

Best practice in peer-led curriculum content: Informing an interactive program to improve passenger safety among high school seniors

Buckley^{ab}, L. & Watson^b, B.

^aUniversity of Michigan Transportation Research Institute, University of Michigan, Ann Arbor, MI, USA, ^bCentre for Accident Research & Road Safety-Queensland, Queensland University of Technology, Brisbane, Qld, Australia.

Abstract

Despite ongoing improvements in behaviour change strategies, licensing models and road law enforcement measures young drivers remain significantly over-represented in fatal and non-fatal road related crashes. This paper focuses on the safety of those approaching driving age and identifies both high priority road safety messages and relevant peer-led strategies to guide the development school programs. It summarises the review in a program logic model built around the messages and identified curriculum elements, as they may be best operationalised within the licensing and school contexts in Victoria.

This paper summarises a review of common deliberate risk-taking and non-deliberate unsafe driving behaviours among novice drivers, highlighting risks associated with speeding, driving while fatigued, driving while impaired and carrying passengers. Common beliefs of young people that predict risky driving were reviewed, particularly with consideration of those beliefs that can be operationalised in a behaviour change school program. Key components of adolescent risk behaviour change programs were also reviewed, which identified a number of strategies for incorporation in a school based behaviour change program, including: a well-structured theoretical design and delivery, thoughtfully considered peer-selected processes, adequate training and supervision of peer facilitators, a process for monitoring and sustainability, and interactive delivery and participant discussions. The research base is then summarised in a program logic model with further discussion about the quality of the current state of knowledge of evaluation of behaviour change programs and the need for considerable development in program evaluation.

Introduction

Extensive data shows that young novice drivers are at significantly greater risk of crashing relative to drivers of other ages. The Traffic Accident Commission (TAC, 2014) reported that in Victoria young people (18-25 year olds) represented 18% of driving-related fatalities. Further, at the pre-licence stage, risky attitudes towards the road are evident (Chapman et al., under review; Waylan & McKenna, 2008) suggesting an ideal time at which to promote positive road safety attitudes. Further at this age, youth are likely to be passengers of young novice drivers and may be in a position to influence the behaviour of young drivers.

Common deliberate risk-taking and non-deliberate unsafe behaviour of novice drivers

Highest priority road safety messages relevant to high school-aged young people include behaviours related to crash and road injury experiences that are most common and amenable to change. Common causes of crashes may also be used in scenario-based learning to direct the focus of discussions. Common characteristics of young driver fatal crashes identified by the TAC involved; males (60%), country roads (64%), a single vehicle (55%), high alcohol times (55%), and roads signed 100km/h (45%). Recent international and national studies on the characteristics of young driver crashes show a similar pattern of common characteristics (OECD, 2006).

The Australian Temperament Project (ATP) noted that 80% of young drivers reported they had exceeded the speed limit by up to 10 km/h on at least one of their ten most recent trips and 50% by

11-25 km/h (Vassallo et al., 2007). Further, two-thirds reportedly drove while very tired or used a mobile phone function (e.g. text). Around 15% indicated they had driven while affected by alcohol in at least one of the last ten trips while 40% had friends who engaged in drink driving. Ouimet et al. (2010) found among young male US drivers travelling with male passengers aged 16-20 years they were most at risk compared with travelling alone. This highlights some key risky behaviours that may represent targets for change in behaviour change programs.

Common beliefs of young people that predict risky driving

Research has identified attitudes and beliefs associated with young persons' risky behaviour. More commonly this research has focused on sensation seeking, weighing of costs and benefits of behavioural consequences, self-efficacy to perform safer behaviours, intended and planned actions, and perceived pressures from peers and parents.

There are a number of studies linking sensation seeking and impulsivity characteristics to risky driving behaviour. As an Australian example, Vassallo and colleagues (2007) found that sensation seeking, impulsivity and hostility reported in mid-adolescence was associated with risk-taking behaviour and risky driving between 18 and 21 years. Sensation seeking is described as a propensity to seek out and engage in intense experiences that are likely to produce rewarding outcomes. Impulsivity is described as behaviour which occurs without any foresight, planning or thought, or as rash action. While personality traits are unlikely to be directly amenable to change in school-based programs, such factors can be important to recognise with regard to ensuring facilitators are non-judgmental as well as serve to reinforce value in developing planning skills of participants. Programs may thus include the integration of reminders or refreshers and explore expectations of particular actions to better understand whether such sensation experiences really do occur to the extent perceived or whether negative consequences can outweigh such experiences.

