PAISII HILENDARSKI UNIVERSITY OF PLOVDIV
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INTERRELATIONSHIPS BETWEEN MENTAL HEALTH, GRATITUDE, AND MINDFULNESS IN THE CONTEXT OF BREASTFEEDING

SUMMARY

for the award of the educational and scientific degree Doctor of Philosophy
in the field of higher education 3. Social, Economic and Legal Sciences,
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doctoral program “Positive Psychology”

Scientific supervisor Prof. Kirilka Tagareva

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The doctoral dissertation consists of 233 pages of main text. Its structure includes an introduction, three chapters, a conclusion, a bibliography, and an appendix presenting the research instruments. The bibliography comprises 422 sources: 41 in Bulgarian and 381 in English. The text is illustrated with 38 tables, 7 figures, and 15 graphs.

The doctoral dissertation was discussed and approved for public defense at a meeting of the Department of Psychology, Faculty of Education, Paisii Hilendarski University of Plovdiv, held on December 5, 2025.

The public defense of the doctoral dissertation will take place at an open meeting scheduled for April 21, 2026, at 12:00 p.m., in the Conference Hall of the New Building of Paisii Hilendarski University of Plovdiv, before a scientific jury.

The scientific jury is composed of:
Prof. Manol Manolov,
Prof. Youri Yanakiev,
Prof. Margarita Bakracheva,
Prof. Krasimira Koleva-Mineva
Prof. Velislava Chavdarova.

The defense materials are available at the Department of Psychology, Paisii Hilendarski University of Plovdiv.

INTRODUCTION

The present doctoral dissertation presents an interdisciplinary study situated at the intersection of positive psychology and breastfeeding science. It is based on the understanding that mental health comprises two distinct yet interacting dimensions – positive (well-being) and negative (psychopathology) – which may be influenced by different factors. The study examines both the positive and negative aspects of maternal mental health in the context of breastfeeding during the first year after childbirth. Mental health is operationalized as flourishing (well-being), postpartum depression (psychopathology), and the presence of dispositional gratitude and dispositional mindfulness (positive traits).

Flourishing was selected as a construct because in recent years it has become established as a comprehensive concept representing the positive dimensions of mental health, integrating psychological, social, and emotional well-being. Postpartum depression, in turn, is the most common mental health condition in the postpartum period; it significantly affects maternal behavior and may have both short- and long-term negative effects on the child's optimal development. In order to examine the influence of positive personal resources on postpartum mental health, dispositional gratitude and dispositional mindfulness were investigated – two constructs identified in the literature as key to mental health and as influencing both of its dimensions.

Relevance and Significance of the Topic

Positive parenting is a key protective factor for mental health (WHO, 2022b), and for it to be possible, parents themselves need to be in relatively good mental health. At the same time, the postpartum period and early motherhood represent a challenging phase for women, which may give rise to both positive growth and difficult adaptation accompanied by psychological distress. A thorough understanding of maternal experiences, psychological challenges, potential protective factors, and possible pathways for intervention during this period are a prerequisite for the development of maternal health policies and the provision of specialized, evidence-based support.

The present study adopts the theoretical framework of positive psychology to explore postpartum mental health. Historically, psychopathology has occupied a substantial portion of scientific knowledge in the field of psychology. This began to change over the past half-century, with research in positive psychology making a significant contribution to the shift in focus. In-depth investigation of well-being (operationalized as flourishing, subjective well-being, mental well-being, hedonistic well-being, eudaimonic well-being, happiness, life satisfaction, etc.), along with its predictors, protective and risk factors, enables a more holistic understanding of mental health and the delineation of pathways through which it can be protected, supported, and enhanced.

At the same time, breastfeeding science has been rapidly developing in recent decades and has attracted substantial interdisciplinary interest. Although research

in the medical field predominates, there is also a considerable body of research within psychology (with all the limitations of such disciplinary distinctions). In the context of breastfeeding, an imbalance can likewise be observed in mental health research, with a prevailing focus on negative dimensions and a corresponding dominance of psychiatric discourse. No studies were identified that simultaneously examine the positive and negative dimensions of mental health in the context of breastfeeding, and the present dissertation represents a step in this direction. According to the review of Bulgarian- language and English-language academic literature conducted for this study, it is also the first investigation to examine maternal flourishing during the first year after childbirth and during breastfeeding.

As a biocultural phenomenon, breastfeeding is strongly influenced by culture; therefore, research conducted within a national context is essential for a comprehensive understanding of its relationship with mental health. In Bulgaria, there is a lack of studies on well-being and postpartum depression during breastfeeding, despite the need for such research to inform the development of approaches and tools for supporting mental health in the breastfeeding context.

Numerous international studies identify breastfeeding as a protective factor for maternal mental health. Postpartum depression has been extensively studied in relation to breastfeeding; however, evidence regarding its association with well-being and flourishing remains scarce. A thorough understanding of the relationship between breastfeeding and both the negative and positive dimensions of maternal mental health is necessary in order to outline scientifically based approaches for supporting breastfeeding, as well as the health of women and their children.

The absence of studies in the English-language scientific literature focusing on flourishing in the context of breastfeeding, along with the highly limited research on mental health and breastfeeding in the Bulgarian context, motivated the present study.

1. THEORETICAL FRAMEWORK OF THE EMPIRICAL STUDY

Chapter One presents the theoretical framework underpinning empirical study. The constructs of mental health, flourishing, and postpartum depression are examined. The concepts of gratitude and mindfulness are discussed within the field of contemporary psychological research, as well as their potential to influence different dimensions of mental health. Finally, breastfeeding is presented as a biocultural phenomenon, and its interrelationships with positive and negative aspects of mental health are outlined, along with the importance of social support for maternal mental health and for the attainment of personal breastfeeding-related goals.

The synthesized conclusions drawn from the literature review identify gaps in the existing research, some of which are addressed in the empirical study conducted as part of this dissertation.

1.1. Mental Health

Conceptualizations of mental health vary across historical periods, cultures, and contexts and are strongly influenced by beliefs about health and illness, as well as by societal values and norms (Rogers & Pilgrim, 2014). Regarding mental health, until the end of the twentieth century psychiatric discourse dominated understandings of mental health and illness. Accordingly, the illness framework was the prevailing paradigm within which approaches to mental health were considered (Keyes, 2005; Rogers & Pilgrim, 2014). Within this perspective, the presence of mental health was defined by the absence of psychopathology, and attention was therefore focused on its remediation. This binary state, limited to health versus pathology, has been rejected in contemporary conceptualizations of mental health.

The World Health Organization (WHO, 2022b) defines mental health as a state of mental well-being that enables individuals to cope with stress, realize their abilities and strengths, learn and work productively, and contribute to their communities. Mental health influences how individuals think, feel, and act, and underpins their ability to make decisions, build relationships, and shape the world around them. Mental health and well-being are fundamental to quality of life and are prerequisites for individuals to experience their lives as meaningful and to remain active and creative in relation to themselves, their environment, and society.

Mental health is a complex constellation of states and capacities encompassing personal, interpersonal, and broader social dimensions. Although characterized by a degree of stability, mental health is dynamic, as it is influenced by a diverse range of individual, social, and cultural factors (WHO, 2022b). Key protective factors for mental health include:

- positive parenting;
- quality education and employment;
- a safe living environment;
- community cohesion (WHO, 2022b).

Accumulating evidence that childhood risks independently contribute to health outcomes in adulthood underscores the importance of conditions that support good mental health early in the life course (Friedli & WHO, 2009). Positive parenting is one of the four key factors exerting a protective influence on mental health (WHO, 2022b).

Contemporary perspectives conceptualize psychopathology and well-being as two related yet distinct dimensions of mental health. According to this two-factor model, mental health comprises a negative dimension (psychopathology) and a

positive dimension (well-being). The positive dimensions of mental health include aspects of well-being such as life satisfaction, positive affect, psychological, emotional, and social well-being, whereas the negative dimensions encompass varying degrees of psychopathology, including psychological distress and mental disorders (Westerhof & Keyes, 2010).

A synthesis of available information on mental health in Bulgaria indicates that the psychiatric discourse – which remains dominant in the country – severely constrains approaches to mental health and prevents their development within a holistic model focused on its core essence, namely the state of well-being. With regard to maternal mental health, institutional care is lacking, and consequently no official data is available.

At the same time, no studies were identified that examine flourishing during motherhood and breastfeeding, nor studies that simultaneously address positive and negative dimensions of mental health during this period. This gap in the literature provided the rationale for conducting the present empirical study.

1.2. Flourishing within the Framework of Positive Psychology

Flourishing is a key construct in positive psychology and, although it has attracted interdisciplinary interest, it is primarily examined within the theoretical framework of this field. Positive psychology is the science of well-being and optimal human functioning. As an independent discipline within psychology, it has existed for approximately a quarter of a century; however, the topics it addresses have a rich history in ancient Greek philosophy, as well as in humanistic and existential psychology, and developmental psychology. Positive psychology focuses on constructs such as happiness, flow, flourishing, satisfaction, positive emotions, meaning in life, strengths and virtues, growth, posttraumatic growth, and others, and examines the factors, conditions, and processes that facilitate optimal functioning or flourishing of individuals, communities, and institutions (Altmaier, 2019; Seligman & Csikszentmihalyi, 2000).

