

# Indian Journal of Psychological Science

*Internationally  
Indexed, Refereed and Peer Reviewed*

## Editor

Dr. Roshan Lal  
Professor of Psychology  
Panjab University, Chandigarh

**UGC Approved: Emerging Sources Citation Index:**  
<https://mjl.clarivate.com:/search-results?issn=0976-9218>

# I J P S

The official organ of:



**National Association of Psychological Science** (Regd.)

[www.napsindia.org](http://www.napsindia.org) Email: [managingeditorijps@gmail.com](mailto:managingeditorijps@gmail.com), Phone: 9417882789

## The Psychological Well-Being of Pregnant Women: Does the Experience of Pregnancy-Specific Uplifts and Hassles Matter?

\*Theres Santy \*\*N. D. S. Naga Seema, \*\*\*Mamman Joseph C

### Abstract

*Pregnancy is extremely gratifying and critical in most women's lives. Mental health of pregnant women has a multi-directional impact, especially on their offspring. Yet, the burgeoning perinatal research focuses on mood and anxiety disorders, which overshadows the correlates and predictors of positive mental health, which can also have pervasive implications. Delineating from the illness approach, an attempt is made to obtain a balanced understanding of positive and negative sides of women's experience. This study examined how pregnancy experience domains are related to pregnant women's well-being in their 2<sup>nd</sup> or 3<sup>rd</sup> trimester. The Pregnancy Experience Scale was used to investigate the pregnancy-specific uplifts' intensity and frequency and the hassles' intensity and frequency. The psychological well-being was assessed by the WHO (Five) Well-Being Index. The participants were recruited from two private and one public sector hospitals from Kerala. 101 participants between the ages of 19 and 39 ( $M = 26.65$ ,  $SD = 4.2$ ) experiencing normally progressing pregnancies showed that two of the domains of pregnancy experience; uplift intensity and hassle frequency, are significantly correlated with well-being of the expectant mothers. Furthermore, pregnancy experience accounted for 21% of the variance in the well-being index, which shows this experience plays a discerning role in determining their well-being. The cultural and familial variables pertaining to uplifts should be acknowledged and fostered. These findings also urge healthcare system to concentrate on mental health promotion strategies to enhance well-being by improving resources, capacities, and competencies.*

**Keywords:** Pregnant Women, Well-being, Health Promotion, Mental Health Promotion



**About the authors:** \* & \*\*\*Research Scholar & PhD, School of Behavioural Science, C.U. Tamil Nadu  
\*\*Centre of Health Psychology, school of Medical Science, University of Hyderabad

### Introduction

Research in maternal mental health is a public health priority, for its influence on both mother and child (Satyanarayana et al., 2011). Pregnancy is a time of emotional upheaval (Ding et al., 2014; Rubertsson et al., 2014) and is regarded as both a situational crisis as well as an enriching experience for women (Manookian et al., 2019). If this crisis is not effectively handled, it could become a long-term crisis with several repercussions for the expectant mother and offspring (Bayrampour et al., 2015; Glover, 2015). The World Health Organization defines maternal mental

health as “a state of well-being in which a mother realizes her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her community” (World Health Organization, 2004, p. 1195). One of the most significant events in a woman's life-cycle is her pregnancy. Promotion and prevention approach extends a great scope for pregnant population especially in resource-constrained countries for a

positive sustainable mental health. Prevention of mental health disorders during pregnancy is critical, but promotion of psychological well-being is even more crucial, though traditionally not well addressed. Studies have indicated the effects of psychological interventions on the population at-risk (Mao et al., 2012; Woolhouse et al., 2014) few studies have concentrated on universal prevention. Regrettably, none has focused specifically on universal prevention in pregnancy (Yasuma et al., 2020).

