

Using the PHQ2/9 Questionnaire to Improve Depression Screening in Survivorship for Head and Neck Cancer Patients

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Introduction

Patients with head and neck cancer experience higher rates of depression compared to patients with other cancers. This can impact the patients’ ability to cope with and complete cancer treatment and is associated with a three times higher risk of suicide.

The Patient Health Questionnaire (PHQ) 2 and 9 are validated screening tools and easy to administer.

The purpose of this study is to demonstrate that this screening tool can be easily utilized in a busy head and neck clinic and provide improvement in identifying at-risk or already depressed patients.

We hypothesize that younger patients, higher tumor stage, and need for flap reconstruction will have higher PHQ-2 scores compared to other head and neck cancer patients.

Design/Sample

Retrospective review of 110 head and neck cancer patients.

All screened with the PHQ-2/9 in the outpatient setting during surveillance visits.

PHQ-2 Questionnaire

Over the past 2 weeks, how often have you been bothered by any of the following problems?

1. Little interest or pleasure in doing things.
0 = Not at all
1= Several days
2 = More than half the days
3 = Nearly every day
2. Feeling down, depressed, or hopeless.
0 = Not at all
1 = Several days
2 = More than half the days
3 = Nearly every day

Results

110 patients, 66 males and 44 females, included (Table 1).

Patients who scored ≥ 3 on PHQ-2 were significantly younger than those who did not report depressive symptoms, PHQ-2 < 3 (p=0.017).

No significant difference was seen in PHQ-2 scores among patients treated with surgery vs no surgery, flap reconstruction vs none or by tumor site or tumor stage (Table 2).

Table 1: Patient Characteristics

Variables	n = 110 (%)
Age (mean)	66.5 years
Gender Male Female	66 (60%) 44 (40%)
Tumor Site Larynx Oropharynx Oral Cavity Skin Other (salivary, sinonasal, nasopharyngeal)	11 (10%) 29 (26%) 41 (37%) 14 (13%) 15 (14%)
Tumor Stage Tx/is/not recorded T0/1 T2 T3 T4	8 (7%) 29 (26%) 36 (33%) 13 (12%) 24 (22%)
Primary Treatment Surgery No Surgery (Chemo/Radiation)	91 (83%) 19 (17%)
Reconstruction Yes (free flap/regional flap) No reconstruction or skin graft	36 (33%) 74 (67%)

Table 2: Comparison of Positive vs Negative PHQ-2

Variables	Positive: PHQ-2 (≥ 3) n = 15 (%)	Negative: PHQ-2 (< 3) n = 95 (%)	p-value
Age (average)	62.7	67.0	0.017*
Tumor Stage Low Tx/is/0/1/2 High T3/4	11 (73%) 4 (27%)	62 (65%) 33 (35%)	0.539 ⁺
Primary Treatment Surgery No Surgery (Chemo/radiation)	12 (80%) 3 (20%)	79 (83%) 16 (17%)	0.721 [^]
Reconstruction Yes (flap) No	7 (47%) 8 (53%)	29 (30%) 66 (70%)	0.244 [^]

* t-test ⁺ Chi-square test [^] Fisher's exact test

Discussion

Screening with the PHQ-2/9 presents an opportunity to discuss depression risks and treatment options.

Only 15 patients scored ≥ 3 on the PHQ-2, suggesting lower rates of depressive symptoms than expected.

There is a younger mean age of those with PHQ-2 ≥ 3 , but this may not be clinically relevant.

Surprisingly, tumor site, stage, primary treatment and need for flap reconstruction were not found to be significantly associated with higher PHQ scores.

Conclusions

Screening can improve clinician’s ability to capture at risk patients.

Limitations include a small cohort.

Multiple confounding variables lead to opportunities for future study including evaluation of preexisting diagnosis of depression, socioeconomic factors and further stratifying staging and treatment differences.

References & Contact

References available upon request

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