

MULTIDIMENSIONAL ASSESSMENT OF WOMEN WITH OVARIAN CANCER: INCREASING VALUE OF HEALTH RESEARCH

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Introduction

Since cancer has been conceptualized as a chronic disease, research efforts should focus on health factors for promoting social and psychological adjustment to cancer long-term sequelae. Through several psychophysiological processes, psychological and social factors could also influence the course and prognosis of disease (De Couck & Gidron, 2013; Sternberg, 1997). In this perspective, a literature analysis on ovarian cancer has been conducted: Post-traumatic Growth (PTG), coping strategies, body image, social support and Heart Rate Variability (HRV) emerged as valuable and critical variables (Cosentino, 2016; Cosentino & Pruneti, 2015; De Couck & Gidron, 2013; Sacerdoti & Koopman, 2010; Shand et al., 2016). This preliminary study is aimed to understand the mutual relationships between the aforementioned variables in order to gain useful information for future studies on health and well-being interventions.

Participants

22 ovarian cancer survivors, aged from 23 to 80 years (M = 54.77; SD = 14.67).

Materials

Self-report questionnaires for the assessment of psychological adjustment to illness

Psycholab VD13SV (Satem) was used for the detection of Heart Rate Variability (HRV).

- Multidimensional Scale of Perceived Social Support (MSPSS);
- Derriford Appearance Scale 59 (DAS-59);
- Coping Orientation to the Problems Experienced, New Italian Version 25 (COPE-NVI-25);
- EORTC Quality of Life Questionnaire, Version 3.0 (EORTC-QLQ-C30);
- Post-traumatic Growth Inventory (PTGI).

Procedure

Following the informed consent signature and a brief clinical interview, the questionnaires were administered and the HRV was detected and recorded.

Results and Discussion

1	Coping	
	Positive Attitude	Orientation to Problem
Full-Score	Rho = -.636** p = .001	Rho = -.492* p = .02
Global Self-consciousness	Rho = -.605** p = .003	-
Social Self-consciousness	Rho = -.527* p = .012	-
Sexual and Bodily Self-consciousness	Rho = -.673** p = .001	-
Negative Self-concept	Rho = -.637** p = .001	Rho = -.546** p = .009
Facial Self-consciousness	Rho = -.565** p = .006	Rho = -.525* p = .012
Physical Distress and Dysfunction	Rho = -.450* p = .036	-

Positive attitude coping strategy is associated to a more positive self-concept, less physical distress and less worries about physical, social, sexual-bodily and facial appearance. This strategy could play a key role in accepting long-term difficult body conditions due to severe treatments. **Orientation to problem** is associated to the full-score, to a positive self-concept and less worries about the facial appearance. This result could underline an "alloplastic tendency": an attentional shift from ruminations and worries to environmental tasks.

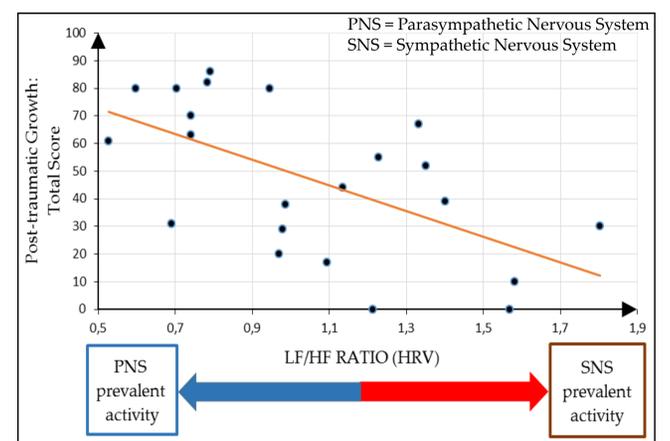
Emotional functioning is inversely related to negative self-concept. A positive self-concept could support a good emotional functioning. **Pain** is associated to three factors of DAS-59: negative self-concept and worries about global and facial appearance decrease as pain increases. Again, attentional focus on pain could shift away negative thoughts about body image.

2	Quality of Life	
	Emotional Functioning	Pain
Full-Score	-	Rho = -.440* p = .041
Global Self-consciousness	-	Rho = -.431* p = .045
Negative Self-concept	Rho = -.468* p = .028	Rho = -.500* p = .018
Facial Self-consciousness	-	Rho = -.434* p = .043

3	Post-traumatic Growth			
	Relating to Others	New Possibilities	Personal Strength	Total Score
LF/HF (HRV)	Rho = -.542** p = .009	Rho = -.575** p = .005	Rho = -.574** p = .005	Rho = -.567** p = .006

The association between PTG and low-high frequencies ratio (LF/HF) of HRV shows that a prevalent parasympathetic nervous activity (high HF values, low LF values) is related to a higher perceived positive growth, which results from patients struggle with trauma (cancer diagnosis). The

personal growth linked to Autonomic Nervous System (ANS) involves the cognition of better interpersonal relations, new possibilities and a greater personal strength. Emotional disclosure (Cafaro et al., 2016) and Social Engagement System (Porges, 2007) could



mediate these relationships. Through myelinated vagus nerve, a psychophysiological cascade could reduce metastatic, oxidative and inflammatory processes (De Couck & Gidron, 2013). This could have a positive impact on ovarian cancer patients prognosis.

Conclusions

Although this study shows some limits (e.g. small sample size), obtained results suggest new clinical research paths. As far as we know, it is the first time that HRV has been linked to PTG. The latter could promote positive physiological mechanisms that inhibit tumor progression processes. Finally, the hypothesized alloplastic tendency could facilitate an adjustment to the acute period of ovarian cancer by restricting the experience of negative emotions and thoughts.

References

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