Mothers vs. fathers as learner driver supervisors: Time commitment, driving activities and perceptions of risk

Bates, L. J., Watson, B. C. & King, M. J.

Centre for Accident Research and Road Safety – Queensland, Institute for Health and Biomedical Innovation, Queensland University of Technology

Abstract

The learner licence, within a graduated driver licensing system, provides new drivers with the opportunity to learn to drive under the supervision of a more experienced driver. The Queensland graduated driver licensing system requires learner drivers to record a minimum of 100 logbook hours of supervised practice with the support of parents appearing critical to ensure that this is achieved. This paper examines differences between mothers and fathers who supervise learner drivers. Mothers and fathers from Queensland who had recently supervised their child while they learnt to drive completed an internet survey about their experiences. It appears that one strategy that parents use to provide practice hours is for the child to drive themselves or their parents to or from activities that they would have attended anyway in addition to undertaking special trips in the car for the purposes of practising. The results suggest that mothers, when compared with fathers, consider driving at all stages of licensure riskier and that mothers provided more hours of supervision than fathers. However, despite this, there are limited differences between how frequently mothers and fathers provide different driving experiences such as deliberately practising in suburban areas or with passengers in the car. This research fills a gap in the literature by providing important information about the way in which parents supervise their children while they are driving on a learner licence as well as identifying some of the differences and similarities between mothers and fathers.

Introduction

While new drivers have the highest crash risk immediately after they obtain their driver's licence, this crash risk falls rapidly during over the next 18 months to two years (Lewis-Evans, 2010; Mayhew, Simpson, & Pak, 2003; McCartt, Shabanova, & Leaf, 2003; Williams, 2003). The introduction of Graduated Driver Licensing (GDL) systems has been associated with a reduction in this crash risk for young novice drivers (Lyon, Pan, & Li, 2012; Shope, 2007; Williams, Tefft, & Grabowski, 2012). GDL focuses on reducing the crash risk of new drivers as a group rather than individually (Foss, 2007; Shults, 2010) and this system typically contains three stages: learner, provisional and open (Williams & Mayhew, 2003).

A key feature of many GDL systems is that they require practice to occur over an extended period of time while the novice driver is driving on a learner licence (Bates, Watson, & King, 2006). This allows a novice driver to develop their driving skills while under the supervision of a more experienced driver (Mayhew, 2003) and provides learner drivers with the opportunity to gain experience in vehicle handling as well as understanding the road environment and the behaviour of other drivers (Foss, 2007). It appears that, all other things being equal, drivers who spend a greater amount of time on a learner licence are less likely to crash while driving on a provisional licence (Ferguson, Leaf, Williams, & Preusser, 1996; Gulliver, Begg, Brookland, Ameratunga, & Langley, 2013).

Some jurisdictions require learner drivers to complete a mandated number of hours of supervised driving practice while on a learner licence. Within the United States of America, the number of hours required varies from 20 hours in Texas and Iowa to 65 hours in Pennsylvania (Insurance Institute for Highway Safety, 2012). However, the number of hours of required practice is

significantly higher in most Australian jurisdictions. In Queensland, learner drivers need to record a minimum of 100 logbook hours of supervised driving practice (Queensland Department of Transport and Main Roads, 2013). By mandating the number of hours of supervised practice that learner drivers need to obtain, it appears there is an implicit assumption that private supervisors, such as parents, will be involved in teaching their child to drive. It is unlikely, for financial reasons, that a learner driver will be able to use professional instructors to complete all of their mandated hours of practice (Bates, 2012).

A key factor within GDL systems is the level of support that parents provide (Glendon, 2013; Jacobsohn, Garcia-Espana, Durbin, Erkoboni, & Winston, 2012; Mayhew, 2003; Williams & Shults, 2010) with parents appearing supportive of supervised practice (Brookland & Begg, 2011; Waller, Olk, & Shope, 2000). Research has identified that parents, and other family members, believe that parents should have a strong role in the learning to drive process (Bates, 2012). Additionally, parents provide a role model for their children when they are learning to drive (Taubman-Ben-Ari, 2010, 2011) and therefore they should be encouraged to provide a good example to their children (Scott-Parker, Bates, Watson, King, & Hyde, 2011; Scott-Parker, Watson, & King, 2009; Scott-Parker, Watson, King, & Hyde, 2012).