Related to planning skills are concepts of readiness and intention. Intention is an indication of readiness to perform a target behaviour and is a proximal antecedent to that behaviour. Youth are at different stages of readiness to adopt certain road safety behaviours and the stronger their commitment to safe behaviour, the more likely they are to perform it, for example they may have greater commitment to protecting their friends (Buckley & Davidson, 2013). One of the common predictors of intention is the perceived outcomes of costs and benefits to performing particular behaviours (Scott-Parker et al., 2009). Armstrong et al. (2005) found that engagement in drug driving behaviour was associated with greater perceived rewards while less engagement was associated with greater perception of punishment. Also, a survey of young adults found that positive perceptions of the consequences of trying to stop risky road behaviour were associated with intention to prevent friends' risky road behaviour (Buckley & Davidson, 2013). Self-efficacy represents the degree to which an adolescent feels confidence or control in performing safe behaviours or avoiding risky behaviours. It reflects perceived ease or difficulty and is closely linked with the context, time, target and action in which it occurs. Elliott and Thompson (2010) found intention to reduce speeding behaviour was associated with greater efficacy to do so. Greater confidence also relates to intended ability to speak out against unsafe driving as a passenger (Buckley & Davidson, 2013; Ulleberg, 2004).

Adolescents' risk-taking behaviour, including risky driving, is regarded as a social activity (Gerrard et al., 2002). The presence of peers can be a direct influence on an adolescent driver with overt direction and encouragement, however peers can have an indirect influence as well. The driver's perception of their peers' behaviour or their expectation of the peers' perception of them can have an indirect influence on adolescent drivers. Peers indirect pressure may occur through the drivers' belief that peers see risky driving behaviour as desirable, expected, or in line with an image they are maintaining (Horvath et al, 2012). Consequently, the adolescent might drive as they imagine they are expected to, for example in an aggressively or in a risky manner (Jaccard et al., 2005).

Key components of adolescent risk behaviour change programs

Behaviour change program design is complex and requires the incorporation of preliminary research examining underlying beliefs and motivations for engaging in the target behaviour of interest. Importantly, there are consistent elements derived from the health behaviour change literature, which need to inform the development and delivery of programs in order for them to likely be effective. The key components are described below.

Theory

Theory provides structure and coherence to identifying and describing attitudes and beliefs. It should clearly describe the target behaviours in context and is characterised by: logic, internal consistency, parsimony, and is supported by research (Buckley & Sheehan, 2004; Glanz, 2002). There is no single behaviour change theory that demonstrates superiority in predicting health or road safety behaviours; instead a number of theoretical constructs from various theories are typically grouped together, many of which incorporate the constructs already noted, such as attitudinal and belief factors.

Facilitation

A range of facilitators have been able to effectively deliver adolescent behaviour change programs. Well-structured and comprehensive training and ongoing support of peer educators is a crucial aspect of successful peer-led interventions (Planken & Boer, 2010). McCreary et al. (2010) suggested that adolescent peer-facilitated programs may be more effective when led by a peer who is slightly older than the participants. Young people typically idealise those slightly older than themselves and modelling tends to be effective for those who have models that represent their ideal selves. According to Nation et al. (2003) the effectiveness of a program can be enhanced when facilitators are sensitive, competent, and have received sufficient training in content and delivery. However, even with sufficient training, effectiveness can be compromised by staff turnover and by poor organisational climate and support (Fagan & Mihalic, 2003).

Training is required to impart knowledge, skills and desire (Fagan & Mihalic, 2003). Thus beyond transferring knowledge of operations and delivery, training can help foster commitment to the program and generate enthusiasm. Trained teachers at least, compared with untrained teachers, are more likely to fully implement a program, and with greater fidelity, and this appears to correspond with improved outcomes for young people (Ross et al., 1991). It is likely that such a finding extends similarly to peer leaders. Strategies recommended to foster commitment have included: checklists and guidelines (Wandersman et al., 1998), recruitment and training of staff champions or co-ordinators (Roberts-Grey et al., 1998), templates for assessing modification, incentives, on-site coaching, workshops for implementers (Kam et al., 2003), and fully documented manuals (Mowbray et al., 2003).

