Alexandru Ioan Cuza University of Iaşi

Faculty of Psychology and Educational Sciences

Doctoral School of Psychology and Educational Sciences

PhD Thesis

-Summary-

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Scientific Advisor: Professor PhD Maria Nicoleta Turliuc

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Transition to Parenthood.

Individual, Dyadic and Social Aspects

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Contents

Introduction

In a broad sense, family transitions designate changing intervals from one stage to a new one (Price et al., 2000). In the narrow sense, transition to parenthood represents a. parental commitment to sustain a pregnancy and raise a child, high levels of physical and psychological involvement during pregnancy and childbirth, and b. fluctuations in the family plan to meet the requirements of the new family member (Belsky et al., 1985). It generates contradictory feelings, being simultaneously a joyful experience (Hirschberger et al., 2009) and a negative emotion generator, like postpartum depression (Payne & Maguire, 2019), tiredness and exhaustion (Petch & Halford, 2008), a decrease in marital satisfaction (Bäckström et al., 2018) and intimacy (Feeney et al., 2001). Transition to parenthood represents partners' psychological and social adjustment to the new life-cycle stage as first-time parents (Sanadi et al., 2016). The transition to parenthood is a typical family development involving individual, dyadic and family reorganizations (Cowan & Cowan, 2012). This period is one of the most challenging life transitions. The transition to parenthood is a process that brings changes and adjustments both among women and men (Cowan & Cowan, 1999). It determines increases in stress, differences between husbands and marital dissatisfaction (Doss et al., 2009; Figueiredo & Conde, 2015; Lawrence et al., 2008), raising the risk for psychological difficulties (Figueiredo & Conde, 2015; Perren et al., 2005). This long-lasting adaptation begins when the woman becomes pregnant and ends when the child reaches the age of two (Sanadi et al., 2016).

In this thesis, we propose to explore the role of the individual (postpartum depression, maternal self-efficacy), dyadic (marital satisfaction, intimacy, dyadic stress, spousal support, partner's job stress) and social (social support, religiosity) during the transition to parenthood.

The present paper is structured in four chapters to review the existing literature about the transition to parenthood and its impact on marital satisfaction and to deepen the knowledge of the individual, dyadic and social aspects of this period through five original studies. The first chapter, *Literature review and theoretical frameworks,* captures the central theoretical premises of the thesis. In this sense, the individual aspects (postpartum depression, maternal self-efficacy), dyadic aspects (marital satisfaction, marital intimacy, dyadic stress, spousal support, partner's job stress) and social aspects (religiosity and social support) are illustrated. The second chapter, *Objectives and General Methodology,* presents the primary purposes of the original research and the methodology used to reach them. Five original

studies are presented in extenso in chapter three, *Original Research.* The first study represents a meta-analysis that summarizes the past research on marital satisfaction during the transition to parenthood. Three studies present cross-sectional designs in order to explore different individual, dyadic and social aspects of the transition to parenthood, using analyses of direct and indirect effects, like mediation, moderated mediation, serial and parallel mediation. The last study presents a dyadic analysis using the Actor-Partner Interdependence Mediation Model (Ledermann & Bodenmann, 2006). The last chapter illustrates *General conclusions,* including theoretical, empirical and practical implications, limitations and overall conclusions.

Chapter 1. Literature review and theoretical frameworks

1.1 Transition to parenthood

The transition to parenthood designates a period when psychological, biological, behavioral, social and financial changes occur (Saxbe et al., 2018). Numerous studies have investigated various aspects of the transition to parenthood, trying to find the most promising theories to explain *the crisis* (LeMasters, 1957), or *the critical window for adult health* (Saxbe et al., 2018).

1.2 . Individual aspects of the transition to parenthood

Postpartum depression among new parents is one of the most common side effects after birth (Beck, 2008). Its prevalence has been higher in the last decades, with its global prevalence for mothers at 17.7% (Hahn-Holbrook et al., 2018). Research shows that postpartum depression is associated with a decline in prepartum and postpartum marital satisfaction in mothers and fathers (e.g., Bower et al., 2013; Da Costa et al., 2017, 2019; Parfitt & Ayers, 2014).

Maternal self-efficacy expresses the connection between knowing and doing and between thinking and acting (Bandura, 1986). The research illustrates the essential role of maternal self-efficacy during the transition to parenthood. It mediates the link between maternal skills and maternal behavior (Teti & Gelfand, 1991), the temperament of the infant

and the mother's behaviors (Bandura, 1986), social support and postpartum depression (Zhang & Jin, 2016), social support and postpartum alimentation (Chang et al., 2019). Furthermore, maternal self-efficacy is positively associated with marital satisfaction and negatively related to anxiety and postpartum depression. It also represents a protective factor against maternal depression when social support is missing (Cutrona & Troutman, 1986; Porter & Hsu, 2003; Teti & Gelfand, 1991).

1.3 Dyadic aspects of the transition to parenthood

Marital satisfaction represents the subjective global evaluation of marriage (Bradbury et al., 2000), a subjective feeling of personal happiness and pleasure in the conjugal relation (Hendrick & Hendrick, 1997). Most married couples become parents for the first time in the first five years of marriage (Bramlett & Mosher, 2001). The same period is considered to have the highest divorce rate (Bramlett & Mosher, 2001). If parenting is a crisis, as it was described by the first researchers addressing this issue (LeMasters, 1957), then clarifications about the impact of childbirth may lead to a better understanding of marital difficulties that partners go through across the transition to parenthood (Doss et al., 2009). Once the partners become parents, the husband-wife interaction decreases, the division of tasks becomes more complex and more rigid, and the alienation and tension between the spouses increases; these changes cause alterations in the quality of the marriage (White & Booth, 1985).

Intimacy represents one of the most important aspect of interpersonal relationships (Laurenceau et al., 1998; Reis, 1990). Intimacy suffers notable challenges after childbirth due to exhaustion, adjustments to roles and lifestyles and body image concerns (Delicate et al., 2018; Woolhouse et al., 2012). Unfortunately, little research has explored this decrease in intimacy during the transition to parenthood, and often it is confused with sexuality (e.g., Delicate et al., 2018; Hansson & Ahlborg, 2012; Stavdal et al., 2019).

Dyadic stress. Transition to parenthood designates a stressful time for both partners (Lu, 2006; Walker, 2013). The influence of stress is perceived for a relatively long period, from prepartum to several months following the birth of the infant (Lu, 2006). One of three first-time parents is predisposed to conjugal distress during the transition to parenthood (Cowan & Cowan, 1999; Petch et al., 2012). In the attempt to simultaneously accomplish marital and parental roles, first-time parents endure a notable level of stress (Baxter et al., 2008; Hansson & Ahlborg, 2016; Misri & Duke, 1995). Several studies have illustrated the

adverse influence of stress on marital satisfaction (Doss et al., 2009; Lawrence et al., 2008; Lu, 2006).

Spousal support is the primary source of social support (Feder et al., 2019) and represents the husband's emotional, economic and task assistance (Feder et al., 2019; Kaplan et al., 1977). It also refers to the quantitative and qualitative help and confirmed expectations (Levitt et al., 1994). Spousal support is a critical resource for psychological and physical health in general (S. Cohen & Wills, 1985; Reblin & Uchino, 2008) and for a successful transition to parenthood in particular (Feder et al., 2019; Reid & Taylor, 2015).

Partners' job stress. Once they become parents, both partners report excessive obligations, inexistent free time, economic issues and infant well-being concerns (Pollock et al., 2005). The father's job stress influences the postpartum health of his partner due to the stress-crossover effect (Bolger et al., 1989; Neff & Karney, 2007). It refers to the husband's stress, which may impact their partner's affects and cognitions that extend beyond his or her welfare.

1.4 Social aspects of the transition to parenthood

Social support represents a general expression for a series of coping resources emerging from connections with important people (Folkman et al., 1979; Stana & Miller, 2019). It involves emotional, informational, and instrumental support and feedback (Lavenda & Kestler-Peleg, 2018). At the same time, social support represents one of the most studied aspects of the transition to parenthood, and its importance is overwhelmingly known. Social support presents a long list of positive impacts on the transition to parenthood outcomes.

Religiosity represents engagement in organized religious practices, complying with specific doctrines (Hill & Pargament, 2003). Research investigating the role of religiosity in different aspects of life has found a close relationship between religiosity and family, based on the fact that they generally share the same values (Fard et al., 2013). Religiosity is inversely associated with postpartum depression (Crockett et al., 2008; Zittel-Palamara et al., 2009). It represents a significant predictor of mental health (Cheadle & Dunkel Schetter, 2017; Mann et al., 2007). Moreover, dyadic religiosity seems to express a stronger predictor of the couple's relationship compared to personal religiosity (Rusu & Turliuc, 2011).