According to Antonovsky's 'salutogenesis' (1996), well-being is not a fabric which can be tied along with the idea of health, but is greater than that (as cited in Mittelmark & Bull, 2013). Imbibing from this awareness, present study delineates from the disease approach and have tried to obtain a balanced understanding of both positive and negative margins of women's experience of pregnancy. Mental health promotion is at a crucial period, demanding a transference from the existing central emphasis on disease,

disability as well as poor functioning, to a further balanced approach in which psychological well-being also stimulate research's interest. Many positive psychological interventions have shown incredible results in enhancing well-being and quality of life. It's important to understand what are the pregnancy specific variables which are associated with well-being of the pregnant women. Moreover, its highly appreciated to explore the contributing factors of well-being.

The way in which a woman perceives her experience of pregnancy is much related to her well-being. Considering the subjective manner at which people perceive itself is a challenge to measure the experience, along with it, pregnancy comes with a whole new set of distinctive psychological and social changes. Hence, mental health research during pregnancy provides a challenge of measurement owing to its progressive fluctuations. Despite the conventional conception of pregnancy as a time of joy and satisfaction, the focus on pregnancy as a stressful, anxiety-provoking occurrence is also a problem. Positive emotions have recently identified on a greater significance in determining the impact of psychosocial variables in health. An optimistic outlook has been demonstrated to protect against both distress and unfavorable pregnancy outcomes. According to the stress research, overall hassle frequency and severity are good indicators of psychological and somatic consequences in life, and they may mediate the impact of big life events (Basch & Fisher, 2004), similarly the uplifts too. Methodological problems common to stress research in general have impeded stress research during pregnancy (Lobel, 1994). These include the use of assessment techniques which are not validated in target populations, the importance of appraisal in assessing events, and the imprecision in differentiating the construct of stress from characteristics of emotionality, notably trait anxiety (DiPietro et al., 2004). A rising body of research displays those higher levels of positive psychosocial characteristics is associated with subjective well-being (Diener & Chan, 2011; Ferrari et al., 2019; Leaviss & Uttley, 2015). Pregnancy entails both gratifying as well as unwelcome experiences; in view of this, it is beneficial to study the minor

happenings (uplifts and hassles) which are specific to pregnancy, also important to understand how intense and frequent women experience these.

### **Significance of the study:**

Pregnancy is one of the most gratifying, as well as critical period in many women's lives. It comes with a set of novel emotions and experiences (Mortazavi et al., 2021). The pregnancy appraisal is mainly influenced by the pregnancy-specific hassles and uplifts along with the familial, socio-cultural, economic and environmental agents which interact in complex ways. The way in which women perceive their experience of pregnancy-specific uplifts and hassles can play a seminal role in predicting her well-being. Though these factors' complex interaction makes it difficult to determine the causality, the extended knowledge of the relative impact of these factors is critical to understand the significant drivers of positive mental health. Mental health of pregnant women has multi-directional impacts, especially on her offspring. Yet, the perinatal research's focus, has been drawn to the disease approach ever since. It is an urgency of need and time that the focus is shifted to mental health promotion. Mental health promotion aims at developing, competencies, strengths and resources. Considering the boundless potency of this approach to foster sustainable positive mental health and the ability to protect against the risks of developing mental disorders, it is a surprise that communities and governments at large are not informed and this approach is not an integral part of the healthcare system. Henceforth, this study is conducted, to encompass the full spectrum of mental functioning by focusing equally on positive mental health. This study would help to understand the role of both minor positively and negatively valenced discrete events during pregnancy on psychological well-being. The differences in pregnancy experience domains and psychological well-being with respect to gravidity are also investigated.

### **Objectives:**

1. To find out the relationship between domains of Pregnancy Experience (Uplift Frequency, Uplift Intensity, Hassle Frequency and Hassle

Intensity) and Well-Being Index of pregnant women.

2. To assess the extent of influence of Pregnancy Experience Domains on Well-Being Index of pregnant women.
3. To find out the emotional valence of the Pregnancy Experience of pregnant women.
4. To find out if a significant difference exists in Pregnancy Experience Domains and Well-Being Index with respect to gravidity.

