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Social Phenomena of Smokers with the Incidence of Upper Respiratory Tract Infections in Toddlers at Moncongloe Health Center, Makassar

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ABSTRACT

Cigarettes are one of the biggest contributors to the causes of death that are difficult to prevent in society. The compounds that make up cigarettes that can affect users are alkaloids which are stimulants, including: nicotine, nicotine, anabasin, myosmin. ARI (acute respiratory tract infection) is an inflammatory process caused by viruses, bacteria, atpicals (mycoplasma), or aspiration of foreign substances involving one or all parts of the respiratory tract. The upper respiratory tract (upper airway) consists of the nose, pharynx and larynx. The lower respiratory tract consists of the bronchi, bronchioles, and alveoli. The aim of this research was to determine the presence of smokers and the incidence of acute respiratory infections in toddlers at the Moncongloe Health Center, Makassar. This type of research is quantitative research with a non-experimental design method using a Cross Sectional research design, which was obtained using the Accidental Sampling technique, namely a sampling technique taken based on the availability of elements and ease of obtaining them, then a Chi Square statistical test was carried out with a significance value of α=0.05. The results of the study showed that there was a relationship between the presence of smokers and the incidence of ISPA in toddlers at the Moncongloe Makassar Community Health Center (p = 0.000). The research conclusion shows that there is a relationship between the presence of smokers and ISPA in toddlers at the Moncongloe Makassar Health Center. Therefore, it is necessary to educate about the impact of smoking on public health, especially for toddlers.

Keywords: Social Phenomenon, Smokers, Acute Respiratory Infection, Toddlers, Snout Health Center

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1. Introduction

Society has come to believe that tobacco is not detrimental to health and smokers who have experienced addiction even view it as something that can provide peace. Along with the increasing prevalence of users/smokers, the issue of cigarette smoke and smoking has become a national and even international problem, especially supported by the cigarette industry which is increasingly active in promoting economic activities directly and indirectly, starting from upstream (agribusiness of tobacco, cloves, etc.), to the side (paper industry, printing, packaging, etc.), downstream (promotional and marketing activities). The smoking habit has been proven to be the cause of approximately 25 types of diseases that attack various organs of the human body. These diseases include cancer of the mouth, esophagus, pharynx, larynx, lung, pancreas and bladder. Chronic obstructive pulmonary disease and various other lung diseases, namely blood vessel disease, were also found.

The compounds that make up cigarettes that can affect users are alkaloids which are stimulants. The alkaloids contained in tobacco leaves include: nicotine, nicothyrine, anabasin, myosmin, and others. Nicotine is the compound most commonly found in cigarettes so all alkaloids are considered part of nicotine. Nicotine is a toxic alkaloid compound separated from tobacco and is a tertiary amine compound with the empirical formula C10H14N2 and in organic chemistry as 1-methyl-2-pyrrolidine (3-pyridine). Nicotine in its pure state is colorless, in the form of a volatile liquid oil, soluble in alcohol, ether and petroleum ether. Boils at 246-247oC and freezes at temperatures below 80oC. At low temperatures, it has a slight odor, but if heated it will produce steam that has a stimulating smell and will react with the air as indicated by a change in color to brown.

Smoking is the cause of 87% of lung cancer deaths. In women, lung cancer surpasses breast cancer as the leading cause of cancer death. This is because in the last

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three decades, the number of women who smoke has increased. Smoking is now also considered to be the cause of failed pregnancies, increased infant mortality, and chronic gastric disease. Smoking can interfere with normal lung function because hemoglobin more easily carries carbon dioxide. Cigars and several types of European cigarettes inhale cigarette smoke which is alkaline with a pH of 8.5 , and the nicotine contained in cigarette smoke is not in ionic form. so that it can be absorbed directly through the mouth. The Effect of Cigarettes on Human Health The bad effects of smoking on health have been widely discussed.

