Health promotion through youth empowerment to prevent and control smoking behavior: a conceptual paper

Heni Trisnowati
Doctoral Program, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia and Division of Health Promotion, Study Program of Public Health, Faculty of Health Sciences, Universitas Respati Yogyakarta, Sleman, Indonesia
Djauhar Ismail
Department of Child Health, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia, and
Retna Siwi Padmawati
Health Behavior, Environment and Social Medicine, Universitas Gadjah Mada, Yogyakarta, Indonesia and Faculty of Medicine, Public Health and Nursing, Center of Health Behavior and Promotion, Universitas Gadjah Mada, Yogyakarta, Indonesia

Received 29 September 2020
Revised 26 November 2020
6 January 2021
Accepted 17 January 2021

Abstract

Purpose – This paper aimed to review globally the empowerment programs for the prevention and control of smoking behavior among youths, to examine the role of empowerment in health promotion, to explore the stages of health promotion through community empowerment strategies including planning, implementation and evaluation. Finally, this paper will develop a model of youth empowerment to prevent and control smoking behavior that reflects theory and experience drawn from the literature.

Design/methodology/approach – This review synthesized articles on community empowerment and health promotion, youth empowerment programs for tobacco prevention and control globally from books and electronic databases from the Universitas Gadjah Mada (UGM) library in the publication period 2000–2020. Relevant literature was selected and critically reviewed which reflected the role empowerment in health promotion, stage of community empowerment strategy as described by Laverack and youth empowerment concept in tobacco control as described by Holden.

Findings – Documents that specifically discuss empowerment programs for smoking prevention and control are still limited. The findings document that youth empowerment in tobacco control do not fully integrate the theory empowerment as described by Laverack and Holden. This paper provides information about the stages of youth empowerment, and a conceptual framework of youth empowerment for the prevention and control of smoking behavior. Youth empowerment is done through the direct involvement of youth in programs starting from program design, planning, implementation and evaluation. Indicators of the success of the empowerment process are reflected in the increase in the empowerment domain. Meanwhile, the output of empowerment can be seen from the individual- or group-level changes.

Authors thank Erik Christoper as a native translator at the Office of Research and Publication (ORP) Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada for proofreading the manuscript.

Funding: Support funding from Directorate of research, Universitas Gadjah Mada in Program of "Rekognisi Tugas Akhir" (RTA) (No2488/UN1.P.III/DIT-LIT/PT/2020).

Health Education
Vol. 121 No. 3, 2021
pp. 275-294

0965-4283
DOI 10.1108/HE-09-2020-0092

Originality/value – This paper proposes a model of youth empowerment for the prevention and control of smoking behavior among youths based on theory and experience in the field.

Keywords Youth empowerment, Smoking prevention, Tobacco control, Health promotion

Paper type Conceptual paper

1. Introduction

Youths enter the transition from childhood to adulthood at a critical age because during this period they experience the development of specific skills to enter the world of work and begin to contribute to economic productivity (Rosen, 2004; Salam *et al.*, 2016). Most of the nations in the world define youth as people aged 10–19 years while some define them specifically as people aged 15–24 years (Das Gupta *et al.*, 2014; United Nations, 2014). However, the interchangeable use of the two terms: youth and adolescents has been popular since 1985 when the first international meeting about world youth of the United Nations was held (Sawyer *et al.*, 2018) so that the two terms can be substituted for each other.

Currently, a quarter (1.8 billion) of the world's population is adolescents and young people aged 10–24 years, with as much as 90% of this number living in developing countries (Das Gupta *et al.*, 2014; United Nations, 2014). Meanwhile, almost a quarter (24.15%) of Indonesia's population are youth aged 16–30 years, and 67.76% of the youth aged 16–24 years are generally at the high school and university level (Badan Pusat Statistik-Central Statistics Agency, 2018). Youth or adolescents are potential leaders who will determine the fate of the nation in the future so that they need skills to live and work productively. Furthermore, these youth, as the motor of development, must always be in a healthy condition. This is necessary so that they can proactively develop themselves and manage various development resources for the benefit of society and the State (Badan Pusat Statistik-Central Statistics Agency, 2018).

Youths are a group of people who are almost always assumed to be in good health. But in reality, they face serious health challenges or problems, and many youths die prematurely due to accidents, suicide, violence, pregnancy complications and other diseases that can be prevented or treated (Pratiwi, 2013). About 70% of premature deaths in adults are related to behaviors that start in adolescence such as tobacco use, wrong eating habits and risky sexual behavior (Das Gupta *et al.*, 2014; Rosen, 2004). Besides, there were around three million adolescents who died in 2012, and the majority of them could be prevented or controlled (World Health Organization, 2014).

