

# Proceedings of the 2015 Asian American/Pacific Islander Nurses Association Conference: Biological Measures: A Role in Nursing Self-Management Research

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## Editor's Message

It is our pleasure to present this special issue of selected articles presented at our most recent Asian American and Pacific Islander Nurses Association (AAPINA) 12th Annual Conference. The 2015 theme for the March 27-28, 2015, conference was "Protecting the Health of Diverse and Vulnerable Communities: Self and Symptom Management." The articles in this special issue focus on the scientific theme of self-management and self-care and are particularly relevant to the Asian and Pacific Island populations because of the increase in incidence of chronic illnesses in these populations.

## Overview of Abstracts

Our plenary speaker, Dr. Debra Toney, spoke to minority nurses leading change and the need for nurses to serve in leadership positions on boards as highlighted in the Institute of Medicine's "The Future of Nursing: Leading Change, Advancing Health." Dr. Margaret Heitkemper's keynote speech set the stage for the theme of the conference on biobehavioral research and symptom management.

Five abstracts were presented in the symposium on "Enhancing Self and Symptom Management of Chronic Illnesses in Vulnerable Populations." Dr. Alona Angosta not only studied ballroom dancing in Filipino Americans and found it a culturally acceptable physical activity but also other positive responses which could promote and sustain physical activity and health outcomes for this group. Dr. Jennifer Kawi and her colleagues presented a systematic review of exercise and biomarkers in people experiencing chronic pain to determine whether the biomarkers can be utilized as objective measures for risk assessment, diagnosis, and evaluation. Dr. Nada Lukkahatai and colleagues reviewed cognitive-behavioral therapy predictors and highlighted the need for consistency in cognitive-

behavioral therapy components and methods for determining effectiveness of therapies. Dr. Diane Thomason and her colleagues examined a review of self-management and weight loss in adolescents which found studies with a longer duration and parental inclusion resulted in sustained decreases in body mass index, and behavioral and psychosocial outcomes. Another self-management program on end-stage renal disease found positive results of a support program by Dr. Chutikarn Chatrungs and colleagues.

Teaching and training programs focused on end of life by Dr. Tricia Gatlin, a dedicated education unit by Dr. Tish Smyer and colleagues, and a faith-based and community-based parental training program by Dr. Eunjung Kim and colleagues. Changes in program acceptability, knowledge, and attitudes were reported with these methodologies.

Two abstracts on cardiovascular disease looked at barriers to high blood pressure control by Dr. Tam Nguyen and a culturally tailored stroke prevention program by Dr. Sarah Choi and colleagues. All these presentations focused on Asian and Asian Americans with important results to support their care.

We are encouraged with Dr. Mijung Park and colleague's abstract presented on the rates of comorbid metabolic disease and mental health issues among the Asian American population.

We are especially delighted to present these conference presentations and to announce that AAPINA will be holding their next annual conference in March 2016. Please visit the AAPINA website (<http://aapina.org/>) for details. We hope to spotlight these presentations in *Asian/Pacific Island Nursing Journal* in the future.

Jillian Inouye, PhD, APRN, FAAN  
*Editor*



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## Invited Speaker

Friday, March 27, 2015

### *Minority Nurses Leading Change: 10,000 Nurses on Board*

**Debra A. Toney, PhD, RN, FAAN<sup>1</sup>**

<sup>1</sup>Director of Operations and Quality Management at Nevada Health Centers, USA

Nurses play a pivotal role in the mission to help people live healthier lives. Nurses are one of the critical links in promoting better outcomes. They help save lives, which makes them superheroes to the patients they care for. With more than 3 million members, the nursing profession is the largest segment of the nation's health care workforce. Nurses must be prepared to meet patients' needs, function as leaders, and advance science that benefits patients and the capacity of health professionals to deliver safe, quality patient-centered care. For our nation to adequately address the challenges facing our health care system, the challenges facing the nursing profession must be addressed. The "Future of Nursing: Leading Change, Advancing Health" outlines a blueprint for transforming the nursing profession to enhance the quality and value of U.S. health care in ways that meet future needs of the Nation's populations. Nurses are at the forefront of the effort to transform our health care system, through the myriad of roles we play.

