



The Effect of Peer Group Support on Motivation to Quit Smoking Among Adolescents

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A B S T R A C T

Adolescents use cigarettes without considering the consequences and lack awareness about the dangers of using cigarettes. Peer group support potentially motivates to quit smoking in adolescents. It can empower group members by providing a role model to increase motivation. This paper analyzes the effect of peer group support on motivation to quit smoking among adolescents. It was quasi-experimental research with a post-test and pre-test one-group design. The population was smoking adolescents. In addition, there were 37 respondents with purposive sampling. The inclusion criteria were male teenagers aged 12-16 years and active smokers. The independent variable was peer group support, and the dependent variable was motivation to quit smoking. The instrument to assess motivation to quit smoking was the Richmond Test. Data analysis utilized paired t-test with $\alpha=0.05$. There was an increase in the mean value of motivation to quit smoking before and after the intervention. In addition, paired t-tests obtained $p=0.030$ ($p < 0.05$), indicating a significant difference in pre-test and post-test. Thus, there was an effect of peer group support on adolescents' motivation to quit smoking. In conclusion, peer group support can increase adolescents' motivation to quit smoking. Nurses could enhance motivation for smoking cessation through peer support interventions so there is a change in smoking behavior in adolescents. Further study should use a control group and a larger sample size.

INTRODUCTION

The number of smokers worldwide continues to increase. It was estimated to be around 1,1 billion (Susanto, Pratiwi and Sunardi, 2020; Almaidah *et al.*, 2021). In 2019, The World Health Organization (WHO) stated that tobacco kills more than 8 million people annually. Worldwide, countries in the Association of Southeast Asian Nations (ASEAN) are regions with 10% of the population of smokers and contribute 20% of tobacco-related deaths. Furthermore, Indonesia has the highest number of smokers among ASEAN countries (Drope, Neil and Schluger, 2018).

National surveys conducted in 2013 and 2018 showed that tobacco use in Indonesia was still relatively high among adults and adolescents as a vulnerable age group (WHO, 2020). The increased number of smokers in Indonesia was not only in the adult age group but also adolescents. The prevalence of smoking behavior among adolescents aged 15 years and over in 2013 was 36,3%, in 2016 was 32,8%, and in 2018 was 33,8%. Furthermore, its prevalence in Central Java was 27,70% in 2020 (Kemenkes RI, 2018; BPS Indonesia, 2020).

The cause of smoking in adolescents is transitioning from childhood to adulthood, as indicated by various biological, psychological, and social changes. These changes affect the behavior of adolescents in the community. Changes in adolescent behavior can tend in the positive or negative direction. One of the

negative behaviors in adolescents is smoking (Bukit, 2019; Almaidah *et al.*, 2021). Adolescents use cigarettes without considering the consequences and lack awareness about the dangers of using cigarettes. An investigation revealed that teenagers smoked because of a desire to experiment, join friends, curiosity, loneliness, look fantastic, and imitate parents. In addition, they wanted to have fun, relieve tension, be self-proof, be a symbol of maturity, and seek inspiration. Furthermore, other reasons included reducing stress and boredom, prestige, environmental influence, the mouth tasting sour or as a dessert, and enjoyment (Prihatiningsih *et al.*, 2020).

Smoking is a behavior that is harmful to health, but there are still many people who smoke. Even people start smoking when they are teenagers. Smoking is a detrimental behavior seen from various points of view, both for oneself and others around them. It causes a decline in health and impacts the young generation's quality of life (Sulastri and Rindu, 2019).

Motivation is essential to quit smoking behavior. It is an ability or factor contained in humans to cause, direct, and organize their behavior. In addition, it is an action or condition that arises from within a person, so it can inspire someone to do activities. A study found that smokers with high motivation had more success in smoking cessation (Bacha *et al.*, 2018). Thus, motivation in smokers potentially encourages smoking cessation. Motivation is a psychological process reflecting the interaction between attitudes, needs, perceptions, and decisions that occur in a person. Predisposing factors associated with being highly motivated in smoking cessation were health education about smoking, awareness about the disadvantages of smoking, smoke-free policies, health workers' advice, warnings about the dangers of tobacco, cigarettes' high price, and negative emotions about cigarettes (Dhumal *et al.*, 2014).

Knowledge forms a supportive attitude and affects the motivation of adolescents. A learning process in the group can increase understanding among peers. Thus, peer group support is an effort to change health behavior through a peer group emphasizing behavior change. In this method, there are interactions in groups. Individuals will feel similarities and develop a social sense through personality development (Rofi'ah *et al.*, 2017).

Peer group support can meet the psychological needs of teenagers, consisting of adjusting, accepting, exchanging ideas, and sharing feelings, opinions, and experiences. Those needs are vital in developing and improving their self-concept. Through peer group support, adolescents can find life values as a guide to life and the need to become more independent, especially regarding health. The strong influence of peer groups is because adolescents are mainly outside the home with their peers. So, the effect of peers on attitudes, speech, interests, appearance, and behavior is more significant (Akuiyibo *et al.*, 2021).

In summary, peer group support potentially motivates to quit smoking in adolescents. It can empower group members by providing a role model to increase motivation. Based on this background, this paper analyzes the effect of peer group support on motivation to quit smoking among adolescents.

