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INTRODUCTION

Cancer-related fatigue (CRF) is a common symptom experienced by cancer patients with prevalence rates reported in colorectal cancer (CRC) ranging between 57% and 100%. It can be present in different stages of the disease and persist for months or even years after primary cancer therapy.

Objective: To describe the prevalence of fatigue in adults with colorectal cancer (CRC). Additionally, to explore the associations and correlations between fatigue and sociodemographic and clinical characteristics.

Methods and Materials

Patients with CRC at various stages of the disease were evaluated for fatigue using the Brief Fatigue Inventory (BFI), independence in activities of daily living using the Barthel index, perception of pain using the Visual Analogue Scale (VAS), and performance status using the Eastern Cooperative Oncology Group criteria in a Chilean public hospital. Descriptive analyses were used, considering mean, standard deviation, frequency distribution, and percentage to describe the variables. Chi-square and Spearman tests were utilized to evaluate associations between fatigue and other variables.

RESULTS

A total of **241** patients participated, with an average age of 68.9 years. Colon cancer was the most predominant (**66.4%**), and fatigue was present across all stages of the disease, with “moderate” fatigue being the most prevalent (**49.3%**), followed by “mild” (**24.2%**) and “severe” (**13.6%**) fatigue. In newly diagnosed patients, a higher proportion of “severe” fatigue was observed compared to other stages of the disease ($p=0.04$). Women had a higher proportion of “moderate” fatigue compared to men ($p<0.05$). Patients with more than three comorbidities and those reporting severe pain had a higher proportion of severe fatigue ($p<0.05$).

The presence of mood disorders was associated with a higher proportion of “severe” fatigue, while the absence of these disorders was related to a higher proportion of “mild” fatigue ($p=0.02$). Similarly, patients with musculoskeletal disorders had a higher proportion of “moderate” fatigue, while those without these disorders showed a higher proportion of “mild” fatigue ($p<0.01$). Finally, small **positive correlations** ($p<0.05$) were found between fatigue and **age** ($Rho=0.15$) and **pain** ($Rho=0.23$).

Table 2. Associations between fatigue levels, sociodemographic and clinical variables.