### Hypotheses:

1. There will be a significant relationship between Pregnancy Experience domains and Well-Being Index of pregnant women.
2. Pregnancy Experience Domains will have a significant effect on Well-Being Index of pregnant women.
3. Emotional Valence of the Pregnancy Experience of pregnant women will be positive in nature.
4. The means of Pregnancy Experience Domains and Well-Being Index of the pregnant women in their 'first', 'second' and 'third' gravidity will not be the same.

### Method

#### Sample:

The sample of the study comprised 101 pregnant women aged between 19-39 years ( $M=26.65$ ,  $SD=4.2$ ) in their second or third trimester with a natural conception and in a stable/married relationship without any complications or comorbidities associated with pregnancy and without any history of substance use, psychological disorders, miscarriages/stillbirth and abortion. There were 51 participants belonging to 2<sup>nd</sup> trimester and 50 participants belonging to 3<sup>rd</sup> trimester. There were 73 participants who were in their first gravidity, 22 in their second and 6 in their third gravidity. From 120 participants, 19 were excluded during the data cleaning process as they did not meet the inclusion criteria.

The participants were recruited from the obstetrics and gynaecology department of two private and one public sector hospitals in Kerala, India. Permission to approach the pregnant women was obtained from the administrators of

the hospitals. Data was collected directly by the investigator. All participants were self-referred volunteers. The participant identifiers of data were kept anonymous by assigning an identification code for each participant. The participants gave their written informed consent to take part in the research prior to the data collection.

#### Tools used:

Instrument of the study comprised of Pregnancy Experience Scale (PES-Brief), WHO Well-being Index and participant datasheet.

**Pregnancy Experience Scale (PES-Brief):** The pregnancy Experience Scale (DiPietro et al., 2012) is a 20-item scale which is a validated shortened version of the Pregnancy Experience Scale -41 items. The scale documents the 10 most frequently endorsed hassles and 10 frequent uplifts. Each item is rated on a 4-point Likert scale with values from 0 (not at all) to 3 (a great deal). The scale examines six domains of pregnancy experience: the frequency and intensity of hassles and uplifts separately and a measure of the emotional valence (a value greater than 1 indicates negative valence and a value less than 1 indicates positive valence) by scoring the frequency and intensity ratio. i.e., 1. Uplift Frequency, 2. Uplift Intensity, 3. Hassle Frequency, 4. Hassle Intensity, 5. Frequency Ratio 6. Intensity Ratio. Frequency scores are calculated by counting the number of items which are endorsed with responses greater than 0. Intensity scores are calculated by the sum of the scale scores (1 to 3) divided by hassles or uplift frequency. The frequency ratio is calculated by dividing hassle frequency by uplift frequency and the intensity ratio is calculated by dividing hassle intensity by uplift intensity. The internal reliability, test-retest reliability, and convergent validity of the Pregnancy Experience Scale (PES-Brief) were found to be similar to those of the long version of the scale (DiPietro et al., 2008).

**WHO Well-being Index:** The WHO Wellbeing Index is a 5-item, 6-point likert questionnaire by the World Health Organisation in 1988. Scores range between 0 and 25, wherein higher value indicates higher well-being and vice-versa. If the value is less than 13 it indicates there is a

tendency of occurrence of depression. Studies have demonstrated strong evidence supporting

the reliability and validity of the scale (Bech et al., 2003; Henkel et al., 2002)

**RESULTS**

**Table 1** Emotional valence of pregnancy experience of the participants(N=101)

| Emotional Valence               | Mean | Inference |
|---------------------------------|------|-----------|
| Frequency Ratio (Hassle/Uplift) | .75  | Positive  |
| Intensity Ratio (Hassle/Uplift) | .71  | Positive  |

Table 1 shows the emotional valence of pregnancy experience of the pregnant women belonging to Kerala. The frequency ratio is calculated by dividing hassle frequency by uplift frequency and the intensity ratio is calculated by

dividing hassle intensity by uplift intensity. Any value less than 1 indicates positive valence and ratio greater than 1 indicates negative valence. The emotional valence of the sample is positive in nature.