There are three waves in the relatively brief history of positive psychology. These waves do not represent discrete or fully distinct stages; rather, they reflect different impulses shaping the movement, which are not mutually exclusive. The first wave marks the emergence of the field and is characterized as positivistic. The second wave emerged nearly a decade later and critically examines the concepts of the positive and the negative as dynamically interrelated. The third wave, unfolding in recent years, is characterized by research that moves beyond the individual level and demonstrates greater complexity in its approaches (Lomas et al., 2021).

Flourishing is a widely studied construct and has generated interdisciplinary interest across psychology, anthropology, public health, sociology, and bioethics. Psychological and health-related research on flourishing is predominantly situated within the field of positive psychology (Ekman & Simon-Thomas, 2021; Joseph,

2015; Keyes & Simoes, 2012; VanderWeele, 2017; Willen et al., 2022). Despite some differences in conceptualization, flourishing is generally understood as a high level of well-being; however, it is also recognized as a distinct and broader construct that encompasses hedonic, eudaimonic, and social components, along with physical health, and in some conceptualizations, financial and material security.

Flourishing has been defined as:

- a state of good mental and physical health characterized by freedom from illness and distress, as well as by vitality and optimal functioning in personal and social life (APA Dictionary of Psychology, n.d.);
- a state of positive mental health (Michalec et al., 2009);
- a state of complete mental health (Keyes, 2007);
- positive functioning (Joseph, 2015);
- the gold standard of well-being (Seligman, 2011);
- the most comprehensive construct in the study of well-being (VanderWeele et al., 2020);
- a high level of psychological (eudaimonic) well-being (Ryff, 2023; Ryff & Singer, 2008).

To facilitate a deeper understanding of flourishing, several conceptual models and measurement instruments are reviewed, including Corey Keyes's Mental Health Continuum, the conceptualization of flourishing proposed by Felicia Huppert and Timothy So, Martin Seligman's PERMA model, and Tyler VanderWeele's ideas on sustainable flourishing.

1.3. Postpartum Depression

Postpartum depression is the most common mental disorder in the postpartum period and affects not only the mother's mental health but also that of the child. According to the 10th Revision of the International Classification of Diseases (ICD-10), which is currently applied in Bulgaria, postnatal and postpartum depression are classified as mild mental and behavioral disorders associated with the puerperium, not elsewhere classified (F53.0) (WHO, 2003). Although postpartum depression typically occurs between two and eight weeks after childbirth, it may develop at any time during the first year postpartum. Its pathogenesis remains unclear, and it is assumed that genetic, hormonal, psychological, and social factors play a role (Pearlstein et al., 2009). The optimal period for screening is between the second week and the sixth month after birth; however, no such screening is conducted in Bulgaria, and official data on prevalence are lacking. During the COVID-19 pandemic, a study reported that 22.5% of women with children up to six months of age were affected (Hancheva et al., 2022). A study conducted in 2023 reported a prevalence of 23.5% among women with children up to 12 months of age (Atias, 2024). Globally, an average of 17–18% of women who have given birth experience postpartum depression,

although prevalence rates vary substantially (Hahn-Holbrook et al., 2018; Wang et al., 2021).

The etiology of postpartum depression remains unclear; however, a number of risk factors have been identified (Norhayati et al., 2015; Wang et al., 2021; Zhao & Zhang, 2020). These factors are grouped into physical and biological, psychological, obstetric and pediatric, sociodemographic, and cultural categories. A history of previous mental disorders represents the highest risk factor for the onset of postpartum depression, and this applies not only to the mother but also to the father (Wang et al., 2021).

Protective factors against postpartum depression identified in meta-analyses include breastfeeding, skin-to-skin care, higher consumption of seafood and fish, a healthy diet, and the intake of calcium, vitamin D, zinc, and possibly selenium (Xia et al., 2022; Zhao & Zhang, 2020). Breastfeeding – particularly exclusive breastfeeding during the first six months –emerges as the strongest protective factor against postpartum depression.

Timely recognition of postpartum depression is a prerequisite for early intervention and the minimization of negative effects for both the mother and the newborn. To this end, screening and diagnostic instruments are used to facilitate the identification of symptoms. The Edinburgh Postnatal Depression Scale (EPDS) is the most commonly used screening tool (Cox et al., 1987).

In addition to causing significant distress for women, postpartum depression affects maternal caregiving behaviors and constitutes a risk factor for the development of emotional, social, and cognitive difficulties in children later in life (Slomian et al., 2019). The literature review conducted indicates that maternal depressive symptoms have a negative impact on attachment, child cognitive development, feeding and growth, and are associated with an increased risk of mental disorders in later life.

1.4. Gratitude

Experiencing and expressing gratitude has been highly valued across cultures throughout history. It appears as a significant construct in major religions and spiritual teachings, ethics, and philosophy, but it is only in the last three decades that it has attracted serious research interest in psychology (Emmons & Shelton, 2002; Nelson & Lyubomirsky, 2016; Stamatov & Sariyska, 2018). In psychology, gratitude is conceptualized as a state, a trait, a distinct positive emotion, and a character strength (Emmons, 2009; Fredrickson, 2004; Peterson & Seligman, 2004; Wood et al., 2008). In the present study, gratitude is conceptualized as a character strength, positive emotion, affective trait, and existential gratitude, and it is investigated as a positive personal trait.

The most commonly used instruments for measuring dispositional gratitude are the Gratitude Questionnaire (McCullough et al., 2002) and the Gratitude, Resentment, and Appreciation Test (Watkins et al., 2003).

Research has shown associations between gratitude and positive aspects of mental health, as well as inverse relationships between gratitude and psychopathology. Experiencing and expressing gratitude provides benefits across five key domains of life: emotional, social, personal, career, and health (Shah, 2021), each of which is important for mental health. Based on available evidence, it is suggested that grateful individuals, compared to less grateful, exhibit higher levels of subjective and psychological well-being (happiness, life satisfaction, mental well-being) and lower levels of maladaptation (depression, anxiety, and stress) (Portocarrero et al., 2020). Longitudinal evidence indicates that gratitude is a predictor of well-being (Wood et al., 2010). In addition to its association with positive aspects of mental health, gratitude is linked to negative dimensions; in general, a grateful disposition is negatively correlated with psychopathology, particularly depression (Jans-Beken et al., 2020; McCullough et al., 2002; Wood et al., 2010).

The relationship between gratitude and well-being is likely due to the fact that dispositional gratitude is associated with an enhanced ability to notice and experience positive events, increased self-esteem and self-confidence, improved stress coping, altruistic behavior, strengthened interpersonal relationships, fewer negative social comparisons, reduced rumination on adverse experiences, and prolonged enjoyment of novel positive experiences (Emmons & Mishra, 2011). One mechanism through which gratitude may influence positive dimensions of mental health is its connection to supportive relationships. Gratitude is linked to prosocial behavior (Emmons, 2007; Yost-Dubrow & Dunham, 2018), the building of social resources through strengthening relationships, and the promotion of prosocial actions (Emmons & Mishra, 2011). It is associated with lower tendencies toward destructive interpersonal behavior (Peterson & Seligman, 2004), relatively lower levels of resentment and envy, and greater tendencies for empathy and forgiveness (Emmons, 2009). The relationship between gratitude and loneliness is reciprocal and is mediated by psychological flexibility (Frinking et al., 2020). These effects have also been observed in studies of romantic relationships: expressing gratitude predicts higher well-being and better family functioning (Nelson-Coffey & Coffey, 2024) and may strengthen couple closeness by increasing motivation to respond to a partner's needs (Lambert et al., 2010).

No studies were found specifically investigating the relationship between gratitude and postpartum mental health or breastfeeding. Considering that childbirth is a critical period in which social support is essential for maternal mental health and successful breastfeeding, and given the role of gratitude in coping with crises and its importance for relationships, studying gratitude as a trait in pregnant and recently postpartum women may shed light on their psychological resources and potential approaches to support their postpartum mental health.

1.5. Mindfulness

In Western medicine and psychology, the concept emerged in the 1970s thanks to the work of Jon Kabat-Zinn (Kabat-Zinn, 1982, 2003), Herbert Benson (Benson et al., 1973), and Richard Davidson (Davidson et al., 1976).

Mindfulness has cognitive, affective, and behavioral dimensions, it can refer to a way of thinking and directing attention, an experience, or a practice. For this reason, it is conceptualized and studied as a trait (the inherent levels of mindfulness in a person), a state (experiencing mindfulness), a practice (deliberate engagement in mindfulness), or a set of religious-philosophical ideals (Phan-Le et al., 2022).

