

Resiliency and the subjective evaluation of health in mothers of children with Asperger's syndrome

BACKGROUND

Parents caring for children with developmental disorders are exposed to much higher levels of stress than parents of typically developing children. It has also been proved that parents of children with developmental disorders experience mental health deterioration, a sense of guilt, physical weakness, fatigue and exhaustion. Resiliency conditions cognitive and emotional flexibility, and enables an individual to adjust their own behavior to particular circumstances. The present study aims to verify whether there is a relationship between resiliency and the subjective evaluation of health under stress in a group of mothers of children with Asperger's syndrome.

PARTICIPANTS AND PROCEDURE

The three measures used in the study were The Polish Resiliency Assessment Scale, The Subjective Evaluation of Health Scale, and a personal questionnaire. A group of 31 mothers of children with Asperger's syndrome and a group of 31 mothers whose children were not chronically ill and developed typically were examined.

RESULTS

Mothers of children with Asperger's syndrome have similar levels of resiliency and its contributing factors compared to mothers with healthy children. However, when compared to mothers of healthy children, mothers of children with Asperger's syndrome show a more negative subjective evaluation of health. Moreover, we found that some resiliency factors (The ability to tolerate failures and view life as a challenge, and Optimism in life and the ability to focus in adversity) correlate positively only in the group of mothers of children with Asperger's syndrome.

CONCLUSIONS

Findings obtained in the study allow us to consider resiliency along with having a healthy child, as a factor contributing to a positive evaluation of health.

KEY WORDS

resiliency; Asperger syndrome; mothers; evaluation of health

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AUTHORS' CONTRIBUTION — A: Study design · B: Data collection · C: Statistical analysis · D: Data interpretation · E: Manuscript preparation · F: Literature search · G: Funds collection

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BACKGROUND

Scientific investigation into parenting stress was first initiated in the 1980s, and developmental disorders in children have been viewed therein as a frequent source of burden for parents. Many research studies have shown that parents caring for children with developmental disorders are exposed to much higher levels of stress than parents of typically developing children (Pisula, 2007). It has also been proved that parents of children with developmental disorders experience mental health deterioration, a sense of guilt, physical weakness, fatigue and exhaustion (Allik, Larsson & Smedje, 2006). According to some researchers (e.g. Waiss, 1991), somatic symptoms are a common manifestation of parenting stress associated with taking care of children with pervasive developmental disorders.

Given such a perspective, researchers are striving to find protective factors that can help buffer the health ravages of stress on an individual. This paper attempts to verify whether there is a relationship between resiliency, as one of the protective factors, and the subjective evaluation of health under stress in a group of mothers of children diagnosed with Asperger's syndrome (AS).

CHARACTERISTICS OF ASPERGER'S SYNDROME

Asperger's syndrome is a pervasive developmental disorder (Grzechowiak, Macniak & Rybakowski, 2007), the underlying cause of which has not yet been fully understood (Stiefel, Shields, Swain & Innes, 2008). The prevalence of AS largely depends on diagnostic criteria (Attwood, 2007). Asperger's syndrome is usually recognized in 36-40 per 10 000 persons (Jaklewicz, 2004; Toal, Murphy & Murphy, 2005). Boys seem to be more likely to have AS than girls (Pisula, 2000; Randall & Parker, 2001) with the sex ratio of 4 : 1 (Ehlers & Gillberg, 1993; Grzechowiak *et al.*, 2007) or even 8 : 1 (Kruk-Lasocka, 1999). A diagnosis of Asperger's syndrome is made through observations of impairment in social interaction and communication (both verbal and nonverbal), as well as restricted, untypical, and stereotyped patterns of behavior and interests. The above disorders can surface in children from infancy until the age of five, and the overall intellectual development of those children is typically normal for their age group. In many cases, AS co-occurs with other somatic conditions, for instance, with the fragile-X syndrome (Grzechowiak *et al.*, 2007).

