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J Safety Res. Author manuscript; available in PMC 2016 December 30.

Published in final edited form as:

J Safety Res. 2016 December ; 59: 119–123. doi:10.1016/j.jsr.2016.09.003.

Parental perceptions of teen driving: Restrictions, worry and influence☆

Amy Jewett[*], **Ruth A. Shults**, and **Geeta Bhat**

Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, Atlanta, GA 30341, USA

Abstract

Introduction—Parents play a critical role in preventing crashes among teens. Research of parental perceptions and concerns regarding teen driving safety is limited. We examined results from the 2013 Summer ConsumerStyles survey that queried parents about restrictions placed on their teen drivers, their perceived level of "worry" about their teen driver's safety, and influence of parental restrictions regarding their teen's driving.

Methods—We produced frequency distributions for the number of restrictions imposed, parental "worry," and influence of rules regarding their teen's driving, reported by teen's driving license status (learning to drive or obtained a driver's license). Response categories were dichotomized because of small cell sizes, and we ran separate log-linear regression models to explore whether imposing all four restrictions on teen drivers was associated with either worry intensity ("a lot" versus "somewhat, not very much or not at all") or perceived influence of parental rules ("a lot" versus "somewhat, not very much or not at all").

Results—Among the 456 parent respondents, 80% reported having restrictions for their teen driver regarding use of safety belts, drinking and driving, cell phones, and text messaging while driving. However, among the 188 parents of licensed teens, only 9% reported having a written parent-teen driving agreement, either currently or in the past. Worrying "a lot" was reported less frequently by parents of newly licensed teens (36%) compared with parents of learning teens (61%).

Conclusions and Practical Applications—Parents report having rules and restrictions for their teen drivers, but only a small percentage formalize the rules and restrictions in a written parent-teen driving agreement. Parents worry less about their teen driver's safety during the newly licensed phase, when crash risk is high as compared to the learning phase. Further research is needed into how to effectively support parents in supervising and monitoring their teen driver.

☆Disclaimer: The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

[*]Corresponding author at: Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, 4770 Buford Highway NE, MS-F62, Atlanta, GA 30341, USA. iuj3@cdc.gov (A. Jewett).

The Journal of Safety Research has partnered with the Office of the Associate Director for Science, Division of Unintentional Injury Prevention in the National Center for Injury Prevention & Control at the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia, USA, to briefly report on some of the latest findings in the research community. This report is the 42nd in a series of CDC articles.

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Keywords

Driver safety; Teen safety; Motor vehicle; Adolescents; Parent perception

1. Introduction

Motor-vehicle crashes are the leading cause of death for teens in the United States (Centers for Disease Control and Prevention, 2016). Among teen drivers, driver inexperience is a leading cause of fatal motor vehicle crashes (Centers for Disease Control and Prevention, 2014; Insurance Institute for Highway Safety: Highway Loss Data Institute, 2015). Teen crash rates are highest during the first months after licensure (Chapman, Masten, & Browning, 2014; McCartt, Shabanova, & Leaf, 2003) and decline with increasing age and driver experience (Curry, Pfeiffer, Durbin, & Elliott, 2015; Insurance Institute for Highway Safety: Highway Loss Data Institute, 2015; Williams, 2003).

Parent imposed rules and limits can reduce the risk of teen crashes or other negative driving outcomes (Moreno, 2014; Simons-Morton, Hartos, Leaf, & Preusser, 2006). However, research on how parental perceptions and concerns regarding teen driver safety relate to parental supervision and monitoring of their teen drivers is limited. Therefore, we examined these topics among parents of learner teen drivers and newly licensed teens.

2. Methods

We analyzed a subset of the data from the 2013 *Summer ConsumerStyles* online panel survey administered by Porter Novelli (Washington, D.C.). *ConsumerStyles* measures health knowledge, attitudes, and behaviors of adults in the U.S. Participants were recruited using both random-digit dial and address-based sampling methods (GfK, 2013). The survey was conducted online; if needed, households were provided with a laptop computer and access to the Internet. The survey was fielded from June 28–July 26, 2013 to 4497 adults (18 years or older) and a supplemental sample of 1608 adults with children ages 12–17 who had completed the 2013 spring wave of the survey (GfK, 2013). A total of 4033 adults completed the *Summer ConsumerStyles,* for a reported response rate of 66% (GfK, 2013).

