

Adjusting Mind and Heart to Ovarian Cancer: Correlational Study on Italian Women

Authors : Chiara Cosentino, Carlo Pruneti, Carla Merisio, Domenico Sgromo

Abstract : Introduction - Psychoneuroimmunology as approach clearly showed how psychological features can influence health through specific physiological pathways linked to the stress reaction. This can be true also in cancer, in its latter conceptualization seen as a chronic disease. Therefore, it is still not clear how the psychological features can combine with a physiological specific path, for a better adjustment to cancer. The aim of this study is identifying how in Italian survivors, perceived social support, body image, coping and quality of life correlate with or influence Heart Rate Variability (HRV), the physiological parameter that can mirror a condition of chronic stress or a good relaxing capability. Method - The study had an exploratory transversal design. The final sample was made of 38 ovarian cancer survivors aged from 29 to 80 (M= 56,08; SD=12,76) following a program for Ovarian Cancer at the Oncological Clinic, University Hospital of Parma, Italy. Participants were asked to fill: Multidimensional Scale of Perceived Social Support (MSPSS); Derridford Appearance Scale-59 (DAS-59); Mental Adjustment to Cancer (MAC); Quality of Life Questionnaire (EORTC). For each participant was recorded Short-Term HRV (5 minutes) using emWavePro. Results- Data showed many interesting correlations within the psychological features. EORTC scores have a significant correlation with DAS-59 ($r = -.327$ $p < .05$), MSPSS ($r = .411$ $p < .05$), and MAC scores, in particular with the strategy Fatalism ($r = .364$ $p < .05$). A good social support improves HRV ($F(1,33) = 4.27$ $p < .05$). Perceiving themselves as effective in their environment, preserving a good role functioning (EORTC), positively affects HRV ($F(1,33) = 9.810$ $p < .001$). Women admitting concerns towards body image seem prone to emotive disclosure, reducing emotional distress and improving HRV ($\beta = .453$); emotional avoidance worsens HRV ($\beta = -.391$). Discussion and conclusion - Results showed a strong relationship between body image and Quality of Life. These data suggest that higher concerns on body image, in particular, the negative self-concept linked to appearance, was linked to the worst functioning in everyday life. The relation between the negative self-concept and a reduction in emotional functioning is understandable in terms of possible distress deriving from the perception of body appearance. The relationship between a high perceived social support and a better functioning in everyday life was also confirmed. In this sample fatalism, was associated with a better physical, role and emotional functioning. In these women, the presence of a good support may activate the physiological Social Engagement System improving their HRV. Perceiving themselves effective in their environment, preserving a good role functioning, also positively affects HRV, probably following the same physiological pathway. A higher presence of concerns about appearance contributes to a higher HRV. Probably women admitting more body concerns are prone to a better emotive disclosure. This could reduce emotional distress improving HRV and global health. This study reached preliminary demonstration of an 'Integrated Model of Defense' in these cancer survivors. In these model, psychological features interact building a better quality of life and a condition of psychological well-being that is associated and influence HRV, then the physiological condition.

Keywords : cancer survivors, heart rate variability, ovarian cancer, psychophysiological adjustment

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