In a 2011 survey, nurses account for only 6% of hospital board positions, even though this is the place where most nurses are employed. This contrasts with the number of physicians on boards—they account for 20%. Without a nurse trustee, boards lack an authority on the patient experience, quality, and safety, "Trustee Magazine." "The Future of Nursing: Leading Change, Advancing Health" states that "nurses should be full partners, with physicians and other health care professionals, in redesigning health care in the United States." It is clear that for our complex health care system to be successful, nurses need to be in key decision-making positions.

## Oral Presentations

Friday, March 27, 2015 (10:15 a.m.-11:45 a.m.)

### Symposium Abstract 1

#### *Enhancing Self and Symptom Management of Chronic Illnesses in Vulnerable Populations*

**Jillian Inouye, PhD, FAAN<sup>1</sup>**

<sup>1</sup>University of Nevada, Las Vegas, USA

Self-management of activities of daily living as well as symptom management of illness conditions are crucial behaviors that enhance the quality of life and improve health. However, methods to enhance these behaviors in different populations remain variable and individualized. More information of the specificity of these methods and how they apply to different populations can assist treatment planning and health promotion. This symposium will focus on reviews on how different factors and interventions such as weight loss interventions, cognitive-behavioral interventions, ballroom dancing, and exercise and biomarkers play in enhancing self and symptom management in different populations with different health conditions.

### Symposium Abstract 2

#### *Ballroom Dance: An Acceptable Physical Activity for Filipino Americans*

**Alona D. Angosta, PhD, APRN, NP-C<sup>1</sup>, Reimund Serafica, PhD, RN<sup>1</sup>, Victor Vapor, MSN, ARNP, ANP, GNP, NP-C, AGPCNP-BC, CCRN, CNRN<sup>1</sup>, and Rhigel Alforque-Tan, DNP, APRN, PMHNP, GNP, ANP<sup>1</sup>**

<sup>1</sup>University of Nevada, Las Vegas, USA

**Purpose:** Physical inactivity is a common problem among Filipino Americans. The most common reasons given for physical inactivity are lack of interest and dissatisfaction with the type of activity they are engaged in. Physical activities that are considered enjoyable provide motivation and have a potential for sustainability. An example of a physical activity that is enjoyable is ballroom dance. Ballroom dance is a social activity many Filipinos find engaging.

Moreover, ballroom dance has a rich, meaningful history in the Filipino culture. Our study evaluated the meaning of ballroom dance among Filipino Americans and whether ballroom dance was an acceptable physical activity for this population.

**Method:** The target sample of 37 Filipino Americans was recruited. Informed consent was obtained prior to completion of a questionnaire. The questionnaire had 17 open-ended questions. The questionnaire was developed by the primary investigator to explore Filipino Americans' perceptions of the ballroom dance study and determine whether ballroom dance was an enjoyable and acceptable physical activity.

**Results:** Inductive qualitative content analysis was used to categorize the content of the narrative data to identify

prominent themes and patterns among the themes. We reviewed and analyzed each participant's responses. There were repetitive responses noted, indicating data saturation. Responses were further collapsed into four common themes: ballroom dance as a (a) self-fulfilling activity, (b) venue for socialization, (c) worthwhile diversion and a sustainable exercise, and (d) conduit to community service. To ensure rigor and trustworthiness of the data analysis, a qualitative research expert reviewed and verified the questions, responses, categories, and themes.

**Conclusion:** According to the findings of this study, ballroom dance is a culturally acceptable physical activity for Filipino Americans. Moreover, ballroom dance has a potential to promote and sustain physical activity, and it has a potential to improve the cardiovascular outcomes of Filipino Americans. Nurse researchers and clinicians performing minority-oriented physical activity interventions should reinforce that ballroom dance is not just a social activity but an activity that can be performed regularly. Ballroom dance is enjoyable; it has the potential to promote physical activity, and it can be applied to clinical and community settings.

