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Involvement of Park and Recreation Professionals in Pedestrian Plans

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EXECUTIVE SUMMARY: Professionals from many different disciplines are finding innovative ways to work together to increase physical activity to help create healthier communities. One process that can provide a focal point for promoting physical activity by park and recreation professionals, land use and transportation planners, public health practitioners, and other stakeholders is the development and implementation of pedestrian plans. A pedestrian plan is a public document that lays out a community's vision for future pedestrian activity, identifies the actions required to realize that vision, ties actions to funding sources, and describes implementation and use. The purpose of this study was to explore whether park and recreation professionals were involved in creating pedestrian plans and how park and recreation elements were represented in these plans. To answer this, we identified, collected, and conducted a content analysis of all pedestrian plans in North Carolina. Among the 41 regional, county, and municipal pedestrian plans, park and recreation professionals were mentioned in the plan 56% of the time. Seventy-one percent ($n=29$) had a vision statement; however, among those only five vision statements mentioned parks or recreation. In all five cases, when a plan contained a vision statement that mentioned parks or recreation, there was a park and recreation member involved in the development of the plan. A higher percent of plans with a park and recreation professional involved were more likely to list parks in their land use analysis (74% vs. 67%). Park master plans were mentioned in the pedestrian plans 29% of the time; however, a lower percent of plans with a park and recreational professional involved mentioned a park master plan (26% vs. 33%). Given the potential importance of pedestrian plans in creating connections for pedestrians, park and recreation professionals are encouraged to become involved in the pedestrian planning process if they are not already. Parks can offer opportunities for residents of diverse ages and cultures to come together to socialize and engage in health-promoting activities. Integrating a park and recreation perspective into a more comprehensive planning process can enhance access to parks, inform programs, support multiple community goals, facilitate efficient use of resources, and promote partnerships for greater sustainability.

KEYWORDS: park, pedestrian, physical activity, planning, recreation, walking

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Over the past decade, rising levels of obesity for both youth and adults (Ogden et al., 2006) has spurred interest in promoting parks as settings for physical activities, such as walking. Public park and recreation facilities exist in many communities in the United States and these facilities can be used at little or no cost (Godbey, Caldwell, Floyd, & Payne, 2005). Most Americans report using parks (Godbey, Graefe, & James, 1992), although use varies by offerings at the park, type of park, and proximity from home to the park (Mowen, Kaczynski, & Cohen, 2008; Mowen, Orsega-Smith, Payne, Ainsworth, & Godbey, 2007). Several studies indicate that living closer to a park is associated with physical activity (Giles-Corti et al., 2005; Gordon-Larsen, Nelson, Page, & Popkin, 2006). Part of the reason for this may be due to access to the park, although the exact causal mechanisms remain to be detailed.

Professionals from many different disciplines, such as park and recreation, planning, and public health, are finding innovative ways to work together to increase physical activity in communities (Active Living by Design, 2008). Providing opportunities for physical activity can be a mutual goal shared by park and recreation professionals, land use and transportation planners, public health practitioners, and other stakeholders. One process that can provide a focal point for these converging interests is the development and implementation of pedestrian plans.

A pedestrian plan is a public document that lays out a community's vision for future pedestrian activity. Ideally, a plan would identify the actions required to realize that vision, tie actions to funding sources, and describe implementation and use. Each plan is unique and tailored to a particular community, creating variation among plans regarding their focus, scope, and strengths. Pedestrian plans have been prepared for municipalities, counties, regions, and entire states, although municipal plans might be the most common. Some plans

address both pedestrian and bicycle needs rather than creating separate plans for each. Plans can be initiated by elected officials, local / regional / state planners, community groups, or advocates. The development of pedestrian plans usually requires local planners (commonly land use or transportation planners) to become involved in the management of the plan-making process. Park and recreation professionals can become involved early in the process by forging relationships with local planners, and helping planners to become familiar with their park and recreation master plan to encourage coordination of that plan with the pedestrian plan where overlap occurs.

Pedestrian plans typically cover a cross-section of interests, reflecting the diversity of members from various fields who work on the development of the plans, including local government, city planning, transportation planning, engineering/public works, and public health. These plans may incorporate the interests of park and recreation personnel and can impact the activities of park and recreation professionals.

