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## **Neuromusculoskeletal Pain and Daily Work Routines among Women Living in Rural Nicaragua: An Education-Based Intervention**

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**Introduction:** Over the past 12 years women living in a rural community in an autonomous region of Nicaragua consistently report neuromusculoskeletal pain and they seek medication to relieve their pain from a primary health care team that travels from the United States to provide care on an annual basis. These women typically do not have access to information about proper ways to lift and carry heavy objects they use throughout the day, nor are they aware of strategies for positioning and strengthening their bodies to reduce strain and protect them from injury.

**Objective:** This project describes an educational intervention, developed in collaboration with young girls living in rural Nicaragua, that is designed to teach women different ways of completing tasks and routines that require hard physical labor as they care for their families.

**Description/report:** The project includes (1) biomechanical analyses of movement patterns embedded within daily activities and routines performed by women who report chronic neuromusculoskeletal pain, (2) characteristics of instruction designed to teach principles of proper biomechanics and modifications that women are most likely to follow, (3) illustration of ways in which use of space and the built environment influence how work is conducted in a rural community.

**Results/Discussion:** The effectiveness of instructional materials designed to change the ways in which women perform daily tasks is directly related to the design of materials, the method utilized to share information and the age of women and girls who receive instruction.

**Conclusion:** Ways in which women position and move their bodies and the physical properties of objects they use during work-related activities are related to self reported neuromusculoskeletal pain. Descriptions of both subjective and objective self reported pain vary between women living in housing with amenities and those living in housing without amenities.

**Contributions to the practice/evidence base of occupational therapy:** Women living in under resourced countries may not have access to modern amenities, such as running water, electricity, and light weight cooking equipment, however, instruction and minor modifications in materials used on a daily basis may decrease pain and increase quality of life.