Distracted Driving: Changing Culture through Positive Community Norms

Jeff Linkenbach, Ed.D. and Jason Kilmer, Ph.D.

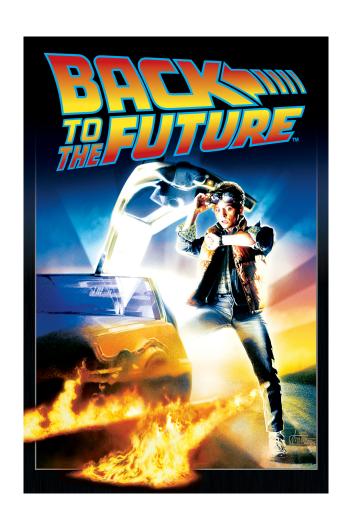
• We are recording this on March 12, 2021

•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

Volume 3 Issue 9 June 2004

The Report on Social Norms • Volume 3 No. 9

www.socialnormslink.com • www.Paper-Clip.com

Back to the Future: Three Commitments for Advancing Social Norms Science

by Jeff Linkenbach, 6 rry Lande, and Jerome Evans, Montana State University

rag-tag team of applied scientists led by Marty McFly find themselves desperately racing their retrofitted DeLorean back in time so that they might positively alter future events. One outcome was certain—somehow the world would forever be different as a result of their efforts. Those of use involved with social norms are currently embarking on a similar jour-

For example, psychiatrist Alfred Adler's concepts of social interest (the notion that all behavior has roots in perception of social context) have been helpful.

Practitioner. We are concerned about the deepening division between academic social norms researchers and the prevention professionals who apply the theory in the field. There is a danger that researchers are ignoring the applications of social norms theory, and that practi-

We must keep up with the publications and research of our colleagues in the field, be open to innovation and development, and make sure every one of our interventions reflects the current best practices and procedures for campaign planning, survey design, operations and assessment.

Commitment #3: Our work must be informed by the most recent relevant social science research. We will watch for and report research findings from the

Where Jason appeared right after him on page 4

The Report on Social Norms • Volume 3 No. 9

www.socialnormslink.com • www.Paper-Clip.com

The State of Social Norms: Emerging Questions and Future Steps

by Jason R. Kilmer, The Evergreen State College and Saint Martin's College and Mary E. Larimer, University of Washington

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

relative salience of different norms 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 samesex 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





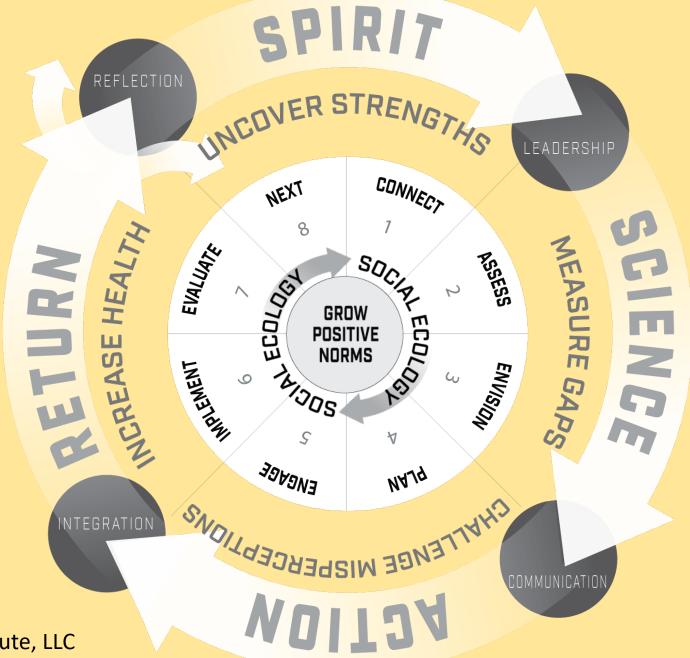
The Positive Community Norms Framework...

Is an application of <u>the Science of the Positive Framework</u>, 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



THE POSITIVE COMMUNITY NORMS FRAMEWORK



MONTANAINSTITUTE.COM

© 2018 Jeff Linkenbach & The Montana Institute, LLC

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.