For this study, participants were restricted to parents with learning to drive or newly licensed teens ages 15–18 years (N = 456), 61% of whom were from the supplemental sample. The unweighted data were analyzed because the weights were based on the overall survey sample, and the demographic characteristics of participants from the study sample differed from those of respondents from the overall sample. Respondents who answered “not specified” or “refused” to a question were excluded (2% of total sample) by *ConsumerStyles*. The survey methods are described in greater detail elsewhere (GfK, 2013).

Survey respondents were asked if they had a son or daughter between the ages of 15 and 18 who was currently learning to drive or had obtained a driver’s license within the last 12 months. Respondents who answered yes to either of those questions were asked four follow-up questions: 1) “Do you have rules or restrictions for your teen driver in any of the following areas?” Respondents were allowed to select more than one answer from the

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following choices: safety belt use, drinking and driving, cell phone use while driving, and text messaging while driving; 2) “How much do you worry about your teen’s safety when he or she is driving?”; 3) “How much influence do you think parental rules have on preventing a teen driver from being involved in a car crash?” Response options for questions 2 and 3 were “a lot,” “somewhat,” “not very much,” or “not at all”;” and 4) “Do you and your teen currently have, or have ever had a written agreement, sometimes called a parent-teen contract or agreement, that states or stated your teen’s driving privileges, restrictions and rules, and consequences for breaking the rules?” Response options were “not applicable, has a learner’s permit,” “no longer have an agreement, but had when teen first received license,” “never had,” “currently have,” and “don’t know.” Responses for question four were condensed for newly licensed drivers as “ever had,” “never had,” or “don’t know.”

Demographic variables included age of respondent, education, gender, race/ethnicity, household income, marital status, metropolitan statistical area, and Census region. Crude prevalence ratios were calculated to assess for any association between each of the demographic variables and each of the four teen driving questions. Associations were considered to be statistically significant if the 95% confidence intervals (CIs) did not overlap. Counts, percentages, and 95% CIs were calculated for teen driving questions, both overall and by teen’s driving licensure status (learning to drive or obtained a driver’s license). Lastly, we ran separate log-linear regression models to explore whether imposing all four rules on teen drivers was associated with either worry intensity (“a lot” versus “somewhat, not very much or not at all”) or perceived influence of parental rules (“a lot” versus “somewhat, not very much or not at all”). Responses to each of the three variables were dichotomized because some response categories for each variable had cell sizes <20. All analyses were completed using SPSS version 23 (IBM Armonk, NY).

3. Results

Ninety percent of respondents were between the ages of 30 and 59, 61% were female, and 74% were White, non-Hispanic (Table 1). Bivariate analyses showed that none of the demographic characteristics was statistically significantly associated with any of the teen driving questions.

Of the 456 parents who responded “yes” to having a driving teen, 268 (59%) had a son or daughter who was learning to drive and 188 (41%) had a son or daughter who was licensed within the last 12 months (Table 2).

Overall, 51% of parents reported worrying for their teen’s safety “a lot” while the teen was driving. Worrying “a lot” was reported less frequently by parents of newly licensed teens (36%, 95% CI: 29–43) compared with parents of learning teens (61%, 95% CI: 55–67) (Table 2).

Overall, 37% (95% CI: 33–42) of respondents thought that parental rules have “a lot” of influence on preventing a teen driver from being in a motor vehicle crash. A higher percentage of parents with learning teens thought that parental rules have “a lot” of influence

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on preventing a teen driver from being in a crash (42%, 95% CI: 36–48) than parents of licensed teens (31%, 95% CI: 24–37), but the 95% CIs overlapped (Table 2).

