POSTER: THE MEASUREMENT OF QUALITY OF MOVEMENT IN THE GENERAL POPULATION USING MECHANICAL ELECTROMECHANICAL (MEMS) DEVICES: A SYSTEMATIC REVIEW.

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Objective: To achieve a greater understanding of the use of MEMS devices to assess quality of movement and how the definition of quality of movement may differ in different populations such as child, adult and clinical groups. The additional objectives are to recommend a definition of quality that suits all populations if deemed possible. Background: Quality of movement describes how well a motor activity is performed, and includes several aspects such as postural control, coordination and balance. Assessing quality of movement is vital because it allows the detection of even minor impediments in motor competence thus allowing effective intervention. It is important to use MEMS devices to assess quality of movement as they can be used to provide unique insight into the movement that the human eye may not see. Initial search found: That there are limitations to the current literature as there is a lack of MEMS devices being used to measure quality of movement with limited research evidence base in child and adult motor control, however there is a stronger literature base within special and clinical groups. It was found that there are different interpretations of quality of movement but not one universal definition. Method: The searches will be performed on Scopus, Web of Science and SportDiscus with a date restriction of 2010-2020. The search terms to be used include: “Quality of Movement”, “Movement pattern*”, Movement*, “Motor competence”, “Profiling movement”, “Motor Control”, “Movement quality” AND “MEMS device*”, Accelerometer*, “Inertial Sensor*”, Sensor*. There has been a total of 100,305 papers found in the initial search. Two researchers will sort the results based off the criteria and duplicates removed.