Linkenbach, (2016). Applying the Science of the Positive to health and safety.



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



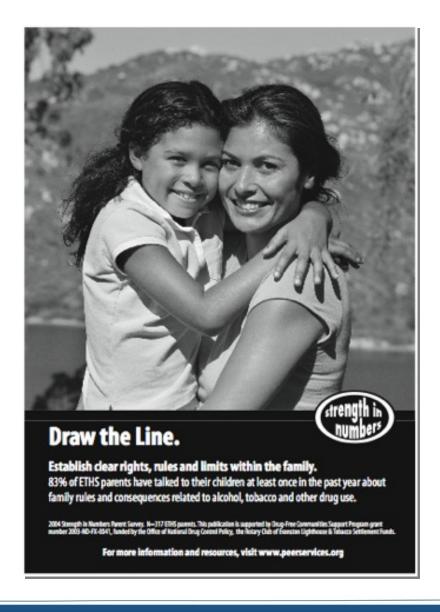
Linkenbach, J. (2007, 2018). The Science of the Positive: The Seven Core Principles Workbook: A Publication of The Montana Institute, LLC.

Using fear appeals can make the problem worse





United Press International (2007). Ads focused on 'drinking stories' may backfire. United Press International, December 11, 2007



"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?

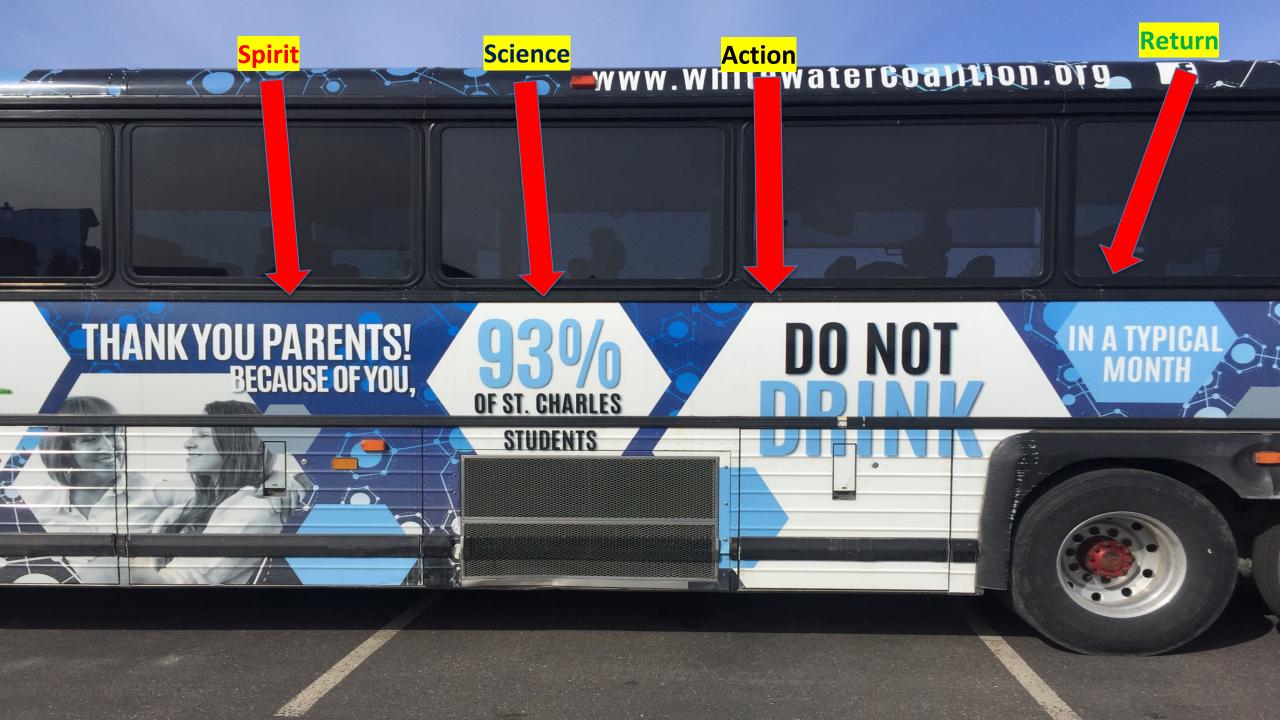
Return

What returns will we seek?