### Symposium Abstract 3

#### *Exercise and Biomarkers in Conditions With Chronic Pain: A Systematic Review*

**Jennifer Kawi, PhD, MSN, APRN, FNP-BC, CNE<sup>1</sup>, Nada Lukkahatai, PhD, MSN, RN<sup>1</sup>, Jillian Inouye, PhD, FAAN<sup>1</sup>, Diane L. Thomason, PhD, MN, RN<sup>1</sup>, and Kirsten Connelly, MPH, BA<sup>1</sup>**

<sup>1</sup>University of Nevada, Las Vegas, USA

**Purpose:** Exercise is a common self and symptom management strategy used by individuals with chronic pain. Pain is typically assessed using self-reports. Recently, basic and clinical research studies have reported various biomarkers as clinical endpoints in chronic pain. However, it is a question whether these biomarkers serve a useful tool as objective measures in chronic pain. This systematic review evaluated data from clinical trials that included biomarkers using exercise interventions in non-malignant chronic musculoskeletal pain conditions.

**Method:** Utilizing the Jadad Scale for reporting the quality of clinical trials, published research studies were examined using several databases.

**Results:** Ten research studies were reviewed. Jadad scores ranged from 5 to 11 out of 13 points. Various

biomarkers were used in chronic pain, including genes related to inflammation, metabolite detection, neurotransmitters, and cartilage/disc degeneration. Inflammatory markers were the most common followed by neurotransmitter-related genes, with significant associations to pain, disability, fatigue, depression, and anxiety, after exercise interventions. However, there is a lack of consistency in results with varying methodology in the studies reviewed.

**Conclusion:** It remains a question whether biomarkers can be utilized as objective measures for risk assessment, diagnosis, and evaluation of chronic pain progression. Study replications, adequate sample sizes, and longitudinal research studies with consistent methodologies are warranted. Regardless, the potential translational value of biomarkers in chronic pain is evident. Advancing genomic nursing science is vital in progressing the nursing discipline and clinical practice in chronic pain. Furthermore, developing a biobehavioral standpoint in complex conditions like chronic pain is necessary toward comprehensive management.

### Symposium Abstract 4

#### *Predictors of Cognitive-Behavioral Therapy in Chronic Diseases: Integrative Review*

**Nada Lukkahatai, PhD, MSN, RN<sup>1</sup>, Jillian Inouye, PhD, FAAN<sup>1</sup>, Diane L. Thomason, PhD, MN, RN<sup>1</sup>, Jennifer Kawi, PhD, MSN, APRN, FNP-BC, CNE<sup>1</sup>, Bruce Leonard, PhD, RN, APRN<sup>1</sup>, and Kirsten E. Connelly, MPH, BA<sup>1</sup>**

<sup>1</sup>University of Nevada Las Vegas, USA

**Purpose:** Cognitive-behavioral therapy (CBT) is a self-management strategy used by patients with chronic diseases. Studies consistently report the effectiveness of this therapy in managing symptoms and improving patients' quality of life. However, evidence also shows that not all patients benefit from the therapy.

**Method:** This article presents findings from an integrative review of studies published in PubMed, PsycINFO, SCOPUS, and EMBASE between 2010 and 2014 that investigated outcome predictors of CBT in chronic illness. The use of CBT in psychological disorders was excluded from the review. Four reviewers independently evaluated the quality of 11 studies using the Jadad Scoring of Quality of Reports of Randomized Clinical Trials instrument. The reviewers discussed the item scores among themselves until they came to a consensus.

**Results:** Eleven studies were included into this review. Every study supported the effectiveness of CBT for both immediate and long-term outcomes. The intervention components of CBT used in these studies were varied in the number and duration of sessions and the methods of identifying the effectiveness of the CBT. Most studies investigated the significant predictability of the psychological variables. Only one study investigated physiological predictors, and none investigated biological predictors.

**Conclusion:** This result highlighted the importance of consistency in the CBT components and methods used to identify the effectiveness of therapy. Furthermore, including physical and biological predictors of CBT outcomes is warranted, specifically in patients with a chronic illness.