For smaller geographic areas like a municipality or county, the components of a plan usually include a vision, goals, and an assessment of the current conditions for pedestrians, including a review of existing policies and programs. The plan also usually includes an assessment of the population characteristics of the area and projections for the future, documentation of public participation in the development of the plan, and a series of recommendations or plan proposals that may include infrastructure projects, policy changes, programming, and partnerships. Furthermore, the pedestrian plan should include a timeline for implementation, cost estimates and a review of potential funding sources, and an evaluation and monitoring plan to assess implementation and refine the plan over time.

There are a number of ways that park and recreation professionals can contribute to the pedestrian planning process, including incorporating recreation into the vision and goal statements, identifying locations for pedestrian facilities (e.g., trails, greenways, sidewalks), and sharing information about the demand for such facilities. Park and recreation professionals often have detailed knowledge about the effectiveness and use of park facilities. They can also help ensure that parks are included in the land-use analysis and maps of current and planned facilities. This is important because the land-use analyses can serve as a basis for setting priorities for where sidewalks and other pedestrian amenities are located. Park and recreation professionals should also be familiar with their park master plan and can encourage coordination of that plan with the pedestrian plan where overlap occurs.

We explored the involvement of park and recreation professionals in the development of pedestrian plans, based on a study of pedestrian plans in North Carolina. We chose North Carolina because of our knowledge of planning in the state and because of the number of pedestrian plans, in large part due to state incentives to create such plans. Since 2003, the North Carolina Department of Transportation Division of Bicycle and Pedestrian Transportation and the Transportation Planning Branch began a competitive grant program to encourage the development of local pedestrian and bicycle plans (North Carolina Department of Transportation & Division of Bicycle and Pedestrian Transportation, 2008). This has resulted in an increase in the number of pedestrian plans in North Carolina (Evenson, Satinsky, Aytur, & Rodriguez, 2009).

Specifically, we address several questions relative to park and recreation professionals' involvement in pedestrian planning in North Carolina. First, were park and recreation professionals involved in creating pedestrian plans? Second, when park and recreation professionals were involved, were elements from park and recreation included? We assessed the plans with respect to park and recreation by measuring: i) whether the plans' vision and goal statements contain references to park and recreation; ii) whether parks

were included in land use analyses (e.g., important destinations in the community); and iii) whether the pedestrian plan cross-referenced a park master plan.

Methods

We sought to identify and collect all pedestrian plans in North Carolina through 2008. For updated pedestrian plans (i.e., plans that had been updated from a former plan), we counted and collected only the most recent plan. To collect plans, we conducted web searches, accessed the North Carolina Department of Transportation Division of Bicycle and Pedestrian Transportation plan library, and made follow-up phone calls when necessary. We also sent our plan list to a listserv of North Carolina planners to help identify any missing plans.

We developed a list of elements for high quality pedestrian plans (available at <http://www.hdpd.unc.edu/projects/ncpaprc>). Our advisory board and national network members provided revisions and suggestions to this document. A coding protocol was then developed based on our quality elements document for the purpose of extracting the content of interest from the plan (Berke, Godschalk, Kaiser, & Rodriguez, 2006). The protocol collected information on each plan's vision, goals, public participation, fact base (analysis of current conditions), proposals, and implementation and can be accessed elsewhere (<http://www.hdpd.unc.edu/projects/ncpaprc>). Early versions of the protocol were circulated among pedestrian planning professionals for feedback and improvement. A detailed content analysis was then conducted on all pedestrian plans using the coding schema. Each plan was coded by one of six reviewers. All reviewers were trained centrally and plans were checked by a second reviewer to ensure consistency in interpretation across all plans. Discrepancies between the first and second reviewer were resolved by consensus.

Of relevance to this study, the protocol collected information about the involvement of park and recreation professionals in creating pedestrian plans. If individuals were identified as having participated in the planning process, but a title of the person was not provided, then web searches or calls were made to obtain the title or department affiliation of each person. Coders also assessed whether the plan vision and goals included elements related to park and recreation, whether parks were included in existing or future land use analyses, and whether park master plans were mentioned in the pedestrian plans. Frequencies and cross-tabulations were performed using this information.