In the early stages of development, children with AS do not display significant impairment in speech development (Maciarz & Bidasiewicz, 2000). However, significant speech impairments, including

pragmatics, semantics and prosody, can surface later on in their lives. Children with AS may at times be hypersensitive to certain stimuli. Most children with AS have great memory, yet fail to pick up on social cues and respond to them appropriately. Moreover, these children are very sensitive to all kinds of changes occurring in their immediate environment.

The above characteristics are major obstacles in developing friendships and social bonds, and the progressive isolation and loneliness of a child contribute to many emotional problems (Maciarz & Bidasiewicz, 2000). Research studies have also demonstrated that as many as 20% of teenagers and young adults with AS suffer from depression, 30% from generalized anxiety disorder, while 50% report suicidal thoughts (Shtayermman, 2007).

DIFFICULT SITUATION OF MOTHERS OF CHILDREN WITH ASPERGER'S SYNDROME

Mothers of children with AS have to face the challenge of coping with not only particularly difficult behaviors of their children, but also the emotional consequences of such behaviors that the children suffer, and disapproval of the child's symptoms from society. One of the first difficult situations such mothers face is the diagnosis. Comparative studies carried out on a sample of 614 parents of autistic children and 156 parents of children with Asperger's showed that children with AS require a much longer diagnostic process. The average age of a diagnosis for a child with autistic disorder was 5.5 years, while that of a child with AS was 11 years (Howlin & Asgharian, 1999). According to Ewa Pisula (2007), an early diagnosis of AS in a child facilitates faster adaptation of his or her parents to the ensuing situation. A parent who does not have to wait long for the diagnosis of his or her child is less anxious, able to create a more realistic image of their child, and has a stronger sense of control over the situation as well as a more realistic approach to the abilities of their child.

Allik *et al.* (2006) gathered data which demonstrate that mothers display better mental and physical wellbeing if their child shows more signs of prosocial behavior, such as being willing to share with others, helpful, caring, and nice. In addition, mothers report higher levels of mental wellbeing when their children display fewer symptoms of hyperactivity and difficult behavior. Negative emotions of parents related to problems in their child's behavior often manifest themselves in psychosomatic symptoms (Allik *et al.*, 2006). Sandra Weiss (1991) concurs that somatic symptoms are a common manifestation of parenting stress linked to caring for a child with a pervasive developmental disorder. Mothers of chil-

*Resiliency
of mothers
of children
with Asperger's
syndrome*

dren with AS, not fathers though, appear to support this observation (Allik *et al.*, 2006).

Currently, in their analysis of parental stress, researchers are also looking for health-promoting factors. Many are drawn to the fact that in a medical condition or significant adversity, some individuals preserve mental balance or recover rather quickly (Nadolska & Sęk, 2007). Relatively stable personality traits and social factors which have an impact on how we control stressful transactions are called personal resources (Hobfoll, 2006). Recently, researchers have become notably more interested in 'resiliency', which along with other resources constitutes an important health-promoting factor (Ogińska-Bulik & Juczyński, 2008a; Basińska, Kielnik & Grzankowska, 2014, paper in press).

THE CONSTRUCT OF RESILIENCE AND RESILIENCY

The notions of resilience and resiliency emerged in the literature in the mid-1900s during longstanding research which aimed to assess adolescent personality (Block & Block, 1980, after: Ogińska-Bulik & Juczyński, 2008a). The word resilience is of Latin origin and derives from the Latin word *salire*, meaning spring, spring up and the word *resilire*, meaning spring back. In the English literature, two terms have been used: resilience and resiliency (Nadolska & Sęk, 2007; Ogińska-Bulik & Juczyński, 2008a; Borys, 2010). They both refer to flexibility of adjustment, yet in two different categories of description. Therefore, particular caution should be exercised in the use of terminology, and the two terms should not be used interchangeably (Nadolska & Sęk, 2007; Kaczmarek, Sęk & Ziarko, 2011). A characteristic difference between the two notions is the occurrence of a traumatic experience. When the term resilience is used, the previous experience of significant adversity in life is a prerequisite (Nadolska & Sęk, 2007). Resiliency, on the other hand, does not presuppose any exposure to a traumatic experience, but surfaces when the individual is confronted with everyday challenges (Luthar *et al.*, 2000, after: Nadolska & Sęk, 2007).