Chapter 2. Research objectives and general methodology

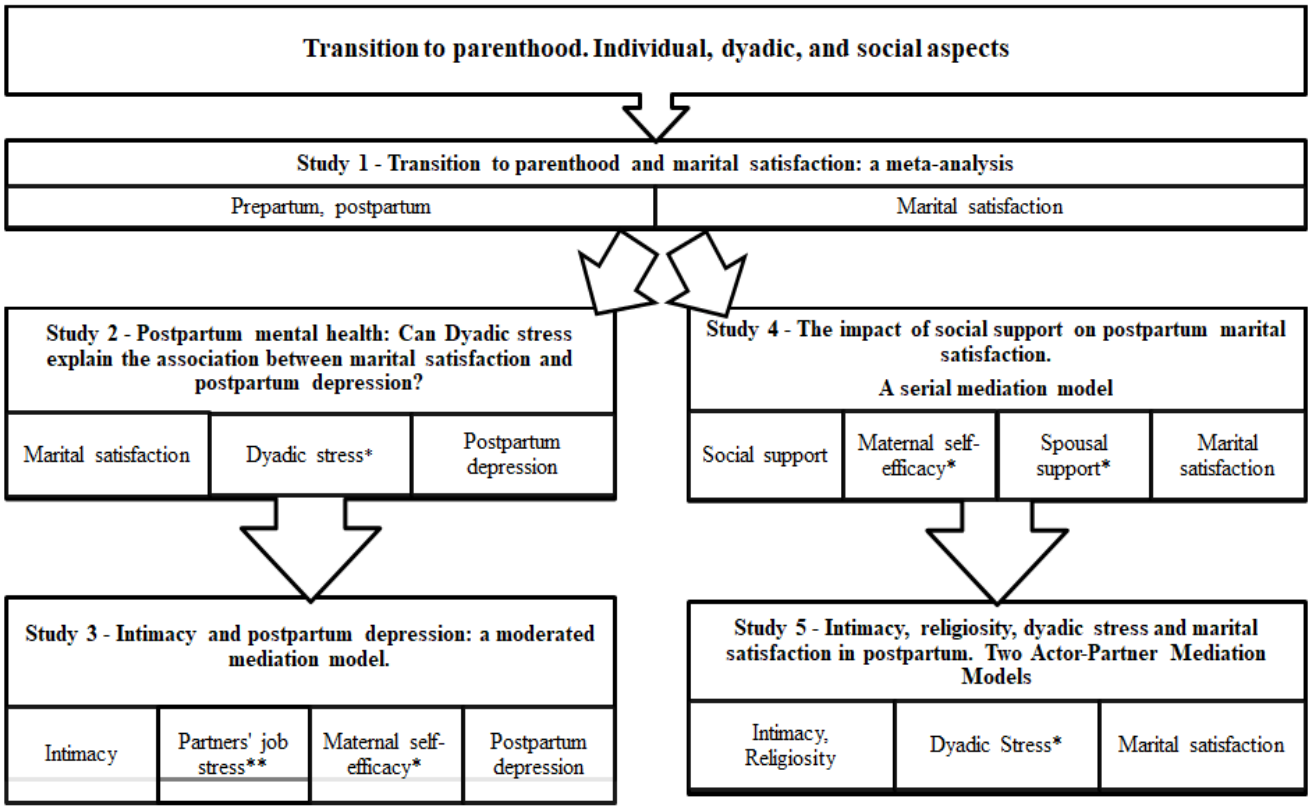
Despite the consistent literature dedicated to various aspects of the transition to parenthood, this process is constantly expanding due to its substantial implications for adults, children and society. In addition, this period is characterized by the corroborated influence of various factors. Thus the simple investigation of individual aspects is not satisfactory. For this reason, this paper aims to expand knowledge by simultaneously studying individual, dyadic and social aspects using a current methodology.

The first purpose of this paper is to clarify what actually happens with marital satisfaction once the first child is born, whether marital satisfaction suffers a decreases from pregnancy up to 24 months postpartum for both parents and whether the newlyweds without children suffer the same decrease in a similar period. To achieve the proposed goal and verify the hypotheses, we conducted *Transition to parenthood and marital satisfaction: a meta-analysis that* summarizes the results of all longitudinal studies of marital satisfaction during the transition to parenthood.

Then, we focused on several individuals (postpartum depression, maternal self-efficacy), dyadic (marital satisfaction, intimacy, dyadic stress, partner's job stress) and social aspects (social support, religiosity and partner's religiosity) that are associated with marital satisfaction.

Figure 1

The search overview



Note: *mediator; **moderator

Chapter 3. Original Research

3.1 First study. Transition to parenthood and marital satisfaction: a meta-analysis[1]

Introduction

Married people are generally happier than unmarried or cohabiting people (Vanassche et al., 2013). Although the protective role of marriage has been well established over time (Rendall et al., 2011; Waite & Lehrer, 2003), it has also been proven that those who have an unhappy marriage suffer from more medical conditions, and their life expectancy is lower than that of unmarried, divorced or widowed individuals (Lawrence et al., 2019). Moreover, marital satisfaction is not stable over time, White and Edwards (1990) describe a "U"-shaped marital satisfaction trajectory. The research of the early decline of marital satisfaction presents slightly different results. Some meta-analytic research have indicated a moderate versus a small decrease in marital satisfaction after the birth of the first child (Mitnick et al., 2009; Twenge et al., 2003). A small decrease is present for parents and non-parents alike (e.g., Mitnick et al., 2009).

Building on these findings, we first aimed to deepen the trajectory of marital satisfaction in men and women during the transition to parenthood. Thus, we investigated the decrease in marital satisfaction in the first, and in the second year postpartum, using a sample of longitudinal studies with two or three marital satisfaction measurements: during the late pregnancy, at the end of the first year and at the end of the second year postpartum.. Two previous meta-analyses presented the decrease in marital satisfaction in the first year, respectively, in the first two years postpartum, globally. This is the first attempt to analyze the trajectory of marital satisfaction in the first year, and in the second year separately to see if the decrease in the second year is similar, higher or lower than in the first one. Furthermore, we include in our analysis non-parent samples in order to test if the couples without children have the same marital satisfaction trajectory in an equivalent period.

Although empirical studies highlight cross-partner associations, none of the existing meta-analyzes have analyzed this aspect. Therefore, our second aim was to investigate

[1] This research was published as:
Bogdan, I., Turliuc, M. N., & Candel, O. S. (2022). Transition to Parenthood and Marital Satisfaction: A Meta-Analysis. *Frontiers in Psychology*, *13*, 901362. https://doi.org/10.3389/fpsyg.2022.901362

whether one partner's satisfaction has a steeper decline when the other partner's satisfaction also has a more pronounced decrease. Moreover, there is little evidence of how marital satisfaction changes during the transition to parenthood depending on the participants' demographic characteristics. Subsequently, our third aim was to investigate the possible moderators of the satisfaction's trajectory during this period.

Method

Literature search

In order to fulfill our aims, we conducted an electronic search in specific databases, such as PsycInfo, Proquest, and Scopus, using keywords as marital satisfaction, relationship satisfaction, parent, the first child, and parenthood.

Inclusion and exclusion criteria

The inclusion criteria of the current meta-analysis are: (1) the studies of first-time parents included self-reported measures of prepartum marital satisfaction and a similar measure at least one postpartum time, up to 24 months, (2) the studies contained the necessary statistical data allowing us to compute the effect sizes (means and standard deviation for both measurements); (3) the studies were published in peer-reviewed journals; (4) the studies were published in English; (5) for intervention studies targeting marital satisfaction, we eliminated the studies that did not include a control group.

Effect size calculation

We computed effect sizes (standardized mean gain scores) from the raw mean scores, standard deviations and correlations between measurement at the two time points. Given that not all the studies offered the necessary correlations when needed, we used the average correlation coefficient from all the included studies. First, we computed the overall effect size (Hedge's g) to show the difference between pregnancy and postpartum marital satisfaction up to 12 months after the first child's birth. Second, we computed the effect size (Hedge's g) to show the difference in marital satisfaction between the first and the second year postpartum. We computed the overall size effects for mothers, fathers and couples (samples that did not differentiate between genders).

Finally, we wanted to verify whether one partner's decrease in satisfaction influences the other partner's decrease in satisfaction. Only the studies that reported data for both partners were included in this analysis. For this, each couple was regarded as a unit of

observation, and several steps were necessary. To test this relationship for the wives, we first calculated the effect size for the husbands' satisfaction decrease. Thus, we obtained a separate effect size for each sample included in the analysis. Then, we computed a meta-regression where we included the husband's effect sizes as a supplementary *explanatory variable* predicting the outcome variable and the wives' decrease in satisfaction. The same method was used when assessing the husbands' decrease in satisfaction.

Meta-analytic strategy and analyses

We used PRISMA statements (Moher et al., 2009) in order to collect data, including in our analysis of 49 studies with 106 independent samples (97 samples of parents and nine samples of non-parents), with a total of 145,139 participants. We calculated effect sizes using the Meta-Essentials (Suurmond et al., 2017) and JASP software (van Doorn et al., 2021) for meta-regressions and followed (Cohen, 1988) recommendation for the significance of effect sizes.

