

P123 Comparison of validity in patient-reported outcome measures in an epithelial ovarian cancer cohort

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Objective: Survey administration among ovarian cancer survivors can be challenging due to the often-advanced stage of disease, the aggressive multimodal treatments, and high symptom burden. The aim of this study is to assess the construct validity of the patient-reported outcome measures (PROMs) administered to a cohort of ovarian cancer survivors to consider instrument reduction.

Methods: The Ovarian Health and Lifestyle Study is a longitudinal cohort of newly diagnosed epithelial ovarian cancer patients. Questionnaires were administered around the time of diagnosis, during primary ovarian cancer treatment, and post ovarian cancer diagnosis. The Patient-Reported Outcomes Measurement Information System® (PROMIS®-29 v2.0), Modified Medical Outcomes Study Social Support Survey (mMOS-SS), and Perceived Stress Scale (PSS-4), were collected at each timepoint to observe trends across various dimensions of health-related quality of life. We compared PROMs using spearman correlation coefficients (ρ) and p-values.

Results: The study population (n=80) had a median age at diagnosis of 63 years, and 73% were diagnosed with high grade serous carcinoma with 80% diagnosed at advanced stage disease. The majority self-reported they were non-Hispanic white (>95%), and most (85%) received higher education. Social support was weakly correlated with the PROMIS mental component summary (MCS) ($\rho = 0.24$, (p-value:0.04)) around the time of diagnosis, however, during primary treatment and 12 months post diagnosis became moderately correlated ($\rho = 0.50$, (p-value:<0.01) and $\rho = 0.53$, (p-value:<0.01), respectively). Perceived stress had a strong inverse correlation ($\rho = -0.64$, (p-value:<0.01)) with the PROMIS MCS which increased in magnitude across ovarian cancer follow-up. The PROMIS social roles domain was weakly correlated with the social support measure ($\rho = 0.20$, (p-value:0.10)) around the time of diagnosis.

Conclusions: All PROMs were correlated in the hypothesized directions when compared to the PROMIS MCS. These analyses highlight that the PROMIS MCS validly measured the construct of perceived stress well. There is weak evidence to support PROMIS-29 validly measured social support through the MCS or social roles domain. Adding the PROMIS instrumental support domain, in place of mMOS-SS, could standardize the survey methods and scales. Hypothesis testing should explore the trends in the magnitudes of the correlation over time.