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Early driving experience and influence on risk perception in young rural people

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Abstract

Young people, particularly males and those from a rural area, are over represented in road crashes; this occurs in vehicle dependent countries around the world, including Australia. The attitudes, experiences and behaviours of young drivers are some of the key factors which affect their potential to have an early road driving experience that is crash free.

This paper considers the views of young people, some of whom were brought up on rural properties, and had significant, responsible roles in agricultural work, including task related driving from a very early age. This early responsibility and associated awareness of risk of injury in farm related tasks can affect risk perception and impact on later risk taking behaviours.

Ten focus groups were conducted with young people attending schools in four towns in rural New South Wales, Australia. These were recorded and analysed using qualitative methodology.

The results indicate that risk factors in driving, on and off road, are clearly identified and understood; the majority of young people in rural areas are not "high" risk takers or sensation seekers. They also indicate that, in rural NSW, early vehicle handling, before the age for obtaining a license for driving on roads, is customary practice within the community.

Attitudes towards speeding, however, reflect that it is tolerable behaviour, and almost inevitable, and often not considered to be risky. Drink driving is considered more risky, and less acceptable, at both the personal and community levels. Future intervention strategies to reduce crash rates in young rural drivers should aim to address the attitudes and actions associated with speeding on rural roads.

Keywords

people, experience, influence, risk, perception, young, early, rural, driving

Disciplines

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Keywords:

Rural drivers, pre-licence experience, risk taking, young drivers, responsibility.

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1. Introduction

Many young people who live in a rural or semi rural environment start to drive cars, tractors and other vehicles at a very early age, often to help with tasks around a property. This off road early driving is common behaviour in rural New South Wales,(NSW) Australia, and indeed in rural, agricultural areas throughout Australia and other developed countries (Franklin, 2000), (Begg, Langley, Broughton, et al., 2009). These are very different circumstances to those for most other young drivers embarking on the driving stage of their lives; more often/usually around the age of licensure specifically to obtain their licence.

The involvement of young drivers in crashes, both injury resulting and fatal, is greatly over represented, not only in Australia ((Haworth, 2004; Senserrick T, 2004; Senserrick, 2007) but also worldwide (World Health Organisation, [WHO], 2002). Young drivers are usually perceived as, and are, “novice” or inexperienced drivers. However, there is a sub group of young people with a long history (several years) of vehicle handling on rural properties prior to obtaining their license, who may have different attitudes to driving and risk taking compared with those who learn to drive for their driving licence at licensing age or later. This rural sub group, characterised by early (pre licence age) driving experience, has been identified in NSW(Chen et al,2009).

Within New South Wales, there is a Graduated Licensing Scheme, which aims to give those inexperienced in on road driving a safe introduction to driving, and a transition from supervised to independent driving on road (RTA, 2011) (See Table 1). This is summarised in the table below.

Table 1: Stages of Graduated Licensing Scheme, car drivers, NSW, Australia. (RTA, 2011)

Licence	Pre requisite	Test	Validity	Summary of some licence specific restrictions
Learner “L” Black L on a yellow background must be displayed on front and back of vehicle	Minimum 16 years There are different rules for new “L” drivers who are over 25 years old, see RTA website: these include differences in pre requisites for progression to	On line driver knowledge test	5 years	Must always be supervised by a full Australian driver’s licence holder Maximum speed allowed 80 kms/hr Zero blood alcohol No mobile phone usage, including

	provisional licensing.			hands free
Provisional “P1” Red P on a white background must be displayed on front and back of vehicle.	Minimum 17 years Completion of at least 120 hours of logged supervised driving, of which 20 hours must be night driving A one hour structured lesson with a fully licensed professional driving instructor will be recorded in the log book as equivalent to 3 hours driving, up to a maximum of ten lessons.	On road driving test	18 months; must be held for a minimum of 12 months before can proceed to P2 licence	May not supervise a learner driver Maximum speed allowed 90kms/hr Zero blood alcohol No mobile phone use, including hands free Towing restrictions If aged under 25, may only carry one passenger under 21 years between 11pm and 5 am.
Provisional “P2” Green P on a white background must be displayed on front and back of vehicle.	Minimum 18 years	Hazard perception test, on line touch screen test.	30 months Must be held for 24 months before can proceed to full licence	May not supervise a learner driver Maximum speed allowed 100kms/hr Zero blood alcohol
Full licence		Driver Qualification Test (DQT), which combines road rule knowledge, road safety and advanced hazard perception		

