Melody Weaver, PhD, NP

PERSONAL STATEMENT

I have spent the last 35 years in clinical practice. I am now employed by Idaho State University, the only university in Idaho to offer a PhD in Nursing. As a tenure-track professor I find myself with the opportunity to apply my years of "learning from my patients" to attempting to answer the "why" questions that come from my clinical practice. This experiential phase of my professional career has included work with disenfranchised populations in urban and rural settings. Along the way I completed my PhD at the University of Utah, my dissertation, an urban mini-ethnography, focused on the symptom experience of Mexicana/o persons, conducted in both English and Spanish. Embedded in my entire nursing career has been the discovery of the patients' symptom experience, management and outcomes. On my journey I have become certified in hospice and palliative nursing, focusing on palliative care for homebound older persons.

The Translational Research Scholar Program will afford me the opportunity to develop as a researcher, learning and refreshing the skills necessary for creating a robust research program. The focus of the program is the exploration of symptom experience, management and outcomes, initially exploring the experience of older homebound persons receiving meals on wheels in southeastern Idaho. I am particularly interested in the patient and/or caregiver experience with how a symptom or symptom cluster affects the older person's quality of life. Conducting a feasibility study with older homebound participants from urban/rural/frontier settings will provide a foundation for further explication of the symptom experience, as well as, hopefully, provide a launch platform for longitudinal, interdisciplinary work focused on improving symptom management which impacts quality of life and one's opportunity to "age in place."

My clinical research goals include exploration of the symptom experience of diverse vulnerable homebound elderly persons in the community with complex health/illness issues. . The symptom experience is a contextual one. Developing a better understanding of vulnerable populations' symptom experiences and outcomes provides, for nursing, a richer understanding of the persons for whom we provide care, thus giving us the opportunity to provide high-quality patient-centered care within a given context. Completion of this feasibility study will support my application for a larger K or R-series research grant proposal. As a new investigator, having funding and mentoring strengthens my opportunity to network with colleagues across the northwest and is integral to conducting larger studies with the requisite expertise in the topic, methods, and analysis of translational research.

Title: Exploratory study of symptom burden and quality of life in homebound older persons receiving Meals-On-Wheels in southeastern Idaho

Purpose: To explore the degree of symptom burden and quality of life in older homebound persons receiving of Meals-On-Wheels (MOW) living in southeastern Idaho, a primarily rural/frontier area of the state.

SPECIFIC AIMS: To collect data measuring symptom burden (SxB) and quality of life (QOL) in the selected population. Factors that may influence SxB and QOL include number of diagnoses (multimorbidity = >2 diagnoses), number of medications/supplements/herbal products (polypharmacy = >5 medications including supplements and herbal products) and functional/cognitive status (activities of daily living/cognitive measure). Data regarding these factors will be collected as well.

SIGNIFICANCE of this exploratory study is its contribution to our understanding of SxB and QOL in older homebound persons receiving MOW. The primary reason older people seek healthcare services is to address a symptom or symptoms (St. Sauver, et al 2013) resulting from chronic illness. Wanjberg, Ornstein, Zhang, Smith & Soriano (2013) state that older homebound individuals indicate that they have symptom burden that affects their quality of life. Imagine the homebound older person, unable to walk without assistance, not able to drive. Simply getting out of the house may be a huge challenge. What do they do? Developing a better understanding of SxB and QOL in this population will provide valuable insight for nursing in terms of developing strategies and interventions to decrease SxB and improve QOL in older homebound persons in southeastern Idaho which is primarily a rural/frontier area.

INNOVATION: This study seeks to help fill in a knowledge gap that currently exists in our understanding of SxB and QOL in homebound older persons receiving MOW living in a primarily rural/frontier area of the country and thus our ability to provide successful interventions with this population.