Previous research has considered the involvement of parents in the provision of supervised driving practice to learner drivers including the amount of supervised practice provided (Bates, Watson, & King, 2008, 2009a, 2009b, 2010; Jacobsohn et al., 2012; Scott-Parker et al., 2011), parental awareness of supervised driving hours requirements (O'Brien, Foss, Goodwin, & Masten, 2013) and parental perceptions of the use of a log book to record hours of supervised practice (Bates, 2012). Parents are more likely to be the primary supervisors of learner drivers than other individuals. In Israel, only small numbers of siblings or other people were found to act as the primary supervisor of a learner driver (Taubman-Ben-Ari, 2011) while in Queensland and New South Wales parents reported that they were the primary supervisor of a learner driver more frequently when compared with non-parental supervisors (Bates, 2012).

In Queensland, individuals are able to sit a theory test in order to obtain a learner licence from 16 years of age. Learner drivers must drive while supervised and hold their learner licence for a minimum of 12 months before attempting the practical driving test to obtain a provisional licence. Learner drivers are subject to a number of restrictions while driving including being unable to use a mobile phone and driving with a zero blood alcohol concentration (Queensland Department of Transport and Main Roads, 2013). As noted earlier, the Queensland Government requires learner drivers to record 100 hours of supervised practice. However, learner drivers are able to record three hours in their log book for every one hour completed with a professional driving instructor up to 10 hours of practice (i.e. a maximum of 30 hours in a log book). Learner drivers must also complete 10 of the log book hours at night (Queensland Department of Transport and Main Roads, 2013). The 100 hours of driving practice is lower than the practice requirements in some other Australian states such as Victoria which require 120 hours of practice while on a learner licence (VicRoads, 2013). New South Wales requires learner drivers to record 120 hours in a log book, however, like Queensland, learner drivers can record three hours for every hour undertaken with a professional driving instructor up to a maximum of 30 log book hours (NSW Transport Roads and Maritime Services, 2013). The Queensland requirement is significantly more than Western Australia where 25 hours of supervised practice is required to be recorded in a log book (Adams, 2005; Senserrick, 2009) as well as jurisdictions in the United States of America (Insurance Institute for Highway Safety, 2012).

It appears that mothers play a key role in the supervision of learner drivers in Queensland as learner drivers reported that their mothers provided substantially more hours of supervision when compared with their fathers (Scott-Parker et al., 2011). This is consistent with North American research that suggests that mothers are more likely to take responsibility for supervising learner drivers

(Goodwin, Foss, Margolis, & Waller, 2010). However, there is limited empirical research regarding differences between mothers and fathers in their supervision of learner drivers. Consequently, this paper will consider the number of hours of supervision that mothers and fathers report providing their child, the different strategies that they use to provide practice hours as well as their perceptions of the risks associated with driving.

Method

The participants within this study were parents from Queensland, Australia who had supervised a learner driver within the past 12 months. They were recruited using a combination of convenience and snowball sampling techniques. This included asking participants who had completed the online survey regarding their self-reported experiences while supervising a learner driver to forward the survey link to other supervisors whom they knew and believed may have been interested in completing the survey.

The initial screen of the survey provided information regarding the study to participants with consent being given when participants submitted the internet survey. The Queensland University of Technology Human Research Ethics Committee approved the study. The internet survey was available for completion between July 2009 and May 2010 with participants taking approximately 15 to 20 minutes to complete it. If they chose to, participants could provide their contact details at the conclusion of the survey in order to receive a $20 shopping voucher to reimburse them for their time.

The survey collected a range of socio-demographic variables such as gender, age, marital status and income. A series of questions asked participants about whether they were a first time supervisor, the primary supervisor, involvement of the other parent in supervision and the number of supervised hours of practice provided. There were also questions regarding the frequency with which mothers and fathers deliberately supervised their learner in a range of situations such as during trips that would have been undertaken anyway, with passengers (apart from the supervisor) and at night. A series of questions gathered the perceptions of mothers and fathers regarding risk associated with driving at different stages of licensure.

