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HEAD INJURY OF TRAFFIC ACCIDENT ON 6-14 YEARS IN INDONESIA

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ABSTRACT

Intraduction: Head injuries caused by traffic accidents showed the highest incidence among other accidents. This study aims to describe head injuries caused by traffic accidents. **Method:** Design research was the study documents. Data get from Riskesdas 2013. Riskesdas was survey that is health ministry of Indonesia. Chi-square test with α = 5% to see the connection, as well as to look at risk by looking at the value of odds ratios with 95% Confidence significance interval Odds ratio as a tool to analyze. **Result:** The results showed an association helmet use on the incidence of head injuries caused by traffic accidents motorcycle where motorcyclists who do not use helmets have the highest risk.

Keywords:*Head injury, the use of helmets, traffic accidents, motorcycle users, 6-14 years old*

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INTRODUCTION

Traffic accidents are unexpected events happened on the highway. Traffic accidents are one of the events that cause injury. WHO reported that the incidence of accidents including traffic accidents over the case in low-income countries compared to developed countries. Deaths from road accidents every year the amount of 1.24 million and 20-50 million non-fatal injuries (WHO, 2014). Report police forces of the Republic of Indonesia in 2011 reported that in 2010 almost every hour traffic occurs crashes are fatal namely the death of 34 cases. Figures injuries resulting from traffic accidents based on a report by the health minister said Riskesdas injury prevalence was 8.2%. Injuries caused by motor traffic accidents was 40.6%. The results of analysis of Riskesdas in 2013 stated that the proportion of land transport injury that motorcycles and other land increased when compared Riskesdas 2007 is 25.9% to 47.7% (MoH RI, 2014)

Injuries and accidents are the top 10 causes of death in the world. Injuries are mostly caused due to an accident factor. Traffic accidents are a higher incidence than other accidents. In the motorcycle traffic accident that most objects are hit by a motorcycle.

Head injury as a result of traffic accidents merupakah events should be prevented because of a head injury can affect a person's quality of life. It is associated with disturbances in the function of the noble man, the brain

RESULT

Incidence of traffic accidents in Indonesia is increasing, so the deaths and severity of injuries and the cost of operating losses. Accidents are more common in adolescence and productive where the vast majority were aged 15-29 years (Australian Government, 2014). In Indonesia traffic accident that resulted in a head injury often occurs at the age of 6- 14 years in which both the city and county in Indonesia as shown in Table 1.

Table 1. Events Head Injuries and age according to difference between the City and County in Indonesia in 2013

City	Head Injury	Yes	Number	773
			%	37.9
		No	Number	5097
			%	40.2
	Total		Number	5870
			%	39.9
Regency	Head Injury	Yes	Number	666
			%	35.2
		No	Number	3915
			%	40.8
	Total		Number	4581
			%	39.9
Total	Head Injury	1439	Number	1439
		36.6	%	36.6
		9012	Number	9012
		40.5	%	40.5

The incidence of injuries resulting from accidents should be prevented by lowering the

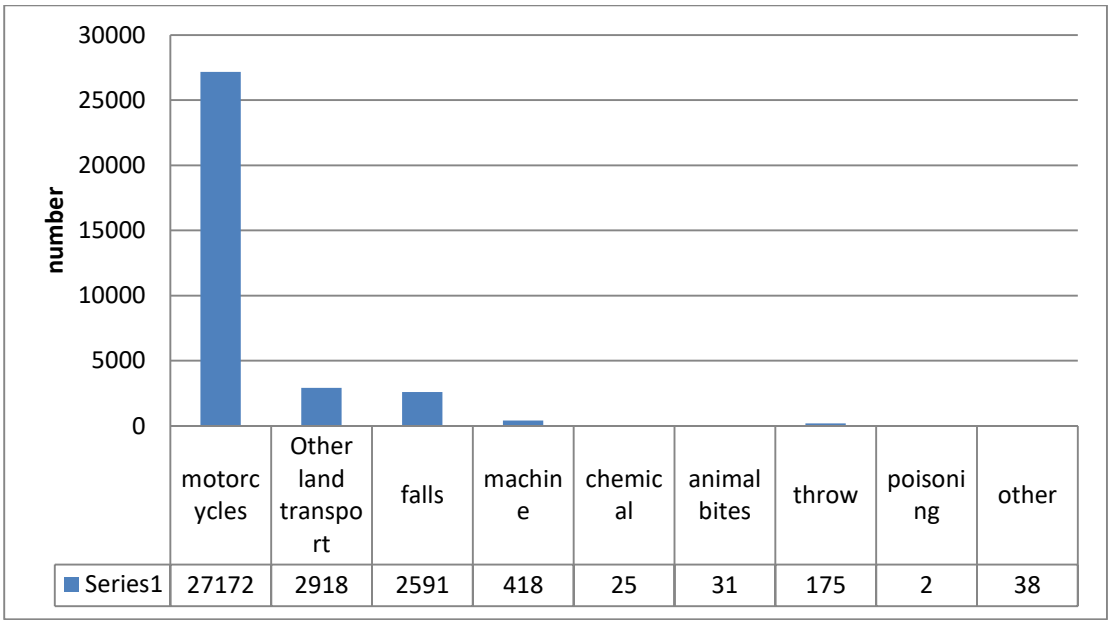
risk of accidents that could reduce the incidence of accidents.. The traffic accident on the students have a tendency to increase as shown in Figure 2.