In order to be licensed for driving on roads in NSW, an L Licence must be obtained; the minimum age for this is 16 years. However, there are no legal restrictions for those younger than 16 years driving off road on private property. Those who drive, under licensing age, on private property are a distinct group from “unlicensed” on road drivers; this subset is not a focus of this study . A USA based study (Hanna, Taylor, Sheppard, & Laflamme, 2006) with this subset demonstrated that the majority of young unlicensed drivers involved in fatal

crashes were of licensure age, were male, and accounted for approximately one in ten young driver fatal crashes.

There have been many different interventions and strategies adopted both in Australia and a range of countries aimed to decrease young driver crash incidence rates. These strategies have mainly focused upon interventions when young people have started to drive, and are on their L licences (Lam, 2003). There are less crashes during this time of having a L licence, when there is consistent, and obligatory driver supervision, prior to the learning driver being able to drive alone on roads, than in the period when they are first able to drive independently (Lam, 2003, Senserrick, 2007). Interventions, and timing of their implementation are mainly centred around this early, supervised driving stage, being the safest period of a driver's on road experience. This has led to establishment of graduated licensing schemes in many countries, and the evaluation and continual refinement of these (Hedlund, 2007; Hedlund, Shults, & Compton, 2003; A. F. Williams, 2007; Allan F. Williams, 2009; Allan F. Williams & Shults, 2010). A comprehensive review of Graduated Driver Licensing (GDL) schemes (Russell, Vandermeer & Hartling, 2011) concluded that, overall, crash rates involving young drivers were reduced when there were good GDL schemes; additionally schemes could be improved following analysis of the effective strategies within the scheme.

Risk taking in young people, whilst driving, has been critically analysed in a study in the USA of young drivers (Ginsburg, et al., 2008). This study reported on national cross sectional research and demonstrated strong awareness within the cohort of drink driving as a hazard but, with the exception of racing, those involved did not highlight speeding as a specific hazard for young drivers. There was little correlation in the young peoples' ranking of hazards with their personal experiences of these hazards, either as a driver or a passenger. Research has been conducted, based on on-line responses by a large cohort of young people in Australia, into risk factors for road crashes, which has then been linked to NSW police crash data for the corresponding driving period. (Chen, et al., 2009; Chen, Senserrick, et al., 2010b). The rural respondents' risk factor profile showed less high risk driving, and higher rates of driving at a younger age (both at 17 years and pre license age) than their urban counterparts. Further analysis of fatal crash data (Chen et al 2010) indicated that, although an overall reduction in annual fatality rates for young drivers in NSW had been demonstrated, there was disparity in reduction rates between rural and urban areas, with no significant reductions over time for young rural or regional drivers.

Speeding, particularly in rural areas of Australia is recognised as a risk factor which is under addressed in interventions, (Victor Siskind, Steinhardt, Sheehan, O'Connor, & Hanks)2011) yet over represented as a factor in crashes in young drivers(Gonzales, Dickinson, DiGuisseppi, & Lowenstein, 2005). There have been a disproportionate number of single vehicle crashes in rural areas as a key indicator of the differences between urban and rural driving crashes (Chen et al, 2009). These studies are all significant in forming the body of knowledge concerning young drivers and their behaviours whilst driving on roads. However there has not been research into these aspects in a specific section of the population which may have had considerable pre-licensing age driving experience, often with associated responsibility for work related tasks.