Resilience researchers focus on factors protecting an individual against maladaptation (Luthar *et al.*, 2000, after: Nadolska & Sęk, 2007), and those buffering the risk factors a person encounters in everyday life. Such factors include, inter alia, personality traits, functioning of a family, and supportiveness found in society (Nadolska & Sęk, 2007). Resiliency, defined as a relatively stable personality trait, conditions cognitive and emotional flexibility, and enables an individual to adjust their own behavior to particular circumstances. Resiliency is an important catalyst in building resilience – as a meta construct, encompassing many interrelated personal attributes, activating

and adjusting necessary resources to cope under challenging life conditions (Nadolska & Sęk, 2007).

Janie and Jack Block (1980, after: Ogińska-Bulik & Juczyński, 2008a) characterized resilient people as self-confident, persistent, productive, equipped with a sense of humor, independent and able to earn people's sympathetic response and acceptance. Moreover, such people are aware of the underlying motives for their actions and finalize already initiated tasks. They are typically friendly and able to develop close relationships with people.

Although adversity of some kind may have actually been experienced by individuals characterized as resilient, their functioning is generally well balanced and healthy (Nadolska & Sęk, 2007). Contemporary authors (e.g. Alessandri, Vecchione, Caprara & Letzring, 2011) focus on cross-cultural examination. Data provide evidence that resiliency shows a positive correlation with a sense of psychological wellbeing in such countries as Italy, Spain and the United States, and a negative relation with depression in Italy and Spain, but not in the United States.

The present study aims to verify whether there is a relationship between resiliency and the subjective evaluation of health under stress in a group of mothers of children with AS.

PARTICIPANTS AND PROCEDURE

The three measures used in the study included the Polish Resiliency Assessment Scale (Skala Pomiaru Prężności SPP-25), the Subjective Evaluation of Health Scale, and a personal questionnaire.

The Polish Resiliency Assessment Scale (SPP-25), created by Ogińska-Bulik and Juczyński (2008a), is used to identify various personality traits that make up resiliency. The scale consists of 25 statements. A subject is asked to assess each statement on a five-point scale. The result is calculated for the whole scale and the following five factors (Ogińska-Bulik & Juczyński, 2008a):

- 1) perseverance and determination in action,
- 2) openness to new experiences and a sense of humor,
- 3) ability to cope and tolerate negative emotions,
- 4) ability to tolerate failures and view life as a challenge,
- 5) optimism in life and ability to focus in adversity.

The Subjective Evaluation of Health Scale is a measure created in order to identify the subjective health of an individual. The scale score is measured on a one hundred millimeter horizontal line. A subject is asked to mark on the scale how healthy or ill he or she feels. A left extreme response category on the scale 'ILLNESS' means 0% healthy, whereas a right extreme response category on the scale 'HEALTH' means 100% healthy. A higher score on the scale

means better health of a subject, a lower score on the scale means poorer health, while a medium score indicates average health.

The data obtained in the personal questionnaire allowed us to gain a general understanding of the situation of mothers of healthy children and mothers of children with AS. The majority of questions applied to both groups of mothers alike. The questions included, inter alia, demographic characteristics, such as age, education and place of residence.

SUBJECTS' CHARACTERISTICS

A group of 31 mothers of children with AS and a group of 31 mothers whose children were not chronically ill and developed typically were examined. The former group also included mothers who reported that their children had been diagnosed with Asperger's (mothers who reported that an AS assessment of their children was being conducted were not included in the study), and agreed to participate in the study.

A parallel study was carried out on a group of mothers of healthy children, as a control group. The selection criteria for the control group included:

- mothers' age (with a maximum 6-year difference in age) and education (with a maximum one level difference in education),
- child's pattern of development and health - children of mothers in the control group developed typically and did not suffer from any chronic condition,
- consent to participate in the study.

