Engaging worksite bystanders to reduce risky driving

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ARTICLE INFO

ABSTRACT

Many workplace fatalities in both the United States and Canada involve motor vehicles. In order to address these high percentages of fatalities, a growing trend of research addressing workplace efforts to reduce motor vehicle incidents has emerged. In this study, a survey of 399 workers from 19 worksites among six different organizations (three for-profit businesses, two private utilities, and two public agencies or forms of government) in Ontario, Canada revealed that most employees agreed they should try and prevent coworkers from engaging in six different risky driving behaviors: not wearing a seat belt, texting while driving, using a cell phone while driving, aggressive driving or speeding, fatigued driving, and driving after drinking alcohol. The Positive Community Norms framework (Linkenbach, Keller, Otto, Swinford, & Ward, 2012) was utilized to inform an intervention using the theory of planned behavior to predict bystander engagement by workers to prevent these six risky driving behaviors. Linear and logistic regression analyses were used to determine the beliefs most associated with intervening intentions and behaviors. The study revealed that an individual's perception of the norm regarding intention to intervene was most predictive of the individual's own self-reported intention to intervene. Recommendations for interventions and further research are presented.

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1. Introduction

In 2011, 32% of workplace fatalities in the United States involved highway motor vehicles (USDOL, 2012). In 2008 in Ontario, Canada, motor vehicle incidents accounted for more than 30% of all worker fatalities (45% when powered industrial vehicles or powered mobile industrial equipment in the workplace are included) (WSIB, 2011). According to the National Electronic Injury Surveillance System (work-related injuries/illness program), there were over 440,000 workplace motor vehicle non-fatal injuries between 1998 and 2002 in the United States (Chen, 2009).

The Positive Community Norms (PCN) framework seeks to improve health and safety by growing positive community norms and cultivating cultural transformation (Linkenbach, Keller, Otto, Swinford, & Ward, 2012). PCN uses a social ecological perspective and thereby recognizes workplaces as an important opportunity to improve health and safety. PCN has been developed by one of the authors (Linkenbach) as an extension of his early research on social norms theory and its application to prevention. According to social norms theory, group norms are an indicator of its culture and an important influence on individual behavior (Perkins, 2003). PCN focuses on three core components to improve health and safety: leadership, communication and integration. PCN communication seeks to identify values, attitudes and beliefs that are associated with

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healthy behaviors and misperceptions that are associated with risky behaviors and then create communication interventions to grow the healthy behaviors and reduce risky behaviors. By using this approach, communication efforts are more likely to result in behavior change as they are grounded in a theoretical model with empirical data gathered from the specific population being addressed (Randolph & Viswanath, 2004). The PCN framework has been applied to reducing drinking and driving and increasing the use of designated drivers (Perkins, Linkenbach, Lewis, & Neighbors, 2010).

An important feature of this framework is not only to reduce risk but also grow protection. In some cases, growing protection may involve growing bystander engagement (Fabiano, Perkins, Berkowitz, Linkenbach, & Stark, 2003). A focus on growing bystander engagement is particularly appropriate in addressing many risky driving behaviors because, while causing extensive harm, these behaviors typically are engaged in by a relatively few number of people. For example, most people wear their seat belt and do not drink and drive (USDOT, 2012). Thus, when seeking to reduce the behaviors of a small number of people, it makes sense to explore what positive norms can be grown among the majority of people who do not engage in risky driving behaviors to address the risky behaviors of a small number of people. A focus of this research is to determine the appropriate norms that are associated with increasing bystander engagement within the workplace to reduce risky driving behaviors.

Several researchers have sought to understand the factors which influence decisions about engaging bystanders in various situations including reducing sexual assaults and dating violence (Coker et al., 2011; Miller et al., 2012; Potter, Stapleton, & Moynihan, 2008), reporting child maltreatment (Fledderjohann & Johnson, 2012), and traffic safety (DeJong & Atkin, 1995; McKnight, Becker, Tippetts, & Hohn, 2009). Research by others has focused on necessary conditions to foster bystander engagement (Cismaru, Jensen, & Lavack, 2010) and the application of existing behavior theories, such as social identity theory, to predict bystander engagement (Levine & Cassidy, 2009).

The theory of planned behavior (Fishbein & Ajzen, 1975) has been applied to predicting many behaviors (Ajzen, 1991; Glanz, Rimer, & Viswanath, 2008) including bystander engagement (Linkenbach et al., 2012). Put simply, the theory of planned behavior proposes that behavior reflects expected value; that is, it assumes a link between rational motivation, desire, intention, and expected outcomes in behavior choices. It examines five key concepts: behavioral beliefs, normative beliefs, perceived control beliefs, intentions, and actual behaviors as shown in Fig. 1 (Glanz et al., 2008). Behavioral beliefs reflect an individual's understanding of the specific behavior being addressed and include concepts like whether the behavior is harmful or whether an individual disapproves of the behavior. Normative beliefs include concepts about whether an individual believes the behavior aligns with the norms of the situation (norms being one indicator of the culture). Normative beliefs may include injunctive norms ("people should exercise" or "people should not drink and drive") and descriptive norms ("most people exercise" or "most people do not drink and drive"). In the case of predicting bystander engagement, a sense of perceived support by others has been found to be an important normative belief as well (Levine & Cassidy, 2009). Perceived control beliefs reveal whether an individual has the knowledge and confidence to perform the behavior. These three kinds of beliefs predict a person's intention for engaging in a certain behavior. Intention then predicts whether someone actually engages in the behavior (recognizing that if the circumstance does not arise, even a person with strong intention may not engage in a behavior).

Aspects of the theory of planned behavior have been applied to health-related behaviors including understanding the role of support and confidence in mediating intervening behaviors by adolescents to stop risky behaviors among their peers (Buckley, Chapman, Sheehan, & Cunningham, 2012; Fielding & Head, 2012) and understanding the role of behavioral beliefs, perceived control beliefs, and intention in predicting bystander intervention by college students to prevent sexual assaults (Banyard, Moynihan, & Crossman, 2009). It has also been applied to risky driving behaviors such as speeding (Conner et al.,
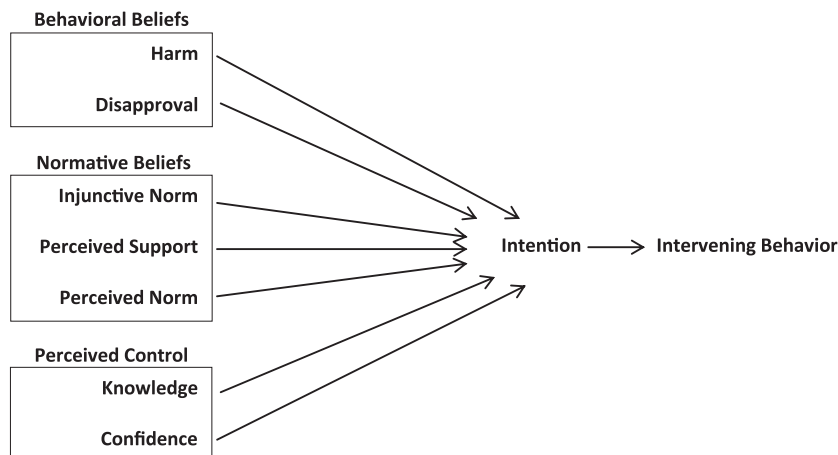

Fig. 1. Theory of planned behavior model predicting bystander intervening behavior.