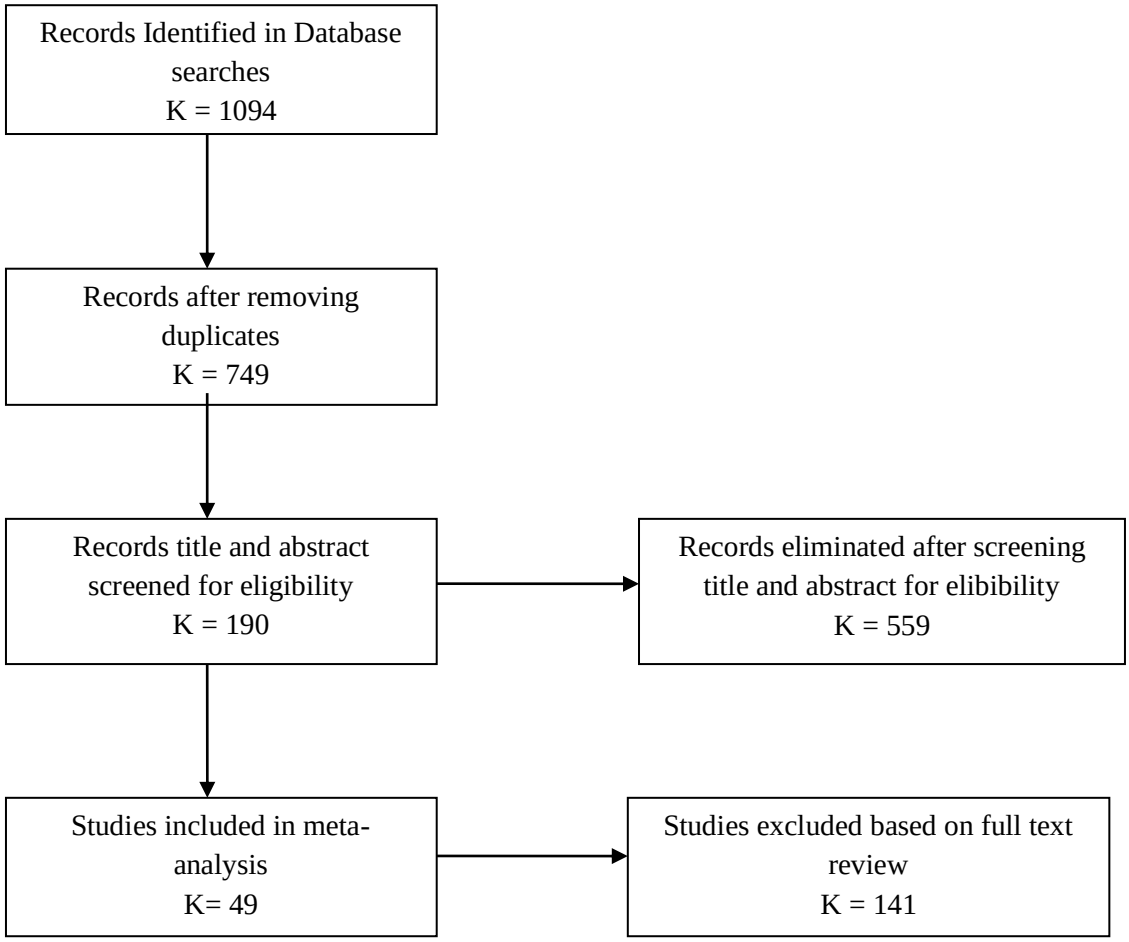
Results

We evaluated the identified samples based on the inclusion criteria and excluded samples that failed to meet the inclusion criteria. A flowchart depicting this process is shown in Figure 1.

The final sample consisted of 49 studies (45 studies were reporting data for parents only, 1 study for non-parents only and 3 studies for both parents and non-parents), with 106 independent samples (97 samples of parents and 9 samples of non-parents), with a total of 145,139 participants.

Figure 1

Flowchart detailing process and selection of articles search, data inclusions, and data exclusions, based on the PRISMA guideline



Marital satisfaction in parents' and non-parents' samples (T0-T1)

Marital satisfaction of the participants from the parents' sample decreased significantly from T0 to T1 (for mothers: Hedge's g = -.31, p <.001; for fathers: Hedge's g = -.29, p <.001; for couples: Hedge's g = -.28, p <.05). All the effect sizes were medium. The results for mothers and fathers also showed significant heterogeneity in the distribution of effect sizes across the included samples (for mothers: Q = 528.16, p < .001, I2 = 90.91%; for fathers: Q = 238.65, p < .001, I2 = 81.56%). The participants from the non-parents' sample also showed a significant decrease in marital satisfaction, but the effects sizes for this decrease were small (for mothers: Hedge's g = -.12, p <.05; for fathers: Hedge's g = -.13, p

<.05). Gender, measurement, age and relationship lenght do not represent significant moderators of marital satisfaction decrease from pregnancy to first year postpartum.

Marital satisfaction in the second year postpartum in parents' samples (T1 to T2)

Marital satisfaction of parents decreased from T1 to T2, the results being significant (for mothers: Hedge's g = -.16, p <.001; for fathers: Hedge's g = -.14, p <.05). The effect sizes were small. The samples were heterogeneous (for mothers: Q = 158.47, p <.001, I^2 = 91.17 %; for fathers: Q = 46.19, p <.001, I^2 = 78.35 %). The meta-regression results show that the time difference between T1 and T2 did not influence the decrease in marital satisfaction for men or for women. We found no sufficient data to compute similar analyses in the non-parents' sample.

From proposed moderators, only measurement moderates the marital satisfaction decrease from the first to the second year postpartum. The decrease was weaker in the studies that used Dyadic Adjustment Scale (DAS; Spanier, 1976) compared to the studies that used other instruments to assess marital satisfaction (Q = 6.50, p = 0.01).

Marital satisfaction reported by parents in the first two years postpartum (T0 to T2)

Additionally, we calculated the effect sizes for the overall satisfaction decrease between prepartum and 24 months postpartum. The satisfaction decreased from T0 to T2, the result being significant (Hedge's g = -.37, p <.001). The effect size was medium.

Cross-partner associations

We tested the forth hypothesis regarding the interdependence effect in the samples that came from the studies that used dyadic samples for the first year postpartum. For this, we computed a meta-regression where the effect sizes for decrease in one partner's satisfaction were entered as a predictor for the decrease in the other partner's satisfaction. The results were significant for both men (b = -.68, S.E. = .08, p < 0.001) and women (b = 0.87, S.E. = .10, p < 0.001). The satisfaction of one partner has a steeper decline when the satisfaction of the other partner also has a more pronounced decrease.

Publication bias

To verify the publication bias, we applied Egger's T-test. We obtained a value of -3.85 (p <.001), which, at first sight, would indicate a significant publication bias. However, using the trim and fill method, we found that by adding four studies, the adjusted value indicates a Hedge's g score of -.28, which does not differ from the initial result. In addition, after applying the Orwin Fail-safe N method, we noticed that another 367 studies would be needed

to indicate a difference of -.05 for the meta-analytical result to become zero. Thus, we found no significant publication bias.

Discussion

The results of the present meta-analysis indicate a medium decline in marital satisfaction for mothers and fathers during the first year postpartum. Then, we investigated the decrease of marital satisfaction in non-parents having a similar length of their relationship. For non-parents, the results reveal a small deterioration in marital satisfaction. Thus, the trajectories of marital satisfaction are different in parents and non-parents and the decrease is higher for parents compared to non-parents. These present results differ from the Mitnick et al. (2009) meta-analysis, which illustrated a small decrease in marital satisfaction for first-time parents and non-parents from pregnancy to the first 11 months after birth, respectively, for a similar duration of their relationship. A drop in marital satisfaction during the first year of parenthood has been widely reported in the literature (Bäckström et al., 2018; Doss et al., 2009; Simonelli et al., 2016). This decrease may prove the difficulties that first-time parents go through in the transition to parenthood (Bäckström et al., 2018).

From the first to the second months postpartum, marital satisfaction has a small decrease for first-time parents, with a similar decline for mothers and fathers, confirming the second hypothesis, that the decrease in marital satisfaction continues between 12-24 months postpartum for both men and women. Previous research supports our findings regarding the decline in marital satisfaction for the second year postpartum (Figueiredo & Conde, 2015). The difficulties that partners face during the transition to parenthood does not stop after the first year postpartum.

Additionally, our results show that marital satisfaction has a medium decrease from pregnancy to 24 months postpartum. These data converge with those obtained by Twenge et al. meta-analysis (2003) and with several longitudinal studies using multiple waves (e.g., Doss et al., 2009; Hirschberger et al., 2009; Simonelli et al., 2016).

In order to test our fourth hypothesis, data showed that a steeper decrease in one partner's satisfaction is associated with the steeper decrease in the other partner's level of satisfaction. Thus, there are significant cross-partner association effects between prepartum and postpartum marital satisfaction. Our results represent an extension of previous studiess

indicating the interdepence effect in couples, that found that couples report similar levels of marital satisfaction during the transition to parenthood (Elek et al., 2003; Don & Mickelson, 2014), and one partner's marital satisfaction predicted the other partner's relationship quality at a later time (Lee, 2017).

Although some evidence suggests possible moderators of decrease in marital satisfaction in first-time parents, like gender (Don & Mickelson, 2014), age (Lederman et al., 1981; Zare et al., 2014) and length of relationship (Doss et al., 2009; Lavner et al., 2020; O'Brien & Peyton, 2002), our results reveal that only the type of instrument used presents a significant moderation of decline of marital satisfaction in the second postpartum year.

Limitations and Furture Directions

The first limitation concern with the number of the included non-parent samples. Also, several parents' studies reported a common mean of marital satisfaction for married and unmarried participants. Secondly, not all included studies show averages of marital satisfaction at exactly 12 or 24 months postpartum, which is why we chose the averages reported to the nearest proposed time. Also, even if our study does not suffer from publication bias, it does not contain unpublished data. A prospective investigation should introduce unpublished data, which will lead to an increasing number of studies.