Not all young drivers are high risk takers; not all crashes involve the high risk taking behaviours of drink /drug driving or excessive speed. Inexperience may elevate an aspect of driving behaviour to that which can have a causal effect on crashes, an example being turning onto or off a major road (Clarke, Ward, Bartle, & Truman, 2006). The three main contributors to non fatal crashes in newly licensed drivers are the failure of the new driver to become aware of another vehicle or losing control of the vehicle, and speeding (Braitman, Kirley, McCartt, & Chaudhary, 2008). There may be some predictors of risk taking behaviour that relate to driving. If this is the case, it may be constructive to gain a better and deeper understanding of these facets to potentially better empower young people to reduce their own risk taking behaviours whilst driving, with community based or other interventions as indicated. Does the early experience of growing up in a rural setting and early responsibility for vehicle handling have an impact on risk taking perception and behaviours for young people?

By using a basis of the Problem Behaviour Theory (PBT) (Donovan, 1991; Jessor, 1992) to portray a psychological understanding of driver behaviour, it has been hypothesised that negative behaviours are usually displayed in more than one form, and are indicative of a basic trait of risk taking; risky driving is likely to be one of a series of deviant behaviours in an individual. Risk taking may be defined as a deviant behaviour which results from poor self esteem, depression, poor social skills, impulsivity and a propensity for unconventionality (Penny, 1994). Sensation seeking individual behaviour is also attributable to a need for stimulation, and may be associated with higher self esteem and risk taking behaviours.

Linking personality traits, or lifestyle with the propensity to take risk has focused on those who take risks in multiple areas of their life (Ferguson, 2003, Begg, Langley, Brookland, et al., 2009). The linkages were also shown between risk taking behaviours, in a range of lifestyle issues, including associating with other people who take risks in multiple areas of their lives and their personal crash rate (Fergusson, Swain-Campbell, & Horwood, 2003). The implications of this are in understanding why risk taking occurs, ranking risk taking behaviours in severity, and hence to develop interventions that whilst reducing extreme risk, fulfil the function that the low risk taking accomplishes for the risk taker.

Based on the theory of planned behaviour (TPB) (Ajzen, 1991), research to inform intervention strategies, by initially identifying predictors of speeding intent, has identified a range of possible factors which may predict high risk behaviours, such as excessive speeding or speeding in a low speed limit area with experienced motorcyclists (Elliott, 2010). Further study involving an expanded TPB model which studied the behaviour of those who had offences for speeding (Elliott & Thomson, 2010) identified extended potential areas for consideration when developing safety interventions. Factors which may predict driving behaviours include parental influences on young driver attitudes to risky driving (Desrichard, Roché, & Bègue, 2007) and the frequency with which risky driving is undertaken (Desrichard & Denarié, 2005). This modelling may inform improving interventions designed to change driving behaviours and reduce the incidence of risk taking in young drivers. Both personality and mood states may predict risky driving (Britt & Garrity, 2006; Garrity & Demick, 2001). Angry or impulsive personality traits have been associated with risky driving (Garrity & Demick, 2001). In this study mood states were most closely linked with risky driving in the younger age ranges.

This research seeks to understand the relationships between early driving experiences, at pre licensing age, and the potential effects of this early experience on risk associated with driving, and risk taking behaviours in driving. It aims to study whether the experience and responsibility of early task focused driving can be a predictor of risk taking behaviour, or lack of it, compared with other behavioural factors (for example other risk taking behaviour) as a predictor of risk taking whilst driving.

2. Methods

Focus Groups:

The research was conducted in the areas of Tumut, Tumbarumba and Gundagai, which are all rural towns of varying size, and have in common agricultural production as their main industry. These towns are in rural New South Wales, and are classified under the current rural classifications as RA2, Inner Regional (Tumut and Gundagai) and RA3 Outer Regional (Tumbarumba), (Australian Government, Department of Health and Ageing, 2011)).

