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Concurrence of Anxiety and Nausea in Cancer Patients Undergoing Port Access

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Abstract

Many life-saving treatments are employed to treat patients with debilitating diseases result in adverse side-effects. Prominent among these symptoms are nausea and anxiety. Although science has made strides in improving patient tolerance, little is understood regarding the nature and relationship of these symptoms. Nausea and anxiety affect patients concurrently, and the experience of each symptom is often vague and undefined relative to the other. While the temporal association between nausea and anxiety is not well-investigated, it is standard practice to include anxiety with the differential diagnosis of nausea. This in-progress study attempts to determine if an associative relationship exists between the symptoms of procedural nausea and anxiety among breast cancer patients undergoing portable catheter access in an outpatient setting by determining the frequency with which nausea and anxiety are experienced concurrently. The data for this in-progress study is being obtained in conjunction with an experimental study examining the efficacy of Aromatherapy in treatment of anxiety and nausea for patients in this population. Establishing a more clear understanding of the relationship between nausea and anxiety will lead to development of better, more need-specific treatment for patients experiencing all conditions and procedures, granting providers additional tools to increase quality of care.

Keywords

breast cancer patients, catheter access, quality of life

Disciplines

Nursing



Concurrence of Anxiety and Nausea in Cancer Patients Undergoing Port Access



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Objective

To determine the frequency with which nausea and anxiety are experienced concurrently by breast cancer patients undergoing portable catheter access in order to ascertain whether there exists an associative relationship between these two symptoms.

Method

Sample: 20 newly diagnosed breast cancer patients undergoing port access in the outpatient setting will be recruited.

Data collection: over about 2 weeks and 3 port accesses, participants rate pre- and post-procedural anxiety and nausea separately on a scale of 0 to 10.

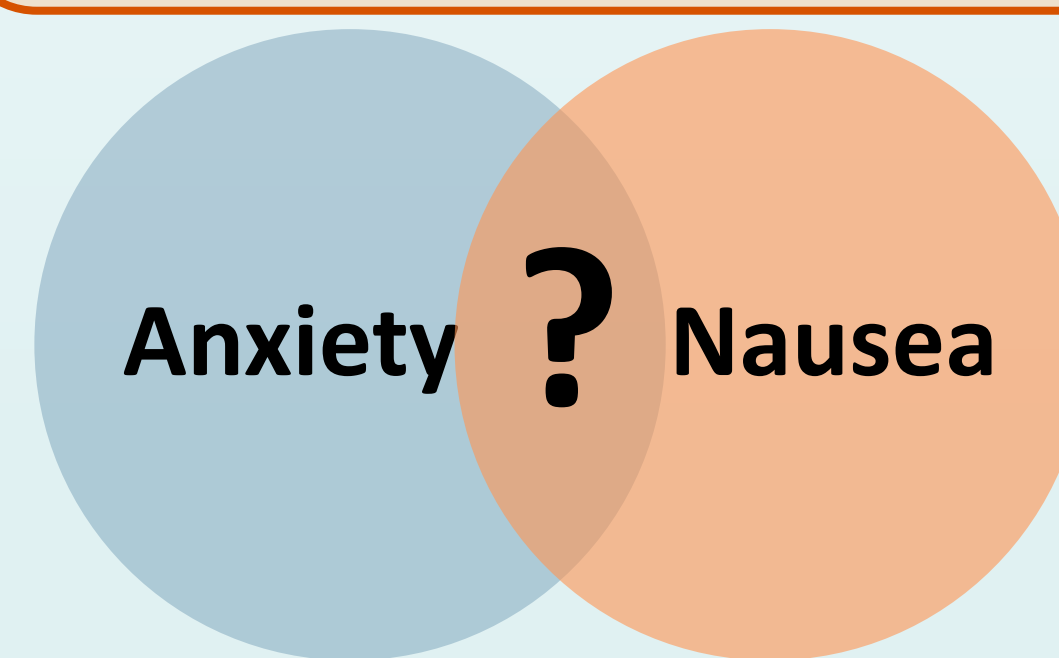
Results

Correlation coefficients will be computed to determine the degree of association between the 2 variables.