The most widely used definition in Western science comes from Kabat-Zinn: awareness that arises from intentionally directing attention to each present moment, without judgment (Kabat-Zinn, 2003). Mindfulness is a coherent phenomenological description of the mind, emotion, suffering, and its potential liberation, based on refined practices aimed at systematically training and cultivating different aspects of the mind and emotions through deliberate attention (Kabat-Zinn, 2003).

According to the Cambridge Dictionary of Psychology (Matsumoto, 2009), mindfulness is defined as: a state of mind characterized by a fresh, original perspective on ongoing experiences. Noticing or creating something new situates us in the present and makes us sensitive to context and perspective. The opposite state, mindlessness, is a passive or inert mental state characterized by reliance on past categories and patterns, in which the individual is trapped in a rigid and singular perspective (Matsumoto, 2009).

In psychology, conceptualizations focus primarily on the mechanisms underlying mindfulness and the phenomenon that arises from its practice. Three contemporary models are briefly presented: the Two-Component Model by Bishop et al. (2004), the Five-Facet Model by Baer et al. (2008), and the Mindfulness Model by Shapiro et al. (2006).

Research shows that dispositional mindfulness correlates with higher emotional intelligence, greater clarity of emotional experience, and better emotional self-awareness. Individuals with higher mindfulness levels demonstrate greater autonomy in daily life and more frequent flow experiences, where awareness and action overlap (Brown & Ryan, 2003). Mindfulness as a trait is associated with emotional intelligence (Miao et al., 2018), lower levels of affective symptoms (emotional moods or reactions that are discordant or inappropriate to behavior and/or stimuli) (Carpenter et al., 2019), fewer post-traumatic stress disorder symptoms (Harper et al., 2022), and subjective well-being in adolescents (Sheng et al., 2022).

Overall, the effect of mindfulness on flourishing is positive, as evidenced by Bulgarian studies (Bakracheva, 2020). Mindfulness has been shown to influence cognitive flexibility, affective plasticity, and emotion regulation (Shapiro et al., 2016), and this is likely one of the mechanisms through which it impacts mental

health. While the precise mechanisms behind mindfulness's positive effects on mental health are not yet fully understood, structural and functional changes have been observed in brain areas involved in attention regulation, emotion, and self-awareness. This suggests that approaches aimed at supporting and cultivating dispositional mindfulness could be effective in promoting postpartum mental health.

1.6. Maternal Mental Health in the Context of Breastfeeding

Breastfeeding is one aspect of motherhood that evokes rich experiences and can influence both dimensions of mental health. In turn, a mother's mental state affects her decisions regarding breastfeeding and its overall success.

Research on the relationship between well-being and breastfeeding is limited, and we did not find studies specifically addressing flourishing. Evidence suggests that breastfeeding can elicit positive experiences for the mother and contribute to her overall positive affect (Mizuhata et al., 2020; Nagel et al., 2022). Positive emotions experienced during breastfeeding are associated with maternal mental health and predict breastfeeding success during the first year postpartum (Wouk, Gottfredson, et al., 2019).

Regarding quality of life and well-being, published studies are scarce, and results are inconsistent. Furthermore, the use of different measurement tools across heterogeneous samples makes comparisons difficult. A longitudinal study in Spain (n=364), measuring maternal quality of life at 6 weeks and 6 months postpartum, reported that breastfeeding was associated with high maternal quality of life (Triviño-Juárez et al., 2016). Another longitudinal study in Ireland, including women who gave birth to infants weighing over 4 kg (n=751), reported weak associations between exclusive breastfeeding and maternal well-being (Yelverton et al., 2022). Results from France differ: a cohort study (n=11,514) found that breastfeeding or mixed feeding (breast milk and formula) at 1 year was associated with lower scores on the psychological component of quality of life (Barandon et al., 2023).

Few studies have examined gratitude in the context of breastfeeding. Research has mainly focused on experiences related to gratitude and body appreciation, and we found no data on the relationship between dispositional gratitude and breastfeeding.

Meanwhile, there is evidence that dispositional mindfulness is associated with lower prenatal, perinatal, and postnatal anxiety (Leyland et al., 2023). Evidence also supports the effectiveness of interventions targeting women's perinatal and postpartum mental health. Interventions during pregnancy can alleviate symptoms of maternal depression and anxiety and are particularly suitable for preventing postpartum depression in healthy pregnant women (Min et al., 2023). Practicing mindfulness leads to higher maternal self-efficacy and fewer postpartum depressive symptoms (C. Liu et al., 2022).

In summary, few studies have addressed positive mental health, gratitude, and mindfulness in the context of breastfeeding, which makes the present study both timely and relevant.

The picture differs when examining research on the links between breastfeeding and negative aspects of mental health, particularly maternal distress. Depression, anxiety, and perceived stress are often grouped together as maternal or psychological distress in postnatal studies (Emmanuel & St John, 2010; Nagel et al., 2022; Obrochta et al., 2020; Ystrom, 2012).

Most studies on the breastfeeding–mental health relationship focus on postpartum depression. Overall, evidence indicates that breastfeeding during the first year acts as a protective factor against postpartum depression (Shiga, 2023; Toledo et al., 2022), while early weaning increases maternal risk (Eastwood et al., 2011; Koutra et al., 2018; Nam et al., 2017). A meta-analysis found that breastfeeding, especially exclusive breastfeeding continuing beyond six months, is associated with a significantly lower risk of postpartum depression (Xia et al., 2022).

Depressive symptoms in the mother before birth not only increase the risk of postpartum depression but also affect breastfeeding success by influencing the mother's intention to breastfeed, breastfeeding duration, and related difficulties (Bianciardi et al., 2023; Dias & Figueiredo, 2015; Kim et al., 2021; Liu et al., 2023; Stark et al., 2021; Ystrom, 2012). Postpartum depressive symptoms similarly predict breastfeeding problems, including non-initiation, shorter duration, more difficulties, and low breastfeeding self-efficacy, as shown in a systematic review covering 1966–2007 (Dennis & McQueen, 2009). One possible explanation is that depressive symptoms reduce maternal responsiveness and interfere with effective breastfeeding organization. Mothers with depression are more likely to perceive their infants as difficult (Gonidakis et al., 2008).

Other factors influencing postpartum depression in breastfeeding women include the mother's intention to breastfeed and breastfeeding success. If a mother planned to breastfeed but for some reason could not and had to wean her child (Borra et al., 2015), or if she lacks support during breastfeeding (Chen et al., 2022; Wang et al., 2021), her risk increases. Two commonly observed (often culturally influenced) situations associated with the breastfeeding experience that can trigger negative experiences and impair maternal mental health are unwanted early weaning and perceived pressure to breastfeed.

Social support is a proven protective factor for maternal mental health, including in the context of breastfeeding. Lack of support is one of the main reasons why women who intend to breastfeed stop early (McAndrew et al., 2010). Receiving support during breastfeeding is associated with a lower risk of early weaning and with successful long-term breastfeeding (Gianni et al., 2019; Pérez-Escamilla et al., 2016).

Given the limited evidence on the relationship between mental well-being and breastfeeding, and the lack of data on breastfeeding and flourishing, research in

these two areas could provide a more complete picture of maternal mental health in the context of breastfeeding. While psychopathology, operationalized as postpartum depression, has been extensively studied in the context of breastfeeding, few studies have simultaneously addressed both mental illness and well-being. This gap in the scientific literature supports the relevance and timeliness of the present empirical study.

2. DESIGN OF THE EMPIRICAL STUDY

Subject and Object of the Study

The subject of the empirical study is maternal mental health (operationalized as flourishing and postpartum depression) and the positive traits of gratitude and mindfulness in women with breastfeeding experience. The object of the study in the first stage of the empirical research includes women with breastfeeding experience and a child up to 5 years old (n=653), while in the second stage it includes women with breastfeeding experience and a child up to 1 year old (n=655). All participants took part voluntarily in the conducted surveys.

Aim

The aim of the empirical study is to investigate maternal mental health and potential relationships with the positive traits of gratitude and mindfulness in the context of breastfeeding experience during the first year postpartum. Based on this aim, seven specific objectives were formulated.

Hypotheses

The main hypothesis of the present study is that during the first year postpartum, women face similar psychological and physical challenges, but social support and maternal psychological resources influence breastfeeding success, with mental health and positive traits – operationalized as flourishing, postpartum depression, dispositional gratitude, and dispositional mindfulness – being interrelated among themselves and with breastfeeding experience.

Hypotheses:

1. It is assumed that women who stop breastfeeding and those who continue breastfeeding during the first year face similar psychological and physical challenges, but there may be differences in the sources of support they report.
2. It is assumed that differences in levels of flourishing, postpartum depression, gratitude, and mindfulness may exist between breastfeeding and non-breastfeeding women. We expect that breastfeeding women may exhibit higher levels of flourishing, gratitude, and mindfulness and lower levels of postpartum depression compared to women who have stopped breastfeeding.