Ten focus groups were conducted in 4 towns in rural NSW. There were 101 participants aged 15-24 years recruited through the local road safety officer, TAFE and Schools. The focus groups were conducted in Tumut, Tumbarumba, Goulburn and Gundagai, in rural New South Wales. These agriculturally based small/medium size towns are distal from major regional centres (with the exception of Goulburn). The roads are mainly rural, two lane with a speed limit of 100kph, with restrictions to 50kh in town centres. The Hume Highway, connecting Sydney to Melbourne is close to all the towns, and is, for the major part, a divided dual carriageway with a speed limit of 110kph. Participants included males and females who both live and work on farming properties.

Table 2: Characteristics of Participants

Location	Tumut	Tumbarumba	Gundagai	Goulburn
Number of participants	30	27	35	9
Of whom, male	16	16	16	7
Of whom, female	14	11	19	2
Median Age:	17	18	17	21
Number who started to drive before aged 10 to help on the property:	18	21	20	8

Conduct of the focus groups

The focus groups were held in various locations and led by the first author, with the proceedings being recorded and transcribed. Topic areas covered included: perceptions of rural injury, experiences of injury or near misses when using vehicles, perceptions of risk and risk taking behaviour, experiences learning to drive including age of onset of driving, perceptions of the difference between off road and on road driving, factors which have influenced driving and risk taking behaviour, including roles and responsibilities related to agricultural activities at an early age.

Analysis:

The tapes from the focus groups were transcribed, without identifying participants. These transcripts were coded using NVivo software (Nvivo, 2002). The analysis was thematic, based on a Social Constructionist epistemology (Charmaz, 2000). After reading the transcripts, an agreed coding framework was developed. This software allows for the interpretation of qualitative data whilst being sensitive to the detail and context of the data. Analysis using Nvivo allows for linkages to be made between identified themes within the data, using identified “nodes” which can represent concepts, categories, ideas or identified linkages and for data to be grouped into “trees”. Codes were reviewed for duplication and clarity. Throughout the analysis, emergent themes were added to the coding framework to ensure completeness. A sample of the coding was cross-checked by a second researcher (MH). The extracted themes were checked and verified, and any differences resolved by discussion among all the authors.

3. Results

The results from the focus groups are presented according to themes which emerged from the analysis. The quoted comments exemplify the themes that emerged. In keeping with standard qualitative methodology the frequency of response has not been identified; the quotes are illustrative of the themes which were developed from the analysis, which considered all the responses.

Attitudes to Injury, Injury effects and risks:

Injury was deemed to be an integral part of rural living, particularly animal handling, injury associated with farm machinery, and drowning of young children. However, participants made a distinction between the perception of “work” related injury and injuries involving crashes, in which there was a general perception that behaviour was more significant as a predictor of driving related injury than it was in general farm work. Injury risk when working on agricultural activities seems to be an accepted part of the activity, and this may, in part, account for the high injury rate in agriculture.

Risk and personal risk taking had a broad range of definitions, from “*something that takes one out of a comfort zone*”, (Female, aged 18, Goulburn) to knowing that there is a possibility of an unwanted outcome, but still choosing to proceed with the activity. It was also seen as something that had the potential to get out of hand for instance speeding “*to see what it felt like*”, and “*hooning around*” in cars (a male and a female, 17 years from Tumut).

The young people who took part in this study felt that there was the difference in risk taking behaviours associated with gender. They perceived that females are more influenced by their peer age group at a pre driving age than young males. Young males spoke of risk taking and competing with their peers in driving behaviours on road, including in speeding, and in trying to reduce a time taken for a specific journey route.

The participants perceived risk taking to involve the choice - to complete or not complete an action, and that taking the risk was a deliberate and intentional act. The focus groups clearly identified that there were specific sub groups for whom there was a definite attraction to taking risks, not only in driving but in other aspects of their lives. However, it should be

recognised that the majority of the young people who were involved in these groups did not identify themselves as high risk takers.