Overall, 91% of parents reported that they had at least one rule or restriction for their teen driver regarding safety belt use, drinking and driving, cell phone use while driving, or text messaging while driving; 80% of parents reported having rules or restrictions for all four driving behaviors. Parents of licensed teens reported slightly lower percentages of rules or restrictions compared with parents of learning teens, but the 95% CIs overlapped in each instance. Among parents of licensed teens, 9% (95% CI: 7–11) reported having a written parent-teen driving agreement, either currently or in the past (data not shown). Parents who worried “a lot” were three times as likely to place all four restrictions on their teen (PR = 3.1, 95% CI: 2.0–4.8) compared with parents who worried “somewhat”, “not very much” or “not at all” (Table 3). Parents who reported their rules having “a lot” of influence were nearly twice as likely to place all four restrictions on their teen (PR = 1.8, 95% CI: 1.2–2.7) compared with parents who did not report “a lot” of influence (“somewhat,” “not very much,” or “not at all”) (Table 3).

4. Discussion

This study found that 80% of parents of learner drivers or newly licensed drivers reported they had rules or restrictions for their teen driver regarding safety belt use, drinking and driving, cell phone use while driving, and text messaging while driving. However, only 9% of parents of newly licensed teens had formalized the rules and restrictions in a parent-teen driving agreement. Previous research has found that parents and teens do not always agree on the parent-imposed “rules of the road,” which suggests that rules and restrictions may be inadequately defined or communicated (Beck, Hartos, & Simons-Morton, 2005; Hartos, Shattuck, Simons-Morton, & Beck, 2004). Clearly defining parent-imposed rules and restrictions via a parent-teen driving agreement (example available at: http://www.cdc.gov/parentsarethekey/agreement/) could increase clarity and potentially reduce teens’ risky driving behavior (Hartos, Shattuck, et al., 2004).

Crash risk per mile driven is highest for teens during the first months of independent driving (Chapman, Masten, & Browning, 2014; McCartt et al., 2003). However, we found that parents were more likely to worry “a lot” about their teen drivers and place more restrictions on them during the learner permit phase, during which the teen is required to have an adult supervisor in the vehicle, than when teens are newly licensed and able to drive independently under certain conditions. This finding is consistent with results of previous studies indicating that many parents lack awareness of the most high-risk situations for teen drivers (Gill, Shults, Cope, Cunningham, & Freelon, 2013). Because teens quickly develop basic vehicle handling skills, parents may mistakenly believe that their teen is ready to drive independently (Goodwin, Foss, Margolis, & Waller, 2010). However, more complex cognitive skills such as constant visual scanning, managing distractions and emotions, and anticipating other drivers’ behavior take much longer to develop (Goodwin, Foss, Harrell, & O’Brien, 2012; Mirman & Kay, 2012; Steinberg, 2005). Interventions to better inform and prepare parents to supervise and monitor their teens’ driving throughout the learning permit and newly licensed stages are being developed and evaluated. A recent review found that

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several interventions demonstrated improved parental supervision, increased teen driver skills, and reduced teen risky driving behaviors; however, none has yet demonstrated a reduction in teen crashes (Curry, Peek-Asa, Hamann, & Mirman, 2015). Characteristics of effective parent-focused interventions include having a strong conceptual approach, targeting the parent-teen dyad, providing parents with concrete tools, and directly engaging with the parent (Curry, Peek-Asa, et al., 2015). Our finding of a positive association between perceived parental influence and imposing all four rules and restrictions is supported by previous research on parental attitudes and parenting style (Hartos, Eitel, & Simons-Morton, 2002). Teens report safer driving behaviors when their parents had perceived high levels of control and support for their children compared with those with low control and support (Hartos et al., 2002). This type of authoritative parenting style reduced the risk of teen crashes as compared with uninvolved parenting styles (Ginsburg, Durbin, García España, Kalicka, & Winston, 2009). Most parents set limits on their teen drivers, but the restrictions do not persist overtime (Hartos, Shattuck, et al., 2004). Implementing parent-teen driving agreements and updating existing agreements can assist families in keeping restrictions and expectations clear and ongoing as teens gain experience driving independently (Hartos, Beck, & Simons-Morton, 2004).

