Systematic Review
Knowledge, Attitude and Smoking Practice on Adolescent

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Abstract: Background: Cigarettes are a threat to today’s adolescence. There are many types of cigarettes ranging from conventional cigarettes to electrical cigarettes. All that can interfere with adolescence health. The purpose of this systematic review is to know the results of previous research related to knowledge, attitude and practice of smoking in adolescents. Methods: The source of the article used is obtained from search through Proquest and EBSCO databases. Search articles are limited from 2012 until 2018. After the article was obtained, it reviewed until the stage of making systematic review. Results: Systematic review of 15 articles from the review of articles was illustrating the knowledge, attitude and action of smoking in adolescents in various countries. Conclusion: Based on the study it can be concluded that the majority of adolescent knowledge about smoking is good, the majority of smoking attitude is positive, and the majority of smoking action is daily smokers.

1 BACKGROUND

Adolescence is a period of transition from childhood to adulthood. This period of many changes that will occur in a person. The change can be either positive or negative. One of the negative changes that occur in adolescents is the emergence of smoking (Nuradita & Mariyam, 2013). Smoking activity among youth, especially teenagers is not a new thing. Ancient smoking was only done by men only, but at this time women also participate in smoking. Behind the pleasure of smoking, cigarettes have a negative impact that can affect health. The chemical contained in a cigarette can be a source of disease for everyone who consumes it. It is therefore necessary to take preventive measures both in the home, school, and community environment (Christy et al., 2013).

According to the World Health Organization (WHO), tobacco kills more than 5 million people per year and is projected to kill 10 million people by 2020, of which 70% of victims come from malevolent predominantly males, Asia. WHO estimates 1.1 billion world smokers aged 15 years and over that is one third of the total world population. Indonesia ranks 5th in cigarette consumption in the world after China, the United States, Japan and Russia (Herawati, Arief, Haryono, & Mulyani, 2017). Among adolescents aged 15-19, about 38.4% of men and 0.9% of women are smokers. Those aged are those who are in third grade junior high school, high school, and early college. Generally the group are teenagers who start smoking to show that they are adults (Saputra & Sary, 2013).

Smoking behavior is related to knowledge, one's attitude toward smoking and education. Knowledge of a person will affect his lifestyle to behave healthily. A person who is full of information (knowledge) will perceive the information in accordance with the nature of psychology. A broad and adequate insight into the health hazards of a cigarette is expected to be a person's principle to keep people who have not fallen into disrepute and addicts can stop this dangerous habit (Nik Farid et al., 2016). This review aims to determine the knowledge, attitude and practice of smoking in the adolescence.

2 METHODS
Search Strategy

Studies that examine the knowledge, attitude and practice of smoking were identified through online literature using the following database: EBSCO and PROQUEST database. The search term used were adolescents, smoking knowledge, smoking attitude, and smoking practice with probable combinations of conjunction names “and/or”. Restrictions were made by language or year of publication. English was chosen to be the language, and year was chosen from 2012 until 2017. This search was conduct in Februari 2018. Reference list of included studies was evaluated to increase sensitivity and to select more studies.

Inclusion and Exclusion Criteria

We included studies that met three criteria: (1) focus on the smoking knowledge of adolescent, (2) focus on the smoking attitude of adolescent, (3) focus on the smoking practice and (4) studies published in English. We included studies that carried out different methods of analysis. Studies whose not use adolescent age as the respondent were excluded from the study.

Data Extraction

The authors independently seek and assess each database for inclusion and exclusion criteria. Titles and abstracts are screened by the authors to obtain significant and for possible duplication In case authors find 50 articles that match with this review. After initial screening, the authors’ details, the sample and the location of the study and the main findings of the included study were extracted in matrix table form. Based on the table the author choose 15 articles and compiled this systematic review.