Interactive delivery and participant discussions

A meta-analysis of adolescent alcohol prevention programs identified interactive programs to be at least twice, and up to four times, more effective than non-interactive programs (Tobler & Stratton, 1997). For example, Socratic methods have a high degree of student interaction and include greater skills training (Sussman et al., 2003), whereby progressive questions are posed in a discussion format to facilitate further exploration of content. Effective programs may include rehearsal, as another example, in practising alternative less-harmful behaviours, and role playing new skills with explicit links to program goals (Durlak & Wells, 1997). McBride (2003) suggested that the exchange of ideas and experiences provides a critical catalyst for change in that there is an opportunity to practice new skills and obtain feedback on the skills that are practised. The

commonality of interaction as a critical component to program delivery method is apparent across many adolescent behaviour change programs. Largely cognitive behavioural techniques have been used for the delivery of interactive techniques, for example facilitating the development of problem solving skills, repetition and mental rehearsal, role playing and small group work (Aber et al. 2003).

Didactic ‘chalk-and-talk’ approaches are common and have potential to create improvements to knowledge however this change in knowledge is unlikely to change behaviour without additional targets toward motivation and other behavioural change constructs. In addition, despite the popularity of threat-based messages, particularly in advertisements, there are inconsistent and mixed findings surrounding the effectiveness of fear as a persuasive strategy. There is evidence to suggest that for particular groups (e.g. young males) fear-based campaigns are unlikely to be effective (Lewis et al., 2008). In addition to the lack of evidence for their effectiveness, there are also ethical concerns about deliberately invoking fear (Hastings et al. 2004). Further, Lewis et al. (2008) note the importance of strengthening coping strategies with any emotion-based messages, that is building coping skills and a belief in being able to undertake less-harmful behaviour (i.e. self-efficacy).

Program logic model

A program logic model provides a clear depiction of the goals and theoretical assumptions underlying a program and is a useful tool in the planning, evaluation and improvement stages of program implementation. The program logic model connects the inputs, activities and assumptions to the desired outcomes (see Figure 1). The four stages of the program logic model include: (1) identification of the key individuals and inputs, (2) identification and examination of components for activities, (3) identification of process indicators including best practice components around issues such as duration of the program, and (4) documentation of the potential outcomes.