Low birth weight (LBW) babies are newborns whose body weight at birth is less than 2,500 grams regardless of gestational age (Sholeh *et al.*, 2014). The birth weight is the baby's weight in the first one hour of birth. The World Health Organization (WHO) reports that LBW babies contribute to 60-80% of all neonatal deaths and have a risk of death 20 times greater than babies with normal birth weight (Supiati, 2016). According to WHO, the neonatal mortality rate in 2015 was around 2.7 million deaths, or about 45% of all under-five deaths. Nearly one million neonatal deaths occur at birth, and two million neonatal died in the first week of life. In addition, WHO reveals that the proportion of child mortality in the neonatal period has increased worldwide over the last 25 years (WHO, 2016).

Indonesia Demographic and Health Survey (IDHS) in 2017 showed that the neonatal mortality rate was 15 per 1,000 births live, the infant mortality rate was 24 per 1000 births, and the under-five mortality rate was 32 per 1000 births live (Ministry of Indonesian Health, 2018). The direct causes of infant mortality in Indonesia are asphyxia (44-46%), low birth weight (15-20%), infection (24-25%), birth trauma (2-7%), and congenital disabilities (1-3%) (Nursusila, Majid and Ahmad, 2017).

METHOD

This study was a quasi-experimental research with a post-test and pre-test one-group design. It did not have a comparison group, but the pre-test could provide a basis to analyze the changes after intervention. In post-test, there was a comparison before and after the intervention. The population was smoking adolescents. There were 37 respondents with purposive sampling. In addition, the inclusion criteria were male teenagers aged 12-16 years and active smokers. The independent variable was peer group support, and the dependent variable was motivation to quit smoking. The instrument to assess motivation to quit smoking was the Richmond Test. Data analysis used paired t-test because the normality test using Kolmogorov-Smirnov showed that the data distribution was normal ($p > 0.05$).

RESULT

The univariate analysis described the motivation to quit smoking before and after the peer group support. Meanwhile, the bivariate analysis analyzed the differences in motivation to quit smoking before and after the intervention.

Table.1 Motivation to quit smoking in adolescents and statistics test result

Variable	Mean	Std. Deviation	<i>p</i>
Motivation to quit smoking before intervention	5.09	1.35	0.030
Motivation to quit smoking after intervention	5.59	1.60	

There was an increase in the mean value of motivation to quit smoking before and after the intervention. In addition, paired t-tests obtained $p=0.030$ ($p < 0.05$), indicating a significant difference in pre-test and post-

test. Thus, there was an effect of peer group support on motivation to quit smoking in adolescents (Table.1).

DISCUSSION

This study found the motivation to quit smoking increased significantly after peer group support. One of the efforts in smoking cessation is to increase motivation. A prior study revealed that highly motivated smokers were more successful in quitting smoking than those less motivated (Woelandari, 2020). Motivation is a person's strength (energy) leading to persistence and enthusiasm in doing the activity, both originating from within the individual (intrinsic motivation) and from outside the individual (extrinsic motivation) (Alamsyah, J. and Hidayat, 2021). High motivation is crucial to the success of quitting smoking. Experts have developed various attempts to quit smoking. The first thing to do is to identify awareness and intention in smokers, then motivate them to stop smoking (Sulastri, Herman, and Darwin, 2018).

Our finding showed an effect of a peer support group on motivation to quit smoking in adolescents. A peer support group is the support given by someone who has experienced emotional difficulties to someone experiencing the same challenges by listening to complaints and sharing their experiences. So, individuals can meet their psychological needs, such as developing and improving their self-concept. Through this method, group members can also find life values as a way of life. In addition, social needs are crucial to increasing motivation to behave in a healthy life (Khamida, Nurjanah and Ainayah, 2019).

High motivation will lead to more lasting behavior. A peer group potentially can provide support and motivation. It offers new values that will ultimately affect an individual's emotions or affective components of attitudes. In addition, the conative component in attitude concerns the individual's desire to act according to the person's beliefs. It affects a person's motivation to do something (Ford *et al.*, 2013; Rahayu and Yunarsih, 2020).

Peer group empowerment in motivating to carry out healthy behavior is quite effective for adolescents because peer group has a more substantial influence on group behavior. It is the primary key to physical activity in adolescents. The peer group is beneficial in motivating someone by feeling in the same boat in fulfilling needs and goals, so it influences habits. In addition, it also provides strong support for adolescents, both individually and in groups, to create behavioral changes (Davison and Jago, 2014; Cherrington *et al.*, 2015; Jaelani *et al.*, 2018).

Peer group support is a program provided by peers as trained counselors to help their friends with obstacles in self-development. In addition, it has the potential to develop social self-concept among adolescents. Furthermore, it has the function of providing guidance and overcoming challenging life

problems. Thus, peer serves as social support (Afandi, Indarwati and Hadisuyatmana, 2012; Sari and Ariani, 2021), significantly increasing adolescents' motivation to quit smoking.

Peer group support is vital because of the rapid development of the mindset among teenagers in Indonesian culture in the current era. By having peers, teenagers can get a lot of motivation to solve their issues. However, conflicts in friendship relationships in the peer group are inevitable. Thus, It takes maturity to overcome them (Astuti, Dewi and Sumarwoto, 2018; Mujiyati and Adiputra, 2018).

CONCLUSION

In conclusion, peer group support can increase adolescents' motivation to quit smoking. Nurses could enhance motivation for smoking cessation through peer support interventions so there is a change in smoking behavior in adolescents. Further study should use a control group and a larger sample size.

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