3. It is assumed that high levels of flourishing, gratitude, and mindfulness are observed throughout the first year in the context of breastfeeding. At the same time, we expect some presence of depressive symptoms, with their occurrence associated with lower levels of flourishing, gratitude, and mindfulness. According to the two-factor model of mental health, it is possible for women with depressive symptoms to still experience flourishing, but we expect their levels to be statistically significantly lower.
4. It is assumed that mental health may be influenced by certain demographic factors, birth experience, and the onset of breastfeeding, with potential differences in levels of flourishing and postpartum depression depending on these factors.
5. It is assumed that in the context of ongoing breastfeeding, there are relationships between positive traits (gratitude and mindfulness) and mental health (flourishing and postpartum depression). We expect that women with higher levels of dispositional gratitude and dispositional mindfulness will experience correspondingly higher levels of flourishing and lower levels of depressive symptoms.
6. It is assumed that gratitude, mindfulness, and postpartum depression are predictors of flourishing, and gratitude, mindfulness, and flourishing are predictors of postpartum depression, with positive traits acting as a buffer against the impact of depressive symptoms.
7. It is assumed that maternal mental health and positive traits could predict whether a woman will continue breastfeeding during the first year or wean her child.

To achieve the study's aim and test the hypotheses, a two-stage empirical study was conducted.

Stages of the Empirical Study

The empirical study follows a quantitative–qualitative design and was conducted in two stages (Table 1).

Table 1. Stages of the Empirical Study

Stages	**Methods for data collection**	**Methods for analysis**
Stage 1	Survey with open-ended questions on challenges and sources of support (n=494)	Content analysis Thematic analysis

	Cross-sectional study for instrument selection (n=159): Flourishing – 3 scales Gratitude – 2 scales Mindfulness – 2 scales Postpartum depression – 1 scale	Factor analysis Internal consistency of items
Stage 2	Cross-sectional study: Questionnaire for breastfeeding women (n=555) Questionnaire for women who (no longer) breastfeed (n=131)	Factor analysis Internal consistency of items Descriptive analysis Correlation analysis Regression analysis Binary logistic regression Comparison of relative frequencies in independent samples Independent samples t-test Kruskal–Wallis test Mann–Whitney U test

In the first stage, two preliminary studies were conducted. The first collected qualitative information on challenges during breastfeeding and sources of help and support. The second was a cross-sectional study that gathered data to test the reliability and construct validity of the measurement instruments for the studied constructs among breastfeeding women, with the aim of selecting the most appropriate tools for the final empirical study. A psychometric evaluation was conducted on three flourishing scales, two dispositional gratitude scales, two dispositional mindfulness scales, and one postpartum depression scale.

In the second stage, the main empirical study was conducted among women with children up to 12 months old (n=655). The study design included four scales (flourishing, dispositional gratitude, dispositional mindfulness, postpartum depression), questions about birth, the onset of breastfeeding, the method of feeding during the first six months of the child's life, sources of support, physical and psychological challenges, and demographic data.

Variables

Five dependent variables were used: Flourishing, Postpartum Depression, Dispositional Gratitude, Dispositional Mindfulness, and Breastfeeding during the first year, and twelve independent variables: Mother's age, Mother's marital status, Mother's place of residence, Mother's education, Income, Baby's sex, Baby's age, Number of biological children, Parity, Full-term birth, Onset of

breastfeeding, Feeding method (Exclusive breastfeeding) during the first 6 months.

Figure 1 presents the theoretical model of the empirical study.

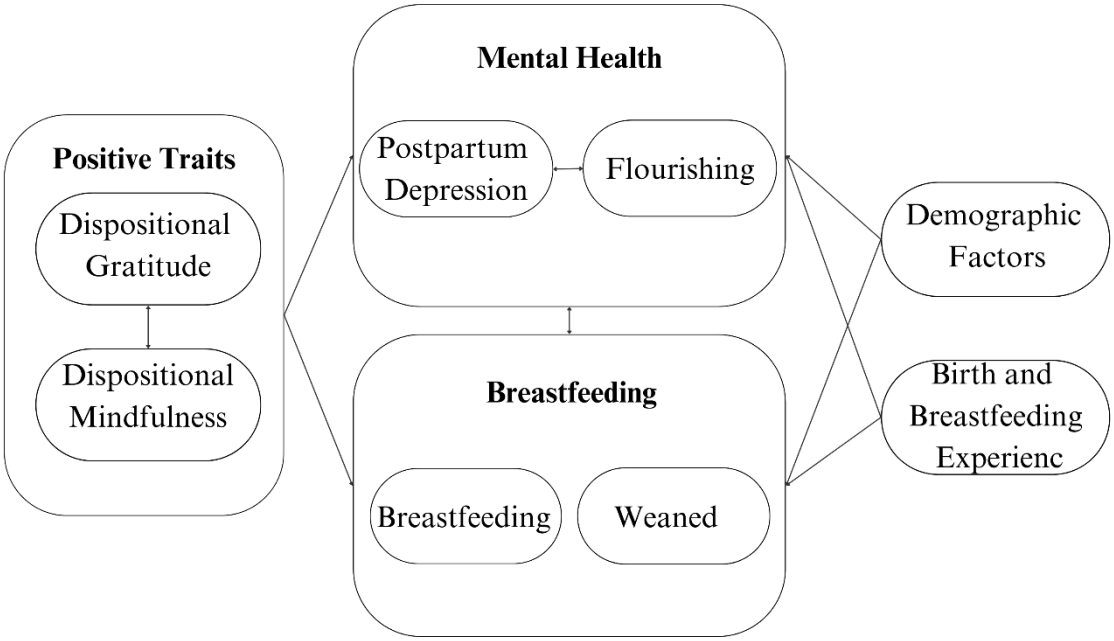

Figure 1. Theoretical Model of Empirical Study

Procedure

Between March and December 2024, a cross-sectional study was conducted including 1,305 women. The survey was administered online. Invitations to participate were emailed to 673 women who had previously taken part in psychological studies related to motherhood and breastfeeding and had expressed willingness to participate in future studies. The survey was also shared on social media in breastfeeding support groups. Statistical analysis of the collected data was performed using IBM SPSS Statistics 27.

Sample

The sample is a non-representative "snowball" sample and consists of 655 women who have a child up to 12 months old, whom they are breastfeeding or have breastfed. Among them, 15.3% (n=100) have already weaned their child, while 84.7% (n=555) are still breastfeeding.

Instruments

The instruments selected in the first stage for measuring flourishing, gratitude, and mindfulness were evaluated using different scales. For the final study, the three scales were combined into a battery and rated on a 5-point Likert scale. To assess internal consistency and factor structure with the modified scales,

Cronbach's alpha coefficient and factor analysis were used. Table 2 presents the internal consistency of the items for each scale.

Table 2. Cronbach's Alpha Coefficients for the Instruments Used

Scale	Author	Cronbach's α
Flourishing Scale	Diener et al., 2010	0.848
Brief Gratitude, Resentment, and Appreciation Scale – Total	Watkins et al., 2003	0.744
Subscale Lack of Sense of Deprivation	Watkins et al., 2003	0.737
Subscale Gratitude for Small Things	Watkins et al., 2003	0.636
Subscale Gratitude Toward Others	Watkins et al., 2003	0.563
Dispositional Mindfulness Scale (Short Freiburg Mindfulness Inventory)	Walach et al., 2006	0.892
Edinburgh Postnatal Depression Scale	Cox et al., 1987	0.861

3. RESULTS OF THE EMIRICAL STUDY

Chapter Three presents the results of the empirical study – statistical analysis of the collected data, testing of the proposed hypotheses, discussion of the findings, contributions and limitations of the dissertation research, and directions for future studies.

The statistical analysis of the data collected in the second phase of the study includes descriptive and inferential statistics for the investigated constructs and the relationships between dependent and independent variables. For the inferential statistical analysis, correlation analysis, multiple regression analysis, binary logistic regression, comparison of relative frequencies in independent samples, independent-samples t-tests, Kruskal-Wallis test, and Mann–Whitney U test were applied.

Based on the results of the statistical analysis, the proposed hypotheses were tested. The main hypothesis of this study – that women encounter similar psychological and physical challenges during the first year postpartum, but that social support and maternal psychological resources affect breastfeeding success, with mental health and positive traits operationalized as flourishing, postnatal

depression, gratitude, and mindfulness being interrelated with each other and with the breastfeeding experience – was largely confirmed.

Hypothesis 1

It was assumed that women who discontinue breastfeeding and those who continue breastfeeding during the first year would face similar psychological and physical challenges, though there might be differences regarding the sources of support they report.

