

An Abstract of the Thesis of

Anne Meredith Bradley for the degree of Master of Science

in the Department of Exercise and Movement Science to be taken June 2004

Title: INVESTIGATION OF AN ORIGINAL PATELLOFEMORAL PAIN

SYNDROME SCREENING TOOL WITH AN EMPHASIS ON LOWER

EXTREMITY DYNAMIC CONTROL IN ACTIVE FEMALES

Approved: \_\_\_\_\_  
Dr. Susan Verscheure

The purpose of this study was to investigate the clinical usefulness of an original screening tool in the detection of existing relationships between hip strength and flexibility in active females and patellofemoral pain syndrome. Fifty women were physically assessed for rectus femoris, hip external rotator and abductor strength; rectus femoris, hamstring, and calf flexibility; and abnormal knee and hip movement during dynamic tasks. Screening tool scores were compared to subjective pain questionnaire scores. The results of this study demonstrated that there is a moderate correlation between lower extremity dynamic control and patellofemoral pain syndrome. Seventy eight percent of the subjects demonstrated strength deficits of the hip external rotator and/or abductor muscles. A strong correlation between isolated rectus femoris or hamstring inflexibility to PFPS was not supported. It is likely that these strength deficits contribute to poor hip stability and valgus movement at the knee and contribute to patellofemoral pain syndrome.