-12 total score (.90), exhaustion subscale (.88), and helplessness sub-scale (.80).

Sense of coherence. The SOC-29 questionnaire measures "a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that (1) the stimuli deriving from one's internal and external environments in the course of living are structured, predictable and explicable; (2) the resources are available to one to meet the demands posed by these stimuli; and (3) these demands are challenges, worthy of investment and engagement" (Antonovsky, 1987, p. 19). Each of the aforementioned dimensions (comprehensibility, manageability, and meaningfulness) contributes in a distinct way to an effective use of adaptive resources in difficult situations. SOC-29 is a widely used tool for measuring the sense of coherence. The author of this tool, Antonovsky (1993), is the founder of the salute-genic theory. In Antonovsky's study (1998), Cronbach's alpha for the SOC-29 scale ranged from .86 to .95. In our study, the internal reliability indicators for he subscales were considerably lower: .71 for comprehensibility, .56 for manageability, .76 for meaningfulness, and .85 for the complete SOC-29 scale. The manageability subscale had unsatisfactory internal reliability indicators.

Resiliency. A Polish questionnaire has been employed, namely *Resiliency Assessment Scale – SPP-25* (Ogińska-Bulik & Juczyński, 2008). It resembles in a way to the ego-resiliency construct (Block & Block, 1980). The efficiency of the processes of self-regulation is measured with this instrument. The efficiency manifests itself in five correlated dimensions: (1) persistence and determination (SPP1); (2) openness to new experiences and a sense of humor (SPP2); (3) personal competence of coping with and tolerating negative emotions (SPP3); (4) tolerance of failure and treating life as a challenge (SPP4); and (5) an optimistic attitude to life and the ability to gather strength in difficult situations (SPP5). The designers of the tool (Ogińska-Bulik & Juczyński, 2008) give reliability indicators for the subscales as ranging from .67 to .75, and .89 for the total scale. In our study, Cronbach's alpha figures were similar: from .70 to .79 for the subscales, and total score .94 for SPP-25.

Statistical procedure

The cross-sectional data presented here was collected from a non-random, small sample of 69 mothers of children with disabilities. Descriptive statistics were performed on all measures. One-way variance analyses (ANOVA), Pearson correlation analyses, and multiple linear regression analyses were performed. Significant effects were at $p < .05$. All analyses were done using the *Statistica* package.

Ethics

All procedures performed in this study involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants (parents) included in the study, which was approved by the […] University.

Results

Key analyses in our study focus on the relationship between burnout and mothers' individual resources (sense of coherence and personal resiliency). Before these data are presented, however, it makes sense to analyze associations between burnout and sociodemographic variables (see Table 3) and interrelations between the measures of individual resources used in the study (see Table 4 and Table 5).

None of the sociodemographic variables (Table 3) had a differential effect on the level of burnout reported by mothers in our sample. Only age of the child with disability was associated with the mothers' burnout in the degree that approximated statistical significance: ($F(1.68) = 3.22$; $p = 0.07$). Mothers of older children scored slightly higher ($M = 15.39$; $SD = 4.28$) on the exhaustion scale than mothers of younger children ($M = 13.51$; $SD = 4.27$).

The data in Table 4 shows that the constructs of sense of coherence and personal resiliency are not fully discrete. The two coherence subscales (*manageability* and *meaningfulness*) have factor loadings over .30 for the first factor, which is strongly marked by the resiliency dimensions. The two resiliency subscales (*competencies to cope and tolerance of a negative affect*, and *tolerance of failures and treating life as a challenge*) have factor loadings over .30 for the second factor, which is strongly marked by the sense of

coherence dimensions. Importantly, however, personal resiliency and sense of coherence are singled out as separate factors (in the principal component analysis). Considerable consistency of the sense of coherence and personal resiliency scales, expressed in high factor loadings (from .77 to .89 for the sense of coherence, and from .76 to .90 for resiliency) and in strong intercorrelations (from .61 to .71 for the sense of consistency, and from .56 to .84 for resiliency; see Table 5), justifies using the global measures of SOC and SPP rather than particular subscales later in multiple regression analysis.

Table 3. Sociodemographic characteristics and parental burnout levels: Analysis of variance.