Results

We identified a total of 29 pedestrian plans and 13 combined pedestrian and bicycle plans, herein referred to collectively as "pedestrian plans." Plans varied in year of publication, ranging from 1994 to 2008, with 38 plans or updated plans completed in the year 2002 or later. One plan was at the state level, six were at the regional level, two were at the county level, and 33 were at the municipal level. Of the six regional plans, four were developed for metropolitan planning organizations (MPO), one for a rural planning organization (RPO), and one for an inter-jurisdictional entity that included six local governments called the Center of the Region Enterprise (CORE) (Center of the Region Enterprise, 2008). MPOs are federally designated and funded regional institutions that conduct transportation planning in all metropolitan areas of the United States. RPOs are transportation planning organizations that provide a forum for public participation in rural transportation issues and policies and work in coordination with the state government and the MPO. Among the 42 pedestrian or combined pedestrian and bicycle plans, we excluded the state plan in further analysis, since the state plan was different from municipal or regional plans.

Vision and Goals

Among the 41 municipal, regional, and county pedestrian plans, park and recreation professionals were involved in the development of and mentioned in the plan 56% of the time. Among the 41 pedestrian plans, 71% (n=29) had a vision statement, but of those, only five vision statements mentioned parks or recreation. All five of these plans included a park and recreational professional in the development of the plan. Examples of vision statements that addressed parks or recreation included:

- “...increasing recreational opportunities...”
- “...promoting safety, education, open space, environmental resources, recreation...”
- “...safe, convenient walkways connecting neighborhoods, shopping, parks, and employment destinations.”
- “To encourage walking ... as a safe and viable means of transportation and recreation...”

All but one pedestrian plan included goals and 20% of all pedestrian plans mentioned recreation as one of the stated goals. Examples of these goal statements included:

- “...develop off-road greenway trails that protect the environment and provide unique recreational opportunities.”
- “...providing greater transportation choices, mobility, and recreational opportunities to residents and workers in...”
- “... improved health of the community through programs and projects that may promote walking and more physical activity. Programs may include encouragement at schools (such as a Safe Routes to School program), work places, and recreation facilities. Projects may include greenway facilities and/or an exercise/jogging path.”

Pedestrian plans were no more likely to have goals that included recreation elements when a park and recreation professional was involved in the document than when one was not involved (22% vs. 17%; see Table 1).

Table 1. Pedestrian Plan Characteristics, Overall and by Whether or not a Park and Recreational Professional Participated in the Plan.

Plan Characteristics	Overall		Park and Recreational Professional Involved			
			Yes		No	
	%	n=41	%	n=23	%	n=18
Recreation in vision (yes)	12.2	5	21.7	5	0	0
Recreation in goals (yes)	19.5	8	21.7	5	16.7	3
Parks on existing or future land uses (yes)	70.7	29	73.9	17	66.7	12
Park master plan mentioned (yes)	29.3	12	26.1	6	33.3	6

Fact Base (Land Use Analysis and Park Master Plans)

Parks were included in the land use analysis for pedestrian plans 71% of the time (see Table 1). A higher percent of plans with a park and recreation professional involved in the plan were more likely to list parks in their land use analysis (74% vs. 67%).

Park master plans were mentioned in the pedestrian plans 29% of the time (n=12). A lower percent of plans with a park and recreational professional involved mentioned a park master plan (26% vs. 33%). Of the 12 pedestrian plans that mentioned park master plans, 10 were from municipalities and two were from MPOs. In the municipalities, eight of 10 pedestrian plans mentioned existing park master plans and seven of these mentioned these were found under existing policies or conditions. Two of the 10 municipal plans called for development of a new or updated park master plan as part of the recommendations; for example one plan stated, “another plan objective relates to the development of an updated County Recreation Master Plan, which surely has relevance for its approach to greenway systems.” In the two MPO pedestrian plans, park master plans were mentioned only as an existing policy or condition to consider and were not listed under recommendations.

Discussion

The purpose of this study was to explore if and how park and recreation professionals might be involved in the pedestrian planning process. We addressed this by collecting and coding all pedestrian plans in North Carolina. We found that park and recreation professionals were involved in the planning process approximately half of the time. Other professionals involved included those representing transportation planning, engineering, public works, public health, schools, and law enforcement, as well as other private sector businesses, foundations, and non-profits.

In the next sections, findings on park and recreation based on the major parts of the pedestrian plans and subsequent implementation are discussed. Then the implications of the results for park and recreation professionals are covered followed by highlights of this study’s strengths and limitations.

