life. Prior research in cancer patients has indicated these areas as problematic [2]. Responses to these questions were analyzed to determine how many women were already experiencing difficulties in these clinically relevant areas that are likely to become increasingly important during the treatment process.

In this study, touch screen computers with 15 inch monitors were programmed with the FACT-G questionnaire [17]. Sequential screens are programmed with one domain per screen; patients complete the questionnaire by touching responses to each question within the domain. The physical, social, and functional well-being screens have 7 questions on the screen; the emotional well being screen has 6 questions. Patients may change their answer by touching an alternate response on that screen but cannot return to a previous screen. Patients completed the questionnaire on their own, but the research assistant was available if they had questions. Patients were given the option of completing the paper version of the questionnaire, but used the computer the majority of the time [17]. The effect of using the computer, versus completing the questionnaires on paper, has been previously described [17]. Women were found to respond to the content of the questionnaires and not the method of administration.

Statistical analysis

Mean QoL (FACT-G) and general health status (SF-36) scores

Scores on the FACT-G subscales and the SF-36 summary scores were analyzed as a function of diagnosis (ovarian or endometrial cancer, benign adnexal mass). Outcomes were not analyzed as a function of stage of disease as the majority of ovarian cancer patients were stage III/IV and nearly all endometrial cancer patients were Stage I/II. Scores on the FACT-G subscales and SF-36 summary scores were compared with normative data. Differences greater than 2–3 points were considered clinically important for the FACT-G physical and functional subscales and greater than 2 points for the FACT-G emotional subscale [16]. Analysis of variance was used to determine if there were significant differences as a function of diagnosis.

Univariate Analyses

Age, BMI, education and number of pack years smoked were analyzed as continuous variables and marital status and diagnosis were analyzed as categorical variables. Marital status was categorized as being married or non-married (single, divorced, and widowed) and differences were analyzed with the t-test. Pearson correlation coefficients were calculated for normally distributed continuous variables (age, BMI), SF-36 physical summary score (PCS) and mental summary score (MCS) with FACT-G domains. Spearman's correlation coefficients were calculated for non normally distributed continuous variables (education, pack years smoked) with FACT-G domains.

Multiple regression analysis was used to assess the effect of PCS and MCS scores, diagnosis, age, BMI, educational level, marital status, and smoking status on FACT-G domain scores. For this analysis, educational level was categorized as < 16 years versus ≥ 16 years (college degree or higher) and smoking was categorized according to < 5.0 versus ≥ 5.0 pack years. The variables were regressed on individual FACT-G domains (physical, functional, emotional and social) using a stepwise linear regression procedure. Variables were entered in the regression models at a probability level of $p < 0.05$ and were removed at a probability level > 0.10. Collinearity diagnostics (tolerance and variance inflation factor) were examined to assess multi-collinearity of variables included in the final model. SPSS version 14.0 (Chicago, IL) was used for analysis.

Results

Of the 212 consecutively approached patients, 172 agreed to participate (81%). Only one of the two questionnaires was completed by 15 patients and they were excluded from subsequent analysis (final n = 157).

Fifty percent of the women had a diagnosis of cancer; 73% were overweight, 36% smoked at some time point, 35% were college graduates and most were married (Table 1). The majority of women with ovarian cancer were diagnosed with Stage III/IV disease; nearly all women with endometrial cancer had Stage I or II disease.

Scores from the FACT-G and the SF-36 are presented in Table 2. There were no significant differences for any of the FACT-G subscales or the SF-36 summary scores as a function of diagnosis (all F values less than 1.7; all p values > 0.19). Normative data for FACT-G subscales from women with cancer were similar to those from women in the general population with the exception of social well-being scores, which were slightly higher in women with cancer [18]. Scores for patients with ovarian cancer in this study were within 2 points of normative data for cancer patients on all the FACT-G subscales. Scores for patients with endometrial cancer differed by less than 3 points on the physical well-being subscale and differed by 2 points or less for the other subscales of the FACT-G relative to normative data for cancer patients. Physical and functional well-being subscale scores for women with a mass determined at surgery to be benign were within 2 points of normative data for women with cancer and women in the general population. Mean score on the social well-being subscale of the FACT-G was slightly higher (2.4 points) than normative data from women in the general population but the same as normative data from women with cancer. Mean score on the emotional well-being sub-