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Understanding the sources of normative influence on behavior: The example of tobacco

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Abstract

Despite extensive research on social norms, the sources of norm formation are not well understood. Social exposure to a behavior (defined as the composite of ways through which people see that behavior in their social, physical, and symbolic environments) can serve as a source of normative influence. Using tobacco as a case study, we propose that research should move beyond categories of individuals as sources of norms and focus on a broader range of sources of normative influences. An understanding of social exposure as a source for norms may be important to better understand and intervene in environments to promote public health. We make policy recommendations arising from the explication of social exposure and propose directions for future research.

Keywords

Social Exposure; Norms; Tobacco Use; Environment; Smoking

1. Introduction

Unhealthy behaviors tend to cluster within social networks, which are systems of personal relationships and social interactions (Christakis and Fowler, 2008; Smith and Christakis, 2008). This suggests influences in the social environment may play an important role in the

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development and maintenance of these behaviors. One important process through which the environment affects behaviors is social norms. Social norms comprise “the rules and standards that are understood by members of a group, and that guide and/or constrain social behavior without the force of laws” (Cialdini and Trost, 1998, p.152). A substantial body of literature and several social and behavioral theories explore the impact of social norms on thoughts and behaviors. These theories include focus theory of normative conduct (Cialdini et al., 1990; Lapinski and Rimal, 2005; Perkins and Berkowitz, 1986), theory of planned behavior/reasoned action (Ajzen, 1991; Montañó and Kasprzyk, 2002), theory of normative social behavior (Rimal and Real, 2005), and problem-behavior theory (Jessor, 1987). However, the sources of social norms are less well studied.

Previous discussions of social norm formation have focused more broadly on how norms evolved, for example, whether they formed because they had cultural value or fulfilled a rational function connected with survival (Cialdini and Trost, 1998; Etzioni, 2000). What is not well documented, however, are the roles of specific sources of information about social norms within cultural or social groups. Much of this literature has focused on interpersonal influences and interactions as the sources for social norms in an individual’s environment (Abrams et al., 1990; Cialdini and Trost, 1998). Other significant sources for the development of norms—including the physical environment (Abrams et al., 1990) and mass media (Yanovitzky and Stryker, 2001)—have been acknowledged but not well characterized. The link between an individual’s environment and the formation of social norms about health behaviors has not been adequately studied. Moreover, it is not unusual for individuals to receive mixed normative messages from different sources concerning a particular behavior. Current theories do not account for the interactive effects of information sources for norms in people’s environments.

To address this gap and expand on the literature on social norm formation, we propose the concept of “social exposure”, defined as the composite of ways in which people come in contact with or experience a particular product or behavior in their environment. Social exposure provides information for the development of social norms. Using tobacco as an example, if a person recorded all instances of exposure to tobacco products, including efforts to market them, their use, and indicators of their presence in the environment, the aggregation would constitute social exposure. The aim of this paper is to explicate social exposure, using tobacco use as an example, in order to understand the various sources for norms and suggest directions for future research.

2. Types of norms

The literature provides strong evidence for the impact of social norms on a variety of attitudes and behaviors. Examples include littering behavior (Cialdini et al., 1990), cancer screening intentions (Smith-McLallen and Fishbein, 2008), alcohol consumption (Perkins and Berkowitz, 1986), fruit and vegetable consumption (Sorensen et al., 2007), and spousal violence against women (Linos et al., 2013). In recent years, much progress has been made in defining and delineating the effects of closely related concepts, including descriptive (prevalence of a behavior) and injunctive (social acceptability of a behavior) norms (Lapinski and Rimal, 2005).

Social exposure is a critical concept for understanding the influence of the environment on the formation of descriptive and injunctive norms. The term “social exposure” was first introduced to a larger audience as part of the 2010 report of the Smoke-Free Ontario Scientific Advisory Committee, which concluded that individuals must be protected against social exposure to tobacco use in order to decrease tobacco use behaviors (Smoke-Free Ontario - Scientific Advisory Committee, 2010). Social exposure refers to actual, as well as cues about, the prevalence of a behavior (descriptive norms) and the permissiveness towards that behavior (injunctive norms) in an individual’s environment. Witnessing an ashtray full of cigarette butts, for example, conveys the acceptability of tobacco use in that venue. Similarly, witnessing a group of people smoking in front of a building conveys information about both appropriate and inappropriate venues for smoking. Social exposure influences attitudes, beliefs, and behaviors by serving as the source of information about norms.

