

Katarzyna Mariańczyk<sup>1</sup>, Aneta Libera<sup>2</sup>, Oliwia Libera<sup>3</sup>, Bożena Leszczyńska-Gorzela<sup>4</sup>

## Basic hope in preterm mothers

### Nadzieja podstawowa u kobiet po porodzie przedwczesnym

<sup>1</sup> Institute of Psychology, The John Paul II Catholic University of Lublin, Lublin, Poland

<sup>2</sup> Department of Obstetrics and Perinatology, Medical University of Lublin, Lublin, Poland

<sup>3</sup> Medical University of Lublin, Lublin, Poland

<sup>4</sup> Department of Obstetrics and Perinatology, Medical University of Lublin, Lublin, Poland

<sup>1</sup> Instytut Psychologii, Katolicki Uniwersytet Lubelski Jana Pawła II, Lublin, Polska

<sup>2</sup> Katedra i Klinika Położnictwa i Perinatologii, Uniwersytet Medyczny w Lublinie, Lublin, Polska

<sup>3</sup> Uniwersytet Medyczny w Lublinie, Lublin, Polska

<sup>4</sup> Katedra i Klinika Położnictwa i Perinatologii, Uniwersytet Medyczny w Lublinie, Lublin, Polska

Correspondence: Dr Katarzyna Mariańczyk, Katedra Psychologii Pracy, Organizacji i Rehabilitacji Psychospołecznej, Instytut Psychologii KUL, Al. Raclawickie 14, 20-950 Lublin, tel.: +48 600 722 113, e-mail: k.marianczyk@gmail.com

#### Abstract

**Objective:** The study sought to determine the possibility of preterm mothers' basic hope changing between childbirth and 12-month follow-up, and the magnitude of potential changes. To this end, the levels of basic hope were measured at these two time points. Also investigated was whether changes in basic hope were associated with the anticipation of preterm birth, the childbirth method, planned pregnancy, and plural pregnancy. Basic hope is a relatively stable component of personality, but its level can vary over one's lifetime under the influence of different experiences, especially life-changing ones. Basic hope is a regulatory factor helping people constructively deal with difficult situations. **Materials and methods:** A sample of 62 preterm mothers were surveyed postpartum and at 12-month follow-up using socio-demographic and medical questionnaires, and the Basic Hope Inventory (BHI-12). **Results:** Both after childbirth and 12 months afterwards, the participants' results on basic hope were average, and did not differ significantly. However, the results' trend toward statistical significance indicated that at 12 months the level of basic hope was higher in the participants who did not consider the possibility of becoming preterm mothers. **Conclusions:** The level of basic hope does not significantly change in preterm mothers in the twelve months after childbirth.

**Keywords:** basic hope, preterm childbirth, motherhood, stress

#### Streszczenie

**Cel:** Celem prezentowanych badań było określenie poziomu nadziei podstawowej oraz możliwych zmian w jej zakresie u kobiet w ciągu roku od doświadczenia porodu przedwczesnego. Badania przeprowadzono w dwóch etapach: pierwszy miał miejsce w okresie wczesnego porodu podczas hospitalizacji, drugi – po roku od narodzin dziecka. Zbadano także, czy zmiany w podstawowej nadziei powiązane są z antycypacją (przewidywaniem) porodu przedwczesnego, sposobem rozwiązania ciąży, planowaniem ciąży oraz mnogością ciąży. Nadzieja podstawowa rozumiana jest jako względnie stała struktura osobowości, która podlega modyfikacjom w ciągu życia, zwłaszcza w obliczu przeżyć o charakterze wydarzeń przełomowych. Jej regulacyjna rola polega na konstruktywnym radzeniu sobie z sytuacjami trudnymi; jest ona ważnym i autonomicznym prognostykiem adaptacji do tych sytuacji. **Materiał i metoda:** W badaniach udział wzięły 62 kobiety po porodzie przedwczesnym. Pacjentki dwukrotnie (w okresie porodu podczas hospitalizacji oraz po roku od narodzin dziecka) wypełniały Kwestionariusz Nadziei Podstawowej (Basic Hope Inventory, BHI-12), który służy do pomiaru nadziei podstawowej (*basic hope*). **Wyniki:** Kobiety po porodzie przedwczesnym uzyskały wyniki średnie w zakresie nadziei podstawowej w obu seriach badania. Nie odnotowano istotnych różnic pomiędzy poziomem tej zmiennej mierzonej w pierwszym tygodniu porodu oraz po roku od narodzin dziecka. Wyniki istotne na poziomie tendencji statystycznej wskazują, że w grupie kobiet niespodziewających się porodu przedwczesnego poziom nadziei podstawowej jest wyższy po roku od narodzin dziecka. **Wnioski:** Nie odnotowuje się istotnych zmian w zakresie nadziei podstawowej u kobiet po porodzie przedwczesnym w okresie roku od narodzin dziecka.

