

CERTIFICATE

I, Dr. Caterina Calderon, Professor of the Department of Clinical Psychology and Psychobiology of the Faculty of Psychology from the University of Barcelona, certify that the statistical analysis of the article entitled "The role of gender and primary tumor site on psychological distress, quality of life, and coping of patients with advanced cancer of the digestive tract" has been carried out in accordance with the standards of quality, rigor, and good analytical practice.

The statistical analysis of this article, as in previous publications was carried out based on my training and knowledge applied to the statistical analysis of medical databases.

Listed below are several of the publications I have previously produced, including statistical analysis, which serve to attest the ability for this purpose:

1. Calderón, C., Ferrando, P.J., Lorenzo-Seva, et al. Psychometric properties of Liverpool Stoicism Scale (LSS) in a cohort of patients with resected cancer in adjuvant treatment. *Anales de Psicología* 2017. 33(3): 621-629.
2. Calderon, C; Ferrando, P; Carmona-Bayonas, A; et al. Validation of the Shared Decision Making Questionnaire-Physician version (SDM-Q-Doc) in oncology practice. *Clinical and Translational Oncology* 2017, 19(11): 1312-1319.
3. Jiménez-Fonseca, P., Lorenzo-Seva, U., Ferrando, P.J., Carmona-Bayonas, A., Beato, C., García, T., Muñoz, M.M., Ramchandani, A., Ghanem, I., Rodríguez-Capote, A., Jara, C. Calderon, C. The mediating role of spirituality (meaning, peace, faith) between psychological distress and coping strategies in cancer patients. *Supportive Care in Cancer* 2017; 26(5), 1411-1418.
4. Calderon, C., Jiménez-Fonseca, P., Ferrando, P.J., et al. Psychometric properties of the shared decision making questionnaire (SDM-Q-9) in oncology practice. *International Journal of Clinical and Health Psychology (IJCHP)* 2018;18, 143-151
5. Jiménez-Fonseca, P., Calderon, C., Hernández, R., et al. Factors associated with anxiety and depression in cancer patients prior to initiating adjuvant therapy. *Clinical and Translational Oncology* 2018; 20 - 11, 1408-1415.
6. Jiménez-Fonseca, P., Calderón, C., Carmona-Bayonas, A., et al. The relationship between physician and cancer patient when initiating adjuvant treatment and its association with sociodemographic and clinical variables. *Clinical and Translational Oncology* 2018, 20 - 11, 1392 - 1399.
7. Calderon, C.; Jiménez-Fonseca, P; Jara, C; et al. Comparison of coping, psychological distress, and level of functioning in patients with gastric and colorectal cancer prior to adjuvant chemotherapy. *Journal of Pain and Symptom Management* 2018; 56 - 3, 399 - 405.
8. Muñoz-Sánchez, M.M., Jiménez-Fonseca, P., Soriano-Rodríguez, M.C., et al. Prospective analysis of psychological differences between middle-aged and elderly cancer patients during postoperative adjuvant chemotherapy. *Clinical and Translational Oncology* 2018, 20 - 12, 1604 - 1611.
9. Calderon C., Carmona-Bayonas A., Beato C., et al. Risk of malnutrition and emotional distress as factors affecting health-related quality of life in patients with resected cancer. *Clinical and Translational Oncology* 2019, 21 - 5, 687 - 691.
10. Calderon, C.; Carmona-Bayonas, A.; Hernandez, R.; et al. Incidence of sleep problems and their mediating role on depression and anxious preoccupation in patients with resected, non-advanced cancer: data from NEOcoping study. *Clinical and Translational Oncology* 2019; 21 - 8, 1104 - 1107.
11. Hernandez, R.; Calderon, C.; Carmona-Bayonas, A.; et al. Differences in coping strategies among young adults and the elderly with cancer. *Psychogeriatrics* 2019; 19 - 5, pp. 426 - 434.
12. Calderon, C.; Carmona-Bayonas, A.; Jara, C.; et al. Emotional functioning to screen for psychological distress in breast and colorectal cancer patients prior to adjuvant treatment initiation. *European Journal of Cancer Care* 2019; 28 - 3.
13. Lorenzo-Seva, U, Calderon, C, Joan Ferrando, P, et al. Psychometric properties and factorial analysis of invariance of the Satisfaction with Life Scale (SWLS) in cancer patients. *Quality of Life Research* 2019; 28 - 5, 1255 - 1264.
14. Calderon, C.; Carmona-Bayonas, A.; Hernandez, R.; et al Effects of pessimism, depression, fatigue, and pain on functional health-related quality of life in patients with resected non-advanced breast cancer. *Breast* 2019; 44, 108 - 112.