Sociodemographic characteristics	Parental burnout in inter-group comparisons *test F* and means (standard deviation)		
	Exhaustion	**Helplessness**	**Total score**
Disability type	*F=.74; ns*	*F=.01; ns*	*F=.59; ns*
Cerebral Palsy (N=38)	14.68 (4.36)	13.58 (3.67)	28.26 (7.62)
Autism Spectrum Disorder (N=31)	13.77 (4.34)	13.45 (4.39)	27.23 (8.22)
Child with disability – gender	*F=.34; ns*	*F=.52; ns*	*F=.47; ns*
Male (N=48)	14.47 (4.20)	13.75 (3.82)	28.29 (7.58)
Female (N=21)	13.81 (4.71)	13.00 (4.36)	26.81 (8.57)
Child with disability – age	*F=3.22; p=.077*	*F=.21; ns*	*F=1.46; ns*
<= *me* (N=41)	13.51 (4.27)	13.34 (3.89)	26.85 (7.67)
> *me* (N=28)	15.39 (4.28)	13.78 (4.16)	29.18 (8.05)
Parent's age	*F=1.02; ns*	*F=1.24; ns*	*F=1.26; ns*
<= *me* (N=37)	13.78 (4.12)	13.02 (3.73)	26.81 (7.30)
> *me* (N=32)	14.84 (4.58)	14.09 (4.24)	28.94 (8.43)
Parent's education	*F=.40; ns*	*F=1.32; ns*	*F=.52; ns*
Elementary or basic vocational (N=9)	13.11 (5.09)	13.11 (3.22)	26.22 (8.09)
Secondary (N=26)	14.26 (4.89)	12.65 (4.70)	26.93 (9.20)
Higher (N=34)	14.59 (3.74)	14.29 (3.48)	28.88 (6.70)
Family type	*F=.57; ns*	*F=.27; ns*	*F=.46; ns*
Both parents (N=58)	14.10 (4.23)	13.41 (4.03)	27.52 (7.78)
Only mother (N=11)	15.18 (5.02)	14.09 (3.81)	29.27 (8.49)
Number of children in the family	*F=.10; ns*	*F=.01; ns*	*F=.03; ns*
1 (N=30)	14.37 (4.28)	13.60 (3.82)	27.97 (7.59)
2 (N=26)	14.00 (4.33)	13.50 (4.26)	27.50 (8.09)
3+ (N=13)	14.62 (4.81)	13.38 (4.06)	28.00 (8.62)
Residence	*F=1.33; ns*	*F=.90; ns*	*F=1.23; ns*
Rural area (N=17)	14.12 (4.54)	13.71 (4.13)	27.83 (8.35)
Small town (N=28)	13.43 (4.32)	12.79 (3.98)	26.21 (7.85)
Big city (N=24)	15.38 (4.16)	14.25 (3.88)	29.63 (7.43)

me = median; *ns* = insignificant result (p>0.10)

Table 4. Individual resources in mothers of children with disabilities: Results of factor analysis of the sense of coherence and personal resiliency subscales (N=69). Exploratory factor analysis: Principal components method, Varimax rotation, factor extraction at eigenvalues >1.

Subscales of Sense of coherence (SOC) and Resiliency (SPP)	Factor 1	Factor 2
SOC – Comprehensibility	.11	.89
SOC – Manageability	.38	.80
SOC – Meaningfulness	.43	.77
SPP-1	.76	.18
SPP-2	.84	.29
SPP-3	.88	.31
SPP-4	.83	.39
SPP-5	.90	.23
Accounted-for variance	49%	30%

Tables 6-8 show multiple regression analyses conducted to establish predictability of sense of coherence and personal resiliency for parental burnout indicators. Burnout was measured based on two correlated subscales of exhaustion and helplessness. When assessing predictability of sense and coherence and personal resiliency for exhaustion, helplessness was entered in the equation as a predictor of exhaustion, which allowed assessing the pure predictability of both resources against the background of their correlation with helplessness and the correlation of helplessness with exhaustion. A similar procedure was used in assessing predictability of resources for helplessness (in this case, exhaustion was entered in the first position of the regression equation, followed by the resources).

Table 5. Pearson's correlation coefficients – parent's age (PA) and child's age (CA), sense of coherence subscales (Co, Ma, Me), resiliency subscales (SPP1-SPP5) and parental burnout (E, H, PB) in the sample of mothers of children with disabilities (N=69).

Var.	M	SD	CA	Co	Ma	Me	SPP 1	SPP 2	SPP 3	SPP 4	SPP 5	E	H	PB
PA	33.83	4.40	.49*	.13	.19	.12	.22	.09	.11	.07	.02	.03	.04	.04
CA	6.48	3.44		.09	.03	.11	Ma	-.00	.14	.09	-.02	.20	.07	.15
Co	39.65	9.29			.63*	.61*	.33*	.33*	.42*	.43*	.31*	-.58*	-.46*	-.55*
Ma	44.99	9.05				.71*	.42*	.50*	.57*	.60*	.55*	-.67*	-.47*	-.60*
Me	39.06	7.74					.41*	.64*	.55*	.65*	.54*	-.59*	-.46*	-.56*
SPP 1	15.19	2.53						.56*	.73*	.56*	.64*	-.37*	-.41*	-.41*
SPP	15.0	2,9							.75*	.83*	.79*	-	-	-

