

### Knowledge Exchange Seminar Series (KESS)

...is a forum that encourages debate on a wide range of research findings, with the overall aim of promoting evidence-based policy and law-making within Northern Ireland



Teenage girls heading for a lifetime of ill-health. Using the school environment to enhance health-related behaviours: shared experiences and suggested future approaches

> Dr Angela Carlin Prof Alison Gallagher Prof Marie Murphy

Sport and Exercise Sciences Research Institute Biomedical Sciences Research Institute

**Ulster University** 

#### The Telegraph



One girl told the BBC's Chris Page: "When I grow up I would love to be in the Olympics but I do not think I would be as good as Jessica"

Half of all UK seven-year-olds do not do enough exercise, with girls far less active than boys, a study suggests.

University College London researchers found just 51% of the 6,500 children they monitored achieved the recommended hour of physical activity each News > UK > Home News

### Lack of physical activity among girls leading to poor mental health and low aspirations, warn experts

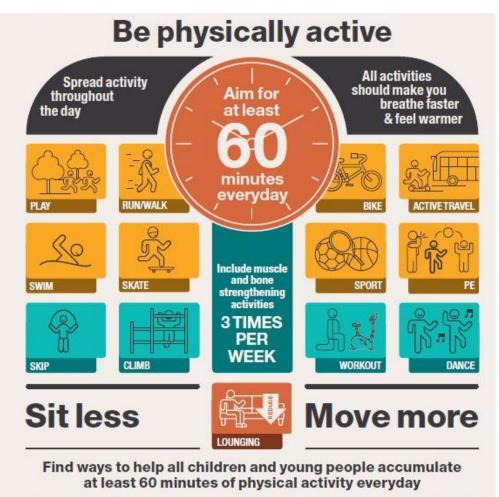
New figures show boys aged between eight and 15 spend almost twice as much time doing sport activities as girls of same age

May Bulman Social Affairs Correspondent | @maybulman | Tuesday 30 January 2018 15:56 GMT | 💭 0 comments









UK Chief Medical Officers' Guidelines 2011 Start Active, Stay Active: www.bit.ly/startactive



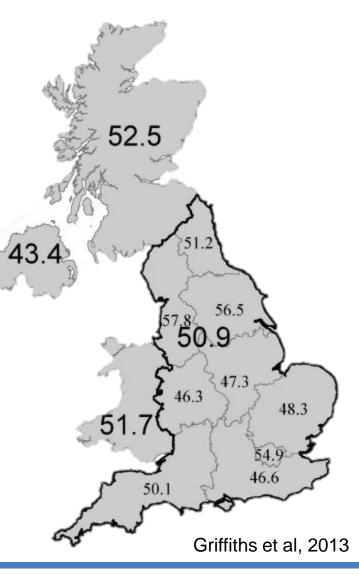
The Open University





#### BMJ How active are our children? Findings OPEN from the Millennium Cohort Study

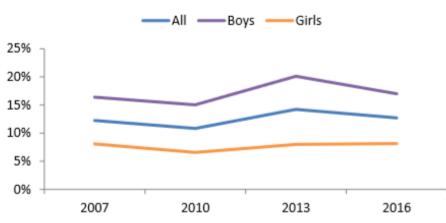
- Across the UK, only half of 7 year olds (50.8%) were achieving the recommended 60 minutes per day
- Girls (38%) were less active than boys (63%)
- Children in Northern Ireland were least likely to meet the recommendations