SPSS was used to analyse the data with the significance level (α) set at .05. Non-parametric tests with either the phi (ϕ) coefficient for 2 x 2 tables or Cramer's Phi (ϕ_c) coefficient for larger tables were used to measure the strength of association between the variables. If required, an adjusted standardised residual statistic was used as a post hoc test for chi-squares. Although Likert scales do not provide interval data, parametric methods were used to analyse these data. This enabled the use of more sophisticated techniques that would not have been possible using non-parametric tests.

Results

Participants

Of the 116 participants in the sample, 78 were mothers and 38 were fathers. As shown in Table 1, there were no statistically significant differences identified between mothers and fathers regarding their marital status, income or age.

Table 1. Socio-demographic characteristics of the sample

	Mothers ***n*** **(%)**	**Fathers** ***n*** **(%)**	**Total** ***n*** **(%)**	**Significance**
Marital status				
Single	16 (20.51)	5 (15.16)	21 (18.10)	X^2 (1) = 0.93,
Partnered	62 (79.49)	33 (86.84)	95 (81.90)	p = .334
Income				
$40,000 or less	24 (30.77)	8 (21.05)	32 (27.59)	X^2 (1) = 1.21,
$40,001 or more	54 (69.23)	30 (78.95)	84 (72.41)	p = .272
Age				
Mean	43.13	46.08	44.09	t (114) = -1.75, p
SD	8.53	8.48	8.59	= .082

Supervisor characteristics

Within the sample, 62.1 per cent of parents indicated that they were a first time supervisor (see Table 2). There was no difference identified between mothers and fathers regarding whether they were a first time supervisor. Over two-thirds of parents (70.7%) reported that they were the primary supervisor of the learner driver with a slightly smaller group (67.2%) indicating that the other parent also provided some supervision of the learner driver. There were no differences identified between mothers and fathers regarding primary supervision or provision of supervision by the other parent.

However, a difference was identified between mothers and fathers regarding the number of hours of supervision that they reported providing to their child. Mothers (M = 78.82, sd = 97.11) reported providing significantly more hours of practice when compared with fathers (M = 47.61, sd = 28.11).

Table 2. Supervision characteristics

	Mothers ***n*** **(%)**	**Fathers** ***n*** **(%)**	**Total** ***n*** **(%)**	**Significance**
First time supervisor				
Yes	53 (67.95)	19 (50)	72 (62.07)	X^2 (1) = 3.5,
No	25 (32.05)	19 (50)	44 (37.93)	p = .062
Primary supervisor				
Yes	57 (73.08)	25 (65.79)	82 (70.69)	X^2 (1) = 0.66,
No	21 (26.92)	13 (34.21)	34 (29.31)	p = .418
Other parent supervise				
Yes	51 (65.38)	27 (71.05)	78 (67.24)	X^2 (1) = 0.37,
No	27 (34.62)	11 (28.95)	38 (32.76)	p = .542
Hours of supervision				
Mean	78.82	47.61	68.59	t (99.63) = 2.62, p
SD	97.11	28.11	82.37	= .01
Median	55	48	50	
Mode	40/60[1]	40	40	

[1] This distribution was bi-modal.

Strategies used to provide supervised practice

As shown in Table 3, there are limited differences between mothers and fathers in the strategies that they use to provide supervised driving practice for their child. Parents reported using a combination of special trips for the purposes of obtaining driving practice as well as having the learner drive

themselves, their supervisor and their siblings and/or friends to and from activities that they would have attended anyway.

There was a difference between mothers and fathers regarding the frequency with which they deliberately provided opportunities for their learner driver to practise their driving at night. Mothers were more likely than fathers to provide this type of practice on a more frequent basis.