Adolescence is a period of turbulence from the development of attitudes and behavior. It is often characterized by risky trial and error behavior such as the use of tobacco products (Albert-Lőrincz *et al.*, 2019), so as a result the burden of disease and health risks change rapidly in adolescence (Sawyer *et al.*, 2018). Smoking behavior is a widespread phenomenon and is accepted as a common habit among most young people in Indonesia (Ng *et al.*, 2007). Smoking behavior that starts in adolescence will generally remain during adulthood (US National Cancer Institute and World Health Organization, 2016). The younger the youth, the more likely it is to become a regular smoker, and the less likely it is to quit smoking (Wheeler *et al.*, 2007).

Tobacco use is the leading cause of preventable death in the world (World Health Organization, 2011) and globally, smoking has a significant impact on premature death (Linstrom, 2018). One in ten deaths in the world is caused by tobacco use (World Health Organization, 2017). If this trend continues, by 2030 tobacco use will kill more than eight million people worldwide each year with 80% of deaths occurring in developing countries (US National Cancer Institute and World Health Organization, 2016).

Indonesia is the country with the highest youth smoking rates in the world (World Health Organization (WHO, 2015). Meanwhile, the numbers of smokers who are over 15 years old are 67% for men and 2.7% for women (World Health Organization, 2018). Furthermore, one in

four youths in Indonesia is a smoker, both tobacco and e-cigarettes. This condition is evenly distributed in all provinces in Indonesia, so it is very worrisome considering that the youth is the nation's next-generation (Badan Pusat Statistik-Central Statistics Agency, 2018). Accordingly, it is necessary to make various long-term efforts to control the number of smokers in Indonesia and in the world.

Based on the review, information was obtained that indicated health promotion methods are more effective than other smoking prevention methods (Golechha, 2016). Health promotion interventions consist of three main approaches: 1) reaching the wider community such as social marketing and mass media interventions; 2) reaching out to individuals, namely through peer education, and motivational interviews; and 3) reaching out to the community through community mobilization and environmental change with advocacy and setting-based interventions. Of these three methods, community mobilization is an effective method for smoking prevention and smoking cessation. Community mobilization is an essential method of health promotion that aims to empower the community. Empowering people to change the community's social domain is not only sustainable but very effective (Golechha, 2016). Youth empowerment models are more effective in smoking prevention than quitting smoking once someone has tried smoking (Wheeler *et al.*, 2007). This strategy is believed to contribute to initiating social change (Backinger *et al.*, 2003).

2. The objective and theoretical base

The review aimed to examine the role of empowerment concerning health promotion, to explore the stages of health promotion through community empowerment, while at the same time constructing a youth empowerment model for the prevention of and control smoking behavior. To fulfill the objective of the review, youth empowerment, health promotion, smoking prevention and tobacco control, participatory action research was considered as the primary focus. The method of searching for journal articles was done through an electronic database subscribed by the Universitas Gadjah Mada (UGM) library in the publication period 1 January 2000–24 July 2020 such as Sage publication, Health Care Information, Springer, Johns Hopkins University Press, British Medical Association, Wolters Kluwer–Medknow Publications, Elsevier BV and BioMed Central Ltd. The keywords "youth empowerment", "smoking prevention", "tobacco control", "health promotion" and "participatory action research" in various combinations and English language almost 192 articles. Furthermore, literature search is refined based on articles that have been reviewed by scholarly and peer reviewers with the computer system so that 35 articles are obtained. The article was excluded if there were no empowerment activities, empowerment stage and/or youth participatory, there were no empowerment output and outcome, they were about organizational empowerment, they were only concerned with health promotion evaluation and chronic diseases intervention. Finally, there were 11 journal articles, and a book from (Laverack, 2007) entitled "Health Promotion Practice: Building Empowered Communities" were selected. Relevant sections were summarized, mapped and analyzed using qualitative methodology to generate common themes.

For this review, the empowerment theory and health promotion from Laverack were chosen as he is a leader in health promotion and empowerment and has worked for more than 30 years in Europa, Africa, Asia and the Pacific regions with a significant range of professional experience in a cross-cultural setting that facilitates at both a theoretical and practical level. Furthermore, the article Conceptualizing youth empowerment within tobacco control from (Holden *et al.*, 2004) was also chosen as a theoretical basis because it was the only article that comprehensively discussed youth empowerment strategies in tobacco control and evaluated program output. Due to the lack of rigorous evaluation of empowerment programs in the literature and few papers about empowerment strategy for tobacco control, the initial of

a conceptual paper was created as a basis for implementation research on health promotion through youth empowerment for smoking prevention and control.

The research literature offers little direct guidance for extending the application of youth empowerment (YE) to youth-led smoking prevention and control initiatives, although there are a few models that link empowerment theoretically to positive youth development (Dunn and Pirie, 2005; Holden *et al.*, 2004; Mohajer and Earnest, 2009; Wilson *et al.*, 2008). Consequently, a panel of experts in the field was convened as reviewer to asses a conceptual model that would define the key conceptual components of youth empowerment as applied to smoking prevention program. This article presents the conceptual framework that resulted from this process.