2	6	1										.50*	.47*	.52*
SPP 3	13.74	3,04								.82*	.84*	-.54*	-.55*	-.58*
SPP 4	13.80	2,89									.83*	-.63*	-.55*	-.62*
SPP 5	12.99	3,19										-.59*	-.60*	-.63*
E	14.28	4.34											.78*	.95*
H	13.52	3.98												.94*
PB	27.80	7.86												

PA=parent – age; CA=child with disability – age; sense of coherence subscales (Co=comprehensibility, Ma=manageability, Me=meaningfulness); resiliency subscales (SPP1-SPP5); E=exhaustion, H=helplessness, PB=parental burnout – total score. Marked correlation coefficients are significant at $p < .05$.

Table 6. Predictability of sense of coherence and personal resiliency for the total burnout indicator as established in multiple regression analysis (N=69).

Components	Statistics									
	B	B SE	t	p	-95% ci	+95% ci	β	β SE	-95% ci	+95% ci
Constant	61.57	4.16	14.79	.000	53.26	69.88				
SOC	-.15	.04	-3.94	.000	-022	-.07	-.43	.11	-.65	-.21
SPP	-.22	.07	-3.26	.002	-.35	-.08	-.36	.11	-.58	-.14

Model's predictive power: $R^2 = .51$; $R^2_{adjusted} = .49$

B – regression coefficient; B SE – error of regression coefficient; t – t test value; p – significance of regression coefficient; -95% ci – lower limit 95% of confidence interval; +95% ci – upper limit 95% of confidence interval; β – standardized regression coefficient; β SE – error of standardized regression coefficient.

Table 7. Predictability of helplessness, sense of coherence and personal resiliency for exhaustion as established in multiple regression analysis (N=69).

Components	Statistics									
	B	B SE	t	p	-95% ci	+95% ci	β	β SE	-95% ci	+95% ci
Constant	15.73	3.07	5.12	.000	9.59	21.86				
BS	.62	.09	6,85	.000	.44	.79	.56	.08	.40	.73
SOC	-.07	.02	-4,50	.000	-.10	-.04	-.38	.08	-.55	-.21
SPP	-.01	.03	-.37	.712	-.07	.05	-.03	.09	-.21	.14

Model's predictive power: $R^2 = .73$; $R^2_{adjusted} = .72$

B – regression coefficient; B SE – error of regression coefficient; t – t test value; p – significance of regression coefficient; -95% ci – lower limit 95% of confidence interval; +95% ci – upper limit 95% of confidence interval; β – standardized regression coefficient; β SE – error of standardized regression coefficient.

The effect of both sources of variance on the parental burnout level is similar. Standardized regression coefficients are similar the sense of coherence (β = -.43; $p < .001$) and for personal resiliency (β = -.36; p =.002). They are both negative, which means that high levels of these individual characteristics are associated with low burnout scores. The data presented in two subsequent Tables show that if predictions for burnout components (exhaustion and helplessness) regarded as separate dependent variables are taken into account, sense of coherence (β = -.38; p = .000) is associated with exhaustion more strongly than personal resiliency is (β = -.03; p = .712) (Table 7), while personal resiliency (β = -.22; p = .031) is associated with helplessness more strongly than sense of coherence is (β = .13; p = .255) (Table 8). What matters most in both cases is that the regression coefficient values are negative, which means that high levels of resources are conducive to lower levels of burnout. Thus, sense of coherence likely expresses the capacity to manage energy resources effectively (which seems to result directly from the theory of salute-genesis), while personal resiliency is more closely linked to life problem-solving competencies.