Vision, Goals, and Fact Base

Only five North Carolina pedestrian plans had vision statements that included the words “parks” or “recreation.” Among those few that did mention “parks” or “recreation,” a park and recreation professional was involved in the planning process. For the pedestrian plans we studied, parks were mentioned on the land use analysis 71% of the time. The importance of having parks mentioned in the land use analysis is that it designates parks as important destinations for pedestrian facilities, such as for sidewalks and trails, and may keep them a part of infrastructure decisions. Walking is one of the most common physical activities performed at parks (Cohen et al., 2007) and in urban areas, users often access parks by walking. Being able to walk to the park, through the provision of pedestrian facilities, such as sidewalks, benches, lights, or signage, might enhance park use and, in turn, physical activity. In a comprehensive review, parks with trails were associated with more physical activity in most studies (Kaczynski & Henderson, 2008). One particular study found that parks with trails, either paved, unpaved, or wooded, were more likely to be used for physical activity than parks without these facilities (Kaczynski, Potwarka, & Saelens, 2008).

Park and recreation professionals can contribute to the fact base of the plan by providing information, such as community needs collected from prior surveys, counts of park or trail use, or sociodemographics of park users. These data could also contribute later, when the pedestrian plan is implemented, to provide objective indicator data to assess evaluation of the plan goals. Since individual plans do not exist in a vacuum,

coordination across departments and plans in a community (municipal, county, or regional) are important. The priorities and policies included in a land-use plan, transportation plan, greenway plan, or park master plan should be consistent with the priorities of a pedestrian plan. This coordination enhances the effectiveness of the different plans while encouraging connections and synergies. Although plans can conflict with each other (Hopkins, 2001), a statement of why such conflict occurs and the steps necessary to reach a resolution should be outlined in the most recent plan. Among the pedestrian plans, almost one-third mentioned their community's park master plan. We do not know if the other communities did not have a park master plan or if the plan existed but was not mentioned.

Similarly, it would be important for park master plans to acknowledge and incorporate pedestrian plans because of the overlapping interests. One example of this is from the community of Pittsboro, North Carolina. A community survey conducted for the park master plan identified greenways or trails as one of the most important features of future parks (McGill Associates, 2008). Thus, with similar pedestrian interests, the Pittsboro pedestrian plan mentions this survey and congruent goals between the plans (Greenways Inc., 2009).

Implementation of the Plan

In addition to being involved in the pedestrian planning process, park and recreation professionals can help with implementation of the plan. This can be demonstrated through the Active Living by Design Community Action Model, designed to bridge the gap between research and practice (Active Living by Design, 2008). Supported by the socioecological framework (McLeroy, Bibeau, Steckler, & Glanz, 1988), this model specifies five strategies to direct implementation activities including preparation, promotion, programs, policies, and physical projects (Kahn et al., 2002; Schmid, Pratt, & Witmer, 2006). Preparation strategies involve laying the groundwork for an initiative through steps such as partnership development, assessment, training, and resource procurement. Promotions increase awareness, such as promoting park facilities, while programs often provide structured, ongoing opportunities—such as park programs—in which individuals can participate. Policy strategies may influence public decisions, regulations or guidelines, or may change standard practices among organizations and agencies that increase opportunities for physical activity, such as within parks. Finally, physical projects make the environment more conducive to routine physical activity and often result from preparation, policy change, and advocacy work that takes place in advance. It is hypothesized that there is synergy when all 5 “P’s” are integrated and used together, rather than independently. In a case study of walking to school, use of this intervention model was qualitatively supported (Fesperman, Evenson, Rodriguez, & Salvesen, 2008). Table 2 applies the Active Living by Design Community Action Model to walking, providing examples of how park and recreation goals and planning goals may overlap in the pedestrian plan implementation process. For example, park and recreation professionals have expertise in programming and often have a track record of building community partnerships that could be integral to the implementation success of a pedestrian plan.

Implications for Park and Recreation Professionals

Park and recreation professionals are encouraged to become involved in the local and regional planning process, such as in pedestrian planning as described in this paper. For example, park and recreation professionals share similar goals with public health and planning disciplines, especially around issues of providing public spaces and programs that enable people to be physically active. Each discipline provides unique knowledge and skills, and sharing these through collaborative efforts may foster new insights, facilitate

Table 2. Application of the Active Living by Design Community Action Model on Walking, Demonstrating How Park and Recreation and Planning Goals May Overlap in the Pedestrian Plan Implementation Process.

