Distracted Driving: Changing Culture through Positive Community Norms

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• We are recording this on March 12, 2021
• But it’s for your use on April 26, 2021
• And we are re-watching it with you on that same day, which hasn’t happened yet...
• Which can only mean one thing...
WE’RE GOING BACK TO THE FUTURE
Truthfully, Jeff predicted this on page 3 of the Report on Social Norms in 2004.
Where Jason appeared right after him on page 4

Social norms research has seen tremendous advances over the last few years. In this limited space, we will attempt to highlight some important implications of recent research. These include issues regarding relevance of the normative reference group based on campus size and gender, implementation strategies using web and computer technology, and the impact of normative information on abstainers or very light drinkers. As the quest for effective interventions and prevention efforts continues, it is important for practitioners to be aware of recent research so that interventions can be evaluated in future studies.

Salience of the Normative Message: Gender Differences. Borsari and Carey (2003) also concluded that norms from groups that are more proximal will be more likely to result in behavior change than norms from less relevant groups. Lewis and Neighbors (in press) provide some important empirical evidence about this issue, but demonstrate that proximal norms are not always indicated. They showed that perceived same-sex norms are more strongly associated with problematic drinking than more general norms, and demonstrated that

Implications for Abstainers. An earlier article by Borsari and Carey (2001) reviewed the research on peer influences on college drinking and provided information with significant implications for college students who are abstainers. The authors stated that not drinking at a social function leads to receiving several offers to drink, that students who are more socially secure can resist these peer offers of alcohol, and that new students attempting to develop friendships and fit in may be more likely to accept offers of alcohol. These students would be appropriate targets for normative education confirm-
• The respected Back to the Future researcher, Dr. Emmett Brown, when explaining the importance of not altering the past in case it affects the future said:
  • “Anything you do can have serious repercussions on future events...do you understand?”

• We DO understand

• So, to guarantee nothing changes in the future if we reorganize how we’ve done this in the past, Jeff is going first, then Jason

• That’s just good science
The Positive Community Norms Framework
The Positive Community Norms Framework...

Is an application of the Science of the Positive Framework, in organizations, systems, communities and cultures to grow positive, protective norms. Key steps include:

1. Uncover Strengths
2. Measure Gaps
3. Challenge Misperceptions
4. Increase Health

Linkenbach, (2016).
THE POSITIVE COMMUNITY NORMS FRAMEWORK

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What is the Science of the Positive?

The Science of the Positive is the study of how positive factors impact culture and experience.

The focus is on how to measure and grow the positive, and is based upon the core assumption that the positive is real and is worth growing – in ourselves, our families, our workplaces and our communities.

Core Assumption of The Science of the Positive:

The POSITIVE Exists, it is real, and is worth growing

Linkenbach, J. (2007). The Seven Core Principles of the Science of the Positive Workbook: A publication of The Montana Institute, LLC.
The solutions are in community

Using fear appeals can make the problem worse

“If we want HEALTH, we must promote HEALTH.”

- Linkenbach, 2000
Guiding Questions

**Spirit**
What will be the spirit of our work?

**Science**
How will we approach the science?

**Action**
What will be our actions?

**Return**
What returns will we seek?
What's a norm?

- 51% or more
- Majority
- Most
- Almost All
Social Norms Theories say...

**we tend to do (or believe) what we think MOST people do (or believe).**

(the perceived norm)

and often what we think **most** other people do is wrong!
There were even misperceived norms about drinking in Back to the Future
• **Marty McFly**: Yeah, well, you shouldn't drink.

• **Lorraine Baines**: Why not?

• **Marty McFly**: Because you... You might regret it later in life.

• **Lorraine Baines**: Marty, don't be such a square. *Everybody who's anybody drinks*
Norms Theories

- Norm
- The GAP
- Perceived Norm
Norms Theories

The Norm
The actual behavior or attitude of the majority of a population; what most people do or believe.

“How often do you drink alcohol?”

The Perceived Norm
The perceived behavior or perceived attitude of most people; what we think most people do or believe.

“How often do most students in your school drink alcohol?”
MIND THE GAP
There were guidelines about PCN message development (especially posters) in Back to the Future
• **Marty McFly:** Wait a minute. Wait a minute, Doc. Ah... Are you telling me that you built a time machine... out of a DeLorean?

• **Dr. Emmett Brown:** The way I see it, if you're gonna build a time machine into a car, why not do it with some *style*?
Guiding Principles of PCN Message Development

- Positive
- Normative
- Reflective
- Inclusive
- Clear
- Data-based and Source-specific
- Neutral
* Seamless and perfectly choreographed transition between Jeff and Jason happens here *
“Great Scott!”
Great Musical Scott:

Scott Joplin

“The Entertainer”

“Maple Leaf Rag”
Most sought after great Scott of 2020
Great Scot
…in communities where the PCN approach was implemented, significant reductions in youth alcohol use were measured (p. 9 of 11)”

Linkenbach, et al., (2021)
Implementation Fidelity is “the degree to which programs are implemented...as intended by the program developers” (Dusenbury, et al., 2003; Carroll, et al., 2007)
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Given this definition, why are we in luck when it comes to implementation of Science of the Positive and Positive Community Norms (PCN)?
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Given this definition, why are we in luck when it comes to implementation of Science of the Positive and Positive Community Norms (PCN)?