The Science of the Positive © 2019 Jeff Linkenbach & The Montana Institute, LLC





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

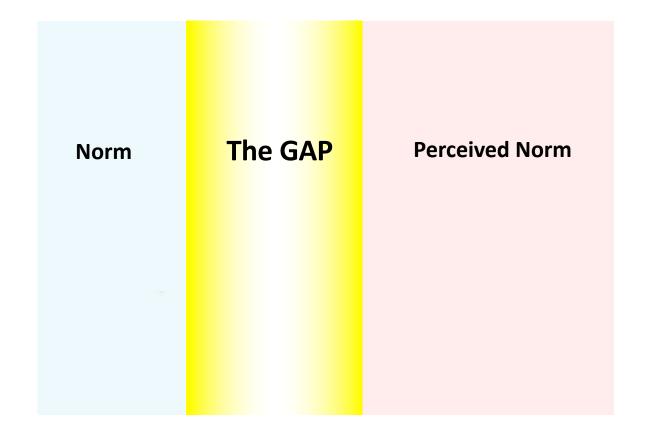


- Marty McFly: Yeah, well, you shouldn't drink.
- •Lorraine Baines: Why not?
- Marty McFly: Because you... You might regret it later in life.
- Lorraine Baines: Marty, don't be such a square.
 Everybody who's anybody drinks



Normative misperception!

Norms Theories



Norms Theories

The

GAP

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?"

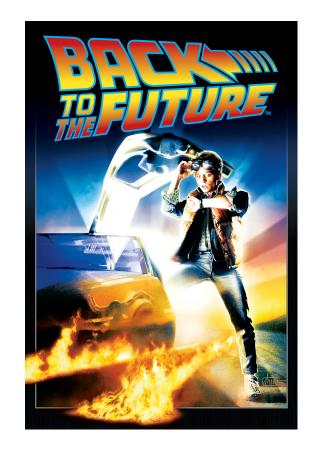
The Perceived Norm

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

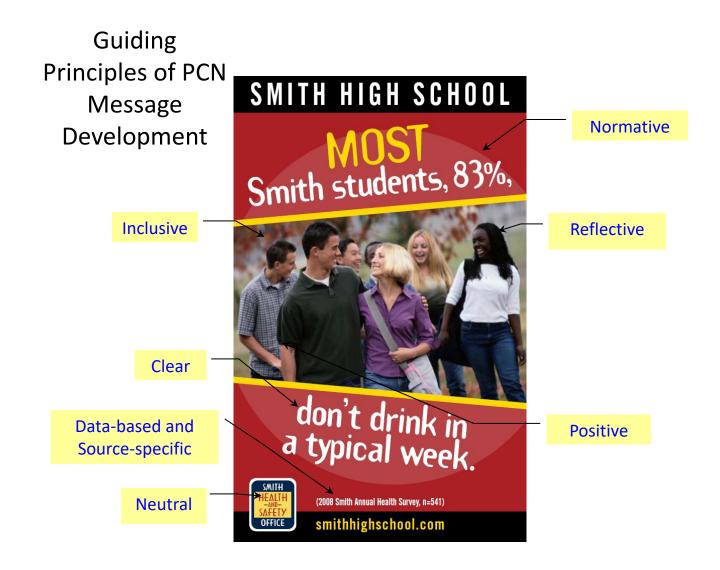
"How often do most students in your school drink alcohol?"