Model Components	Definition Applied to Walking	Examples of How Park and Recreation and Planning Goals May Overlap
Preparation	strategies that lay the groundwork for a walking initiative and reinforce plans for action	understanding the needs to the community to walk; exploring the barriers and enablers to walking and ways of overcoming these through the pedestrian planning process; conducting a walking suitability audit (see example Active Living by Design, 2006a); bringing together partnerships in the community
Promotion	messages and materials that increase awareness of walking; help educate and gain buy-in from community leaders, key decision makers, and the public	promoting use of a park or trail for walking
Programs	structured, ongoing activities that directly or indirectly involve individuals in walking	implement walking programs recommended in the pedestrian plan, which could be conducted in, to, or through parks; pedestrian safety programs
Policies	formal written regulations, written standards to guide choices, or unwritten social norms that all influence walking	integration of park master plans and pedestrian plans; tax for parks and sidewalks (see example Active Living by Design, 2006b)
Physical Projects	environmental changes to make walking easier and safer to engage in	improved or new pedestrian connections (access) to parks and within parks; consideration of joint facilities, such as trails within parks

more efficient use of resources, and shape a more informed policy agenda based on cross-cutting interests. Another way park and recreation professionals can become involved in the planning process is through tracking how resources in the community are spent and requesting courtesy referrals from the planning department, should a project coincide in or near park facilities. Watching for opportunities for synergism between departments of parks and planning may afford new possibilities such as for joint promotion or programming, infrastructure changes, or access to park facilities. For example, the national Safe Routes to School Program (<http://www.saferoutesinfo.org/>) assists communities in enabling and encouraging children to safely walk and bicycle to school. This program could be applied to parks, enabling children and adults to safely walk and bicycle to parks, rather than having to drive to parks.

Since park and recreation departments are located in many municipalities and counties across North Carolina that might consider developing a pedestrian plan, it would be advantageous for those professionals to connect with their respective planning or public works departments to find out whether a plan exists in their community (both locally and regionally) and, if not, how to become involved in the development of one. The transdisciplinary approach to planning can result in a more comprehensive and useful pedestrian planning document for the community.

Strengths and Limitations

We believe this work represents the first time park and recreation professional involvement has been systematically collected and analyzed from pedestrian plans. We were able to comprehensively examine our research questions for all pedestrian plans in North Carolina. However, we do not know whether our findings can be generalized to other states. Our collection of all pedestrian plans may have inadvertently missed some plans, as not all documents were easily accessible. Yet, we have made extensive efforts to diminish this concern, by widely circulating our plan list across the state to query regarding any missing plans. Of course, pedestrian planning can be encompassed in other planning documents, such as a community's comprehensive land use plan, transportation plan, greenways plan, or open space plan. For this study, we only collected and reported on involvement in the development of stand-alone pedestrian plans.

Our ability to document accurately the involvement of park and recreation professionals in the plan creation depended on whether participants were mentioned in the plan. While most plans did identify partners in the process, a few did not and, therefore, we assumed that a park and recreation professional was not involved. We also do not know how much park and recreation professionals were involved in the planning process, or whether their involvement was sustained over time. Typically, the planning process is iterative and involves several meetings and feedback on drafts of the plan, but we could not always confirm this process from relying solely on the contents of the pedestrian plan. Lastly, while our analysis is comprehensive for the state of North Carolina, the sample size of existing municipal, county, and regional plans was still relatively small (n=41).

Conclusions

In North Carolina, approximately half of the pedestrian plans involved a local park and recreation professional in the process. Research building on this study could explore if and how park and recreation professionals remained involved after the passing of the plan and into the implementation phase. Research could also determine whether plans that have park and recreational professionals' involvement are more likely to implement promotions, projects, programs, or policies related to or of direct impact to parks.

Given the potential importance of pedestrian plans in creating connections for pedestrians, park and recreation professional are encouraged to become involved in the planning process, if they are not already, by working with their local planning department or related departmental

entity; consideration should also be given to becoming involved regionally. Parks can offer opportunities for residents of diverse age groups and cultures to come together to socialize and engage in health-promoting activities. Integrating a park and recreation perspective into a more comprehensive planning process can enhance access to parks, inform programs, support multiple community goals, facilitate efficient use of resources, and promote partnerships for greater sustainability.

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