APPROACH: This is an exploratory study seeking to measure SxB and QOL in homebound older persons. Study variables include 1) demographic information, 2) SxB scores across nine common symptoms, 3) a measure of QOL, 4) measures of multimorbidity, polypharmacy and functional status.
The sampling method is purposive and will be accessed from recipients of MOW in the seven county area served by the Idaho Area Agency on Aging Region V (M. Hirschi, personal communication, September 15, 2017), which includes one urban county, three rural counties and three frontier counties. The target sample size for this study is 150 participants.
Eligible participants must be 65 years old or older, defined by Medicare guidelines (Medicare.gov, 2017) as homebound, receiving MOW and able to participate in the interview. As a cognitive assessment Mini-Cog is part of the data collection process those individuals who are significantly impaired (score of 0-1 as measured by the Mini-Cog) will be excluded from data analysis as their responses will most likely be proxy responses. Written consent to participate and to photograph the participant will be completed per human subjects' guidelines. Participation is voluntary and the individual may withdraw anytime during the interview.
Measures include a number of instruments, a collection form for demographic variables, list of diagnoses (*multimorbidity*) and number of medications/supplements/herbs (*polypharmacy*) will be designed for ease of data entry. Symptom severity will be measured using the Edmonton Symptom Assessment System – revised version (ESAS-r) (Watanabe, Nekolaichuk, Beaumont, Johnson, Myers & Florian, 2011), an instrument with well-established reliability and validity (Hui & Bruera, 2017), which measures subjective severity of nine common symptoms experienced by persons with chronic illness and includes one measure for a participant-specific symptom which may not have been addressed; *Symptom burden* is reported as total sum of single burden rating. *Quality of Life* will be measured using the Centers for Disease Control and Preventions (CDC) 4-item measure of health-related quality of life (HRQOL-4) reported on a 5-point Likert scale, with well-established reliability and validity (CDC, 2000).

To measure *functional status* the 8-item Lawton Instrumental Activities of Daily Living (IADL) scale (Lawton & Brody, 1969) and the 6-item Katz Index of Independence in Activities of Daily Living (ADL) (Katz, Ford, Moskowitz, Jackson & Jaffe, 1963)) will be used, both having established reliability (Shelkey & Wallace, 2012 ; Graf, 2013). The Mini-cog (Borson, Scanlon & Chen, 2003), a well-established, simple measure of *cognitive impairment,* which assesses recall and executive function, will be utilized. Procedures: the study will commence upon university Institutional Review Board approval. The Principal Investigator (PI) will contact potential participants from the list of Idaho Area on Aging Region V MOW providers (M. Hirschi, personal communication, September 15, 2017) that meet inclusion criteria. The study will be explained to each participant in their home; all questions will be answered; voluntary informed consents will be obtained. The PI will administer each measure assisting the participant based on his/her ability to complete the measure. Each participant packet will be coded to provide confidentiality with completed packets and code book stored in a double-lock setting.

Data Analysis will be conducted with *SPSS 25*, with initial assessment of outliers and incomplete data. Descriptive statistics will be calculated on participants' variables of interest. Number of diagnoses will be used as a sum score to address multimorbidity. A sum score will be used to measure polypharmacy. Single symptom severity will be addressed as a reported value on a 0-10 scale for each symptom addressed. Overall symptom burden will be reported as a sum score of all reported symptoms. QOL will be reported as a sum score of the four HRQOL items. The measures for IADL (# out of 8) and ADL (# out of 6) will be reported each as a sum score. Cognitive assessment will be reported as a score of 0-3 using the Mini-Cog. The relationship between SxB and QOL will be calculated using appropriate correlational statistical analysis and reviewed with the primary mentor. This study will provide the researcher with extensive descriptive information that will inform the level of SxB and QOL as reported by homebound MOW participants and provide meaningful data for future K or R type grants

Potential Limitations include challenges with access to study participants due to factors such as fear, family/community resistance, health literacy issues, and geography, thus limiting sample size. Telephonic contact will be kept to a minimum as older persons prefer face-to-face interactions, however recent data demonstrates that older persons prefer telephone contact to text messages or email. The major benchmark of this study is to shed light on symptom burden and quality of life in older homebound persons receiving MOW living in southeastern Idaho.

TRANSLATIONAL IMPACT of this exploratory clinical research study of SxB and QOL in older homebound persons receiving MOW in southeastern Idaho is that this study will provide data-driven information regarding these phenomena in persons who might not otherwise have a voice. By giving voice to this symptom experience in older homebound persons nursing, as well as an entire interdisciplinary team, can better meet the needs of this population and creatively develop strategies and interventions.

References

Borson, S., Scanlan, J.M., & Chen, P. (2003). The mini-cog as a screen for dementia: Validation in a population-based sample. Journal of American Geriatric Society, 51, 1451-1454.