The results of research in England show that approximately 50% of smokers who have smoked since they were teenagers will die from diseases related to smoking habits. Smoking habits have been proven to be associated with approximately 25 types of diseases from various organs of the human body. These diseases include: cancer of the mouth, esophagus, pharynx, larynx, lungs, pancreas, bladder and blood vessel diseases. This is also influenced by alcohol drinking habits and other factors. (Aditama, 1995).

Smoking is the cause of 87% of lung cancer deaths. In women, lung cancer surpasses breast cancer as the leading cause of cancer death. This is because in the last three decades, the number of women who smoke has increased. Smoking is now also considered to be the cause of failed pregnancies, increased infant mortality, and chronic gastric disease. Smoking can interfere with normal lung function because hemoglobin carries carbon dioxide to form carboxyhemoglobin more easily than carrying oxygen. People who smoke a lot (active smokers) and people who inhale a lot of cigarette smoke (passive smokers) can end up in their lungs containing more carbon monoxide than oxygen so that the oxygen level in the blood is approximately 15% of normal oxygen levels. The reaction that occurs in the body is: $O2 + Hb = HbO2$ / $CO + Hb = HbCO$.

Health science develops from the knowledge known by humans. Knowledge can be obtained from various sources including the five senses, thoughts and intuition. When compared between knowledge and science there is a real difference. Knowledge is everything that humans know regardless of whether the knowledge is true or false, while science limits only true knowledge.

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True knowledge is knowledge that has been proven to be true through scientific methods. Humans want to be free from disease, so they begin to study or study how to ensure that humans can always live healthily. By using the ability to think rationally on the basis of knowledge, it attracts people's interest in studying health sciences which we then know as health science experts.

The period of prevalence and prevalence of ISPA is based on the 2013 Riskesdas results in South Sulawesi calculated within the last 1 month. The five city districts with the highest ISPA are Tanah Toraja (41.1 %), North Toraja (38.2%), Bantaeng (38.0%), Jeneponto (37.9%), and Luwu (39.1%) (Riskesdas, 2013).

2. Research Methods

This type of research is research quantitative with methods *non-experimental design* that is form study correlational with approach *cross-sectional,* Which explain connection existence smoker with the incidence of ARI in toddlers. Population in study This is all toddler patients suffering from ARI in Public health center Pacerakkang Makassar with amount sample as much 48 toddler with use method taking sample Accidental sampling.

1. Criteria inclusion
   a. Family which bring her toddler for do inspection in Moncongloe Health Center, Makassar.
   b. Toddler patients diagnosed with ARI in Moncongloe Health Center, Makassar.
   c. Willing become respondents
2. Criteria Exclusion
   a. Toddler Which No experience ISPA
   b. Patients who No age toddler.
   c. Patient Which No willing For researched

1) Collection Data
   a. Data primary

      Data obtained from direct sources with use questionnaire and observation.

   b. Data secondary

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Data obtained from service health city, used as data complement for data primary Which relate with the problem under study such as number whole patient ISPA. Data this obtained from the relevant agency, namely at Moncongloe health center, Makassar.

2) Data processing
   a. The data collection stage is carried out through data collection instruments.
   b. Editing, checking the clarity and completeness of filling in the data collection instrument.
   c. Coding, the process of identifying and clarifying each question contained in the data collection instrument according to the variables studied.
   d. The stage of describing the data, namely frequency tables or diagrams, as well as various measures of central tendency, as well as measures of dispersion. The goal is to understand the characteristics of the research sample data. Hypothesis testing stage, namely the stage of testing the propositions made whether the propositions are rejected or accepted and whether they are meaningful or not. It is on the basis of testing this hypothesis that decisions are made).

3) Data analysis
   1. Univariate analysis

      According to Notoadmodjo in the book (Donsu, JDT., 2016: 124).

      Univariate analysis is data analysis that analyzes one variable.

   2. Bivariate Analysis

      Bivariate analysis is data analysis that analyzes two variables.

      This type of analysis is often used to find out the relationship and influence of x and y, bivariate analysis can also be used to find differences between variables x and z (Donsu, JDT., 2016: 124). The statistical formula used to analyze factors related to the incidence of Rheumatoid Arthritis is Chi-Square.