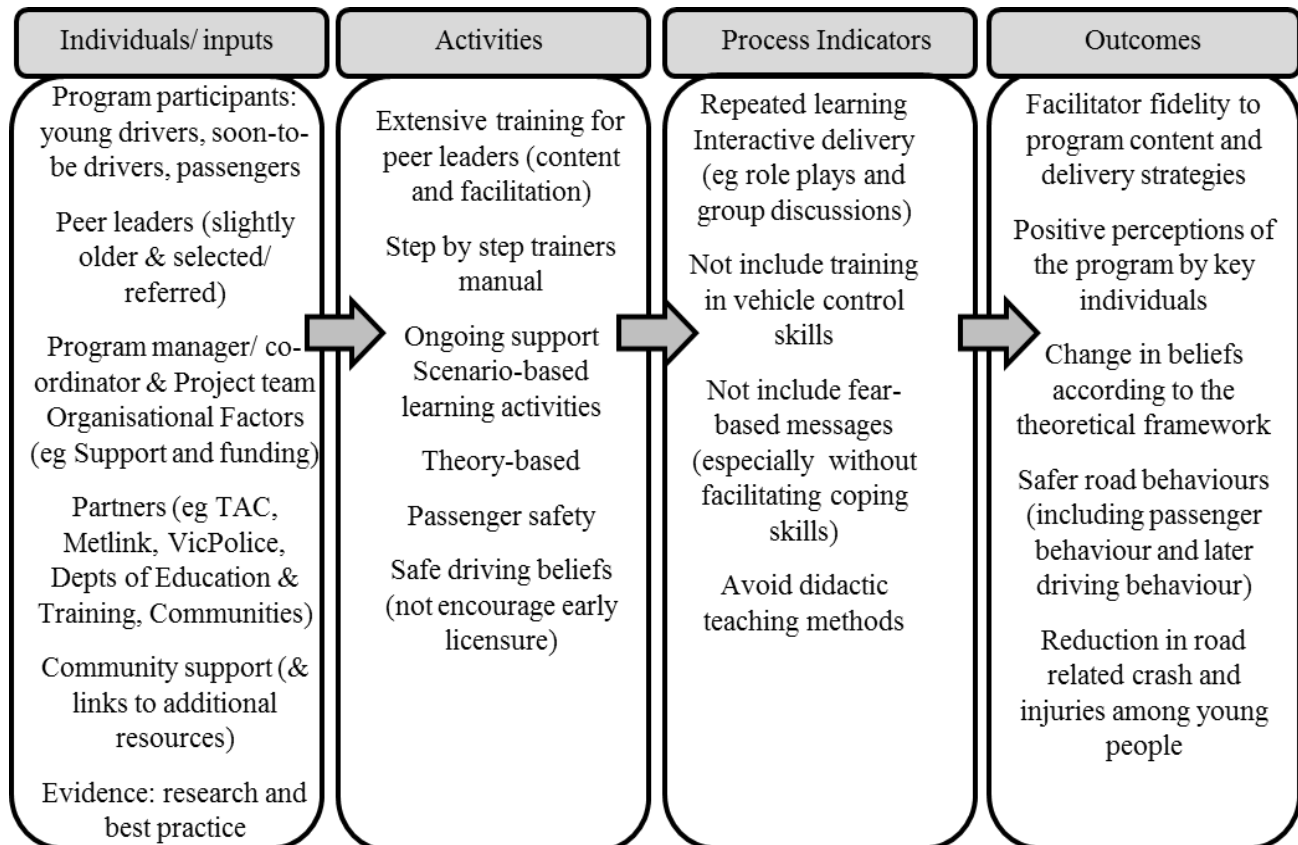


Figure 1. Summary of program logic model

Individuals/ inputs

Based on data that shows that young drivers are at significantly greater risk of crashing relative to drivers of other ages, the focus here is on the design of a program that is suitable for young people around licensing age, including pre-licensed and novice drivers in Years 11 and 12 in Victoria. Given the demographic reach, material should be suitable for those at high risk and low risk of crash involvement. Resources or inputs are the initial phase in a program logic model and include human, financial, organisational and community assets. The key individuals and inputs of the current program logic will be described in the following section.

Program participants

Based on the crash data and the intention to target participants in high school settings, the focus of the program needs to be suitable for young people in Years 11 and 12 in Victoria at varying levels of risk for crash involvement. It is suggested that additional community options be considered for young people of particularly high risk (e.g. those with considerable difficulty with emotional control, or who have had serious infringements).

It is also not recommended that high risk young people be separated out. Many approaches targeting high risk youth are through selective programs, however this raises issues and challenges with referral and the need for careful consideration with regard to minimising stigma (Campbell, 2004). Further, it has been argued that grouping high risk adolescents together might promote delinquent behaviour, highlighting the requirement of careful management for selective programs. Aside from the logistical challenges, there is little evidence to support such an approach and it may perpetuate risk-taking behaviour (Dishion & Owen, 2002).

Peer-leaders

Role. It is anticipated that newly developed resources will be led by individuals perceived as peers. In meta-analyses conducted by Cuijpers et al. (2002) the authors compared the overall effect of programs delivered by different individuals. They found that overall peer-led programs (same age or a few years older) tended to be somewhat more effective than adult-led programs (i.e. those delivered by teachers, mental health workers and researchers). Further systematic reviews have found that relative to teacher-led interventions, peer-led interventions are better accepted (Erhard, 1999). With regards to face validity, it appears that peer-facilitated programs have high relevance because of a clear direct association with the social and normative aspects of driving. It is the task of peer leaders to become agents of change, through the process of communication and modelling positive behaviours (Al-Iryani et al, 2011). In addition, there are theoretical reasons behind selecting peer leaders, particularly in their perceived modelling of positive behaviour and credibility for delivering messages. The role of the peer leader may entail: presenting the curriculum content, facilitating group discussions and role plays, acting as a resource for students, facilitating understanding the curriculum content by answering questions and delivering activities, and/or modelling good decision making.

Selection Process for Peer Leaders. Few studies report on their method for selecting suitable peer leaders. Young people may be self-selected or referred, for instance, by school counsellors, teachers or administrators in consultation with program coordinators (O'Hara, 1996; Al-Iryani et al, 2011). It is recommended that applicants' suitability to the role be assessed (Planken & Boer, 2010). Interviews of potential facilitators should assess a number of key characteristics, including: availability and commitment, good communication skills (i.e. to deliver and facilitate interactive lessons in a non-judgemental manner), confidence, motivation (i.e. enthusiasm for the aims), acceptance by the class (i.e. credibility as a deliverer of messages), and safe driving behaviour or at least driving attitudes (i.e. demonstrated ability to be a positive role model).