The finding from the literature review, summaries from Laverack's book and Holden's publications were condensed, mapped and analyzed based on content of every articles until three recurring themes or elements emerged that were consistently mentioned in program evaluation and/or recommendation. The summary of themes is present below as a model of health promotion through youth empowerment to prevent and control smoking behavior.

1. The role of empowerment in health promotion
2. Health promotion through youth empowerment in tobacco control
3. The model of Health Promotion through Youth Empowerment to Prevent and control Smoking Behavior

This proposed model could form an evidence-based youth empowerment framework for preventing and control smoking behavior that can be adapted to local context and culture. Many of these points have common characteristics with other participatory processes, notably action research (Smith *et al.*, 2010). Each element of the model is discussed below in more detail.

3. The role of empowerment in health promotion

Health promotion in general is a process involving individuals, groups and communities. The purpose of health promotion is to enable people to control and improve their health and the factors that affect health (Laverack, 2007). This meaning is contained in the Ottawa Charter for Health Promotion and the Bangkok Charter for Health Promotion (World Health Organization, 2009). Health promotion is the main function of public health that contributes to overcoming infectious and non-communicable diseases and other health threats (World Health Organization, 2009). At present, policymakers and health promotion practitioners consider that empowering the community as a vehicle to improve public health status. The Ottawa Charter identifies community empowerment as a core concept in health promotion. Community empowerment is the most important part of creating health impacts and as part of a health promotion strategy (Kasmel and Andersen, 2011).

Empowerment as a health promotion strategy can improve the health status of individuals, groups and communities (Laverack, 2006). Empowerment is the main concept of health promotion (Kasmel and Tanggaard, 2011; Woodall *et al.*, 2010) and is a process of enabling communities, organizations and/or individuals to use their strengths effectively for a better life change (Minkler and Wallerstein, 2008; Woodall *et al.*, 2010). The key domain of community empowerment is to enable the community, in this case, youth, to better manage what they have socially and structurally to achieve social and political change (Laverack, 2006, 2007). Society in this context is a group of different individuals with dynamic social relationships, forming groups and taking action to achieve certain goals. Furthermore, society has a characteristic spatial dimension, namely location and non-spatial dimensions,

namely based on interests, issues and identity (Laverack, 2007). For example, in this research, the community is the youth community.

Empowerment can be achieved through planning strategies that enhance each domain that community members have identified. There are nine domains of community empowerment, namely: 1) increasing participation, 2) developing local leadership, 3) developing empowerment of organizational structures, 4) increasing capacity in problem assessment, 5) increasing people's ability to be critical, 6) increasing resource mobilization in targets, 7) strengthening relationships with other people and other organizations outside the target community, 8) creating fair relationships with others and 9) increasing control over program management. These domains have been used to develop community empowerment in health promotion programs in Asia, Africa and the Pacific (Laverack, 2006, 2007).

Community empowerment is a health promotion strategy conducted by developing and optimizing the existing potential in the community and by involving the community from the start of the program. Community involvement from the start of the program aims to enable the community to participate in every stage of the program being done (Bartholomew *et al.*, 2006). This form of empowerment activity can be realized through various activities, including health education, organizing and community development in the form of, for example, cooperatives, and training for the ability to increase family income (Bartholomew *et al.*, 2006). Meanwhile, according to (Laverack, 2006), community empowerment is a process that involves components of society continuously in a strong relationship to overcome differences in individuals and social groups in society. However, in the context of a program, empowerment is a process with individuals, groups and communities that are more organized and broadly shaped based on community action. The added value of empowerment is that it gives the individual, group or community greater control, in achieving healthier, sustainable lifestyles (Laverack, 2017).

4. Health promotion through youth empowerment in tobacco control

Youth empowerment is a community-based health promotion program where community participation is an inseparable part of this program, but community input is usually limited to the role of input or volunteer workers in program implementation (Holden *et al.*, 2004). Mechanisms for community involvement in health promotion involve the formation of local coalitions (Butterfoss and Kegler, 2002). Community participation is currently considered critical to a program's success and coalition building is one of the techniques to facilitate this process (Wallerstein and Duran, 2003). The program mission and evaluation design of community interventions remain under the control of researchers and experts who are generally outside the community. The tradition of using problem-solving between researchers and the community is through mutual understanding of problems and sharing the common goals of solving these problems (Holden *et al.*, 2004). Community participation is currently being adopted more critically, in a process that is consciously done to improve the balance of power between researchers and society (Minkler and Wallerstein, 2008).