The hypothesis was largely confirmed. Summary results for women with breastfeeding experience show that both those who continue to breastfeed and those who have weaned encounter similar psychological and physical challenges. Some differences in relative frequencies between the two groups were noted for certain challenges. Statistically significant differences between the groups were observed for three categories of psychological challenges. Women who continue breastfeeding more often reported fear of milk supply reduction (breastfeeding: 55.3%, weaned: 39%, $z=2.68$, $p=0.0037$) or that the baby was not feeding well (breastfeeding: 52.4%, weaned: 29%, $z=4.15$, $p<0.0001$) compared to women who had weaned. Conversely, women who had weaned more often reported feelings of guilt for not coping (breastfeeding: 44.9%, weaned: 65%, $z=-3.56$, $p=0.0002$). Regarding physical challenges, a statistically significant difference was observed only for perceived lactation dysfunction (mother's belief of insufficient milk) (breastfeeding: 18.7%, weaned: 44%, $z=-3.92$, $p<0.0001$).

Regarding sources of support, summary results revealed that women who have weaned and those who continued breastfeeding reported similar sources, but there was a statistically significant difference ($p<0.01$) between the groups for three sources. Women who continued breastfeeding more frequently reported support positively affecting their mental state from: online support groups (21.6% vs. 13% for those who discontinued, $z=2.87$, $p=0.0021$), lactation consultants (38.7% vs. 20%, $z=4.41$, $p<0.0001$), and informational sources (48.8% vs. 26%, $z=4.68$, $p<0.0001$). Additionally, women who discontinued breastfeeding more often reported needing but not receiving sufficient support compared to women who continued breastfeeding (10% vs. 5.8%, $z=-2.5$, $p=0.0062$).

Hypothesis 2

It was assumed that differences might exist in levels of flourishing, postnatal depression, gratitude, and mindfulness between breastfeeding and non-breastfeeding women. It was expected that breastfeeding women might exhibit higher levels of flourishing, gratitude, and mindfulness, and lower levels of postnatal depression compared to women who discontinued breastfeeding.

The hypothesis was partially confirmed. To test for statistically significant differences, a sample controlled for child age was formed among breastfeeding women ($n=100$) and compared with a sample of women who have weaned ($n=100$). Statistically significant differences were found for gratitude and

postpartum depression. For gratitude, there was a statistically significant difference between breastfeeding (M=4.28, SD=0.49) and weaned women (M=3.63, SD=0.34), t(198)=10.75, p<0.001, with a very large effect size d=1.52 (95% CI: 1.2, 1.83).

For postpartum depression, statistically significant differences were also observed (breastfeeding: M=8.31, SD=5.04; weaned: M=10.43, SD=6.54), t(198)=-2.567, p=0.001, with a smaller effect size d=0.36 (95% CI: 0.08, 0.64).

High levels of flourishing were observed among mothers throughout the first year, regardless of breastfeeding status. While breastfeeding women showed slightly higher mean flourishing scores, the difference was not statistically significant (breastfeeding: M=4.05, SD=0.62; weaned: M=3.9, SD=0.68), t(198)=1.698, p=0.091.

For mindfulness, no statistically significant difference was observed between breastfeeding (M=3.21, SD=0.75) and weaned women (M=3.14, SD=0.84), t(198)=0.568, p=0.571, with average levels observed in both groups.

Hypothesis 3

It was assumed that high levels of flourishing, gratitude, and mindfulness would be observed throughout the first year, alongside depressive symptoms, which would be associated with lower levels of flourishing, gratitude, and mindfulness. According to the dual-factor model of mental health, it was expected that women with depressive symptoms could still experience flourishing, though at significantly lower levels.

The hypothesis was largely confirmed. Among breastfeeding women, high levels were observed for flourishing and gratitude, while mindfulness was at average levels. Depressive symptoms were common throughout the first year but did not preclude experiences of flourishing. Statistically significant differences in flourishing, gratitude, and mindfulness were found depending on the presence of postpartum depression.

High flourishing was predominant, with mean values of M=4.08, SD=0.61, and 50 - 75% of women each month of the first year scoring high. Gratitude levels were also high throughout the 12-month period (M=4.32, SD=0.46), with most women (around 75% or more) scoring high. Mindfulness levels were average (M=3.16, SD=0.79), with little variation across months.

Among mothers with postpartum depression, 75% had medium to high flourishing, indicating that depressive symptoms do not preclude flourishing. However, women without postnatal depression had higher flourishing (M=4.2, SD=0.52) than those with depressive symptoms (M=3.67, SD=0.71), with a very large effect size d=0.92 (95% CI: 0.71, 1.12). Gratitude was also higher without depression (M=4.39, SD=0.41) compared to with depression (M=4.11, SD=0.52), with a typical effect size d=0.63 (95% CI: 0.43, 0.83). Mindfulness also differed

(no depression: M=3.31, SD=0.75; depression: M=2.64, SD=0.69) with a very large effect size d=0.91 (95% CI: 0.7, 1.11).

Hypothesis 4

It was assumed that mental health could be influenced by demographic factors, birth experience, and breastfeeding initiation, with possible differences in levels of flourishing and postnatal depression.

The hypothesis was confirmed to a very small extent. Only the child's sex had a statistically significant effect on flourishing. Mothers of boys had higher flourishing levels (mean rank 292.95) than mothers of girls (mean rank 261.28). Other factors, such as child age, maternal education, residence, maternal age, marital status, number of children, delivery method, term birth, breastfeeding initiation, and subjective income assessment, had no significant effect ($p>0.05$).

No statistically significant differences were found in postpartum depression symptoms during the first year depending on child age or sex, maternal age, education, residence, marital status, number of children, delivery method, term birth, breastfeeding initiation, or subjective income.

Hypothesis 5

It was assumed that, in the context of ongoing breastfeeding, positive traits (gratitude and mindfulness) would be associated with mental health (flourishing and postnatal depression), with higher dispositional gratitude and mindfulness linked to higher flourishing and lower depressive symptoms.

The hypothesis was confirmed. Statistically significant relationships were found among all constructs ($p<0.01$). Positive moderate-to-strong correlations were observed between flourishing, gratitude, and mindfulness, while negative weak-to-moderate correlations were found between postpartum depression and flourishing, gratitude, and mindfulness. Specifically, flourishing and gratitude had a positive moderate correlation ($\rho=0.399$), flourishing and mindfulness a positive strong correlation ($\rho=0.558$), and flourishing and postnatal depression a negative moderate correlation ($\rho=-0.458$). Gratitude and mindfulness showed a positive moderate correlation ($\rho=0.305$). Postpartum depression correlated weakly negatively with gratitude ($\rho=-0.279$) and moderately negatively with mindfulness

(ρ=-0.479). The relationships among the studied constructs are illustrated in Figure 2.

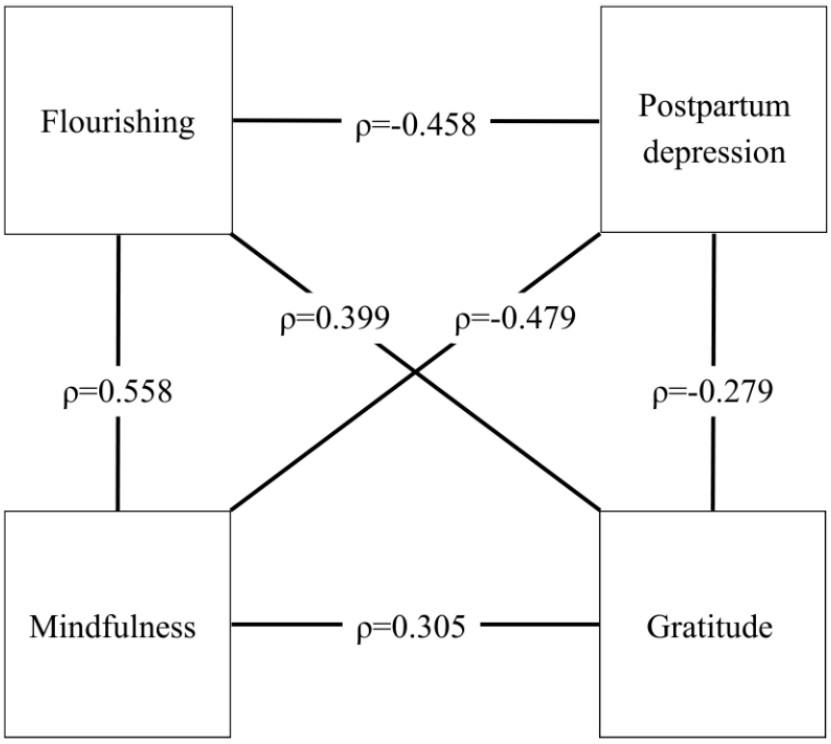

Figure 2. Correlations between flourishing, gratitude, mindfulness, and postpartum depression in breastfeeding women

Hypothesis 6

It is assumed that gratitude, mindfulness, and postpartum depression are predictors of flourishing, while gratitude, mindfulness, and flourishing are predictors of postpartum depression, with the expectation that positive traits act as a buffer against the impact of depressive symptoms.