## Symposium Abstract 5

### *Self-Management and Weight Loss in Adolescents: An Integrative Review*

**Diane L. Thomason, PhD, MN, RN<sup>1</sup>, Bruce Leonard, PhD, RN, APRN<sup>1</sup>, Nada Lukkahatai, PhD, MSN, RN<sup>1</sup>, Jennifer Kawi, PhD, MSN, APRN, FNP-BC, CNE<sup>1</sup>, Kirsten E. Connelly, MPH, BA<sup>1</sup>, and Jillian Inouye, PhD, FAAN<sup>1</sup>**

<sup>1</sup>University of Nevada, Las Vegas, USA

**Purpose:** Intervention effectiveness promoting self-management of weight loss in overweight and obese adolescents is constantly progressing. However, there is limited research on the efficacy of current studies using self-management interventions on weight loss in the adolescent population. The purpose was to develop a better understanding of effective self-management weight loss strategies for overweight and obese youth.

**Method:** This integrative review evaluates the effects of current adolescent self-management weight loss interventions in adolescents aged 11 to 18 years. Studies published between April 2011 and April 2014 were identified by electronic database searches. The Jadad Scoring of Quality Reports of Randomized Clinical Trials was used to examine the quality of the studies. We then reviewed the articles based on the Jadad criteria.

**Results:** Ten studies were included in the final review. Quality scores ranged from 8 to 11 for clinical trials and 3 to 6 for non-clinical trials. A mix of behavioral, psychological, anthropometric, and metabolic outcomes was positive for self-management weight loss for the majority of studies. Five limitations emerged from the

review: (a) high attrition rates, (b) short duration of studies to illustrate the effectiveness of weight loss, (c) lack of parental participation, (d) limited use of theoretical conceptual frameworks for intervention development, and (e) inconsistent terminology of self-management concept.

**Conclusion:** Studies with a longer duration and parental inclusion reported significant, sustained decreases in body mass index and behavioral and psychosocial outcomes. More theoretically based studies and consensus in using one term and working definition of the concept self-management in adolescent weight loss is needed.

Friday, March 27, 2015 (3:30 p.m.-4:30 p.m.)

## Abstract 6

### *End of Life Teaching Strategy to Improve Student's Attitudes Toward the Dying Patient*

**Tricia K. Gatlin, PhD, RN, CNE<sup>1</sup>**

<sup>1</sup>University of Nevada, Las Vegas, USA

**Purpose:** End of life (EOL) care is an important aspect of nursing when comfort and quality of life are the patient's goals. The End-of-Life Nursing Education Consortium (ELNEC) developed a comprehensive program of teaching care of the dying to nurses and nursing students.

**Method:** This pretest–posttest study evaluated the influence of the integration of an EOL teaching strategy based on the ELNEC curriculum in a baccalaureate nursing program on students' attitudes toward care of the dying. The Frommelt Attitudes Toward Care of the Dying Scale (FATCOD) for nurses was administered to senior nursing students ( $n = 44$ ) before and after exposure to a daylong EOL teaching strategy. A paired-samples  $t$  test was conducted to evaluate the impact of the intervention on students' scores on the FATCOD.

**Results:** There was a statistically significant increase in FATCOD scores from Time 1 ( $M = 118.74$ ,  $SD = 8.71$ ) to Time 2 ( $M = 129.60$ ,  $SD = 9.44$ ),  $t(43) = 8.73$ ,  $p < .0005$  (two-tailed). The mean increase in FATCOD scores was 10.86 with a 95% confidence interval ranging from 8.35 to 13.36. The  $\eta^2$  statistic (.63) indicated a large effect size. Analysis conducted between Time 1 and Time 2 on males and females and different ethnic groups showed statistically significant data as well.

**Conclusion:** Higher mean scores on the FATCOD were noted both pre- and post-test among Asian/Pacific Islander students when compared with other ethnic groups. The findings suggest that integrating EOL teaching strategies based on the ELNEC curriculum positively affects the attitudes of nursing students toward the care of patients who are dying.