Table 3. Strategies used to provide practice[1]

	Mothers *n* (%)	**Fathers** *n* (%)	**Total** *n* (%)	**Significance**
Drove to and from activities the learner would have attended anyway				
Fewer than every 10 sessions	21 (26.92)	11 (28.95)	32 (27.59)	X^2 (3) = 6.36,
Every 7 – 10 sessions	**9 (11.54)**	**11 (28.95)**	20 (17.24)	p = .095
Every 3 – 6 sessions	16 (20.51)	6 (15.79)	22 (18.97)	
Every 1 – 2 sessions	32 (41.03)	10 (26.32)	42 (36.21)	
Drove you to and from activities you would have attended anyway				
Fewer than every 10 sessions	16 (20.51)	8 (21.05)	24 (20.69)	X^2 (3) = 7.17,
Every 7 – 10 sessions	14 (17.95)	13 (34.21)	27 (23.28)	p = .067
Every 3 – 6 sessions	16 (20.51)	10 (26.32)	26 (22.41)	
Every 1 – 2 sessions	**32 (41.03)**	**7 (18.42)**	39 (33.62)	
Drove siblings or friends to and from activities they would have attended anyway				X^2 (3) = 2.61,
Fewer than every 10 sessions	32 (41.03)	19 (50)	51 (43.96)	p = .455
Every 7 – 10 sessions	11 (14.10)	7 (18.42)	18 (15.52)	
Every 3 – 6 sessions	18 (23.08)	8 (21.05)	26 (22.41)	
Every 1 – 2 sessions	17 (21.79)	4 (10.53)	21 (18.10)	
Made special trips for the purposes of practising				
Fewer than every 10 sessions	16 (20.51)	9 (23.68)	25 (21.55)	X^2 (3) = 1.22,
Every 7 – 10 sessions	17 (21.79)	11 (28.95)	28 (24.14)	p = .748
Every 3 – 6 sessions	16 (20.51)	7 (18.42)	23 (19.83)	
Every 1 – 2 sessions	29 (37.18)	11 (28.95)	40 (34.48)	
Deliberately practised with passengers (apart from the supervisor)				
Fewer than every 10 sessions	39 (50)	18 (47.37)	57 (49.14)	X^2 (3) = 4.23,
Every 7 – 10 sessions	10 (12.82)	10 (26.32)	20 (17.24)	p = .238
Every 3 – 6 sessions	13 (16.67)	6 (15.79)	19 (16.38)	
Every 1 – 2 sessions	16 (20.51)	4 (10.53)	20 (17.24)	
Deliberately practised driving at night				
Fewer than every 10 sessions	21 (26.92)	7 (18.42)	28 (24.14)	
Every 7 – 10 sessions	**18 (23.08)**	**17 (44.74)**	35 (30.17)	X^2 (3) = 9.01,
Every 3 – 6 sessions	19 (24.36)	11 (28.95)	30 (25.86)	p = .029
Every 1 – 2 sessions	**20 (25.64)**	**3 (7.89)**	23 (19.83)	

[1] The cells with significant (p = <.01) adjusted standardised residuals are bolded.

Perception of risk

Perception of risk associated with driving was measured on a five point scale from (1) not very risky to (5) very risky. Mothers perceived driving as riskier than fathers at all stages of the licensing

process (see Table 4). However, among both the mothers and fathers, their perceptions of risk declined as drivers progressed through the licensing process.

Table 4. Perception of risk at different licensing stages

	M (*sd*)	*df*	*t*	Significance
A learner driver when they first begin learning to drive				
Mother	4.13 (1.04)	114	2.66	.009
Father	3.55 (1.20)			
A learner driver by the time they are about to sit the practical driving test				
Mother	2.91 (1.19)	88.06	2.61	.01
Father	2.37 (.97)			
A provisional driver on their red P's				
Mother	3.28 (1.02)	114	3.07	.003
Father	2.66 (1.05)			
A provisional driver on their green P's				
Mother	2.91 (1.18)	114	2.81	.006
Father	2.29 (.98)			
A fully licensed driver				
Mother	2.54 (1.16)	114	2.59	.01
Father	1.95 (1.14)			

Discussion

Prior research has indicated that parents are heavily involved in the provision of supervised driving practice for learner drivers (Bates et al., 2009a; O'Brien et al., 2013; Scott-Parker et al., 2011). However, there has been limited research to date that examines the differences between mothers and fathers as supervisors. In the research reported here, the key difference appears to be the amount of supervision provided with mothers tending to providing more hours of supervised driving practice than fathers. This is consistent with previous research conducted in Queensland (Scott-Parker et al., 2011) and the United States (Goodwin et al., 2010). This study also suggests that mothers provide more hours of supervised driving practice when compared with fathers. Given that mothers tend to spend more time on parenting duties than fathers (Craig, 2006), the requirement to record a minimum of 100 logbook hours of supervised driving practice may mean that teaching a child to drive is seen more as a required parental task and thus one that requires a more extensive time commitment from mothers when compared with fathers. However, social and cultural differences may play a role with research identifying that fathers provide more hours of supervised driving practice in Israel (Taubman-Ben-Ari, 2011).