**Słowa kluczowe:** nadzieja podstawowa, poród przedwczesny, macierzyństwo, stres

## INTRODUCTION

Childbirth is a special event in the life of a woman that frequently affects different aspects of her psychological functioning (Łukasik et al., 2003). The experience of a preterm delivery is especially difficult, stressful and traumatic for the mother because it heightens her concerns and anxiety for the life and health of the child, and makes her adapt to a new life situation unprepared (Libera et al., 2007; Mariańczyk and Libera, 2014). Preterm birth affects approximately 11% of births worldwide (Vogel et al., 2018). The World Health Organization (WHO) defines preterm birth as any birth before 37 completed weeks of gestation, or fewer than 259 days since the first day of the woman's last menstrual period (LMP). This is further subdivided on the basis of gestational age (GA): extremely preterm (<28 weeks), very preterm (28–32 weeks) and moderate or late preterm (32–37 completed weeks of gestation). This is the most extensively used and accepted definition of preterm birth (Blencowe et al., 2013; Howson et al., 2012; World Health Organization, 2018). Postpartum stress is intense and has many sources: separation from the baby, anxiety about his or her health, breast milk pumping problems, the baby's slow weight gain. How well a mother can adapt to this new and emotionally demanding situation largely depends on her personal resources (Mariańczyk and Libera, 2012) including the level of basic hope defined as a "belief in two characteristics of the world: its higher order and sense, and its general positivity towards a human being" (Trzebiński and Zięba, 2004, p. 173). Because basic hope motivates for action, makes one's future look more optimistic, and helps confront negative experiences and emotionally difficult situations, it can serve as a predictor of individual adaptability to new life situations (Kozielecki, 2006). It is also a major point of reference for people who try to understand the likely impact of future events on their lives and find constructive responses to new or critical situations. Basic hope is a relatively stable constituent of human personality, but its level may change in the course of one's lifetime especially in response to life-changing experiences (Trzebiński and Zięba, 2003). Trzebiński and Zięba (2004, 2003) base their understanding of fundamental hope on Erikson's concept (2002, 1997). In the psychological analysis of preterm delivery, it is usually described as a difficult, traumatic situation and severe stress. On the other hand, attempts are made to determine what kind of resources could be relevant for the functioning of a woman in this demanding situation (McDonald et al., 2014; Rozen et al., 2018; Staneva et al., 2015). In this article, it was decided to focus on one of them, i.e. basic hope. Research on basic hope is limited (Kaleta and Mróz, 2020; Wojciechowska, 2011). It has not been previously studied in postpartum mothers, including those who gave birth prematurely. There is even an old Polish expression describing pregnancy as associated with the concept of hope, to expect childbirth as a "to be in hope."

## OBJECTIVES

A review of previous studies on basic hope and the assumptions of our own research project allowed us to formulate the following aims: 1) to measure and compare the levels of basic hope in preterm mothers postpartum and at 12 months' follow-up and 2) to examine if the anticipation of preterm birth, childbirth method, previous miscarriage or perinatal death of the infant, planned pregnancy and plural pregnancy could cause variation in the levels of basic hope between the two time points.

Based on the available theoretical and empirical literature, the first hypothesis was that the level of basic hope in the second measurement would be higher than the one determined immediately after delivery. The justification for this hypothesis was the concept of posttraumatic growth, according to which a difficult, traumatic experience can significantly affect personality, perception of the world, and prediction (Calhoun and Tedeschi, 2014). The second hypothesis was that the anticipation of preterm birth, previous miscarriage or perinatal death of the infant would cause variation in the levels of basic hope between the two time points. These factors constitute a set of classic variables analysed in studies conducted among women after childbirth.