15. Calderon, C.; Joan Ferrando, P.; Lorenzo-Seva, U.; et al. Validity and Reliability of the Decision Regret Scale in Cancer Patients Receiving Adjuvant Chemotherapy. *Journal of Pain and Symptom Management* 2019; 57 - 4, 828 – 834.
16. Castelo, B., Palao, A., Carmona-Bayonas, A., Jiménez-Fonseca, P., Jara, C., Ayala, F., Ghanem, I., Higuera, O., Hernández R., Calderón, C. Estoicismo frente al cáncer: riesgo o protección. *Psicooncología* 2018, 15(1), 11-22.
17. Calderón, C., Jiménez-Fonseca, P., Carmona-Bayonas, A., Jara, C. Why Young patients with cancer require different coping tools? *Abnormal and Behavioural Psychology* 2017, vol. 3 (1), 129-130.
18. García-García, T., Carmona-Bayonas, A., Jiménez-Fonseca, P., Jara, C., Beato, C., Castelo, B., Mangas-Izquierdo, M., Martínez de Castro, E., Ramchandani, A., Gómez, D., Calderón, C. Comparison of biopsychosocial and clinical characteristics in patients with resected breast and colorectal cancer at the beginning and at the end of the adjuvant treatment. *BMC Cancer* 2019, 19: 1143-53.
19. Ghanem, I.; Castelo, B.; Jimenez-Fonseca, P.; Carmona-Bayonas, A.; Higuera, O.; Beato, C.; García, T.; Hernández, R.; C. Calderon, C. Coping strategies and depressive symptoms in cancer patients. *Clinical and Translational Oncology* 2020; 22: 330–6.
20. Calderón, C; Jiménez-Fonseca, P.; Hernández, R.; et al. Quality of life, coping, and psychological and physical symptoms after surgery for non-metastatic digestive tract cancer. *Surgical Oncology* 2019; 31, 26- 32.
21. Calderon C, Ferrando PJ, Lorenzo-Seva U, Hernández R, et al. Factor structure and measurement invariance of the BSI-18 in cancer patients Estructura factorial e invarianza métrica del BSI-18 en pacientes con cancer. *International Journal of Clinical and Health Psychology* 2019. *Int J Clin Health Psychol.* 2020;20(1):71-80.
22. Calderon C, Ferrando PJ, Lorenzo-Seva U, et al. Multidimensional Scale of Perceived Social Support (MSPSS) in cancer patients: psychometric properties and measurement invariance. *Psicothema* 2021; 33(1):131-138.
23. Caterina Calderon, Raquel Hernández, David Gómez, et al. A multi-center, signal-arm study on cancer patients' perception of chemotherapy side effects, depression, and decision regret at the end of adjuvant treatment. *Asia-Pac J Oncol* 2020; <https://doi.org/10.32948/ajo.2020.09.22>
24. Ciria-Suárez L, Jiménez-Fonseca P, Hernández R, Rogado J, Calderón, C. Estimation of risk of recurrence and toxicity among oncologist and patients with resected breast cancer: a quantitative study. *Front Psychol.* 2020;11:540083.
25. Calderón C, Lorenzo-Seva U, Ferrando PJ, et al. Psychometric Properties of the PDRQ-9 in Cancer Patients: Patient-Doctor Relationship Questionnaire. *Psicothema.* 2021;33(2):304-311
26. Calderon C, Gomez D, Carmona-Bayonas A, Hernandez R, et al. Social support, coping strategies and sociodemographic factors in women with breast cancer. *Clin Transl Oncol.* 2021;23(9):1955-1960.
27. Calderon C, Jiménez-Fonseca P, Hernández R, et al. Prospective Study Comparing Clinicians' and Cancer Patients' Estimates of Risk of Relapse and Toxicity with Adjuvant Chemotherapy. *Cancer Invest.* 2021;39(8):589-596
28. Carmona-Bayonas A, Calderón C, Hernández R, et al. Prediction of quality of life in early breast cancer upon completion of adjuvant chemotherapy. *NPJ Breast Cancer.* 2021;7(1):92.
29. Ciria-Suarez L, Jiménez-Fonseca P, Palacín-Lois M, Antofianzas-Basa M, Fernández-Montes A, Manzano-Fernández A, Castelo B, Asensio-Martínez E, Hernando-Polo S, Calderon C. Breast cancer patient experiences through a journey map: A qualitative study. *PLoS One.* 2021 Sep 22;16(9):e0257680.
30. Calderon C, Ferrando PJ, Lorenzo-Seva U, et al. Psychometric properties of the Spanish version of the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire (EORTC QLQ-C30). *Qual Life Res.* 2021 Dec 20.
31. Obispo-Portero B, Cruz-Castellanos P, Jiménez-Fonseca P, Rogado J, Hernandez R, Castillo-Trujillo OA, Asensio-Martínez E, González-Moya M, Carmona-Bayonas A, Calderon C. Anxiety and depression in patients with advanced cancer during the COVID-19 pandemic. *Support Care Cancer.* 2022 Jan 6.
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