**Table 2** Correlations of pregnancy experience domains with well-being index (N=101)

| Pregnancy Experience Domains | Well-Being Index |
|------------------------------|------------------|
| Uplift Frequency             | .16              |
| Uplift Intensity             | .22*             |
| Hassle Frequency             | -.44**           |
| Hassle Intensity             | -.02             |

\*  $p < .05$ , \*\*  $p < .01$

A small negative correlation between uplift intensity and well-being index,  $r(99) = .22, p < .05$  (Table 2). Hassle Frequency and well-being index were found to be moderately negatively correlated,  $r(99) = -.44, p < .01$ . However, no significant relationship was found with the uplift frequency and hassle intensity and the well-being.

**Table 3a** Influence of pregnancy experience on well-being index (N=101)(Model 1)

| Pregnancy Experience Domains | Dependent Variable | Unstandardized Coefficients B | t     | Sig. | Model Summary                                    |
|------------------------------|--------------------|-------------------------------|-------|------|--|
| (Constant)                   |                    | 18.493                        | 4.995 | .000 |  |
| Uplift Intensity             | Well-Being Index   | 1.881                         | 1.387 | .168 | F = 12.995<br>$p < .001$<br>R <sup>2</sup> = .21 |
| Hassle Frequency             |                    | -.741                         | 4.447 | .000 |  |

Linear regression analysis was computed in order to assess the impact of uplift intensity and hassle frequency on well-being among pregnant women. It is revealed from Table 3a that uplift intensity and hassle frequency explained statistically significant (21%) proportion of the variance in

well-being,  $R^2 = .375, F = 12.995, p < .001$ . Among the two dimensions, hassle frequency shows the significant influence on the well-being but uplift intensity didn't display any significance. Hence, further trimming of model was attempted and results are given in Table 3b.

**Table 3b** Influence of hassle frequency on well-being index (N=101)(Model 2)

| Pregnancy Experience Domains | Dependent Variable | Unstandardized Coefficients B | t      | Sig. | Model Summary |
|------------------------------|--------------------|-------------------------------|--------|------|---------------|
| (Constant)                   | Well-              | 23.366                        | 19.885 | .000 | F = 23.842    |

|                  |             |        |       |      |                            |
|------------------|-------------|--------|-------|------|----------------------------|
| Hassle Frequency | Being Index | -0.795 | 4.883 | .000 | $p < .001$<br>$R^2 = .194$ |
|------------------|-------------|--------|-------|------|----------------------------|

Table 3b, illustrates linear regression of hassle frequency and well-being.  $R^2$  is 0.194, which means hassle frequency has influenced 19 percent variation in the well-being. In the case of 'F' value, it had a significant rise from  $F=12.995$  ( $p < .001$ , model 1) to  $F=23.842$  ( $p < .001$ , model 2) which clearly indicates that hassle frequency has a significance influence on the well-being.

**Table 4** One-way analysis of hassle frequency across the gravidity conditions (1,2 and 3)

|                | Sum of Squares | df  | Mean Square | F      |
|----------------|----------------|-----|-------------|--------|
| Between Groups | 79.753         | 2   | 39.876      |        |
| Within Groups  | 647.336        | 98  | 6.605       | 6.037* |
| Total          | 727.089        | 100 |             |        |

\*  $p < 0.05$

One-way analysis of variance was performed on the six domains of pregnancy experience as well as the well-being index across the three conditions of gravidity (1 ( $N=73$ ,  $M=7.18$ ,  $SD=2.45$ ), 2 ( $N=22$ ,  $M=5.91$ ,  $SD=3.01$ ) and 3 ( $N=6$ ,  $M=3.83$ ,  $SD=2.31$ )). Significant difference between gravidity was found in the Hassle Frequency scores. Results showed that the difference of hassle frequency means was significant,  $F(2, 98) = 6.04$ ,  $p = .003$  (Table 4).