## MATERIAL AND METHODS

A sample of 62 preterm mothers who were hospitalised postpartum at the Department of Obstetrics and Perinatology in Public Independent Clinical Hospital Number 4 in Lublin were surveyed in the first week after childbirth and at 12-month follow-up. The inclusion criteria were: age over 18 years and preterm birth. The WHO defines preterm birth as any birth before 37 completed weeks of gestation. There are several subcategories of preterm birth, based on gestational age (extremely preterm: less than 28 weeks; very preterm: 28–32 weeks; moderate to late preterm: 32–37 weeks) (Blencowe et al., 2013; World Health Organization, 2018). The exclusion criterion were: intellectual disability and active mental disorder. All children of examined mothers were hospitalised in the Neonatal Intensive Care Unit after birth.

The women gave their written consent for study participation. The tools of the survey included socio-demographic and medical questionnaires, and the Basic Hope Inventory (BHI-12).

The BHI-12 was developed by Trzebiński and Zięba (2003) as an instrument for basic hope assessment. Each of its 12 statements is evaluated by respondents on a 5-point scale with answers ranging between "I strongly disagree" to "I strongly agree." The BHI measures basic hope understood according to Erikson's definition which describes it as a "belief in two characteristics of the world: its higher order and sense and its general positivity towards a human being" (Trzebiński and Zięba, 2004, p. 173). The respondents' scores on the BHI-12 are evaluated against separate

Basic hope statistics	Week 1 postpartum	12-month follow-up	<i>t</i>	<i>df</i>	<i>p</i>
<i>M</i>	30.91	31.37	-0.981	61	0.330
<i>SD</i>	3.69	4.43			

Tab. 1. Mean values (*M*), standard deviations (*SD*), and the statistical significance of differences (*p*) between the levels of preterm mothers' basic hope measured at two time points

tables of norms for men and women. The Cronbach's alpha of 0.70 shows that its internal consistency is satisfactory. The following socio-demographic and medical characteristics of participants were compiled from the completed questionnaires: average age (postpartum measurement) *M* = 29.8 (standard deviation, *SD* = 4.65); location of residence: urban 56%, rural 44%; educational attainment: tertiary 56%, secondary 29%, primary and basic vocational 15%; economically active: yes 71%, no 29%; planned pregnancy: yes 76%, no 24%; plural pregnancy: single pregnancy 84%, twin pregnancy 16%; childbirth method: natural 24%, caesarean section 76%; anticipation of preterm birth: yes 47%, no 53%. The study used the *t*-test to identify differences between the groups.

## RESULTS

Tab. 1 shows statistics on basic hope calculated from data collected postpartum (measurement I) and at 12-month follow-up (measurement II), respectively. The mean values of basic hope yielded by measurements I and II are comparable: 30.91 (I) and 31.37 (II). The difference between them is not statistically significant.

A subsequent analysis focused on determining whether the anticipation of preterm birth, planned pregnancy, plural pregnancy, and childbirth method could significantly affect the levels of basic hope between measurements I and II. The data in Tab. 2 show that none of the considered variables caused statistically significant differences in the levels of basic hope between both measurements. However, the result for the anticipation of preterm delivery tending towards statistical significance suggests that the level of basic hope in the second measurement was higher in the women who did not anticipate becoming preterm mothers.

## DISCUSSION

From the psychological perspective, childbirth is a key developmental task and a special experience in the life of a woman that changes her functioning in many ways (Kościelska, 2013), especially at the level of internal experiences, emotions, reorganisation of psychosocial resources, and even personality. The first hypothesis assumed that the level of basic hope in the second measurement would be higher than that made immediately after delivery. The hypothesis was not confirmed. Childbirth gives a new sense and a new purpose to a woman's life. From then on, her efforts are directed toward raising the baby and fostering their biological, intellectual, emotional and social development. Her devotion and concentration on these fundamental tasks are almost as strong as the instinct for survival. When the health or life of the child is in danger, threatening the successful accomplishment of the tasks, motherhood takes precedence over other functions. All maternal efforts concentrate on taking care of the child, creating the best conditions for their development, and keeping them

