

Impact of Palliative Care on Symptom Management in People Living with Dementia

Yuchen Zhang, BSN, RN¹, Dianxu Ren, MD, PhD¹, Gina M. Piscitello, MD, MS¹, Jennifer H. Lingler, PhD, MA, CRNP, FAAN², Theresa A. Koleck, PhD, RN¹, Jennifer B. Seaman, PhD, RN, CHPN, ATSF¹

¹University of Pittsburgh, Pittsburgh, PA, USA; ²Betty Irene Moore School of Nursing, University of California, Davis, Sacramento, CA, USA



INTRODUCTION

- People living with dementia (PlwD) experience progressive declines in functional and communicative capacities
 - Leading to unmanaged distressing symptoms from both dementia syndromes and co-occurring comorbidities
- Palliative care (PC) provides holistic support, promotes goal-concordant care, and eases care-related burdens
 - The impact of palliative care on distressing symptoms among PlwD is not well-described

PURPOSE

This study aims to comprehensively characterize PlwD receiving subspecialty PC consultations in hospital settings and examine the impact of consultations on distressing symptoms.

MATERIALS & METHODS

Study Design

- a retrospective pre-post cohort analysis using abstracted electronic health record data

Sample & Setting

- Inclusion criteria:
 - Patients who were 65 and older
 - Ascribed identifiable dementia-related diagnoses through both ICD-10 codes and clinical documentation
 - Admitted to one of the 18 hospitals within an academic healthcare system in 2022
 - Received subspecialty palliative care consultation during the hospital admission
- Exclusion criteria:
 - Participants of any palliative care related clinical trials
 - Not general hospital admission, including psychiatric inpatient admission and inpatient hospice