## Young Persons' Behaviour and Attitude Survey 2016



Proportion of young people doing 60 minutes every day

activity

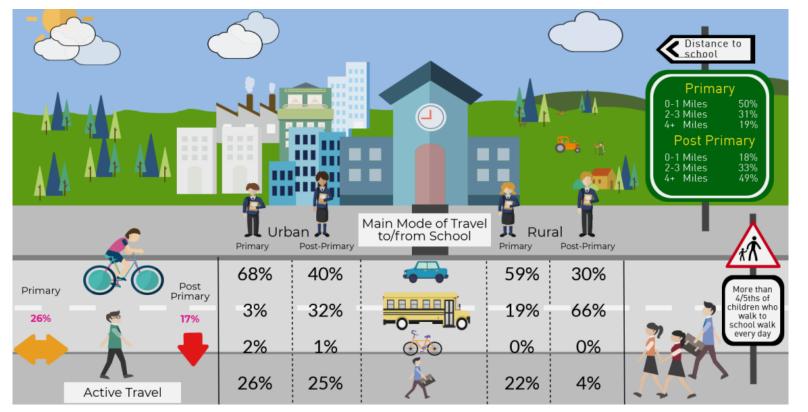
Number of days young people do 60 minutes of physical

#### Department of Health, 2017





# Method of travel to/from school by pupils in Northern Ireland 2016/17



Department of Infrastructure and NISRA, 2017

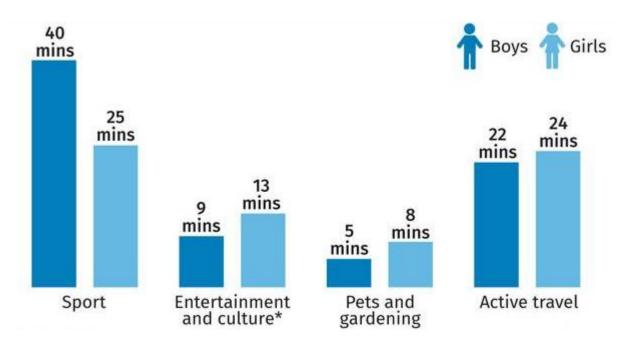




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## Average time spent per day by 8 -15 year olds on activities

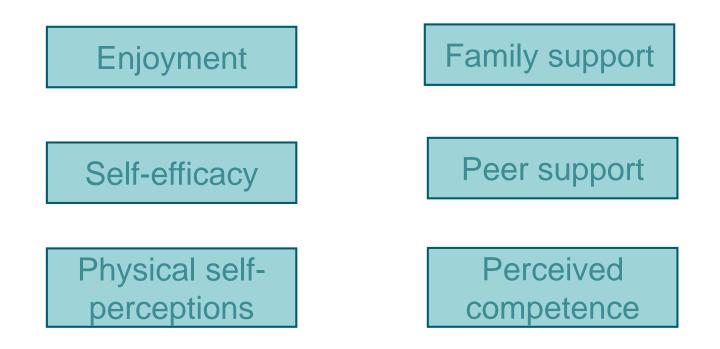


\* Physical activities, such as visiting historical sites, parks or playgrounds

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The Open University Queen's University Ulster University Northern Ireland Office of National Statistics, 2018