Table 2. Distribution of Head Injury Incidence According to The Scene in Indonesia in 2013

Locus	Number	%
House	28827	36.1
School	4568	5.7
Sports Arena	2509	3.1
Highway	33370	41.8
Business Area	1764	2.2
Industry/Contruction	1089	1.4
Farm	7059	8.8
Others	690	0.9
Total	79876	100.0

Resources: Riskesdas, 2013

Incidence of head injuries at highway largely due to traffic accidents motorcycle that is 27 122 (81.4%) as shown in figure 3.



Resources: Riskesdas, 2013

Figure 1. Distribution of the incidence of head injuries at highway by cause in Indonesia in 2013

The risk of not using a helmet for head injury and 2.39 times than that wearing a helmet when riding a motorcycle.

DISCUSSION

Analysis of traffic accidents showed several factors that can influence it. Based Traffic Safety Education Program Impact Theory of skills and behaviors that motorcycle safety is affected by the knowledge of the rules of motorcycles (Knowledge of Motor Vehicle), personal responsibility (Acceptance of personal responsibility on public highways), motorcycle driving training (Training in skills Necessary for the safe operation of motor vehicles), understanding the causes and consequences of accidents (Understanding of causes and Consequences of accidents) (Ellwanger SJ, 2006). Users can easily motorcycle injury or death due to a collision with another vehicle. Among the motorcyclists who died 73% for head injury (Chang, 2005). Factor is the character of the human host as motorcycle users who have a significant probability for the occurrence of traffic accidents that resulted in injury to the head such as age, gender, and health status and behavior in protecting themselves.Age is youth risk of traffic accidents is likely to increase (see Table 1). According to WHO's 2014 death in the age group 15 to 24 years mainly due to an accident on the road, while the group of 6-14 years in road accident deaths came second.The ability to use tools and vehicles associated with the occurrence of traffic accidents on motorcycle users. The ability to drive may be represented by ownership Driving License (SIM). Skills driving where the driver who has a driver's license may not necessarily be a good driver because in addition to pass the test person should have enough experience that will provide sufficient

skills and knowledge about how to bring the vehicle safely and without violating traffic rules. The results showed that the SIM ownership still provide opportunities for traffic accidents by 50% (Hendrati, 2002). This skill is very important for the driver to control the vehicle dikemudikannya. However, it does not mean that a person who has the skills will not be an accident.

Head injuries occur because of a conflict between the head with sutu objects. Injuries according to WHO 2001 may be affected by the condition of the host (motorcyclists), the strength of the impact energy can not be retained by the body (the agent), the condition of the vehicle, and environmental conditions, either physical, social and psychological (environment). Head injuries are mostly due to events on the highway due to traffic accidents motorcycle.

J. Sredharan research in 2010 showed that 26.9% are using helmets among motorcycle users. In this study, explained that there is a significant association between the use of helmets with the incidence of head injury caused by traffic accidents. Users who do not use a motorcycle helmet is the age group most of infants, toddlers, school children and adolescents (see table 1). this may be due to the attitude of the people who see wearing a helmet limited to adults and elderly groups only.

Legislative support that should apply that helmets should be used for motorcycle users regardless of age group. Weak enforcement of rules can cause easily violate community supported low public awareness of the usage of helmets can prevent head injuries. Research Sreedharan of 2010 states that the user motorcycle argue that strengthening the rule could increase the use of helmets.

The attitude of the population that simply wearing a helmet at the time was on the highway alone, while traveling on the road between the village / village is not using a helmet is an attitude that is at risk for head injury caused by traffic accidents. At the time of learning how to ride a motorcycle may not use a helmet, it is at risk for head injury.

The use of helmets among motorcycle users showed more women who do not wear helmets than in men, although such a head injury is more common in males. Sreedharan study in 2010 showed between 48% male wearing a helmet but only 9.5% of women who use helmets.

Helmet national standards of Indonesia (SNI) readily available in the community. Quality helmet affects the price of the helmet. Helmets are sold in society in general intended for adults and children, but the baby is not intended to be sold when the baby has the likelihood of injury to the head when in the ride on a bicycle with an adult.

The use of helmet is influenced by the perception of motorcyclists against hazards when not using a helmet (Sukor NS A and Satoshi F., 2011). Decisions taken by the driver or react to avoid the risk factor faster then the possibility of an accident is smaller. The state of the driver as the ability to vision, hearing, strength and mobility can affect the occurrence of accidents. These conditions can be changed when the driver in a state of fatigue, pain and the presence of psychological change (Hobbs, 1995). Driver's reaction where sometimes the driver must take a decision in the face of the traffic situation. This decision is influenced by the concentration. Concentration influenced fatigue caused inadvertence. causing an accident that causes injury.

