

### Immediate Breast Reconstruction and Quality of Life: The Moderator Role of Radiotherapy

R. Gómez-Molinero<sup>1,2</sup>, P. Gil-Olarte<sup>1,2</sup>, M. A. Gil-Olarte<sup>3</sup>, P. Ruiz-González<sup>1,2</sup>, L. Morales-Sánchez<sup>1,2</sup> y R. Guil<sup>1,2</sup>

<sup>1</sup> Department of Psychology, University of Cádiz, Spain

<sup>2</sup> University Institute of Research in Social Sustainable Development, University of Cádiz, Spain

<sup>3</sup> General surgery and digestive system Unit, University Hospital Virgen Macarena, Seville

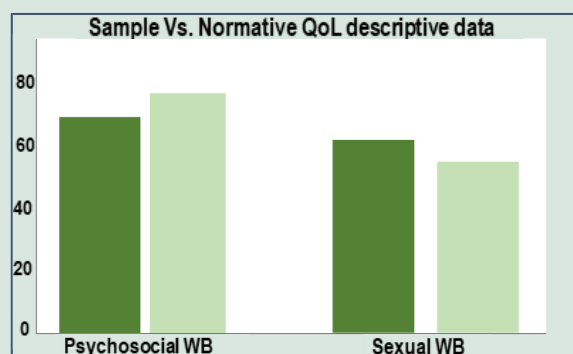


### Background & Objectives

- ✓ Immediate Breast Reconstruction (IBR) aims to restore breast appearance allowing superior aesthetic results, reducing the number of interventions, and increasing quality of life (QoL) levels in breast cancer patients (Retrouvey et al., 2019).
- ✓ Current evidence notes that, with similar oncological outcomes, IBR is the optimal surgical procedure damping the impact of the disease and (or) its treatments decreasing concerns about sexual attractiveness, facilitating the psychological recovery of women (Etahir et al., 2013), and reducing psychosocial morbidities both at short and long term (Atisha et al., 2008; Heneghan et al., 2011).
- ✓ However, while the sequelae of chemotherapy on sexual (dis)function have been well documented in survivors after IBR (Jing et al., 2019), the side effects of radiotherapy (RT) on sexual well-being have been vaguely described.
- \* **The aim of this study was to explore QoL levels of women after IBR and examine the moderator role of RT in the relationship between psychosocial and sexual well-being of BC patients.**

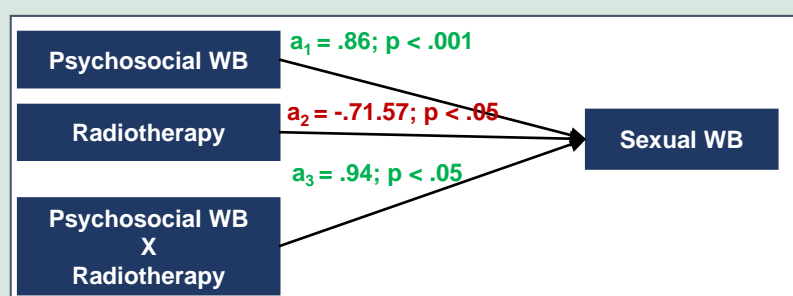
### Methods & Results

The sample was comprised of 34 women who underwent IBR (Mage=54.38±8.10) who completed a telephone survey including the BREAST-Q questionnaire (Pusic et al., 2009) to assess psychosocial and sexual well-being. Regarding the IBR technique used, 26.5% had undergone implantation of expander prostheses, 67.6% had a two-stage reconstruction, and 5.6% had definitive prosthesis implantation.



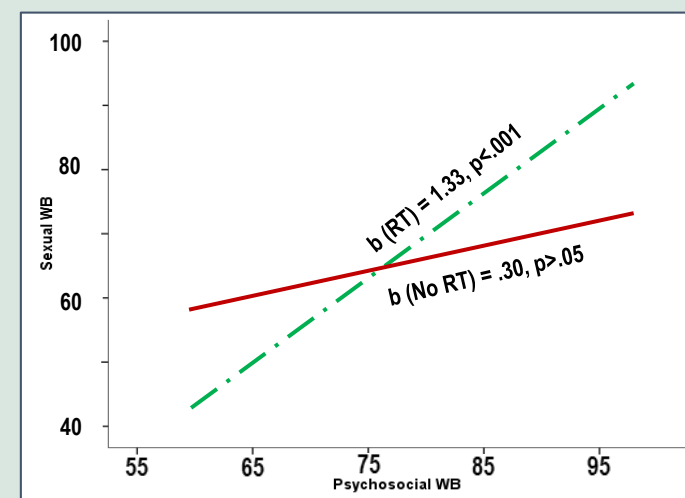
**Fig 1.** Sample participants showed slightly higher mean levels of QoL than the normative data available (Mundy et al., 2017).

➔ Correlation analysis showed that psychosocial and sexual well-being were strongly and positively related ( $r = .63$ ), while RT was also strongly but negatively associated with psychosocial well-being ( $r = -.43$ ).



**Fig 2.** Moderated effect of RT in the relationship between psychosocial well-being and sexual well-being. Moderation analysis were performed using Model 1 of PROCESS Macro of SPSS though the Johnson-Neyman technique (Hayes, 2012) including psychosocial well-being as IV, sexual WB as DV, and RT as moderator.

➔ The direct effects indicated that psychosocial well-being explained sexual well-being, and RT explained and negatively predicted sexual satisfaction. Moreover, **we found an interaction positive effect showing a moderating effect of RT in the relationship between psychosocial and sexual well-being.**



**Fig 3.** Indirect effect of psychosocial well-being depending on treatment (RT/ No RT).

➔ Moderation analysis revealed that after IBR, BC patients' psychosocial well-being increase sexual well-being **only for patients who received RT** ( $b = 1.33$ , 95% CI [0.76, 1.90],  $t = 4.74$ ,  $p < .001$ ).

### Conclusions

- ✓ Our results suggested that IBR contributes to increasing QoL in breast cancer survivors showing even higher QoL levels than available normative data.
- ✓ RT was related to lower psychosocial well-being, what can undermine recovery in breast cancer survivors after IBR.
- ✓ However, psychosocial well-being appears as a key element increasing sexual well-being of breast cancer survivors who received RT.
- ✓ Future interventions should focus on the development of psychosocial competencies to improve sexual welfare of IBR patients who received RT.