

Depression, anxiety and claustrophobia in patients undergoing radiotherapy for head and neck cancer

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OBJECTIVES

- 1) Establish prevalence of emotional distress, depression, anxiety and claustrophobia in patients about to undergo radiation therapy for head and neck cancer (HNC)
- 2) Explore differences in aspects related to gender, tumoral site and type of treatment

Prevalence

Variable	N (total = 1346)	%	95% confidence interval (Wilson score)
Low-moderate anxiety	776	57,7	54,99 - 60,26
Moderate-severe anxiety	345	25,6	23,37 - 28,03
Low-moderate depression	315	23,5	21,22 - 25,74
Moderate-severe depression	120	8,9	7,51 - 10,56
Sub-clinical claustrophobia	696	51,7	49,04 - 54,37
Claustrophobia	363	26,9	24,67 - 29,40
Moderate distress	574	42,6	40,02 - 45,30
Severe distress	154	11,4	9,85 - 13,25

METHODS

Sample:

This single center prospective study included HNC patients oriented for radiation therapy within 6 weeks preceding treatment. A total of 1346 patients were accrued from May 2009 to April 2016. The median age was 62.8 (SD= 10,6) and 73.6% were men. Tumoral site distribution was as follow: Nasal cavity 6% (n=78); oral cavity 11% (n=143); oropharynx 48,8% (n=637); hypopharynx 4,4% (n=57); larynx 25,1% (n=328); unknown primary 4.8% (n=62). Forty six percent of participants had concurrent chemotherapy and 12,6% also had adjuvant chemotherapy.

Measures:

Emotional distress was assed using the *NCCN Distress Thermometer* [1]. Anxiety and depression were assed using the *Hospital Anxiety and Depression Scale (HADS)* [2] and claustrophobia was assessed using the *Claustrophobia Questionnaire* [3].

Analyses:

Prevalence of distress, depression, anxiety and claustrophobia was calculated using a 95% Wilson score CI. Gender differences in distress, depression, anxiety and claustrophobia were assessed using Student t-tests. Tumoral site and treatment modality differences for these variables were analysed using general linear models.