**Table 5** Tukey HSD comparison for hassle frequency with respect to the gravidity

| (I) Gravidity | (J) Gravidity | Mean Diff (I-J) | Std. Error | 95% Confidence Interval |             |
|---------------|---------------|-----------------|------------|-------------------------|-------------|
|               |               |                 |            | Lower Bound             | Upper Bound |
| 1             | 2             | 1.27            | .625       | -.22                    | 2.76        |
|               | 3             | 3.34*           | 1.092      | .75                     | 5.94        |
| 2             | 1             | -1.27           | .625       | -2.76                   | .219        |
|               | 3             | 2.08            | 1.184      | -.74                    | 4.89        |
| 3             | 1             | -3.34*          | 1.096      | -5.94                   | -.75        |
|               | 2             | -2.08           | 1.184      | -4.9                    | .74         |

\*  $p < 0.05$

Pairwise comparison of the means using Tukey HSD was executed and it revealed significant differences between hassle frequency scores and three gravidity conditions ( $p < .05$ ). More specifically, for the women in 3<sup>rd</sup> gravidity ( $M=3.83$ ,  $SD=2.32$ ), the hassles frequency was significantly lower than the score of hassles frequency in 1<sup>st</sup> gravidity ( $M=7.18$ ,  $SD=2.45$ ,  $p=.003$ ) (Table 5). There were no other significant differences found between the other conditions ( $p < .05$ ).

**DISCUSSION**

This study examined the association between four indicators of pregnancy experience: uplift intensity, uplift frequency, hassle intensity and hassle frequency and well-being index among the pregnant women of

Kerala. Studying relatively minor stresses and pleasures that characterize everyday life is of immense significance in stress research as well as individual differences in coping skills and resources (Kanner et al., 1981). Positive association existed between uplift intensity and psychological well-being. An inverse association between hassle frequency and well-being was also found such that higher the number of hassles, lower the well-being index. The sample's appraisal of pregnancy experience is positive in nature. Findings revealed that pregnant women's psychological well-being is affected by various factors. The factors which are unique to pregnancy have an impact on mothers' mental health and these shapes the experience of motherhood. The predictive power of the associated factors i.e., uplift intensity and

hassle frequency with the well-being index shows the importance of

enhancing the pregnancy experience. The uplift intensity and hassle intensity were found to be higher for women in their 3<sup>rd</sup> trimester than women in their 2<sup>nd</sup> trimester. The women in 3<sup>rd</sup>gravidity had significantly lower hassles frequency score than women in 1<sup>st</sup>gravidity.

Present study revealed that the pregnant women had a positive emotional valence towards pregnancy. Results indicated that pregnant women evaluated the intensity and frequency of pregnancy-specific uplifts higher than their experience with pregnancy-specific hassles. Study on the development of the Pregnancy Experience Scale also arrived at the parallel finding (DiPietro et al., 2004, 2008). There are various factors which influence the perception of experience. Similarly, a high index on "attitude to pregnancy", in the second and third trimester was found. Moreover, they were positive about the pregnancy, and ensued arousal of extremely positive emotions (Davidyan et al., 2018). It is critical to conduct extensive research on the psychological well-being of expectant mothers, because it influences their subjective experience of childbirth also (Molgora & Accordini, 2020).

It was found that there is a positive correlation between uplift intensity and well-being. Empirical studies showed similar association with various uplifts and well-being. Having supportive relationships can significantly improve well-being and personal control, and even have a positive effect on mothers; women who has higher scores are less stressed by the profound biological, emotional, and existential changes associated with pregnancy (Balaji et al., 2007). Furthermore, mothers' perceived social support throughout pregnancy served as a protective factor against postpartum depression while also lowering the unpleasant facets of the birthing experience (Tani et al., 2017). In reality, the quality of family bonding and sexual relationships is reflected by the pregnancy experience. As a result, the quality of these interactions acts as a powerful protective factor, improving the mother's and fetus's health as well as the delivery experience. While, several longitudinal studies, have also

found that a lack of social support throughout pregnancy raises the chance of difficult, protracted, and painful birthing experience, clinical birth problems, and poor newborn health outcomes (Da Costa et al., 2000). Furthermore, the social support perceived by the mothers throughout pregnancy is highly linked to their prenatal attachment to the kid and their postpartum care actions toward the child (Doan & Zimmerman, 2008).