## Correlates, motives and barriers for health in teenage girls

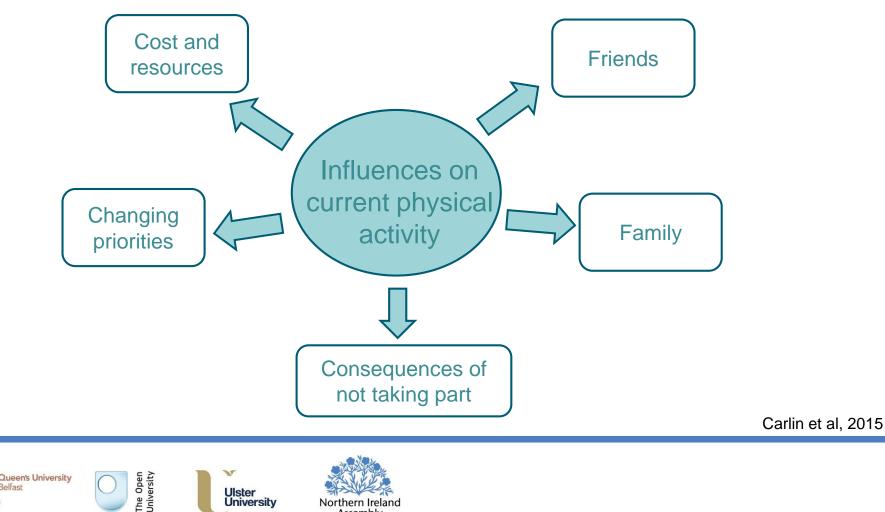


Biddle et al, 2011





## Correlates, motives and barriers for health in teenage girls



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### **Friends and Family**

"My like sister and my like mum are always like pushing, my mum like pushes me to do like different sports..."

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"...see I don't really do that much, but I'd say it's like say my friends are doing stuff I'd go do it with them."

Carlin et al, 2015









### **Cost and Access to Resources**

"...if there wasn't any clubs around you that you wanted to take part in and you were too far away, like petrol and all that, the time to get there and things like that." "You're more likely to do a sport that you don't have to pay lots for... 'cause then you can try it and if you don't like ... but if you have to buy stuff for it then you feel like it's a waste of money."

Carlin et al, 2015









## Correlates, motives and barriers for health in teenage girls



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## Opportunities to try new activities

"...if they weren't all sports... because some people don't like always like do a particular sport because you have to actually be good at it."

"Something different; like not Camogie or football because you can do that anywhere, just join like a team..."

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Carlin et al, 2015







## More opportunities within school to be more active

"... you could like do stuff with your friends, like "aw are you going to go to it" and then loadsa people would go... like out of school, I would tend to go on the internet or something." *"It would give you a chance to relax in the middle of the day, relax before the final classes..."* 

Carlin et al, 2015









# Promoting physical activity within the school setting

- Schools represent a key environment for promoting health related behaviours
- The school setting has the potential to overcome health inequalities, as all children and adolescents are able to participate irrespective of socioeconomic status















## Walking to promote physical activity in adolescents

- Most 'natural' form of physical activity
- Convenient, requires no specialist skills to participate, socially acceptable and no economic cost to the individual

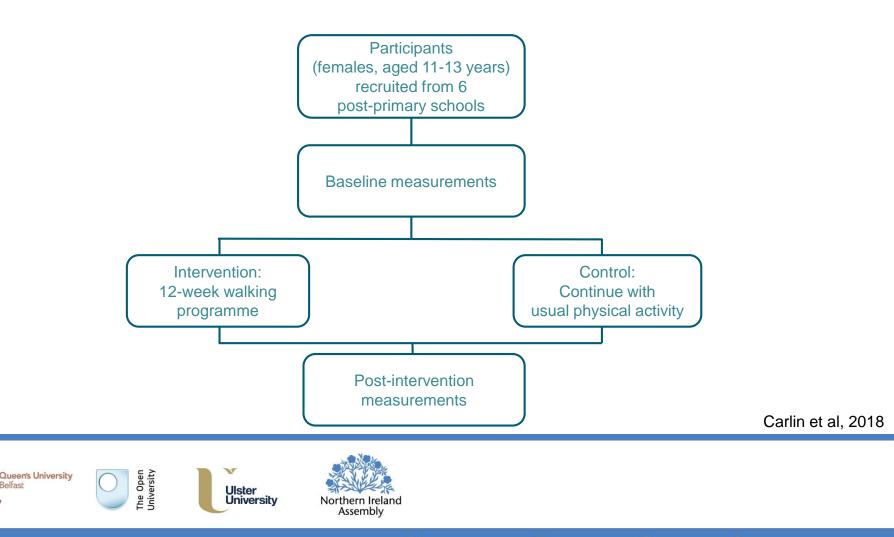


Morris and Hardman, 1997; Shultz et al, 2011





## The WISH study: Peer-led Walking In ScHools



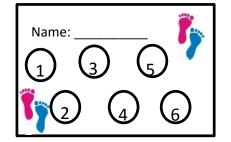
## The WISH study: Peer-led Walking In ScHools