One of the common challenges in peer-led programs is the ability to retain trained facilitators and it is suggested that reward and repeated contact (e.g. by other peers or program coordinators) be undertaken (Fagan & Mahalic, 2008). As peers are expected to be role models, as noted above, peer leaders' own attitudes to driving should be assessed as a method of excluding those young people who may promote highly dangerous driving. Studies such as Al-Iryani et al. (2011) have looked at peer leaders' academic achievement as perhaps an indirect measure of communication skills, however there is no evidence that high academic achievement is linked to fidelity (closely following implementation plans). There are very few studies considering the impact of different deliverers of the same material. Botvin et al. (1990) however suggest that the influence of facilitators' characteristics and skills should not be underestimated and may have the potential to impact program delivery, therefore highlighting the importance of thoughtful peer leader selection.

Training. Recent literature in the area of peer-led programs advocates that peer leaders should undertake training prior to program implementation and receive ongoing support from the coordinator once the program has been implemented (Al-Iryani et al, 2011; O'Hara, 1996; Planken & Boer, 2010). There are very few programs that describe the detail of their facilitator training except to comment on the time frame (range of 2 hours to 2 weeks) and that it typically includes training in both content and delivery methods.

Training of peer leaders is a critical component for effective implementation as it provides the knowledge and skills necessary to run activities. Training also assists with fostering support and commitment to the activities and program material and delivering the activities in the way in which they were designed (Gottfredson & Gottfredson, 2002). While an initial training session is essential near the start of program implementation, subsequent sessions or material can be used to promote continued commitment and involvement to the program and serve as a reminder to ensuring delivery according to the desired protocol (Grager & Elias, 1997). The optimal method of delivery of such follow-up or booster training has not been established, however formal training (typically undertaken with more extensive program content) and small reminders (e.g. phone calls or emails with tips or to check progress) have been included.

Taggart et al. (1990) suggested that to improve delivery, training should focus on improving skills in delivery of interactive and behavioural strategies. Thus, while content knowledge is important to relay to facilitators, effective delivery methods are also a critical component of training (for example, listening skills, management of discussions, ensuring confidentiality and ethical practice). A common activity in skills based training is rehearsal and practice of program activities to get feedback from peers and experts in delivery of discussion material.

Program managers. Program coordinators are a crucial input in program design, implementation and evaluation in that they oversee the general functioning of the intervention, in addition to potential roles of: training and support of peer leaders, organising program implementation and peer leaders, monitoring the program and peer leaders, building and maintaining professional relationships with participating schools, addressing obstacles faced by the program and/or peer leaders, overseeing the day to day management, and/ or consulting with stakeholders.

The relevant skills demonstrated by a coordinator that are thus likely to be important include: excellent communication, ability to manage and coordinate, knowledge of licensing in Victoria, knowledge of current and past road safety programs (and their critical evaluation), and an ability to uphold professional working relationships with relevant government and non-government agencies involved in novice driver safety and other relevant stakeholders (e.g. schools and the Department of Education and Early Childhood Development, Transport Accident Commission, Victoria Police, and the Department of Planning and Community Development). Importantly, program facilitators are more likely to identify with the value and ideals of a program when program leaders (e.g. project directors or co-ordinators) similarly value and support the program material. Thus, while the

effective delivery of behaviour change programs are directly affected by the facilitator, the support and value of the more senior staff are important (Fagan & Mahalic, 2003).

Organisational factors. Sufficient organisational resources build the foundation for an effective program intervention. Most importantly, programs should be well-funded, allowing for suitable training resources and the ability to maintain a supportive team. In addition, good quality program management is imperative and involves the ability to manage and maintain working relationships with relevant stakeholders as well as maintaining accurate and current knowledge around issues in young drivers' safety and program delivery. All individuals involved in a program need to "buy-in" or support the program (Fagan & Mahalic, 2003). At the top level, the project co-ordinator champions implementation and ensures necessary protocols are in place and helps to resolve any implementation issues. Fidelity of program implementation is influenced by the commitment displayed by the coordinator as well as the resources provided. Such enthusiasm flows on to the facilitators who adopt the values and ideals who may then adopt a sense of ownership and encourage implementation in the desired way, supported by administration.

