Does Compliance with Swallowing Exercise Regimes Impact Swallowing Outcomes in Head and Neck Cancer Patients?

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Background: The prevalence of HPV-head and neck cancer (HNC) is increasing over the past 20 years. Fortunately, patients with HPV HNC have better survival rates than other HNCs. This means that patients live with the impact of their treatments, which is often swallowing impairments or dysphagia. Patients get prescribed exercises to prevent swallowing impairment or improve their swallowing functions. The average adherence rate is below 50% and low adherence can make it difficult to examine the effectiveness of a treatment both clinically and empirically (Krekeler et al., 2018). It makes sense that patients who do not comply with their prescribed exercises may not benefit from the intervention – however this should be explore. Objective: We performed a critical review of the literature that associated compliance with exercise to swallowing outcomes. We then conducted our own retrospective totot BT 0.00r () -2 (t(t) 1 (re) -(B) -3 (c) -2 (n) --8 () -2 (t) -3 (s) -18 (i) 11 (t) 1 (uu) -(Bu) -(B () -2 (tt) 1 (u () -2 (tC) + 2 (t) 1 (uv) -(Bu) -(B () -2 (tv) 1 (uv) -(Bu) -(B () -2 (tv) 1 (uv) -(Bu) -(B () -2 (tv) 1 (uv) -(Bu) -(B () -2 (tv) 1 (uv) -(Bu) -(B () -2 (tv) 1 (uv) -(B () -2 (tv) 1

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(p= .911), and MDADI (p= .767), or in the MDADI at 12 months (p= .902).

Discussion

demonstrate a dosage response and provide clearer insight to proper dosage. Krisciunas and collegues (2013) clearly outlined how they calculated an average number of exercise sessions performed per week from the self-reported therapy checklist. This ranged from 0-12 sessions. They classified 10 or more as adherent and less then 10 as non-adherent. The researchers instead could have treated the average number of sessions as a continuous variable in their data analysis, which would have yielded in a more detailed understanding of the relationship between compliance and swallowing outcomes.

Measuring compliance

Two of the five studies relied on patients' verbal self-report of compliance that was documented in their medical charts (Bhayani et al., 2013; Hutcheson et al., 2013). Self-report has some biases; for example patients may not be honest about their compliance, as they may not want to disappoint the clinician. Additionally, if the patients are not tracking their exercises, they may be inaccurate and may over or under estimate the amount of exercises they are doing during the day.

Two articles (Duarte et al., 2013; Krisciunas and colleagues, 2017) had their participants record their exercises on a detailed therapy checklist/form. Therefore, while their data was still based on self-report, it was a more accurate measure of the participants' behavior and the researchers had more

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Appendix One

Search Terms

PubMed (Yielded 22 papers):

(((("deglutition disorders"[MeSH Terms] OR ("deglutition"[All Fields] AND "disorders"[All Fields]) OR "deglutition disorders"[All Fields] OR "dysphagia"[All Fields]) AND ("exercise"[MeSH Terms] OR "exercise"[All Fields] OR "exercises"[All Fields]) AND ("patient compliance"[MeSH Terms] OR ("patient"[All Fields] AND "compliance"[All Fields]) OR "patient compliance"[All Fields] OR "compliance"[All Fields] OR "adherence"[All Fields] OR "treatment adherence and compliance" OR "compliance"[MeSH Terms] OR "Oropharyngeal Neoplasms/radiotherapy"[MAJR])) AND ("head and neck neoplasms"[MeSH Terms] OR ("head"[All Fields] AND "neck"[All Fields] OR "neoplasms"[All Fields] OR "oropharyngeal cancer"[All Fields] OR ("head"[All Fields] AND "neck"[All Fields] OR "oropharyngeal cancer"[All Fields]) OR ("head"[All Fields] OR outcomes[All Fields]) OR Outcome, Treatment[MeSH Terms])

Scopus (Yielded 18 papers – 17 previously found, 1 new):
(TITLE-ABS-KEY ("deglutition disorders") OR TITLE-ABS-KEY (dysphagia) AND TITLE-ABS-KEY ("patient compliance") AND TITLE-ABS-KEY ("head and neck cancer") OR TITLE-ABS-KEY ("head and neck neoplasms") OR TITLE-ABS-KEY (head) AND TITLE-ABS-KEY (neck) AND TITLE-ABS-KEY (cancer) AND TITLE-ABS-KEY (outcome))

PsychInfo (Yielded 2 papers, one that was not accessible and one unpublished thesis): ("deglutition disorders" OR "dysphagia") AND ("exercise" OR "exercises") AND ("patient compliance" OR "compliance" OR "adherence" OR "treatment adherence and compliance") AND ("head and neck neoplasms" OR "oropharyngeal cancer" OR "head and neck cancer")

Appendix Two

Table 1. Patient and Compliance Characteristics and Outcomes

Compliance (n)
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Characteristic	Overall (38)	High Compliance (26)	Low Compliance (6)	No Compliance (6)	High Vs. Low and No
		· -/	(-)	(-)	p value*