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Parent and Teen Agreement on Driving Expectations Prior to Teen Licensure

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Abstract

Objectives: To examine pre-licensure agreement on driving expectations and predictors of teen driving expectations among parent-teen dyads.

Methods: Cross-sectional survey of 163 parent-teen dyads. Descriptive statistics, Weighted Kappas, and linear regression were used to examine expectations about post-licensure teen driving.

Results: Teens reported high pre-licensure unsupervised driving (N = 79, 48.5%) and regular access to a car (N = 130, 81.8%). Parents and teens had low agreement on teen driving expectations (eg, After Dark, $\kappa_w = 0.23$). Each time a teen currently drove to/from school, their expectation of driving in risky conditions post-licensure increased ($\beta = 0.21$, $p = .02$).

Conclusions: Pre-licensure improvement of parent-teen agreement on driving expectations are needed to have the greatest impact on preventing teens from driving in high risk conditions.

Keywords

teen drivers; parenting; pre-licensure; safety; motor vehicle crashes

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Human Subjects
This study was approved by the Institutional Review Boards at both the University of Iowa and Blank Children's Hospital.

Conflict of Interest Statement
The authors have no conflict of interest to report.

In the United States, motor vehicle crashes are the leading cause of death for teens and, thus, a primary public health problem for that age group.[1] Motor vehicle-related death and crash rates for teens have declined over the past 3 decades, but rates for teens during their first 6 months of driving remain particularly high and disproportionate relative to other age groups[1]. The motor vehicle crash rate involving teen drivers aged 16 to 19 is more than 4 times that of drivers 20 and over per mile driven.[1]

Graduated driver's licensing (GDL) systems have become increasingly implemented and strengthened throughout the United States and shown to decrease crashes and fatalities, but becoming a safe driver is a complex process that cannot be accomplished strictly through GDL and driver's education courses.[2-4] Parents play a significant role in preparing their teens to face hazards on the road and in shaping their teens' driving behaviors.[5-7] Often, a set of ground rules and expectations is provided by parents to their new teen drivers. These might include rules about when and where the teen is allowed to drive and when the teen is allowed to use the car. The manner and extent to which the teen interprets these rules will ultimately shape their expectations and influence their driving behaviors. A disconnect in the basic understanding of rules and expectations between the parent and the teen may be problematic, yet the extent to which these are shared concepts between parents and teens is poorly understood.

Due to the strong impact of parental influence on adolescent behavior, efforts to improve parental delivery of messages are likely to be beneficial and, particularly in the pre-licensure period when driving behaviors and attitudes are in early stages of formation.[8,9] Thus, identifying factors related to driving expectations that often have a low degree of agreement between parents and teens can help parents tailor safety messages and establish ground rules with their teens more effectively.

Existing research on teen driving rules are largely focused on teens after licensure, do not involve parents as participants, or focus on impact of laws or changes to state licensing systems.[4,10-13] Only a small number of studies have examined agreement on rules or expectations based on data from both parents and teens, but they have had similar conclusions— parents and teens have high discordance in terms of both rule content and expectations about driving.[14-16] Those studies indicated that driving rules may not be clearly defined or are not being conveyed so that both parents and teens are in agreement. For example, Sherman, Lapidus, Gelven, and Banco[15] found 67.2% of teens expected unlimited access to a vehicle, while only 38.3% of parents planned to allow their child unlimited access ($p < .01$) and Hartos, Shattuck, Simons-Morton, & Beck[14] found only 51.3% agreement on rule content between parent-teen dyads.

The current study extends beyond existing research by including data from both parents and teens, assessing the pre-licensure time period, and going beyond existence of disagreement to examine the degree of agreement and identify predictors of driving expectations between parents and their teens who anticipate licensure that allows unsupervised driving within 3 months. Specifically, our aims were to identify the level of agreement and discordance in driving expectations among parent-teen dyads and identify predictors of teen expectations for driving frequency, destinations, and circumstances in the pre-licensure period.

