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Why do young adults choose different transport modes? A focus group study

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ABSTRACT

Active transport might be well suited to counteract the decrease in physical activity and the increase in weight gain in students and working young adults (18–25 years). To promote active transport in this neglected age group, knowledge of factors influencing all transport modes is needed. Focus groups were used to explore factors influencing transport choice of studying and working young adults, for short distance travel to various destinations. Nineteen students (mean age of 21 ± 1.1 years) and 17 working young adults (mean age of 23 ± 1.5 years) were recruited. Three focus groups were conducted with students and three with working young adults. Content analysis was performed using NVivo 9 software (QSR International). Grounded theory was used to derive categories and subcategories. Young adults talked about several factors that influence transport choice, which could be categorized in three themes: Personal factors, social factors and physical environmental factors. Some factors were reported as very important for choosing between transport modes, such as autonomy, travel time, financial cost and vehicle ownership; some as less important, such as the built environment and perceived safety and some as not important at all, such as ecology and health. Most factors were discussed by both students and working young adults, but some differences were found between the two groups, mainly based on income and living situation. When promoting active transport in young adults, health benefits or ecological benefits should not be emphasized. Focus should be put on cycling instead of walking, on flexibility, speed, good social support and low costs. Also, more bicycle storage and workplace facilities should be provided. It should be avoided that young adults own a private car and the public transport system should be optimized to fit their needs.

1. Background

Young adulthood (18–25 years), also referred to as *emerging adulthood,* is distinguished from adolescence and adulthood by relative independence from social roles and normative expectations (Arnett, 2000). Young adults who left secondary school have shown to be at risk for decreasing physical activity levels and increasing weight gain (Crombie et al., 2009; Keating et al., 2005; Laska et al., 2009). Active transport (AT) (i.e. walking, cycling) represents an opportunity to incorporate physical activity into young adults' daily routines (Sisson and Tudor-Locke, 2008). AT offers health benefits to adolescents, young people and adults, such as lower odds of being overweight or obese (Gordon-Larsen et al., 2009; Bere et al., 2011), an overall reduction in cardiovascular risk (Hamer and Chida, 2008), higher levels of cardiovascular fitness (Oja et al., 2011; Gordon-Larsen et al., 2009; Hamer and Chida, 2008) and more minutes of total moderate-to-vigorous physical activity (Sisson and Tudor-Locke, 2008). Moreover, the public health benefits of AT go beyond individual health and include reduced traffic crashes, reduced pollution emissions (Litman,

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2003, Panis et al., 2010), and a reduction in the negative effect of traffic-related stress on well-being (Gee and Takeuchi, 2004).

Despite the many benefits of AT, only 13.6% of young adults (age 18–24) in Flanders (Belgium) cycle as their main mode of transport, whereas for the adolescents (age 13–17), this is 36.6%. Furthermore, for 34.5% of young adults, driving a car is the main transport mode in everyday life (Departement Mobiliteit En Openbare Werken, 2011). Promoting walking or cycling for transport in young adults might be particularly important because this transport choice might persist into adulthood and provide long-term health benefits (Telama, 2009). In order to design effective interventions to promote AT in young adults, it is necessary to have a comprehensive understanding of the factors influencing the choice of AT, as well as knowing what the barriers to and facilitators of other modes of transport are (Baranowski et al., 1998).

Ecological models indicate that physical activity (including AT) is influenced by an interplay between psychosocial, socio-demographic and physical environmental factors, all of which need to be addressed to effectively change behavior (Sallis et al., 2006; Spence and Lee, 2003). To date, correlates of transport modes have primarily been investigated in children, adolescents or middle-aged adults. Research on transport habits of young adults is scarce and mainly focused on students commuting to college or university (Sisson and Tudor-Locke, 2008; molina-Garcia et al., 2010; Shannon et al., 2006; Titze et al., 2007). However, research on mode of transport to other destinations or in working young adults is lacking. Working young adults are an often forgotten target group, mostly because they are not readily accessible through any institutional setting (Arnett, 2000). A study conducted in the United States showed that AT in young adults is highest in full-time students, particularly those of high income and education, and that the vast majority of working young adults uses car travel to commute (Gordon-Larsen et al., 2005). It is therefore necessary to increase our knowledge on transport choices in all young adults, not only in students.