Psycho-social and medical variables		Basic hope				
		Week 1 postpartum	12-month follow-up	<i>t</i>	<i>df</i>	<i>p</i>
No anticipation of preterm birth	<i>M</i>	30.60	31.78	-1.899	32	<b>0.067</b>
	<i>SD</i>	3.91	4.13			
Anticipation of preterm birth	<i>M</i>	31.27	30.89	0.574	28	0.571
	<i>SD</i>	3.47	4.78			
Planned pregnancy	<i>M</i>	30.66	30.40	0.343	14	0.737
	<i>SD</i>	3.2	4.3			
Unplanned pregnancy	<i>M</i>	31.00	31.68	-1.228	46	0.226
	<i>SD</i>	3.8	4.4			
Single pregnancy	<i>M</i>	31.15	31.61	-0.898	51	0.374
	<i>SD</i>	3.7	4.3			
Twin pregnancy	<i>M</i>	29.70	30.10	-0.370	9	0.714
	<i>SD</i>	3.1	4.8			
Natural childbirth	<i>M</i>	30.60	31.46	-0.889	14	0.389
	<i>SD</i>	4.4	3.5			
Caesarean section	<i>M</i>	31.02	31.34	-0.607	46	0.547
	<i>SD</i>	3.4				

Tab. 2. Mean values (*M*), standard deviations (*SD*), and the significance of differences (*p*) between the levels of preterm mothers' basic hope calculated allowing for selected psychosocial and medical variables

safe from developmental risks. A strong sense of life purpose and hope gives the mother the strength to confront dramatic events and lets her see the present and future as a source of new opportunities. Pregnant women think about the future and visualise it more frequently than their non-pregnant counterparts (Li and Cao, 2018), which probably helps them build a positive image of motherhood, strong enough to suppress the stress of preterm birth and making its impacts less severe. Therefore, the result indicating the lack of differences between the measurements of basic hope is surprising in this context. The expected posttraumatic increase in the form of an elevated level of basic hope was not confirmed.

In the search for answers about the absence of differences, it is worth referring to evolutionary psychology. Motherhood is a role biologically assigned to the woman, to which she was equipped and prepared in the best way throughout the process of evolution. And perhaps this biological-psychological preparation is so comprehensive that even abnormal events – such as premature delivery – will not disturb it (Buss, 2016). Another premise within this line of reasoning could be that because of their focus on the future, even the shock of becoming a preterm mother does not significantly disturb their basic hope. The second hypothesis assumed that the anticipation of preterm birth, previous miscarriage or perinatal death of the infant would cause differences in the levels of basic hope between the two time points. The hypothesis was not confirmed. However, it should be noted that the result for the anticipation of preterm delivery tends towards statistical significance, which suggests a higher level of basic hope in the second measurement among the women who did not anticipate to become preterm mothers. There are two possible explanations for this result. One is that women who discount the possibility of becoming preterm mothers face it unprepared. The stress and uncertainty they feel are compounded by overblown fears about what may happen in the future (death of the child, likelihood of developmental complications, having to adapt to a new life situation if the child is disabled, etc.). But as the baby's condition gets better and medical care proves itself to be effective, preterm mothers develop a more positive vision of their motherhood. The stronger positive emotions they feel, the greater anxiety, fear and uncertainty they experienced before. This psychological reaction, metaphorically called “the pendulum effect”, is well-known to the clinicians. “The pendulum effect” and very strong maternal focus on supporting the child's development and positive treatment effects mean that earlier events are assessed in the new context as less significant. This may explain the described lack of differences in the level of basic hope between two points of measurement in groups of mothers separated for the anticipation of preterm birth, planned pregnancy, plural pregnancy, and childbirth method.

The second explanation is that preterm mothers become more optimistic about their ability to cope with the new, unexpected situation, as they emotionally and cognitively

work through their traumatic experience in the 12 months following childbirth. Their belief that the world is, after all, friendly and meaningful can be additionally strengthened by the care and assistance they are given by other people (hospital personnel, family members, etc.).

The importance of basic hope should by no means be limited to its role as a factor helping the woman adapt to the experience of preterm birth because it also has a long-term effect on her future relations with the child. As a personal resource and the foundation of caring, positive bonds with the child, basic hope allows the woman to achieve mature motherhood despite the difficult context of preterm birth (Adkins and Doheny, 2017).

## CONCLUSIONS

1. The level of basic hope does not significantly change in preterm mothers in the 12 months after childbirth.
2. The results of the study indicate the need to continue research into the phenomenon of basic hope.