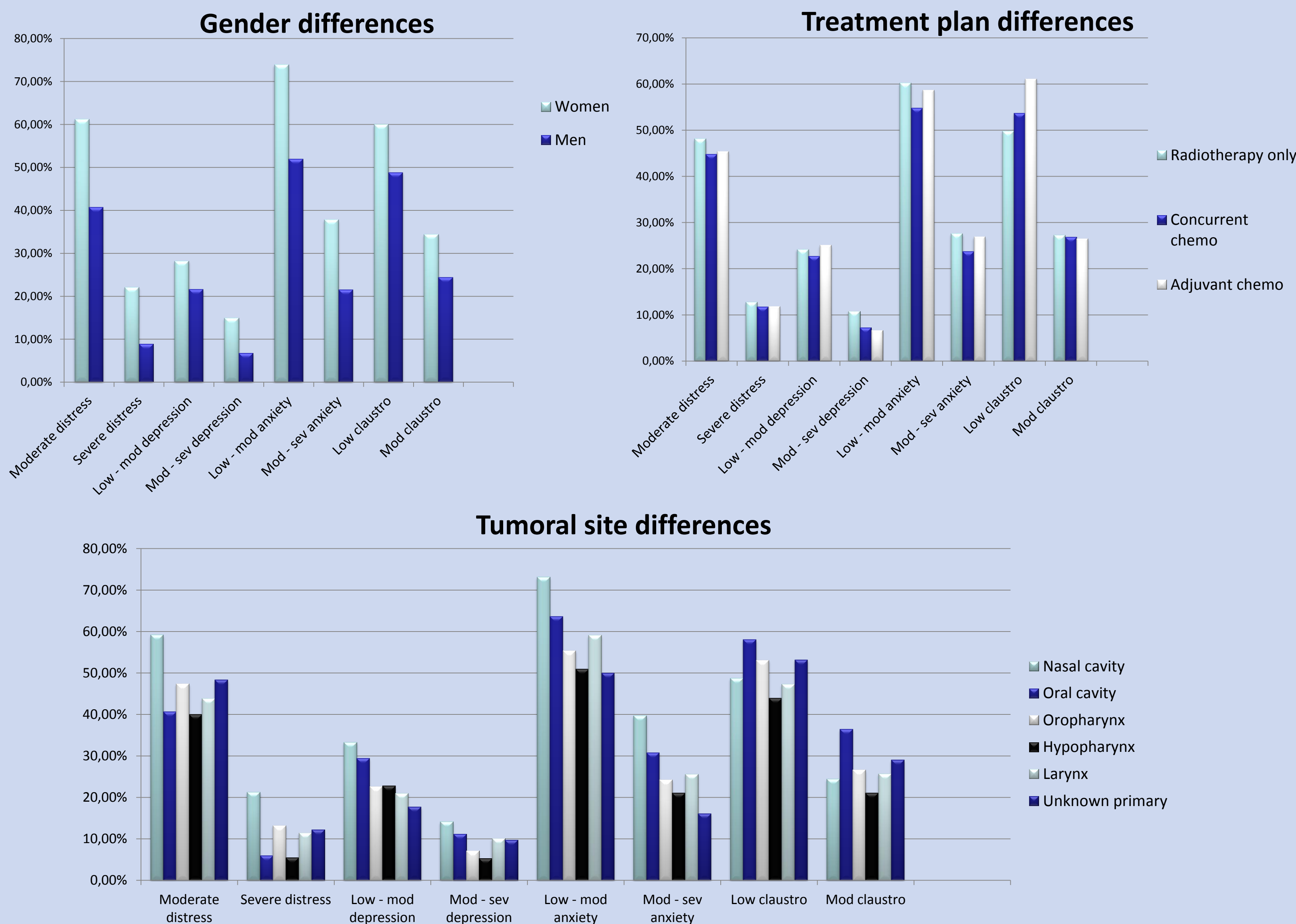
RESULTS

Emotional distress: women scored significantly higher than men (t= 7,70; p≤ 0.001).

Depression: women scored significantly higher than men(t= 3.41; p≤ 0.01); and patients presenting nasal cavity tumors scored significantly higher (F= 2.46; df =1304,5; p≤ 0.05) than other tumoral sites.

Anxiety: women scored significantly higher than men (t= 7.48; p≤ 0.001); patients with oral cavity tumors scored higher than other tumoral sites (F= 3.59; df =1304,5; p≤ 0.01) patients with concurrent chemotherapy were more anxious than those with adjuvant chemotherapy and radiation alone (F= 5.89; df= 1317,3; p≤ 0.05)

Claustrophobia: women scored significantly higher than men (t= 4.57; p≤ 0.001) and patients with oral cavity tumors scored higher than other tumoral sites (F= 5.15; df= 1301,5; p≤ 0.05).



DISCUSSION

Results from this study fall in line with those of past studies which indicate that HNC patients are more likely to suffer from depression or anxiety [4, 5]. The low levels of depression demonstrated by our sample may be due to the fact that HNC patients demonstrate higher anxiety at pre-treatment and with more depressive symptoms at post-treatment [6]. The need for psychological follow-up after RT is likely due to numerous contributing factors including side effects and slowness of recovery, affecting QOL and return to normal life/work. Women scoring higher on all measures underline the unmet mental health needs of this sub-population and may indicate that women suffer more than men from a HNC diagnosis, a lesser known form of cancer in the female population.

Patients with oral cavity tumors may be more anxious and claustrophobic due to more bothersome predicted side effects of treatment and inclusion of bite tray for radiotherapy, which can inhibit breathing.

Finally, patients who had concurrent chemotherapy in their treatment plan were also more anxious than those with adjuvant chemotherapy and those with radiotherapy alone. This may likely be related to more advanced stage, as well as apprehension concerning the intensity of concurrent treatment for HNC and the anticipated side effects.

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