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## Original research article

## Generational transfer of psychological resilience



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## ABSTRACT

*Introduction:* Review of literature on psychological resilience reveals interest in this subject area among representatives of biological and social sciences, as well as humanities. While explorers of human psychological reality search for the cause and effect relationship, the semantic area of this notion keeps evolving and it expands conceptualization of the definition.

*Aim:* To establish the generational transmission of psychological resilience/buoyancy and basic hope in the family system.

*Material and methods:* The Psychological Resilience Questionnaire (PRQ) was used in the study drawn by Trzebiński and Zięba. The study participants included 106 people, 32 families, students ( $N = 35$ ) and their parents ( $N = 70$ ). The age range within the group of students was from 19 to 29 years, within the group of parents it ranged from 30 to 50 years and over. There were 54 men and 52 women in total. The subjects were recruited from the Warmińsko-Mazurskie Voivodeship, and they were studying on various courses.

*Results and discussion:* A correlation analysis and a hierarchical regression analysis were made. The following results were obtained: there was a positive correlation between psychological resilience and basic and there was also a positive correlation between the order of birth and psychological resilience. The obtained data indicate significance of generational transmission in the family system.

*Conclusions:* Interaction of relations within a family system encourages initiation of cognitive curiosity and exploration of discussed problems within the field of psychological resilience and basic hope.

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## 1. Introduction

Definition area of psychological resilience indicates a wide semantic range of the term. It refers to the notion of resilience, flexibility, durability and suppleness.<sup>1-4</sup> In literature on the subject there is a concept of resilience (durability), presented as the process of effective overcoming of undesirable situations and experiences. Another description of the term refers to the Block ego-resiliency theory – and it denotes a personality attribute or relatively constant resource of an individual.<sup>5,6</sup> Resilience is portrayed as a combination of skills enabling efficient overcoming substantial stress, where the dominant mechanism is suppleness and creative conquering of adversities, the ability to break away from negative experiences as well as the capacity for inducing positive emotions (2008).

The idea of resilience was created by Block.<sup>5,6</sup> It defines psychological resilience as adaptational flexibility, the ability to adjust the level of impulse control (increase or decrease) to the situation.

The notion of resilience is also described as a personality property, which encompasses cognitive, emotional and behavioral components, it is a relatively stable disposition, activating the course of flexible adaptation to constantly changing conditions of existence.<sup>7</sup> The existence of resilience is dependent on a number of individual traits of a person, such as high level of optimism and life energy as well as competences connected with understanding oneself – one's efficiency, one's emotions and behaviors.<sup>8-10</sup>

Psychological resilience ensures that the individual searches for new competences in difficult situations and contextual as well as familial factors often determine activation of individual resources of a person.<sup>11-13</sup> And so Horton and Waller indicate significant influence of basic hope, as one of the resources having an effect on feeling the suffering by mothers raising children with chronic somatic illnesses.<sup>14</sup>

Basic hope is defined as essential personality factor, predicting the individual's response to the situation of novelty and the situation of disintegration of previously established order.<sup>15</sup> According to Erikson hope is an individual, particular belief pertaining to functioning of the world, which is orderly, seems sensible and is wholly favorably inclined toward a person.<sup>16</sup>

Hope is also understood as a cognitive complexity based on interconnected components: plans which involve a goal and possibilities of reaching it, taking into account individual resources of a person. Studies indicate that people with higher level of hope establish significantly higher number of goals, as well as taking up challenges to accomplish, which are marked with necessity for considerable effort.<sup>17</sup> Verification of the role, which hope fulfills in capacity for adaptation in mothers who look after a child with a chronic illness, indicate hope as a factor of resilience. The influential force of hope as a component of resilience is highest in situations where mothers recognize themselves as persons burdened with significant stress. In these conditions, high level of hope is conducive to lowering discomfort and suffering in comparison with mothers declaring little hope.<sup>14</sup>

## 2. Aim

To establish the generational transmission of psychological resilience/buoyancy and basic hope in the family system.

### 2.1. Hypotheses

H<sub>1</sub>. Basic hope affects the development of psychological resilience.

H<sub>2</sub>. Psychological resilience and basic hope has an effect on psychological resilience and basic hope in children.

H<sub>3</sub>. Birth order has an effect on transmission of psychological resilience and basic hope in children.