| | n (%) | Fatigue | | | Chi cuadrado/ P value | V cramer |
|---------------------------------|------------|------------|----------------|---------------|--------------------------|-------------|
| | | Mild (1-3) | Moderate (4-6) | Severe (7-10) | | |
| Sex | | | | | | |
| Female | 126 (52.3) | 26 (26.6) | 71* (56.3) | 21 (16.7) | 14.04/0.05 | 0.24 |
| Male | 115 (47.7) | 33 (28.7) | 49 (42.6) | 11 (9.6) | | |
| Age | | | | | | |
| 18-59 years | 46 (19.1) | 9 (19.6) | 23 (50.0) | 4 (8.7) | 5.40/0.14 | 0.15 |
| ≥60 years | 195 (80.9) | 50 (25.6) | 97 (49.7) | 28 (14.4) | | |
| Work/Activity | | | | | | |
| Employee | 86 (35.7) | 17 (19.8) | 44 (51.2) | 5 (5.8) | 25.25/0.05 | 0.18 |
| Retired | 117 (48.5) | 33 (55.9) | 57 (48.7) | 20 (17.1) | | |
| Unemployed | 10 (4.1) | 3 (30.0) | 7 (70.0) | 0 | | |
| Others | 28 (11.6) | 6 (21.4) | 12 (42.9) | 7 (25.0) | | |
| Number of comorbidities | | | | | | |
| 0 | 44 (18.3) | 15 (34.1) | 22 (50.0) | 1 (2.3) | 19.96/0.01 | 0.16 |
| 1 | 70 (29.0) | 22 (31.4) | 32 (45.7) | 9 (12.9) | | |
| 2 | 59 (24.1) | 13 (22.0) | 33 (55.9) | 5 (8.5) | | |
| ≥3 | 68 (28.6) | 9 (13.2) | 33(48.5) | 17*(25.0) | | |
| Respiratory diseases | | | | | | |
| Yes | 32 (13.3) | 10 (31.3) | 10 (31.3) | 8 (25.0) | 7.05/0.07 | 0.17 |
| No | 209 (86.7) | 49 (23.4) | 110(52.6) | 24(11.5) | | |
| Mood disorders | | | | | | |
| Yes | 82(34) | 13 (15.9) | 41 (50.0) | 17*(20.7) | 9.07/0.02 | 0.19 |
| No | 159(66.0) | 46* (28.9) | 79 (49.7) | 15(9.4) | | |
| Musculoskeletal disorder | | | | | | |
| Yes | 106 (44.0) | 16 (15.1) | 58 (54.7) | 21*(19.8) | 14.46/0.01 | 0.24 |
| No | 135 (56.0) | 43* (31.9) | 62 (45.9) | 11 (8.1) | | |
| Pain | | | | | | |
| Mild | 30 (53.5) | 11(36.7) | 14 (15.4) | 3(16.7) | 37.69/0.01 | 0.22 |
| Moderate | 91 (38.6) | 16 (53.3) | 60 (65.9) | 5 (27.8) | | |
| Severe | 18 (7.9) | 0 (0.0) | 10 (11.0) | 8*(44.4) | | |
| Type of cancer | | | | | | |
| Colon | 160 (66.4) | 41 (25.5) | 78 (48.4) | 22 (13.7) | 0.42/0.93 | 0.04 |
| Rectal | 81 (33.6) | 18 (22.5) | 42 (52.5) | 10 (12.5) | | |
| Disease status | | | | | | |
| Recent diagnosis | 130 (53.9) | 26 (20.0) | 61 (46.9) | 24*(18.5) | 13.00/0.04 | 0.16 |
| In treatment | 109 (45.2) | 33 (30.3) | 58 (53.2) | 8 (7.3) | | |
| In process | 2 (0.8) | 0 (0.0) | 1 (50.0) | 0 (0.0) | | |
| Surgical condition | | | | | | |
| Post surgical | 61 (24.9) | 21 (34.4) | 30 (49.2) | 3 (4.9) | 7.66/0.05 | 0.17 |
| Pre-surgical | 180 (75.1) | 38 (21.1) | 90 (50.0) | 29(16.1) | | |
| ECOG | | | | | | |
| 0 | 121 (50.2) | 39 (32.2) | 51 (42.1) | 11 (9.1) | 18.49/0.03 | 0.16 |
| 1 | 109 (45.2) | 19 (17.4) | 60 (55.0) | 20 (18.3) | | |
| 2 | 10 (4.1) | 1 (10.0) | 8 (80.0) | 1(10.0) | | |
| 3 | 1 (0.4) | 0 | 1 (100.0) | 0 | | |
| Barthel index | | | | | | |
| Moderate dependence | 101 (48.5) | 20(19.8) | 56 (55.4) | 19 (18.8) | 22.21/0.01 | 0.21 |
| Low dependency | 56 (17.0) | 16 (28.6) | 28 (50.0) | 8 (14.3) | | |
| Independence | 83 (34.4) | 23(27.4) | 36 (42.9) | 5 (6.0) | | |

DISCUSSION

Our results show a high prevalence, with different fatigue levels in patients with CRC, similar to those reported in other studies. Regarding disease status, studies have reported that CRF can be present from diagnosis, a finding corroborated in our study, as 85.4% of patients exhibited some degree of fatigue at the time of diagnosis, with 'severe' fatigue being more prevalent compared to the group under treatment. Our results also have clinical implications, as they reinforce the importance of comprehensive assessment for detecting those at higher risk. Prehabilitation emerges as an intervention that can improve fatigue levels, optimize functional condition, and reduce postoperative complications for CRC patients before surgical treatments.