Centers for Disease Control and Prevention. (2000). Measuring healthy days: Population assessment of health-related quality of life. Retrieved from https://www.cdc.gov/hrqol/pdfs/mhd.pdf

Graf, C. (2013). The Lawton instrumental activities of daily living (IADL) scale. *Hartford Institute For Geriatric Nursing*, New York University, College of Nursing, 23. Available at www.hartfordign.org

Hui, D., & Bruera, E. (2017). The Edmonton symptom assessment system 25 years later: Past, present, and future developments. *Journal of Pain and Symptom Management*, 53(3), 630-643. http://dx.doi.org/10.1016/j.jpainsymman.2016.10.370

Katz, S., Ford, A.B., Moskowitz, R.W., Jackson, B.A., & Jaffe, M.W. (1963). Studies of illness in the aged: The index of ADL: A standardized measure of biological and psychosocial function. *Journal of American Medical Association*, 185(12), 914-919.

Lawton, M.P., & Brody, E.M. (1969). Assessment of older people: Self-maintaining and instrumental activities of daily living. *The Gerontologist*, 9(3), 179-186.

Medicare/HomeHealth.(2017). Retrieved from *Medicare.gov*: https://www.medicare.gov/homehealthcompare/Resources/Glossary.html

Shelkey, M., & Wallace, M. (2012). Katz index of independence in activities of daily living (ADL). *Hartford Institute for Geriatric Nursing, New York University, College of Nursing*, 2. Available at www.hartfordign.org.

St. Sauver, J.L., Warner, D.O., Yawn, B.P., Jacobson, D.J., McGree, M.E., Pankratz, J.J., … Rocca, W.A. (2013). Why patients visit their doctors: Assessing the most prevalent conditions in a defined American population. *Mayo Clinic Proceedings*, 88(1), 56-57. http://dx.doi.org/10.1016/j.mayocp.2012.08.020

Wajnberg, A., Ornstein, K., Zhang, M., Smith, K.L., & Soriano, T. (2013). Symptom burden In chronically ill homebound individuals. *Journal of American Geriatric Society*, 61, 126-131. Doi: 10.1111/jgs.12038

Watanabe, S.M., Nekolaichuk, C., Beaumont, C., Johnson, L., Myers, J., & Strasser, F. (2011). A multicenter study comparing two numerical versions of the Edmonton symptom assessment system in palliative care patients. Journal of Pain and Symptom Management, 41(2), 456-466. Doi:1-.1016/j.jpainsymman.2010.04.020

Applicant Name (Last, First, Middle):

ITHS Institute of Translational Health Sciences
Accelerating Research. Improving Health.

DETAILED BUDGET

FROM 03/01/18 THROUGH 02/28/19

List PERSONNEL *(Applicant Organization Only)*
Enter Dollar Amounts Requested (omit cents) for Salary Requested and Fringe Benefits

Use Cal, Acad, or Summer to Enter Months Devoted to Project

NAME	ROLE ON PROJECT	Cal. Mnths	Acad. Mnths	Summer Mnths	INST.BASE SALARY	SALARY REQUESTED	FRINGE BENEFITS	TOTAL
Melody Weaver (no salary requested)	PI		1.80		0			0
Mary Nies (no salary requested)	Mentor		0.90		0			0
SUBTOTALS →						0	0	0

CONSULTANT COSTS	
EQUIPMENT *(Itemize)*	
SUPPLIES *(Itemize by category)* Digital instant camera for data collection ($207) Camera accessories such as case, bag, film, and frames ($175) Data collection supplies such as paper, printer ink, folders to make data collection packets ($350) Data storage items such as encrypted USB drives, external hard drive, and memory card ($250)	982
TRAVEL Travel costs to meet with Community Stakeholders in rural southestern Idaho ($993) Travel costs to meet with study 150 Participants in rural southeastern Idaho ($2,317) Conference Travel for professional development and to disseminate results ($2,000)	5,310
OTHER EXPENSES (Itemize by category) Study participant incentives for attending interview, etc. $5 x 150 participants ($750)	750

CONSORTIUM/CONTRACTUAL COSTS	DIRECT COSTS	
SUBTOTAL DIRECT COSTS FOR BUDGET PERIOD		**$** 7,042
CONSORTIUM/CONTRACTUAL COSTS	FACILITIES AND ADMINISTRATION COSTS	
TOTAL DIRECT COSTS FOR BUDGET PERIOD		$ 7,042
TOTAL INDIRECT COSTS FOR BUDGET PERIOD		$ 2,958
TOTAL COSTS FOR BUDGET PERIOD		**$ 10,000**