It was found that there is a negative correlation between hassle frequency and well-being. In support of this finding, higher daily hassles have been shown to be related to lower level of mental health in several studies (Durden et al., 2007; Tajallia et al., 2010). Hassle frequency also predicts the well-being index of pregnant women. Research conducted by DiPietro et al. (2008) revealed a negative correlation between well-being and daily hassles. Additionally, various factors, such as distressing

experiences before and during pregnancy (e.g., severe physical illness, loss of a loved one), as well as medical and obstetric factors (e.g., previous miscarriages, high-risk pregnancy), have been found to significantly impact the mental health of expectant mothers (Devlin et al., 2016; Furtado et al., 2018).

Experience of pregnancy will have glaring differences between first-time pregnant women and others and this fact often goes ignored. In the present study, it was found that the first-time pregnant women have significantly higher frequency of hassles than women experiencing pregnancy for the third time. First-time mothers present higher anxiety than second-time mothers during pregnancy (Giakoumaki et al., 2009). The birth of the first child is a stressful time for both mother and father (Parfitt & Ayers, 2014). Experienced parents also have challenges in adjusting to the addition of a new member to an already-existing family network (Kreppner, 1988). But it is critical to note that first-time mothers showed distinct patterns of maternal adjustment than experienced mothers. Primiparous mothers have more difficulty adjusting to life right after the childbirth (Gameiro et al., 2009).

## Conclusion

Maternal mental health promotion has an enormous potential to obtain optimal human functioning and well-being. Delineating from the illness approach, this study examines both positive and negative aspects of pregnancy experience in women. It seeks to move beyond the focus on mood and anxiety disorders in perinatal research and explore the correlates and predictors of positive mental health during pregnancy. The emotional valence of the pregnancy experience was found to be positive. Two domains of pregnancy experience; uplift intensity, and hassle frequency, are significantly correlated with the well-being of pregnant women. These variables also have an important role in determining well-being. Future trials should be conducted to incorporate this knowledge into targeted interventions aimed at promoting the overall mental health of mothers. This study also emphasizes the need to acknowledge and foster cultural and familial variables related to uplifts during pregnancy, while also highlighting the importance of implementing mental health promotion strategies within the healthcare system. These strategies can enhance well-being by improving resources, capacities, and competencies, ultimately benefiting both mothers and their offspring.

