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Social Environments for Health

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Introduction

Health is influenced by the environments in which people live, work, play and learn: for example, our local communities and neighbourhoods, schools, workplaces, and homes.[1] Broadly, we can think of the environment as having both physical and social dimensions.[2] While the physical environment includes features of the built and natural environments,[3] the social environment includes interpersonal relationships, extending to the families and groups that we belong to, neighbourhoods in which we live, social systems and social structures.[2] Physical and social environments can impact one another, as a result of interactions between the natural and built aspects, social processes, and relationships between individuals and groups.[2] A supportive social environment, for example, can be a prerequisite for change in the physical environment, given that our lands, waters and resources are at least partially shaped by human social processes.[4,5] Related to health, the social environment is known to impact disease and mortality risks, independent of individual risk factors.[2] The social environment influences behaviour by

shaping social norms, providing (or not providing) environmental opportunities that support health promoting behaviours, supporting well-being, and producing or reducing stress.[6] Despite the importance of the social environment for health and other outcomes, there has been a lack of clarity around what it is and what it encompasses.[5] This Focus On aims to provide an overview of the social environment. Specifically, we will identify how social environments are defined from a public health perspective and highlight models and frameworks that can be used to promote healthy social environments.

Methods

The search strategy for this Focus On was developed by Public Health Ontario Library Services. Customized Google search strings were used to identify grey literature; MEDLINE and CINAHL databases were searched for published literature. Articles in English from Organization for Economic Co-operation and Development member countries which explored social environments were included. To ensure sufficient articles for this knowledge product, the search included results from 2004 onward. Once duplicates were removed, 1,127 articles (357 from the grey literature and 770 from databases) were retrieved and assessed for eligibility. Eighty (80) full-text articles were then reviewed. Articles were included if they: specifically discussed social environments in the context of health behaviours or health impacts, such as physical activity levels and cardiovascular health; and included multiple domains of the social environment, versus exploring one specific domain. Sixteen (16) articles met the inclusion criteria, and relevant data were extracted. Five external reviewers provided feedback on the first draft of this knowledge product and contributed greatly to the discussion section. Further details of the search strategy are available upon request.

Results

The 16 included articles consist of four literature reviews, four data analyses, four primary studies, one website, one report chapter, one model, and one framework. Two articles examined social environments as a stand-alone concept,[7,8] while the remaining articles examined how the social environment relates to physical activity (n=7),[6,9-14] contributes to neighbourhoods[15] and healthy communities,[16] impacts health "disadvantage,"[17] promotes older adult mobility,[18] improves cardiovascular health,[19] impacts adolescent sexual behaviour,[20] and contributes to health differences between urban and rural settings.[21]

Defining Social Environments

There was a lack of consistency in how social environments were defined, when definitions were included at all. Less than half of articles (n=7) included a definition of the social environment. While there were some commonalities between definitions – for example, all definitions referred to personal relationships and social processes within the neighbourhood or community[7,9,10,12,18] – there were differences. Wang et al.[9] and Hanson et al.[18] included culture as an integral part of the social environment; Kepper et al. included sociodemographic characteristics at the individual and neighbourhood level;[10] and Singh et al. referred to sense of belonging and perceived life and work stress.[19] The most comprehensive definition was found in the Healthy Social Environments Framework developed by the British Columbia Centre for Disease Control (BCCDC):[7]

"The social environment is the underlying social, cultural and economic context within which we live, work and play. It includes all the interpersonal elements of our environments and encompasses all of the structures and processes we create, relationships we have and actions we take to organize and improve our lives. The social environment influences and is influenced by individuals' relationships and interactions with other humans, with their communities, with the physical environment, with organized systems (public and private), and with the policies we create to order our lives. The social environment is present at multiple levels, is people and relationship-centered, is comprised of multiple interconnected features, and is influenced by power relations." [7]

Domains of the Social Environment

All articles included multiple domains, features or elements that make up or influence the social environment. For simplicity, we refer to these as "domains." Eighty-nine (89) individual domains were extracted and categorized in order to identify commonalities across the multiple lists in the included articles. Domains discussed in four or more articles are described below, including indicators or measurements when specified.