BUDGET JUSTIFICATION

Exploratory study of symptom burden and quality of life in homebound older persons receiving Meals-On-Wheels in southeastern Idaho

Senior/Key Personnel (salary and fringe) **$0**

Principal Investigator/Project Director: **Melody Weaver, PhD** (1.8 academic months, no salary requested) will be responsible for all activities related to project goals and objectives. She will provide oversight of the entire project including policy, protocol, and documentation development; problem solve any issues that might arise; submit reports to the funding agency as required.

Mentor: **Mary Nies, PhD, RN, FAAN, FAAHB** (0.9 academic months, no salary requested) Dr. Nies will serve as the ITHS Translational Research Scholar Primary Mentor. She will provide guidance and support in all areas of the project including data analysis and dissemination for successful completion of the project. See Primary Mentor letter

Fringe Benefits ***$0***

The fringe benefits requested in this grant are consistent with the practices and policies of Idaho State University. They are direct charges, which cover items such as Social Security, worker's compensation, unemployment payments, and retirement programs. Fringe is pro-rated by FTE assignment in the event a person works on more than one grant. *Full-time employees* (0.50 FTE or more across combined projects, not to exceed 1 FTE) are charged at 21% plus $13,100 annually for health insurance.

Total Salary and Fringe Benefits **$0**

Supplies **$982**

	Unit cost	Months/quantity	Subtotal
a. Digital instant camera	207	1	207
b. Camera accessories	175	1	175
c. Data collection supplies	350	1	350
d. Data storage	250	1	250

a. *Camera*: Digital instant camera to be used for data collection
b. *Camera Accessories:* Case, bag, film, and accessories.
c. *Data collection supplies:* Paper, pens, copies, printer ink, folders, envelopes, etc. for data collection. Supplies will be used to specifically support program activities.
d. *Data storage:* Encrypted USB flash drives/ hard drives and memory cards for data storage.

Travel **$5,310**

	Conf fees	Air fare	Hotel	Per diem	Miles	Per mile	Ground	Subtotal	Day/ Night	# People/ # Trips	**Total**
a. Travel to meet with Community Stakeholders				45	121	.54		110	1	1/9	**993**
b. Travel to Participants				45	121	.54		110	1	1/21	**2,317**
c. Conference Travel	500	650	173	45			100	2,000	4/3	1/1	**2,000**

a. *Travel to meet with Community Stakeholders*: Project director will travel to meet with community stakeholders in Southeast Idaho.
b. *Travel to meet with study 150 Participants*: Project director will travel to Southeast Idaho to meet with community participants in rural areas.
c. *Conference travel:* Conference travel for project director for training and professional development.

Other **$750**

Study participation incentives: Incentives for attending and completing interview will be a small gift valued at $5 for 150 participants.

Direct Costs **$7,042**

Indirect Costs **$2,958**

Indirect charges are based on rate of 8% of total direct costs.

Total Direct and Indirect Costs **$10,000**

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: Weaver, Melody A.

eRA COMMONS USER NAME (credential, e.g., agency login): weavmelo

POSITION TITLE: Assistant Professor of Nursing

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
University of Texas at Arlington	BSN	1990	Nursing
University of Texas at Arlington	MSN	1992	Family Nursing
University of Utah	PhD	2002	Nursing Research