Conclusion

Summarizing our results, the drop in marital satisfaction during the first year of parenthood is higher than during the second one, for parents than for non-parents with a similar length of their marital relationship. The satisfaction’s decline continues in mothers and fathers in the second year postpartum with a lesser extent. The cross-partner associations of marital satisfaction decrease were noticed during the first postartum year. Although we found no publication bias, and that the participant’s age, gender and the length of their relationships did not moderated the decline of marital satisfaction, the instrument of measurement used moderates the marital satisfaction decrease in the second year postpartum.

3.2 Second study. Postpartum mental health: Can dyadic stress explain the association between marital satisfaction and postpartum depression?

Introduction

A wide range of studies, including a meta-analysis, illustrated the increasing incidence of postpartum depression in women (e.g., Gelaye et al., 2016; Hahn-Holbrook et al., 2018). Moreover, the previous data shows that postpartum depression has a higher impact on primiparous (mother at first birth) compared to multiparous (mother with previous births) (Tokumitsu et al., 2020a). However, little is known about the impact of couple`s aspects on depression, given that the most postpartum women are married or cohabiting (Seefeld et al., 2022). Thus, the importance of maternal postpartum depression requires deepening this concept and exploring the associated factors, which, once acknowledged, can diminish this vicarious circle. In this direction, we propose investigating the effect of marital satisfaction on postpartum depression through four mediators derived from dyadic stress: minor internal stress, major internal stress, minor external stress, and major external stress.

Method

Procedure

We developed the present research between January and December 2021, when the primiparous women were invited to complete a series of questionnaires disseminated on parenting groups on Facebook. They were informed about the main scope of the study, the possibility of giving up any moment and the data confidentiality.

Participants

In our study, one hundred sixty-nine primiparous women, aged between 19 and 43 years, with a mean age of 27.65 (SD=4.98), completed the three questionnaires described below. 55.5% of participants live in rural areas and 45.5% in urban areas. The children's age was between 2 and 11 months, with a mean of 6.28 (SD=2.72).

Instruments

Couples Satisfaction Index (CSI16; Funk & Rogge, 2007) measured mothers' marital satisfaction. It represents a short form of the original scale (32 items) and contains 16 items distributed on six and seven Likert scales, ranging from 0 to 5 or 6. We also obtain

outstanding reliability in our sample, with alpha Cronbach .93, similar to other studies on similar populations (Candel & Turliuc, 2019).

The Multidimensional Stress Questionnaire (MSQ-P; Bodenmann et al., 2008) measured the dyadic stress perceived by mothers. It contains 30 items on a four-point Likert scale, ranging from 1 (not stressful) to 4 (very stressful). The questionnaire includes four dimensions: minor internal stress (e.g., `Difference of opinion with your partner`), major internal stress (e.g., `Infidelity`), minor external stress (e.g., `living situation`), and major external stress (e.g., `Serious illness or death of the partner or someone close`). In our sample, alpha Cronbach takes values between .80 and .92 for each dimension.

Edinburgh Postnatal Depression Scale (EPDS; Cox et al., 1987) was used to measure postpartum depression in primiparous women. It includes ten items, ranging from 0 (like always) to 3 (not at all). In our sample of primiparous, alpha Cronbach is .84.

Data Analyses

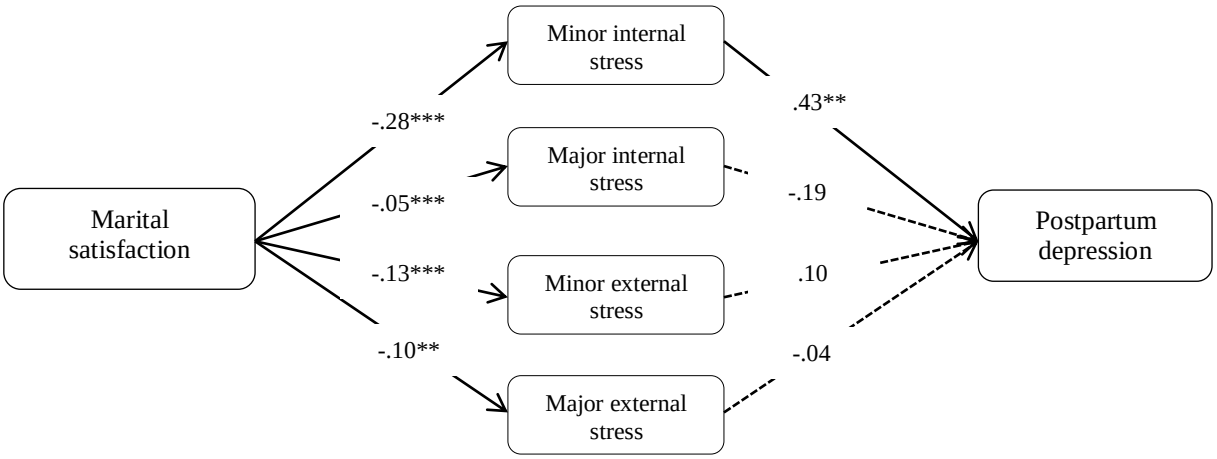
We analyzed the data using Jamovi (R Core Team, 2021; The jamovi project, 2021), IMB SPSS 20 tool and Process v3.5 (Hayes, 2013b). First, we conducted descriptives and correlational analyses in Jamovi and SPSS 20 to effectuate the preliminary analyses. Second, we ran parallel mediation analyses using Model 4 from Process v3.5 to test the hypotheses of the present study.

Results

The results showed a significant negative association between marital satisfaction and postpartum depression and between marital satisfaction and the fourth type of dyadic stress, and a positive association between minor internal stress, major internal stress and minor external stress and marital satisfaction. Analyzing the mediating role of dyadic stress on the relationship between marital satisfaction and postpartum depression, the outcomes illustrate that dyadic stress is a significant mediator of the mentioned association (a*b = -.12, CI [-.1764; -.0714]). Nevertheless, when we analyzed the mediating role of each type of dyadic stress, the results showed that only minor internal stress represents a significant mediator of the association between marital satisfaction and postpartum depression (a_1*b_1 = -.12, CI [-.1856; -.0674], see Figures 1 and 2).

Figure 1

The statistical model of parallel mediation analysis

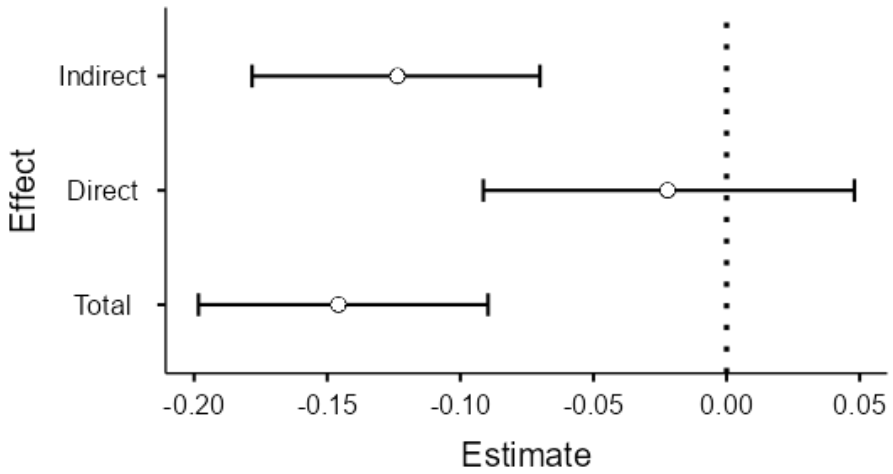


Ind = -.12 CI [-.1751; -.0706]

Note: *** p < .001, ** p < 0.01

Figure 2

The mediation effect of minor intern stress between marital satisfaction and postpartum depression. Estimate Plot



Discussion

The main goal of the present research was to explore the mediating role of dyadic stress on the association between marital satisfaction and postpartum depression. In this line, we adopted Bodenmann`s (2005) conceptualization of dyadic stress, which encompasses four types of stress depending on the sources (inside or outside of the couple) and severity (minor or major).

Our findings show that the stress characterized by low intensity, which has the source inside the couple and is often easily overlooked, may better explain the association between marital satisfaction and postpartum depression. Mothers with low marital satisfaction experience many insignificant situations as stressful, and these facts lead to postpartum depression symptomatology.

Practical implications

Firstly, mothers with high marital satisfaction experience low depressive symptomatology, while low marital satisfaction is associated with postpartum depression. Thus marital satisfaction can play an essential role in postpartum mental health in women. Secondly, the association between marital satisfaction and postpartum depression is explained by minor intern stress, so the focus of therapy must include insignificant situations which generate low-intensity stress. Thirdly, the dyadic and not the socially stressful aspects seem to play an essential role in mothers' postpartum health. Thus, the counselors and couples therapists should reinforce the couple's resources in order to maintain mental health during the transition to parenthood in mothers.

Limitations

Firstly, our mediation analysis is developed on cross-sectional data. Then, we could not assure that dyadic stress's mediation effect is unchanged over time (MacKinnon & Fairchild, 2009). Future studies should use longitudinal designs to illustrate the stability of stress mediation over time. Secondly, we used auto-administered questionnaires, leading to social desirability and subjectivity. However, previous studies showed that digital administration could reduce social desirability (e.g., Peck et al., 2016).