This study demonstrates that there are many similarities between mothers and fathers in a number of areas including the proportion supervising for the first time, reporting that they were the primary supervisor for the child and indicating that the other parent was involved in the supervision process. This is similar to the results of a previous study conducted in the United States of America that found that both parents were involved in supervising their child (Jacobsohn et al., 2012). The findings of this study may reflect that both mothers and fathers see their involvement in the supervision process as making them the 'primary supervisor' of the learner driver (despite the greater number of hours of supervised practice provided by mothers). Alternatively, it may indicate that primary supervisors were more likely to complete the survey.

Additionally, this study identified that there are many similarities in the types of strategies that mothers and fathers use to teach their child to drive. This includes parents supervising learner drivers during 'normal' driving including when they drove to and from activities that the learner, their siblings or friends and the supervisor would have attended anyway. This type of supervision is likely to be positive as it hopefully provides the learner driver with driving experience with the routes, environments and times of day that they will be driving once they obtain their provisional licence. On the other hand, it raises the possibility that learners are not being exposed to a sufficiently wide variety of traffic conditions. In this regard, however, mothers and fathers also reported supervising their child for special trips that were undertaken for the purposes of practising. One potential advantage of this is that it may allow the learner driver to gain sufficient driving experience to meet the licensing system requirements and expose them to more novel driving situations. It may also reflect that, at the commencement of the learner period, parents may tend to make special trips for the purposes of practising while towards the end of the learner period the driving trips tend to be more routine. Further research is needed to confirm this hypothesis.

Research highlights that driving at night (Williams, 2003) or with passengers (Curry, Mirman, Kallan, Winston, & Durbin, 2012; Lee & Abdel-Aty, 2008; Orsi, Marchetti, Montomoli, & Morandi, 2013) can be riskier for newly licensed drivers. However, the results of this study indicate that parents are much less likely to provide practice under these conditions on a regular basis. One difference between mothers and fathers was that mothers were more likely to deliberately provide learners with the opportunity to practice their driving at night compared with fathers.

Another difference between mothers and fathers was that mothers perceived driving as riskier at all stages of licensing: learners when they start driving on their licence, learners who are about to sit the practical driving test, provisional drivers on their red P plates, provisional drivers on their green P plates and fully licensed drivers. Since mothers perceive driving as more risky, this may provide some explanation for why mothers provide substantially more supervised driving practice to learner drivers when compared with fathers.

The results of this study highlight the importance of the involvement of parents in assisting their learner driver to meet the required hours of driving practice requirement. Given that, in Queensland, learner drivers need to record a minimum of 100 logbook hours of supervised driving practice, parents should be encouraged to maintain their involvement. This study identified that mothers provided more hours of practice than fathers. While the sharing of the supervision load more equally between parents may make it easier to provide increased amounts of driving practice, the time that parents spend in paid employment may affect their ability to find time to provide supervised practice. Further research is needed to consider this hypothesis and to investigate more the quality and effectiveness of supervision provided by mothers and fathers.

The use of convenience and snowball recruitment techniques for the sample is a limitation of this study. These recruitment methods meant that it was not possible to identify a response rate and reduce the likelihood that these results can be generalised to the population. However, further research that used a probability recruitment technique would help to overcome this limitation. Additionally, research is needed to examine why in approximately one-third of situations, only one parent is supervising their child. Possible reasons include the availability of parents, single parent families, only one parent holding a driver's licence, parents being reluctant to 'confuse' the learner by having more than one person supervise them or one parent being unable to provide effective supervision due to emotional concerns.