## REFERENCES

- Balaji, A. B., Claussen, A. H., Smith, D. C., Visser, S. N., Morales, M. J., & Perou, R. (2007). Social support networks and maternal mental health and well-being. *Journal of Women's Health, 16*(10), 1386–1396.
- Basch, J., & Fisher, C. D. (2004). Development and Validation of Measures of Hassles and Uplifts at Work. *Presented at the Annual Meeting of the Academy of Management.*
- Bayrampour, H., Salmon, C., Vinturache, A., & Tough, S. (2015). Effect of depressive and anxiety symptoms during pregnancy on risk of obstetric interventions. *Journal of Obstetrics and Gynaecology Research, 10*(4), 1040–1048.
- Bech, P., Olsen, L. R., Kjoller, M., & Rasmussen, N. K. (2003). Measuring well-being rather than the absence of distress symptoms: a comparison of the SF-36 Mental Health subscale and the WHO-Five well-being scale. *International journal of methods in psychiatric research, 12*(2), 85-91.
- Da Costa, D., Dritsa, M., Larouche, J., & Brender, W. (2000). Psychosocial predictors of labor/delivery complications and infant birth weight: A prospective multivariate study. *Journal of Psychosomatic Obstetrics and Gynaecology, 21*(3), 137–148. <https://doi.org/10.3109/01674820009075621>
- Davidyan, L. Y., Bulgakov, A. V., Babieva, N. S., Levanova, E. A., Gridyaeva, L. N., Erofeeva, M. A., & Sokolovskaya, I. E. (2018). Specific features of psycho-emotional states of working women during pregnancy. *Electron J Gen Med, 15*(6), 86. <https://doi.org/10.29333/ejgm/99829>
- Devlin, C. A., Huberty, J., & Downs, D. S. (2016). Influences of prior miscarriage and weight status on perinatal psychological well-being, exercise motivation and behavior. *Midwifery, 43*, 29–36.
- Diener, E., & Chan, Micaela Y. (2011). Happy people live longer: Subjective well-being contributes to health and longevity. *Applied Psychology: Health and Well-Being, 3*(1), 1–43.
- Ding, X. X., Wu, Y. Le, Xu, S. J., Zhu, R. P., Jia, X. M., Zhang, S. F., Huang, K., Zhu, P., Hao, J. H., & Tao, F. B. (2014). Maternal anxiety during pregnancy and adverse birth outcomes: a systematic review and meta-analysis of prospective cohort studies. *Journal of Affective Disorders, 159*.
- DiPietro, J. A., Christensen, A. L., & Costigan, K. A. (2008). The pregnancy experience scale-brief version. *Journal of Psychosomatic Obstetrics and Gynecology, 29*(4), 262–267.

- DiPietro, J. A., Ghera, M. M., Costigan, K., & Hawkins, M. (2004). Measuring the ups and downs of pregnancy stress. *Journal of Psychosomatic Obstetrics and Gynecology*, 25(3–4), 189–201.
- Doan, H. M., & Zimerman, A. (2008). Prenatal Attachment: A Developmental Model. *Int. J. Prenatal and Perinatal Psychology and Medicine*, 20(1), 20–28.
- Durden, E. D., Hill, T. D., & Angel, R. J. (2007). Social demands, social supports, and psychological distress among low-income women. *Journal of Social and Personal Relationships*, 24(3), 343–361.
- Ferrari, M., Hunt, C., Harrysunker, A., Abbott, M. J., Beath, A. P., & Einstein, D. A. (2019). Self-compassion interventions and psychosocial outcomes: A meta-analysis of RCTs. *Mindfulness*, 10.
- Furtado, M., Chow, C. H. T., Owais, S., Frey, B. N., & Van Lieshout, R. J. (2018). Risk factors of new onset anxiety and anxiety exacerbation in the perinatal period: A systematic review and meta-analysis. *Journal of Affective Disorders*, 238, 626–635.
- Gameiro, S., Moura-Ramos, M., & Canavarro, M. C. (2009). Maternal adjustment to the birth of a child: Primiparity versus multiparity. *Journal of Reproductive and Infant Psychology*, 27(3), 269–286.
- Giakoumaki, O., Vasilaki, K., Lili, L., Skouroliakou, M., & Liosis, G. (2009). The role of maternal anxiety in the early postpartum period: Screening for anxiety and depressive symptomatology in Greece. *Journal of Psychosomatic Obstetrics and Gynecology*, 30(1), 21–28.
- Glover, V. (2015). Prenatal stress and its effects on the fetus and the child: Possible underlying biological mechanisms. *Advances in Neurobiology*, 10, 269–283.
- Henkel, V., Møehrenschrager, M., Hegerl, U., Möeller, H. J., Ring, J., & Worret, W. I. (2002). Screening for depression in adult acne vulgaris patients: tools for the dermatologist. *Journal of cosmetic dermatology*, 1(4), 202–207.
- Kanner, A. D., Coyne, J. C., Schaefer, C., & Lazarus, R. S. (1981). Comparison of two modes of stress measurement: Daily hassles and uplifts versus major life events. *Journal of Behavioral Medicine* 1981 4:1, 4(1), 1–39.
- Kreppner, K. (1988). Changes in parent-child relationships with the birth of the second child. *Marriage and Family Review*, 12(3–4), 157–181. [https://doi.org/10.1300/J002V12N03\\_09](https://doi.org/10.1300/J002V12N03_09)
- Leaviss, J., & Uttley, L. (2015). Psychotherapeutic benefits of compassion-focused therapy: An early systematic review. *Psychological medicine*, 45(5), 927–945.
- Lobel, M. (1994). Conceptualizations, measurement, and effects of prenatal maternal stress on birth outcomes. *Journal of Behavioral Medicine*, 17(3), 225–272. <https://doi.org/10.1007/BF01857952>
- Manookian, A., Tajvidi, M., & Dehghan-Nayeri, N. (2019). Inner Voice of Pregnant Women: A Qualitative Study. *Iranian Journal of Nursing and Midwifery Research*, 24(3), 167–171.
- Mao, H. J., Li, H. J., Chiu, H., Chan, W. C., & Chen, S. L. (2012). Effectiveness of antenatal emotional self-management training program in prevention of postnatal depression in Chinese Women. *Perspectives in Psychiatric Care*, 48(4), 218–224.
- Mittelmark, M. B., & Bull, T. (2013). The salutogenic model of health in health promotion research. *Global Health Promotion*, 20(2), 30–38. <https://doi.org/10.1177/1757975913486684>
- Molgora, S., & Accordini, M. (2020). Motherhood in the Time of Coronavirus: The Impact of the Pandemic Emergency on Expectant and Postpartum Women's Psychological Well-Being. *Frontiers in Psychology*, 11.

