ABSTRACT

This paper provides a first step to address special considerations for youth in a relatively new area of physical activity research. After reviewing the urgent need for novel approaches to increasing physical activity, the growing interest in the effects of community design is discussed. Although most discussion on this topic has focused on adults, there are important differences between youth and adults that warrant a special focus on youth and need to be accounted for. This article presents a schematic that accounts for how and where youth spend their time, decomposing the day into time spent in travel and time spent at destinations, and identifying and categorizing the various types of travel and destinations.

INTRODUCTION

Physical inactivity is a major public health concern for the United States population, particularly youth. National data indicate that nearly one third of youth are insufficiently active, and over half of all youth fall far short of recommended levels of vigorous activity. In light of these trends, demand is growing for new and expanded theories to explain these behavioral differences between youth and adults that warrant a special focus on youth and need to be accounted for. This article presents a schematic that accounts for how and where youth spend their time, decomposing the day into time spent in travel and time spent at destinations, and identifying and categorizing the various types of travel and destinations.

THE NEED FOR A FOCUS ON YOUTH

Notwithstanding an occasional reference to the special case of youth or focusing on time spent in travel or destinations, the vast majority of empirical investigations of community design and physical activity are specific to youth. This is troubling in light of critical differences in needs and activities between youth and adults. Unlike most adults, youth are: 1) required to spend a large part of their time at school, 2) expected to use a considerable amount of their unoccupied (non-school) time for enrichment, recreation and developmental activities, 3) more likely to get physical activity through spontaneous play, 4) unable to own or operate motor vehicles, and 5) subject to restrictive laws and family rules governing their travel and destinations.

The actual amount of time allocated across destination types and in travel between them is not likely to be equally distributed as suggested by the simple rectangular figure. To describe particular youth populations more accurately, graphical changes may be made. For example, the schematic can reflect different patterns of time allocation across destination types (by adjusting new heights to affect area), different physical activity patterns (by adjusting the area and placement of the gray shading) or varying portions of time spent at a destination or in travel (by adjusting the dotted line). Such adaptations would produce variations of the general schematic that could be used to help guide needs assessments, identify gaps in our knowledge of youth activities, and describe sub-populations of youth such as more active and more sedentary youth.

Using a logic approach, one way to account completely for time is to decompose it into time spent in travel and time spent at destinations. Because of some general similarity in how most youth spend their time (attending school daily, sleeping and doing some activities at home daily, spending some free time with friends or engaged in activities outside the home most days) we assume that some common patterns in travel needs and types of destinations exist that apply to most youth. Within each of these categories, some (or all) of the time is spent in sedentary or inactive behaviors, and other time may be spent engaging in physical activity.

A Schematic for Focusing on Youth

To help advance our understanding of how community design features may affect youth physical activity, we offer a schematic designed to help organize and add further scientific inquiry in this area. The schematic is guided by existing literature on youth physical activity and the emerging literature on community design and physical activity. By examining observed behaviors, we can offer further evidence of activities that contribute to physical activity participation and help us to better understand the complex ways in which community design influences physical activity participation.

The schematic is illustrated in Figure 1. In this paper, the actual amount of time allocated across destination types and in travel between them is not likely to be equally distributed as suggested by the simple rectangular figure. To describe particular youth populations more accurately, graphical changes may be made. For example, the schematic can reflect different patterns of time allocation across destination types (by adjusting new heights to affect area), different physical activity patterns (by adjusting the area and placement of the gray shading) or varying portions of time spent at a destination or in travel (by adjusting the dotted line). Such adaptations would produce variations of the general schematic that could be used to help guide needs assessments, identify gaps in our knowledge of youth activities, and describe sub-populations of youth such as more active and more sedentary youth.

CONCLUSION

In this paper, we argue that because of key differences between youth and adult populations, a special focus on youth is warranted as the science of community design and physical activity advances. To facilitate this focus, we offer a schematic as a tool for organizing data about how and where youth spend their time, and identifying possible areas for intervention to increase the proportion of time that is spent being physically active. The schematic is based on the assumption that community design, including community design and physical activity, are interrelated and that these relationships may be different for youth. The schematic offered here has not yet been empirically tested; in conjunction with a strong theoretical framework that considers individual as well as community-level factors, it provides a useful tool for designing and implementing effective policies and interventions.

A Schematic for Focusing on Youth in Investigations of Community Design and Physical Activity

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RESEARCH APPLICATIONS

As described above, there has been little work considering how the relationships between community design and physical activity may be unique for youth. To begin to answer this question, we need more information about where and how youth spend their time. In the early stages of this work, the general schematic presented here may be useful as a guide for helping to ensure that instruments and measures are designed to provide the necessary information to empirically refine the representation of time allocation and to specifically incorporate details on both spatial (destinations) and behavioral (active or inactive) dimensions. This information will then help refine the schematic to describe the youth population. One general adaptation may be useful, or it may instead prove beneficial to consider separate variations for males and females, urban and rural youth, active and sedentary youth, etc.

An immediate and requisite step would include more detailed youth activity monitoring and recording to allow the precise identification of times and locations of activity.