What is risk? Some different perceptions:

Risk taking was closely linked with loss of control, even for a split second, and the theme appears to be that, with speeding the driver still believes that they can control the situation. This is in contrast to drink driving, where there is intent to take risk prior to getting into the vehicle. They expressed the view that drink driving was not acceptable, with this comment being typical:

“Drink driving is too dangerous, too much of a risk, it’s easier to overload the car if you have been drinking” Male, 17, Gundagai

Also: *“In the local paper, they report drink driving, so everybody knows; this is different from speeding ‘cos no one knows or cares”* Male, 17, Tumut.

However, speeding was thought to be **not as risky** as drink driving. This was despite their limited on road experience and untested hazard perception skills.

“A risk is where the motivation is toward pleasure rather than fear of the consequences of the action” Male, 17, Gundagai.

There certainly seemed to be a very low awareness in these rural young people that speed is by far the biggest factor in fatal and serious injury crashes. They appeared to have a perception that speed, because it was usually un-premeditated, was therefore not a risk that the driver could avoid – it just happened. In rural areas, this seems to manifest itself in the constant challenge to decrease the time for a particular journey and to outdo others!

“I guess people still think they have control when they speed, compared with drink driving.”
Male, 17, from Tumut.

This seems to contradict the young peoples' perception of the difference in driving on roads compared with the off road situation, and their perceptions of the range of skills needed to drive safely on rural roads. They seem aware of the limitations of rural roads, with the quality of the roads being cited as a major concern along with a lack of signage or any noticeable police presence to enforce road safety and restriction measures.

“Off road in the paddock, who cares? On road, there is consideration for other road users and the law.” 17 year old, male, Gundagai.

They were also acutely aware of the limitations of their own skills. However they thought it impossible to access professional driving instruction, both because of cost and location. When the driving time to access the tuition exceeded the time of the lesson, few of the young people were willing, or able to use it. It also required driving to the location by a supervising driver.

As many of the young rural males had a long experience of vehicle control, although mainly in off road situations, it could also be that their familiarity with vehicles may increase risk taking, as it may have enhanced their sense of being in control.

*“The road is more flat, you still have to concentrate as much, but you don't have to be quite as careful, as when you are driving through objects that could cause damage to the car
On the road, it could be someone else that causes the accident, not you yourself.”* 17 year old, male, Tumbarumba.

Driving experiences and Learning Driving Skills:

Many of the young people who live on rural properties learn to drive a vehicle at a very young age, from around 5 years, with most starting the learning process at around 10 years old. At the time of the focus groups, there were four who had not obtained their L licences, although all had driving experience. This is more prevalent in males than females. The reasons for learning to drive so young are almost exclusively to help with tasks on the family property, or to help other family members, usually a grandfather, on his property. The tasks

included all aspects of rural living such as feeding stock and fencing, or to drive across the property to the point where the school bus could pick them up.

“I learnt to drive at 10, to help Dad on the farm, so he could shoot animals as I drove” Male, 16 years, from Tumut.

These young people gain considerable experience in vehicle handling in the years before they obtain their learner driver status. However, the skills learnt are basic, and in a relatively forgiving and familiar environment. The young people usually drove for a work related purpose, on their own, without distractions or peer pressure, in vehicles which are not capable of speeding, and in areas where there are few other vehicles. Often seatbelts are not used as a matter of course, as is usual for on road driving, and this habit may lead to less use of restraints in later on-road driving.

“On the roads you can drag race, on the farm usually you are working, the driving is for a different purpose. You aren’t allowed to drive on the roads ‘til you are sixteen, but we drive much younger on the farm” 17 year old male, Tumbarumba.

The most usual driving instructor was the father, with grandparents and older siblings also being strongly represented. Some were self taught. No one in the focus groups had been taught to drive by a professional driving school. Although they did make reference to the lack of professional driving tuition, the nearest available was in most cases well over an hour’s drive away, and very expensive.

They made frequent references to the difference in skills needed to drive on the property, where there were no rules, no other drivers, and no warning signs compared to on the road driving where there were enforceable rules, other drivers, and plenty of signage. They were concerned with stock and other animals on roads, but they were not mentioned in the off road situation, presumably because they can be avoided in paddocks or because the drivers use lower speeds.