3. Social exposure as information sources for norms

Many studies point to the importance of investigating how a source of information affects information processing and subsequent action (Bink et al., 1999; Johnson et al., 1993). Previous research has shown that the reference group (from which the normative information emanates) plays a critical role in how normative information is perceived and acted upon (Campo et al., 2003; Engler et al., 2008; Neighbors et al., 2008; Thombs et al., 2004), likely because acceptability of a particular behavior varies by source. In the case of adolescent drinking, for example, parents and communities tend to support a norm that disapproves of drinking, whereas peers tend to support a norm that approves of drinking (Lipperman-Kreda et al., 2010; Rimal, 2008; Song et al., 2012). Perceptions that friends approve and engage in the behavior and low compatibility between friends and parents’ expectations about the behavior lead adolescents to be more likely to engage in problem behaviors like drinking, particularly if their beliefs and attitudes make them more vulnerable (Jessor, 1987). Moreover, individuals’ motivation to comply with a perceived norm changes the impact of that norm on their attitudes and behaviors, as proposed in the theory of reasoned action/planned behavior (Ajzen and Fishbein, 1980; Ajzen, 1991).

In our conceptualization, social exposure, i.e., cues an individual receives from his or her social, physical, and symbolic environments, is a specific type of information source that conveys norms and indirectly shapes individuals’ attitudes and behaviors.

3.1. Social environment

Significant sources of information about social norms are found in an individual’s social environment through exposure to interpersonal and social cues, including those from proximal members (family, close friends), distal members (such as neighbors or classmates), and non-members (strangers) of the social network. Modeling and reinforcement of smoking by family, friends, and classmates are significant predictors of smoking in youth, and part of this influence is through the formation of social norms (Akers and Lee, 1996; Alexander et al., 2001; Ali and Dwyer, 2009; Costa et al., 2007; Ennett et al., 2010; Hall and Valente, 2007; National Cancer Institute, 2008; Van Minh et al., 2011; Vries et al., 1995). Observing family, friends, and others engaging in behaviors, such as smoking, may lead individuals to believe they are highly prevalent, acceptable, and, therefore, normative behaviors. This may

lead them to take up smoking, whereas smoking cessation among family, friends, and others decreases individuals' risk of smoking (Christakis and Fowler, 2008). By witnessing coworkers, family, and friends quitting, individuals perceive that smoking is becoming less popular and less acceptable in their community, which makes them less likely to smoke. Moreover, smoking may form part of a cultural identity that individuals use to confirm their belonging to a cultural or socioeconomic group that is distinct from other groups (Pampel, 2006). Thus, an individual's social environment conveys cultural values that make smoking either normative or not normative, so that smoking can be a way to fit in with a particular group.

Descriptive and injunctive norms formed from the social environment have been shown to predict smoking (Akers and Lee, 1996; Alexander et al., 2001; Ali and Dwyer, 2009; Costa et al., 2007; Ennett et al., 2010; Etcheverry and Agnew, 2008; Hall and Valente, 2007; Van Minh et al., 2011; Vries et al., 1995) and intentions to quit (Dohnke et al., 2011). Moreover, smoking relapse after cessation often occurs in social settings and with other smokers, and this can in part be attributed to indirect normative pressure from observing other smokers or because of a desire to "fit in" (Borland, 1990; Carter-Pokras et al., 2011; Shiffman, 1982). These examples point to the influence of the social environment on tobacco through norms.

3.2. Physical environment

Other sources of information about social norms are found in the physical environment. Social exposure to tobacco use or tobacco products occurs in many physical venues: point-of-purchase (retail); bars, restaurants, and other social venues; schools and workplaces; homes; and communities. The attributes of the physical environment can convey descriptive and injunctive norms about tobacco use, which may explain why proximity and density of tobacco retail outlets in communities are associated with tobacco use in adolescents (Novak et al., 2006; West et al., 2010). The physical availability of tobacco products may influence the formation of descriptive norms, as the ready availability can convey that many others are using the product and that it is an acceptable behavior. Cialdini et al. (1991) showed that physical cues in the environment—i.e., the presence of litter—were sufficient to convey descriptive norms about the prevalence of littering behavior. These descriptive norms in turn can make salient the injunctive norms against littering, and thereby influence littering behavior. The presence of tobacco-related litter, such as cigarette butts or discarded tobacco product packaging, and physical exposure to smoking in the community may have a similar effect in creating norms about the perceived prevalence and acceptability of tobacco use, which promote initiation (Ahern et al., 2009) and hinder cessation (Bryant et al., 2011).