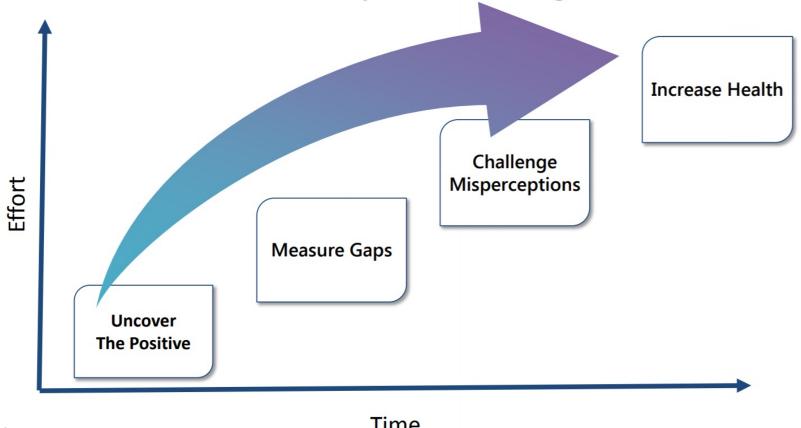
There were guidelines about PCN message development (especially posters) in Back to the Future



- •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?*



Positive Community Norms Logic Model



Linkenbach, 2018

Time

* Seamless and perfectly choreographed transition between Jeff and Jason happens here *

"Great Scott!"





Great Musical Scott:

Scott Joplin

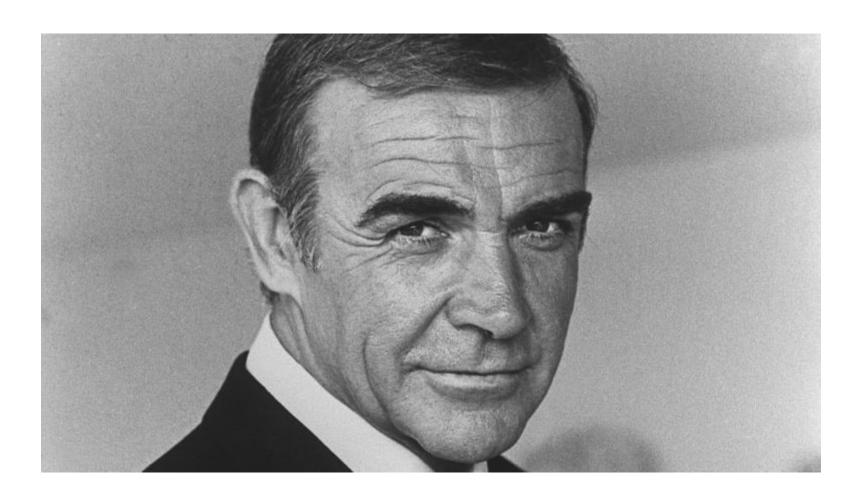
"The Entertainer"

"Maple Leaf Rag"

Most sought after great Scott of 2020



Great Scot





Reduction of Youth Monthly Alcohol Use Using the Positive Community Norms Approach

Jeffrey W. Linkenbach¹ · Phyllis L. Bengtson² · Jaimie M. Brandon³ · Al J. Fredrickson² · Jason R. Kilmer⁴ · Darren T. Lubbers³ · Jordan D. Ooms³ · Valerie S. Roche¹ · Sara J. Thompson¹

© Springer Science+Business Media, LLC, part of Springer Nature 2020

Abstract

This research evaluated the impact of the Positive Community Norms (PCN) approach on (a) correcting misperceptions of norms of peer alcohol use and (b) reducing prevalence of monthly alcohol use among a sample of high-school students. A 5-year intervention (consisting of a mix of strategies centered around promoting actual norms related to alcohol use) was implemented by community coalitions in 11 school districts selected by the Minnesota Department of Human Services. Yearly assessments of teen substance abuse norms were conducted in each community, as well as surveys of parents and adults in the community. In the absence of control communities, national data from Monitoring the Future (MTF) (Miech et al. in Monitoring the future national survey results on drug use, 1975–2017: secondary school students, vol I [Monograph].