When discussing distractions whilst driving, mention was made of driving with the radio at high volume, and the presence of passengers. With off road driving, there could be up to 7

passengers when driving for leisure, (paddock bashing) which would not be permissible on the road. There were no reports of injuries sustained from reckless paddock bashing.

Attitudes to driving on and off road, differences between country roads and towns:

Young drivers made distinctions between on and off road driving. The road condition, either physical or when affected by adverse weather conditions is a factor that they consider does affect both their driving skills and their own safety. They had apprehensions about other road users, and a distrust of older drivers who they believed do not update their driving skills in line with increased traffic on the roads, and changes in road rules. They had rigid perceptions of the differences between urban and rural driving, which combined road features, about which many were wary due to unfamiliarity, and attitudinal differences.

“Up in cities there’s more traffic lights and roundabouts and everyone’s trying to get through town or something, and here there’s no traffic lights or roundabouts” Male, 17 years, from Tumberumba.

They felt vulnerable in small cars, as they perceive them to be less safe than larger ones, and also consider all or 4 wheel drive vehicles safer. This may have been as a result of earlier driving experience of larger vehicles, tractors, and all terrain bikes.

They drew a distinction between off road driving, which is often alone, or when accompanied, the driver is only responsible for the passengers in that car, compared with on the road driving where there is also some level of responsibility towards other road users.

When discussing the issue of signage on roads, particularly that which informs, they reported that this was helpful, but that it was often lacking in rural roads. Distinctions were made between driving in a familiar locality, where there are no roundabouts or traffic lights, and driving in a town or city where all these factors are reversed.

Risk-taking behaviours:

There was an overall perception that drink driving was not an acceptable behaviour. They perceived this to have important consequences when living in a small community. They see a higher police presence as a positive thing for reducing risk-taking behaviours. However they clearly distinguished between situations where rules were enforceable (on main roads), to those where they were not such as off road or small rural roads. The less enforceable rules included seat belt use, number of passengers in vehicles, obeying signs as well as the 'road rules' generally.

There was a perceived intention to break these rules when people did not use seat belts or engaged in drink driving. They see speeding as something that happens without intending it so to do. It is somehow less controllable, as the intent to do it is not there. However, there is also certain knowledge of the inbuilt competitiveness in driving, with comparisons being made of times for known journeys, with intent to beat this timing.

Participants reported that direct or indirect experience is one of the most important influences on modifying risk-taking behaviours. This included their own personal experiences, experiences of friends and relatives. Incidents which had the potential for serious injury, such as a 'near miss' crash was reported as influencing risk taking driving behaviour.

The influence of other people in the car was a very powerful determinant of risk taking behaviour; it is reduced with people for whom they feel responsible, grandparent, children, babies and even a dog. However participants felt that there were significant peer pressures involved in driving with mates in the car. However the groups were divided about the effect of this on speeding with some feeling that they would drive faster as a result and others state that they drove faster when travelling alone.

They also reported a difference in male and female reactions to peer pressure with males putting pressure on their peers to push their driving to its limits. Males tended to "show off" with same sex peers, but were more cautious with female, children or older passengers.

They believe that driver education as well as more exposure to differing driving experiences may modify risk-taking behaviours.

Participants cited different situations when they would exercise more caution, being particularly aware of school zones, other road users, heavy traffic and the unpredictable behaviours of other road users.

4. Discussion

The study sought to address the research question : Does the early experience of growing up in a rural setting and early responsibility for vehicle handling have an impact on risk taking perception and behaviours for young people, particularly in the perception of the risk of injury? Often for rural youth, the process of learning to handle a vehicle, or a range of vehicles, and then to drive is related to being a part of a farming family enterprise, (Franklin, 2000), when there is a tendency for all family members to share vocational tasks on a property, some of which involve driving (Franklin, Mitchell, Driscoll, & Fragar, 2001; Mitchell, Franklin, Driscoll, & Fragar, 2001). With current conditions of economic and social hardship in rural areas, in Australia, associated with the changing weather patterns, and the emergence of other industrial sectors, poor employment prospects in agricultural occupations and the migration of people away from rural areas, it may be that vocational tasks on a property are being completed more by young family members rather than employed adults (Caldwell & Boyd, 2009; Fragar, et al., 2010).

