



# **Predictors of Self-management for Chronic Low Back Pain**

**Jennifer Kawi**

**PhD MSN APRN FNP-BC CNE**

The background of the slide features a photograph of a rugged mountain range at sunset or sunrise, with the peaks illuminated in warm orange and red light. The UNLV logo is overlaid in the bottom right corner in a white, serif font.

**UNLV**



**Jennifer Kawi**

**PhD MSN APRN FNP-BC CNE**

- Funded through the Nurse Practitioner Healthcare Foundation (NPHF)/Purdue Pharma L.P. Pain Management Award
- No conflict of interest

The bottom of the slide features a photograph of a rugged mountain range under a clear sky. The mountains are bathed in a warm, golden light, likely from the setting or rising sun. In the bottom right corner, the letters "UNLV" are superimposed in a large, white, serif font.

UNLV



# Objectives

- Verbalize understanding of variables that best predict self-management (SM) of chronic low back pain (CLBP)
- Demonstrate knowledge of these predictors for individuals in specialty pain centers and primary care clinics
- Increase understanding of the implications of SM to nursing in caring for patients with CLBP



# Aims

- Identify variables that predict SM CLBP
- Evaluate differences in these variables between individuals in specialty pain centers and primary care clinics.





# Background

- CLBP is highly prevalent: more than 1 in 4 afflicted (National Center for Health Statistics, 2012)
- \$100-200 billion/per year of healthcare costs (Freburger et al., 2009).
- Vulnerable to disability, 7<sup>th</sup> leading cause of disability (Murray & Lopez, 2013).
- SM strategies are strongly recommended in chronic pain care guidelines



# BACKGROUND (cont.)

- SM = performance of tasks and skills with self-efficacy (Lorig & Holman, 2003)
- Evidence of SM effectiveness in CLBP remains unclear (Oliveira et al., 2012)
- SM programs maybe effective only in certain subgroups of the chronic pain population



# Method

- Secondary analysis of data
- Collected from two CLBP research studies (Kawi, 2012; Kawi, in press) in specialty pain centers and primary care clinics ( $N = 230$ )
- General linear modeling
- Variables: demographics, SM support, support from others, pain intensity, functional ability, mental health state, and others



# Measures

- Demographic Survey
- Patient Activation Measure
- Patient Assessment of Chronic Illness Care
- Oswestry Disability Index
- Mental Health Inventory





# Results: Demographics and Pain-Related Variables

- Age 46.7
- Females 63.9%
- non-Hispanic 84.7%
- Caucasians 50.4%
- With college education 53.9%
- Income < \$15,000 47.4%
- Disabled 43%
- Current pain management helpful 42.6%
- Overall health from 'fair' to 'good' 71.2%



# Results: Overall and Between Settings

Variables	Overall	Specialty Pain Centers	Primary Care Clinics
Duration of CLBP	10.7	10.9	10.6
# of Pain management modalities used	4.4	5	3.8
# of Medical Conditions	4.1	3.8	4.4
SM Scores	58.4	60.1	56.9
SM Support	2.8	2.6	3.0
Pain Intensity	2.57	2.55	2.58
Function/Disability Score	45.3	44.5	46
Mental Health State	55.4	54.7	56.1



# Results: Significant Differences Between Settings

Variables	Specialty Pain Centers	Primary Care Clinics
Single	46.3	61.6
African-Americans	16.4	49.6
Income < 15,000K	37.3	56.7
No Healthcare Insurance	10.9	24.2
# of Pain Management Modalities Used	5	3.8
Perceived SMS	2.6	3



# Results: Predictors to SM

OVERALL	SPECIALTY PAIN CENTERS	PRIMARY CARE CLINICS
Age		
Education		
Overall Health	Overall Health	Overall Health
SM Support	SM Support	SM Support
Helpfulness of pain management	Other Support	
	Religion/Spirituality	
		Income





# Conclusions

- Allow for more appropriate intervention according to individual needs
- Evaluate individual's willingness and abilities to engage in SM
- Increase our knowledge and skills in providing SM support
- Advocate for healthcare system changes
- What about those who do not respond to SM?
- Interprofessional collaboration



# References

- Freburger, J. K., Holmes, G. M., Agans, R. P., Jackman, A. M., Darter, J. D., Wallace, A. S., ... Carey, T. S. (2009). The rising prevalence of chronic low back pain. *Archives of Internal Medicine*, 169, 251-258. doi:10.1001/archinternmed.2008.543
- Kawi, J. (2012). Self-management and self-management support on functional ablement in chronic low back pain. *Pain Management Nursing*. Advance online publication. doi:10.1016/j.pmn.2012.05.001
- Kawi, J. (in press). Self-management and self-management support on chronic low back pain patients in primary care. *Journal of the American Academy of Nurse Practitioners*.
- Lorig, K. R., & Holman, H. R. (2003). Self-management education: History, definition, outcomes, and mechanisms. *Annals of Behavioral Medicine*, 26, 1-7.
- Murray, C. J. L., & Lopez, A. D. (2013). Measuring the global burden of disease. *New England Journal of Medicine*, 369, 448-457.
- National Center for Health Statistics. (2012). Health, United States, 2011: With special feature socioeconomic status and health. *Centers for Disease Control and Prevention*. Retrieved from <http://www.cdc.gov/nchs/data/hus/hus11.pdf>
- Oliveira, V. C., Ferreira, P. H., Maher, C. G., Pinto, R. Z., Refshauge, K. M., & Ferreira, M. L. (2012). Effectiveness of self-management of low back pain: Systematic review with meta-analysis. *Arthritis Care & Research*, 64, 1739-1748.