The hypothesis was confirmed. Gratitude, mindfulness, and postpartum depression significantly predict flourishing: $F(3,551)=120.114$, $p<0.001$. The model including these variables explains 39.2% of the variance in flourishing ($\Delta R^2=0.392$), with a large effect size ($R=0.629$). Figure 3 shows the combined influence of the three variables on flourishing. All three predictors have a statistically significant effect, with mindfulness emerging as the strongest positive predictor ($B=0.354$, $SE=0.028$, $\beta=0.457$, $p<0.001$), followed by gratitude ($B=0.277$, $SE=0.048$, $\beta=0.207$, $p<0.001$). Gratitude and mindfulness account for

a substantial portion of the variation in flourishing, even in the presence of depressive symptoms.

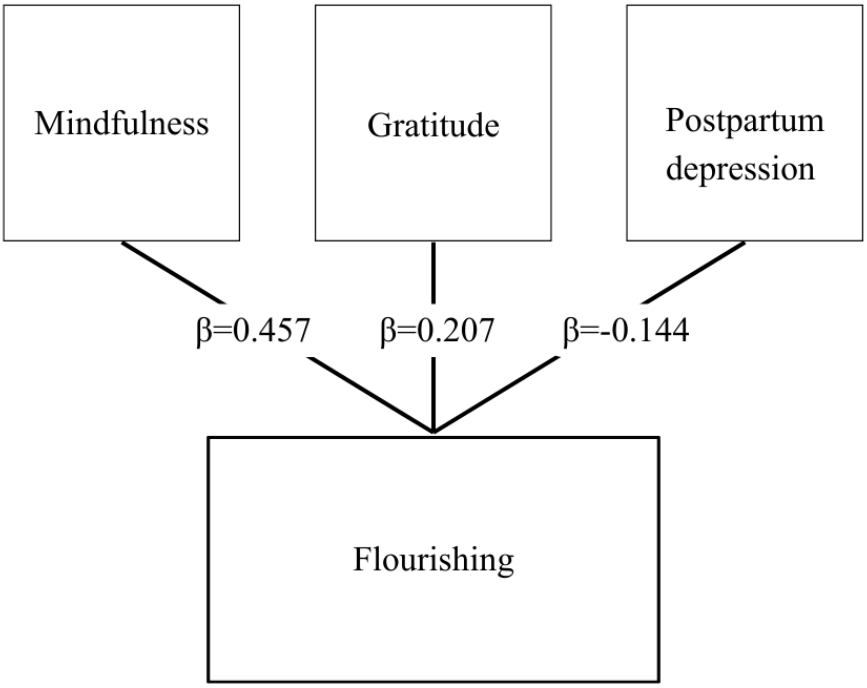

Figure 3. Combined influence of predictors on flourishing (standardized β coefficient) in breastfeeding women

The presence of postpartum depression has a negative effect on flourishing (B=-0.210, SE=0.052, β=-0.144, $p<0.001$), but the predictive power of depression weakens compared to the univariate model (B=-0.523, SE=0.058, β=-0.36, $p<0.001$) after including positive traits in the model. The fact that the effect of depression is significantly reduced in the multiple regression model suggests that gratitude and mindfulness may play a buffering role - potentially acting as mediators or moderators in the relationship between flourishing and postpartum depression.

Together, flourishing, gratitude, and mindfulness significantly predict whether a woman will experience postpartum depression, $\chi^2=99.809$, df=3, $p<0.001$. The regression model explains between 16.5% (Cox & Snell R^2) and 25% (Nagelkerke R^2) of the variance in the outcome and correctly classifies 79.6% of cases (95.1%

without postpartum depression and 27.6% with postpartum depression). Regression coefficients indicate that lower scores on flourishing, gratitude, and mindfulness are associated with an increased risk of postpartum depression. In the model, mindfulness has the strongest predictive power (B=-0.817), followed by flourishing (B=-0.751) and gratitude (B=-0.631) (Figure 4). In contrast, the age and sex of the infant, mode of delivery, full-term birth, initiation of breastfeeding, feeding method during the first six months, maternal age, marital status, place of residence, education, income, and number of children do not significantly predict postpartum depression during the first 12 months ($p > 0.05$).

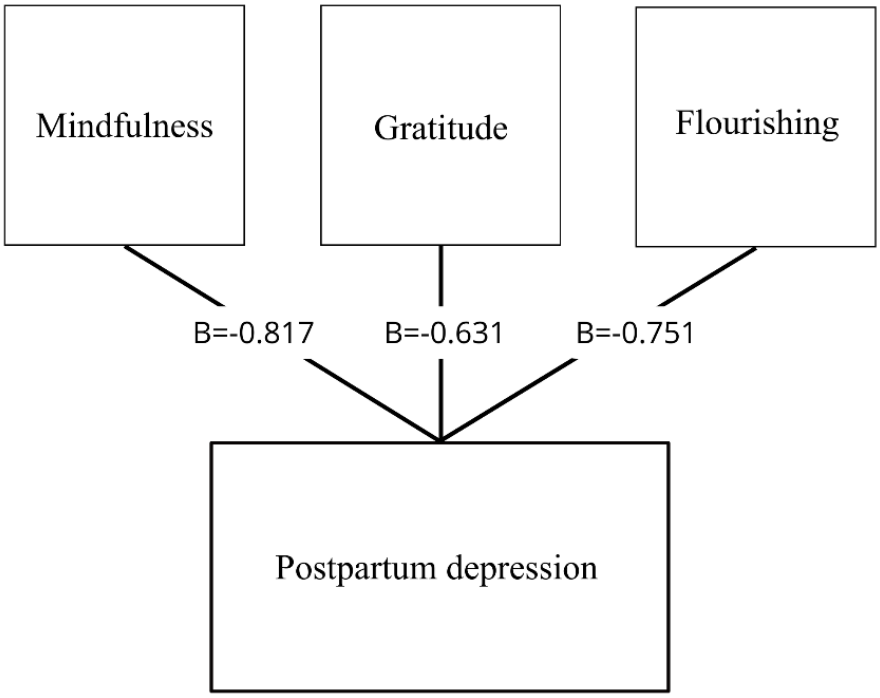

Figure 4. Predictors (B) of postpartum depression in breastfeeding women

Hypothesis 7

It is assumed that maternal mental health and positive traits could predict whether a woman will continue breastfeeding during the first year or wean her child.

The hypothesis was largely confirmed. Flourishing, gratitude, and mindfulness, in combination with demographic factors and birth and breastfeeding experience, are predictors of continued breastfeeding during the first year.

Individually, the factors predicting continued breastfeeding during the first year are: full-term birth, initiation of breastfeeding, exclusive breastfeeding, infant age, maternal age, flourishing, gratitude, and postpartum depression (at a borderline significance level) ($p<0.05$). Mode of delivery, place of residence, income, education, marital status, number of children, and mindfulness individually are not statistically significant predictors ($p > 0.05$).

In combination, mode of delivery, initiation of breastfeeding, exclusive breastfeeding (feeding method during the first six months), infant age, flourishing, gratitude, and mindfulness significantly predict the likelihood that a woman will continue breastfeeding during the first year ($\chi^2=352.974$, $df=7$, $p<0.001$) (Figure 5).