H<sub>4</sub>. Basic hope in both parents develops on a similar value level.

## 3. Material and methods

The study participants included 106 people from 32 families, students (N = 35) and their parents (N = 70). The age range within the group of students was from 19 to 29 years, within the group of parents it ranged from 30 to 50 years and over. There were 54 men and 52 women in total. The subjects were recruited from the Warmińsko-Mazurskie Voivodeship, and they were studying on various university and vocational courses. The vast majority of participating students attended the University of Warmia and Mazury. Participation in the study was anonymous and voluntary.

### 3.1. Analysis of questionnaire

The Psychological Resilience Questionnaire (PRQ) was used in the study and the Basic Hope Inventory BHI-12, drawn by Trzebiński and Zięba.<sup>6,18</sup>

PRQ is the Polish adaptation of the ego resiliency scale. It examines psychological resilience understood as a personality feature which reflects the ability to adjust the level of self-control to the demands of a situation.<sup>6,18</sup> The second applied tool was the BHI-12.<sup>15</sup> It examines basic hope as understood by Erikson, which describes properties of the world as orderly, making sense and generally favorably inclined toward people. Apart from the aforementioned questionnaires, a standard register was used, including questions about sex, age, education, place of residence as well as questions about the number of siblings and order of birth.

### 3.2. Study procedure

Purposive group sampling was used. The condition for group selection was to have at least one parent. Orphaned people also filled the questionnaires but their results were not included in statistical analyses. Participants who reported the need for feedback received information about their results

together with explanation of verified constructs. The examined subjects were informed of the purpose and anonymity of the study. Each participant received a set of questionnaires for self-completion. The study was undertaken once only. In order to verify the variables, the Pearson correlation analysis method and the hierarchical regression analysis were used.

#### 4. Results

In order to test the hypotheses, the Pearson correlation analysis method and the hierarchical regression analysis were used. Statistical analyses were started with verifying the relation between basic hope and psychological resilience. As a result, no statistically significant relation between psychological resilience and basic hope was obtained for the entire population. Therefore, subgroups of participants were drawn out of the whole research group, which was then divided into a group of adult children (male and female students) and parents (husband and wife), as well as mothers and daughters, mothers and sons, fathers and daughters and fathers and sons.

The relation between basic hope and psychological resilience in the students subgroup underwent statistical analysis again. In order to estimate the relation, the Pearson  $r$  correlation (Table 1) was used. The relation between psychological resilience and order of birth was also sought in this group. The Pearson  $r$  correlation (Table 1) was used in the analysis.

Positive correlation between psychological resilience and basic hope was obtained – the correlation coefficient equals  $r_{33} = 0.521$ ;  $p < 0.01$ . Positive correlation was also obtained between psychological resilience and the order of birth  $r_{33} = 0.467$ ;  $p < 0.05$  (Table 1).

The compound model allowed for significantly better prediction of the effect of the basic hope level  $R^2$  (change 0.199;  $p < 0.001$ ). This model appeared to be well fitted  $F_{(2,32)} = 14.175$ ;  $p < 0.001$ . Both predictors – the level of basic hope and the order of birth – significantly forecast the level of dependable variable which is psychological resilience. The level of basic hope is a stronger predictor ( $\beta = 0.50$ ;  $p < 0.00$ ) than the order of birth ( $\beta = 0.45$ ;  $p < 0.002$ ) (Tables 2 and 3).

Positive correlation between basic hope of mothers and fathers was obtained. The correlation coefficient equaled  $r_{69} = 0.291$ ;  $p < 0.05$  (Table 4).

**Table 1 – Results of Pearson correlation between basic hope and psychological resilience as well as between the order of birth and psychological resilience.**

	Psychological resilience	Level of basic hope	Order of birth in the family
<i>Psychological resilience</i>			
Pearson correlation	1	0.521	0.467
Significance (bilateral)		0.001	0.005
N	35	35	35
<i>Level of basic hope</i>			
Pearson correlation	0.521	1	0.042
Significance (bilateral)	0.001		0.813
N	35	35	35
<i>Order of birth in the family</i>			
Pearson correlation	0.467	0.042	1
Significance (bilateral)	0.005	0.813	
N	35	35	35

\* The Pearson correlation is significant on the level of 0.01 (bilaterally).