METHODS

Study Design and Population

This study is a cross-sectional survey of 163 parent-teen dyads in Iowa. Data were drawn from the baseline survey for a randomized controlled intervention trial to increase parental involvement in teen driving. Teenagers who were within 3 months of obtaining their intermediate driver's license and did not currently hold a minor school license (school permit) were eligible for participation. In Iowa, the intermediate license can be obtained after required driver's education instruction and an instructional permit, which requires 6 months of supervised driving, are complete.[17] This intermediate license does not allow unsupervised driving between 12:30 a.m. and 5:00 a.m., unless the teen has a waiver due to work or school-related extracurricular activities.[17] For the majority of teens in this study, it represents the first legal opportunity to drive unsupervised, the only exception being those who previously held school permits.

Participants were enrolled from local high schools and employee lists from 2 large hospitals in Des Moines and Iowa City, Iowa. At the high schools, the principal sent a letter to parents that explained the study and provided information to enroll. A study booth was also set up at school events, such as conferences or sports events. The hospital administration sent a similar letter to hospital employees. Parents or teens who were interested in the study provided contact information and were then contacted by the study team to screen for eligibility and to arrange an in-person meeting to introduce the study and enroll the parent and teen by obtaining consent and completing the baseline surveys. Of those who expressed interest (N = 336), 163 parent-teen dyads were enrolled and included in analysis, 52 were ineligible, 48 had a parent or teen who declined to participate, and 73 were unable to be reached, resulting in a participation rate of 48.5%.

Data Collection and Variable Definitions

Once signed parent consent and signed teen assent were obtained, surveys were administered separately to the participating parent and teen. Questions from the survey that were examined in this study included: basic demographics (sex, age, grade (teen), race/ethnicity, marital status (parent)), if teen had ever driven unsupervised, how often teen currently drives unsupervised, current and future expectations of car privileges, how often teen currently drives to certain destinations, expectations on driving unsupervised to nine different destinations (eg, school, work, evening/weekend school-related activities) and expectations on being allowed to drive under 12 conditions (eg, after midnight, on high speed roads, etc.).

Car privileges and expectations were measured by asking "Do you have regular access to a car?", "Do you have your own car?" and "If no, will you get one once you receive your license?" Unsupervised driving was measured by asking "Have you driven unsupervised (without an adult)? and "How often do you drive unsupervised currently?" Expectations of driving unsupervised were measured by asking "In the first 3 months after you get your intermediate license, how often do you think you will be allowed to drive unsupervised under the following conditions?"(eg, after midnight, without telling a parent who will ride

with you) and “In the first 3 months after you get your intermediate license, how often will you be allowed to drive unsupervised for the following purposes?” (eg, to or from school, to go to friends’ houses). These same questions regarding conditions and destinations were asked to parents, but “how often do you think you will be allowed” was replaced with “how often will your teen be allowed”.

Statistical Analysis

Descriptive statistics, including means and frequencies, were calculated for all variables of interest to identify distributional tendencies. Questions about driving expectations utilized Likert scales which ranged from one to 5: 1 = never, 2 = rarely, 3 = sometimes, 4 = frequently, and 5 = very frequently. Weighted Kappas were computed on each of these Likert scale questions to examine degree of agreement between parent and teen dyads on driving expectations. Weighted Kappa was used instead of Kappa because it takes into account the nature of ordinal data, while Kappa does not and is more appropriate for nominal data.[18] A Weighted Kappa of 1 indicated perfect agreement, while a value of 0 indicated agreement that is no better than chance.[19] This non-parametric test assigned less weight for parent-teen dyads who report scores that were further apart (eg, a 1 and 5 pair would receive lower weights than a 1 and 2 pair).

Linear regression models were used to examine how various teen and parent characteristics predicted parent and teen expectations of how often the teen would be allowed to drive unsupervised under various risky conditions and to different destinations. Predictors included parent sex, teen sex, number of times teen currently drives per week to various places (teen report), if the teen had already driven unsupervised (teen report), if the teen has regular access to a car (parent report), and if the teen has his/her own car (parent report). Four outcomes were examined with the linear regression models. First, the outcome of driving unsupervised in risky conditions was calculated as the sum of all risky conditions (eg, on high speed roads, after dark). Second, the outcome of driving destinations was calculated as the sum score for all driving destinations (eg, to or from work, to or from entertainment places such as the mall or a movie theater). These 2 sum scores (risky conditions and destinations) were created for both parent and teen reports; therefore we had 4 total outcomes (Table 4). Sample sizes for regression models ranged from 133 to 162 based on the number of participant responses.

