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Graduated Drivers License (GDL): Literature Review

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1. **American Academy of Pediatrics. Policy statement: The teen driver. *Pediatrics*, (2006). 118(6), 2570-2581. Doi: 10.1542/peds.2006-2830**

Automobile crashes continue to take the lead as cause of death for 16 to 20 year olds. Approximately 5,500 deaths per year are due to car accidents. Sixty-three percent are drivers while 37% are the passengers. Two-thirds of these fatalities are male. Adolescent risk factors include inexperience, risk-taking, teenaged passengers, nighttime driving, drugs/alcohol/medication, lack of seatbelt usage, the type of vehicle, electronic distractions, unlicensed drivers, and attention deficit/hyperactivity disorder. The proposed solution to counter all of these risk factors is the Graduated Drivers License (GDL) program. The program provides nighttime and passenger restrictions, driver education, alcohol-related measures, improved seat belt laws, and parental involvement.

2. **California Department of Motor Vehicles. California Graduated Drivers License (GDL). Accessed January 2012. Available at: <http://driversed.com/dmv/california/california-GDL.aspx>**

The California Graduated Drivers License (GDL) consists of a three-step process. The first step includes the learner's permit which enables the novice driver to practice 50 hours of supervised driving, 10 of which must be completed at night. The student must drive with a licensed parent or guardian, a licensed adult 25 or over, or a licensed professional instructor. Also in the first step, the novice driver must enroll and complete at least 6 hours of a driver's training course. The student must also follow a zero tolerance law which prohibits him or her from drinking and driving. The use of any electronic devices while driving is prohibited as well. The second step of the GDL consists of the provisional license. This is only available to the student if he or she is between 16 and 18 years old and has passed the behind-the-wheel driving test. A parent signature must be present on the provisional license assuring completion of the required driving practice. The provisional license also has specific rules on it. For example, the driver may not drive passengers until the driver's 18th birthday unless a licensed driver over 25 is present. For the first 12 months, the new driver must be accompanied by a licensed driver over 25 if the new driver is driving between 11pm and 5am or if the new driver is transporting passengers under the age of 20. The third step consists of a fully privileged license and this is only available after the first two steps are completed.



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- 3. Campbell, B. , Borrup, K. , Corsi, J. , Kelliher, K. , Saleheen, H. , et al. (2009). Pediatrician attitudes, knowledge, and practice behavior regarding teen driving safety. *Journal of Safety Research*, 40(2), 121-124.**

This study explored the subjects that pediatricians discussed with their teen patients. A 31-item survey was completed by 160 pediatricians. During a health supervision visit, 93% of pediatricians reported discussing seat belt use and 89% reported discussing impaired driving. However, only 54% of pediatricians reported discussing teen licensing laws and 16% reported discussing a parent-teen contract. Half of the survey respondents reported having a teen in their practice being killed in a car crash. Safety factors like seat belt use and alcohol use were addressed in the visit, but Graduated Driver Licensing (GDL) was not emphasized as much.

- 4. Carlos, R. , Borba, J. , Heck, K. , Nathaniel, K. , & Sousa, C. (2009). Survey explores teen driving behavior in Central Valley, Los Angeles high school. *California Agricultural*, 63(4), 208-214. Doi: 10.3733/ca.v063n04p208.**

This study surveyed 2,144 teenage drivers on driving practices, factors influencing driving behavior, and views on driver education and resources. Teenage drivers responded on each of the subjects. They requested updated driver education courses and increased behind-the-wheel training. As for driving resources, teenage drivers identified their parents as their most important source when learning to drive. They also reported that parents were less likely to enforce the rule prohibiting driving with teen passengers, compared to other rules. Teenage drivers were asked about factors that influence driving behavior. Many responded that teen passengers distracted them while driving. Twelve percent of respondents reported not having a license or permit, despite driving regularly. Most of these unlicensed drivers attended a school with a lower-income population and they lived in urban areas. Among students that reported they were driving for less than a year, 73% of them reported driving with friends in the car; 38.4% of these novice drivers reported that they had been distracted to things that their passengers had done.