12-week school based brisk-walking program

Walks (15 mins) delivered throughout the school day

Facilitated by 'Walk Leaders'

Walks were performed at a moderate intensity



Provided with reminders and reward stamps for each walk completed

Carlin et al, 2018





## The WISH study: Peer-led Walking In ScHools

Findings

- ↑ levels of light intensity physical activity across the school day by approximately 8 minutes/day
- ↓ levels of sedentary behaviour
- No change in moderate to vigorous physical activity
- Demonstrated that a novel low-cost intervention was feasible and positively changed physical activity behaviour in the short-term





## Evaluation of the WISH study

- Participants themselves felt that schools provided an ideal location where they could be more active
- They identified challenges of trying to be active within the school setting
- Girls felt they were disadvantaged when it came to the provision of extra-curricular sporting options
- Enjoyed the convenience of walking as an activity and the social opportunities the intervention provided





# The role of schools in promoting physical activity

 Only 9% of participating post-primary schools delivered the recommended 2 hours or more each week of physical education



Sport NI, 2010

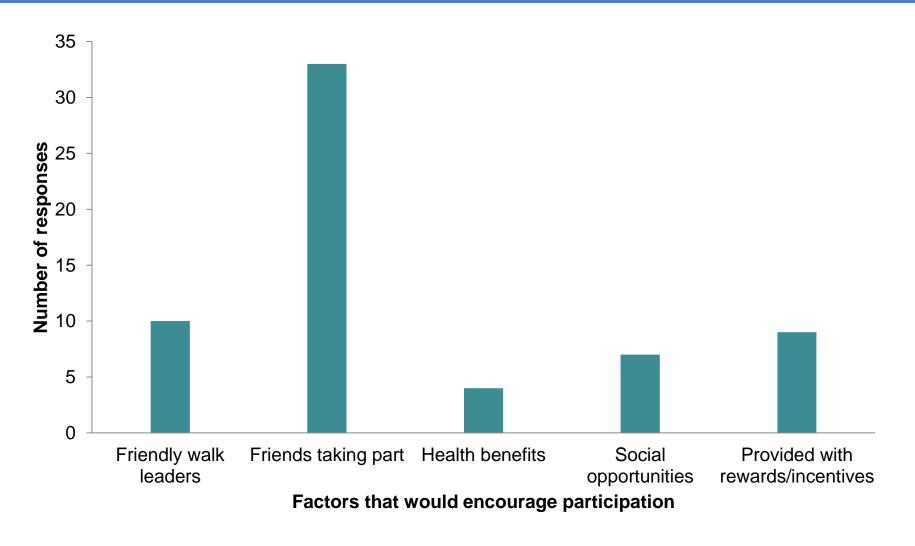




## Feasibility of delivering interventions within the school setting

- Specialist staff (i.e. PE teachers) were tasked with the implementation of extra-curricular activities across all responding schools
- Non-specialist staff (i.e. non-PE teachers) were also responsible for the implementation in over half of responding schools (55.9%)





Northern Ireland Assembly Carlin et al, Unpublished data



# Feasibility of delivering interventions within the school setting

- 58.3% of schools agreed that walking would be an effective means of promoting physical activity
- Practical issues safety, supervision and suitable ratios of staff-to-pupils, time and lack of suitable environment for walking





- There is a strong health case for promoting physical activity, healthy eating and other positive health-related behaviours in adolescents
- Interventions, such as the WISH study, provide novel low-cost opportunities to promote positive health-related behaviours in this population and extend these behaviours into adulthood







### Recommendations

Support the implementation and robust evaluation of interventions designed to increase and sustain the participation of girls in physical activity

> Ulster University

Promote peer-led approaches to physical activity in adolescents given the importance of peers to this age group

Promote walking amongst adolescent girls in a school setting

Queen's University Belfast The Open University





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