Conclusion

The study design offers a new perspective on the relationship between marital satisfaction, dyadic stress and postpartum depression. If previous research tested the effect of

stress on marital satisfaction (e.g., Merz et al., 2014), the present study evidenced that the relation is also reversed, and both internal and external stress affects marital satisfaction. We also analyzed stress originating inside the couple and stress generated outside the dyad, stress of minor intensity and stress of major intensity. The outcomes suggest that minor stress generated from inside the couple can explain the link between marital satisfaction and postpartum depression.

3.3 Third study. Intimacy and postpartum depression: a moderated mediation model[2]

Introduction

Past research illustrated the magnitude of depression among mothers during the transition to parenthood (Slomian et al., 2019) and its predictors (Tokumitsu et al., 2020b). Moreover, several studies showed the association between marital satisfaction and postpartum depression (e.g., (Duan et al., 2020; Odinka et al., 2018), but the association between intimacy and postpartum depression was overlooked. Thus, our first aim was to investigate this relationship. The factors that explain and influence the association between intimacy and postpartum depression were also dismissed. In this order, we tested the mediating role of maternal self-efficacy on the relationship between intimacy and postpartum depression and the moderating effect of partner's job stress on the association between intimacy and maternal self-efficacy in primiparous. Moreover, we tested the covariance of the mother's and father's religiosity in the proposed moderated mediation model.

Method

Participants

In order to reach our aims, one hundred seventy primiparous parents (85 couples; M_{women} = 26,47 years, SD = 4.51; M_{men} = 29,07 years, SD = 4.50; $M_{children}$ = 6.60 months, SD = 2.35) participated to the present study.

[2] Accepted paper, september 2022:
Bogdan, I., Turliuc, M. N. (2022). Intimacy and postpartum depression: a moderated mediation model. *Journal of Child and Family Studies*

Procedure

The study protocol was first submitted and approved by the University Ethics Committee. The data were collected using a self-report questionnaire addressed to the couples, disseminated through different online parenting groups, platforms, and mainstream social-media. A brief presentation informed the participants about the study's aims, and electronic informed consent was requested from each participant before starting the investigation. The participants completed the scales online.

Measures

Mothers completed measures of intimacy, maternal self-efficacy, and post-partum depression; fathers completed a measure of job stress; and both mothers and fathers completed measures of religiosity and demographic characteristics.

Intimacy was measured using the *Personal Assessment of Intimacy in Relationships* (PAIR, Schaefer & Olson, 1981). The 36-item scale assesses the perception of closeness and connectedness between partners. The participants had five answer options, from 1 (does not describe me/my relationship at all) to 5 (describes me/my relationship very well). Cronbach's alpha in our sample was 0.912. The scale has good validity in different cultural samples (e.g., Constant et al., 2016).

Maternal self-efficacy was measured using the *Perceived Maternal Parental Self-Efficacy* (PMP S-E, Barnes & Adamson-Macedo, 2007). The 20-item scale assesses mothers' perceptions regarding the competence of dealing with their children's needs and contains four dimensions: caretaking procedures, evoking behaviors, reading behaviors or signals and situational beliefs. Each item has four answer options, from 1 (strongly disagree) to 4 (strongly agree). Cronbach's alpha in our women sample was 0.944. The scale has good validity and reliability (Barnes & Adamson-Macedo, 2007).

Postpartum depression in primiparous women was measured using the *Edinburgh Postnatal Depression Scale* (EPDS, Cox et al., 1987). It is a Likert scale and includes ten specific items for the postpartum period. The subjects need to answer the items according to how they felt in the last seven days. They must choose one answer from 0 (like always) to 3 (not at all). In our women sample, Cronbach's alpha is 0.846.

Partner's job stress was measured using *The New Job Stress Scale* (NJSS, Shukla & Srivastava, 2016), which is used to assess the partner's job stress. The scale contains 22 items, with answer options ranging from 1 (strongly disagree) to 5 (strongly agree) for the first 18

items and from 1 (never) to 6 (every time) for the next four items. Cronbach's alpha for our men sample is 0.780. The scale has good validity and reliability (Shukla & Srivastava, 2016).

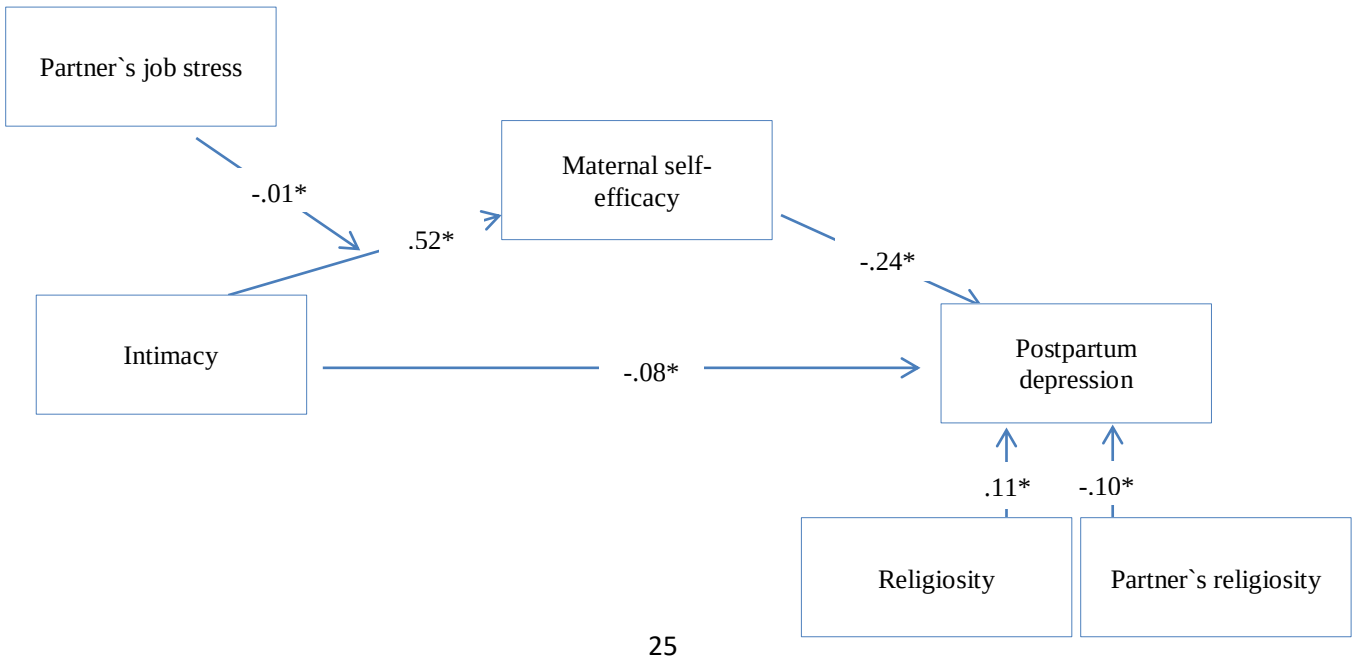
Religiosity was measured using the *Questionnaire for Evaluating Religiosity in Orthodox Families* (CRF, Rusu, 2018). It is used to measure women's and men's religiosity. It contains 23 items with four answer options, from 1 (not at all true) to 4 (always right), distributed in two dimensions: religious behavior and religious belief. The scale has high internal consistency, Cronbach's alpha in our sample being 0.960 for women, and 0.961 for men. Demographics. Each partner completed the requested information about gender, age, marital status, the child's age and the environment of origin.

Results

The preliminary results showed significant correlations between the primary variable of the study. The statistical analysis (mediation and moderation) confirmed the fourth hypothesis of the study: intimacy is negatively associated with maternal postpartum depression; maternal self-efficacy mediates the relationship between intimacy and postpartum depression; the partner's job stress moderates the relationship between intimacy and maternal self-efficacy and religiosity and the partner's religiosity represent significative covariates of the moderated mediation model, as well as the conceptual moderated mediation model (Figure 1).

Figure 1

Statistical diagram and path analysis of moderated mediation model of postpartum depression in primiparous women



Discussion

Our results indicate a direct, negative association between intimacy and postpartum depression. These results confirm our first hypothesis and support previous research indicating that intimacy is significantly related to postnatal mental health (Wynter et al., 2014) and more specifically with women's postpartum depression (e.g., Małus et al., 2016; Wynter et al., 2014). As we anticipated, our results indicate a positive association between intimacy and maternal self-efficacy, while higher self-efficacy levels are associated with lower levels of postpartum depression. Moreover, our result shows that maternal self-efficacy also mediates the association between intimacy and postpartum depression, and the partner's job stress moderates the association between intimacy and maternal self-efficacy, as well as the mother's religiosity and the partner's religiosity represent significative covariates of the moderated mediation model. Religious practices help the parents manage postpartum stress (Dankner et al., 2000) and protect them from experiencing postpartum depression (Mann et al., 2007).

Practical implications

First of all, psychotherapists should pay attention to the couple's aspects as intimacy during the postpartum. Simultaneously with childcare classes, they should also be documented on dyadic or partner aspects that significantly impact depressive symptomatology. Secondly, mothers should be aware of the effect of their thoughts on how good mothers are on their mental health and their sensitivity to the degree of intimacy between partners. Third, mothers should be helped to distinguish helpful religious beliefs from unrealistic ones, which can exacerbate depressive symptoms.