Given the strong involvement of parents in the supervision of learner drivers in graduated driver licensing systems, there has been very little research into the similarities and differences between mothers and fathers in their roles as learner driver supervisors. It appears that, even though mothers provide greater amounts of supervised driving practice, there are many similarities between mothers

and fathers. In this study, both parents were likely to indicate that they were a first time supervisor, the primary supervisor and that the other parent was involved in supervision. Additionally, the type of practise that parents provided their learner drivers was similar with the only difference identified that mothers provided their learner with more opportunities to deliberately practise their driving at night. Mothers also perceived that driving was more risky than fathers. Parents should continue to be encouraged to be involved in assisting their learner driver to gain supervised driving practice while on a learner licence.

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References

Adams, C. (2005). Probationary and non-probationary drivers' nighttime crashes in Western Australia, 1996-2000. *Journal of Safety Research, 36*, 33-37.

Bates, L. (2012). *The Experiences of Learner Drivers, Provisional Drivers and Supervisors with Graduated Driver Licensing in Two Australian Jurisdictions.* (PhD), University of Technology, Brisbane.

Bates, L., Watson, B., & King, M. (2006). *Competing or Complementing: Driver Education and Graduated Driver Licensing.* Paper presented at the Road Safety Research, Policing and Education Conference, Gold Coast.

Bates, L., Watson, B., & King, M. (2008). The structure of the learner licence affects the type of experiences novices gain during this phase: Examples from Queensland and New South Wales. *Journal of the Australasian College of Road Safety, 19*(4), 36-42.

Bates, L., Watson, B., & King, M. (2009a). Driving and licensing experiences of learner drivers in two Australian states prior to changes in the licensing laws. *Journal of the Australasian College of Road Safety, 20*(3), 51-55.

Bates, L., Watson, B., & King, M. (2009b). Factors influencing learner driver experiences. Canberra: Department of Infrastructure, Transport, Regional Development and Local Government.

Bates, L., Watson, B., & King, M. (2010). Required hours of practice for learner drivers: A comparison between two Australian jurisdictions. *Journal of Safety Research, 41*, 93-97.

Brookland, R., & Begg, D. J. (2011). Adolescent, and their parents, attitudes towards graduated driver licensing and subsequent risky driving and crashes in young adulthood. *Journal of Safety Research, 42*(2), 109-115.

Craig, L. (2006). Does father care mean fathers share? : A comparison of how mothers and fathers in intact families spend time with children. *Gender and Society, 20*, 259-281.

Curry, A., Mirman, J., Kallan, M., Winston, F. K., & Durbin, D. (2012). Peer Passengers: How Do They Affect Teen Crashes? *Journal of Adolescent Health, 50*, 588–594.

Ferguson, S. A., Leaf, W. A., Williams, A., & Preusser, D. (1996). Differences in young driver crash involvement in states with varying licensure practices. *Accident Analysis & Prevention, 28*(2), 171-180.

Foss, R. (2007). Improving graduated driver licensing systems: A conceptual approach and its implications. *Journal of Safety Research, 38*(2), 185-192.

Glendon, I. (2013). Influences on young drivers' reported driving behaviours and perceptions: a focus group study. *Journal of the Australasian College of Road Safety, 24*(1), 16-29.

Goodwin, A. H., Foss, R., Margolis, L. H., & Waller, M. (2010). Parents, teens and the learner stage of graduated driver licensing. Washington: AAA Foundation for Traffic Safety.

Gulliver, P., Begg, D., Brookland, R., Ameratunga, S., & Langley, J. (2013). Learner driver experiences and crash risk as an unsupervised driver. *Journal of Safety Research, 46*, 41-46.

Insurance Institute for Highway Safety. (2012). Young driver licensing systems in the U.S. . Retrieved 18 September, 2012, from http://www.iihs.org/laws/graduatedlicenseintro.aspx

Jacobsohn, L., Garcia-Espana, J., Durbin, D. R., Erkoboni, D., & Winston, F. K. (2012). Adult-supervised practice driving for adolescent learners: The current state and directions for interventions. *Journal of Safety Research, 43*(1), 21-28.

Lee, C., & Abdel-Aty, M. (2008). Presence of passengers: Does it increase or reduce driver's crash potential? *Accident Analysis & Prevention, 40*(5), 1703-1712.