RESULTS

Teen and Parent Characteristics (Table 1)

Our sample included slightly more teenage girls than boys (females 53.4%, p = .39), and most teens were 15 years old (92%) and in the 10th grade (80.4%) at the time of enrollment. Almost all of the teens (99%) had driven and 48.5% of those had already driven unsupervised, either illegally or because they had previously held school permits. The most frequent trip destinations (both supervised and unsupervised) were to or from school (Avg: 2.5 times/wk, Range: 0-10) and to school-related sports or athletics (Avg: 1.5 times/wk, Range: 0-10; Table 1).

More mothers participated in the study than fathers (82.8 % and 17.2%, respectively). Almost all of the parents had at least a high school diploma or beyond (98.8%) and most were married (82.8%). Both the teens and the parents were predominantly White (Table 1).

Teen Car Privileges (Table 2)

Over 80% of teens reported regular access to a car and over 40% had their own car. The teen responses were confirmed by 85% of parents reporting that their teen had regular access to a car and 40% of parents reporting that their teen had their own car. Among teens who did not have their own car, approximately half of parents and 41% of teens reported that the teen would have their own car once they obtained their intermediate license (Table 2).

Teen Expectations of Driving Unsupervised: Under Various Conditions (Table 3)

For all types of driving conditions (eg after dark, in bad weather), teens expected to drive unsupervised more frequently than their parents. For example, on average, teens expected to drive more frequently on high speed roads (Mean = 4.0) than parents expected to allow teens (Mean = 3.3). For all of the items in this scale, the agreement between parents and their teens was low (eg, on high speed roads: 35% agreed, without telling parent who will ride with her/him: 42.5% agreed). The items with the lowest degree of agreement, according to weighted Kappa (κ_w), were those related to asking permission ($\kappa_w = 0.07$) and telling a parent when he/she will return ($\kappa_w = 0.05$). The highest agreement, although still poor, were items related to driving at night: between 9pm and midnight ($\kappa_w = 0.23$) and after midnight ($\kappa_w = 0.24$; Table 3).

Teen Expectations of Driving Unsupervised: Different Destinations

Teens expected to drive unsupervised more frequently to different destinations (eg, to or from work, to go to friends' houses) than their parents expected for their teens. Thus, agreement between parents and teens about frequency of driving unsupervised was low (Table 3). For example, on average, teens expected driving to run family errands more frequently than their parents (Mean = 3.8 and Mean = 3.2 for teens and parents, respectively). Running family errands also had the lowest degree of agreement between parents and teens ($\kappa_w = 0.05$). Driving unsupervised to or from school had the highest agreement, although agreement was still rather low ($\kappa_w = 0.25$).

Predictors of Expectations of Teen Driving Once Intermediate License is Obtained (Table 4)

Risky conditions.—After adjusting for teen and parent sex, both teens and parents expected that the teen would be allowed to drive unsupervised under risky conditions more frequently if the teen had already driven unsupervised (Parent: $\beta = 3.21$, 95% CI = 1.72,4.69; Teen: $\beta = 4.73$, 95% CI = 2.22,7.25), had regular access to a car (Parent: $\beta = 3.78$, 95% CI = 1.67,5.89; Teen: $\beta = 3.98$, 95% CI = 0.40,7.56), and if the teen already had their own car (Parent: $\beta = 2.23$, 95% CI = 0.66,3.79; Teen: $\beta = 4.01$, 95% CI = 1.38,6.65). Both parent and teen expectations on frequency that the teen would drive in risky conditions increased as current frequency of driving per week to school-related sports or athletics increased (Parent: $\beta = 0.60$, 95% CI = 0.23,0.97 ; Teen: $\beta = 0.97$, 95% CI = 0.35,1.59). However, for parents, parent sex (referent = male, $\beta = -2.39$, 95% CI = −4.46,−0.32) and

the frequency that the teen currently drove to or from school (β = 0.21, 95% CI = 0.03,0.39) also predicted parent reports of how often the teen would be allowed to drive under risky conditions, but these were not significant predictors of risky conditions driving expectations among the teens. For teens, the more they currently drove to other social activities (β = 0.96, 95% CI = 0.12,1.80) and to evening or weekend school-related activities, not including athletics (β = 1.20, 95% CI = 0.28,2.12), the more they expected to drive in risky conditions in the future, but those did predict parent expectations of how often they would allow their teens to drive in risky conditions.