Limitations and Future Research Directions

First, using self-reporting measures can limit the validity of the outcomes due to social desirability. Future studies should supplement self-reporting scales with qualitative measures to obtain a complete view of this profound and sensitive subject, in particular for women. Individual and dyadic interviews may allow a more in-depth comprehension of associations between the variables involved in this study. Second, our study's cross-sectional design limited the drawing of possible causal effects among the variables involved in this research. In future investigations, longitudinal designs should be adopted to study the relationships between intimacy, maternal self-efficacy, postpartum depression, religiosity as well as the partner's religiosity and job stress. Third, the relatively small sample size limits the

generalization of these outcomes. Future studies should investigate the mentioned associations using a larger sample.

Conclusion

The results validate the relationship between intimacy and postpartum depression in primiparous women from a lower-income and less secular European country. Moreover, we addressed a particular sample of couples of first-time parents in the first postpartum year to reveal that maternal self-efficacy mediates the association between intimacy and maternal postpartum depression. Also, we explain this link through the moderating role of paternal job stress.

Future studies should deepen the association between intimacy and postpartum depression, given that postpartum depression represents the most frequent adverse symptom of birth (Beck, 2008), and the lack of intimacy represents the common reason why couples go to psychotherapy.

3.4 Fourth study. The relationship between social support and postpartum marital satisfaction. A serial mediation model

Introduction

The transition to parenthood is one of the most meaningful and simultaneously one of the most stressful life experience for both partners (Davis-Floyd, 2017). Along with joy, it may bring both personal and marital difficulties (Martins, 2019). It seems that a long list of first-time parent problems is associated with the arrival of the first baby, like severe physical and mental fatigue, lack of sleep, emotional lability, depressive symptoms, role conflict or feelings of guilt (Martins, 2019). Moreover, the interaction between husbands decreases, mothers becoming more oriented toward their child than to their partner (Simonelli et al., 2016). All these impairments need support, especially for primiparous women (Hopkins & Campbell, 2008). The spouses often report a high level of stress and a low level of social support, as the attention of the social support network is focused on the baby's needs, and less on those of the parents (Li et al., 2017). Moreover, the role of social support during the transition to parenthood is essential not only for the psychological wellbeing of the spouses but also for their postpartum marital satisfaction (Cardona Cordero et al., 2021). Thus, through this study, we proposed three hypotheses:

(H1) Perceived social support and its dimensions are related to marital satisfaction in postpartum primiparous women.

(H2) The relationships of perceived social support and its dimensions with marital satisfaction are separately mediated by maternal self-efficacy (H2.1) and by spousal support (H2.2).

(H3) *The relationships of perceived* social *support and its dimensions with marital satisfaction are serially mediated by maternal self-efficacy and spousal support*.

Method

Participants

The sample study consisted of 169 primiparous women in the first postpartum year, from a middle-income European country. The participant's mean age is 27.65 (SD=4.98) and ranges from 19 to 43.

Procedure

The current study design was submitted and supported by the Research Ethics Committee of the authors' University. The participating primiparous women in the study were recruited from several social media platforms and online parenting groups. The participants were informed of the purpose of the study and the possibility of withdrawing at any time without specifying the reason.

Measures

Social support was measured using *the Multidimensional Scale of Perceived Social Support* (MSPSS; Zimet et al., 1988). The 12 items are rated on a 7-point Likert scale, from 1 (very strong disagreement) to 7 (very strong agreement). The subscales have good internal consistency, with alpha Crombach .87 for the Family support subscale, .85 for the Friends-SO' support subscale, and .86 for the full scale.

Maternal self-efficacy was measured using the *Perceived Maternal Parental Self-efficacy* (PMP S-E; Barnes & Adamson-Macedo, 2007). It is a 20-item questionnaire consisting of four subscales. In the present study, the Cronbach's α value varies from .76 to .94 for the four subscales, and the global α value is .95 for the full scale. In this study, the overall score was used in the analyses.

Spousal support was measured using *The Postpartum Partner Support Scale* (SSPP; Dennis et al., 2017). It is a 20-item questionnaire designed to measure the support that

mothers perceive from their husbands in the postpartum period. In the current study, the Cronbach's value is α = .95, and it is related to previous reliability α = 0.98 (Dennis et al., 2017).

Marital satisfaction was measured using the *Couples Satisfaction Index* (CSI16; Funk & Rogge, 2007). The scale assesses a persons' degree of satisfaction with his/her current relationship. It consists of a 16-item questionnaire rated on a 6 and 7- point Likert scale. The tool confirmed an excellent internal consistency in the present investigation, with Cronbach's α of .93.

Demographic data. Each participant completed information about their age, child's age, marital status, education and living area.

Data Analyses

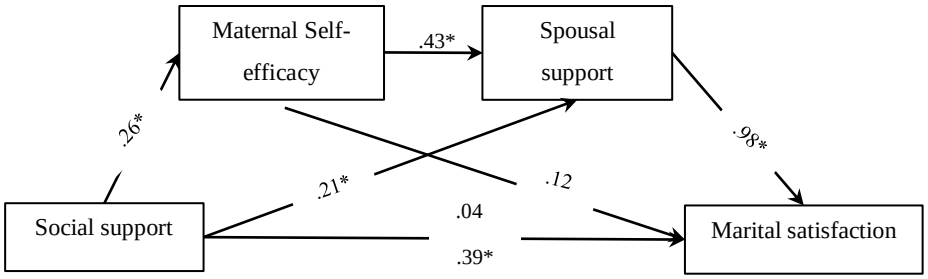
The preliminary analyses were conducted using the SPSS 20 software. In order to verify the hypotheses, we proposed and examined a serial mediation model using Model 6 from Process v3.5 (Hayes, 2013) with IBM SPSS AMOS 20.

Results

The Pearson correlation showed a significant association between social support and marital satisfaction and between social support dimensions, respectively, family support and Friends and significant others support (Friends-SO support) and marital satisfaction. The simple mediation analysis illustrated that spousal support mediates the link between social support and marital satisfaction, respectively its dimensions and marital satisfaction. At the same time, maternal self-efficacy does not represent a significant mediator of the mentioned associations. However, the serial mediation analysis confirms the proposed conceptual model, and maternal self-efficacy and spousal support serially mediate the relationship between social support and its dimensions and marital satisfaction (Int3 = .113, SE [.0443; .2131]; see Figure 1).

Figure 1

Statistical serial model with Social support as predictor



Int3 = .11, SE [.0443; .2131]

Note: Age, marital status and living area were treated as covariates in the model.

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Discussion

Regarding the study's first hypothesis, the preliminary results and the direct effects confirmed that *social support is related to marital satisfaction in the postpartum period*. These findings are in line with previous outcomes (Bäckström et al., 2018; Simpson & Rholes, 2002). The first birth represents a transitional and stressful time in which women have to deal with psychological changes and new tasks related to their new status (Hung & Chung, 2001).

Althrough the second hypothesis was partially confirmed, and only spousal support mediates the association between social support or its dimensions and marital satisfaction, the third hypothesis, indicating that the *link between social support and marital satisfaction is serially mediated by maternal self-efficacy and spousal support*, was confirmed. The paths from social support through maternal self-efficacy through spousal support to marital satisfaction are statistically significant. Additionally, the serial mediation model is also significant when the predictor is family support or friends-SO support. Becoming a mother involves a change on multiple levels: physiological, psychological and social (Uriko, 2019; Fryer & Weaver, 2014). Also, it demands an expanded level of social and emotional requirements (Alderdice et al., 2013). In this line, social support is related to high maternal self-efficacy and improves the transition to parenthood (Leahy-Warren et al., 2012), while its absence has a negative effect on the mother's capacities to deal with the maternal tasks (Hung et al., 2011).

Limitations and strengths

First, the cross-sectional design of the study, in which all variables were simultaneously assessed, does not allow us to determine the cause-effect relationship. Future research should use longitudinal designs to verify causal pathways. Second, our study was based on mothers' self-reported data. Mothers' self-reported data regarding their marital satisfaction and maternal self-efficacy may be affected by various biases, such as mothers' reluctance to reveal private details of their romantic relationship, parents' difficulty in revealing feelings of frustration or difficulties in their parental role, and social desirability.

Theoretical and practical implications

To our knowledge, this is the first study that has investigated the serial mediation effect of two important resources, maternal self-efficacy and spousal support, in the relationship between social support and marital satisfaction in primiparous mothers. A higher perception of the received social support will have a positive impact on maternal self-efficacy, conducting to a higher perceived spousal support, and further, to a higher marital satisfaction. Thus, our outcomes contribute to the extension of the literature regarding the explanatory variables impacting the primiparous mothers' couple satisfaction. Our results have clinical implications for interventions focused on early parenthood. It helps marital counselors and psychotherapists improve their therapy with primiparous parents by focusing not only on the perception of received social and family support but also on mothers' self-efficacy and their perceptions of spousal support. The mother's self-efficacy can be considered an essential resource in postpartum, which offers a new perspective of the support received from her husband, family, friends and other significant people. In this way, the therapist can focus more on individual resources, like beliefs about the own maternal competence, and less on the others' help.