This study has at least three important limitations. First, the results may not be generalizable to U.S. families with teens who are either holding a learner's permit or are newly licensed because the survey was not nationally representative, and this study's sample was demographically different from the overall *Summer ConsumerStyles* sample. Second, the supplemental sample, which comprised 61% of respondents in this study, did not include parents of 18 year olds. Therefore, parental perceptions of 18-year-old learner drivers or newly licensed teens are likely underrepresented and parental perceptions of the appropriate level of supervision and monitoring of their teen driver may vary by the teen's age. Finally, responses were self-reported, therefore social desirability bias is possible.

5. Conclusions

We found that most parents have rules and restrictions for their teen driver, however only a small proportion had formalized these rules via a parent-teen driving agreement. Parents reported worrying more about their teen driver's safety during the learner permit phase, when crash risk is very low compared with crash risk when the teen begins to drive independently. Parental awareness of teen drivers' safety after licensure and the understanding of the importance of parental rules and restrictions for shaping teen driving behavior could be improved. Interventions that directly engage parents and provide concrete tools such as a parent-teen driving agreement have been reported to reduce risky driving among teens (Curry, Peek-Asa, et al., 2015).

6. Practical application

A limited number of peer-reviewed evaluations of parent-teen interventions are showing promise for improving teen driver safety (Curry, Peek-Asa, et al., 2015). Further research is needed into how to effectively support parents in supervising and monitoring their teen driver (Fischer, 2013). Rigorous evaluation of both existing and newly-developed parent-

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teen interventions is also needed (Mirman, Albert, Jacobsohn, & Winston, 2012). Organizations that seek to improve teen driver safety can best meet their goal by implementing programs with demonstrated effectiveness. Lastly, families can agree upon and reinforce the “rules of the road” and consequences for breaking them via a parent-teen driving agreement.

References

Beck KH, Hartos JL, Simons-Morton BG. Parent-teen disagreement of parent-imposed restrictions on teen driving after one month of licensure: Is discordance related to risky teen driving? Prevention Science. 2005; 6(3):177–185. [PubMed: 16044210]

Centers for Disease Control and Prevention. Parents are the key to safe teen drivers. 2014. Retrieved from http://www.cdc.gov/parentsarethekey/danger/index.html

Centers for Disease Control and Prevention. Web-based injury statistics query and reporting system. 2015. 2016 [cited 2016 8/30/2016]; Available from: http://www.cdc.gov/injury/wisqars/index.html

Chapman EA, Masten SV, Browning KK. Crash and traffic violation rates before and after licensure for novice California drivers subject to different driver licensing requirements. Journal of Safety Research. 2014; 50:125–138. http://dx.doi.org/10.1016/j.jsr.2014.05.005. [PubMed: 25142369]

Curry AE, Peek-Asa C, Hamann CJ, Mirman JH. Effectiveness of parent-focused interventions to increase teen driver safety: A critical review. Journal of Adolescent Health. 2015; 57(1):S6–S14. http://dx.doi.org/10.1016/j.jadohealth.2015.01.003 (Supplement). [PubMed: 26112737]

Curry AE, Pfeiffer MR, Durbin DR, Elliott MR. Young driver crash rates by licensing age, driving experience, and license phase. Accident Analysis & Prevention. 2015; 80:243–250. http://dx.doi.org/10.1016/j.aap.2015.04.019. [PubMed: 25939133]

Fischer, P. Promoting parent involvement in teen driving: An in-depth look at the importance and the initiatives. 2013. Retrieved from http://www.ghsa.org/html/publications/teens/sfteens13.html

GfK. KnowledgePanel Design Summary. 2013. Retrieved from Washington DC. http://www.knowledgenetworks.com/knpanel/docs/KnowledgePanel(R)-Design-Summary-Description.pdf