Statistical Analysis

- RStudio
- Descriptive statistics
- Generalized linear mixed models

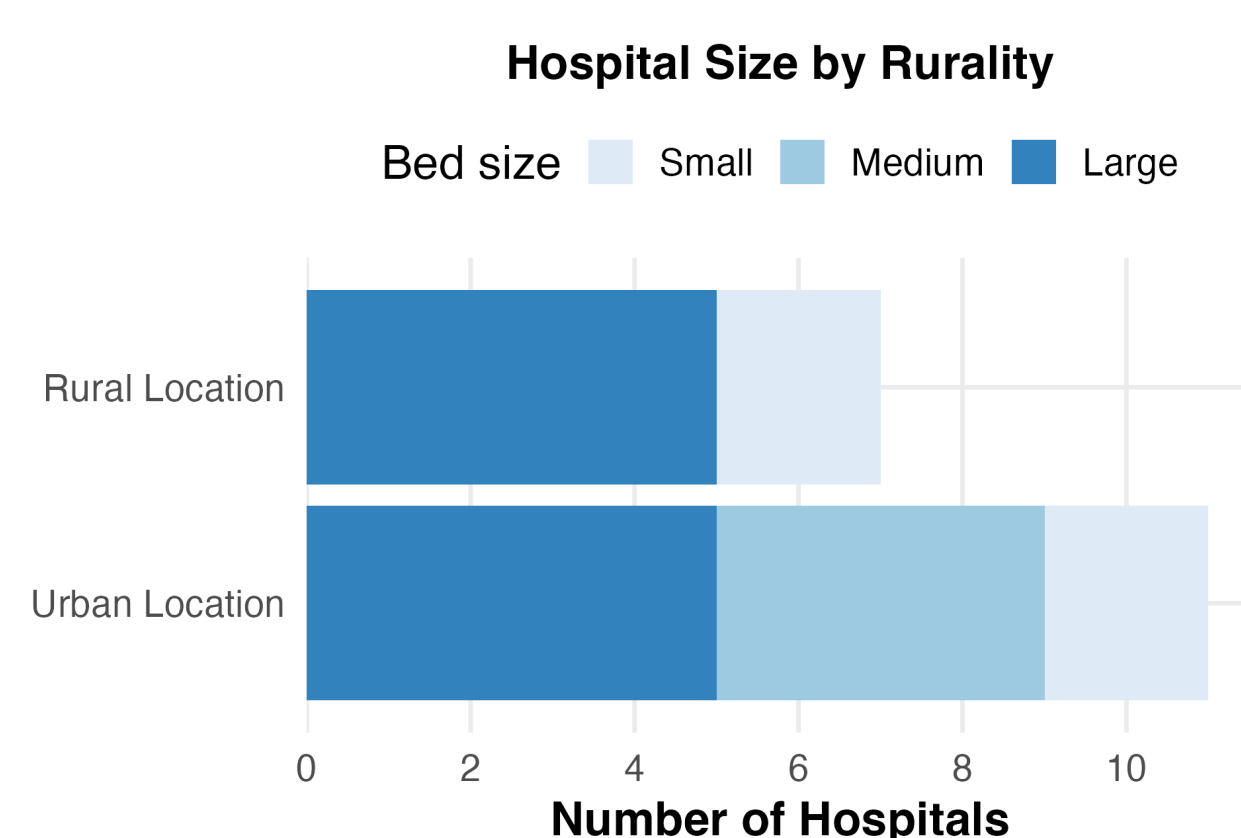


Figure 1. Geographic location (urban vs. rural) and size (based on hospital bed size, location, and teaching status) of included hospitals (n=18)