Discussion

Our research has not corroborated associations between socio-demographic characteristics and parental burnout levels. Neither age of the child with disability nor age of the parent (significantly correlated, r = .43; $p < .05$) had a significant differential effect on parental burnout levels. We conclude that the duration of care for a child with disability does not necessarily cause burnout. Single parenthood has not shown any association with burnout either. Single mothers did report slightly higher levels of burnout than mothers in two-parent families, but the differences are very far from being statistically significant. This finding differs from the findings reported in the literature, which show higher levels of parental stress and well-being in single parents (Voydanoff, & Donnelly, 1998; Coombs, 1991). It cannot be ruled out that this correlation does not appear in our study because our sub-population of single mothers was relatively small (N=11). However if we assume that, though burnout is a consequence of stress, other variables, therein-individual resources promoting good outcomes despite the experienced stress (resilience processes), can mediate between the stress-inducing strain and burnout, and moderate the latter, burnout does not seem inevitable. This interpretation cannot be tested, however, because our sample was not big enough, and the variables we analyzed did not include mothers' experienced stress. Disability type also turned out to be an insignificant factor. Not much can be concluded from this finding, as our sample was comprised only of two disorders in children: autistic spectrum disorder and cerebral palsy. The literature indicates that children's autism is a greater burden to parents than other disabilities types (Donovan, 1988; Koegel et al., 1992; Abbeduto et al., 2004; Pisula, 2007; Davis & Carter, 2008; Estes, Munson, Dawson, Koehler, Zhou & Abbott, 2009; Dąbrowska & Pisula, 2010; Pisula, 2011; Kirby, White & Baranek, 2015). In our study, however, slightly higher burnout levels were reported by parents of children with cerebral palsy. It is possible that cerebral palsy causes a particular strain to parents (Ong, Afifah, Sofiah & Lye, 1998; Cheshire,

Barlow & Powell, 2010; Parkes, Caravale, Marcelli, Franco & Colver, 2011; Olawale, Deih & Yaadar, 2013) which is as challenging as that caused by autism. Rural or small-town residence can be a stress-promoting factor in parents of children with disabilities since it aggravates problems with rehabilitation of children, which is, as a rule, available in bigger cities (commuting to therapy and/or rehabilitation facilities is cost-inducing and time-consuming). The research, however, did not confirm the correlation between place of residence and parental burnout. This finding can be due to possibly stronger informal support from the local community that families in rural areas and small towns can count on. The number of children in the family also turned out to be insignificant even though, in general, families with many children are more prone to poverty and other family problems, which may increase their vulnerability to stress. Nevertheless, a big family does not entail daily predicaments only. In favorable conditions, it can be a flexibly organized system, capable of effectively supporting its members and modifying the ways it functions when faced with difficult situations. Interrelations between parental burnout and parents' education, as well as those between parental burnout and the child's gender, also proved insignificant. Admittedly, parents of boys with disabilities and parents with relatively low level of education reported higher burnout levels than parents of girls with disability and parents with higher education, yet the differences between the groups were slight.

Our study showed, however, the relevance of individual resources as factors promoting good outcomes in parents of children with disabilities. Both sense of coherence and personal resiliency turned out to be significant predictors of burnout. Jointly, they accounted for over 50% of variance of parental burnout, and the effect of each of these characteristics separately was of a similar magnitude. These findings are consistent with the data from studies on the role that sense of coherence plays in maintaining mental wellbeing by parents of children with disabilities (Mak, Ho & Law, 2007; Oelofsen & Richardson, 2006; Olsson & Hwang, 2002). It should be noticed, however, that the literature documenting correlations between personal resiliency (resilience-trait, ego-resiliency) and stress or parental burnout is rather scarce. It is interesting that each of the variables in our analyses is predictive for another burnout dimension: sense of coherence protects against accumulation of exhaustion, while personal resiliency safeguards against chronic experience of helplessness. We believe that sense of coherence plays a key role in effective management of adaptive resources (therein, likely, in regulating energy resources and retaining optimum mobilization levels), whereas personal resiliency in all probability has a bearing on selection of action modes in difficult situations. Certain doubts arise, however, from a very strong correlation between sense of coherence and personal resiliency ($r = .62$). The range of common variance of the two factors is considerable. Consequently, it is possible that, besides specific protective impact of the two personal resources, parental stress levels can be affected by a latent variable determining their covariance. Such a latent factor of a higher order can be responsible for the quality and availability of personal resources as well as for the effectiveness in applying them in problem solving.

Notably, theoretical accounts of how people effectively handle life problems distinguish adaptive resources from coping resources (Pearlin & Schooler, 1978). What appear to be the two most prominent accounts of

psychological stress, put forward by Lazarus (1990) and Hobfoll (1989, 2002), respectively, seem to put a different emphasis on the two factors. Lazarus focuses first of all on information processing (cognitive assessments) and coping. He needs the notion of resources just to define stress as an imbalance of demands and resources, which is supposed to initiate regulation processes leading to reducing this discrepancy. Hobfoll is clearly more interested in the very process of managing resources – acquiring, strengthening, using and investing them. Stress is a response to a real or anticipated depletion of resources. The state of resources determines goals, and goals are subordinated to resources (the aim of regulation processes is to retain the balance of the resources system). According to Lazarus, stress arises when an individual realizes that resources necessary to perform an important task in particular conditions are insufficient or when he/she fails in performing such a task. Resources are thus subordinated to goals. Further research is needed to further contribute to bettering our understanding of these relationships and mechanisms by which to provide supports to children with disabilities and their families.

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