Evaluation of First Impact—A Graduated Driver License (GDL) Traffic Safety Program for Parents

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Introduction to First Impact
GDL Traffic Safety Education Program for Parents

The goal of First Impact is to reduce the number of motor vehicle fatalities, injuries and crashes among teen drivers by increasing parental awareness and enforcement of Missouri's GDL law. The objectives of the program are to increase: 1) Awareness of teen driving risks, 2) Understanding of Missouri's GDL law, 3) GDL monitoring and enforcement at home, and 4) Importance of being a positive role model.

First Impact is designed for parents of teens in the pre-permit, permit or intermediate stages of GDL licensure. The 90-minute intervention is presented by trained GDL facilitators at schools and in community-based and workplace settings. The program was developed through research of best practices and grounded in educational theory. The First Impact intervention was launched statewide in May 2016.

First Impact is a program of ThinkFirst Missouri, an evidence-based trauma prevention program of the University of Missouri School of Medicine, Department of Physical Medicine and Rehabilitation. ThinkFirst Missouri is an affiliate chapter of the ThinkFirst National Injury Prevention Foundation. Funding for First Impact is provided by MoDOT Highway Safety and Traffic Division.

Teen Driver Risk & Graduated Driver Licensing (GDL) Systems

GDL programs reduce crash risk by slowly introducing teens to more complex driving tasks and responsibilities as they mature and gain skills (IIHS Beginning Teen Driver, 2014). GDL systems demonstrate a significant impact on reducing the risk of new drivers (NHTSA Countermeasures That Work, 2015).

Purpose of the Study

The purpose of this study was to evaluate the understanding of key components of the Missouri GDL law before and after receiving the First Impact GDL parent program intervention.

Methods

Pre- and post-surveys were conducted during the pilot year of the First Impact intervention (12-month period, May 1, 2016-April 30, 2017). Participants included parents and teens attending the First Impact program (N = 690). The majority (60%) of attendees were parents. A chi-square analysis was used to evaluate whether frequency of responses in the pre- and post-survey groups were significantly different.

Results

Understanding of GDL Law
Question 1: Rate your understanding of Missouri's GDL law.

Question 1		Response								
		Don't Understand 1		2		Somewhat Understand 3		4		Fully Understand 5
N=690	Pre	173	(25%)	86	(12%)	293	(43%)	113	(16%)	25	(4%)
N=664	Post	0	(0%)	3	(.05%)	23	(3%)	193	(29%)	445	(67%)

Reported understanding on post-surveys was significantly higher than reported understanding on pre-surveys (p<0.01). At the beginning of the class, 37% of attendees reported no understanding to almost no understanding of the GDL law. At the conclusion of the class, 96% of attendees reported fully understanding to almost fully understanding the GDL law.

Understanding of Nighttime Restrictions
Question 2: Rate your understanding of the nighttime restrictions in Missouri's GDL law.

Question 2		Response								
		Don't Understand 1		2		Somewhat Understand 3		4		Fully Understand 5
N=685	Pre	201	(29%)	109	(16%)	262	(38%)	82	(12%)	31	(5%)
N=662	Post	0	(0%)	3	(.05%)	28	(4%)	138	(21%)	493	(74%)

Results

Reported understanding on post-surveys was significantly higher than reported understanding on pre-surveys (p<0.01). At the beginning of the class, 45% of attendees reported having no understanding to almost no understanding of the GDL nighttime restrictions. At the conclusion of the class, 95% of attendees reported fully understanding to almost fully understanding the nighttime restrictions in the GDL law.

Understanding of Passenger Restrictions
Question 3: Rate your understanding of the passenger restrictions in Missouri's GDL law.

Question 3		Response								
		Don't Understand 1		2		Somewhat Understand 3		4		Fully Understand 5
N=688	Pre	160	(23%)	92	(13%)	265	(39%)	123	(18%)	48	(7%)
N=660	Post	0	(0%)	1	(.02%)	18	(3%)	132	(20%)	509	(77%)

Reported understanding on post-surveys was significantly higher than reported understanding on pre-surveys (p<0.01). At the beginning of the class, 36% of attendees reported having no understanding to almost no understanding of the GDL passenger restrictions. At the conclusion of the class, 97% of attendees reported fully understanding to almost fully understanding GDL passenger restrictions.

Conclusion

Based on the change in attendee responses, the First Impact intervention produced a highly significant improvement in understanding three vital components of the GDL law. The results of the study indicate that the First Impact program is a promising intervention to increase the understanding of Missouri's GDL law.