Quality Appraisal

After the extraction of all included articles, all studies were reviewed and appraised for relevance, methodological rigor, and credibility using the quality assessment tool for quantitative studies in effective public health practice project (EPHPP). Each of the studies was given a quality score ranging from 1 to 3 (3 is the highest score) based on whether the article answered each of the following questions: (1) selection bias?, (2) study design?, (3) confounders?, (4) blinding?, (5) data collection method?, (6) Withdrawals and dropout. Score are describe as strong, moderate, and weak.

3 RESULTS

Description of Included Studies

The fifteen articles is a research from some country in the world. There are country in Asia, Amerika, and Afrika. The articles have responden whose average age between 12 until 24 year, and mostly the gender is male. Most of them use school student to be responden. Most of study use cross sectional methode and some of them use pre and post test design. All of the article use random sampling as the sampling methode. The articles was published between 2012 until 2018. All of them was published in journal that indexed by scopus.

Smoking Knowledge

The smoking knowledge in this study mostly was conduct as good and bad knowledge. They usually use kuesioner to measure the knowledge. The kuesioner had been use is close ended kuesioner and the amount of the question is vary each other. Most of the articles report that the knowledge of the adolescent about smoking is good. In the Aslam research about Prevalence and determinants of susceptibility to cigarette smoking among school students in Pakistan:secondary analysis of Global Youth Tobacco Survey showed that Student who had good knowledge about harmful effects of smoking with the value OR = 0.54, 95% CI [0.43-0.69] (K., S., & S., 2014). Another research who conducted with an intervention held by Simansalam about Training Malaysian Pharmacy Undergraduates with Knowledge and Skills on Smoking Cessation showed that the number of students who scored above 50% for the knowledge component improved significantly from 13 at preintervention to 66 at post intervention: x2 (1, N5130)532, p50.003.  From the results of the 2-way ANOVA, the main effect of the module intervention was significant with higher knowledge scores at post intervention (M552.5%, SD511.9) than at pre intervention (M539.4%, SD510.8). The interaction effect was significant, F (1,128)=5.81, p=0.017, indicating the impact of the module intervention was slightly greater among students who also had exposure to the role-play intervention. However, the main effect of the role-play intervention was not significant in terms of knowledge score improvement: F (1, 128)51.59.
The shockingly result was happen in Herawati research. The research is about Jayapura teenager smoking behavior, and the shockily one is the result show us that the smoking respondents had higher knowledge than non smoking group although it was statistically not significant, p = 0.079. Its mean they are still smoking although they are knows about the harmful of smoking (Herawati et al., 2017).

**Smoking Attitude**

All of the articles was define the attitude as positive and negative attitude. Positive attitude is some one that doesn't like of smoking, they think that smoking is not good for their health and they try to avoid smoking. Negative attitude is describe as some one that think smoking is good for them and think they are free to use it. In this study, all of the study show that the smoking attitude mostly positive. To measure smoking attitude usually the author of each article use kuesioner, and the amount of question is different each other. Abdollahi research about Emotional Intelligence, Hardiness, and Smoking: Protective Factors Among Adolescents showed that 12% of students reported a positive attitude toward smoking, 20% of students reported a neutral attitude toward smoking, and 68% of students reported a negative attitude toward smoking. Among the sample, 72% were identified as nonsmokers, 20% as occasional smokers, and 8% as daily smokers (Abdollahi, Talib, Yaacob, & Ismail, 2016). Another result by Nazarzadeh about Smoking status in Iranian male adolescents: A cross-sectional study and a meta-analysis showed that almost one-third of adolescents (34.2%, n =354) have experienced smoking either experimentally (23.4%, n=242), or regularly (10.8%, n=112). Multivariate analysis showed that older age (OR = 1.20; 95% CI: 1.05-1.37), risky behaviors (OR=1.83; 1.25-2.68), positive attitude toward smoking (OR= 1.15; 1.09-1.21), positive thinking about smoking (OR= 1.07; 1.01-1.14) (Nazarzadeh et al., 2013). The research of Abidin about knowledge, attitude and perception of second-hand smoke and factors promoting smoking in Malaysian adolescents that use Environmental Tobacco Smoke (ETS) intervention and defined the group as exposed to ETS >5 h/day and exposed to ETS <1 h/day showed that Negative attitudes and perceptions towards smoking and ETS exposure were linked to lower smoking attempts in states with complete SFL. Adolescents with limited ETS exposure who lived in a state with complete SFL were less likely to attempt smoking compared to those exposed more regularly to ETS and living in a state with partial SFL (Zainol Abidin et al., 2014).