The physical environment also serves as a venue for the social environment to provide information about the social norms of tobacco use. For example, venues such as bars and workplaces where smoking is allowed convey the message that smoking is normative and prevalent, and may thereby encourage uptake in nonsmokers (Honjo et al., 2006; Trotter et al., 2002). Descriptive norms about smoking are significant predictors of smoking behavior, even after controlling for characteristics of the environment (Ahern et al., 2009; Alexander et al., 2001; Ennett et al., 2010; Ji et al., 2009). This finding suggests that others' smoking

behavior (in other words, the social environment), more than other aspects of the environment, has a significant impact on an individual's formation of norms and behavior.

3.3. Symbolic environment

Significant sources of information about social norms can also be found in the symbolic environment, which includes entertainment and news media, tobacco marketing, and tobacco control media. Both agenda-setting theory (McCombs and Shaw, 1993) and cultivation theory (Gerbner et al., 2002) posit that images in the media can change people's perceptions about social reality and create "pictures in our heads" about the prevalence of behaviors, rituals, and customs. Evidence indicates the depiction of smoking in movies and other entertainment media, coverage of tobacco issues in news media, tobacco marketing and advertising, and tobacco control media all have an impact on smoking thoughts and behaviors (Dalton et al., 2009; DiFranza et al., 2006; Henriksen et al., 2010; Henriksen et al., 2002; Lovato et al., 2011; Morgenstern et al., 2011; National Cancer Institute, 2008; Song et al., 2007; Wakefield et al., 2003; Wakefield et al., 2006; Zulu et al., 2009).

Two underlying mechanisms could explain these findings: formation of descriptive and injunctive norms and observational modeling. If many (or a prominent few) individuals are depicted smoking in movies, viewers can acquire an inflated perception about its prevalence in real life, that is, as being the norm (Crawford, 2001; McCool et al., 2001; National Cancer Institute, 2008; Wakefield et al., 2003). Pro- and anti-smoking media content indirectly affects individuals' smoking-related attitudes and susceptibility through perceived norms about peer smoking prevalence (Gunther et al., 2006; Smith et al., 2008). Few studies have investigated the impact of media on the formation of injunctive norms (Smith et al., 2008; Wakefield et al., 2006), and findings have been mixed.

The second possible mechanism for the impact of media on individuals' thoughts and behaviors is observational modeling, which occurs when an individual learns and replicates a behavior by observing its execution by others. Because adolescents have a strong desire to emulate the actors they view as role models, they may also emulate the actors' smoking behaviors (Crawford, 2001; DiFranza et al., 2006; McCool et al., 2001; National Cancer Institute, 2008; Tickle et al., 2001). The theory of normative social behavior posits that identification with one's group (called "group identity"), which comprises aspiration (desire to emulate a particular group) and perceived similarity with an individual's peers, can significantly enhance the effects of descriptive norms on behaviors (Rimal and Real, 2005). Observational modeling and norm formation have interactive qualities that are, as yet, not fully understood.

4. Further issues to consider

In research and programs to address the effect of social exposure on thoughts and behaviors, two important methodological issues should be addressed. First, while social exposure may influence people's perceptions of the norms related to smoking, the effect of these norms on subsequent behavior may depend on a number of factors. For example, conformity to the descriptive and injunctive norms formed from exposure to the social environment can depend on group identity (Pampel, 2006; Rimal and Real, 2005) and social bonds (Ennett et

al., 2010; Simons-Morton et al., 1999). Individuals conform to the norms of the group with which they identify (Pampel, 2006; Rimal and Real, 2005), and family social bond characteristics can inhibit or amplify the effects of peer modeling of smoking (Ennett et al., 2010). These factors must be taken into consideration in the study of social exposure and health behaviors.