Empowerment is related to the emancipatory tradition because community control of the health promotion process is predicted to have a beneficial effect on participating members of the community as well as the larger community they represent (Holden *et al.*, 2004). The shift in meaning toward the emancipatory tradition coincides with a change in the concept of the role of adolescents in terms of prevention from risk factors to the empowerment paradigm (Minkler and Wallerstein, 2008). Prevention is starting to change from preventing something negative to a new paradigm that emphasizes the need to promote positive development in adolescents through youth empowerment. The youth empowerment model is not a community problem that requires prevention, but adolescents are used as a community asset that becomes empowered to make their lives better as well as the wider community (Holden *et al.*, 2004).

The youth empowerment model has been implemented in America in a program known as SYMATU (Statewide Youth Movement Against Tobacco Use). This program is initiated by The American Legacy Foundation and aims to support youth leadership and encourage youth-driven initiatives that ultimately contribute to positive development opportunities in youth (Holden *et al.*, 2004). This program was conducted in 2000 for three years in 17 states in the United States and the evaluation was designed to collect descriptions of country program implementation data at the local level (Holden *et al.*, 2004). The youth empowerment model emphasizes that adolescents need to participate actively in positive activities so that they gain relevant and useful skills and get positive recognition of their involvement (Holden *et al.*, 2004, 2005). Youth empowerment stimulates youth activity in advocating tobacco control policies which indirectly provides useful skills for adolescents such as speaking in front of policymakers, organizing community members, writing articles in newspapers and disseminating petitions (Holden *et al.*, 2004).

The aim of the evaluation design was not to detect the program's impact on adolescent smoking behavior change, because it was a longer outcome than the length of time the study data was collected and was a secondary objective of the SYMATU program. The SYMATU program places more emphasis on descriptive analysis concerning the possibility of empirical regulation between participant characteristics, group structure and youth initiation related to tobacco control (Holden *et al.*, 2004).

Another study explained that a Students Working Against Tobacco (SWAT) program in Florida US was initiated by the Oklahoma State Department of Health (OSDH). The objectives of this program are to (1) involve youth in community action against tobacco, (2) foster meaningful youth-led prevention activities and (3) building state and local youth coalitions. The SWAT team consists of volunteer students and on-site adult partners at the intermediate and upper levels (Ross *et al.*, 2015).

This goal was operationalized through the development of three policy-focused campaigns and appropriate support materials such as 1) the campaign involves youth in advocating for local tobacco-free school policies and includes a secondary awareness campaign after the policy is issued; 2) focus on reducing exposure to secondhand smoke, with the aim of local Clean Air Regulations policies and local smoke or tobacco-free park regulations; 3) addressing youth access to tobacco in retail settings. The campaign aims to pass local regulations prohibiting the sale of tobacco to minors and ensure compliance with existing youth access laws (Ross *et al.*, 2015).

The implementation of each campaign follows a similar structure and is designed to occur over the course of one school year. First, SWAT members watched and discussed a series of online training videos, the information and performances designed to appeal to young people. The videos cover an outline of each campaign, policy change, public speaking, project planning, teamwork and media advocacy. After completing the video training, the team selects a campaign and plans its activities for the year. Implementation centers on completing a predetermined measure of progress (MOP) intended to address each campaign policy objective. MOP is designed to involve youth in data collection, education and local advocacy. Each MOP is assigned a point value to promote and incentivize high-impact advocacy strategies and to unite SWAT teams by earning points together (Ross *et al.*, 2015).

The follow-up of adolescents who were involved in the campaign reported much more positive tobacco-related attitudes. They also showed a higher level of confidence in their ability to carry out campaigns and expose the tobacco industry (Ross *et al.*, 2015). Some of the previous findings support the recommendation that youth programs should build flexibility and encourage youth to engage in creative problem solving (Kirby and Bryson, 2007; Roth and Brooks-gunn, 2003).

The next finding is a pilot project to reduce and prevent tobacco use among Southeast Asian American youth (Lee *et al.*, 2012). The project is a collaboration between researchers at

a nonprofit public health research center and the community and staff of Southeast Asian Young Leaders (SEAYL), a youth development program in the West Contra Costa County region of California. SEAYL engaged in conducting primary research on the social environment for tobacco use in West Contra Costa County with some activities, e.g.: community-based research, including community surveys, Photovoice and community assessment (Lee *et al.*, 2012).

The community survey aimed to understand the broad context of tobacco use and the tobacco problem in their community. Youth developed and fielded two community surveys. The survey assesses community assets that reinforce organizing (Kretzmann and John L. McKnight) 27, and tobacco use and exposure. Furthermore, the photovoice program aims to facilitate the development of SEAYL members' critical awareness about tobacco and their communities. Besides, Youth participants conducted specific tobacco assessments such as surveys of tobacco advertisements and product availability at retail outlets (Lee *et al.*, 2012).