## Abstract 7

### *Systematic and Deliberate Orientation and Instruction for Dedicated Education Unit Staff*

**Tish Smyer, DNSc, RN, CNE<sup>1</sup>, Marianne Tejada, MSN, RN<sup>1</sup>, and Rhigel Jay Alforque-Tan, DNP, APRN, RN, GNP, ANP, PMHNP<sup>1</sup>**

<sup>1</sup>University of Nevada Las Vegas, Las Vegas, NV, USA

**Purpose:** As part of the University of Nevada, Las Vegas, School of Nursing's Strategic Plan (UNLV SON), creating optimal clinical learning environments in collaboration with community health care providers to promote excellence in clinical nursing education was a goal. This goal was congruent with Benner's work, *Educating Nurses: A Call for Radical Transformation* (2010), and the Institute of Medicines, "The Future of Nursing: Leading Change, Advancing Health" (2011).

**Method:** Based on the increasing complexity of the health care environment and recommended changes in how nurses are educated to meet these challenges, UNLV SON established an academic-practice partnership with Summerlin Hospital to develop a Dedicated Education Unit (DEU).

**Results:** The DEU model offers some relief from the traditional model related to student hospital orientation time, managing student instruction with 1:8 ratio of faculty to students, and hospital staff's complex workload. When the DEU was implemented, there were variables that needed to be addressed that were not discussed in the literature. One area was how to impart the pedagogy related to clinical teaching to the nursing staff who would be acting as Clinical Dedicated Unit Instructors (CDIs). Of chief concern was the evaluation and monitoring of the quality of CDI/student interactions to assure optimal student learning outcomes.

**Conclusion:** This presentation describes the development of a deliberate, systematic approach for the orientation and continued education of CDIs in the DEU over 2 years (2012-2014). The information in this presentation may also assist other nursing programs as they begin implementation of DEUs.

## Invited Speaker

Saturday, March 28, 2015

**Margaret Heitkemper, RN, PhD, FAAN<sup>1</sup>**

<sup>1</sup>University of Washington, Seattle, USA

Today's nursing researchers who conduct biobehavioral research are challenged to incorporate new biobehavioral measures that include "omics" (e.g., metabolomics, proteomics, and genomics). At the same time, the National Institute for Nursing Research (NINR) has identified the importance of studying those factors that serve as barriers to patient and family self-management as well as facilitators of self-management. As noted on the NINR website, "the science of self-management examines strategies to help individuals with chronic conditions, their families and caregivers better understand and manage their illness and enhance health behavior. This science area relates to assisting individuals & their families to live with their chronic illness by developing effective self-management approaches to improve quality of life and reduce the burden of illness." The realm of symptom science involves understanding the mechanisms accounting for symptoms and discovering the best treatment of symptoms. The merging of these two themes (symptom science and self-management) was reflected in the recent publication of the Innovative Questions posed by NINR. For example, one question reads, "Based on individual 'omics,' environmental factors, and behavior, what are the most effective and targeted interventions that can be expedited for translation to reduce risk and promote health?"

For over 25 years, my colleagues and I have studied the pathophysiologic basis of chronic abdominal pain in patients with irritable bowel syndrome (IBS). To do this, we have collected blood, urine, saliva, and stool specimens to characterize stress-related hormones, proteins associated with intestinal protection and permeability, stool microbiota, and DNA to clarify mechanism(s) of symptom generation. A weakness of the many studies of IBS is the relatively small number of Asian American participants who enroll. This reduces the likelihood of meaningful comparisons based on race/ethnicity. Qualitative data regarding the experience of Asian Americans in terms of symptoms and their managements as well as their communication with health care providers are needed. Data from Asian countries are not directly applicable given differences in diet, environment, and therapies. Asian Americans represent a diverse group, and additional research is needed to understand symptom clusters, the degree of life and work impact caused by the symptoms, and their adherence to protocols.

Biobehavioral nursing science is key to optimal patient and family care. If done well by using the latest technology to capture predetermined biomarkers, implementing common data elements for cross study comparisons, employing mixed methods to capture the patient's perspective, and generating large samples that allow for comparisons across ethnic and gender groups, it will provide data that can be used for personalized strategies to reduce symptom burden.