Distance to destinations is an important barrier to AT (Vandenbulcke et al., 2011). Several studies found that the criterion distance for AT could be set at eight kilometers for cycling and two kilometers for walking (Van Dyck et al., 2010; Tolley, 1996), but even within the distance of eight kilometers, many young adults use passive transport (Shannon et al., 2006). Research focusing on correlates of transport modes for short distance travel (≤ 8 km) in young adults, may improve by removing distance as a confounding factor.

Because previous research focused mainly on active commuting behavior in children, adolescents or middle-aged adults, knowledge is lacking on why young adults choose between different transport modes to travel to various destinations. Young adults are an important target group as they have more transport options than children (i.e. motorized transport), have a different lifestyle from adolescents or adults and still need to establish their adult habits. Qualitative research methods are recommended for little studied areas as they allow for in-depth exploration of selected issues and offer a powerful tool for helping us understand the complexities of travel behavior (Thomas et al., 2005; Clifton and Handy, 2003). Focus groups can be an effective way to understand the travel choices of particular segments of the population, such as young adults (Clifton and Handy, 2003). Interactive group discussions stimulate a process of sharing and comparing, and different points of view are revealed (Morgan, 1998).

Therefore, the aim of this study was to explore the factors influencing transport mode for short distance travel (≤ 8 km) to various destinations in working and studying young adults (18–25 years) using focus groups.

2. Methods

2.1. Sampling

Student focus group participants ($n=19$; mean age 21 ± 1.1 years) were recruited through snowball sampling, a nonprobability approach that is often used in qualitative research and in which the researcher recruits a few volunteers who, in turn, recruit other volunteers. All participants were students in universities or colleges in Antwerp (Belgium). Working young adults ($n=17$) who volunteered to participate were recruited partly through snowball sampling and partly via the City of Antwerp. They had both blue collar and white collar jobs and their mean age was 23 ± 1.5 years. The study protocol was approved by the ethics committee of the university hospital of the Vrije Universiteit Brussel. All participants agreed to participate in the study via informed consent and gave permission for their quotes to be used in research publications.

2.2. Research protocol and measures

The protocol consisted of two parts. Firstly, the participants completed a brief and basic questionnaire collecting socio-demographic data, data about transport modes, transport preferences, distance to school/work and driver's license possession. Physical activity was also assessed with one self-report question. Such single questions have shown to have a good validity in studies where physical activity is not the primary focus and where more detailed measures are not feasible (Schechtman et al., 1991). Secondly, focus groups were held until saturation was reached (a point at which all questions have been thoroughly explored in detail and no new concepts or themes emerge in subsequent interviews), since a sample size cannot be pre-determined when there is the need for a thorough exploration of an as yet unknown behavior (transport choices for short distance travel) (Trotter, 2012). In total, six focus groups were held, with a range of five to eight participants per group. Three focus groups were conducted with students, and three with working young adults. All focus groups were conducted in Dutch and lasted approximately 50 min. A focus group protocol and a semi-structured discussion guide (see Table 1) were developed consistent with recommended focus group methodology (Krueger and Morgan, 1998). The guide consisted of several questions, including an opening question, an introduction question, a transition question, five key questions and an ending question. Most of the discussion time was spent on the key questions, asking which factors determine young adults' transport mode choice to school/work and to other nearby destinations, whether and why their transport mode choice changed in the last five years and the advantages and disadvantages of the different types of transport for short distance travel (≤ 8 km). The questions aimed to uncover facilitators of and barriers to all types of transport. The moderator (D.S.) used the focus group guide to lead the discussions, allowing ample time for participants to respond to questions and comments from other participants. In addition, designated observers were present to take notes and to make sure the moderator did not overlook any participants trying to add comments. The young adults were offered an incentive (movie ticket) for their participation in the focus group discussions. With permission of the participants, all conversations were audio taped and filmed, to help the transcription.

2.3. Data analysis

Data obtained by the questionnaire were entered into an SPSS-file (version 20.0) to calculate descriptive statistics. Data from the