Community. School-based interventions should not stand alone, and for that reason it is important that facilitated peer programs are combined with additional supportive material. Evidence for a suite of target messages is available from the review of Project Northland. In this program that included parent, curriculum, peer strategies, community activities and media, there was a combined effect for reducing adolescent alcohol (Stigler et al., 2006). Road safety messages should be implemented in combination with other initiatives that employ both community and school resources. For example, programs for young adults and concurrent parenting behaviour change efforts should be considered.

Theory-guided activities

While behaviour change strategies designed to reduce injury are not guaranteed to succeed, there is a greater likelihood that they will be effective in changing behaviour if the program design is based on tested behaviour change theory. Some example theories relevant to injury prevention and health promotion include the Health Belief Model, Social Cognitive Theory, Theory of Planned Behaviour, and the Health Action Process Approach (see Glanz, 2002). In addition, cognitive behavioural strategies are typically used to inform effective delivery.

The concept of learning about future events through scenario-based tasks has long been used in school-based programs and allows the translation of road safety knowledge into practice. Scenario-based learning provides opportunity for problem-solving, decision-making, critical analysis, and evaluation (Errington, 2008). Within road safety message delivery, scenarios may include: a set of events that lead to negative consequences; a description of unsafe road behaviours; or a story of peers undertaking a risky behaviour. In a review of school-based road safety education programs, Raftery and Wundersitz (2011) identified a number of interventions that have a scenario-based component although few were evaluated.

Importance of evaluation: Process indicators & outcomes.

An outcome evaluation is necessary to understand the effectiveness of the program and to inform decisions about future developments. Design issues, such as selecting units of analysis (school versus individual), treatment and control groups and follow-up procedures, depend on the resources available for evaluation, including school resources. A well-designed study would include school-level analyses (to account for differences at the school level), and random assignment of participants to intervention and control condition, if feasible or at least the use of a comparison group with before and after assessments. The selection of outcome measures depends on the theoretical basis of the program, with appropriate belief measures reflecting the contents of the individual program. Most programs rely on self-reported data and while this can be appropriate,

ideally it would be supplemented with some official records (e.g. crash data, offence data, injury data). Measures of the self-reported behavioural outcomes should reflect program goals (i.e. target behaviours) as well as associated behaviours to check for inadvertent program effects. Measurements should include items with strong psychometric properties that reflect the age, cultural and demographic characteristics of the target population.

The implementation of a program as anticipated is not guaranteed, including when adopting a program already established as best practice (Fagan & Mihalic, 2003). According to Dumas et al. (2001) the demonstration of fidelity represents a key methodological requirement central to an understanding effectiveness. Fidelity refers to the degree to which components are delivered in a comparable manner to all participants as true to conceptual theory and program goals. It is the extent to which researchers understand fidelity to the program that enables some examination of the differentiation between implementation failure and program failure (Harachi et al., 1999).

Summary

As noted young drivers and their passengers are at significantly greater risk of harm compared with many other road users, highlighting the need for continued prevention efforts that relate to both safety while a driver and passenger. Program design is a complicated task that requires considerable planning and preparatory research, requiring consideration of inputs, activities and evaluation, of both the implementation and outcomes relevant to the goals of the program. Critical is the engagement of stakeholders both those proximal to delivery and within the community. Finally and importantly, the design and evaluation process must consider the context and thus the Victorian licensing system and other Victorian road safety strategies (eg Graduated Licensing System).

Acknowledgements

The authors would like to thank VicRoads and the Transport Accident Commission (TAC) for funding this research and to Antonietta Cavallo (Manager Driver Performance) and Kelly Imberger (Senior Policy Officer, Driver Performance) for providing advice on the research. We also thank Bianca Reveruzzi from the Centre for Accident Research & Road Safety-Queensland.