Saturday, March 28, 2015 (10:00 a.m.-10:40 a.m.)

### Abstract 8

*Adapting the Korean Parent Training Program Using Faith-Based and Community-Based Participatory Research*

**Eunjung Kim, PhD, ARNP<sup>1</sup>, Doris Boutain, PhD, RN<sup>1</sup>, Sangho Kim, PhD<sup>2</sup>, Jin-Joo Chun, BA<sup>2</sup>, and Hyesang Im, PhD, RN<sup>2</sup>**

<sup>1</sup>University of Washington, Seattle, USA

<sup>2</sup>Community Advisory Board, Seattle, WA, USA

**Purpose:** The purpose of this study was to revise a prototype Korean Parent Training Program (KPTP) to increase cultural sensitivity and acceptability by working with community advisory board (CAB) members from Korean churches.

**Method:** A faith-based, community-based participatory research method was used. Delphi Survey, community theater, and focus groups were conducted to revise the KPTP. The sample included 18 CAB members from six-partnered churches, including one research project leader and one community research associate.

**Results:** The CAB rated the prototype KPTP as having a high level of relevancy to Korean culture and a high efficacy in teaching effective parenting strategies to participants. They suggested adding the traditional Korean parenting virtues as an underlying philosophy. They also recommended adding Christian philosophy and context to lessons, such as viewing children and parents as reflected in Biblical parables, focusing on healthy stewardship parenting, writing a reconciliation letter to participant's mother and father, building a new tradition in the family, using prayer to address negative feelings and emotions, and starting/ending all sessions with a prayer. In addition, the CAB advised researchers to add a genogram, combine sticker chart and effective direction, reduce the five steps of emotion coaching to four steps, and replace the family meeting tool with

suggestions that parents help children establish daily routines.

**Conclusion:** Revisions made KPTP more sensitive to Korean culture and faith and promoted program acceptability. The findings indicate the importance of working with a CAB to use faith-based, community-supported health promotion interventions targeting minority communities.

### Abstract 9

*Barriers to High Blood Pressure Control Among Vietnamese Americans*

**Tam H. Nguyen, PhD, MSN/MPH, RN<sup>1</sup>**

<sup>1</sup>Boston College, Chestnut Hill, MA, USA

**Purpose:** High blood pressure (HBP) is an urgent health concern for many Vietnamese Americans (VAs). Once diagnosed, medication is often needed to achieve optimal BP control. The purpose of this study is to identify barriers to being on HBP medication and achieving optimal control among VAs with HBP.

**Method:** A cross-sectional study of VAs with HBP who reside in the Baltimore-Washington area was conducted. Survey data and three BP measures were obtained from each participant.

**Results:** 136 VAs with HBP were enrolled in this study, 25% of whom were not on any HBP medication. Among those not on any HBP medication, 0% achieved optimal control. Among those on HBP medication, 49% achieved optimal control. Those without health insurance were 62% less likely (OR = 0.38, 95% CI = [0.16, 0.91]) to be on HBP medication. Similarly, those who perceived their health to be "good" or "excellent" were 64% less likely (OR = 0.36, 95% CI = [0.16, 0.81]) to be on HBP medication. Among VAs on HBP medication, a trend toward better BP control was found among those who were adherent to their HBP therapy.

**Conclusion:** This study reveals that BP control remains sub-optimal among VAs. Improving access to insurance will address one important barrier. With the passage of the Affordable Care Act, nurses should actively encourage VAs to enroll, and future research should track progress toward HBP control. Further-more, there remains an urgent need to reinforce awareness about the importance of taking (and adhering to) HBP medication even in the absence of symptoms, given that HBP is a "silent killer."

