

## Fatigue, quality of life, and mood states during chemotherapy in Italian cancer patients

Maria Antonietta Annunziata<sup>1</sup>, Barbara Muzzatti<sup>1</sup>, Sara Mella<sup>1</sup>, and Ettore Bidoli<sup>2</sup>

<sup>1</sup>Unit of Oncological Psychology, and <sup>2</sup>Unit of Epidemiology and Biostatistics, Centro di Riferimento Oncologico, IRCCS National Cancer Institute, Aviano, Italy

---

### ABSTRACT

---

**Aims and background.** In cancer patients, fatigue interferes with the individual's functioning and quality of life (QoL). We investigated the association between fatigue and the main QoL dimensions and mood states as well as the main sociodemographic and clinical variables.

**Methods.** A total of 105 inpatients undergoing chemotherapy were administered the Revised Piper Fatigue Scale and the EORTC QLQ-C30 and POMS questionnaires, along with a form for collecting personal and clinical data.

**Results.** Compared with patients reporting lower fatigue levels, patients with higher levels showed worse functioning ( $P < 0.001$ ) in every QoL domain (i.e., physical, role, emotional, social, cognitive functioning, pain, and general health) as well as in the assessed mood states (depression-dejection, tension-anxiety, confusion-bewilderment). Moreover, both QoL and mood states in the subgroup reporting intermediate fatigue levels were worse than those of the subgroup with lower fatigue levels ( $P < 0.02$ ), except for emotional functioning, general health and QoL, and tension-anxiety. In addition, fatigue was significantly associated with gender, age, education, performance status, but not with marital status, survival rate of cancer type, and current chemotherapy cycle.

**Conclusions.** The associations observed between fatigue, the main QoL domains, and negative mood states call for further active interventions to prevent and reduce fatigue.

---

**Key words:** cancer, fatigue, mood states, quality of life, self-report measures.

*Acknowledgments:* The authors wish to thank Mrs Anna Vallerugo, MA, for writing assistance.

*Financial disclosure and conflict of interest:* None.

*Correspondence to:* Maria Antonietta Annunziata, Unit of Oncological Psychology, Centro di Riferimento Oncologico, IRCCS Istituto Nazionale Tumori, Via F Gallini, 2, 33080 Aviano (PN), Italy.  
Tel +39-0434-659258;  
fax +39-0434-652182;  
email annunziata@cro.it

Received December 2, 2011;  
accepted March 6, 2012.