In this study, many young rural people acquired a range of driving experiences including vehicle handling skills, with a wide range of vehicles, from a very young age. These unique circumstances of extensive pre license age driving, in the home community, noted as a characteristic of this rural demographic of young people (Chen, 2009) may be behaviour which underpins intentions of driving behaviours, as it is a subjective norm within the community within the behavioural model of TPB (Ajzen, 1991, Elliott, 2009).

The transition from using vehicles vocationally, usually when working independently, and for a defined purpose, to driving faster vehicles, often with passengers and in a potentially less forgiving environment, on roads, was very rarely accompanied by any further driving instruction. A significant reason for this may be the lack of available tuition, recognised in rural and regional areas as being either unavailable or unused by young drivers (Chen, et al., 2009) and a lack of appreciation for the differences between the on and off road environments (as was demonstrated in the group discussions). A US study of crashes involving farm vehicles attributed the higher rate of young driver crashes, compared with older drivers, to be due to lack of experience (Costello, Schulman, & Mitchell, 2009). The NSW graduated licensing scheme (RTA,2011) (see Table 1), with its varied stages of vehicle

handling skill examinations, requirement for a minimum 120 hours of on road supervised driving, and graduated transition to full (unrestricted) driving license aims to ensure that all of those progressing through the scheme obtain a considerable varied driving experience.

The early driving experience of these young rural people contrasts with young urban drivers who have no vehicle handling skills before starting to drive on road at 16 years on a learner licence, and who must pass an exam on the road rules before learning to drive (RTA,2011). The first experience of young urban people is usually with a vehicle which is designed for road use, on roads with signage, specific restrictions and with other road users. The early experience of young rural people in this study appeared to have an impact on their risk taking perceptions and behaviours. A study which gauged correlations between early (5-18 years) experiences on later (21 years) behaviours and perceptions of safe driving and alcohol related issues (Gulliver & Begg, 2004) demonstrated linkages between early experiences of aggressive behaviours, crash involvement and drink drive experience on later behaviours. Often the young rural people had a large amount of driving experience, as had the rural young drivers in the DRIVE study (Chen et al, 2009). However this experience was mainly in basic vehicle handling and not in road use. This led them to perceive that they were more competent than they really were and that they could readily transfer their off road vehicle handling skills to on road driving skills. A UK based study (Waylen & McKenna, 2008) of pre driver attitudes demonstrated that attitudes, with strong gender differences, are formed before driving commences; this study ,and others (Patil, Shope, Raghunathan, & Bingham, 2006; Shope, Raghunathan, & Patil, 2003; Shope, Waller, Raghunathan, & Patil, 2001) focused on personality traits, for example aggression and hostility and behaviours which may predict high risk driving. This may contrast with the increase in self belief in driving ability , leading to risk taking in less overt manifestations; for example driving within the posted speed limit but not reducing speed appropriately if conditions are adverse, as was reported in a study of fatal and serious crashes in Queensland (Siskind, Steinhardt, Sheehan, O'Connor, & Hanks, 2011). The unique situation in which some of these young people have early and extensive driving experience, for practical purposes as well as for leisure, prior to licensing-age, appears to have enhanced their confidence in their ability.