WE HAVE THE PROGRAM DEVELOPER RIGHT HERE!!!!
Elements in Implementation Fidelity
(Carroll, et al., 2007, page 4 of 9)

Adherence
- Content
- Coverage
- Frequency
- Duration

A conceptual framework: elements and relationships

Adherence
Adherence is essentially the bottom-line measurement of implementation fidelity. If an implemented intervention adheres completely to the content, frequency, duration, and coverage prescribed by its designers, then fidelity can be said to be high. Measuring implementation fidelity means evaluating whether the result of the implementation process is an effective realisation of the intervention as planned by its designers.
Elements in Implementation Fidelity
(Carroll, et al., 2007, page 4 of 9)

Adherence
• **Content**  
  *The “active ingredient” of the intervention*
• Coverage
• Frequency
• Duration
What does this mean?

• Do you have what you need for your “active ingredient” of a PCN message?
Elements in Implementation Fidelity
(Carroll, et al., 2007, page 5 of 9)

Adherence
• Content
• Coverage
• Frequency
• Duration

The “dose”
What does this mean?

• Identify a plan for dosing
What does this mean?

• Go all in...if you’re going to do PCN, do it right...stay true to the original intent
There were so many messages about speed and highway safety in Back to the Future
• **Marty McFly:** Hey, Doc, we better back up. We don't have enough road to get up to 88.
• **Dr. Emmett Brown:** Roads? Where we're going, we don't need roads.

Social Norms and Risk Perception: Predictors of Distracted Driving Behavior Among Novice Adolescent Drivers

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A B S T R A C T

Purpose: Adolescent drivers are at elevated crash risk due to distracted driving behavior (DOB). Understanding parental and peer influences on adolescent DOB may aid future efforts to decrease crash risk. We examined the influence of risk perception, sensation seeking, as well as descriptive and injunctive social norms on adolescent DOB using the theory of normative social behavior.

Methods: 403 adolescents (aged 16–18 years) and their parents were surveyed by telephone. Survey instruments measured self-reported sociodemographics, DOB, sensation seeking, risk perception, descriptive norms (perceived parent DOB, parent self-reported DOB, and perceived peer DOB), and injunctive norms (parent approval of DOB and peer approval of DOB). Hierarchical multiple linear regression was used to predict the influence of descriptive and injunctive social norms, risk perception, and sensation seeking on adolescent DOB.

Results: 61% of adolescents reported some form of distraction in DOB. Adolescents perceived that their parents approved of DOB (β = 0.24, p < 0.001) and that peers approved of DOB (β = 0.23, p < 0.001). Adolescents also perceived their peers to engage in DOB (β = 0.25, p < 0.001). Adolescents reported that their parents approved of DOB (β = 0.24, p < 0.001) and that peers approved of DOB (β = 0.23, p < 0.001). Adolescents also reported that their peers engaged in DOB (β = 0.25, p < 0.001). Adolescents who reported higher levels of sensation seeking were more likely to engage in DOB (β = 0.22, p < 0.001).

Implications and Contribution

Reducing adolescent distracted driving behavior (DOB) could decrease the high crash rates observed among novice drivers. Utilizing a telephone survey of adolescent–parent dyads, we found that parental role modeling as well as peer social influence is a critical risk factor in increasing adolescents’ risk of distraction in DOB.

- Utilized 403 dyads with parents-teens (16-18 years of age)
- 91.8% of adolescents regularly engaged in distracted driving behavior
- Adolescents perceived their parents and their peers engaged in distracted driving behavior more frequently than themselves

• In a multivariate model explaining over 40% of the variance in teen distracted driving, significant predictors were:
  • Adolescent risk perception
  • Parent distracted driving behavior
  • Perceived parent distracted driving behavior
  • Perceived peer distracted driving behavior
  • Parent and peer approval were not predictive
Distracted Driving Among College Students: Perceived Risk Versus Reality

Christopher P. Terry¹ · Danielle L. Terry²

Abstract Although the rate of alcohol-impaired driving among adolescents has declined in the past two decades, distracted driving has become a major public safety concern. The present study compared perceptions of accident risk and social crashes (1.1 million car accidents) involved cell phone conversations and an additional 4% involved texting while driving (213,000 accidents; NSC 2013). Furthermore, drivers younger than 20 years of age currently represent the age group with the
Terry & Terry (2016)