RESULTS

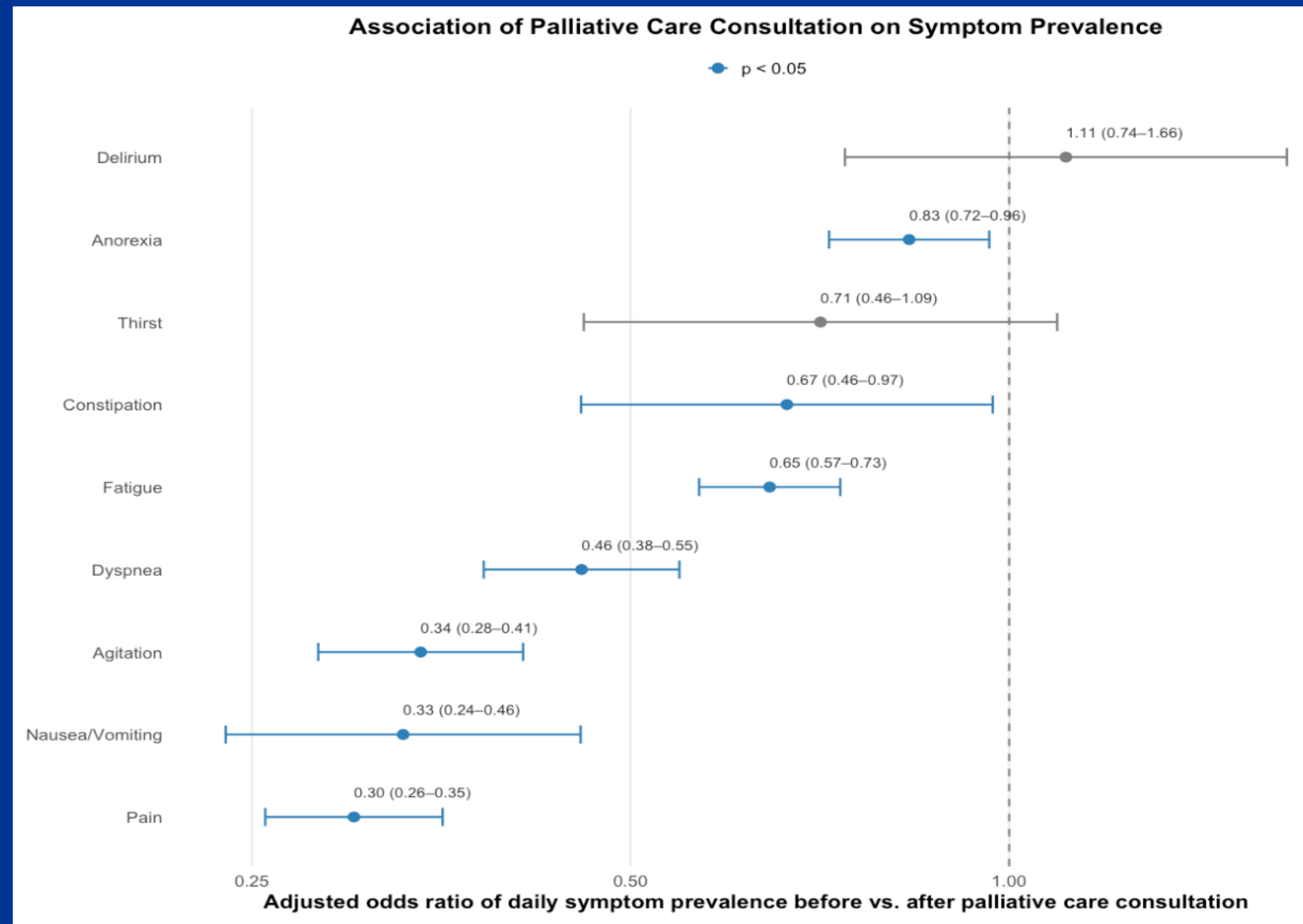


Figure 2. Association between palliative care consultation and daily distressing symptoms (adjusting for age, race/ethnicity, Area Deprivation Index, Rural-Urban Commuting Area Codes, timing of palliative care consultation, length of stay, restraint, ventilation, and comfort-oriented pharmacotherapy and non-pharmacotherapy, and goals of care discussions; n=1427)

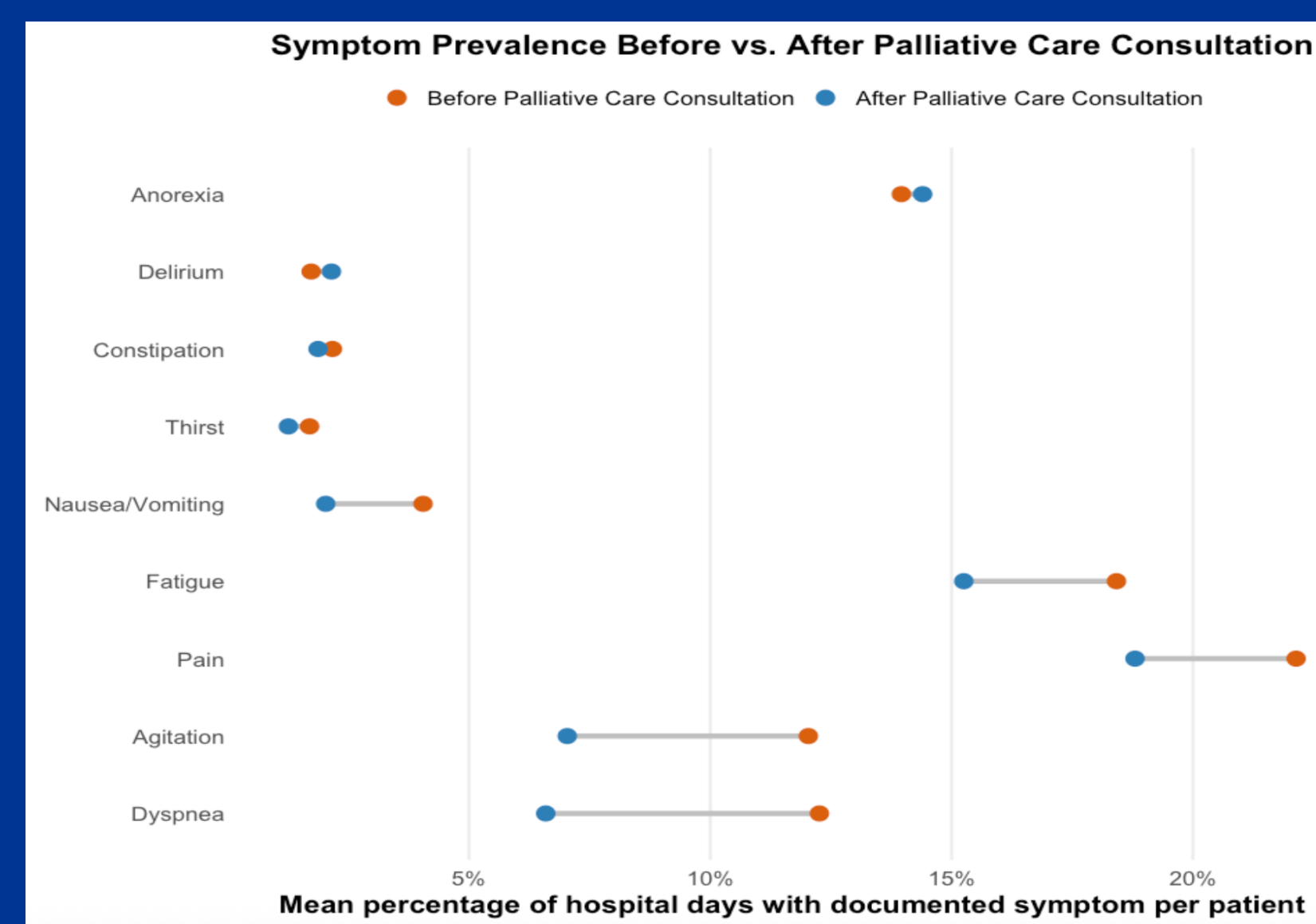


Figure 3. Descriptive statistics of symptom prevalence before vs. after palliative care consultation (n=1427)

