Published in final edited form as:

J Food Nutr Disord. 2015 ; 4(5): . doi:10.4172/2324-9323.1000181.

Head and Neck Cancer Adherence to Dietary Recommendations using Theory-Based Tools: Future Research Directions

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The possibility of applying social cognitive theory (SCT) as a potential framework in improving head and neck cancer (HNCa) patient adherence to dietary interventions as reported by Rogers et al. [1] is very interesting. The very high internal reliability of the SCT scales related to diet adherence was impressive.

This is the first study to examine predictors or correlates of diet adherence in HNCa patients based on a behavioral change theory. Further, this study supports the need and legitimacy of the use of SCT in assessing dietary adherence to recommendations by HNCa patients. Recently, we reached out to Dr. Rogers to gain further insight of this work and in this letter; we provide a few clarifications and suggestions for further studies while emphasizing the positive aspects of the study.

As we understand, the small sample size prevented researchers from conducting a factor analysis, which would allow for greater internal reliability. In addition, since the study took place at one head and neck oncology clinic located in the Midwest, the sample lacked the ethnic and racial diversity (i.e., no one identifying as Hispanic; no inclusion of racial groups other than White or African American) that usually is present in other parts of the country, such as the southeast. This is important since African-Americans have a greater incidence of HNCa than Non-Hispanic Whites (16.4 vs. 15.3) [1,2]. Given that in the Rogers et al.[1] study only 9% of the study sample was African-American there is a need for study replication in sites with greater minority representation. Moreover, factors that are important in moderating effects of nutritional status, such as patient insurance, employment, and socioeconomic status were not taken into consideration and need to be examined in future studies as inability to pay for supplements is a major issue for HNCa patients. Further, other variables that could affect diet adherence including treatment type and status, disease stage, body mass index, age, gender, education, and emotional well-being should also be examined.

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We also were interested in the terminology used, i.e. ‘adherence’ versus ‘compliance’. Recent research supports the move from ‘compliance’ (the extent to which patients follow a physician’s orders) towards ‘adherence’ (the extent to which patients follow through with decisions about physician orders). The latter places more emphasis on conscious patient decision-making rather than yielding to authority. As this research area focuses on the aspects that can affect patient follow-through, the word adherence would be more applicable [3]. In a conversation with Dr. Rogers, she indicated that the use of ‘compliance’ was based on terminology that is frequently used among health care providers as equivalent to adherence, rather than the vernacular of popular choice in the health psychology scientific community. Increasing communication among disciplines can expand the understanding and clinical application of concepts related to adherence to recommended health behaviors.

Finally, this study relies on self-report, therefore, it lacks important diagnosis and treatment details that are often unknown to patients (i.e., 45% of the study sample were unable to identify their cancer stage). In addition, researchers did not present data on disease etiology (i.e., HPV-positive vs. HPV-negative). As of 2005, 72% of HNCa were of HPV-positive origins. Not only do these populations vary in sociodemographic characteristics, but also those diagnosed with HPV-positive HNCa have better disease outcomes following treatment [4]. Knowing disease etiology plays a large role in whether patients need dietary guidance, especially since HPV-positive HNCa patients are less likely to be at nutritional risk [5]. Lastly, future studies should assess alcohol and tobacco use, as HPV-negative HNCa patients are more likely to be current users or have a history of alcohol and tobacco use [6].

In summary, we concur that this application of SCT as a potential framework for improving HNCa patient adherence to diet interventions needs further investigation using a large and more diverse sample. Further, validating these tools in relation to the current HNCa population is crucial as the characteristics of HNCa patients continue to change. The work of Rogers et al. represents a substantial first step in the understanding of adherence to dietary recommendations by head and neck cancer patients; however, further studies aiming to address the concerns indicated in this editorial are warranted.

Acknowledgement

This was funded by the National Institutes of Health, National Cancer Institute Cancer Prevention and Control Training Program Grant R25 CA047888.

References

1. Rogers LQ, Verhulst S, Rao K, Malone J, Robbs R, et al. Developing theory-based measurement tools for improving diet compliance in head and neck cancer patients. *J Food Nutr Disor.* 2015; 4:2.
2. American Cancer Society. Cancer facts & figures 2015. American Cancer Society; Atlanta: 2015.
3. De las Cuevas C. Towards a clarification of terminology in medicine taking behavior: Compliance, adherence and concordance are related although different terms with different uses. *Curr Clin Pharmacol.* 2011; 6:74–77. [PubMed: 21592067]
4. Scudellari M. Sex, cancer and a virus. *Nature.* 2013; 503:330–332. [PubMed: 24256791]
5. Magnano M, Mola P, Machetta G, Maffei P, Forestiero I, et al. The nutritional assessment of head and neck cancer patients. *Eur Arch Otorhinolaryngol.* 2014; 272:3793–3799. [PubMed: 25534287]

6. Rodriguez T, Altieri A, Chatenoud L, Gallus S, Bosetti C, et al. Risk factors for oral and pharyngeal cancer in young adults. *Oral Oncol.* 2004; 40:207–213. [PubMed: 14693246]

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