"...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)

Implementation Science



Debate

Open Access

A conceptual framework for implementation fidelity

Christopher Carroll*¹, Malcolm Patterson², Stephen Wood², Andrew Booth¹, Jo Rick² and Shashi Balain²

Address: ¹School of Health and Related Research (ScHARR), University of Sheffield, Sheffield, UK and ²Institute of Work Psychology, University of Sheffield, Sheffield, UK

Email: Christopher Carroll* - c.carroll@shef.ac.uk; Malcolm Patterson - m.patterson@shef.ac.uk; Stephen Wood - s.j.wood@shef.ac.uk; Andrew Booth - a.booth@shef.ac.uk; Jo Rick - jo.rick@shef.ac.uk; Shashi Balain - s.balain@shef.ac.uk

* Corresponding author

Published: 30 November 2007

Received: 6 March 2007 Accepted: 30 November 2007

Implementation Science 2007, 2:40 doi:10.1186/1748-5908-2-40

This article is available from: http://www.implementationscience.com/content/2/1/40

© 2007 Carroll et al; licensee BioMed Central Ltd.

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/2.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Abstract

Background: Implementation fidelity refers to the degree to which an intervention or programme is delivered as intended. Only by understanding and measuring whether an intervention has been

Implementation Fidelity is "the degree to which... programs are implemented...as intended by the program developers" (Dusenbury, et al., 2003; Carroll, et al., 2007)

Given this definition, why are we in luck when it comes to implementation of Science of the Positive and Positive Community Norms (PCN)?

Implementation Fidelity is "the degree to which... programs are implemented...as intended by the program developers" (Dusenbury, et al., 2003; Carroll, et al., 2007)

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 The "dose"
- Duration

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.

Carter, et al., (2014)

Journal of Adolescent Health 54 (2014) S32-S41



JOURNAL OF
ADOLESCENT
HEALTH

www.jahonline.org

Original article

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

Patrick M. Carter, M.D. ^{a,b,c,*}, C. Raymond Bingham, Ph.D. ^{a,c,d,e}, Jennifer S. Zakrajsek, M.S., M.P.H. ^d, Jean T. Shope, Ph.D. ^{a,d,e}, and Tina B. Sayer, Ph.D. ^f

Article history: Received August 13, 2013; Accepted January 7, 2014 Keywords: Motor vehicle crash; Adolescents; Distracted driving

ABSTRACT

Purpose: Adolescent drivers are at elevated crash risk due to distracted driving behavior (DDB). Understanding parental and peer influences on adolescent DDB 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 DDB 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, DDB, sensation seeking, risk perception, descriptive norms (perceived parent DDB, parent self-reported DDB, and perceived peer DDB), and injunctive norms (parent approval of DDB and peer approval of DDB). Hierarchical multiple linear regression was used to predict the influence of descriptive and injunctive social norms, risk perception, and sensation seeking on adolescent DDB.

IMPLICATIONS AND CONTRIBUTION

Reducing adolescent distracted driving behavior (DDB) could decrease the high crash rates observed among novice drivers. Utilizing a telephone survey of adolescent—parent dyads, we found that parents' role modeling as well

^aUniversity of Michigan Injury Center, Ann Arbor, Michigan

^b Department of Emergency Medicine, University of Michigan School of Medicine, Ann Arbor, Michigan

^cDepartment of Psychiatry, University of Michigan School of Medicine, Ann Arbor, Michigan

^d University of Michigan Transportation Research Institute, Ann Arbor, Michigan

^eDepartment of Health Behavior and Health Education, University of Michigan School of Public Health, Ann Arbor, Michigan

^fToyota Engineering and Manufacturing North America, Ann Arbor, Michigan

Carter, et al., (2014)

- 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

Carter, et al., (2014)