Meanwhile, Asian Tobacco Education, Cancer Awareness and Research (ATECAR) is a long-term effort to tackle the tobacco-related cancer problem of Asian-Americans in the Delaware Valley region of Pennsylvania (PA) and New Jersey (Ma *et al.*, 2004). The ATECAR's CBPR model represents a pioneering effort in the fastest-growing ethnic/racial community in the United States. Its activities include community-based participatory research (CBPR) and Community-Based Needs Assessment Surveys. Its main purpose is to assess diverse behaviors, knowledge and attitudes regarding tobacco use and tobacco-related cancer issues and to identify important and relevant issues on which to focus the research efforts (Ma *et al.*, 2004).

In line with the survey results, multifaceted and multi-focused tobacco education, prevention and intervention programs have been initiated (Ma *et al.*, 2004). The focus of this program includes development/adaptation, field testing and implementation of educational packages; community partner training; recruitment of young Asian and Asian American researchers; contact with local and regional media and preparation of anti-tobacco literature; and the establishment of an ATECAR resource center for use by the Asian American community. Examples of program aspects include the youth PASS program and the adult PASS (Preventing Asians from Smoking and Secondhand Smoke); ACT program (Asian youth Choose Tobacco-free); and the Asian QUIT (Quit Using Tobacco) program. Youth and adult PASS is a tobacco prevention/education program that aims to increase general knowledge about and awareness about tobacco-related cancers and health risks among Asian Americans.

ATECAR's core activity is building community capacity. A successful capacity building program is critical to CBPR and constitutes one of the most important factors contributing to program sustainability. ATECAR uses a variety of strategies to enhance capacity building in the Asian-American community which includes, among other things, minigrant programs, bridging resources and communities and developing writing and proposal skills. An important principle in the participatory research process is to create a conducive environment for learning and empowerment, which supports, encourages and enhances the capacities and skills of the community. ATECAR can bridge the various elements in participatory processes, narrow cultural and language gaps and facilitate dialogue on issues of public concern (Ma *et al.*, 2004).

Furthermore, in North Carolina, there was a program of teen empowerment movement to prevent tobacco use by North Carolina's youth. The activities such as: promoting 100% tobacco-free schools, reducing youth access to tobacco products, promoting smoke-free air and pro-health media messages (Martin *et al.*, 2001). Another innovative component of the North Carolina Youth Empowerment Study (NC YES) project is that it takes a comprehensive approach to evaluate the impact of youth empowerment programs (Martin *et al.*, 2001). This new evaluation process complements youth empowerment approaches by actively engaging

youth in evaluation. NC YES has established an 18-member Advisory Board comprising equal numbers of teen and adult leaders from across the state. It will actively shape the direction of the evaluation. By involving program participants in evaluation efforts, the youth and adults will develop their evaluation knowledge and skills and thus become further empowered (Martin *et al.*, 2001; Ribisl *et al.*, 2004)

The NC YES is an evaluation study of tobacco use prevention programs involving youth in a participatory method for 3 years. The aims of this study were to (1) establish an advisory board consisting of lay youth and adults in a participatory research process, (2) document the characteristics of youth programs for tobacco use prevention and control in North Carolina and (3) track the role of youth involvement in initiating and implementing 100% tobacco-free policies in local school districts (Martin *et al.*, 2001; Ribisl *et al.*, 2004). Youth empowerment is believed to be very promising, but more research and sufficient resources are needed for it to be successful as a viable tobacco use prevention and control strategy. Also, youth-led policy advocacy in tobacco-producing states appears to require a unique blend of resources, funding, expertise and political will (Ribisl *et al.*, 2004).

5. Model of health promotion through youth empowerment to prevent and control smoking behavior

Health promotion is generally implemented as an activity tailored to the context of the program. These activities are conventionally managed and monitored by health promoters which divide a period of identification, design, assessment, approval, implementation and evaluation. The framework of health promotion through youth empowerment in tobacco control applies the theoretical framework of the stages of empowerment from (Laverack, 2007) and the youth empowerment model in tobacco control (Holden *et al.*, 2004). There are four stages of youth empowerment in tobacco control, consist of (a) the program design, (b) planning of empowerment, (c) implementation of empowerment and (d) evaluation of empowerment. It can be seen in the Appendix of Figure 1.

5.1 Youth empowerment program design

Program design reflects problems clearly stated in the statement of purpose, while identification uses appropriate development indicators and prioritizes assessments of risks and assumptions (Laverack and Labonte, 2000; Laverack, 2007). Using a participatory planning approach to the target will be more empowering, for example, by involving participants and helping to resolve conflicts that arise during implementation and evaluation. In the context of empowerment, the concept of the program itself changes, not just as a matter of time limits, one-time education or marketing activities, but the program becomes an important vehicle for health promoters to build relationships with health authorities or non-governmental organizations and community members. Through this relationship, financial, material and knowledge, resources become available for community members to increase their capacity through education and marketing activities or to manage specific public policy changes affecting health determinants (Laverack and Labonte, 2000).