Gill SK, Shults RA, Cope JR, Cunningham TJ, Freelon B. Teen driving in rural North Dakota: A qualitative look at parental perceptions. Accident Analysis & Prevention. 2013; 54:114–121. http://dx.doi.org/10.1016/j.aap.2013.02.010. [PubMed: 23499983]

Ginsburg K, Durbin D, García España JF, Kalicka E, Winston F. Associations between parenting styles and teen driving, safety-related behaviors and attitudes. Pediatrics. 2009; 124(4):1040–1051. [PubMed: 19810185]

Goodwin, A.; Foss, RD.; Harrell, SS.; O’Brien, NP. Distracted driving among newly licensed teen drivers. 2012. Retrieved from Washington, DC: http://www.distraction.gov/downloads/pdfs/distracted-driving-among-newly-licensed-teen-drivers.pdf

Goodwin, A.; Foss, R.; Margolis, L.; Waller, M. Parents, teens and the learner stage of graduated driver licensing. AAA foundation for traffic safety. 2010. (Retrieved from http://www.aaafoundation.org/pdf/ParentsTeensReport.pdf)

Hartos JL, Beck KH, Simons-Morton BG. Parents’ intended limits on adolescents approaching unsupervised driving. Journal of Adolescent Research. 2004a; 19(5):591–606. http://dx.doi.org/10.1177/0743558403260007.

Hartos J, Eitel P, Simons-Morton B. Parenting practices and adolescent risky driving: A three-month prospective study. Health Education & Behavior. 2002; 29(2):194–206. [PubMed: 11942714]

Hartos JL, Shattuck T, Simons-Morton BG, Beck KH. An in-depth look at parent-imposed driving rules: Their strengths and weaknesses. Journal of Safety Research. 2004b; 35(5):547–555. [PubMed: 15530928]

Insurance Institute for Highway Safety: Highway Loss Data Institute. Teenagers: 2013. 2015. Retrieved from http://www.iihs.org/iihs/topics/t/teenagers/fatalityfacts/teenagers

McCartt AT, Shabanova VI, Leaf WA. Driving experience, crashes and traffic citations of teenage beginning drivers. Accident; Analysis and Prevention. 2003; 35(3):311–320. [PubMed: 12643948]

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Mirman JH, Kay J. From passengers to drivers: Parent perceptions about how adolescents learn to drive. Journal of Adolescent Research. 2012; 27(3):401–424.

Mirman JH, Albert D, Jacobsohn LS, Winston FK. Factors associated with adolescents' propensity to drive with multiple passengers and to engage in risky driving behaviors. The Journal of Adolescent Health. 2012; 50(6):634–640. http://dx.doi.org/10.1016/j.jadohealth.2011.10.256. [PubMed: 22626492]

Moreno M. Teen driving. JAMA Pediatrics. 2014; 168(6):592. http://dx.doi.org/10.1001/jamapediatrics.2013.3349. [PubMed: 24886805]

Simons-Morton B, Hartos JL, Leaf WA, Preusser DF. Do recommended driving limits affect teen-reported traffic violations and crashes during the first 12 months of independent driving? Traffic Injury Prevention. 2006; 7(3):238–247. [PubMed: 16990238]

Steinberg L. Cognitive and affective development in adolescence. Trends in Cognitive Sciences. 2005; 9(2):69–74. http://dx.doi.org/10.1016/j.tics.2004.12.005. [PubMed: 15668099]

Williams AF. Teenage drivers: Patterns of risk. Journal of Safety Research. 2003; 34(1):5–15. [PubMed: 12535901]

Biographies

Amy Jewett, MPH, is an epidemiologist with the Transportation Safety Team, Division of Unintentional Injury Prevention. Her research interests include drugged driving, teen driving and bicycle safety.

Ruth Shults, PhD, MPH, is a senior epidemiologist on the Transportation Safety Team within the Division of Unintentional Injury Prevention (DUIP) at the Injury Center. Her research interests include teen driving and alcohol impaired driving.

