

VISUALIZING SOCIAL AND BEHAVIORAL DETERMINANTS OF HEALTH USING ACUTE CARE NURSING DATA

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BACKGROUND

Increasingly, medical/surgical nurses are facing care challenges that present when social and behavioral problems complicate care of the acutely ill patient. This is especially true with patients that may have yet medically undiagnosed psychiatric problems. While the electronic health record (EHR) sometimes capture this information in semi-structured, narrative notes and nursing care plans, there is little known as to the scope of these problems in tertiary care settings. While there is much work now looking at how to directly capture social and behavioral determinants of health (SBDH) in the medical record, the nursing problem list is an untapped resource to help inform this body of work

PURPOSE

To visualize the relative frequency SBDH represents in nursing care plans across different acute care populations, at a large academic teaching hospital. This information will identify if additional social & behavioral nurse education or resources (counselors, psychiatry, etc.) might be needed.

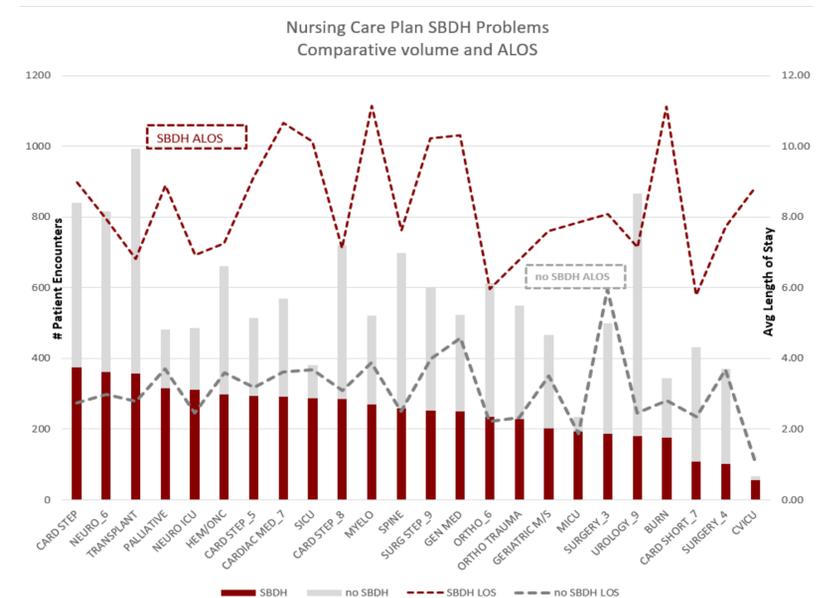
METHODS

Standardized nursing diagnosis terms (aka priority problems), based on the Clinical Care Classification (CCC) System™, have been used by VUMC inpatient nurses for care planning for several years. Based on the IOM work around capturing social and behavioral determinants of health (SBDH) in the EHR, we examined 12 representative CCC Nursing Priority Problems from the inpatient plan of care. These included: *Alcohol & Drug Abuse, Suicide & Violence Risk, Coping, Fear, Hopelessness, Low-Self Esteem, Social Isolation, Relocation Stress and alterations in Family Processes & Role Relationships*. Patients with any of these problems were assigned to a group labeled SBDH. Other IOM SBDH related CCC categories such as *Activity Intolerance and Self-Care* were not tagged because it was not clear if they were of short duration related only to hospitalization. However, they should be examined more fully in future studies. We then compared frequency & average length of stay (ALOS) across clinical units in a CY19Q1 sample (n=13,649 admissions).

In addition, a second 1 day snapshot across the 1,000 bed+ enterprise of automated (vents, monitors, messages) and manually entered flowsheet data is visualized below. From that huge data set - the specific SBDH problems noted on one shift (3/17/2019 8a-8p) were identified.