All subjects were informed that participation in the study was voluntary and that they had the right to withdraw from the study at any time.

Mothers of children with AS were aged 31 to 52 ($M = 40$ years, $SD = 5.88$), while mothers of healthy children were aged 29 to 54 ($M = 39$ years, $SD = 6.59$). The majority of mothers of children with AS reported to have higher education, fewer reported to have vocational secondary education, and none of them reported to have elementary education. In the group of mothers of healthy children, a comparable number of subjects reported to have higher, vocational secondary, and primary education respectively. None of them, however, reported to have elementary education. A vast majority of mothers, in both groups, raised their children in a complete family. In both groups, there were two persons who were in an informal relationship, while the rest were married.

RESULTS

With respect to resiliency and its contributing factors, no statistically significant differences were found between mothers of children with AS and mothers of healthy children (Table 1).

In the group of mothers of children with AS there were 6 persons (19%) diagnosed with a chronic condition such as depression, diabetes, eczema, bronchial asthma, allergy and hypertension, while in the group of mothers of healthy children a chronic disease was reported in 4 persons (13%), and included depression, hypothyroidism, and hypotension. The remaining mothers had never been treated for any medical conditions.

The examined subjects differed in terms of the subjective assessment of health. The findings indicated that mothers of children with AS were more willing to negatively assess their health ($M = 74.258$,

Table 1

Statistically significant differences in resiliency and its contributing factors between mothers of children with Asperger's syndrome (AS) and mothers of healthy children

Resiliency and its factors	Mothers of children with AS		Mothers of healthy children		t/z*	p
	M	SD	M	SD		
SPP-25 (RSP)	70.452	12.080	70.968	12.852	-0.163	0.871
SPP-25 (RSP)	5.516	2.158	5.710	2.210	-0.349	0.728
P&D	14.032	3.049	14.548	2.803	-0.694	0.490
ONE&SH	15.032	2.702	15.129	2.432	-0.148	0.883
AC&TNE	13.903	3.310	13.806	2.857	0.123	0.902
ATF&VLC	14.774	2.334	14.484	3.295	-0.256	0.798
OL&AFA	12.677	2.914	13.000	3.033	-0.545*	0.586

Note. SPP-25 - resiliency - summed score; P&D - persistence and determination; ONE&SH - openness to new experiences and a sense of humor; AC&TNE - ability to cope and tolerate negative emotions; ATF&VLC - ability to tolerate failures and view life as a challenge; OL&AFA - optimism in life and ability to focus in adversity.

* (z) - presentation of statistically significant differences verified with the Mann-Whitney U test

Table 2

Presentation of statistically significant differences in subjective evaluation of health in a group of mothers of children with Asperger's syndrome (AS) and mothers of healthy children, rated as poor, average and good health

Health status	Mothers of children with AS	Mothers of healthy children	Total
Poor health: from 1 to 35	3	0	3
Average health: from 36 to 75	7	2	9
Good health: above 75	20	29	49
Total	30	31	61

Note. $\chi^2 = 7.416$, with $df = 2$, $p = 0.025$

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Table 3

Relationship between resiliency, its contributing factors and the subjective evaluation of health in a group of mothers of children with Asperger's syndrome (AS) and in a group of mothers of healthy children (Spearman rho)

Pairs of variables	Mothers of children with AS		Mothers of healthy children	
	R	p	R	p
SPP-25 & SEH	0.345	0.057	0.249	0.176
P&D & SEH	0.106	0.571	0.192	0.300
ONE&SH & SEH	0.319	0.080	0.152	0.414
AC&TNE & SEH	0.354	0.051	0.103	0.582
ATF&VLC & SEH	0.510	0.003	0.303	0.098
OL&AFA & SEH	0.482	0.006	0.263	0.153

Note. SPP-25 – resiliency – summed score; P&D – persistence and determination; ONE&SH – openness to new experiences and a sense of humor; AC&TNE – ability to cope and tolerate negative emotions; ATF&VLC – ability to tolerate failures and view life as a challenge; OL&AFA – optimism in life and ability to focus in adversity; SEH – Subjective Evaluation of Health

$SD = 24.332$) compared to mothers of healthy children ($M = 90.742$, $SD = 9.313$; $z = -3.004$, $p = 0.003$) (Table 2).