The youth empowerment begins with the design of a program that consists of building trust with community leaders and youth in the research location through meetings and participation of researchers in activities organized by the youth. Next, it is essential to increase youth awareness about the importance of the program through socialization which is done at regular meetings held by the youth community. Moreover, there is a need for assessment to explore adolescent health problems, especially smoking behavior, efforts that can be made to prevent smoking behavior, perceptions of the meaning of empowerment and

identify determinants of youth empowerment processes. Determinants of the youth empowerment process include:

(1) *Adolescent predisposing characteristics*. There are certain characteristics in adolescents that will influence them to potentially engage in local efforts to tackle tobacco control (Holden *et al.*, 2004). It will influence youth participation in groups specifically for tobacco control. Predisposing characteristics include any experience of having been involved in the same group, reasons for joining a local group (e.g. personally motivated because of a desire to change their smoking environment or because of the experience of family members dying from smoking-related illnesses, rather than simply wanting to spend time with friends. friends), demographic characteristics (e.g. age, grade level, school achievement, college plans) and smoking environment at home or among friends (Holden *et al.*, 2004);

(2) *Group Characteristics*. These characteristics include features of the group's structure and the groups' climate as describe below. *Group structures* that need to be operationalized in youth empowerment groups include several components, such as incentives (types of incentives, if available or not for recruitment and subsequent participation promotion); decision-making processes (the extent to which adolescents lead the decision-making process with each group), relationships with existing adult groups (groups that get better support from adults can achieve outcomes or not and increase youth participation or not); opportunities to be involved (whether there are opportunities for youth to be involved, whether or not there are specifications for the role of youth to become leaders or decision-makers); the availability of resources and support (types of resources and support available for each group); *Group climate* includes group resilience, group cohesiveness, collective efficacy and outcome efficacy. Group resilience is the extent to which the group can survive when it fails to achieve its goals and their confidence in working when facing problems as a group that affects all group climates based on reports of participants in the group. Group cohesiveness: involves group members reporting whether the group is united in achieving goals or not, the way group members are committed to achieving common goals, the length of time group members spends together at formal meetings. Collective efficacy is the reach of group members thinking that they can do or work well together to achieve a goal. Outcome efficacy is one way to describe the belief that a certain behavior will produce a specific outcome. Question attributes on outcome efficacy include: how confident members of their group can influence adults and adolescents in their community about tobacco control, and how self-confidence of members of their group can reduce the amount of tobacco use in the community (Holden *et al.*, 2004).

(3) *Adult involvement*. The role of adults in the development of local youth groups is key to the program's success. Adult characteristics that are important for adolescents are a leader who can work in groups with characteristics of being able to relate to adolescents, listens to their ideas, is open to new innovative approaches and can facilitate the engagement process. Key support for adults also comes from parents such as providing transportation for youth activities, supporting and encouraging them to be involved in these types of initiatives. Additionally, support is needed from sponsors such as agencies that promote empowerment structures for groups. All of these attributes are applied to evaluation measures to determine the indirect impact of adult involvement on collective participation (Holden *et al.*, 2004)

The next step involves developing a definition of empowerment that is appropriate to the cultural contexts at the research location through participatory assessment of the empowerment

domain (Laverack, 2006, 2007; Laverack and Labonte, 2000) such as participation, capacity assessment problems, local leadership, organizational structure, resource mobilization, relationships with other parties, being critical, program management and relationships with outside agents (Laverack, 2006, 2007) in a participatory manner and finally, a summative rural appraisal. These domains are flexible, it is possible to change them if needed during the program, and sometimes not all nine domains are owned by the youth community.

5.2 Youth empowerment planning

The goal-setting and strategy selection are developed at this stage. In conventional health promotion programs, objectives developed during the design phase generally center on disease prevention, reducing morbidity and mortality, and lifestyle management such as changing health-related behavior. The goal of empowerment usually focuses on increasing people's ability to control factors that affect health. One example is smoking behavior in men in Latin America. This group is refugees who fled to Canada because of persecution in their homeland, their families experience stress in finding a home and work because of foreign cultures, cultural differences and they do not have certainty of life permanently (Laverack and Labonte, 2000). The objectives of health promotion programs focus on raising awareness of the risk factors for tobacco-related diseases, for example, no one smokes during planning meetings to develop youth centers (Laverack, 2007).

Furthermore, setting the goal of empowerment which is to increase the ability of adolescents to control and determine health choices that will have an impact on the prevention of smoking behavior. Some examples are through workshops or meetings to share ideas and experiences and learn techniques, models and experiences. The focus of the meeting on participatory activities includes discussions, problem-solving exercises and the results are action-oriented based on the agreement of the members. Meetings or workshops are flexible and require consideration of some basic elements such as group equality, dynamics, size and time for practice. Workshop participants represent the community or individuals represent groups to share interests and needs.