Different destinations.—Both parents and their teens expected the teen to drive more frequently to different destinations with their intermediate licensure if they had previously driven unsupervised (Parent: β = 4.11, 95% CI = 2.14,6.07; Teen: β = 3.40, 95% CI = 1.17, 5.57) or already had their own car (Parent: β = 3.86, 95% CI = 1.79,5.93; Teen: β = 3.03, 95% CI = 0.76,5.29). The expected frequency also increased as the number of times the teen currently drove per week to evening or weekend school-related activities increased (Parent: β = 0.89, 95% CI = 0.21,1.56 ; Teen: β = 0.94, 95% CI = 0.21,1.68). Despite these similarities, for parents only, current regular access to the car (β = 4.73, 95% CI = 1.77,7.70), current frequency of driving to or from school (β = 0.30, 95% CI = 0.06,0.53), and to school-related sports or athletics (β = 0.75, 95% CI = 0.24,1.25) also predicted how often they expect to allow their teen to drive unsupervised to different destinations. For teens only, higher frequency of driving to run family errands (β = 0.74, 95% CI = 0.04,1.44) and to other social activities (β = 0.74, 95% CI = 0.08,1.40) increased how often they expect to be allowed to drive unsupervised to different destinations (Table 4).

DISCUSSION

This sample of teens in a largely rural state reported a very high level of driving (average 5 trips per week) and regular car access (80%). Much of this driving is likely unsupervised, with 48.5% indicating they had driven unsupervised and 33% of teens reporting that they drive unsupervised 6 or more days a week. None of the teens held school permits at the time of the study, but some had previously, so much of the reported unsupervised driving may have been illegal. These numbers are higher in comparison to a nationally representative study of teens in the United States with 5665 respondents which found that 35% reported driving unsupervised.[12] That study had a notably higher proportion of older teens compared to our study (53% vs. 6.8% 16 or older); therefore we would have expected our sample to have lower levels of driving.

With these high driving rates, it is concerning that the agreement between parents and their teens regarding privileges of future teen driving in various conditions and to different destinations was so low. The driving conditions with the highest agreement between parents and teens, based on weighted Kappa scores, were after midnight, between 9pm and midnight, and on high-speed roads. This may be a result of curfews already in place and restrictions set by parents instructing their teens to not drive on high-speed roads, which they may deem as most dangerous. The higher agreement on the after midnight condition, relative to the other conditions, may also be explained by one of the intermediate licensure restrictions in Iowa, which does not allow a teen to drive between 12:30 a.m. and 5 a.m.

The driving destinations with the highest weighted Kappa scores were to/from school, to/from work, and to/from school-related activities. These are not surprising given that to/from school has the highest frequency and to/from work and school-related activities are among the most practical places the teen may be allowed to drive, therefore the rules regarding these destinations are likely more established. The other conditions and destinations (eg, in bad weather, without telling a parent who will ride with her/him, to go to friends' houses, and to run family errands) occur less frequently, and related rules may not have been clearly articulated between parents and teens, thus accounting for the low agreement.

The low agreement found in the current study is similar to levels found in previous studies that evaluated parent and teen agreement on driving rules post-licensure.[14,16] For example, a study of 24 families in Maryland found only 51% agreement between parent-teen pairs when asked separately to report on current driving rules.[14] Sherman et al.[15] also found significant differences in parent and teen expectations about driving restrictions at the start of driver's education courses among parent-teen pairs in Connecticut. For example, 45% of teens reported that they expected to drive "only to parent approved destinations", while 81.2% of parents endorsed that same item regarding their teens.[15]

Results from regression analyses indicated that teen driving practices and parents' rules prior to intermediate licensure may be good predictors of future driving expectations. Generally, the more driving conditions and destinations the teen had before intermediate licensure, the higher the driving expectations for driving after licensure. The very high levels of pre-licensure driving indicate that newly-licensed drivers in this sample would be driving frequently in high-risk conditions and to multiple destinations.