- **Social cohesion** was discussed in 11 of the 16 included articles. Social cohesion was broadly described as a sense of belonging in the community,[9,11,12] the extent to which the neighbourhood is socially connected[6,12] and shares social norms.[15] Social cohesion was measured in four articles,[10-12,15] using self-reported Likert scale responses to questions such as "To what extent do you feel that you belong to this neighbourhood?"[11] and measuring agreement with statements like "This is a close-knit neighbourhood."[15]

- **Social support** was referred to as the interpersonal relationships and social interactions in ones' life.[6] Social support can come from family, friends, neighbours and peers.[6,15] Social support was reported to be supportive for physical activity behaviours, specifically around support for people to be physically active themselves,[15] or by having other people available to be physically active with.[12] Social support was measured in three included articles,[11,12,15] via self-reported Likert scale responses to questions such as "How many people could you ask to give you advice and support in a crisis?"[11] and measuring agreement with statements like "My family or friends give me support for planned exercise."[15]

- **Safety** referred to crime,[10,14] general safety,[14] and community/neighbourhood safety.[9] Crime was measured in one article by reported police data as well as self-reported perceived safety via questionnaire.[10]

- **Social networks** referred to the relationships and interactions with neighbours and within neighbourhoods.[10,13,15] A study examining the built and social environments' impacts on children's physical activity included having children nearby as part of the social network.[14] Social networks were measured in three articles,[11,13,15] using self-reported Likert scale responses to questions such as "How many days a week to you speak to your neighbours?" [11] and "How frequently do you meet with neighbours, family members or friends?"[13]

- **Social engagement** described participation in social events, cultural, arts and entertainment activities,[21] and religious and charitable activities.[13] Social engagement was measured using self-

reported data such as the number of days in the preceding month that participants engaged in different actions with their neighbours (e.g., waving hello).[15]

- **Neighbourhood characteristics** generally described the physical space, or "place" rather than the "people" living in the neighbourhood.[6] This included neighbourhood features that enabled social interactions and made it easier to connect with friends, neighbours and community members including walkable streets, active facades, green space and "third spaces."[7] Articles also included measures of material deprivation,[6,19] ethnic concentration, residential instability and economic dependency when describing neighbourhood charactersitics.[22] One article measured the neighbourhood social environment by using the Canadian Marginalization Index.[19]

Impacts of inequities

Eight articles considered the impacts of health inequities and social environments, specifically the social determinants of health,[9-11,13,21] impacts of marginalization,[19] racism and discrimination.[6,20] Kepper et al. reported that 55 of the 181 studies included in their review included a measure of economic and social disadvantage as a measurement of the social environment.[10] Wang et al.'s scoping review of the impacts of the built and social environments on physical activity noted that social cohesion and social interaction can mitigate the impacts of poor built environments on physical activity.[9] McNeill et al. noted that poorer neighbourhoods were less likely to have resources that promote physical activity, such as walking trails. Similarly, a primary study in 14 income-deprived neighbourhoods in Glasgow, Scotland reported that the domains of social support, social interaction, social cohesion and social safety were associated with more walking.[11] Singh et al.'s analysis of multiple datasets found that people residing in neighbourhoods with greater marginalization had lower odds of ideal cardiovascular health.[19]

Models and Frameworks

Two frameworks were identified in the included articles. One by Kepper et al. is specific to physical activity.[10] The BCCDC developed a social environment framework, released in 2020.[7] A third model, Natural Resources Canada's Atlas Canada Quality of Life Model,[8] was developed to measure quality of life at the geographic level. It includes the physical, social, and economic environments. The model was used until 2009 and has now been replaced with an updated model which does not include the social environment. Therefore, this model is not included here.