- 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

Curr Psychol (2016) 35:115–120 DOI 10.1007/s12144-015-9373-3



Distracted Driving Among College Students: Perceived Risk Versus Reality

Christopher P. Terry¹ · Danielle L. Terry²

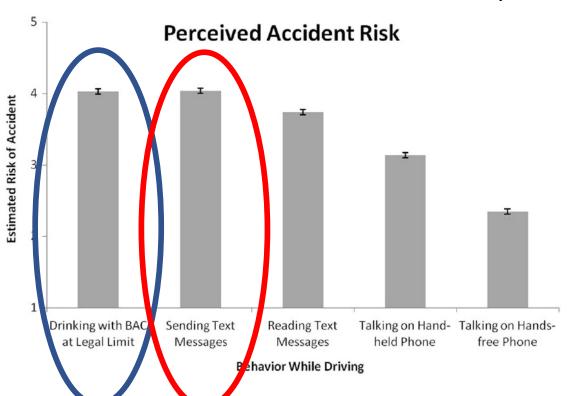
Published online: 21 August 2015

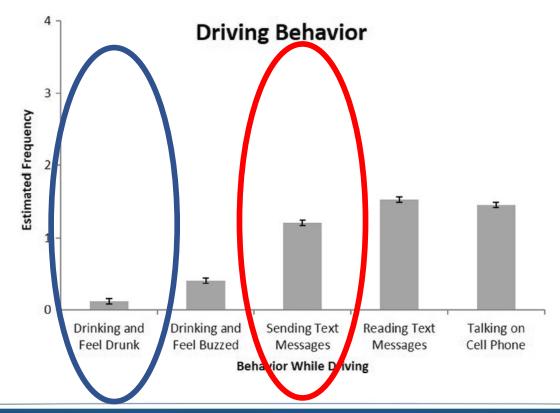
© Springer Science+Business Media New York 2015

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

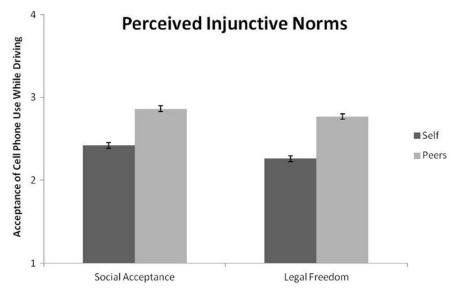
crashes (1.1 million car accidents) involved cell phone conversations and an additional 4 % involved texting while driving (213,000 accidents; NSC 2013). Furthermore, drivers younger than 20 years of age currently represent the age group with the

- 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



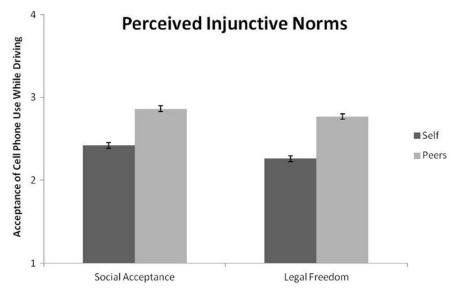


 Gap in perceived norms and what they actually believed



"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)"

 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)"

Accident Analysis and Prevention 104 (2017) 185-194



Contents lists available at ScienceDirect

Accident Analysis and Prevention

journal homepage: www.elsevier.com/locate/aap



Full length article

Designing feedback to mitigate teen distracted driving: A social norms approach



Maryam Merrikhpour, Birsen Donmez*

University of Toronto, Department of Mechanical and Industrial Engineering, 5 King's College Road, Toronto, ON, M5S 3G8, Canada

ARTICLE INFO

Keywords: Distracted driving Teen drivers Parental norms Social norms Driver feedback Driving simulator

ABSTRACT

Objective: 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 influences 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

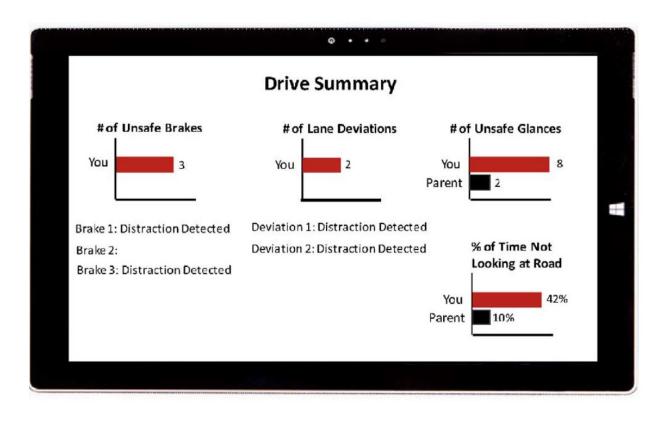
motivational techniques to change individuals' behaviors. One of the most notable techniques is the social norms approach. Social norms are "rules and standards that are understood by members of a group, and that guide and/or constrain human behavior without the force of laws" (Cialdini & Trost, 1998, 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). mulviduals 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-