Future Directions

- Examination of other patient populations and procedures based on larger sample sizes.
- Introduction of additional controls in attempts to establish a causal explanation for the manner in which anxiety and nausea present relative to each other.

Do procedural anxiety and nausea occur independently or concurrently?



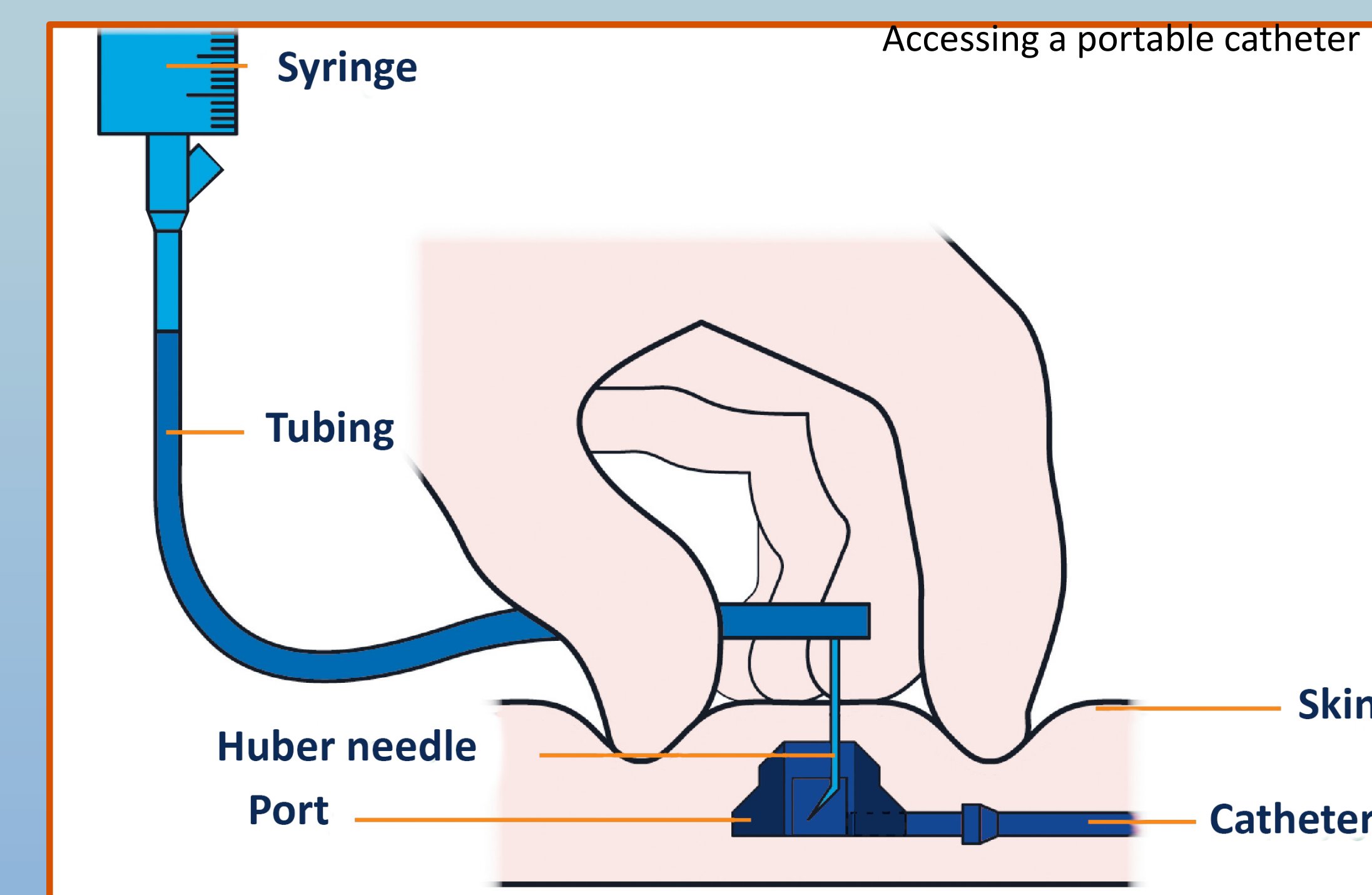
The experience of each symptom is often vague and undefined relative to the other.