In the analysis of the relationship between resiliency, its contributing factors, and the subjective evaluation of health, it was observed that there is a positive correlation only in the group of mothers of children with AS. Mothers of children with AS who assessed their health more positively were also more able to cope with failures, viewed life as a challenge, were more optimistic about life, and more able to focus in adversity as compared to mothers who rated their health more negatively. No correlation was observed in the group of mothers with healthy children (Table 3).

In the final stage of data analysis, individual factors of resiliency together with mothers' age and their belonging to a given group were examined as predictors for a subjective evaluation of health with a multiple regression analysis. The analysis showed that resiliency together with age and having healthy children allowed one to predict a change in a positive evaluation of health in approx. 32% of subjects ($R = 0.629$; $R^2 = 0.396$; corr. $R^2 = 0.317$; $F(7.54) = 5.047$; $p = 0.0002$). When mothers had healthy children and

were characterized as open to new experiences and having a sense of humor, they evaluated their health more positively (Table 4).

DISCUSSION

Up to now, research on protective factors against negative consequences of stress in parents with children suffering from developmental disorders has not yielded clear-cut answers. For instance, some data (Margalit, Raviv & Ankonina, 1992) show that there is a lower sense of coherence in parents of children with developmental disorders in comparison with parents of healthy children. Some research studies (Dąbrowska, 2008) indicate that parents of children with autism show a lower overall sense of coherence compared to parents of healthy children, although other research findings (Pisula, 2007) do not show such differences. Mothers raising children with AS appear not to differ in levels of resiliency compared to mothers of children with no developmental disorders. However, the present study shows that personal resources of

Table 4

Summary of multiple regression analysis for a dependent variable – SEH

	b^*	Std. error of b^*	b	Std. error of b	$t(54)$	p
Regression scale parameter			25.39	20.46	1.24	0.220
Group unhealthy/healthy	0.413	0.109	16.46	4.32	3.81	0.000
Age	0.132	0.113	0.43	0.36	1.17	0.246
OL&AFA	0.513	0.228	3.48	1.55	2.25	0.029
P&D	-0.273	0.161	-1.88	1.10	-1.70	0.095
ONE&SH	-0.050	0.163	-0.39	1.29	-0.31	0.760
AC&TNE	0.033	0.212	0.22	1.39	0.16	0.877
ATF&VLC	0.164	0.182	1.16	1.29	0.90	0.370

Note. SPP-25 – resiliency – summed score; P&D – persistence and determination in action; ONE&SH – openness to new experiences and a sense of humor; AC&TNE – ability to cope and tolerate negative emotions; ATF&VLC – ability to tolerate failures and view life as a challenge; OL&AFA – optimism in life and the ability to focus in adversity; SEH – Subjective Evaluation of Health; b^* – nonstandardized regression coefficient; Std. error of b^* – standard error of nonstandardized regression coefficient; b – standardized regression coefficient; Std. error of b – standard error of standardized regression coefficient; t – value of Student's t -test; p – significance of regression coefficient.

Resiliency
of mothers
of children
with Asperger's
syndrome

an individual can become active in particular conditions, i.e., in the case of chronic stress, such as raising a child with a developmental disorder. It appears that resiliency, particularly its specific factors, facilitate more positive evaluation of own health. The obtained body of data is consistent with the theoretical reports and findings of other researchers. Some researchers believe that the so-called stress-hardy personality is helpful in avoiding negative health consequences of stress. The most popular theory of such a personality is one developed by Suzanne Kobasa (Kobasa, Maddi & Kahn, 1982). According to this theory, hardy personality traits include commitment, control over a stressful situation, and reaction to stress as a challenge (after Chodkiewicz, 2005). Ewa Góralczyk (1996) claims that viewing a child's medical condition as a challenge helps parents focus on action and facilitates constructive coping with stress. Having such resources as being aware that one has control over a stressor and support in the immediate environment closely correlates with more effective coping with stress among parents with autistic children (Ayelet & Shlomo, 2011). The study also proves that optimists report fewer complaints about their physical health compared to people who lack this disposition (Chodkiewicz, 2005). Therefore, the study outcome, showing that optimism and the ability to focus in adversity determine a more positive evaluation of own health, seems to be entirely understandable.