- 5. Curry, A. , Garcia-Espana, J. , Winston, F. , Ginsburg, K. , & Durbin, D. (2012). Variation in Teen Driver Education by State Requirements and Sociodemographics. *Pediatrics*, 129(3), 453-457. doi: 10.1542/peds.2011-2303**

In spring 2006, 9th, 10th, and 11th graders were asked to take a paper-and-pencil survey. In all, 5,665 students took the survey, from 68 public high schools in 34 states. Only 1,770 of the responding students had a driver's license and were driving on their own. After thorough analyses, it was found that some students only received minimal driving education. Trends were higher in students that were African American and Hispanic. Students who also had low academic performance also managed to fit into this category. The urbanicity, or location, of the



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school also mattered. Also, states without a driving education requirement had minimal driving education. All of these factors influence the ability of a novice driver to make the proper judgment seconds prior to a potential collision.

6. **Masten, S. , Foss, R. , & Marshall, S. (2011). Graduated driver licensing and fatal crashes involving 16- to 19-year-old drivers. *JAMA: Journal of the American Medical Association*, 306(10), 1098.**

The target population of this study was teenagers ranging from 16 to 19 years old. The cross-sectional research was completed from 1986 to 2007 measuring the incidence of fatal crashes for all 50 states. The results were analyzed between states that required the GDL program and states that did not. States with the stronger GDL programs that allowed no passengers and had a restriction on nighttime driving showed a trend in lower crash involvement for 16 year olds. However, the same states that showed lower statistics on crash involvement for 16 year olds also had somewhat higher crash incidence for 18 year olds.

7. **National Highway Traffic Safety Administration. *National Evaluation of Graduated Driver Licensing Programs*. Washington, DC: National Highway Traffic Safety Administration; 2006. US Department of Transportation publication HS 810-614**

This study spanned from 1994 to 2004 and overviewed the Graduated Drivers License (GDL) program in 7 components. The 7 components were analyzed to determine which ones were effective. The first component was the minimum age, 15, for the learner's permit. The second component consisted of a mandatory waiting period which was a minimum of 3 months. The third component included a minimum of 30 hours in supervised driving. The fourth component stated the minimum entry age, 16, for the intermediate stage. The fifth component was the minimum age, 17, to apply for full licensing. The sixth component was a nighttime driving restriction. Lastly, the seventh component was the passenger restriction. In the most comprehensive GDL programs, there was a 20% lower fatal crash involvement rate for 16 year old drivers when compared to states without GDL programs. Age did not fluctuate in the rate of decreasing fatal crashes indicating that the GDL was effective and age didn't play a role in it. The greatest benefits were seen in GDL programs that included at least 5 of the 7 components. The 5 specific components included age requirements, 3 months of waiting before the intermediate stage, nighttime driving restriction, supervised driving of at least 30 hours, and passenger restriction.



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- 8. Simons-Morton, B. , Lerner, N. , & Singer, J. (2005). The observed effects of teenage passengers on the risky driving behavior of teenage drivers. *Accident Analysis & Prevention*, 37(6), 973.**

This study investigated the risky driving observed by vehicles exiting high school parking lots at 10 different high schools. Since passengers have been proven to be distractions, this study identified passengers as male or female and teen or adult. Using high technology recording devices and speed capturing equipment, drivers were monitored as they exited the parking lot. Teenagers that were driving male teenage passengers showed tendencies of driving faster than general traffic and allowing shorter headways, the distance from the front of their car and the rear of the car in front of them. This study showed that having male teen passengers was also considered risky driving.

- 9. Simons-Morton, B. (2007). Parent involvement in novice teen driving: Rationale, evidence of effects, and potential for enhancing graduated driver licensing effectiveness. *Journal of Safety Research*, 38(2), 193-202.**

Crash involvement is more common immediately following licensure. The incidence of crashes gradually lowers as age increases. This indicates that inexperience may be the cause of poor judgment by novice drivers. The GDL program has proved to be somewhat effective, but the involvement of parents is highly necessary. The law might restrict a novice driver from driving passengers or driving at night, but this is difficult to enforce if the parent who provides the insurance and the vehicle is unaware of the program stages. Parent involvement is bound to assist in keeping teenage drivers safe and prevent them from fatal crashes due to inexperience and poor judgment.