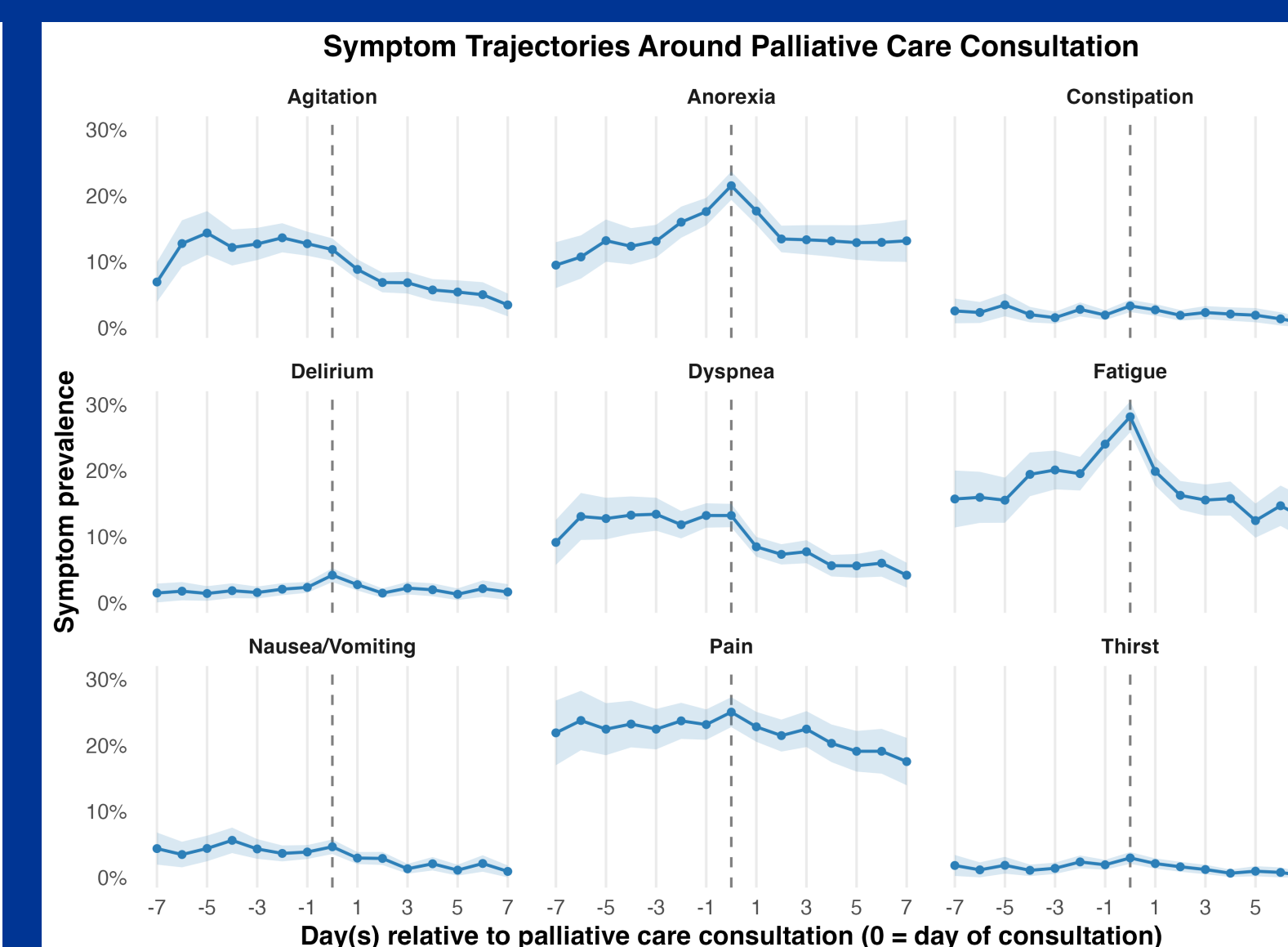


Figure 4. Symptom trajectories before and after palliative care consultation (n=1427)

