

# Enhancing Well-being During the Pregnancy: Protocol of an Innovative Positive Psychology Intervention Addressed to Brazilian Pregnant Women

Giulia CORNO<sup>a,1</sup>, Geissy L. L. ARAÚJO<sup>b</sup>, Priscila PALOMO<sup>a</sup>, Gabriela V. SIMABUCURU<sup>b</sup>, Elizabel S. R. VIANA<sup>b</sup>, Maria Bernardete C. SOUSA<sup>b</sup>, Marcelo M. P. DEMARZO<sup>c</sup> & Rosa M. BAÑOS<sup>A</sup>

<sup>a</sup>*University of Valencia- Spain*

<sup>b</sup>*Federal University of Rio Grande do Norte- Brazil  
Federal University of São Paulo- Brazil*

**Abstract.** Pregnancy is no longer considered an unproblematic time for all expectant mothers, thus it is important to foster the well-being of these women during pregnancy. The aim of this paper is to present the protocol of a study that will compare the difference, in terms of increased mental well-being, between the use of an innovative online positive psychology training and more traditional interventions addressed to pregnant women. This study will substantially contribute to open the way to future research on positive psychology and positive interventions among pregnant women.

**Keywords.** Pregnancy, Positive Psychology, Well-being

## 1. Introduction

Pregnancy is a time of changes: it represents the start of a new role for women of all ages. Thus, as Yali and Lobel reported [1], it could be a stressful period during which women are more exposed to the risk to develop some psychological disorders [2, 3]. Thus, as pregnancy is no longer considered an unproblematic time for all expectant mothers, it is important to foster and maintain positive well-being during pregnancy.

Positive psychology is an approach to human functioning centered on the enhancement of existing positive facets of well-being and personal strengths, rather than focused on the attempt to treat existing negative symptomatology. Recent meta-analyses confirm that Positive Psychology Interventions lead to reliable and sustainable boosts of wellbeing [4].

As our knowledge, the scientific literature about positive psychology and pregnancy reports the results of only one PPI addressed to pregnant women [5]. Thus, starting from these evidences, we have developed an Internet-based positive psychology training (“Positive Pregnancy”) aimed to the promotion of the well-being

---

<sup>1</sup> Corresponding author, giulia.me.corno@gmail.com

of the future mothers. “Positive Pregnancy” is a 5-weeks self-applied program. The aim of this paper is to present the protocol of a study that will analyze the effect of this innovative training (plus a traditional intervention: a prenatal course) in terms of increased mental well-being. We hypothesize that after five weeks, women assigned to the condition “Positive Pregnancy” + prenatal course will report higher levels of mental well-being, positive affect, optimism, self-compassion and psychological well-being, and lower levels of depression, anxiety, and negative affect than the women that would be assigned to the condition that include only the prenatal course. Furthermore, we will explore if these changes will be maintained at 1 and 6- months follow-ups.

## 2. Method

### 2.1 Study Design

This study is characterized by two experimental conditions, and will include Brazilian pregnant women, who are up to the 12th week of pregnancy, have access to the Internet, have decided to be the mother of the baby, and signed the consent form. Participants will be randomly assigned to one between two conditions: (1) attending to a prenatal course and participate to the Positive Pregnancy training, and (2) attending to a prenatal course.

### 2.2 Study Procedure

After completing the pre-assessment on the SurveyMonkey platform, participants will be assigned to one of the conditions described above. At the end of the study, participants will receive by e-mail a link to complete the post-assessment. After one and six months from the post-assessment, participant will receive another link to complete the follow-up evaluations.

### 2.3 Outcome Measures and Instruments

Table 1 shows the main dimensions, questionnaires and timing of administration of the scales.

**Table 1.** Dimension, questionnaires and assessment times

Questionnaire	Measurement	Assessment time			
		Pre-ass.	Post-ass.	1 month follow-up	6 months follow-up
WEMWBS [6]	Mental Well-Being	X	X	X	X
PHQ-9 [7]	Depression	X	X	X	X
SPANE [8]	Positive and Negative Affect	X	X	X	X
PAS [9]	Pregnancy anxiety	X	X	X	X
SPT [10]	Optimism and future expectancies	X	X	X	X
SWL [11]	Satisfaction with life	X	X	X	X
MSPSS [12]	Social support	X	X	X	X
PWBS [13]	Psychological well-being	X	X	X	X
SCS-SF [14]	Self-compassion	X	X	X	X

### 3. Conclusion and future expectancies

This paper is aimed to describe the protocol of a study that will compare the difference, in terms of increased mental well-being, between the use of this innovative training + traditional intervention (i.e. prenatal course) and the use of just a more traditional intervention (i.e. prenatal course) addressed to pregnant women. The study described in this paper will substantially contribute to the lacking previous bibliography on this thematic, and it will open the way to future research on positive psychology among pregnant women.

### References

- [1] A.M. Yali, M. Lobel, Coping and distress in pregnancy: an investigation of medically high risk women, *Journal of Psychosomatic Obstetrics and Gynaecology* **20**(1) (1999), 39-52
- [2] B. Zuckerman, H. Bauchner, S. Parker, H. Cabral, Maternal depressive symptoms during pregnancy, and newborn irritability, *Journal of Developmental & Behavioral Pediatrics* **11**(4) (1990), 190-194.
- [3] A. Buist, N. Gotman, K.A. Yonkers, Generalized anxiety disorder: course and risk factors in pregnancy, *Journal of Affective Disorders* **131**(1) (2011), 277-283.
- [4] L. Bolier, M. Haverman, G.J. Westerhof et al., Positive psychology interventions: a meta-analysis of randomized controlled studies, *BMC Public Health* **13**(1) (2013), 119.
- [5] K. O'Leary, The effect of positive psychological interventions on psychological and physical well-being during pregnancy, DClinPsych Thesis, University College Cork, 2015.
- [6] R. Tennant, R. Fishwick, S. Platt et al., Monitoring positive mental health in Scotland: validating the Affectometer 2 scale and developing the Warwick-Edinburgh Mental Well-being Scale for the UK, NHS Health Scotland, Edinburgh, 2006.
- [7] K. Kroenke, R.L. Spitzer, The PHQ-9: a new depression diagnostic and severity measure, *Psychiatric Annals* **32**(9) (2002), 1-7.
- [8] E. Diener, D. Wirtz, W. Tov et al., New well-being measures: Short scales to assess flourishing and positive and negative feelings, *Social Indicators Research* **97**(2) (2010), 143-156.
- [9] I. Burstein, R.A. Kinch, L. Stern, Anxiety, pregnancy, labor, and the neonate, *American Journal of Obstetrics and Gynecology* **118**(2) (1974), 195-199.
- [10] A. K. MacLeod, A. Byrne, J.D. Valentine, Affect, emotional disorder, and future-directed thinking, *Cognition and Emotion* **10**(1) (1996), 69-86.
- [11] E.D. Diener, R.A. Emmons, R.J. Larsen, S. Griffin, The satisfaction with life scale, *Journal of Personality Assessment* **49**(1) (1985), 71-75.
- [12] G.D. Zimet, N.W. Dahlem, S.G. Zimet, G.K. Farley, The multidimensional scale of perceived social support, *Journal of Personality Assessment* **52**(1) (1988), 30-41.
- [13] C.D. Ryff, Happiness is everything, or is it? Explorations on the meaning of psychological well-being, *Journal of Personality and Social Psychology* **57**(6) (1989), 1069.
- [14] K. Neff, Development and validation of a scale to measure self-compassion, *Self and Identity* **2** (2003), 223-250.