RESULTS

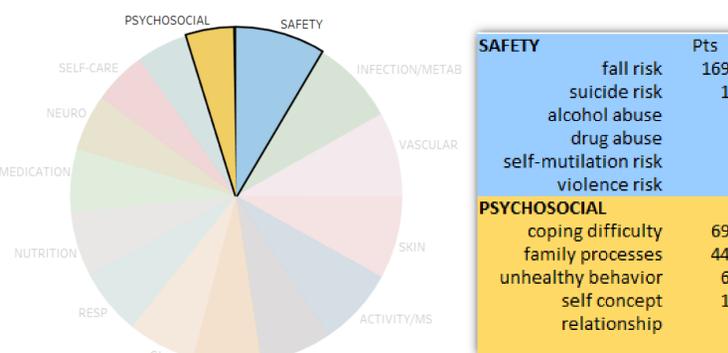
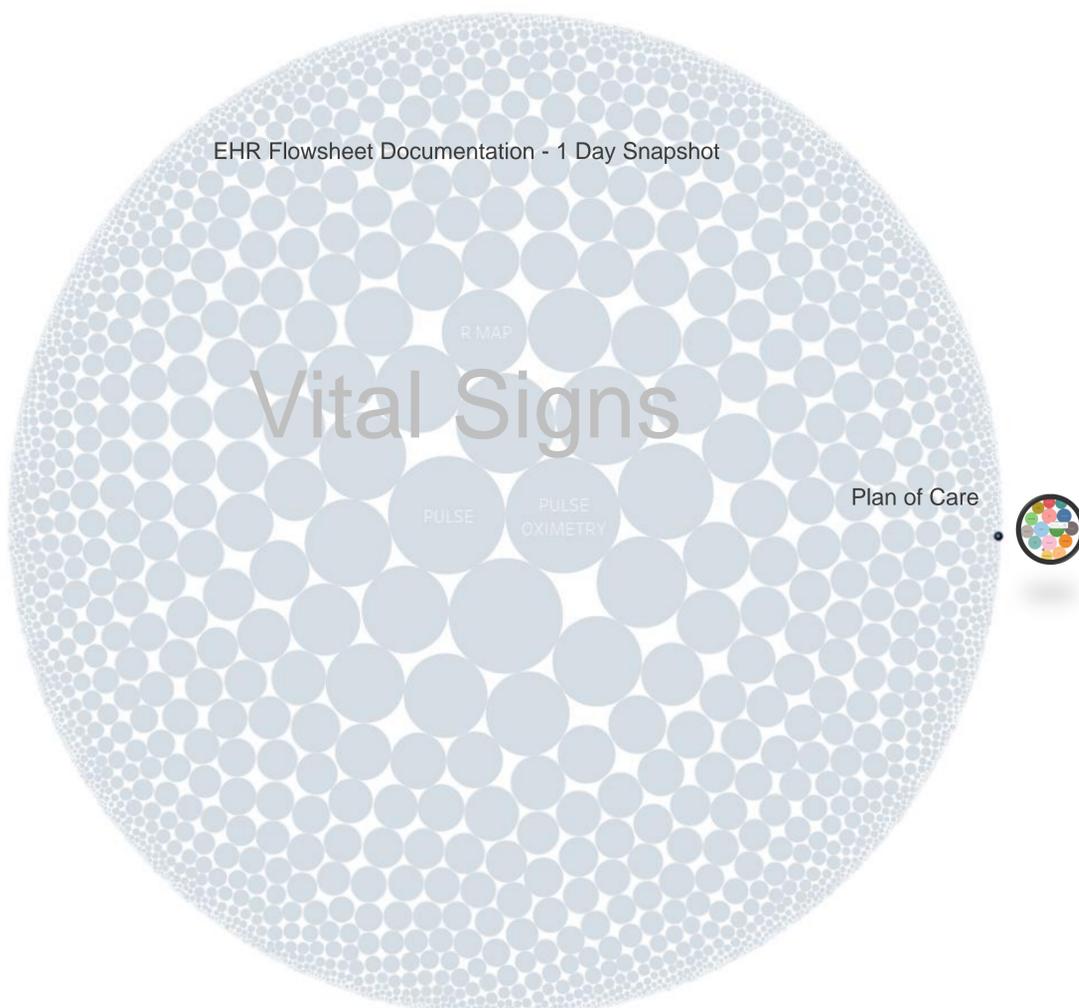
Length of Stay: On average, patients with SBDH documented stayed 5 days longer than those without SBDH (ICU 3.0 - 8.3 days longer, Med/Surg 2.1 to 7.0 days longer).



Frequency: In the CY19Q1 dataset, 45% of patients had a CCC SBDH problem documented as part of the plan of care. High acuity ICUs ranged from 51%-84% SBDH patients and lower acuity medical/surgical units ranged from 21% (urology) - 65% (palliative care).

CONCLUSION

Traditional views of care look at hospital based nursing from the perspective of the acute medical condition that precipitated their admission. Nurses document massive amounts of data that relate to physiological symptoms and care (hemodynamic monitoring, pain, medications, etc.) which can bury the social and behavioral problems that are charted once a shift in nursing care plans. Yet, a closer look, using visualization techniques, uncovered a significant presence and impact on length of stay in the acute care setting. This exploratory study highlighted the importance of looking at how nurses and other staff are equipped to manage social and behavioral problems in the acute care setting, and what additional resources may be needed.



1 Day Snapshot: In addition to coping problems which are seen in most of the population, SBDH problems affecting care that day were: family problems (n=447pts), injury to self or others (n=14 pts), and substance abuse (n=12 pts).

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