RESULTS

- Participant characteristics are reported in **Table 1**
- Associations between palliative care consultation and daily distressing symptoms (**Figure 2**), and symptom prevalence (**Figure 3**) and trajectories (**Figure 4**) before and after palliative care are visually summarized

Variable	Descriptive Statistics	Variable	Descriptive Statistics
Age (median/IQR)	85 (12)	Comorbidity Counts (mean/SD)	3.88(2.24)
Sex (n/%)		Race & Ethnicity (n/%)	
Female	807 (57%)	Non-Hispanic White	1270 (89%)
Area Deprivation Index (National Percentile; median/IQR)	69 (35)	Rural-Urban Commuting Area Codes (n/%)	
		Rural	148 (10%)
Categories of Admission Diagnosis (n/%)		Functional Assessment Staging Tool (FAST; n/%)	
Orthopedics / Trauma	297 (21%)	Stage 2: Early Changes	3 (0.2%)
Neuro	220 (15%)	Stage 3: Mild Losses	65 (4.6%)
Infectious Disease	196 (14%)	Stage 4: Moderate Losses	254 (17.8%)
Respiratory	200 (14%)	Stage 5: Moderately Severe Losses	313 (21.9%)
Cardiovascular	159 (11%)	Stage 6: Severely Impaired	533 (37.4%)
Renal / GU	131 (9.2%)	Stage 7: Total Dependence	259 (18.1%)
GI/Hepatic/Bile	92 (6.4%)		
Hematological/Oncological	87 (6.1%)		
Endocrine/Inflammatory/Other	45 (3.2%)		
Length of Hospital Stay (median/IQR)	9 (9)	90-Day Readmission (n/%)	
		Yes	194 (17%)
Living Arrangement Prior to Admission (n/%)		Discharge Disposition (n/%)	
Home	899 (63%)	Nursing Home	546 (38%)
Nursing Home	509 (36%)	Hospice	356 (25%)
Sublevel Acute Care	19 (1.3%)	Passed Away	292 (20%)
		Home	192 (13%)
		Sublevel Acute Care	38 (2.7%)
		Others	3 (0.2%)
Code Status Upon Admission (n/%)		Code Status at Discharge (n/%)	
Full Code	525 (37%)	Full Code	164 (11%)
DNR or DNI	53 (3.7%)	DNR or DNI	21 (1.5%)
DNR and DNI	710 (50%)	DNR and DNI	697 (49%)
Comfort Measure Only	75 (5.3%)	Comfort Measure Only	529 (37%)
No Documentation	64 (4.5%)	No Documentation	16 (1.1%)
Presence of Comorbidities (n/%)		Presence of Comorbidities (n/%)	
Diabetes	432 (30%)	Chronic Obstructive	325 (23%)
Cancer (solid tumor, leukemia, lymphoma, metastatic tumor)	365 (26%)	Pulmonary Disease	212 (15%)
Cerebrovascular Disease	365 (26%)	Myocardial Infarction	210 (15%)
Connective Tissue Disease	376 (26%)	Peripheral Vascular Disease	67 (4.7%)
Congestive Heart Failure	356 (25%)	Ulcer	31 (2.2%)
Renal Disease	350 (25%)	Liver Disease	31 (2.2%)

Table 1. Sociodemographics and clinical characteristics of patients with dementia (n=1427)

DISCUSSION

- Palliative care has the potential to alleviate distressing symptoms among people living with dementia
 - Specifically with pain, nausea/vomiting, agitation, dyspnea, fatigue, constipation, and anorexia
- Upstream involvement of palliative care principles in the care for people living with dementia
- Future Directions
 - Improvement in symptom assessment & documentation
 - Incorporation of multidimensional clinical profiles

REFERENCES

ACKNOWLEDGEMENTS



- We gratefully acknowledge **Ruth and Bill Fincke PhD Student Research Award** and **Swigart/Gold Doctoral Award** in supporting this project.
- We extend our deepest appreciation to the contribution from undergraduate nursing research students, including **Sophia Loreski, Maya Berrebbi, Stella William, Alea Dorunda, and Rosa Simon.**
- For additional discussions, please contact the email: yuz152@pitt.edu.