In the face of frequently occurring stress, a sense of guilt, anxiety and depression in parents of children with AS (Weiss, 1991), personal resources protecting against overstrain become especially important. A resource such as resiliency that preconditions cognitive

and emotional flexibility enables a person to adjust their own behavior to existing circumstances (Nadolska & Sęk, 2007) and facilitates constructive problem solving (Ogińska-Bulik & Juczyński, 2008b). It is possible that such resources as optimism, the ability to focus in adversity, and viewing life as a challenge, enable mothers of children with AS to focus on positive aspects when necessary, and deal with adversities in a more constructive way, rather than focus on somatic health problems.

Current advances in research into subjective evaluation of health relate mainly to the chronically ill. They include individuals suffering from rheumatoid arthritis (Słowińska & Małydyk, 2012), chronic kidney disease, and diabetes (Marzec, Walasek & Andruszkiewicz, 2012). Research conducted by Szewczyk, Jawień and Hildebrandt (2005) shows that subjective evaluation of health in people suffering from chronic venous insufficiency is closely related to their psychosocial activity. A subjective sense of 'poorer' health in the chronically ill adversely influences a belief in effective treatment and recovery. It also makes them abandon interpersonal contacts and interests in which they had previously been engaged.

Given such a perspective, conducting research studies into other groups of people seems to be particularly useful. A significant level of emotional strain experienced by parents of children with developmental disorders may significantly contribute to their evaluation of own health as poorer, and thus limit their psychosocial activity. Therefore, the need to provide psychological support for parents of children with AS seems to be all the more necessary. Further research into functioning and coping in ad-

versity of this group of people would enable a more accurate targeting of preventive and therapeutic interventions.

CONCLUSIONS

Numerous studies on parenting stress have proved that caring for children with developmental disorders constitutes a significant burden to parents' physical and mental health (Pisula, 2007). In view of the mental or physical strain that caregivers of children with developmental disorders may be exposed to, personal resources that those caregivers possess become particularly important. Those resources allow the person to more effectively cope with adversities and become more health-oriented in their attitudes, which, in turn, translates into their sense of happiness (Chodkiewicz, 2005).

The study conducted for the purpose of the present paper aimed to capture the functioning and coping of mothers of children with AS. This group of parents has not been sufficiently studied yet (Epstein *et al.*, 2007). The research findings allow us to conclude that mothers of children with AS have similar levels of resiliency and its contributing factors compared to mothers with healthy children. However, when compared to mothers of healthy children, mothers of children with AS show a more negative subjective evaluation of health. Moreover, we found that some resiliency factors (The ability to tolerate failures and view life as a challenge, and Optimism in life and the ability to focus in adversity) correlate positively only in the group of mothers of children with AS.

Findings obtained in the study allow us to consider resiliency, particularly one of its factors, i.e., Optimism in life and the ability to focus in adversity, along with having a healthy child, as a factor contributing to a positive evaluation of health.

REFERENCES

Alessandri, G., Vecchione, M., Caprara, G. & Letzring, T.D. (2011). The Ego Resiliency Scale Revised. A Crosscultural Study in Italy, Spain and the United States. *European Journal of Psychological Assessment*, 28, 139-146.

Allik, H., Larsson, J.-O. & Smedje, H. (2006). Health-related quality of life in parents of school-age children with Asperger syndrome or high functioning autism. *Health and Quality of Life Outcomes*, 4, 1-8.

Attwood, T. (2007). *The complete guide to Asperger's Syndrome*. London: Jessica Kingsley Publishers.