Conclusion

Social support in postpartum helps primiparous women to assume their maternal role, to develop their maternal self-efficacy, and along with spousal support, to maintain their marital satisfaction. Moreover, the support of family members and of friends and significant others are significant predictors of the proposed serial mediation model. Family and friends or significant others` support in postpartum helps mothers to assume their maternal role, and along with spousal support, to maintain their marital satisfaction. This could offer an important direction for intervention future clinical practice. The findings suggest that social

resources (social support) may reinforce important individual (maternal self-efficacy) and dyadic (spousal support) aspects from postpartum.

3.5 Fifth study. Intimacy, religiosity, dyadic stress and marital satisfaction in postpartum. Two Actor-Partner Mediation Models

Introduction

Transition to parenthood is considered a stressful time, which affects both partners to a greater or lesser extent (Leeds & Hargreaves, 2008; Skari, 2002), and interferes with marital satisfaction (Bäckström et al., 2018; Bogdan et al., 2022; Doss & Rhoades, 2017). Furthermore, several investigations sustain the interdependence theory of marital satisfaction. The marital satisfaction of one spouse depends on the other spouse's marital satisfaction (Don & Mickelson, 2014; Feeney, 2002), so one partner's characteristics influence the other partner's marital satisfaction. Intimacy and religiosity also influence life quality and postpartum marital satisfaction (Kardan-Souraki et al., 2015; Mahoney, 2005). The parents' intimacy is an essential factor in their marital satisfaction after the birth of a baby through its characteristics such as closeness, connection, romanticism or emotional communication (Ahlborg et al., 2005; Bagarozzi, 2001). On the other hand, Mahoney (2005) sustain that religious couples declare higher marital satisfaction than unreligious couples through their religious values, such as respect and gratitude for pregnancy and birth. However, few studies investigated the relationship between intimacy and marital satisfaction and between religiosity and marital satisfaction in postpartum. Moreover, the mediating role of stress in this relationship is also dismissed. Thus, our objective is to explore two Actor-Partner Mediation Models in order to test the mediating role of dyadic stress between intimacy and marital satisfaction and between religiosity and marital satisfaction.

Method

Participants

One hundred ninety-six Roumanian individuals participated in the investigation, expressing a convenience sample of 98 primiparous heterosexual couples. Women's ages ranged from 19 to 43, with a mean of 26.69 years (SD = 4.60). Men's ages ranged from 20 to 44, with a mean of 29.32 years (SD = 4.57).

Procedure

Participants were recruited from different online social groups for parents. The surveys were administered online and contained electronic informed consent, demographic information, and the scales for intimacy, religiosity, dyadic stress, and marital satisfaction. The inclusion criteria were: (1) both partners are first-time parents, (2) the child was aged between 2 and 12 months, and (3) both partners completed the received scales.

Measures

Intimacy. *Personal Assessment of Intimacy in Relationships* (PAIR; Schaefer & Olson, 1981) is a 36-item measured on a 5-Likert scale ranging from 0 (absolutely false) to 4 (absolutely true). In our sample, the global Alpha Crombach was .90 for women and .91 for men.

Religiosity. *Questionnaire for Evaluating Religiosity in Orthodox Families* (CRF; Rusu, 2018) is a 4-Likert scale of 1 (not at all true) to 4 (always right) to measure the level of religiosity and containes 23 items. The scale has high internal consistency; the value of alpha Crombach is 0.95 for women and 0.96 for men.

Dyadic stress. *The Multidimensional Stress Questionnaire* (MSQ-P; Bodenmann et al., 2008) was used to measure the stress perceived in different areas of life. MSQ-P is a 4-point Likert scale ranging from 1 (not stressful) to 4 (very stressful) and has 30 items corresponding to the four subscales: minor internal stress (e.g., `difficult behavior of the partner`), major internal stress (e.g., `aggressive or violent behavior of the partner`), minor external stress (e.g., `job/education`), major external stress (e.g., `mugging, robbery or burglary`). The scale confirmed excellent internal consistency in the present study; the global Alpha Crombach is for .96 for women and men.

Marital satisfaction. *Couples Satisfaction Index* (CSI16; (Funk & Rogge, 2007) is a 16-items scale that estimates the level of satisfaction with his/her relationship. CSI16 is a 6- and 7-Likert scale. Alpha Crombach is also very good in our sample, $\alpha = .86$ for women, and $\alpha = .91$ for men.

Demographic data. Women and men who participated in the study completed data about the genre, environment of origin, marital status, age, and child's age.

Overview of Data Analysis

We used the SPSS 20 tool to effectuate the preliminary analyses. Descriptive statistics were presented using means and standard deviations for all variables, differences between fathers' and mothers' reports were assessed using paired samples t tests, and correlations among study variables were assessed using Pearson correlations. In order to test the hypotheses, we examined a conceptual mediation model using SEM with IBM SPSS AMOS 20. We tested hypotheses applying the Actor–Partner Mediator Model (see Bodenmann et al., 2007; Ledermann & Bodenmann, 2006), which permits us to analyze mediator effects in studies using dyadic variables. In order to estimate the proposed model, we followed Schermelleh-Engel et al. (2003) recommendation: χ^2 /df < 3, CFI ≥ .95, GFI ≥ .95, SRMR ≤ .05, and RMSEA ≤.05. We applied a sample of 5,000 for bootstrapping and a 95% confidence interval (CI), and the absence of zero shows a significant effect.

Results

Paired sample T-test showed significant differences concerning the religiosity in women in men, the women being more religious than men. No significant differences were found concerning intimacy, dyadic stress or marital satisfaction. Pearson correlation indicated significant correlations between the main variables of the study. The indices from AMOS indicated that our proposed models present a good fit. The first statistical Actor - Partener Mediation Models revealed a very good fit: χ^2_1 = 1.826, df = 2, p = .401, GFI = .994, CFI = 1.000, RMSEA = .000 (see Figure 1), and the second too: χ^2_2 = 1.931, df = 2, p = .381, GFI = .993, CFI = 1.000, RMSEA = .000 (Figure 2).

Figure 1

Statistical Actor-Partner Mediation Model testing Stress as a mediating variable in the relationship between Intimacy and Marital Satisfaction

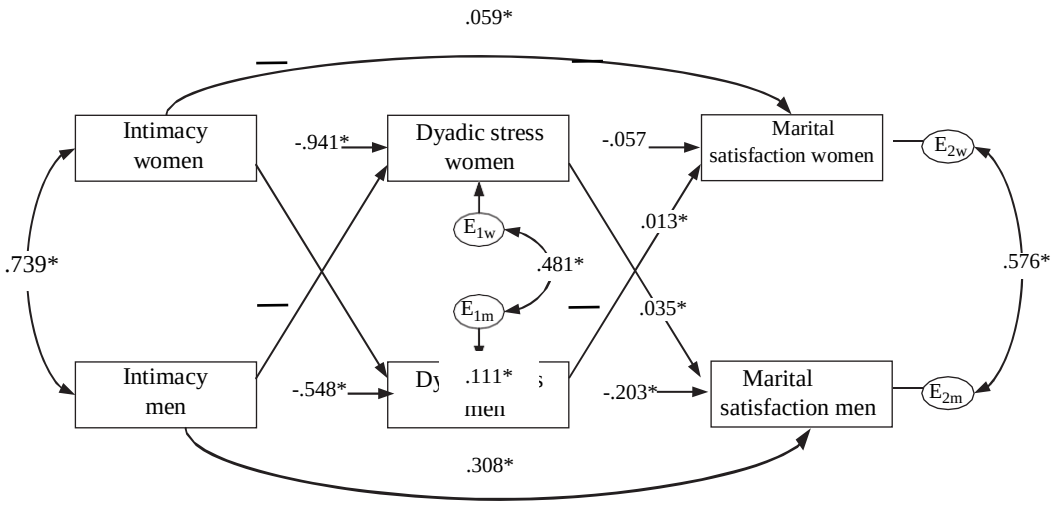
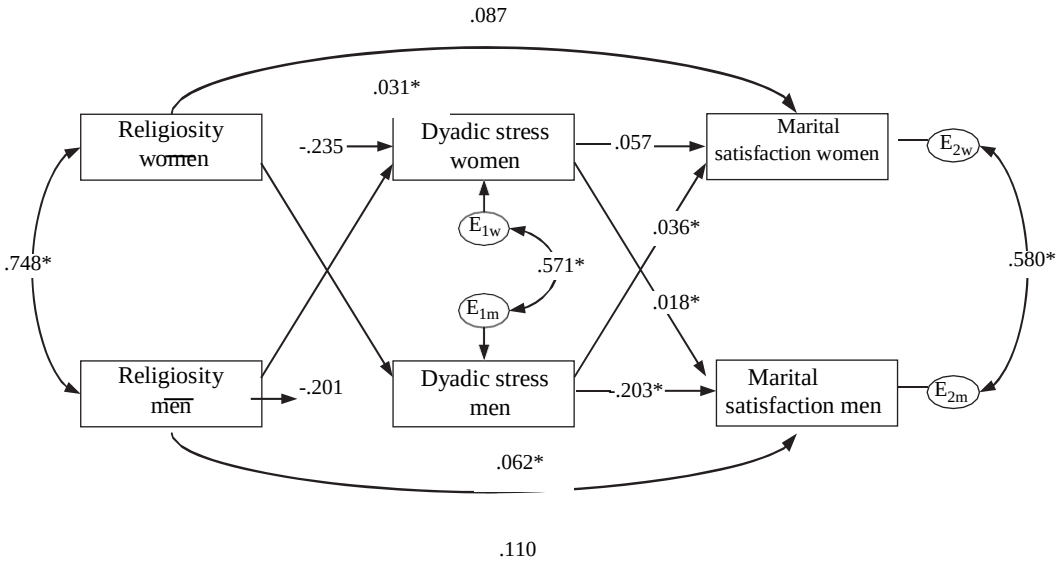


Figure 2

Conceptual Actor-Partner Mediation Model testing Stress as a mediating variable in the relationship between Religiosity and Marital Satisfaction



The first proposed mediation model explains a significant part of the variation in marital satisfaction: 31.2% from the mother's marital satisfaction (R^2 women = .312) and 52.1% from the father's marital satisfaction (R^2men = .521). The second proposed mediation model explained 22.3% from women marital satisfaction (R^2 women = .223), and 39.2% from men marital satisfaction (R^2men = .392).