Other predictors of teen driving expectations included: if the teen had already driven unsupervised, had regular access to a car, or had his/her own car. For parents, the number of times the teen currently drives to/from school was a significant indicator of how much they expected to allow their teens to drive in the future, but was not a significant indicator for teens' expectations. For teens, current frequency of driving to other social activities was an important predictor of future driving expectations, but not for parents. These results suggest that parents and teens utilize a different logic when formulating their expectations regarding teens' driving following licensure.

Teens who report current driving have more experience than teens that do not, but experience alone does not eliminate the risk of crashes or injury. Crash risk is elevated for young drivers, especially in the first 6 months of unsupervised driving.[20-22] If the teen is not practicing safe driving, the risk of crashes and injury may actually increase as the teen drives in riskier conditions. It is thus important for parents and teens to have good communication to assure a common understanding and adoption of driving rules and limits.

A large number of studies in the literature have focused on driving limits or restrictions, via laws or graduated licensing programs or by parents. Improving graduated driver's licensing systems have been shown to decrease crash risk, but this does not mean that the parental role in driving should be ignored.[4] Parents have influence on adolescent health and the way parents communicate with their teens about safe driving can impact teen

attitudes.[8,23] However, there is very little research regarding when and how to communicate safe driving and limits.[24-26] The existing Checkpoints educational program, developed by Dr Bruce Simons-Morton and tested in several U.S. states, does address communication by encouraging establishment of a Parent-Teen Driving Agreement and explaining risks of teen driving and has been shown to reduce driving risk.[25] However, the Checkpoints Program focuses on the first year of a teen's unsupervised licensed driving. Our results support the need to intervene earlier because almost half (48.5%) of the pre-licensure teens in our study reported that they have driven unsupervised, either via school permits or illegally.

This study used a passive enrollment strategy. Since we know little about the overall eligible population, we do not know how representative our results are of other teenaged drivers. It is likely that parents and teens that are willing to enroll in a driver safety study are more safety-conscious and have a stronger relationship with their parents, which would suggest these results are conservative. However, this study provides new data from both parents and teens and the magnitude of their agreement, things that have been lacking in previous research.

Findings from this study are useful in showing that parents and teens are commonly not in agreement on driving rules and expectations and illustrates that the amount of discordance varies by specific destinations and driving conditions. Interventions to improve parent-teen communication are critical to help parents and teens understand the importance of, and how to, establish agreement on driving expectations and to identify which areas are especially conflicting; and these should occur prior to licensure in order to have the greatest impact.

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Table 1

Teen and Parent Characteristics

Teen				Parent		
Characteristic		**N**	**%**	**Characteristic**	**N**	**%**
Sex (N = 163)				**Sex (N = 163)**		
Male		76	46.6	Male	28	17.2
Female		87	53.4	Female	135	82.8
Teen Age (N = 162)				**Parent Age (N = 162)**		
14-15		151	93.2	30-39	24	14.8
16-17		11	6.8	40-49	112	69.1
Grade (N = 163)				50+	26	16.0
9th		21	12.9	**Education (N = 161)**		
10th		131	80.4	Some college or lower	62	38.5
11th		9	5.5	4-year college graduate	56	34.8
12th		2	1.2	Some graduate school or higher	43	26.7
Race/Ethnicity (N = 163)				**Race/Ethnicity (N = 163)**		
White		156	95.7	White	159	97.6
Non-White/Unknown/Refused		7	4.3	Non-White/Unknown/Refused	4	2.4
Average # times teen drives/wk	**Did not drive**	**Mean**	**SD**	**Marital status (N = 163)**		
To or from school (N = 151)	75 (49.7%)	2.5	4.7	Married	135	82.8
To or from work (N = 148)	135 (91.2%)	0.3	0.9	Divorced/Separated/Widowed/Single	28	17.2
To school-related sports or athletics (N = 150)	81 (54.0%)	1.5	2.1			
To other evening or weekend school-related activities(N = 149)	84 (56.4%)	1.0	1.6			
To run family errands (N = 150)	74 (49.3%)	1.2	1.7			
To other social activities (N = 150)	88 (58.7%)	1.1	1.8			