Fitting of the straight line model on the level of  $F_{(1,69)} = 6.82$ ;  $p < 0.05$ , allowed for prediction of the level of variable – basic hope – ( $\beta = 0.291$ ;  $p < 0.05$ ) (Tables 5 and 6).

Positive correlation was obtained between the level of basic hope and kinship in the subgroup of fathers and sons. The correlation coefficient was  $r_{52} = 0.327$ ;  $p < 0.05$  (Table 7).

Fitting of the linear model on the level of  $F_{(1,52)} = 6.23$ ;  $p < 0.05$  allowed to predict the dependence between the predictor, i.e. the level of kinship (fathers and sons) and a dependent variable – the level of basic hope ( $\beta = 0.327$ ;  $p < 0.05$ ) (Table 8).

#### 5. Discussion

The obtained results indicate variables which are conducive to generational transfer in the family system. The first hypothesis has been confirmed – basic hope has an effect on shaping psychological resilience and the second hypothesis – psychological resilience and basic hope of parents have an effect on psychological resilience and basic hope in children.

**Table 2 – Regression coefficients in the students subgroup.**

	Non-standardized coefficients		Standardized coefficients $\beta$	t	Significance level
	B	Standard error			
<i>First model</i>					
Constant	1.567	0.288		5.433	0.000
Level of basic hope	0.402	0.115	0.521	3.503	0.001
<i>Second model</i>					
Constant	1.226	0.268	0.502	4.567	0.000
Level of basic hope	0.388	0.099	0.446	3.897	0.000
Order of birth in the family	0.183	0.053		3.463	0.002

Dependent variable: psychological resilience.

**Table 3 – Correlations in the parents subgroup.**

	Level of basic hope	Sex of the parent
<i>Level of basic hope</i>		
Pearson correlation	1	0.291*
Significance (bilateral)		0.014
N	71	71
<i>Sex of the parent</i>		
Pearson correlation	0.291*	1
Significance (bilateral)	0.014	
N	71	71

\* The Pearson correlation is significant on the level of 0.05 (bilaterally).

Positive correlations were obtained between basic hope and psychological resilience as well as between order of birth and psychological resilience in the specified subgroup of adult children and students.

Performed hierarchical regression analysis indicated basic hope as the variable determining the level of psychological resilience. The higher the basic hope, the greater the level of psychological resilience is. Basic hope can be determined as the foundation for developing psychological resilience, as a resource which gives strength to organize and develop resilience.<sup>19</sup> Taking psychological resilience into account as a self-regulation process, which encompasses emotional, cognitive and behavioral components, the image of an individual is portrayed as coherent, internally and externally competent.<sup>7,10</sup> It is a person who activates their resourcefulness and flexibility in line with requirements of a situation, and in spite of their experiences marked with difficulties, they regard the situation as challenge and opportunity for self-development as well as regarding themselves in terms of decisive subject who is instrumental in the choices they make.<sup>7,20,21</sup>

When dividing the group of respondents into a subgroup of fathers and sons, statistically significant dependence was obtained. That is to say, dependence between the level of basic hope in the father and the level of basic hope in the son is proportional. Multitude of situations in which the son observes the father's behavior in response to challenges can reinforce the blueprint based on the similarity of functioning in the area of basic hope.<sup>22</sup>

Taking into account the original background of the theory of basic hope it is important to note that it is developed from the very beginning – i.e. from the moment a child is born. The unique system of relations, which takes place between the father and the child has an effect on comprehensive development, which is reflected in adult life.<sup>23</sup> Ginsberg

**Table 5 – Levels of basic hope in mothers and fathers.**

	Father	Mother	Total
<i>Level of basic hope</i>			
Low	7	1	8
Medium	17	16	33
High	11	19	30
Total	35	36	71

**Table 6 – Pearson's correlations in the subgroup of fathers and sons.**

	Level of kinship	Level of basic hope
<i>Level of kinship</i>		
Pearson's correlation	1	0.327*
Significance (bilateral)		0.016
N	54	54
<i>Level of basic hope</i>		
Pearson's correlation	0.327*	
Significance (bilateral)	0.016	
N	54	54

\* Pearson's correlation is significant on the level of 0.05 (bilaterally).