### Conflict of interest

*The authors do not declare any financial or personal links with other persons or organisations that might adversely affect the content of the publication or claim any right to the publication.*

### References

- Adkins CS, Doheny KK: Exploring preterm mothers' personal narratives: influences and meanings. *ANS Adv Nurs Sci* 2017; 40: 154–167.
- Blencowe H, Cousens S, Chou D et al.: Born too soon: the global epidemiology of 15 million preterm births. *Reprod Health* 2013; 10 (Suppl 1); S2.
- Buss DM: *Evolutionary Psychology: The New Science of the Mind*. Routledge, New York 2016.
- Calhoun LG, Tedeschi RG (eds.): *Handbook of Posttraumatic Growth: Research and Practice*. Psychology Press, New York 2014.
- Erikson EH: *Dopelniony cykl życia*. Dom Wydawniczy Rebis, Poznań 2002.
- Erikson EH: *Dzieciństwo i społeczeństwo*. Dom Wydawniczy Rebis, Poznań 1997.
- Howson CP, Kinney MV, Lawn JE (eds.): *Born Too Soon: The Global Action Report on Preterm Birth*. World Health Organization, Geneva 2012.
- Kaleta K, Mróz J: The relationship between basic hope and depression: forgiveness as a mediator. *Psychiatr Q* 2020. DOI: 10.1007/s1126-020-09759-w.
- Kościelska M: *Nadzieja w życiu ludzi*. Difin, Warszawa 2013.
- Kozielecki J: *Psychologia nadziei*. Wydawnictwo Akademickie ŻAK, Warszawa 2006.
- Li H, Cao Y: The hope of the future: the experience of pregnancy influences women's implicit space-time mappings. *J Soc Psychol* 2018; 158: 152–156.
- Libera A, Darmochwał-Kolarz D, Oleszczuk J: Sense of coherence (SOC) and styles of coping with stress in women after premature delivery. *Med Sci Monit* 2007; 13: CR125–CR130.
- Łukasik A, Błaszczuk K, Wojcieszyn M et al.: Charakterystyka zaburzeń afektywnych u położnic w 1 tygodniu połogu. *Ginekol Pol* 2003; 74: 1194–1199.

- Mariańczyk K, Libera A: Lęk a poczucie sensu życia u kobiet w ciąży wysokiego ryzyka. In: Deregowska J, Majorczyk M (eds.): Konteksty współczesnego macierzyństwa. Perspektywa młodych naukowców. Wyższa Szkoła Nauk Humanistycznych i Dziennikarstwa, Poznań 2012: 129–141.
- Mariańczyk K, Libera A: Stres doświadczany przez matki w sytuacji przedwczesnych narodzin dziecka jako przestrzeń działań dla psychologa. In: Otrębski W, Wiącek G (eds.): Przepis na rehabilitację. Metodologie oraz metody w badaniach i transdyscyplinarnej praktyce rehabilitacyjnej. Wydawnictwo KUL, Lublin 2014: 379–387.
- McDonald SW, Kingston D, Bayrampour H et al.: Cumulative psychosocial stress, coping resources, and preterm birth. *Arch Womens Ment Health* 2014; 17: 559–568.
- Rozen G, Taubman – Ben-Ari O, Strauss T et al.: Personal growth of mothers of preterms: objective severity of the event, subjective stress, personal resources, and maternal emotional support. *J Happiness Stud* 2018; 19: 2167–2186.
- Staneva A, Bogossian F, Pritchard M et al.: The effects of maternal depression, anxiety, and perceived stress during pregnancy on preterm birth: a systematic review. *Women Birth* 2015; 28: 179–193.
- Trzebiński J, Zięba M: Basic hope as a world-view: an outline of a concept. *Pol Psychol Bull* 2004; 35: 173–182.
- Trzebiński J, Zięba M: Kwestionariusz Nadziei Podstawowej – BHI-12. Pracownia Testów Psychologicznych Polskiego Towarzystwa Psychologicznego, Warszawa 2003.
- Vogel JP, Chawanpaiboon S, Moller AB et al.: The global epidemiology of preterm birth. *Best Pract Res Clin Obstet Gynaecol* 2018; 52: 3–12.
- Wojciechowska L: Basic hope and generativity in middle adulthood. *Pol Psychol Bull* 2011; 42: 188–197.
- World Health Organization: Preterm birth. 2018. Available from: <https://www.who.int/news-room/fact-sheets/detail/preterm-birth> [cited: May 2020].