Summary of Literature

Purpose, Sample, and Strength of Evidence	Results
<ul style="list-style-type: none"> • Systematic Review: treatment of nausea/vomiting in cancer patients unrelated to chemotherapy or radiation • 92 research articles, including 14 randomized control trials. • Evidence Level 3-A 	Many anxiolytics that are listed as antiemetics within guidelines possess no single-drug evidence to support the recommendation. Guidelines are largely expert opinions that influences practice (Davis et al, 2010).
<ul style="list-style-type: none"> • Research: magnitude and nature of anxiety in response to radiation treatment. • 19 female breast cancer patients • Evidence Level 3-A 	Elevated levels of anxiety related to procedure manifested as early as 2 days before procedure and persisted for multiple days afterwards (Anderson et al, 1984).
<ul style="list-style-type: none"> • Review: the role of anxiety in development of anticipatory nausea and vomiting (ANV) in chemotherapy • Analyzed 12 research articles • Evidence Level 3-A 	State anxiety exacerbates post-treatment nausea and vomiting and thus increases the risk for ANV (Andrykowski, 1990).
<ul style="list-style-type: none"> • Research: the role of anxiety in post-chemotherapy nausea (PN) • 65 chemotherapy patients • Evidence Level 3-A 	State anxiety was significantly related to the experience of PN while expectations for nausea were unrelated to PN (Andrykowski, 1992).
<ul style="list-style-type: none"> • Research: Relationship between anxiety/depression on gastrointestinal symptoms in the general population • 62,651 non-hospitalized adults surveyed. • Evidence Level 3-A 	A Significant relationship found between anxiety and nausea when demographic and life-style factors as well as extra-GIS were controlled for. No evidence was found for nausea as a causal factor for psychiatric issues Haug et al, 2002).
<ul style="list-style-type: none"> • Research: Impact of psychiatric disorders on quality of life • 50 adult breast cancer patients • Evidence Level 3-A 	Psychiatric disorders were associated with higher symptoms scares, including 'appetite loss', 'diarrhea', 'fatigue' and 'nausea/vomiting' (Okamura et al, 2005).
<ul style="list-style-type: none"> • Research: Antenatal psychological health and prevalence of nausea and vomiting in pregnancy (NVP) • 774 antenatal patients • Evidence Level 3-A 	Significant correlation between high scores on psychopathology and NVP (Swallow et al, 2004).
<ul style="list-style-type: none"> • Review: Interventions for post-operative nausea and vomiting (PONV) • Analyzed 17 publications including 5 clinical trials • Evidence Level 3-A 	Anxiety identified as a trigger for PONV; intervention and management for PONV includes relief of anxiety. (Thomson, 1999).
<ul style="list-style-type: none"> • Research: Relationship between anxiety/depressed mood and physical symptoms burden. • 79 hospitalized advanced cancer patients • Evidence Level 3-A 	Scored reports for pain, anorexia, asthenia, nausea and dyspnea were independent of anxiety and/or depressed mood— The relationship between anxiety and intensity of physical symptoms was very limited (Teunissen et al, 2007).

Clinical Implication

- A better understanding of the relationship between anxiety and nausea leading to more specific, need-based care.
- Increased implementation of efficient and effective treatment for anxiety and/or nausea.
- Increased quality of life among patients with debilitating illnesses who must undergo repetitive restorative procedures.



Data are collected as part of a broader, in-progress experimental study investigating reports of anxiety and nausea pre and post-treatment via port access using aromatherapy. Data for this part is examined by the student and addressed as a secondary objective of the project. The project was conducted as part of the third author's participation in the St. Luke's nursing research fellowship program.