College Students' Sense Of Cycling Capability Deters Helmet Use: Implications For Safety Helmet Ordinances

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ABSTRACT

Proponents frequently cite increased injury protection as a reason for supporting bicycle helmet ordinances; yet, many cyclists oppose such policies. In this study, six focus groups of college students discussed cycling behaviors and attitudes toward using bicycle safety helmets, and perceptions of the local helmet ordinance. The usual concerns were voiced such as "inconvenience" and "helmet hair". Participants reported very high confidence in their cycling ability and their ability to avoid a crash which might require a helmet. They failed to take into account external factors or the actions of others which may increase risk for injury. They also did not understand how health insurance spreads the financial risk for traumatic events. These findings have implications for designing education campaigns to promote college student health, as well as initiatives for helmet ordinance advocacy.

Keywords: Bicycle Helmets; Helmet Ordinances; Safety Education; College Student Health

INTRODUCTION

Despite evidence that bicycle helmets may prevent injuries (Attewell, Glase, & McFadden, 2001; Fullerton & Becker, 1991; Thompson, Rivara, & Thompson, 2000; Thompson, Thompson, Rivara, Wolf, 1990), the efficacy of helmets and compulsory helmet ordinances is still debated (Hooper & Spicer, 2012; Robinson, 2006; Robinson, 2007; Elvik, 2011). Because it is an economical means of transportation, college students frequently cycle (Coron, 1996; Gohn & Williams, 2009) yet, report very low rates of helmet usage (Fullerton & Becker, 1991; Weiss, 1996). Students regularly indicate economical, physical, and social barriers to helmet use including cost, inconvenience, personal vanity, and peer ridicule (Coron & McLaughlin, 1996; Ross, Ross, Rahman, & Catalso, 2010; Page, Follett, Scanlan, Hammermeister, & Friessen, 1996). Comprehensive literature review revealed only one study since 1997 which examined helmet use among U.S. college students. This study, which indicated that only 12% of college students wear helmets, focused on the development of an instrument to measure attitudes towards bicycle helmets (Ross, Ross, Rahman, & Cataldo, 2010). As university communities explore helmet policies, it is important to more appropriately understand the attitudes of college students towards this behavior.

In 2010, the city of Starkville, Mississippi passed an ordinance requiring bike helmets for all ages; however, the local university (Mississippi State University) has no helmet requirement for on-campus cyclists. Thus, some students have become adept at the "ride and pull", as they cross on to campus removing their helmet (Figure 1).

The purpose of this project was to better inform safety helmet public education and awareness campaigns at the local level, particularly in university-centered communities. The objective of the study was to gather focus group data to determine student perceptions of cycling safety including objections and resistance to helmet use. The

hypothesis was that regulatory context plays a major role in helmet usage, more so than concerns about inconvenience and personal vanity.

Figure 1. Photo illustration of a college student removing his bicycle helmet when entering the university campus.

METHODS

University students with experience in recreational or commuter cycling were recruited to participate in one of six different focus groups. Participants were recruited through social network postings (Facebook) and campus flyers. A total of 46 students participated (27 males, 19 females) with 93.5% of the sample consisting of undergraduate students (n=43) between the ages of 15-25. Self-identified commuter cyclists made up 19.6% (n=9) of the sample, while 80.4% (n=37) self-identified as recreational cyclists. The participants were given a passive informed consent document and an opportunity to ask questions about the study prior to beginning each focus group. Each focus group was moderated by university researchers who also serve as representatives on the local city's health promotion committee. Participants were asked a set of ten questions to determine their thoughts and perceptions related to helmet ordinances, cycling safety, and personal cycling history.

RESULTS

Despite the general knowledge that safety helmets do provide protection to cyclists (Attewell, Glase, & McFadden, 2001; Fullerton & Becker, 1991; Thompson, Rivara, & Thompson, 2000; Thompson, Thompson, Rivara, Wolf, 1990), few participants reported a history of helmet use as a child. Only 17.4% (n=8) participants reported being required to wear a helmet as a child (<16 years of age) based on parental enforcement. Behavioral continuation was evident among the sample, as the lack of childhood helmet use seemed to impact adult helmet use. Only 13.0% (n=6) of participants reported consistent current use of a safety helmet when cycling for either commuter or recreational purposes. The discussion yielded several common complaints about wearing a helmet (Table 1). Of the participants who do not consistently wear helmets, it was agreed that many of them only wear a helmet in areas where they feel they are likely to get a ticket (per city ordinance) for not wearing a helmet, although only 4.3% (n=2) had received a ticket.

A consistent theme among participants was to question the amount of protection that a helmet would actually provide in a crash (sample comments in Table 1). Additionally, several participants noted that helmet ordinances actually discourage cycling because students would rather not cycle than wear a safety helmet. The majority of participants (n=43; 93.5%) felt that adults should not be required by law to wear a helmet, but rather should have a choice to make a decision that will only affect their own personal well-being. In contrast, 93.5% (n=43) said that children should be required to wear a helmet. Several participants voiced thoughts that the only person who assumes risk while cycling without a helmet is the cyclist. The theme of helmet use being a personal choice was consistent in all focus groups; however, participants were not able to see the impact of cycling injuries beyond the health of the cyclist. Researchers asked all participants about the financial impact of cycling injuries on

the population and none of the 46 participants were able to explain how health insurance spreads financial risk. It should be noted that only one participant reported that he/she pays for his/her own health insurance.

No participant reported to have recently had a cycling crash and all were confident of their ability to avoid crashes. When asked about external conditions (potholes, glass in the road) or the actions of others (distracted drivers, car door opening, dog attack or squirrel running across the road), all respondents remained confident of their ability to avoid a crash. General risk perceptions related to other public safety laws varied among participants. Most were supportive of an automobile seat belt requirement because the respondent's perception is that a car is more dangerous than a bike (Table 1).

Table 1. Sample focus group comments regarding cycling behaviors and safety helmet use

Common reasons for not wearing cycling helmet
• "I just can't remember to grab it before I leave my apartment."
• "It's just inconvenient to carry the helmet all day."
• "Nobody wants helmet hair."
• "Helmets are too hot, especially in the summer."
• "I feel like they are too restricting with the chinstrap. I can see better without one."
Perceptions of other public health safety regulations (such as seatbelt laws)
• "It is proven that seatbelts save lives, but not proven that helmets save lives."
• "Driving a car is a deadly weapon that could hurt others. Crashing a bike will only hurt you."
• "When you wreck a bike you are more likely to skin a knee than fall on your head."
• "Cars move faster so the scale of measurement is different."

CONCLUSION

Surprisingly, some college students are not convinced that bike helmets can prevent or reduce head trauma in a crash. Rather, they envision a cycling crash as something involving a skinned knee, likely based on their childhood experiences. It was not surprising that they found wearing a helmet "restricting", "cumbersome", "overkill", and "annoying." Interestingly, only a small percentage of participants wore a helmet as a child, which seems to have impacted helmet use as an adult since most have not made cycling with a helmet a regular habit. The most striking finding was, that once young adults citied all the disadvantages to wearing a helmet, underlying their resistance was the personal belief that their own cycling ability would allow them to avoid a crash. This begs the question, should public health education campaigns take an "Everybody crashes" message to young adults? As expected, most students do not pay for their health insurance and are unaware of how health insurance spreads the financial burden of health care. This finding is important as it has potential to counter the belief that bicycle injuries only affect the individual cyclist and no one else.

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