- 726 college students
- Although saw sending text messages as just as risky as driving under the influence, were far more likely to actually send texts, read texts, and talk
Terry & Terry (2016)

• Gap in perceived norms and what they actually believed

“Ultimately, effectively reducing distracted driving behavior related to cell phone use may require changing the public perception of such behaviors by enforcing distracted driving laws and developing social marketing campaigns that carefully incorporate information about social norms and do not focus exclusively on risk awareness. (p. 119)”
Terry & Terry (2016)

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“Ultimately, effectively reducing distracted driving behavior related to cell phone use may require changing the public perception of such behaviors by enforcing distracted driving laws and developing social marketing campaigns that carefully incorporate information about social norms and do not focus exclusively on risk awareness. (p. 119)”
Designing feedback to mitigate teen distracted driving: A social norms approach

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ABSTRACT

Objectives: The purpose of this research is to investigate teens’ perceived social norms and whether providing normative information can reduce distracted driving behaviors among them.

Background: Parents are among the most important social referents for teens; they have significant influence on teens’ driving behaviors, including distracted driving which significantly contributes to teens’ crash risks. Social norms interventions have been successfully applied in various domains including driving; however, this approach is yet to be explored for mitigating driver distraction among teens.

Method: Forty teens completed a driving simulator experiment while performing a self-paced visual-manual
1. Introduction

Distraction is a significant contributing factor in teenage-driver crashes (Ferguson, 2003; Shope and Bingham, 2008; Williams, 2003). About 20% of all crashes involving 15–18-year-old drivers can be attributed to distracted driving (Curry et al., 2011). Further, in 2014, distraction contributed to 10% of 15–19-year-old drivers’ fatal crashes in the U.S. (National Highway Traffic Safety Administration, 2016). While distractions have always been present in the driving environment, rapid advancement in mobile and in-vehicle technologies has made the issue ever more pronounced. It is estimated that over 90% of teenage and young drivers send text messages, and about 20% of them read emails and surf the internet while driving (AAMI, 2012; Atchley et al., 2011).

In recent years, there has been a growing interest in using motivational techniques to change individuals’ behaviors. One of the most notable techniques is the social norms approach. Social norms are “rules and standards that are understood by members of a group, and that guide and/or constrain human behavior without the force of laws” (Cialdini & Trost, 1998, p. 152). Over the past two decades, normative information has been used to target behavioral changes in various domains, such as energy consumption (e.g., Allcott, 2011), alcohol use (e.g., Haines et al., 2003), smoking (e.g., Linkenbach and Perkins, 2003), and drunk driving (e.g., Perkins et al., 2010). Individuals usually overestimate the extent to which other members of their social groups engage in or approve of unhealthy behaviors (e.g., Berkowitz, 2004; Larimer and Neighbors, 2003; Sherman et al., 1983). Individuals also tend to use their perceived norm as a point of comparison for their own behavior and a reference point from which they do not want to deviate (e.g., Baer et al., 1991; Clapp and McDonnell, 2000). Thus, interven-
Merrikhpour & Donmez (2017)

• Utilized 40 parent-teen dyads
• 17 to 19 years of age
• Considered real-time feedback following a driving simulator or post-driving feedback
• 5 drives on the simulator
Merrikhpour & Donmez (2017)

- 6.5 minute drive on a 2-lane rural road
- 5 oncoming cars
- Instructed to follow a lead vehicle and maintain a speed of 50 mph
- 8 times, the lead vehicle braked
- Microsoft Surface distracted them in the simulator
- Participants had to scroll through 10 phrases and find a phrase that matched “Discover Project Missions”
Merrikhpour & Donmez (2017)

• Four conditions
  • Social norms (Post-drive feedback incorporating descriptive normative information...assignment to this condition was not random)
  • Post-drive feedback without normative information
  • Real-time feedback (alarm if glance exceeded 2 seconds)
  • No feedback
Merrikhpour & Donmez (2017)
Social norms and real time feedback impacted behavior, “with social norms feedback outperforming real-time feedback as implemented in this study (192)”
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Percentage of time looking at secondary display
Social norms and real time feedback impacted behavior, “with social norms feedback outperforming real-time feedback as implemented in this study (192)”
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Number of manual interactions with secondary display
At the end of the day, in Back to the Future, there was a message of hope
Marty McFly: If you put your mind to it, you can accomplish anything.
Conclusions from research on distracted driving?

• Like other behaviors, there can be misperceived norms
• These can include misperceptions in approval of distracted driving, and rates of distracted driving
• If you can collect data on these behaviors, and identify gaps, you can put a spotlight on what “most” are doing
• PCN works!
• This works best as a part of an overall strategic plan that includes enforcement
• Keep in mind the spirit of the work – this is not about “getting people in trouble,” it’s about saving lives.
So who was the real star of Back to the Future?

• “...it might just save your life...
• That’s the power of love”
Thank you!

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