indicates the relationship between the image of the father which a boy takes from his childhood and the perception of his own role in interpersonal relations as well as in his own intimacy and masculinity.<sup>24,25</sup>

Predictability and sense of reality is conducive to creation of a general blueprint representing the world based on anticipation, sense of stability and security. This in turn allows for generalization of further experiences, as the ones which reinforce faith and trust and provide life with overall sense. Waller describes resilience as an active system of natural environment in which the number of various factors generates a process.<sup>26</sup> One of the components determining the development of resilience, mentioned in literature, is favorable family environment, contextual factors and social support.<sup>27</sup>

Attention should also be paid to the age of respondents in the examined subgroup, in which the aforementioned results were obtained. It seems that age can be a predictor to psychological resilience and basic hope, though drawing definite conclusions would be too far reaching. This is an open area for scientific research, which is worth undergoing further detailed analysis.

The order of birth in the family generates the level of psychological resilience. Statistical analysis of the third hypothesis indicates that further children in the family have

**Table 4 – Regression coefficients for basic hope in the subgroup of parents (husband and wife).**

	Non-standardized coefficients		Standardized coefficients	t	Significance level
	B	Standard error			
Constant	1.729	0.242		7.131	0.000
Sex of the parent	0.386	0.153	0.291	2.526	0.014

Dependent variable: level of basic hope.

**Table 7 – Regression coefficients in the sub-group of fathers and sons.**

Model	Non-standardized coefficients		Standardized coefficients $\beta$	t	Significance level
	B	Standard error			
1 (Constant)	1.882	0.182		10.356	0.000
Level of kinship	0.232	0.093	0.327	2.497	0.016

Dependent variable: level of basic hope.

**Table 8 – Levels of basic hope of fathers and sons.**

	Father	Son	Total
<i>Level of basic hope</i>			
Low	7	0	7
Medium	17	8	25
High	11	11	22
Total	35	19	54

a higher level of psychological resilience. Literature on developmental psychology provides empirical proof that sharing a common life environment with the siblings since the youngest age, provides a number of beneficial experiences.<sup>28</sup> Learning bilateral relations, as well as training of skills encompassing the shared area of life, emotions and people, provides a wide spectrum of experiences.<sup>29</sup> Research study of Mercer et al. (1988) indicated complexity of a family system as the whole of complementary elements and so building of emotional bonds between the child and the parents is dependent on bonds between the couple and their self-esteem.<sup>30</sup>

Thanks to such skills and the versatility of social situations based on multitude and changeability of stimuli and a simultaneous feeling of security and love, a psychologically resilient personality can be developed. Semmer depicts an image of a resilient person, among others it is an individual with emotional stability, perceiving difficulties as challenges and opportunities to grow, regards the world as a positive dimension and anticipates positive events.<sup>31</sup> What requires a further, enhanced verification regarding the effect of the order of birth and the increase of psychological resilience is focusing on the time distance between births of children.

The fourth examined hypothesis – basic hope in both parents develops on a similar level of value – and confirms the effect of sharing the same environment. A statistically significant relationship was obtained between the level of basic hope of the mother and the level of basic hope of a father. The higher the basic hope of wives, the more it increases in husbands. In the examined subgroup of parents, wives have a slightly higher level of basic hope while husbands have a medium level of basic hope.

Mutual existence induces similar responses to every day challenges and creates analogous blueprint of understanding reality.<sup>32,33</sup> Mutual experiencing of every day is conducive to perceiving the world based on predictability and sense. Research study of Synder et al. depict an image of people with a high level of basic hope as those who set a lot more goals and also possess the prime mover for reaching the set challenges, they also have a positive mood an attitude toward reaching the goal.<sup>17</sup> Therefore having a high level of basic hope

in couples ensures the ability and efficiency of mutual understanding and acting.

## 6. Conclusions

1. The family system, as a unique environment ensures the individuals constant interactions and mutual modeling.
2. Self-identity develops in response to interactions with the environment. Self-recognizing functioning mechanisms as similar to those in significant people gives the opportunity for self-integration.
3. Basic hope is an elementary competence of the ego.
4. The obtained data indicate the significance of generational transmission of psychological resistance and basic hope and at the same time they incline to activating cognitive curiosity and to explore the discussed issues on the subject of resilience and basic hope in the family system.

## Conflict of interest

None declared.

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