Geeta Bhat, MPH is a guest researcher on the Transportation Safety Team within the Division of Unintentional Injury Prevention at the Injury Center. Her research interests include teen driving and alcohol impaired driving.

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Table 1

Demographic characteristics of parents with learning and licensed teen drivers, *ConsumerStyles* 2013, N = 456.

Characteristic		Count	% (95% CI[a])
Age	18–29	19	4 (2–6)
	30–44	154	34 (29–38)
	45–59	257	56 (52–61)
	60+	26	6 (4–8)
Education	Less than high school	18	4 (2–6)
	High school graduate	88	19 (16–23)
	Some college	157	34 (30–39)
	Bachelor's degree or higher	193	42 (38–47)
Gender	Male	180	39 (35–44)
	Female	276	61 (56–65)
Race/ethnicity	White, non-Hispanic	337	74 (70–78)
	Black, non-Hispanic	37	8 (6–11)
	Other, non-Hispanic	32	7 (5–9)
	Hispanic	50	11 (8–14)
Household income	Less than $25,000	45	10 (7–13)
	$25,000 to $74,999	210	46 (41–51)
	$75,000 to $124,999	142	31 (27–35)
	$125,000 +	59	13 (10–16)
Marital status	Married	354	78 (74–81)
	Not married	102	22 (19–26)
MSA	Non-metro	62	14 (10–17)
	Metro	394	86 (83–90)
Region	Northeast	57	13 (9–16)
	Midwest	122	27 (23–31)
	South	166	36 (32–41)
	West	111	24 (20–28)

[a]CI: confidence interval.

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Table 2

Parental perceptions: restrictions, worry and influence of rules among learners and newly licensed teen drivers, 2013 *Summer ConsumerStyles.*

	Total (%)	Learners % (95%CI[a])	Newly licensed % (95%CI)
Do you have a son or daughter between the ages of 15 and 18 years who is currently learning to drive or has obtained a driver's license within the last 12 months?			
Yes	456 (100)	59 (54–63)	41 (37–46)
Do you have rules or restrictions for your teen driver in any of the following areas? (Yes, in any of the following areas) N = 456			
All 4 restrictions	363 (80)	82 (77–87)	76 (70–82)
Safety belt use	395 (87)	88 (85–92)	84 (79–89)
Drinking and driving	392 (86)	87 (82–91)	85 (80–90)
Cell phone use while driving	396 (87)	90 (86–93)	83 (78–88)
Text messaging	403 (88)	88 (85–92)	88 (84–93)
How much do you worry about your teen's safety when he or she is driving? N = 456			
Not at all	--[b]	--[b]	--[b]
Not very much	45 (10)	--[b]	--[b]
Somewhat	155 (34)	28 (23–34)	42 (35–49)
A lot	231 (51)	61 (55–67)	36 (29–43)
How much influence do you think parental rules have on preventing a teen driver from being involved in a car crash? N = 455			
Not at all	--[b]	--[b]	--[b]
Not very much	38 (8)	--[b]	--[b]
Somewhat	229 (50)	47 (41–53)	55 (48–62)
A lot	170 (37)	42 (36–48)	31 (24–37)

[a] CI: confidence interval.

[b] Values suppressed because n < 20 or relative standard error > 30.

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Table 3

Parent reported restrictions placed on teen drivers by reported worry intensity and rule influence, *ConsumerStyles* 2013.

		All 4 restrictions (N = 362)		Less than all or None (N = 93)		Prevalence ratio
		N	% (95% CI[a])	N	% (95% CI)	
How much do you worry about your teen's safety when he or she is driving?	Somewhat, not very much or not at all	155	43 (38–48)	70	75 (67–84)	<ref.>
	A lot	207	57 (52–62)	23	25 (16–33)	3.1 (2.0–4.8)
How much influence do you think parental rules have on preventing a teen driver from being involved in a car crash?	Somewhat, not very much or not at all	216	60 (55–65)	70	75 (66–84)	<ref.>
	A lot	146	40 (35–45)	23	25 (16–34)	1.8 (1.2–2.7)

[a]CI: confidence interval.