Moreover, health promotion programs employ strategies as diverse as awareness-raising campaigns, providing information and advice, influencing social policies, lobbying for change and training, often in combination with complex interventions (Laverack and Labonte, 2000). The most important aspect is that every strategy used is certainly related to and strengthens the empowerment strategy. The information obtained during the initial assessment serves as a basis for developing knowledge, skills and capacities to be more powerful. The objective of the planning strategy is to create positive action in each domain that needs improvement. The three simple stages of a planning strategy are a discussion of how to improve the current situation, develop a strategy to improve the current situation and identify the resources needed to implement the planning strategy. Based on the initial assessment of each domain, participants are asked whether the current situation could be improved or not in the youth group. If participants decide there are no current conditions that need to be improved, then no strategy can be developed in that domain. Developing a strategy to improve the current situation starts by making a list of activities to be carried out, determining time and goals, giving responsibility to certain individuals to carry out activities according to a predetermined time. Then, resources are assessed: participants assess both internal and external resources to improve the current situation. Identification of internal resources includes a commitment to strategy development, attending meetings, better interpersonal communication.

5.3 Youth empowerment implementation

Health promoters need practical methods for assessing and planning community empowerment strategies during program management and implementation (Laverack, 2007) developed and field-tested a new methodology for this purpose. The methodology is implemented through a one- to two-day workshop and involves several participants to conduct a self-assessment based on experience and knowledge. This phase consists of strategy implementation and management that increase empowerment domains. The section describes the mechanisms for youth empowerment programs which consist of increasing local leadership and management skills, increasing collective participation, improving the ability to identify problems, increasing the formation of organizational structures, improving the ability to relate to others, increasing resource mobilization, increasing cooperation with outside agents and increasing critical awareness among youth. Some activities to improve the empowerment domain, e.g. regular meetings to increase the flow of information between youth leaders and their members, developing clear plans for activities or determining roles and responsibilities directly. Moreover, youth activation programs, competency development, skills training such as communication training, leadership, how to deal with conflict, education about adolescents who care about health and initiating Program of Empower Youth Healthy without Smoking (EYHWS) "*Program Remaja Berdaya dan Sehat Tanpa Rokok*" (JayaStar).

5.4 Youth empowerment evaluation

The final stage of the community (youth) empowerment framework is to determine the impact of the program and evaluate community empowerment. Community empowerment can be a long and slow process, if the measurement is only focused on outcomes then the achievements cannot be seen during the relatively limited time frame. Some of the outcomes of community empowerment may not occur until the program time frame is complete. Thus, evaluating community empowerment in a program with a limited time frame is more appropriate when assessing changes during the process than with the outcome (Laverack and Labonte, 2000; Laverack, 2007). As a result, the process becomes an indicator of the results. For example, the empowerment outcomes of male smoking behaviors in Latin America were determined by themselves. Program success was not measured by the number of changes in smoking behavior but seen from the increase in the men's readiness to consider changes in smoking behavior. This is assessed by the way men and their families can control their apparent condition and the contribution of the health department to facilitate the process, including men's ability to determine the outcome of their projects and evaluate their achievements (Laverack and Labonte, 2000). Furthermore, the measurement of community empowerment as a process is done by monitoring the interaction between capacities, skills and resources of individuals or organizations during program implementation (Laverack, 2007).

The goal of empowerment is more likely to change the capacity and increase the power of the target. This is a learning process obtained from actions that propose a bottom-up or empowerment approach to health promotion. In the end, empowerment focuses on people's experiences, opinions and knowledge. It is a construct of individuals and local collective beliefs and truths. The more empowering program design namely uses participatory planning and evaluation (Laverack and Labonte, 2000).

The key point of increasing youth empowerment is the quality and natural youth participation in activities that contribute to empowering individuals, which will affect changes in individuals, groups, society and other desired outcomes. The quality of participation in groups is influenced by group structure and group climate. The empowerment of adolescents emphasizes psychological empowerment which is manifested

as a process through participation and can be measured in the outcome of individual change, namely involvement in group efforts (Holden *et al.*, 2005).