CONCEPTUAL FRAMEWORK FOR HOW THE NEIGHBOURHOOD SOCIAL ENVIRONMENT IS RELATED TO INDIVIDUAL LEVEL PHYSICAL ACTIVITY[10]

This systematic scoping review was conducted by Kepper et al.[10] in 2019 to identify the influence of the neighbourhood social environment on physical activity. Building on work by McNeill et al. in 2006 which identified five dimensions of social environments,[6] the authors developed a framework with three domains and nine dimensions based on the results of the scoping review. The framework depicts how the domains and dimensions influence physical activity at the individual and interpersonal levels. The authors also included five recommendations for future research into the social environment and physical activity, including standardizing terminology, using measurement tools and methods specific to the neighbourhood levels, and using diverse study designs.

Figure 1. Conceptual Framework for how the Neighbourhood Social Environment is Related to Individual Level Physical Activity
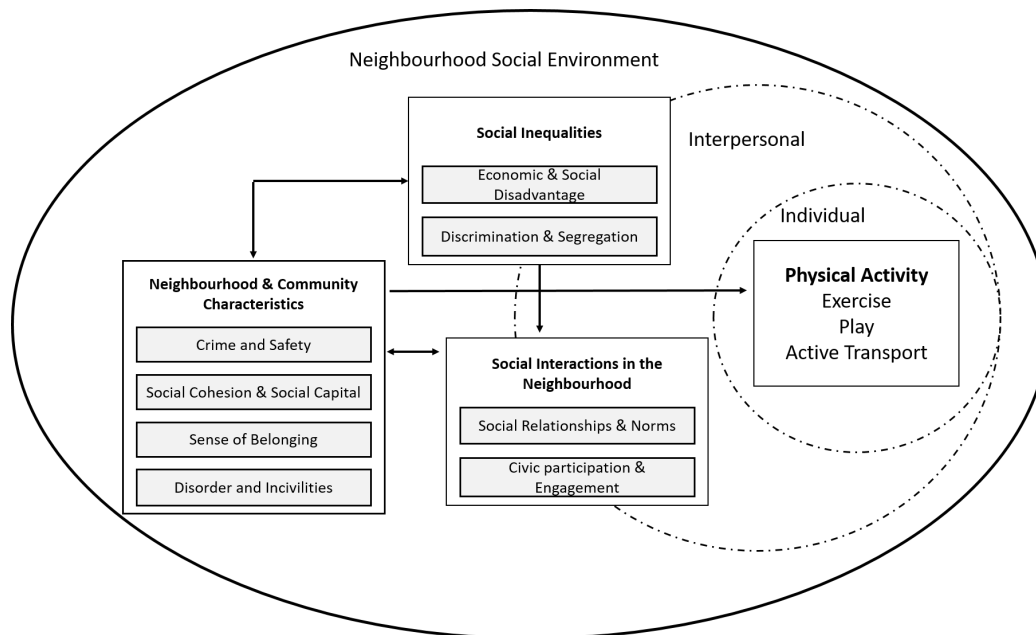
Source: Kepper MM, Myers CA, Denstel KD, Hunter RF, Guan W, Broyles ST. The neighborhood social environment and physical activity: a systematic scoping review. Int J Behav Nutr Phys Act. 2019;16(1):124. Available from: https://doi.org/10.1186/s12966-019-0873-7. Reproduced under Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/).
Adapted from: McNeill LH, Kreuter MW, Subramanian SV. Social environment and physical activity: a review of concepts and evidence. Soc Sci Med. 2006;63(4):1011-22. Available from: https://doi.org/10.1016/j.socscimed.2006.03.012 and Suglia SF, Shelton RC, Hsiao A, Wang YC, Rundle A, Link BG. Why the neighborhood social environment is critical in obesity prevention. J Urban Health. 2016;93(1):206-12. Available from: https://doi.org/10.1007/s11524-015-0017-6

HEALTHY SOCIAL ENVIRONMENTS FRAMEWORK[7]

This conceptual framework, developed by the BCCDC and released in 2020, summarizes the most influential aspects of the social environment that contribute to community well-being and identifies how the built environment impacts the social environment. The framework was informed by an environmental scan, grey literature and published literature reviews, an advisory committee and focus groups/user testing. The framework is designed to support various individuals and groups who are involved in informing, influencing and making community planning decisions so that social environments are considered in those decisions. The framework depicts core values of equity and sustainability, lists ten features of the healthy social environment, and suggests actions and policies to improve the social environment. The ultimate goal is "healthy people living in vibrant communities," and the outcomes are social connection, population health and community health.