The second issue is the interaction of social exposure factors across levels to influence behaviors (Carvajal et al., 2004). For instance, evidence has shown that norms interact with each other to determine smoking behavior (Akers and Lee, 1996; Dohnke et al., 2011). When sources of normative information from the social network are in conflict, youth will often conform to the smoking norms and behaviors of their close peers; risk of smoking behavior is maximized when all sources are consistent (Akers and Lee, 1996). Research has also shown that social networks and media depictions of smoking interact to determine smoking behaviors (DiFranza et al., 2006; Unger and Chen, 1999; Wakefield et al., 2003). Therefore, an understanding of the interaction of sources of norms, as well as factors that impact compliance with those norms, is necessary to further study the effect of social exposure.

5. Future research and policy directions

Even though much of the existing research does not explicitly use the term “social exposure,” the totality of evidence indicates individuals’ social exposure to a behavior is an important consideration for public health efforts, particularly in the case of tobacco. A number of important research questions need to be tackled, however, to inform our understanding of how social exposure affects behaviors such as tobacco use. Some of these questions are discussed below.

Specifying the underlying processes that link social exposure with behaviors constitutes an important area for future research. In this paper, we have explored this pathway through social norms. A number of perspectives from norms-based theories can be adopted to propose and test specific hypotheses in order to understand the underlying thought processes. Focus theory of normative conduct proposes, for example, that norms are important to the extent they are made salient at the time of action, such that individuals make behavioral decisions on the basis of normative considerations, rather than other considerations (Cialdini et al., 1990). The question then is whether social exposure can serve as a trigger for making decisions based on norms.

The theory of normative social behavior proposes that the influence of descriptive norms on behavior is modified by injunctive norms, perceived benefits, and group identity (Rimal and Real, 2005). The extent to which social exposure affects each of these variables is worthy of investigation. For example, it would be reasonable to assume those whose social exposure to tobacco is high may believe many others also smoke (thus affecting descriptive norms), it is permissible to do so (injunctive norms), and there are many benefits to smoking. In accordance with the theory of normative social behavior, this belief would in turn boost the influence of descriptive norms on behavior. Moreover, greater social exposure to tobacco from those with whom a person closely identifies can serve to enhance the influence of

group identity on behavior. The underlying research question here is the extent to which these and other factors can enhance the relationships between social exposure and behaviors. These are hypotheses future studies could test.

In this article, we have not made explicit distinctions between normative influences at the individual level and those at a larger, macro level. Rather, we have conceptualized social exposure as a source of norms-related information from a composite of levels: at the individual level, people's perceptions about others' behaviors, and at the macro level, societal acceptance of or sanctions against collective action. Future research could raise specific questions about the effects of norms emanating from multiple levels that are either congruent with each other (when individual- and collective-behaviors align) or in opposition to each other (e.g., when interpersonal preferences go against societal sanctions).

In the case of tobacco use, social exposure may help researchers and policy makers better understand, and potentially address, reasons why smoking prevalence in the U.S. has stopped declining in recent years. Tobacco control policy measures, such as smoke-free laws and cigarette taxation, have been effective in reducing the prevalence of smoking in the U.S. and elsewhere (Jha and Chaloupka, 2000), but smoking prevalence among subsets of the population—particularly minority and socioeconomically disadvantaged individuals (Barbeau et al., 2004)—continues to be disproportionately high. Research to further understand and explicate the role social exposure to tobacco plays in smoking and quitting behaviors may find new and innovative means to change the social, physical, and symbolic environments to promote tobacco control norms. By defining and exploring social exposure to tobacco, public health practitioners would be better equipped to address persisting tobacco use.

Although we have restricted our discussion of social exposure to tobacco use as an illustrative example, this concept can apply to other health-related behaviors, such as physical activity, eating behavior, drug use, and excessive alcohol use. Future research could adopt a wider lens, looking beyond tobacco use, to investigate the extent to which effects of social exposure can be assessed across a range of public health topics. Using the concept of social exposure, public health researchers and practitioners can identify aspects of the social, physical, and symbolic environments that promote the unhealthy behavior and aspects that promote healthier alternatives to target in programs and policies. Changing the environment can have an iterative and sustainable impact on reducing the prevalence of unhealthy behaviors.

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