Inadvertence is the factor that allows the occurrence of traffic accidents due to distraction while driving. Inadvertence can be caused due to loss of concentration which can be caused by drinking. Conditions emotional mental disorders are often also cause traffic accidents. Unstable mental state often causes people to consume alcohol.

Concentration resulting in less traffic accidents must be prevented. The use of mobile phones while driving affects the concentration. Using a mobile phone while driving behavior associated with the incidence of traffic accidents (Mahawati&Prasetya, 2013). Lowering the risk of traffic accidents can be done with an approach that is associated with behavioral psychology motorcycle users. Incidence of traffic accidents can be attributed to the motorcycle driver behavior where bad behavior is higher incidence of traffic accidents motorcycle in comparison with the behavior of medium (Lulie, Hatmoko, 2005). Driving behavior with speed> 40 km / h, overtaking two vehicles at the same time opportunity for motorcycle accidents (Permanawati, Sulistio, wicaksono, 2010).

Behavior someone realized one of them due for cognitive development. Cognitive is all that is known and thought. All matters relating to the interaction of a person's thinking with his emotions. Cognitive development of a person depends on the background of social culture. Among the four stages of Piaget's theory of cognitive development according to age 11 and older is the age that entered the stage of formal operational thinking. Age casualty mostly teenage years (6-24 years) which is adolescence including community groups that are included in the formal operational stage during which teenagers are capable of abstract thinking and hypothesis see table 1). The ability to think abstractly and hypothesis is the ability to think about the possibility that would happen in a situation is not only based on empirical terms alone. Pattern think teenagers are able to analyze events with a lot of interpretation in which an event is one possibility. Patterns of thinking with regard to the proportion of adolescents who then connects with the data collected to prove the hypothesis. According Palget teens think this pattern is called hypothetic deductive thinking. Adolescent cognition structure has reached a state of equilibrium in which adolescents have the ability to further adjust to the problem effectively. At this stage of cognitive development in adolescents has shown the ability to think to solve the problems faced by the various perspectives and ways in which any activity that results are not expected to be accepted as a teenager was able to take into account the possibility that could happen. In the formal operational stage of cognitive development as well able to collect his thoughts into a concept is also able to collect the concept of other people's thinking. The nature of adolescent egocentrism self arises because the ability to think the conceptby his own thoughts. Symptoms in adolescent egocentrism and idealistic teenager due to the dimensions of thought is less realistic dimension which underestimates the other person's perspective. Formal operational stage of cognitive could not be achieved due to environmental stimuli or less gave inadequate formal education. The development of thinking is influenced by maturity, experience, social transmission and equilibration. According to Piaget's theory of development in engineering education implies that education can be done with a child-centered approach, activities, individual learning and social interaction (Setiono, 2009).

The development of moral reasoning according to Kohlberg, most teens have reached conventional levels. The conventional level of internalization capability circumstances described themselves (self) with the rules of others, especially the rulers. At the level of conventional reasoning developing sosiomoral perspective is the perspective of a member of society. Developments in conventional levels are reasoning in accordance with the expectations of society in which someone will take notice of social rules, expectations and roles in society (Setiono, 2009).

Coordinating the development of social perspectives (social perspective coordination) is the development of a person's thinking about the world in which one's interpersonal conceptualize themselves and others. There are two theoretical approaches, namely the conceptualization of self and others and the theory of cognitive development. According to the model of a social perspective coordination Selman

There are three models (approach) intervention in society, namely the development of local communities, social policy interventions and models of social action. Three models are distinguished according to the objectives of the community action, assumptions about the structure of society, the basic strategy in making changes and characteristics of the tactics and techniques change and the role of prominent practitioners, media change, the orientation of the structures of power, limits the definition of the service recipients (beneficiaries), assuming interest of groups in the community, the concept of the service recipient, the concept of the role of the service recipient and the use of empowerment (Adi, 2012)

Three forms of community practice (Community Practice) is the practice of community development, community action, community service approach. Three forms are distinguished according to the objectives, participants, methods and role (Adi, 2012). Negotiation style there are 2 kinds of software and hardware solutions which can be done by changing the rules of the game.

Some indicators of technological development in Indonesia which can support

community development is the availability of the telephone network 46 per 1,000 inhabitants, 138 mobile phone service users per 1,000 inhabitants and internet use 67 per 1,000 inhabitants in 2004 (Adi, 2012). Human capital development in the education sector in Indonesia in 2004, including the percentage of literacy rate among people aged 15 years and older is 90.4%, the percentage of expenditure on education than the overall financing of the government by 9% (Adi, 2012).

Problems and potential of the community when viewed from the human and social factors include factors prediposisi and community behavior, reinforcing factors, social capital and spiritual capital (Adi, 2012). Problems and potential of community views on the human factor can not be seen from the physical, financial capital, capital, technology and environmental capital (Adi, 2012).

CONCLUSIONS AND SUGGESTIONS

Head injuries from traffic accidents can be affected because of the use of helmets on motorcyclists. Incidence of head injury can occur in all age groups. Incidence of head injuries mainly occur at a young age is 6-14 years.

Suggestions that needs to be done is the need to supervise the use of helmets by law approach. Provision of financial penalties for motorcycle users will be able to reduce the occurrence of head injury

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