### Abstract 10

*Culturally Tailoring a Stroke Prevention Program for Korean Immigrant Seniors Using Focus Groups*

**Sarah Choi, PhD, RN, FNP<sup>1</sup>, Ivy Kwon, MPH<sup>2</sup>, Carol Lee Thorpe, MBA<sup>3</sup>, and Catherine Sarkisian, MD, MSPH<sup>2</sup>**

<sup>1</sup>University of California, Irvine, USA

<sup>2</sup>University of California, Los Angeles, USA

<sup>3</sup>St. Barnabas Senior Services, Los Angeles, CA, USA

**Purpose:** To gain better understanding of (a) beliefs and knowledge about stroke, (b) attitudes about walking for stroke prevention, and (c) barriers and facilitators to walking among Korean seniors.

**Method:** We conducted three focus groups with 29 Korean immigrant seniors aged 60 years and older (men = 10, women = 19) using a semi-structured focus group guide developed in collaboration with a community advisory board and translated into Korean. Focus groups audio was transcribed, translated, and analyzed for themes using ATLAS.ti software. Two study members independently coded each transcript.

**Results:** Participants identified physical and psychological imbalances (e.g., too much work and stress) as the primary causes of stroke. Means of prevention included diet and exercise (including walking), treating medical problems on an ongoing basis, and maintaining emotional well-being. A subset of participants expressed that prevention is beyond human control. Overall, participants acknowledged the importance of walking for stroke prevention but described barriers such as lack of personal motivation and unsafe environment. Many participants believed that providing opportunities for socialization while walking and combining walking with health information sessions by health care professionals would facilitate participation in and maintenance of a walking program.

**Conclusion:** A stroke prevention walking program for Korean seniors may have greater impact by addressing culturally unique perspectives on stroke causes and prevention such as physical and psychological imbalances and importance of maintaining emotional well-being for prevention. Further exploration may be needed to address the belief that stroke prevention is beyond human control in the stroke prevention walking program.

**Acknowledgements:** This study was supported by National Institutes of Health (NIH)/National Institute of Neurological Disorders and Stroke (1U54NS081764), NIH K24 Midcareer Investigator Award in Patient-

Oriented Research (1K24AG047899-01), NIH/ UCLA Older Americans Independence Center (P30AG028747), and NIH/ UCLA Resource Center for Minority Aging Research/Center for Healthcare of Minority Elders (2P30AG021684).

**Abstract 11**

*Effects of Self-Management Support Program for End Stage Renal Disease Patients With Continuous Ambulatory Peritoneal Dialysis*

**Chutikarn Chatrung, DrPH<sup>1</sup>, KwanjaiAmnatsatsue, PhD<sup>2</sup>; Patcharaporn Kerdmongkol, PhD<sup>2</sup>, Somporn Kantharadussadee Triamchaisri, PhD<sup>3</sup>, and Siroj Sorajjakool, PhD<sup>4</sup>**

<sup>1</sup>Boromarajonani College of Nursing, Suphanburi, Thailand

<sup>2</sup>Mahidol University, Bangkok, Thailand

<sup>3</sup>Mahidol University, Bangkok, Thailand

<sup>4</sup>Loma Linda University, Loma Linda, CA, USA

**Purpose:** Although Thai patients with End Stage Renal Disease (ESRD) have been covered by the universal coverage for continuous ambulatory peritoneal dialysis (CAPD) since 2007, necessary attributes for health outcome of these patients are still questionable. The aim of this quasi-experimental study was to evaluate the effects of a self-management support program for ESRD patients with CAPD, Thailand.

**Method:** Thirty and 28 ESRD patients with CAPD, who were registered at the general hospital and living in Suphanburi Province, were randomly assigned to join the intervention and comparison groups, respectively. The 12-week self-management support program was implemented after the institutional review board (IRB) approved. The subjects received education and training care at home. The effects of this study were evaluated in terms of changes in self-management, quality of life (QoL), and clinical outcomes of before and after implementation.

**Results:** According to the *t* test, those from the intervention group had significantly higher scores of the self-management and QoL than before the implementation and the comparison group. However, there were no significant differences of the selected clinical outcomes between before and after intervention, only systolic blood pressure of the intervention group was improved significantly than before intervention.