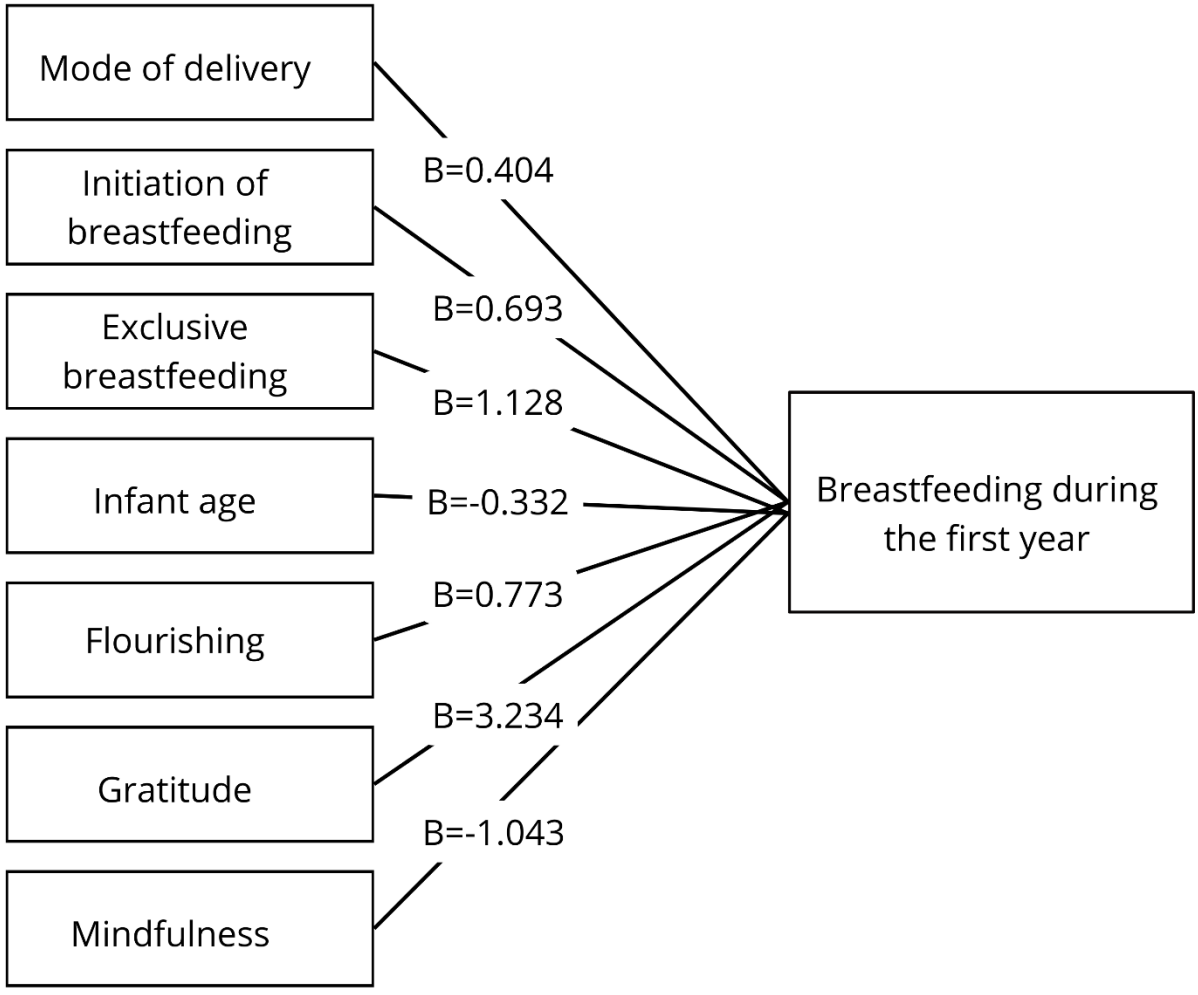

Figure 5. Predictors (B) of continued breastfeeding during the infant's first year

Gratitude has the strongest predictive power in the model. An increase of one point in the mean score on the dispositional gratitude scale increases the likelihood of a woman breastfeeding during the first year between 10 and 60 times (Exp(B)=25.37, 95% CI=10.71, 60.13).

Flourishing also predicts a higher likelihood of breastfeeding; a one-point increase in the mean score on the scale doubles the chance of breastfeeding during the first year (Exp(B)=2.17, 95% CI=1.13, 4.15). Higher levels of mindfulness in the model, in turn, predict a greater likelihood of the woman weaning (Exp(B)=0.352, 95% CI=0.19, 0.64).

Feeding method is also a strong predictor – exclusive breastfeeding during the first six months triples the likelihood of continued breastfeeding throughout the first year (Exp(B)=3.09, 95% CI=2.36, 4.05). Early initiation of breastfeeding within the first 1-2 hours increases the likelihood of breastfeeding approximately 2 times compared to initiation within the first 24 hours, 4 times compared to initiation on days 2–5, 8 times for initiation after day 5, and 16 times compared to bottle feeding from birth (Exp(B) 1.999, 95% CI=1.42, 2.82).

Mode of delivery also influences the likelihood of breastfeeding, although it is not an independent predictor; interestingly, in the model, cesarean delivery is associated with a higher chance of breastfeeding. At the same time, as infant age increases, the likelihood of continued breastfeeding decreases.

Analysis of the Results

Based on the obtained results and the tested hypotheses, a content analysis was conducted. It points to the need to place greater emphasis on mothers' mental health in the postpartum period and on the development of specialized programs and services that provide women with the necessary support during this important stage of life. Ensuring access to the broadest possible support in the postpartum period is an approach that has the potential to simultaneously support mothers' intentions to breastfeed and their mental health.

It was found that motherhood during the first year is characterized by experiencing high levels of flourishing, despite the period being psychologically and physically challenging. Several factors related to motherhood and breastfeeding may support these high levels of flourishing, namely: increased meaning in life, positive affect, life satisfaction, flow states, enhanced self-efficacy, and the achievement of personally meaningful goals.

At the same time, demographic factors and birth experience do not influence maternal flourishing, in contrast to the mental resources available to the mother. Levels of dispositional gratitude, dispositional mindfulness, and postpartum depression were identified as predictors of flourishing.

The proportion of women affected by postpartum depression in Bulgaria is higher than the global average, with postpartum depression continuing to occur until the end of the first year. A number of practices that are part of maternity and postpartum care in Bulgaria may contribute to the high prevalence of postpartum

depression. This indicates the need for interventions and changes at a social, not only an individual, level.

Postpartum depression on its own has a negative effect on flourishing, with its predictive power decreasing after the inclusion of positive traits in the regression model. This highlights the potential protective role of these traits in the context of postpartum mental health. It is also noteworthy that flourishing is a stronger predictor of postpartum depression than postpartum depression is of flourishing. These results support the assumption that among women with high levels of flourishing, fewer cases of postpartum depression can be expected, and that interventions aimed at increasing flourishing (especially before childbirth) may be applied as a protective measure against postpartum depression.

Levels of dispositional gratitude during the first year of motherhood range from moderate to high, depending on whether the mother continues to breastfeed, with higher levels observed among breastfeeding women. Given that higher levels of gratitude predict higher levels of flourishing and a lower risk of postpartum depression, this trait appears to be one of the valuable psychological resources in the context of motherhood and breastfeeding, influencing both mental health and breastfeeding success.

With regard to dispositional mindfulness, moderate levels were observed in both breastfeeding women and those who had discontinued breastfeeding, with no statistically significant differences between the two groups. At the same time, mindfulness emerged as the strongest predictor of both flourishing and postpartum depression. The results regarding gratitude and mindfulness as predictors of flourishing, and their protective effect with respect to the impact of postpartum depression, support the idea of implementing interventions based on these constructs among women who are planning a pregnancy or have recently given birth.

The results also show that psychological resources have a significant impact on breastfeeding success, even when demographic and medical factors related to childbirth and breastfeeding are controlled for. Flourishing, the positive traits of gratitude and mindfulness, as well as mode of delivery, initiation of breastfeeding, infant feeding method during the first six months, and the child's age, together form a model predicting whether a mother will continue breastfeeding during the first year or will wean her child.

Particularly interesting and unexpected are the findings regarding dispositional gratitude, which emerged as the strongest predictor of breastfeeding during the first year. To the best of our knowledge, there are no publications examining the effect of this positive trait on breastfeeding, and the present study opens a new direction for research. The obtained data provide a well-grounded basis for the development and testing of interventions aimed at fostering mothers' psychological resources as a possible pathway for supporting breastfeeding.

Empirical test of the theoretical model

Figure 6 presents the theoretical model of the dissertation with the results obtained from the empirical study. It is evident that the empirically supported model closely approximates the theoretical model, although it does not fully match it.