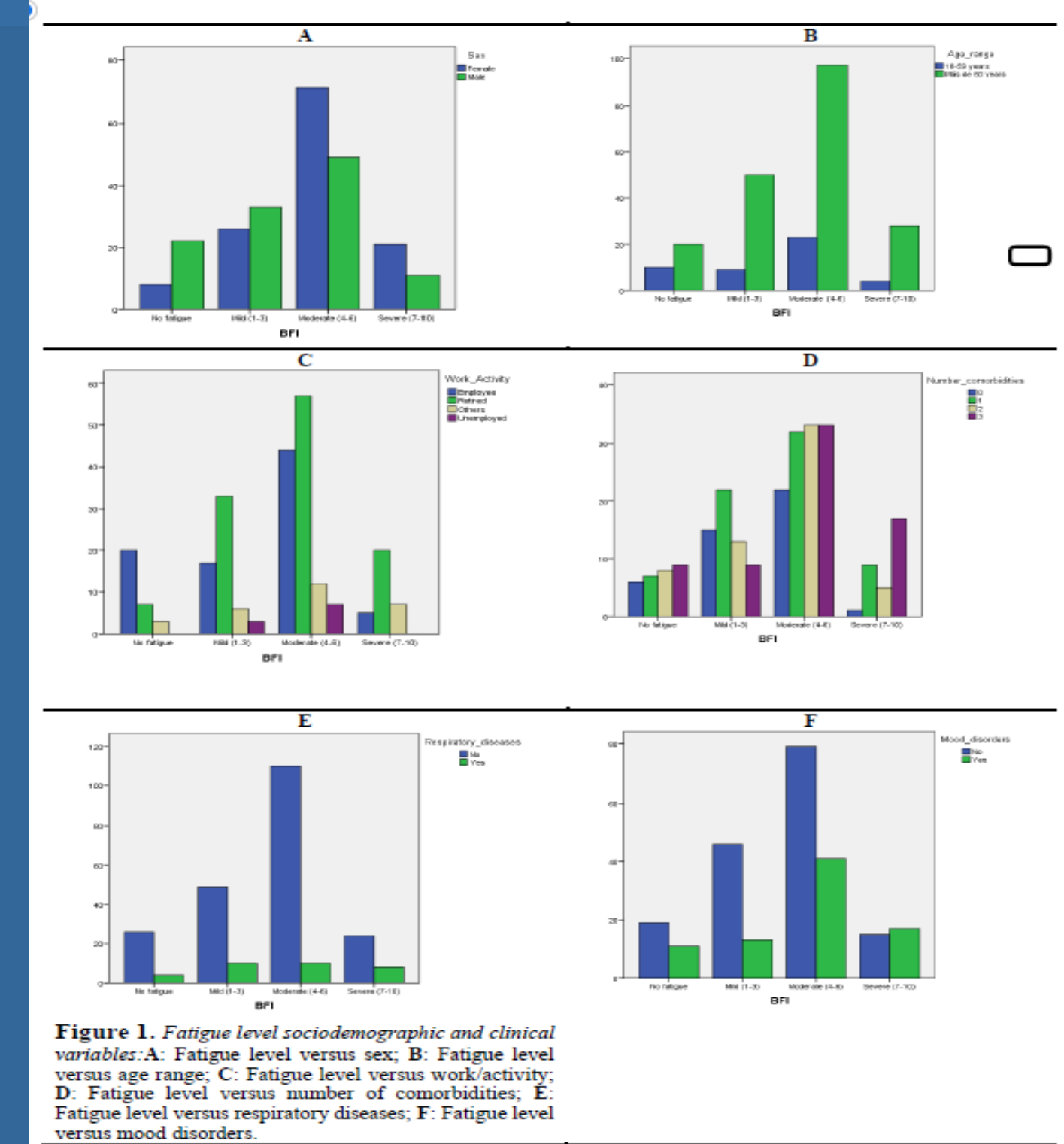


Figure 1. Fatigue level sociodemographic and clinical variables: A: Fatigue level versus sex; B: Fatigue level versus age range; C: Fatigue level versus work/activity; D: Fatigue level versus number of comorbidities; E: Fatigue level versus respiratory diseases; F: Fatigue level versus mood disorders.

CONCLUSIONS

Cancer-related fatigue (CRF) is highly prevalent in individuals with CRC and can be present throughout all stages of the disease. Early screening and management are recommended, prior to surgical treatment.

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