Table 2

Parent/Teen Agreement on Current Car Privileges and Expectations of Future Car Privileges

	Teen		Parent	
	N	**%**	**N**	**%**
Teen has regular access to a car (N = 159)				
Yes	130	81.8	138	85.2
No	29	18.2	24	14.8
Teen has his/her own a car (N = 161)				
Yes	67	41.6	66	40.5
No	94	58.4	97	59.5
If teen does not own a car, will get one when license is obtained (N = 95)				
Yes	39	41.1	52	50.5
No	11	11.6	51	49.5
Unsure	45	47.4	NA	NA

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Table 3

Parent-Teen Agreement on Expectations of How Frequently Teen Will Be Allowed to Drive Unsupervised Under Various Conditions and to Different Destinations in First 3 Months After Intermediate Licensure[a]

	Parent N = 163	Teen N = 163	Parent reports higher frequency	Teen reports higher frequency	Parent and teen report same frequency	Weighted Kappa	Weighted Kappa p-value
	Mean (SD) [b]	Mean (SD) [b]	N (%)	N (%)	N (%)		
Conditions							
On high-speed roads (55 miles per hour or higher speed limits)	3.3 (1.0)	4.0 (0.9)	16 (10.1)	87 (54.7)	56 (35.2)	0.22	< .01
With 1 teen friend as the only passenger	2.8 (0.9)	3.5 (1.1)	22 (13.8)	86 (53.8)	52 (32.5)	0.16	< .01
After dark	2.8 (0.7)	3.1 (0.9)	30 (18.8)	58 (36.3)	72 (45.0)	0.18	< .01
Outside of local or familiar areas	2.3 (0.8)	3.0 (1.0)	14(8.7)	97 (60.3)	50 (31.1)	0.14	< .01
With 2 or more teen friends as the only passengers	2.1 (0.8)	2.9 (1.1)	17 (10.6)	96 (60.0)	47 (29.4)	0.14	< .01
Between 9 p.m. and midnight	2.3 (0.7)	2.7 (1.1)	27 (16.7)	73 (45.1)	62 (38.3)	0.23	< .01
In bad weather (for example, snow, ice, heavy rain)	2.1 (0.8)	2.6 (0.9)	25 (15.5)	82 (50.9)	54 (33.5)	0.16	< .01
Without telling a parent who will ride with [her/him]	1.5 (0.7)	2.1 (1.1)	18 (11.3)	74 (46.3)	68 (42.5)	0.14	< .01
Without telling a parent when [s/he] will return	1.3 (0.5)	1.9 (1.0)	16 (10.1)	75 (47.5)	67 (42.4)	0.05	.12
Without asking a parent's permission	1.3 (0.7)	1.8 (1.0)	19 (11.7)	68 (42.0)	75 (46.3)	0.07	.07
Without telling a parent where [s/he] is going	1.2 (0.5)	1.7 (0.9)	9 (5.6)	65 (40.1)	88 (54.3)	0.15	< .01
After midnight	1.2 (0.4)	1.6 (0.8)	16 (9.9)	57 (35.4)	88 (54.7)	0.24	< .01
Total	24.0 (5.0)	30.8 (8.1)	21 (14.3)	120 (81.6)	6 (4.1)	n/a	n/a
Destinations							
To or from school	4.0 (1.0)	4.5 (1.1)	22 (13.8)	74 (46.3)	64 (40.0)	0.25	< .01
To go to evening or weekend school-related activities	3.7 (0.9)	4.3 (0.9)	20 (12.4)	89 (55.3)	52 (32.3)	0.16	< .01
To or from work	3.4 (1.2)	3.9 (1.3)	31 (20.0)	84 (54.2)	40 (25.8)	0.18	< .01
To go to religious services or activities	3.3 (1.0)	3.8 (1.3)	37 (27.2)	78 (49.4)	43 (27.2)	0.14	< .01
To go to friends' houses	3.2 (0.9)	4.0 (0.9)	16 (10.0)	95 (59.4)	49 (30.6)	0.13	< .01
To run family errands	3.2 (0.9)	3.8 (1.0)	29 (18.1)	88 (55.0)	43 (26.9)	0.05	.04
To go to entertainment places such as the mall or movie theater	2.9 (0.8)	3.7 (1.1)	22 (13.8)	95 (59.4)	43 (26.9)	0.10	.01

