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Studies reveal lifelong gender difference in physical activity

Females of all ages are less active than their male peers. Two studies, presented today (Tuesday 6 January) at a major academic conference, reveal the gender difference in activity levels among school children and the over 70s. Both studies show males to be more physically active than females.

The two studies are being presented at the UK Society for Behavioural Medicine annual conference (incorporating the National Prevention Research Initiative conference) at the University of Exeter.

A study focusing on primary schools in Liverpool gives the first evidence of the difference in girls' and boys' activity levels in the playground. The findings reveal that girls take part in 6% less vigorous playtime activity than boys. The researchers also found a correlation between large group activities and moderate-vigorous physical activity.

The preliminary results of a National Prevention Research Initiative (NPRI) funded project on activity levels among the over-70s mirror these results. Previous research has shown that people become less physically active as they grow older, but little is known about their activity patterns or what makes some more active than others. The results so far show men to be significantly more active than women.

Dr Nicky Ridgers of Liverpool John Moores University was a research fellow on the A-CLASS Project, part of which involved observing 10 and 11 year-old children in the school playground. She said: "Our study shows that girls and boys play differently. Girls tend to spend time in smaller groups and engage in verbal games, conversation and socialising. Most boys play in larger groups, which lend themselves more to physically active games, such as football."

While the study does not show the impact playtime activity has on a child's weight, the team believes it may be a factor. Data from the National Child Measurement scheme has shown that by the age of 11, 33 per cent of children are overweight or obese. This data shows no major difference between girls and boys, though other research has shown that adult women are more likely to be clinically obese than men.

Dr Ridgers added: "It is a concern that girls' activity levels are lower than boys and, although it is just one piece in a complex picture, this could be contributing to girls being overweight and obese. Schools should be aware of the differences between the way girls and boys behave in the playground and the fact that girls tend to favour small group activities. They could then consider the availability of equipment and provision of playtime activities that would encourage girls to take part in more vigorously active play."

Ken Fox, Professor of Exercise and Health Sciences at the University of Bristol, is leading Project OPAL (Older People and Active Living). OPAL is investigating activity levels among the growing but often overlooked proportion of the UK population that is over 70. He said: "In this study we are observing very low levels of activity among most people over 70. More than 70 per cent of the people involved in the research take fewer than 5,000 steps a day, for example. Women are more likely to be less active than men and have lower levels of physical function. Men accomplish more higher intensity physical activity than women and this seems to be explained by trips out of the house. However, there is evidence that they also sit down for longer periods in the day. Women do more lower intensity activity which probably represents daily tasks around the house. This would suggest that traditional family roles are still identifiable in this generation. We are now taking a closer look at what may lie behind this gender difference and are attempting to identify the best ways of promoting physical activity to help improve mental well-being and physical fitness among the over 70s."

The UK Society for Behavioural Medicine conference is hosted by the University of Exeter and Peninsula Medical School in Exeter on 6 and 7 January 2009. It will bring together over 100 of the UK's leading experts on behavioural medicine. Featuring high profile work from the UK's National Prevention Research Initiative, the conference focuses on how our behaviour affects our health, and the processes by which those behaviours can be altered to improve our health and prevent illness.

Professor Adrian Taylor, of the School of Sport and Health Sciences, leads the University of Exeter's Mental and Physical Health Research Network which is organising the conference. He said: "Society and our environment are leading us to do increasingly less physical activity with adverse health consequences such as heart disease, diabetes and mental health problems for people of all ages. Studies like these are helping us to understand how physically active the UK population really is, which can then be used to inform how best to promote greater physical activity across all age groups."

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