Author's response to reviews

Title: Neighbourhood perceptions of physical activity: a qualitative study.

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Author's response to reviews: see over
Response to Reviewer Comments

Thank you to the three reviewers for their consideration of this paper. We found the comments from reviewers 2 and 3 very useful and have incorporated them into a revised submission. A detailed response to each of the comments is provided.

Reviewer 2: Comments to the Author

1. Comment
Although the exploratory findings presented by Burgoyne et al., were used for intervention planning purposes, I do not think that they significantly add to the body of knowledge in the field of physical activity and health. The authors adopted an ecological approach to the study of physical activity and concluded that social, individual and environmental factors were important in determining whether residents of low income neighbourhoods in Cork city were physically active or not. This is not new. Several large scale quantitative studies found that residents’ physical activity was influenced by social, individual and environmental factors (see for example, the work of Giles-Corti and colleagues). Moreover recent studies even analysed the extent to which these three sets of factors can explain socio-economic inequalities in physical activity (see Ball et al., 2007).

1. Response
We acknowledge that the findings from this study highlight the importance of social, individual and environmental factors in determining physical activity which are documented in the literature. This study adds to current knowledge by its focus on concepts of ‘the body’ and the influence of neighbourhood culture and societal expectations within ecological parameters.

The large scale studies mentioned by Professor Cerin (e.g. Giles-Corti et al., 2002, 2003, 2005) reporting the relevance of social, individual and environmental factors in determining physical activity are quantitative. The study examining the extent to
which these three factors can explain socio-economic inequalities in physical activity (Ball et al., 2007) is also quantitative using a multi level modelling approach. The strength of a qualitative method such as that used in the current study is its ability to deepen our understanding of quantitative data.

Qualitative studies investigating determinants of physical activity among adults in lower socio-economic groups are limited. One recent investigation (Ball et al., 2006) has applied the social ecological framework to a sample of women from varying social backgrounds. Although there are some similarities (e.g., the importance of neighbourhood safety) findings from the current exploratory study complement and extend these. In a recent review of the qualitative literature on understanding participation in sport and physical activity among children and adults in the United Kingdom, Allender, Cowburn and Foster (2006) found that few studies met the research quality criteria of reporting a theoretical framework, and suggest that understanding of the reasons for participation and non-participation in physical activity may be limited.

That there are limited theoretically based qualitative studies exploring participation in physical activity and sport is now referenced in the opening paragraph

2. Comment
In contrast this study was very limited in size (80) participants and location (2 adjacent neighbourhoods).

2. Response
In general qualitative sampling strategies do not aim to identify a statistically representative set of respondents. Qualitative analysis requires in depth study and smaller samples than in quantitative research (Hansen 2006).
3. Comment
The study investigated factors that have been repeatedly found to be correlated with physical activity.

3. Response
The study was exploratory and so did not set out with a specific investigative agenda. It was designed to inform the authors about intervention possibilities. As outlined in more details in the response to Comment 1, we acknowledge that the study findings highlight the importance of social, individual and environmental factors in determining physical activity which are documented in the literature. However, findings from this study attempt to extend current knowledge. This is through a focus on concepts centred on ‘the body’ and the possible influences of neighbourhood culture and societal expectations within ecological parameters.

4. Comment
It is unclear how and why the two neighbourhoods were selected and in what way the examined sample is different from previous samples used in studies addressing similar issues (i.e. determinants of physical activity).

4. Response
Selection of the study neighbourhoods is now clarified under the Methods section.

   ○ How the two neighbourhoods were selected
This was a collaborative study engaging a health agency (Northside Community Health Initiative NICHE) and researchers from the local university. Although there are several low-income communities in Cork city, the neighbourhoods of Knocknaheeny-Hollyhill are served by NICHE whose focus is on improving well-being with emphasis on the use of a community development ethos. Indeed, community structures play a supportive role in the design and implementation of physical activity interventions (King 1998; Taylor et al 1998; Sallis, Baumann and Pratt 1998; Task Force on Community Preventive Services 2002), which is now stated under the Methods section.
Working with NICHE facilitated the process of purposive sampling since the community health workers have considerable local knowledge and the agency is a trusted and respected community entity.

- **Why the two neighbourhoods were selected.**

There are limited qualitative studies investigating determinants of physical activity in adults from lower socio-economic groups. In their review of qualitative literature from the UK, Allender, Cowburn and Foster (2006) found 24 papers that met their inclusion criteria. For the most part these reported studies with young people in community settings. We chose to explore perceptions of physical activity among adults from two adjacent neighbourhoods characterised on the basis of average census indicators as disadvantaged.

- **Why the study sample is different from previous samples used in studies addressing similar issues.**

For the most part, published studies on determinants of physical activity among adults in lower income groups are quantitative. This study is qualitative, exploratory using a purposive sampling strategy and two complementary qualitative methods – focus groups and semi-structured interviews. Community based health workers’ extensive local knowledge facilitated the process. Also, since recruitment was done through a local agency, there was more ‘reach’ into the neighbourhoods.