- <https://doi.org/10.3389/FPSYG.2020.56715>  
5
- Mortazavi, F., Mehrabadi, M., & KiaeeTabar, R. (2021). Pregnant women's well-being and worry during the COVID-19 pandemic: a cross-sectional study. *BMC Pregnancy and Childbirth*, 21(1), 1–11.
- Parfitt, Y., & Ayers, S. (2014). Transition to parenthood and mental health in first-time parents. *Infant Mental Health Journal*, 35(3), 263–273.  
<https://doi.org/10.1002/IMHJ.21443>
- Rubertsson, C., Hellström, J., Cross, M., & Sydsjö, G. (2014). Anxiety in early pregnancy: Prevalence and contributing factors. *Archives of Women's Mental Health*, 17(3), 221–228.
- Satyanarayana, V. A., Lukose, A., & Srinivasan, K. (2011). Maternal mental health in pregnancy and child behavior. *Indian Journal of Psychiatry*, 53(4), 351–361.
- Tajalli, P., & Ganbaripanah, A. (2010). The relationship between daily hassles and social support on mental health of university students. *Procedia-Social and Behavioral Sciences*, 5, 99-103.
- Tani, F., Castagna, V., & Ponti, L. (2017). Mothers' Social Perceived Support, Anxiety and Prenatal Attachment to Child: Which Direct and Indirect Influences on Delivery Clinical Indices? *International Journal of Health Sciences & Research*, 7(4), 346.
- Tse, C. Y. (2008). Daily hassles and health: The protective role of optimism among Chinese adults in Hong Kong.
- Woolhouse, H., Mercuri, K., Judd, F., & Brown, S. J. (2014). Antenatal mindfulness intervention to reduce depression, anxiety and stress: A pilot randomised controlled trial of the Mind Baby Body program in an Australian tertiary maternity hospital. *BMC Pregnancy and Childbirth*, 14(1), 369.
- World Health Organization. (2004). Promoting mental health: Concepts, emerging evidence, practice: *Summary report*. Geneva.
- Yasuma, N., Narita, Z., Sasaki, N., Obikane, E., Sekiya, J., Inagawa, T., Nakajima, A., Yamada, Y., Yamazaki, R., Matsunaga, A., Saito, T., Watanabe, K., Imamura, K., Kawakami, N., & Nishi, D. (2020). Antenatal psychological intervention for universal prevention of antenatal and postnatal depression: A systematic review and meta-analysis. *Journal of Affective Disorders*, 273, 231–239.