Many of the young people in this study made long trips on the roads with their peers: this may have an impact on both fatigue and has the potential for in car distractions. They were very aware of the differences in police presence in a rural compared with an urban or

highway driving environment, and this had an impact on their driving behaviour especially speeding and other risk taking behaviours. In the USA, a large scale survey (Rakauskas, Ward, & Gerberich, 2009) identified attitudes to road safety, including enforcement, as an element of rural driving influence which may respond to changes in policing or enforcement policy for rural regions. The knowledge of limited police presence, and therefore enforcement, tended to further increase risk taking behaviours, especially speeding. The on road driving conditions for young rural drivers are dissimilar to that of their urban counterparts (Chen, et al., 2009; Siskind, et al., 2011) they may drive for longer distances on rural roads which are in poorer condition (Chen, Senserrick, Chang, et al., 2010). These factors may increase the crash risk associated with risk driving behaviours and contribute to the higher crash rates (Chen, et al., 2009; Williams, 2003, 2009).

The young people had contrasting attitudes towards drink driving and speeding. Throughout their lives, drink driving has always been a serious offence, with offences publicised in the local media; it has a strong negative community perception. This appears to have influenced their, generally, very negative views about it. They felt that to drink and drive was a decision which was both premeditated and potentially harmful to all road users. However, their concept of speeding was that it was rarely intentional, and was more or less inevitable. They held the view that speeding did not necessarily increase the likelihood of crashing, and therefore was not a risk. Speeding, as a risk factor for crashes, is under addressed as an issue (Siskind, et al., 2011), although it is a major contributory factor in fatal crashes, particularly for young drivers (Chen, Senserrick, et al., 2010a; Gonzales, et al., 2005). Police recording of factors which may be contributory to fatal or serious injury crashes in rural Queensland (Siskind, et al., 2011) demonstrated that, although speed was considered a causal factor in crashes, it was rarely speeding in excess of the posted limit. The speed, however, was in excess of that which was safe for the conditions at the time of the crash. This reflects that the judgement of what is a 'safe' speed may be dependent on variable conditions, which an inexperienced road user may fail to identify, or adapt to. This seems a fundamental issue which deserves further research and intervention with young rural drivers, as it seems to be the area in which there could potential gains in terms of reducing the rural road trauma.

There appears to be a need for greater promotion in rural communities of the facts concerning speeding and increased risk of crashes, the range and complexity of skill acquisition needed for safe on road driving, in traffic, with road rules, and in high powered vehicles- often with passengers. Passenger presence for young drivers has gender specific influence on driving behaviours (Williams, 2003), with the influence of male passengers negatively affecting driving. However, either presence of female passengers, or parents has a positive impact on driving (Chen, Braker, Braver& Li, 2000). A study from Germany (Vollrath, Meilinger, & Krüger, 2002) has demonstrated the positive and negative aspects of the influence of passengers on driving behaviours, with the least protective influence being with passengers in cars driven by young drivers. There also may need to be a greater recognition of the ambivalent attitudes of young drivers to speeding in order to develop appropriate interventions to modify their perception of risk and responsibility. Interventions may also need to differentiate between “high risk” driving behaviours, like drink driving and excessive speeding, and everyday occurrences which, for the inexperienced driver, can lead to loss of vehicle control, such as moderate speeding, lack of attention at crossovers, junctions, inadequate judgment of the impact of differing road conditions and in-car distractions. Finally there may also need to be programs which address the geographic and financial barriers to more professional driving tuition, as recognised in NSW rural communities(Chen, et al., 2009).

There were a number of limitations to this qualitative study. It was conducted in a limited geographical area, and although it did involve participants from ten focus groups, comparisons with those from both remote and urban areas would have strengthened the research. It would be useful to expand this research to a wider group, with different methodology, to quantify the attitudes which were found in this research, and to compare attitudes and perceptions in different rural areas.

5. Conclusion

Early experience off road on rural properties may itself be a risk factor for road crashes. Certainly the early off-road driving experiences of young people in this study appeared to influence their attitudes to driving. This, when combined with their interesting views about the involuntary nature of speeding behaviour and the generally more hazardous rural road conditions, may put them at greater risk of loss of control of their vehicles. This deserves further research. However it does suggest that young rural people may require a different approach to education and promotion of less risky behaviours, especially avoidance of speeding.

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