Lewis-Evans, B. (2010). Crash involvement during the different phases of the New Zealand Graduated Driver Licensing System (GDLS). *Journal of Safety Research, 41*, 359-365.

Lyon, J., Pan, R., & Li, J. (2012). National evaluation of the effect of graduated driver licensing laws on teenager fatality and injury crashes. *Journal of Safety Research, 43*, 29-37.

Mayhew, D. (2003). The learner's permit. *Journal of Safety Research, 34*, 35-43.

Mayhew, D., Simpson, H. M., & Pak, A. (2003). Changes in collision rates among novice drivers during the first months of driving. *Accident Analysis & Prevention, 35*(5), 683-691.

McCartt, A., Shabanova, V. I., & Leaf, W. A. (2003). Driving experience, crashes and traffic citations of teenage beginning drivers. *Accident Analysis and Prevention, 35*, 311-320.

NSW Transport Roads and Maritime Services. (2013). Learner licence. Retrieved 3 July, 2013, from www.rta.nsw.gov.au

O'Brien, N., Foss, R., Goodwin, A., & Masten, S. V. (2013). Supervised hours requirements in graduated driver licensing: Effectiveness and parental awareness. *Accident Analysis & Prevention, 50*, 330-335.

Orsi, C., Marchetti, P., Montomoli, C., & Morandi, A. (2013). Car crashes: The effect of passenger presence and other factors on driver outcome. *Safety Science, 57*, 35-43.

Queensland Department of Transport and Main Roads. (2013). Learning to Drive. Retrieved 28 June, 2013, from www.tmr.qld.gov.au

Scott-Parker, B., Bates, L., Watson, B., King, M., & Hyde, M. (2011). The impact of changes to the graduated driver licensing program in Queensland, Australia on the experiences of learner drivers. *Accident Analysis & Prevention, 43*, 1301-1308.

Scott-Parker, B., Watson, B., & King, M. (2009). Understanding the psychosocial factors influencing the risky behaviour of young drivers. *Transportation Research Part F: Traffic Psychology and Behaviour, 12*, 470-482.

Scott-Parker, B., Watson, B., King, M., & Hyde, M. (2012). ''They're lunatics on the road'': Exploring the normative influences of parents, friends, and police on young novices' risky driving decisions. *Safety Science, 50*, 1917-1928.

Senserrick, T. (2009). Australian Graduated Driver Licensing Systems. *Journal of the Australasian College of Road Safety, 20*(1), 20-26.

Shope, J. T. (2007). Graduated driver licensing: Review of evaluation results since 2002. *Journal of Safety Research, 38*(2), 165-175.

Shults, R. A. (2010). Foreword to 'Graduated driver licensing research, 2007-present: A review and commentary'. *Journal of Safety Research, 41*, 75.

Taubman-Ben-Ari, O. (2010). Attitudes toward accompanied driving: The views of teens and their parents. *Transportation Research Part F: Traffic Psychology and Behaviour, 13*, 269-276.

Taubman-Ben-Ari, O. (2011). The contribution of perceived parental and familial characteristics to attitudes toward accompanied driving among young drivers. *Accident Analysis & Prevention, 43*(1720-1729).

VicRoads. (2013). How to get your car probationary licence. Retrieved 3 July, 2013, from www.vicroads.vic.gov.au

Waller, P. F., Olk, M. L., & Shope, J. T. (2000). Parental views of and experience with Michigan's graduated licensing program. *Journal of Safety Research, 31*(1), 9-15.

Williams, A. (2003). Teenage drivers: Patterns of risk. *Journal of Safety Research, 34*, 5-15.

Williams, A., & Mayhew, D. (2003). Graduated Licensing: A Blueprint for North America. Arlington: Insurance Institute for Highway Safety.

Williams, A., & Shults, R. A. (2010). Graduated Driver Licensing Research, 2007–Present: A Review and Commentary. *Journal of Safety Research, 41*, 77-84.

Williams, A., Tefft, B., & Grabowski, D. C. (2012). Graduated driver licensing research, 2010-present. *Journal of Safety Research, 43*, 195-203.