

Reducing inequities: suggestions and guidance for increasing walking in socio-economically disadvantaged groups

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SUMMARY

For socio-economically disadvantaged groups, walking is one way to improve participation in physical activity and to reduce the disparities in health.

In this WellSpring, the researchers identify factors associated with walking that can assist practitioners and decision-makers to design effective interventions that increase walking to improve health among disadvantaged groups.

Introduction

Physical activity provides a range of health benefits.^{1,2} However, it has been consistently reported that people from socio-economically disadvantaged groups are less likely to be physically active, compared to those who are more affluent.^{3,4} This may be one factor that may explain why disadvantaged groups are more likely to experience adverse health outcomes.⁵ Therefore, increasing physical activity among socio-economically disadvantaged groups is of public health significance.

Globally, walking is the most popular type of physical activity for adults, because it is accessible, convenient and a free way to move regardless of sex, ethnic group, age, education or income level.^{6,7} Walking can be separated into leisure-time walking, occupational walking, and walking for transport, all of which are beneficial to health.⁸ Interventions to increase walking in socio-economically disadvantaged groups is one way to improve participation in physical activity and to reduce the disparities in health.⁶

To inform the development of such targeted interventions, our team identified the factors that are associated with walking (overall walking, leisure-time walking, and walking for transport) among disadvantaged groups. These will assist practitioners and decision-makers to design effective interventions that increase walking to improve health among disadvantaged groups.

Examining the literature

We conducted a systematic review of literature to examine the factors that are associated with walking among socio-economically disadvantaged adults. We included studies of populations with low socio-economic status, low income, low education, or from areas defined as socio-economically disadvantaged (often characterized by low income levels).^{3,9}

Individual characteristics, the social and physical environment, and policies all influence participation in walking and are embedded in a complex system.¹⁰ We therefore summarized published findings that examined a range of factors (e.g., demographic and biological; psychological, cognitive and emotional; social and cultural; and physical environmental factors) that might be associated with overall walking, leisure-time walking, and walking for transport. Following a systematic search of the literature and a screening process to identify suitable studies, we identified 35 studies for synthesis.



Evidence by type of walking

Overall walking

Twenty-one studies examined overall walking, and the following factors were *positively* associated with overall walking:

- **Employment status** — those in the workforce engaged in more overall walking,¹¹⁻¹⁴
- **Home ownership** — those residing in owned accommodation reported more frequent walking compared with those in rented accommodation,^{14,15}
- **Self-rated health** — those who reported better health engaged in more walking,^{14,16}
- **Density/number of social ties** — those with a greater number of social ties (e.g., networks and interactions) participated in more walking,^{14,15,17}
- **Perceived neighbourhood aesthetics, perceived walkability, and perceived individual safety** — perceiving one's neighbourhood as attractive, convenient for walking and safer were all associated with more walking, which demonstrates the importance of individuals' perceptions of their environment.^{14-16,18-20}

The following factors were *negatively* associated with overall walking:

- **Age** — those who are older engaged in less overall walking,^{11-15,18,21}
- **BMI** — those with a higher BMI walked less,^{11-13,18,19}
- **Health comorbidities** — those with long-term illnesses or limiting conditions were less likely to walk frequently.^{14,18,22,23}

Leisure-time walking

Sixteen studies examined leisure-time walking, and the following factors were *positively* associated with leisure-time walking:

- **Social support for physical activity from friends and family** — those with more social support engaged in more leisure-time walking,^{24,25}
- **Perceived individual safety** — perceiving one's neighbourhood as safe was associated with more leisure-time walking.^{16,26}

Walking for transport

Nine studies examined walking for transport, and the following factors were *positively* associated with walking for transport:

- **Objective walkability** — neighbourhoods with better infrastructure, density of destinations, and street connectivity promoted more walking for transportation,^{18, 27-29}
- **Perceived walkability and perceived individual safety** — perceiving one's neighbourhood as attractive and safe were associated with more walking for transport.^{16,26,30}

The following factor was *negatively* associated with walking for transport:

- **Vehicle/car access or ownership** — those who own or have access to a car walked less for transportation.^{16,18}



Overall summary of evidence and recommendations

We found that different factors were associated with different types of walking participation. Age, BMI and weight status, and perceived individual safety were the most commonly examined factors in relation to overall walking. Objective walkability was the most commonly examined factor for leisure-time walking and walking for transport.

Perceived safety was the only factor that was associated with all types of walking: overall walking, leisure-time walking, and walking for transport.^{14-16,26} Safety concerns were particularly relevant for women and are likely to deter them from walking.²⁶ Also, how people perceive their neighbourhood, in terms of how attractive and walkable it is, is a stronger influence on walking than objective assessments of the neighbourhood. Therefore, creating favourable perceptions of neighbourhoods is important to increase walking.

Recommendations

- Practitioners and decision-makers should consider the additional barriers to physical activity experienced by people who are socio-economically disadvantaged. This may mean that more intensive support is needed to engage them in walking.
- Strategies to improve perceived safety such as better lighting, reduced volume and speed of traffic, and boosting people's sense of cohesion, community and local attachment might increase walking.
- Low-cost interventions, which improve the attractiveness of neighbourhoods such as clean streets and well-maintained open spaces, can increase walking levels.
- Group-based walking programs can provide opportunities for social interaction and increase social networks, as well as provide social support. Group-based walking programs should be prioritized to increase levels of walking in socio-economically disadvantaged groups.
- Strategies targeting the built environment, for example improving infrastructure and street connectivity for walking, and accessibility to walking trails may be an effective strategy for achieving increased levels of walking for transport in this population group.
- Older adults, those who are overweight or obese, and those not in the workforce are priority groups for interventions and need to be considered and targeted.

About the Authors

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