References

- Aber, J. L., Brown, J. L., & Jones, S. M. (2003). Developmental trajectories toward violence in middle childhood. *Developmental Psychology*, *39*, 324-348.
- Armstrong, KA., Wills, A., & Watson, B. (2005) Psychosocial influences on drug driving in young Australian drivers. *Australian Road Safety Research Policing Education Conference*, NZ.
- Al-Iryani, B., Basaleem, H., Al-Sakkaf, K., Crutzen, R., Kok, G., & van den Borne, B. (2011). Evaluation of a school-based HIV prevention intervention among Yemeni adolescents. *Public Health*, *11*, 279-288.
- Botvin, G. J., Baker, E., Filazzola, A.D. & Botvin, E. (1990). A cognitive-behavioural approach to substance abuse prevention: One-year follow-up. *Addictive Behaviors*, *15*, 47-63.
- Buckley, L. & Davidson, C. (2013). A psychosocial model of young adult passengers' intervening in unsafe driving of their friends. *Accident Analysis & Prevention*, *58*, 98-103.
- Buckley, L. & Sheehan, M. (2004). Behaviour change programs. In: McClure R, Stevenson M, McEvoy S (eds). *The Scientific Basis of Injury Prevention and Control*. Melbourne: IP Communications, 334-46.
- Campbell, M. (2004). Identification of "at-risk" students for prevention and early intervention programs in secondary schools. *Australian Journal of Guidance and Counselling*, *14*, 65-77.

- Chapman, R.L., Buckley, L., Sheehan, M. (under review). Parental factors predicting early adolescents pre-driving behavior.
- Cuijpers, P. (2002). Peer- and adult-led school drug prevention. *Journal Drug Education*, 7, 107-19.
- Dishion, T. & Owen, L. (2002). A longitudinal analysis of friendships and substance use: Bi-directional influence from adolescence to adulthood. *Developmental Psychology*, 38, 480-91.
- Dumas, J. E., Lynch, A. M., Laughlin, J. E., Phillips Smith, E., & Prinz, R. J. (2001). Promoting intervention fidelity. Conceptual issues, methods and preliminary results from the Early Alliance Prevention Trial. *American Journal of Preventive Medicine*, 20, 38-48.
- Durlak J & Wells A (1997). Primary prevention mental health programs for children and adolescents: A meta-analytical review. *American Journal Community Psychology*, 25, 207-14.
- Elliott MA, Thomson JA. (2010). The social cognitive determinants of offending drivers' speeding behaviour. *Accident Analysis & Prevention*, 42(6), 1595-605.
- Erhard, R. (1999). Peer-led and adult-led programs: Student perceptions. *Journal of Drug Education*, 29(4), 295-308.
- Errington, E.P. (2008). Exploring real-world scenarios as vehicles for authentic learning. *International Journal of Interdisciplinary Social Sciences* 3(5), 1-5.
- Fagan, A. A., & Mihalic, S. (2003). Strategies for enhancing the adoption of school-based prevention programs: Lessons learned from the blueprints for violence prevention replications of the Life Skills Training program. *Journal of Community Psychology*, 31, 235-253.
- Glanz, K., Rimer, B., & Lewis, F. (2002). *Health behav and health education*. SF, CA: Jossey-Bass.
- Gerrard, M. G., Vande Lune, L., Pexa, N., Gano, M. (2002). Adolescents' substance-related risk perceptions. *Risk Decision & Policy*, 7(2), 175-191.
- Gottfredson DC, Gottfredson GD: (2002). Quality of school-based prevention programs: Results from a national survey. *Journal of Research in Crime and Delinquency*, 39(1),3-35.
- Harachi, T. W., Abbott, R. D., Catalano, R. F., Haggerty, K. P., & Fleming, C. B. (1999). Opening the black box: Evaluation measures to assess implementation and theory building. *American Journal of Community Psychology*, 27, 711-732.
- Hastings G., Stead, M. & J. Webb. (2004). Fear appeals in social marketing: Strategic and ethical reasons for concern. *Psychology & Marketing*, 21, 961-986.
- Horvath, C., Lewis, I., & Watson, B. (2012). The beliefs which motivate young male and female drivers to speed: A comparison of low and high intenders. *Accident Analysis & Prevention*, 45, 334-341.
- Jaccard, J. Blanton, H., Dodge, T. (2005). Peer influences on risk behavior: An analysis of the effects of a close friend. *Developmental Psychology*, 41(1), 135-147.
- Kam, C., Greenberg, M., & Walls, C. (2003). Examining the role of implementation quality in school-based prevention using the PATHS curriculum. *Prevention Science*, 4, 55-63.
- Lewis I, Watson, B. & White, K. (2008). An examination of message-relevant affect in road safety messages: Should road safety advertisements make us feel good or bad? *Transportation Research Part F: Traffic Psychology and Behaviour*.
- McBride, N. (2003). A systematic review of drug education. *Health Educ Research*, 18, 729-42.
- McCormick, L., Steckler, A., & McLeroy, K. (1995). Diffusion of innovation in schools: A study of adoption and implementation of school-based tobacco prevention curricula. *American Journal of Health Promotion*, 9, 210-219.