Discussion

We proposed to explore the relationship between intimacy versus religiosity and marital satisfaction through the mediating variable dyadic stress. In order to test the specific mediational hypotheses, we used Actor–Partner Mediator Model (Ledermann & Bodenmann, 2006), extending the well-known Actor-Partner Interdependence Model (Kenny, 1996), which is regularly utilized with dyadic data. The previous data were reports on couples with and without children with a variable duration of the marriage relationship. The present study is one of the few studies analyzing the relationship between the mentioned processes in the case of couples in a distinct stage of development: in the first year of their parenthood.

Our analysis confirmed the mediating role of dyadic stress on the association between actor and partner's intimacy versus religiosity and marital satisfaction. Previous outcomes sustain the importance of stress in comprehending marital characteristics (Bodenmann et al., 2007).

Transition to parenthood represents a stressful time (Hansson & Ahlborg, 2016) in which the parents fulfill multiple tasks simultaneously (Baxter et al., 2008). The stressful responsibilities of mothers and the little time available for them and their partners affect both spouses' marital satisfaction (Behzadipour et al., 2021). Men's anxiety and financial concerns also impact marital satisfaction after the first baby arrives (Carlson et al., 2015; Mercer & Ferketich, 1994). The previous findings revealed that how the father crosses the transition to parenthood is vital for him and his family (Hudson & Elek, 2001).

Limitations

The notable limitation of the present study are: the sample is convenient and data collection was done using self-reported questionnaires.

Practical implications

The family counselors and the first-time parents should know that the first baby arrives is cataloged as a `risky time` (Bower et al., 2013), but this risk can be limited. Intimacy and religiosity can be considered protective factors in postpartum. Once stress is reduced, marital satisfaction tends to be also protected. Then, the individual and dyadic resources must be reinforced in the transition to parenthood.

Conclusion

Our study highlights the mediating role of dyadic stress in the relationship between intimacy and marital satisfaction and the relationship between religiosity and marital satisfaction. In addition, the dyadic analysis results using the Actor-Partner Mediation Model prove both actor and partner effects of intimacy and religiosity on marital satisfaction.

Using dyadic data, we can see that the transition to parenthood is not an individual life event; one partner's aspects impact the other partner's characteristics. Thus, the dyadic analysis comes to complete the transition to parenthood research.

Chapter 4. General conclusions

The present paper aimed, first of all, to deepen the knowledge on marital satisfaction during the transition to parenthood, to identify the individual, dyadic and social aspects that can protect it from the decrease, as well as to explore how another dyadic aspect associated with satisfaction, marital intimacy, may have a protective effect on postpartum depression.

Through five studies, we proposed to explore the trajectory of marital satisfaction from pregnancy to first year postpartum, respectively two years postpartum, to investigate the cross-partner effects of marital satisfaction decrease, and to explain the associations between marital satisfaction and intimacy, religiosity and social support through individual (maternal self-efficacy) and dyadic aspects (spousal support and dyadic stress). Moreover, we intended to deepen the relation between intimacy and postpartum depression through an individual aspect (maternal self-efficacy) and a dyadic aspect (partner's job stress), using a social aspect (religiosity and partner's religiosity) as covariates.

4.1 Theoretical implications

Several theoretical implications have been reported through the studies developed, which we will briefly present below.

First, through meta-analysis, we were able to clarify the trajectory of marital satisfaction during the transition to parenting. The two existing meta-analyses (Twenge et al., 2003; Mitnick et al., 2009) reached different conclusions. The first one claimed that marital satisfaction decreases moderately from pregnancy to the second postpartum year and this decrease is caused by the birth of the first child, while the second concluded that this decrease is, in fact, small and couples without children experience a similar decrease in marital satisfaction in an equivalent time. Therefore, according to them, the birth of the first child would not have an impact on marital satisfaction. By analyzing data from 47 studies and including samples of newlyweds without children, our meta-analytical study clearly showed that with the birth of the first child, both mothers and fathers experience a moderate decrease in marital satisfaction in the first postpartum year. In addition, this decrease continues with a low but significant slope in the second postpartum year. In contrast, couples without children

go through a low decrease in marital satisfaction in a similar interval to the first postpartum year.

Second, no meta-analysis between the two mentioned investigates cross-partner effects of marital satisfaction decrease. Therefore, using data from all studies with a dyadic sample, we showed that low marital satisfaction during pregnancy is associated with a more pronounced decrease in marital satisfaction of the partner in the first postpartum year.

Third, although the relationship between intimacy and postpartum depression has been highlighted before, the second study of this paper is the first to explain the effect of intimacy on postpartum depression through maternal self-efficacy as a mediator. In addition to the mother-specific variables, we also introduced the father-specific variables (partner's job stress and partner religiosity) to highlight the effects of interdependence that have often been reported in previous studies. Therefore, the second study showed, for the first time, the moderated mediating effect of intimacy on postpartum depression through partner's job stress and maternal self-efficacy, religiosity and partner religiosity being significant covariates.

Fourth, this paper is the first to test a model of serial mediation for postpartum marital satisfaction. In this sense, the relationship between social support and marital satisfaction is mediated serially by maternal self-efficacy and spousal support.

Finally, by testing two Actor-Partner Mediation Models, we highlighted direct and indirect (mediation) effects of intimacy and religiosity on postpartum marital satisfaction. In addition, the interdependence of the two spouses' characteristics was detected, indicated both actor' and partner' significant effects.

4.2 Practical and empirical contributions

First-time parents should have access to professional support. It is important that marriage counselors and psychotherapists involve both partners in prepartum classes in order to introduce them to the postpartum changes and to teach them how to face the transition to parenthood better. Both women and men should be informed about the risk for postpartum blues and postpartum depression (Beck, 2008; Hahn-Holbrook et al., 2018; Paulson & Bazemore, 2010), decrease in marital satisfaction and intimacy (Bäckström et al., 2018; Hansson & Ahlborg, 2016), the increase in dyadic stress (Hansson & Ahlborg, 2016), the

need for spousal and social support (Bäckström et al., 2018; Feder et al., 2019), the important role of self-efficacy (Bloomfield et al., 2005) and religiosity (Shahabi & Zardkhaneh, 2013).

Furthermore, it seems that prepartum professional support impacts marital satisfaction due to the communication abilities and dyadic involvement in this process (Bäckström et al., 2017). Also, professional support may conduct first-time parents to meet couples who cross the same transition and share couple and parenthood experiences with them (Bäckström et al., 2017).

4.4 Limitations and future directions

The included empirical studies present some limitations that were briefly presented in the Discussions section of each. However, some limitations of the present paper require to be mentioned.

First, the studies, except for the meta-analysis, are cross-sectional; thus, no causal conclusions can be drawn between the variables. The subsequent realization of the longitudinal studies will be able to allow for shading the results obtained by drawing some causal relations.

Second, even though the target population has specific characteristics, parents with one child whose age is less than 12 months, the samples were mostly made up of middle-class parents from Romanian. It would have been preferable to have a more diverse sample in terms of income, education, and ethnic background. In addition, the introduction of samples of childless couples would bring more knowledge to the changes that happen during the transition to parenthood.

Finally, the data collection method used is the self-report questionnaire. Combining qualitative and quantitative methods, such as the interview, would bring consistency to the statistical results obtained.

4.5 Overall conclusion

Our overall findings support that the transition to parenthood represents a provocative period. First of all, it is characterized by the decline in marital satisfaction in mothers and fathers too. As we found through the meta-analysis, the decrease is moderate in the first year postpartum, but his decline continues with a small path in the second year. This decrease may prove that the birth of the first child brings with it significant challenges in the couple's relationship (Bäckström et al., 2018).

However, the present paper showed that the prepartum marital satisfaction of the two spouses could be protected through individual (maternal self-efficacy), dyadic (intimacy, spousal support) and social aspects (social support, religiosity). Instead, its decline may be exacerbated by dyadic stress or partner's job stress. Also, through maternal self-efficacy, intimacy can have a protective effect of the most well-known adverse effect of the transition to parenting, postpartum depression.

Although impressive research treats the transition to parenting as a crisis, it should be noted that a crisis is not just an adverse event. This situation can be turned into an opportunity to make personal, dyadic and family improvements (Hansson and Ahlborg, 2012).

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