**Reviewer 2: Comments to the author**

1. **Comment**

Inclusion of a published systematic review of qualitative studies would update the references. It might be useful to discuss the findings of the study in light of this review. The review found an absence of studies into the social groups reported in this paper.

1. Response
Thank you for recommending this review. Findings are now included in the current paper under the Introduction and Discussion (See references 4), and under the response to Comment 1 from reviewer 2.

2. Comment
Ref 20 – please justify the evidence for apparent confusion over public health messages. This is not supported in other studies – see Hillsdon M, Cavill N, Nanchahal K, et al. National level promotion of physical activity: results from England’s ACTIVE for LIFE campaign. J. Epidemiology and Community Health 2001; 55:755-61.

2. Response
This has been rephrased in the Introduction to this paper. At the Whistler Conference in Canada 2001 ‘Communicating Physical Activity and Health Messages: Science into Practice’, R, J, Shephard outlines the problems in transmitting the physical activity message stating that there have been difficulties in public interpretation of “moderate” intensity and in deciding which activities “count” from the viewpoint of health.

Hillsdon and colleagues findings from the ACTIVE for LIFE campaign show that 14.7% of participants (N=3189) at wave 1 were knowledgeable about moderate physical activity recommendations. This increased to 17.7% at wave 2 and 18.4% at wave three. Although the approximate 3% increase in knowledge during the two years of follow-up was significant, the authors point to the “need to be realistic about the time that it takes to affect ingrained social trends and the limitations of using health promotion campaigns at a national level”
3. Comment
Materials (p6) – please provide the rationale about what topics were selected as well as the source of this decision.

3. Response
Focus group and interview questions were determined by the community health workers, researchers and an anthropologist working at the Department of Epidemiology and Public Health UCC at the time of the study. This is now mentioned in the Methods section of the paper. There is also a synopsis of the questions used in the focus groups and interviews.

Both the terms ‘physical activity’ and ‘exercise’ were used in the group sessions. This is because terminology adopted in the study of health and physical activity has not always been consistent (Biddle and Mutrie 2001).

Focus Group Questions
1. What physical activity/exercise do you like to do?
2. What encourages you to be physically active or exercise?
3. What benefits do you get from physical activity/exercise?
4. What stops you from being exercising or being physically active?
5. What makes you do physical activity/exercise?
6. What do you think of facilities for physical activity/exercise in your community?

The topic guide for the unstructured interviews is listed below. The topics were very similar to those used for the focus groups. Underneath each question posed to the interviewees, the types of individual probes used are stated. These questions were not asked in any particular order. The order of questioning was dependent on the process of the interviews.
**Interview Topics**

1. What physical activity do you like?
   i. What type (aerobic, anaerobic). How long does the activity take? How often? How long have you adhered to this routine? (If the respondent is sedentary, or irregularly active) Do you intend to take up some activity? Were you active before? What made you stop?

2. What encourages you to be physically active or to exercise?
   i. Is it social, family, environment, physical, emotional, having to walk the dog?

3. What benefits do you get from exercise/physical activity?
   i. Ask about physical and mental benefits.

4. What stops you from doing physical activity/exercise?
   i. Is it social, family, environment, physical, emotional.

5. What would make you do more activity? (If not regularly active)
   i. Facilities, cost, social factors, and safety.

6. What do you think of local exercise/physical activity/sport facilities?
   i. Access, cost, quality, quantity, who are the facilities targeted at?

**4. Comment**

Analytic tool (p7) – please provide a supporting reference to your decision to combine categories from focus group and interview data.

**4. Response**

Supporting references are now provided under the Analytic Tools section.

Because similar categories emerged from focus group and interview data these are reported together. Combined reporting of focus group and interview data is useful when collecting the same kind of data from the same kind of people. Methods triangulation such as the focus groups and interviews used here can be used to develop a fuller and more complex picture of the phenomenon under study (Hansen E 2006). This is now referenced in the Methods. Examples using combined reporting of interview and focus group data from the physical activity literature include Crone, Smith and Gough (2004) and Ribera, McKenna and Riddoch (2005). Other examples
from the health literature are Bush and colleagues (2003) and Maxwell, Streetly and Bevan (1999).

5. Comment
Ref 49, 50, 54 – please check the exposure measure for each study as they were not all physical activity (some were only walking). The relationship between the environment and physical activity would be better described as an association rather than influential (which could sound casual).

5. Response
Thank you for pointing this out. The words ‘an influential factor for’ is now replaced with ‘associated with’. This sentence now relates specifically to walking and safety since the exposure measures in Ref 49 and 54 (now reference 55-60) relate particularly to walking. Although the study in Ref 54 (now reference 56) measured the influence of environment on physical activity using GIS there was particular focus on walking.

References


King, A.C: **How to promote physical activity in a community: research experiences from the US highlighting different community approaches,** *Patient Education and Counselling* 1988 33: S3-S12.