	Parent N = 163	Teen N = 163	Parent reports higher frequency	Teen reports higher frequency	Parent and teen report same frequency	Weighted Kappa	Weighted Kappa p-value
	Mean (SD) [b]	Mean (SD) [b]	N (%)	N (%)	N (%)		
To go out on weekend nights	2.7 (0.9)	3.6 (1.1)	19 (11.8)	105 (65.2)	37 (23.0)	0.12	< .01
To “cruise” or drive around with no particular destination in mind	1.8 (0.8)	2.5 (1.1)	23 (14.2)	90 (55.6)	49 (30.3)	0.10	.13
Total	28.2 (6.5)	34.0 (7.0)	27 (18.8)	113 (78.5)	4 (2.8)	n/a	n/a

[a] All items have 5% or less missing responses

[b] 1=never, 2 = rarely, 3=sometimes, 4=frequently, 5=very frequently

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Table 4

Linear Regression Models Predicting Expectations About Teens' Future Driving

Predictors	Outcomes							
	How often teen will be allowed to drive unsupervised under risky conditions (sum score)[b]				How often teen will be allowed to drive unsupervised to different destinations (sum score)[b]			
	Parent reports (Range: 12-41)		Teen reports (Range: 12-57)		Parent reports (Range: 9-43)		Teen reports (Range:9-45)	
	β[c]	95% CI	β[c]	95% CI	β[c]	95% CI	β[c]	95% CI
Have you (teen) driven unsupervised? (Yes=79, 48%)	3.21*	1.72,4.69	4.73*	2.22,7.25	4.11*	2.14,6.07	3.40*	1.17,5.57
Teen sex (referent = Male)	−0.71	−2.28,0.85	0.91	−1.71,3.54	−0.52	−2.59,1.55	2.25	0.00,4.49
Parent sex (referent = Male)	−2.39*	−4.46,-0.32	−2.15	−5.53,1.24	−0.39	−3.08,2.30	−0.13	−3.21,2.96
Does your teen regularly have access to a car?[a] (Yes=138, 85.2%)	3.78*	1.67,5.89	3.98*	0.40,7.56	4.73*	1.77,7.70	1.62	−1.49,4.73
Does your teen have his or her own car? [a] (Yes=66, 40.5%)	2.23*	0.66,3.79	4.01*	1.38,6.65	3.86*	1.79,5.93	3.03	0.76,5.29
# of times teen drives per week [a]								
a. To or from school	0.21	0.03,0.39	0.15	−0.14,0.44	0.30*	0.06,0.53	0.22	−0.03,0.47
b. To or from work	−0.60	−1.50,0.31	−1.09	−2.75,0.57	−1.16	−2.36,0.03	−0.21	−1.49,1.07
c. To school-related sports or athletics	0.60*	0.23,0.97	0.97*	0.35,1.59	0.75*	0.24,1.25	0.41	−0.16,0.97
d. To other evening or weekend school-related activities	0.50	−0.01,1.01	1.20*	0.28,2.12	0.89*	0.21,1.56	0.94	0.21,1.68
e. To run family errands	0.05	−0.44,0.54	0.08	−0.79,0.96	0.37	−0.29,1.04	0.74	0.04,1.44
f. To other social activities	0.35	−0.12,0.83	0.96*	0.12,1.80	0.35	−0.28,0.98	0.74	0.08,1.40

*$p < .05$

[a]Adjusted for parent and teen sex

[b]Scores entered into model are sum of all the questions in that sub-scale. Sub-scale questions had a range of 1-5 with 1=never and 5=very frequently. A higher score= higher frequency of driving. Risky conditions sum score is based on 12 questions and different destinations is based on 9 questions.

[c]Coefficient is unstandardized.