Figure 2. Healthy Social Environments Framework[7]
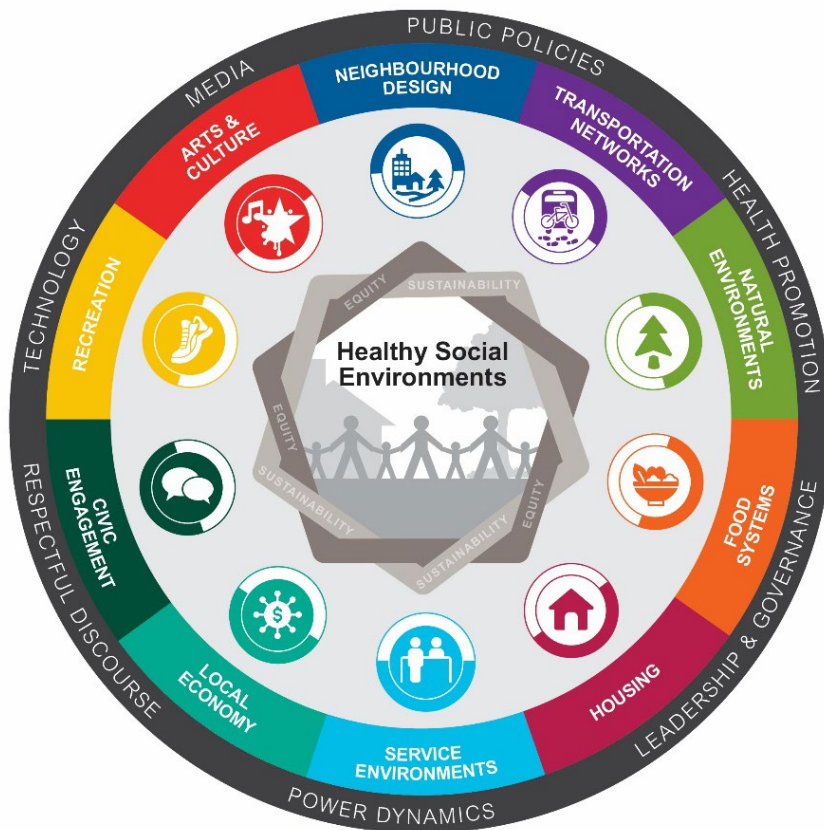
Source: BC Healthy Communities. Healthy social environments framework [Internet]. Version 1. Victoria, BC: BC Healthy Communities; 2020 [cited 2024 May 31]. Available from: https://bchealthycommunities.ca/index.php/2024/04/16/healthy-social-environments-framework/. Reproduced with permission.

Discussion

We conducted a search of the grey and published literature in order to define and conceptualize healthy social environments within a public health context. Many articles were excluded from our results as, while they might have had "social environment" in the title, abstract or even as a keyword, the concept was not explicitly discussed in the article. Other articles used the term social environment without defining it at all. When definitions were included, there was variability in how social environments were described.

There was also variability in the domains presented in the included articles. There was no singular, consistent list of domains, with one-quarter of the domains extracted in this analysis mentioned in only one article. The differences in how social environments are conceptualized may be related to how applicable some domains are to the health outcome or behaviour under investigation (e.g., physical activity versus adolescent sexual behaviours).