A.Personal Statement

I have more than 35 years of clinical experience in acute and primary care settings situated in both urban and rural environments. My dissertation work in symptom interpretation and management along with my expertise in palliative care, which I applied to my clinical practice with homebound older persons easing transitions to end-of-life care, as well as serving as a preceptor for nurse practitioner students has launched me on a trajectory of inquiry focusing on symptoms, quality of life and multimorbidity. I had the opportunity as a doctoral student to participate in a research practicum analyzing data examining reports of cancer pain in patients in South Africa conducted in seven different languages. My dissertation work was an examination of symptom interpretation and management in a Mexicana/o population conducted in English and Spanish. I was able to secure funding for this work through Sigma Theta Tau and the state nurse practitioner group. In addition, I teamed with a local dental hygienist and dentist to provide prevention of early childhood caries (ECC) with implementation of a cavity prevention program. This project was conducted in a rural area of Northern California where the ECC incidence in kindergarten students was 75%. This project began as a partnership with UCSF School of Pediatric Dentistry with microbiologic analysis support provided by UCLA School of Dentistry Microbiology Department. I was able to secure funding from community sources as well as a grant from the American Association of Nurse Practitioners Foundation. At the conclusion of the three year project the incidence of ECC was 25% in the kindergarten classes. After spending xx years in clinical practice as a nurse practitioner, I have recently begun a new position in academia as an Assistant Professor on tenure track with the expectations of doing research. I am now bringing this clinical practice skill set, my passion for the very core of nursing – symptom management, and my focus on our fastest growing demographic – older persons, together to create a research trajectory focusing on improving the lives of older persons living at

home. My clinical background, available research mentor, and university resources make me an excellent candidate for the ITHS Translational Research Scholars Program.

1.French, M.W. (2002). *El Corazon de la cebolla: A mini-ethnographic study of Mexicana/o symptom interpretation and management* (Doctoral dissertation). Retrieved from https://collections.lib.utah.edu/details?id=190658

B.Positions and Employment

2017- Assistant Professor, Nursing Idaho State University, Pocatello, ID
2011-2017 Nurse Practitioner, Healthcare Partners Medical Group, Los Angeles, CA
2006-2010 Nurse Practitioner, California Department of Corrections, Susanville, CA
2000-2006 Nurse Practitioner, Doyle Family Practice NRHC, Doyle, CA
1998-1999 Nurse Practitioner, Urgent Care Granger Medical Clinic, West Valley City, UT
1995-1998 Nurse Practitioner, Clinical Instructor, Division Emergency Medicine, SLC, UT

Other Experience and Professional memberships

2017- **Member**, Idaho Rural Health Association
2016- **Member**, American Geriatric Society
2015- **Member**, Hospice & Palliative Nurses' Association
2003-2006 **Advisory Board**, American College of Clinicians
1999- **Member**, American Nurses Association
1996-2000 **Chair Membership**, Utah Nurse Practitioner Conference Group
1992-2001 **Member,** Sigma Theta Tau
1987-1995 **NP-PA Liaison**, Texas Nurse Practitioners (Charter Member)
1982- **Member**, American Academy of Nurse Practitioners

Honors

1989 **Outstanding Clinical Undergraduate Student** University of Texas at Arlington, Arlington, TX
1992 **Outstanding Clinical Graduate Student** University of Texas at Arlington, Arlington, TX
1992 **Inductee**, Sigma Theta Tau
1997 **Contributions to Emergency Nursing**, Utah Emergency Nurses' Association, Salt Lake City,
1998 **Alumni Honors in Nursing**, College of Nursing University of Utah, Salt Lake City, UT
1999 **Alumni Honors in Nursing**, College of Nursing University of Utah, Salt Lake City, UT
2000 **Alumni Honors in Nursing**, College of Nursing University of Utah, Salt Lake City, UT
2004 **Excellence in Dental Care** Dental Consortium Lassen County, Doyle, CA
2016 **Service Excellence**, Healthcare Partners Medical Group, Glendale, CA

Contributions to Science

1. I had the opportunity during my doctoral studies to participate in data analysis of a research study of cancer pain conducted in South Africa in seven different languages.
    a. Cancer Pain in South Africa, Qualitative Analysis Research Practicum
    Susan L. Beck, Ph.D., RN, FAAN University of Utah

2. Worked in partnership with oral health providers in a rural county northern California to implement an intervention program for Early Childhood Caries. Other partners included UCSF School of Pediatric Dentistry and UCLA School of Dentistry.
    a. **Infant Oral Health Program: Implementation of Cavity Prevention Program in Primary Care Practice, Community Project South Lassen County**
    Sponsoring Agent(s): Lassen County Supervisors $1,000.00
    AANP Foundation Community Project Grant $2,000.00
    LPSCAA 2-year funding cycle (each year) $2,350.00

Role: Co-Principal Investigator, 75% effort
Date: Jul 2003-Jun 2004

Complete List of Published Work in MyBibilography
https://www.ncbi.nlm.nih.gov/sites/myncbi/1rShBQwo9yqAL/bibliography/53667930/public/?sort=date&direction=ascending