Ayelet, S.-T. & Shlomo, K. (2011). Stress and Personal Resource as Predictors of the Adjustment of Parents to Autistic Children: A Multivariate Model.

Journal of Autism & Developmental Disorders, 41, 879-890.

- Basińska, M.A., Kielnik, J. & Grzankowska, I. (2014). Wybrane wyznaczniki zmęczenia chronicznego u matek dzieci chorych na ADHD. *Pediatrics Polska*, 89, paper in press.
- Borucka, A. & Ostaszewski, K. (2008). Koncepcja resiliency. Kluczowe pojęcia i wybrane zagadnienia. *Medycyna Wieku Rozwojowego*, 12, 587-597.
- Borys, B. (2010). Zasoby zdrowotne w psychice człowieka. *Forum Medycyny Rodzinnej*, 1, 44-52.
- Bryńska, A. (2010). Deficyty językowe w zespole Aspergera jako możliwy wyraz dysfunkcji prawopółkulowej. *Psychiatria i Psychologia Kliniczna*, 4, 247-253.
- Bryńska, A. (2011). Deficyty komunikacyjne w zespole Aspergera. *Psychiatria i Psychologia Kliniczna*, 1, 46-50.
- Chodkiewicz, J. (2005). *Psychologia zdrowia: wybrane zagadnienia* [Health psychology: selected issues]. Łódź: Wyższa Szkoła Humanistyczno-Ekonomiczna.
- Dąbrowska, A. (2008). Sense of coherence and coping with stress in fathers of children with developmental disabilities. *Polish Psychological Bulletin*, 39, 29-34.
- Ehlers, S. & Gillberg, C. (1993). The epidemiology of Asperger syndrome. A total population study. *Journal of Child Psychology and Psychiatry*, 34, 1327-1350.
- Epstein, T., Saltzman-Benaiah, J., O'Hare, A., Goll, J.C. & Tuck, S. (2007). Associated features of Asperger Syndrome and their relationship to parenting stress. *Child: Care, Health and Development*, 34, 503-511.
- Góralczyk, E. (1996). *Choroba dziecka w twoim życiu: o dzieciach ciężko i przewlekle chorych i ich rodzicach* [When your child is ill: seriously and critically ill children]. Warszawa: Centrum Metodyczne Pomocy Psychologiczno-Pedagogicznej Ministerstwa Edukacji Narodowej.
- Grzechowiak, M., Macniak, J. & Rybakowski, J. (2007). Przypadek zespołu Aspergera rozpoznany w wieku dorosłym. *Psychiatria i Psychologia Kliniczna*, 2, 117-122.
- Hobfoll, S.E. (2006). *Stres, kultura i społeczność. Psychologia i filozofia stresu* [Stress, culture, and community. The psychology and philosophy of stress]. Gdańsk: Gdańskie Wydawnictwo Psychologiczne.
- Howlin, P. & Asgharian, A. (1999). The diagnosis of autism and Asperger syndrome: findings from a survey of 770 families. *Developmental Medicine & Child Neurology*, 41, 834-839.
- Jaklewicz, H. (2004). Całościowe zaburzenia rozwojowe. In: I. Namysłowska (ed.). *Psychiatria dzieci i młodzieży* [Child and Adolescent Psychiatry] (pp. 110-128). Warszawa: Wydawnictwo Lekarskie PZWL