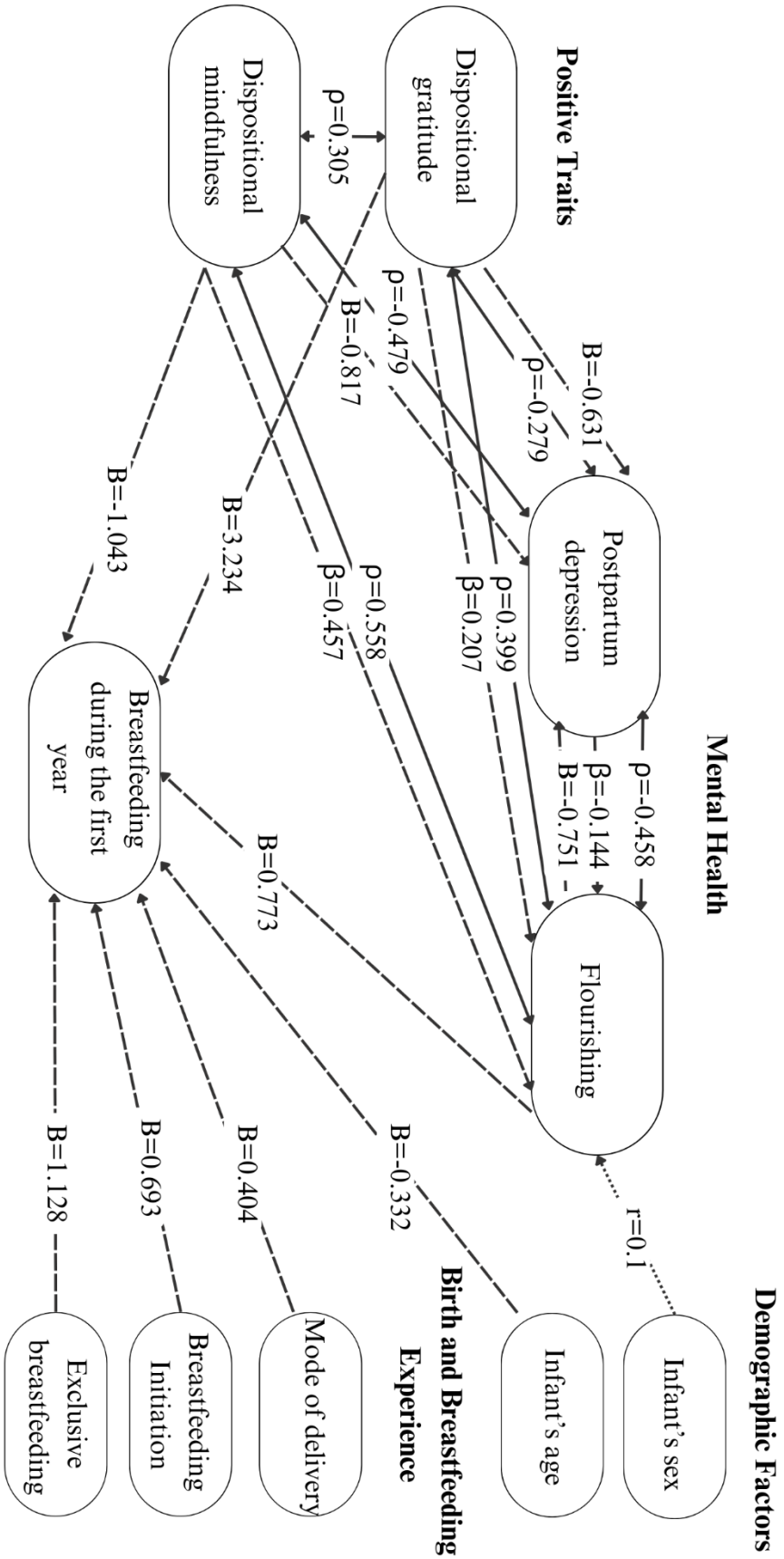

Figure 6. Empirical test of the theoretical model showing correlations (ρ), predictors (β, B), and effect sizes (r) for the studied dependent variables

4. CONTRIBUTIONS AND LIMITATIONS OF THE STUDY

The main contribution of the conducted original empirical study lies in the exploration of topics that have been little studied or not studied at all to date, such as:

• flourishing and gratitude in the postpartum period, and specifically during breastfeeding;

• the simultaneous examination of well-being and psychopathology in the postpartum period, and specifically in the context of breastfeeding;

• the impact of positive traits such as gratitude and mindfulness on well-being and psychopathology in the context of motherhood and breastfeeding;

• flourishing and positive traits as predictors of breastfeeding during the first year, while controlling for a number of medical and demographic factors.

This is also one of the few psychological studies in Bulgaria conducted in the context of breastfeeding.

The study contributes in three directions: theoretical, methodological, and theoretical-applied.

Theoretical contribution: This lies in conducting an in-depth theoretical analysis, through which contemporary scientific knowledge on mental health, gratitude, and mindfulness has been systematized, including in the context of the postpartum period and breastfeeding. A theoretical framework for studying postpartum mental health has been outlined, in accordance with the two-factor model of mental health.

Methodological contribution: This involves enriching the toolkit for studying mental health in postpartum women through the initial adaptation of questionnaires for measuring flourishing, gratitude, and postpartum depression.

Applied contribution: This is reflected in concrete guidelines based on the obtained results, which can be integrated into psychological interventions aimed at preventing postpartum mental health issues, enhancing well-being, and supporting breastfeeding, as well as into social and healthcare approaches in this area.

Alongside these contributions, the empirical study has theoretical and methodological limitations.

Theoretical limitations: The results were primarily examined through the lens of positive psychology, without considering other theoretical approaches, such as clinical psychology or health psychology, which could also contribute to a more comprehensive understanding of the relationship between motherhood, breastfeeding, and mental health. Regarding breastfeeding, the study mainly focused on contemporary empirical research on its connections with mental health. Theoretical paradigms, such as the psychodynamic perspective, which also consider breastfeeding in a psychological context, were not included.

Methodological limitations: The study has several limitations, including sample profile (women who breastfeed, live in a large city, live with a partner, are

highly educated, and have medium to high income), questionnaire length, and data collection based on self-report measures.

5. DIRECTIONS FOR FUTURE RESEARCH

The conducted empirical study outlines opportunities for expanding and deepening knowledge in the areas of maternal mental health, breastfeeding, and factors contributing to well-being during the postpartum period. Based on the obtained results and the limitations of the present study, several directions for future research have been identified:

- Development of interventions and practices based on positive psychology to support postpartum mental health;
- Expansion of the model for studying maternal mental health through the inclusion of additional constructs within the fields of psychopathology, well-being, and positive traits;
- Further validation of the tested instruments for the Bulgarian context;
- More in-depth investigation of flourishing in the context of motherhood, considering, on the one hand, the factors that influence it, and on the other, the mechanisms through which it affects the maternal experience;
- More in-depth examination of gratitude in the context of motherhood;
- Future research into the effect that the mode of delivery has on breastfeeding success;
- Investigation of various aspects of social support in the postpartum period.

CONCLUSION

This dissertation study achieved its primary objective by exploring maternal mental health and its relationships with the positive traits of gratitude and mindfulness in the context of breastfeeding during the first year postpartum. The main hypothesis of the dissertation study was largely confirmed. The obtained data indicate that mental health (levels of flourishing and presence of postpartum depression) and positive traits (gratitude and mindfulness) are not only interrelated but also associated with the successful continuation of breastfeeding during the first year.

The two-stage empirical study encompassed results from 1,308 valid questionnaires. In the first stage, two preliminary studies provided information on the main categories of challenges and sources of support, as well as on appropriate tools for measuring flourishing, gratitude, mindfulness, and postpartum depression. A significant methodological advantage is that the majority of participants in both stages were breastfeeding women, providing access to this specific and often difficult-to-reach population. Although this limits the possibility of comparisons between breastfeeding and non-breastfeeding women,

it compensates by providing valuable empirical data from actively breastfeeding mothers—a group traditionally difficult to access and study.

Based on the results regarding postpartum mental health, it can be summarized that, on an individual level, protection or management of existing symptoms can involve evidence-based individual psychotherapy, as well as approaches and interventions from positive psychology, psychologist-led support groups, and mindfulness practices. On a social level, the theoretical review offers guidance for changes in healthcare during pregnancy and breastfeeding in Bulgaria.

The results of this study may attract the attention of researchers, practicing psychologists, healthcare professionals, and institutions involved in maternal mental health care and policy-making. They can serve as a starting point for future research and for the development of programs for mental health prevention and breastfeeding support. Understanding the relationship between positive traits and flourishing, on one hand, and breastfeeding success, on the other, is a prerequisite for changing postpartum support approaches, which currently focus primarily on addressing problems and pathology.

In conclusion, this study provides a significant contribution to understanding postpartum mental health in the context of breastfeeding by integrating theory, empirical analysis, and practical guidance. It highlights the need for systematic support for mothers, including medical, psychological, and social aspects, and lays the groundwork for developing evidence-based interventions aimed at mental health care during one of the most vulnerable and significant periods in a woman's life.

List of Publications on the Dissertation Topic

Atias, K. (2023). Instruments for Measuring Flourishing. In *Mental Health and Flourishing Across the Life Cycle*, 1, 88–104. Plovdiv University Press. ISBN 978-619-7663-81-5

Atias, K. (2023). Mindfulness in Mental Health Care. In *Mental Health and Flourishing Across the Life Cycle*, 1, 104–121. Plovdiv University Press

Atias, K. (2023). Assistance and Support During Breastfeeding from the Mother's Perspective. In *Proceedings of the National School for Doctoral Students and Young Researchers in Social Sciences*, 4, 161–170

Atias, K. (2024). Challenges Faced by Mothers During Breastfeeding – A Qualitative Study. *Multidisciplinary Innovations for Social Change*, 557–570. ISBN: 978-619-253-038-9

Atias, K. (2024). Theoretical Study of the Relationship Between Breastfeeding and Maternal Mental Health. *Bulgarian Journal of Psychology*, 2, 706–719

Atias, K. (2024). Breastfeeding and Child Cognitive Development. In *Mental Health and Flourishing Across the Life Cycle – Part Two*, pp. 40–50. Plovdiv University Press. ISBN 978-619-7768-14-5

Atias, K. (2024). Postpartum Depression During Breastfeeding Within a Year After Birth. *Psychological Research (in the Balkans)*, 27(2), 133–140. ISSN 2815-4797 (Print), ISSN 2815-4800 (Online)

Atias, K. (2025). Predictors of Exclusive Breastfeeding. *Nursing Practice*, 57(2), 12–21

Participation in Projects and Programs

Project No. MUPD23-PF-016, *Mental Health and Flourishing Across the Life Cycle*

Program "Young Scientists and Postdoctoral Researchers – 2"