**Smoking Practice**

Smoking practice was define in many ways in this study. But most of them use daily smoker, accidental smoker, and non smoker term to distinguish it. Almost all of the articles use questionnaire to measure smoking practice. They usually use close ended questioner to know what is their smoking practice status. Most of the respondent in this study was indicated as daily smoker who can smoke one until a package of smoke each day. Chen research about the majority of students (61.2%) attended a public school. Of the participating students, 8.8% (95% confidence interval [CI], 7.9%-9.7%) declared that they smoked daily, 3.6% (95% CI, 3.0%-4.2%) smoked weekly, and 5.7% (95% CI, 4.9%-6.4%) smoked occasionally (a few times per month). In addition, 11.8% (95% CI, 10.7%-12.8%) said they were former smokers and 70.1% (95% CI, 68.6%-71.6%) had never smoked (Chen & Chen, 2011). Another research conducted by K showed that most adolescent smokers are males between the ages of 16 and 18. Curiously, female smokers between the ages of 12 and 15 who live in the central and southern regions of Taiwan have a higher percentage of smoking illicit cigarettes than any other category. Eighty percent consume less than half a pack a day. Fifty-five percent of those who have never smoked illicit cigarettes are willing to quit smoking, and 41.6% of those who have smoked illicit cigarettes at some time in the past are willing to quit smoking. However, only 19.7% of those who often smoke illicit cigarettes are willing to quit (K. et al., 2014). The research of Ling et al about Social Branding to Decrease Smoking Among Young Adults in Bars that use social branding intervention showed that during the intervention, current (past 30 day) smoking decreased from 57% (baseline) to 48% (at follow-up 3; P = .002), and daily smoking decreased from 22% to 15% (P < .001). There were significant interactions between hipster affiliation and alcohol use on smoking. Among hipster binge drinkers, the odds of daily smoking (odds ratio [OR] = 0.44; 95% confidence interval [CI] = 0.30, 0.63) and nondaily smoking (OR = 0.57; 95% CI = 0.42, 0.77) decreased significantly at follow-up (Ling et al., 2014).

4 DISCUSSION
This systematic review provides evidence-based picture of smoking knowledge, attitude and practice in adolescents. The results of the reviews explain that there are so many adolescent that have good knowledge, positive attitude but do a smoking. This phenomena is alarm to us that there are so many factor who make some one to be smoker. Preventing is a best way to make adolescent free from smoking.

The results of this review are certainly useful for nurses, both clinical and community nurses. Nurses can be know about the condition of adolescent right now. With knowing their condition nurse can make any plan to overcome it. Good plan can make the intervention better and more effective.

These studies could not be fully generalized. Bias might occur. It could be due to measurement parameter was not homogeneous and the condition of the study sample were also less homogeneous (there are a few samples with a lot of kind culture, socio economics, and environment).

5 CONCLUSION

This study emphasizes the importance to recognize the uprisin rate of smoking particularly among adolescents. The awareness of parents on the smoking behavior of adolescents should be tailored, in which the presence of a smoking member of the household influenced adolescent in smoking habit and early age of smoking. The study shows that at the time when adolescents start to socialize with their friends, the smoking behavior of peers had a considerable effect. Therefore, we recommend appropriate smoking control programs, especially in adolescent should be initiated. A strict smoking policy should be implemented and early counseling among adolescents and awareness campaigns to the health effects of smoking and the prevailing beliefs that smoking habit can easily quit. As they become the future professionals of the society. Smoking control programs should be considered in this group.

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REFERENCES


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