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- Kaczmarek, Ł., Sęk, H. & Ziarko, M. (2011). Sprężystość psychiczna i zmienne pośredniczące w jej wpływie na zdrowie. *Przegląd Psychologiczny*, 54, 29-46.
- Kobasa, S.C., Maddi, S.R. & Kahn, S. (1982). Hardiness and health: A prospective study. *Journal of Personality and Social Psychology*, 42, 168-177.
- Kruk-Lasocka, J. (1999). *Autyzm czy nie autyzm? Problemy diagnozy i terapii pedagogicznej małych dzieci* [Autism or not? Problems with autism diagnosis and pedagogical therapy in small children]. Wrocław: Dolnośląska Szkoła Wyższa Edukacji.
- Maciarz, A. & Biadasiewicz, M. (2000). *Dziecko autystyczne z zespołem Aspergera. Studium przypadku* [An autistic child with Asperger's syndrome. A case study]. Zielona Góra: Verdum.
- Margalit, M., Raviv, A. & Ankonina, D.B. (1992). Coping and coherence among parents with disabled children. *Journal of Clinical Child Psychology*, 21, 202-209.
- Marzec, A., Walasek, L. & Andruszkiewicz, A. (2012). Subiektywna ocena stanu zdrowia i ocena przygotowania do samoopieki wśród osób chorych na przewlekłą chorobę nerek i chorych na cukrzycę. *Pielęgniarstwo XXI Wieku*, 3, 47-51.
- Nadolska, K. & Sęk, H. (2007). Społeczny kontekst odkrywania wiedzy o zasobach odpornościowych, czyli czym jest resilience i jak ono funkcjonuje. In: Ł. Kaczmarek, A. Słysz (eds.). *Blżej serca. Zdrowie i emocje* [Closer to heart. Health and Emotions] (pp. 13-37). Poznań: Wydawnictwo Naukowe Uniwersytetu im. Adama Mickiewicza.
- Ogińska-Bulik, N. & Juczyński, Z. (2008a). Metody badań. Skala Pomiaru Prężności (SPP-25). *Nowiny Psychologiczne*, 3, 39-56.
- Ogińska-Bulik, N. & Juczyński, Z. (2008). *Osobowość: stres a zdrowie* [Personality: stress vs. health]. Warszawa: Difin.
- Pisula, E. (2000). *Autyzm u dzieci: diagnoza, klasyfikacja, etiologia* [Autism in children: diagnosis, classification, and etiology]. Warszawa: Wydawnictwo Naukowe PWN.
- Pisula, E. (2007). *Rodzice i rodzeństwo dzieci z zaburzeniami rozwoju* [Parents and siblings of children with developmental disorders]. Warszawa: Wydawnictwo Uniwersytetu Warszawskiego.
- Pużyński, S. & Wciórka, J. (2000). *Klasyfikacja zaburzeń psychicznych i zaburzeń zachowania w ICD-10. Badawcze kryteria diagnostyczne* [Classification of mental and behavioral disorders in ICD-10. Diagnostic criteria for research]. Kraków: Vesalius.
- Randall, P. & Parker, J. (2001). *Autyzm: jak pomóc rodzinie* [Supporting the Families of Children with Autism]. Gdańsk: Gdańskie Wydawnictwo Psychologiczne.
- Shtayermman, O. (2007). Peer Victimization in Adolescents and Young Adults Diagnosed with Asperger's Syndrome: A Link to Depressive Symptomatology, Anxiety Symptomatology and Suicidal Ideation. *Issues in Comprehensive Pediatric Nursing*, 30, 87-107.
- Słowińska, I. & Małydyk, P. (2012). Losy chorych na reumatoidalne zapalenie stawów leczonych metodą endoprotezoplastyki w obrębie stawów kończyn dolnych. *Reumatologia*, 50, 403-409.
- Stiefel, I., Shields, A.K., Swain, M.A. & Innes, W.R. (2008). Asperger's Coming Out of Our Ears: Making Sense of a Modern Epidemic. *The Australian & New Zealand Journal of Family Therapy*, 29, 1-9.
- Szewczyk, M.T., Jawień, A. & Hildebrandt, Z. (2005). Subiektywne postrzeganie stanu zdrowia chorych z przewlekłą niewydolnością żylną – część I. *Przegląd Flebologiczny*, 13, 175-181.
- Toal, F., Murphy, D.G.M. & Murphy, K.C. (2005). Autistic-spectrum disorders: lessons from neuroimaging. *The British Journal of Psychiatry*, 187, 395-397.
- Weiss, S.J. (1991). Stressors experienced by family caregivers of children with pervasive developmental disorders. *Child Psychiatry and Human Development*, 21, 203-216.