Social environment domains were extracted, analyzed and explored in this Focus On as individual domains, but many can be interrelated. For example, "social support" and "social networks" could be

viewed as two points on a continuum of relationships and interactions, the former describing close friendships and relationships while the latter describes interactions with acquaintances and strangers. There can also be an intertwining of domains between the physical and social environments, illustrated in the domain of "neighbourhood characteristics." While this domain includes features of the physical environment, they are viewed as a domain within the social environment as they influence social interactions. Several authors also posited that domains of the social environment may mitigate the health impacts of an unsupportive built environment. Many of the domains of the social environment, and for that matter, the physical environment, are shaped by the structural and social determinants of health. In some cases, the domains listed in the included articles were what we think of as social determinants of health, such as income, education, and the impacts of racism and marginalization.

Social environment domains can also be considered both at the individual and collective levels.[4] For instance, one could measure or improve social support across an entire community or for individuals. Additionally, building healthy social environments could be an outcome (i.e., the goal of a program) or a process (i.e., the means of accomplishing a program's goal).[4] For example, social cohesion, social support, social networks and social engagement could be seen as outcomes of initiatives to promote healthy social environments, whereas safety is a mechanism that promotes health outcomes.

The included articles reported on the effects of the social environment on health behaviours and/or health impacts. The social environment was shown to influence walking behaviour,[12,18] as well as physical activity levels in multiple age groups.[9,13-15,18] In particular, social cohesion,[9,11,12,17,18] social support,[9,13,15,18] social capital,[17] social engagement[13] and role models[12] positively impacted physical activity levels, while lack of safety[11,17] and the presence of social disorder[17,18] negatively impacted physical activity levels.

The social environment also positively impacted self-reported sense of belonging and perceived life and work stress.[17,19] A study examining the effects of the social environment on cardiovascular health concluded that people living in neighbourhoods with "favourable" social environments were associated with achieving cardiovascular health.[19] An additional study found that several aspects of the social environment were associated with early onset of sexual behaviour and use of contraceptives.[20]

While the majority of articles considered the social environment in the context of personal/neighbourhood attributes and behaviours or risk factors, the included literature suggested that a positive social environment can also decrease loneliness, increase a sense of empowerment, and promote coping with stress.[4] Social capital, an asset widely discussed in health promotion literature,[23-25] was mentioned in only two articles.[14,17]

Limitations

As the purpose of this knowledge product was to define and conceptualize social environments, articles were excluded if the term was not used in the title or abstract. This may have resulted in the exclusion of articles that explored social environments in the full text.

Many domains listed in the included articles were not defined, therefore we relied on the name of the domain to categorize them. For example, social support and social networks, and social engagement and social interaction, were grouped together as they were determined to be similar concepts. However, there may be more nuanced differences in these concepts.

Conclusion

Social environments can generally be described as relationships between people, the quality of their interactions, and how they relate to their neighbourhoods and the organizations within them. Social cohesion, social support, safety, social networks, neighbourhood features and social engagement were frequently listed as domains of the social environment. Social environments can directly shape health and health behaviours such as physical activity. For that reason, social environments should be considered in the design and implementation of healthy public policies and health promotion/public health initiatives. Defining what the social environment means, the domains that comprise it, and the mechanisms through which social environments improve health provides some clarity in the context of health promotion and public health initiatives. Further research could focus on developing, implementing and evaluating healthy public policies and health promotion/public health initiatives that build social environments either as stand-alone initiatives, or that incorporate building healthy social environments into other programs and services. This may be particularly impactful for equity-denied groups who face barriers related to social isolation and marginalization.

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Author

Andrea Bodkin, Senior Program Specialist in Health Promotion, Health Promotion Chronic Disease and Injury Prevention, Public Health Ontario

Reviewers

Charito Galling, Lead, Healthy Communities and Environments, Prevention and Health Promotion, Population & Public Health, British Columbia Centre for Disease Control

Dan Harrington, Director, Health Promotion Chronic Disease and Injury Prevention, Public Health Ontario

Deanna VandenBroek, Health Promoter, School Health Liaison, Peterborough Public Health

Inge Roosendaal, Senior Planner, Healthy Communities, Ottawa Public Health

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Rebecca Hasdell, Lead, Determinants of Health and Health Equity, Prevention and Health Promotion, Population and Public Health, British Columbia Centre for Disease Control

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