**Conclusion:** The findings supported that the program improved the patients' self-management and QoL. The

linkage of care of the nurses between primary and secondary level of health care service was a key success factor of this study. Public Health Nurses should be trained for skills relating to case manager in an effort to encourage patient's self-confidence. This program should be applied for other chronic diseases.  
Saturday, March 28, 2015 (2:20 p.m.-2:25 p.m.)

## Abstract 12

*A Preliminary Finding of the Relationship Between Gender, Age, and Racial Dependent Effects of Tumor Necrosis Factor Receptor 1 (TNFR1) on Caregiving Burden Stress*

**Hyunhwa Lee, PhD, PMHNP-BC<sup>1</sup>, Michelle Clark, PhD, RN<sup>1</sup>, and Du Feng, PhD<sup>1</sup>**

<sup>1</sup>University of Nevada, Las Vegas, USA

**Purpose:** Tumor necrosis factor alpha (TNF- $\alpha$ ) is a pro-inflammatory cytokine with a role as an immune mediator for stress response. We examined tumor necrosis factor receptor 1 (TNFR1) levels in peripheral blood, a common marker for TNF- $\alpha$ , and explored its influences on caregiving burden in association with gender, age, as well as race.

**Method:** A total of 104 participants (71.2% female, 73.1% white) actively caring for an elderly dependent were included for data analysis. Their mean length of caregiving time was 5.5 years (range = 0.08-30 years). Their caregiving burden and serum TNFR1 levels were assessed using the Burden Interview Index (BI) and enzyme-linked immunosorbent assay.

**Results:** Males demonstrated significantly higher TNFR1 levels than females ( $p < .05$ ), and Whites showed much higher TNFR1 than the Black group ( $p < .01$ ), although no difference was found in caregiving burden by gender or race. When separating by gender, only in female group, the older reported significantly less burden and higher TNFR1 levels ( $ps < .01$ ). Further multivariate analyses for females by race revealed significantly higher caregiving burden in younger ( $p < .001$ ) White females with higher TNFR1 levels ( $p < .10$ ) after controlling for caregiving time. However, in Hispanic/Latino and Black female groups, older age marginally predicted higher caregiving burden ( $p < .10$ ).

**Conclusion:** Preliminary data demonstrated that age,

gender, and race along with TNFR1 can contribute in different ways to levels of perceived stress related to caregiving burden. A larger study might suggest a personalized approach for different gender, age, and racial groups to reduce caregivers' stress.

## Abstract 13

*The Rates of Comorbid Metabolic Disease and Mental Health Issues Among Asian American Population*

**Mijung Park, PhD, MPH, RN<sup>1</sup> and Dongmei Li, PhD<sup>2</sup>**

<sup>1</sup>University of Pittsburgh, PA, USA

<sup>2</sup>University of Rochester, NY, USA

**Purpose:** To examine the association between metabolic symptoms, and mood and anxiety disorders in Asian American populations and whether these associations vary by ethnicity (Chinese, Filipino, and Vietnamese).

**Method:** Data were comprised from 2,096 community residing Asian Americans adult subsample from the National Latino and Asian American Study (NLAAS). We used descriptive statistics to examine the sample characteristics, and bivariate logistic and multivariate logistic regression modeling to examine the association between the risk for comorbid metabolic syndromes and mood/anxiety disorders. We also examined whether these associations were modified by ethnicity by adding interaction terms. All models were adjusted for age, gender, marital status, education, poverty level, and years in the United States.

**Results:** The risk for chronic pain associated with comorbid depressive or anxiety disorder in Asian American populations was 1.50 (95% CI = [1.04, 2.15]). This risk was much greater in Filipino Americans (weighted adjusted RR = 2.21, 95% CI = [1.36, 3.59]), compared with other ethnic subgroups.

**Conclusion:** Members of certain ethnic group may experience disproportionate metabolic burdens of depression or anxiety than others. Further research is needed to further our understanding the underlying mechanism of and the impact of cultural and social-economic factors on chronic pain among individuals of Asian origin. Culturally appropriate disease prevention and disease self-management nursing intervention are urgently needed.