- McCreary, L. L., Kaponda, C. P. N., Kafulafula, U. K., Ngalande, R. C., Kumbani, L. C., Jere, D. L. N., & Norr, K. F. (2010). Process evaluation of HIV prevention peer groups in Malawi: a look inside the black box. *Health Education Research*, 25(6), 965-978.
- Mowbray, C., Holter, C., Teague, G., & Bybee, D. (2003). Fidelity criteria: Development, measurement, and validation. *American Journal of Evaluation*, 24, 315-340.
- Nation, M., Crusto, C., Wandersman, A., Kumpfer, K., Seabolt, D., Morrissey-Kane, E., et al. (2003). What works in prevention: Principles of effective prevention programs. *American Psychologist*, 58, 449-456.
- O'Hara, P., Messick, B. J., Fichtner, R. R., & Parris, D. (1996). A peer-led AIDS prevention program for students in an alternative school. *The Journal of School Health*, 66(5), 176-176.
- Ouimet, M. C., Simons-Morton, B. G., Zador, P. L., Lerner, N. D., Freedman, M., Duncan, G. D., & Wang, J. (2010). Using the U.S. National Household Travel Survey to estimate the impact of passenger characteristics on young drivers' relative risk of fatal crash involvement. *Accident Analysis & Prevention*, 42(2), 689-694.
- Planken, M. & Boer, H. (2010). Effects of a 10-Minutes Peer Education Protocol to Reduce Binge Drinking Among Adolescents during Holidays. *Journal Drug Education*, 54(2), 35-52.
- Raflerty, S. J., & Wundersitz, L. N. (2011). The efficacy of road safety education in schools: A review of current approaches. Centre for Automotive Safety Research. Report no. CASR077.
- Roberts-Grey, C., Solomon, T., Gottlieb, A., & Kelsey, E. (1998). Evaluation of Heart Partners: A strategy for promoting effective diffusion of school health programs. *Journal of School Health*, 68, 106-110.
- Ross, J. G., Luepker, R. V., Nelson, G. D., Saavedra, P., & Hubbard, B. M. (1991). Teenage health teaching modules: Impact of teacher training on implementation and student outcomes. *Journal of School Health*, 61, 31-35.
- Scott-Parker, B., Watson, B., & King, M. J. (2009). Understanding the psychosocial factors influencing the risky behaviour of young drivers. *Transportation Research Part F: Traffic Psychology and Behaviour*, 12, 470-482.
- Stigler, M.H., Perry, C.L., Komro, K.A., Cudeck, R. & Williams, C.L. (2006). Teasing apart a multiple component approach to adolescent alcohol prevention *Prevention Science*, 7, 269-80.
- Sussman, S., Rohrbach, L., Patel, R. & Holiday, K. (2003). A look at interactive classroom based drug abuse prevention programs. *Journal Drug Education*, 33, 355-68.
- Taggart, V. S., Bush, P. J., Zuckerman, A. E., & Theiss, P. K. (1990). A process evaluation of the District of Columbia "Know Your Body" project. *Journal of School Health*, 60, 60-66.
- Traffic Accident Commission (TAC). (2014). *Young driver statistics*. Geelong: Victorian Gov't.
- Tobler, N. & Stratton, H. H. (1997). Effectiveness of School-based drug prevention programs: A meta-analysis of the research. *Journal of Primary Prevention*, 18, 71-128.
- Ulleberg, P. (2004). Social influence from the back-seat. *Transportation Research Part F*, 7, 17-30.
- Vassallo, S., Smart, D., Sanson, A., Harrison, W., Harris, A., Cockfield, S., & McIntyre, A. (2007). Risky driving among young Australian drivers: Trends, precursors, and correlates. *Accident Analysis & Prevention*, 39(3), 444-58.
- Wandersman, A, Davino, K., Seybolt, D, Crusto, C, Nation, M. (1998). Comprehensive quality programing and accountability. *Journal of Primary Prevention*, 19, 3-25.
- Waylen, A.E. & McKenna, F. (2008). Risky attitudes toward road use in pre-drivers. *Accident Analysis & Prevention*, 40(3), 905,911.