3. Results and Discussion

a. Results

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1. Analysis Bivariate

Table 1.
Existence relationships smoker with incident ISPA

Existence smoker	Incident ISPA				Total	
	Light		Currently			
	n	%	n	%	n	%
No exposed	19	39.6	3	6.3	22	45.8
explain	8	16.7	18	37.5	26	54.2
Total	27	56.3	21	43.8	48	100.0
ρ = 0,000						

Based on table 1 is obtained data that, from 48 respondents the obtained results that toddler with existence smoker, No exposed There are 22 toddlers, of which there are 19toddlers suffering from mild ARI and 3 toddler Which suffer ISPA currently, whereas For toddler with existence smoker, exposed totaling 26 toddler Which among them 8 toddler Which suffering from mild ARI and 18 toddlers who suffering from moderate ISPA. Where the value of ρ = 0,000. Because mark $\rho<\alpha$ = 0 .05 so the null hypothesis is rejected and the alternative hypothesis accepted, with interpretation There is connection existence smoker with incident ISPA on toddler in Moncongloe Health Center, Makassar.

b. Discussion

The relationship between the presence of smokers and the incidence of ISPA in toddlers at the Moncongloe Health Center, Makassar. Exposure to cigarette smoke, especially for children, can increase the risk of experiencing ARI and lung problems in the future. Children and family members of smokers suffer from respiratory problems more easily and more often than children and family members of non-smokers (Layuk, 2013).

The 48 respondents who suffered from ISPA, the number of toddlers who were exposed to the presence of smokers was more, namely 26 toddlers compared to

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toddlers who were not exposed to the presence of smokers, namely only 22 because toddlers with respondents who were smokers or more in the house would increase the risk of family members suffering from illness, such as disorders. breathing. It can be seen that of the 26 toddlers who were exposed, 8 were suffering from mild ISPA and 18 toddlers were suffering from moderate ISPA, while the 22 toddlers who were not exposed were 19 of them suffering from mild ISPA and 3 toddlers were suffering from moderate ISPA.

This shows that exposure to cigarette smoke , especially for toddlers, can increase the risk of experiencing ARI, because toddlers and family members of smokers more easily and often suffer from respiratory problems because toddlers have weak immune systems, and their immune systems are still not perfect so if there is Exposure to cigarette smoke causes toddlers to suffer from respiratory system problems more quickly, such as acute respiratory infections. The incidence of ARI in toddlers is also inseparable from the influence of other factors such as nutritional status, age, inadequate breastfeeding, regular administration of vitamin A, incomplete immunization, air pollution, overcrowding.

Yusari Asih (2014) showed that the results of the analysis of the relationship between exposure to cigarettes and the incidence of ISPA, it was found that of 38 children who were exposed to cigarettes, 84.4% experienced an incident of ISPA. Meanwhile, of the 16 respondents who were not exposed to cigarettes, 31.2 % of respondents experienced ARI. The statistical test results obtained a value of p = 0.000, so it can be concluded that there is a significant relationship between exposure to cigarettes and the incidence of ARI. Here the researchers assume that the presence of smokers is related to the incidence of ARI. That the presence of respondents who smoke or more in the house and the longer they are exposed to cigarette smoke will increase the risk of family members suffering from respiratory problems. Cigarette smoke containing nicotine which is inhaled through the respiratory tract and enters the body can increase the risk of ARI, especially in toddlers.

4. Conclusion

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There is a relationship between the presence of smokers and the incidence of ISPA in toddlers at the Moncongloe Health Center, Makassar. It is recommended to all health service workers and health workers to carry out health promotions in the community, especially promotions about the importance of paying attention to the effects caused by cigarette smoke, the dangers of cigarettes for active and passive smokers. The ingredients contained in cigarettes can be harmful to health, one of which can trigger acute respiratory infections in toddlers.

5. Compliance with ethical standards

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Disclosure of conflict of interest

This research collaboration is a positive thing for all researchers so that conflicts, problems and others are absolutely no problem for all writers.

Statement of informed consent

Every action we take as authors is a mutual agreement or consent.

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