Adolescents' weight linked to severe knee pain

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(Medical Xpress)—Adolescents with a body mass index (BMI) rating of obese experience knee pain more often and to a greater severity than adolescents with a healthy weight, a new study shows.

The Arthritis Research UK funded study explored the relationship between obesity and pain around the body in young adults. Although previous epidemiological studies have identified obesity as a risk factor for general musculoskeletal pain in adults, this is the first study to investigate the link in adolescents.

Researchers at the University of Bristol surveyed 3,376 seventeen year olds, all from the 'Children of the 90s Study Group'. They answered a pain assessment questionnaire and their BMI was calculated based on measurements of their height and weight.

Of the 7 per cent of participants with a BMI rating of obese, 33 per cent were more likely to report musculoskeletal pain at any site around the body compared to non- obese participants. They were also more likely to report knee pain (87 per cent) and more severe average pain, with pain scores 11 per cent and 20 per cent higher.

Lower back pain was the most common pain reported by the study group overall, followed by shoulder and upper back pain.

Professor Jon Tobias, from the Musculoskeletal Research Unit at the University of Bristol, who led the investigation, said: "This study suggests that obesity is an important risk factor for pain in young adults, particularly knee pain. More research is needed to determine cause and effect, but if it is the case that obesity causes knee pain, these findings imply that obesity adversely affects joints relatively early in life, and may contribute to persisting symptoms and reduced function in later life."

Arthritis Research UK medical director, Professor Alan Silman said: "This study adds to the evidence that keeping to a healthy weight is important for everyone's joints, including young adults.

"More importantly this study also shows that obesity, the strongest risk factor for osteoarthritis in older adults, may start to damage the knees at this crucial period of life.

"Being overweight puts an extra burden on the weight-bearing joints like your knees and back. Because of the way joints work, the pressure in your knee is 5-6 times your body weight, so even a small weight loss can make a big difference and help keep joints pain free."

More information: The study was published in July 2012 in the journal *Pain*: Obesity is a risk factor for musculoskeletal pain in

adolescents: Findings from a population- based cohort, Kevin C. Deere, et al. Corresponding author: Jon H Tobias.

Provided by University of Bristol