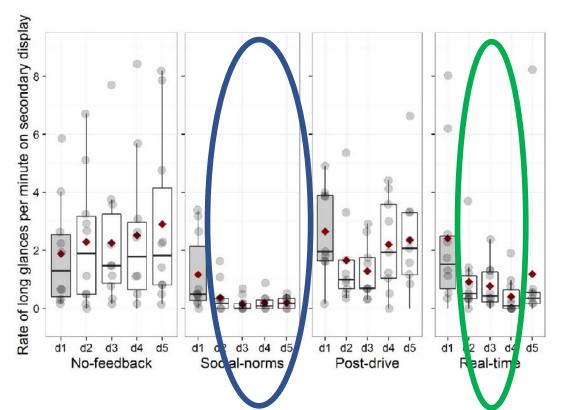
- Utilized 40 parent-teen dyads
- 17 to 19 years of age
- Considered real-time feedback following a driving simulator or post-driving feedback
- 5 drives on the simulator

- 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"

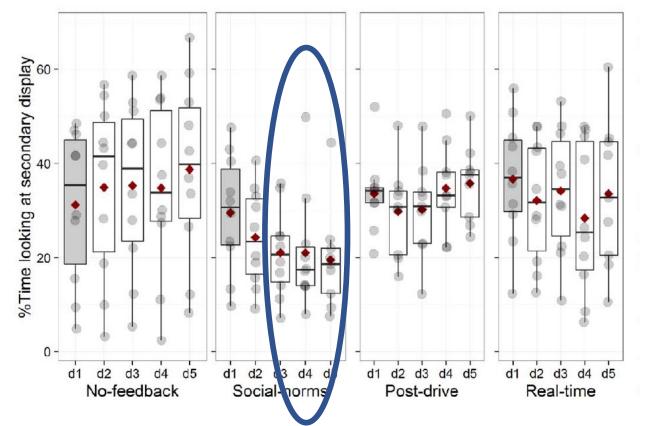


- Four conditions
 - Social norms (Post-drive feedback incorporating descriptive normative information...assignment to this condition was not random)
 - Post-drive feedback without normative information
 - Real-time feedback (alarm if glance exceeded 2 seconds)
 - No feedback

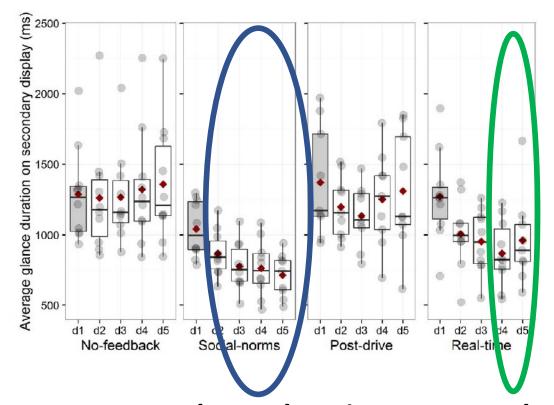




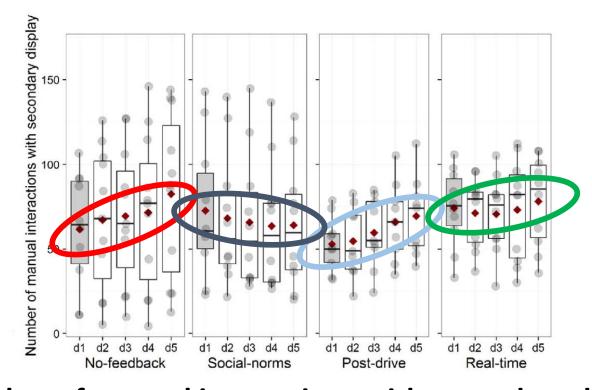
Rate of long glances per minute



Percentage of time looking at secondary display



Average glance duration on secondary display



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!

- Jeff Linkenbach
 - jeff@montanainstitute.com
 - https://www.montanainstitute.com/
- Jason Kilmer
 - jkilmer@uw.edu
 - @cshrb_uw
- Thank you to Dr. Kelly Browning, Melissa Valido, Tracy McClure, and Valerie Roche