The results of the youth empowerment process can be seen through several indicators based on their levels, e.g.: the individual level and the group level (Holden *et al.*, 2004). At the individual level, adolescents actively participate in the planning and implementation stages of tobacco control activities with the state and community, known as psychological empowerment (Holden *et al.*, 2004, 2005; Woodall *et al.*, 2010). In the context of tobacco control, these changes occur as a result of youth participation in organizations. However, empowerment often occurs after adolescents make a personal commitment to be involved in organizational efforts in tobacco control. Specific characteristics that indicate the outcome of the empowerment process are changes in adolescent attitudes and beliefs (such as certain efficacy domains, attitudes towards socio-political control and participatory competence), specific knowledge such as knowledge of resource availability and skills as agents of social change such as assertiveness and advocacy. Another indicator of the success of the empowerment process at the individual level is a reduction in the desire to smoke (they think they will smoke or not in the future) and they express a desire to remain involved or not in the group (if they plan to remain involved in the group, it means there is success in maintaining members). On the other hand, a good relationship between the facilitator and participants includes aspects of culture, beliefs and critical awareness processes that will drive behavior change (Mohajer and Earnest, 2009).

Furthermore, there are group-level changes. There are several attributes or questions related to group-level changes that determine which groups are successful in achieving their goals and maintaining membership. These attributes include: activities have been made as planning, activities appear to be effective to achieve specific results, the group's ability to mobilize available resources in conducting activities, additional youth members have been maintained and individual members have been retained in groups and adolescents have a high level of satisfaction in participating in groups or not.

6. Discussion

This article presents a process for conceptualizing Youth Empowerment within the context of smoking prevention and control. In an attempt to enhance youth participation around smoking prevention programs, Empower Youth Healthy without Smoking (EYHWS) programs as a way to engage youths in this important issue by enabling their participation and leadership in these efforts. It was hoped that their involvement would achieve empowerment both of the individuals involved and of their groups and surrounding communities. With a variety of methods, including expert panel input, literature review, focus groups with youths and interview with stakeholders such as a leader of a community, we developed a conceptual framework for Youth Empowerment that is comprehensive in scope and logical in the application. We used this conceptual framework to guide the implementation of EYHWS program, development of our evaluation design and methods.

The model of youth empowerment to prevent and control smoking behavior adopted a comprehensive statewide tobacco control programs coordinate community-level interventions based on the Centers for disease Control and Prevention (CDC) "Best Practices for Comprehensive Tobacco Control Programs" and focus on: preventing initiation among youth and eliminating exposure to secondhand smoke (Centers for Disease Control and Prevention, 2014). Furthermore, this paper tries to apply the stages of community empowerment (Laverack, 2007) for the prevention and control of smoking behavior (Holden *et al.*, 2004) so that a youth empowerment model is proposed by the name of Empower Youth Healthy without Smoking (EYHWS) (in Appendix Figure 2).

Empowerment is a process in which there are activities to increase the empowerment domain, such as participation (Holden *et al.*, 2004; Laverack, 2007), local leadership, resource mobilization, capacity assessment problems, local leadership, organizational structure, resource mobilization, relationships with other parties, being critical, program management and relationships with outside agents (Laverack, 2007; Laverack and Labonte, 2000). Factors that influence the youth empowerment process are adolescent predisposing factors, adult involvement, group structure and group climate (Holden *et al.*, 2004). The previous finding that personal factors associated with an attitude of empowerment was characteristic of youth at lower risk of smoking (Dunn and Pirie, 2005). Activities that promote feelings of empowerment may not be the ones that offer the most opportunity for youth to be leaders. Direct involvement in implementing activities may be more important (Dunn and Pirie, 2005).

The indicator of empowerment is an increase in empowerment domains during the intervention that is conducted. This empowerment will have an impact on individual or group changes and community (Holden *et al.*, 2004). Furthermore, empowerment is linked to positive individual health indicators such as self-esteem, competence, motivation and self-efficacy (Marr-Lyon *et al.*, 2008); individuals self-efficacy, self-esteem, sense of community, sense of control and increases in individuals' knowledge and awareness (Woodall *et al.*, 2010); individual and communities empowered to research their condition are better positioned to effect positive changes for themselves (Holden *et al.*, 2004, 2005). For tobacco prevention, environmentally oriented, youth-led programs have been identified as particularly effective in engaging youth in tobacco control efforts (Hinnant *et al.*, 2004). Meanwhile, other researchers stated that social capital is an important mediator influencing the empowerment of adolescents; in this context, in tobacco control programs, the emphasis is on giving social responsibility to adolescents. Youth participation is the main indicator of empowerment. Then, social capital influences adolescents to participate collectively in tobacco control programs. Furthermore, this collective participation will encourage the creation of adolescents who are empowered in tobacco control programs. The output of youth empowerment is the intention to be involved, healthy values and behavior, positive experiences and community control and a culture of healthy living (Albert-Lőrincz *et al.*, 2019).

Participation in the program has a positive influence on adolescent beliefs, such as future orientation, group cohesiveness, personal size and group efficacy and perceptions (Wilson *et al.*, 2008). This condition will positively affect the proximal outcome of empowerment such as the willingness to use conflict resolution skills, and collaborative group decision making increased involvement in designing and implementing positive programs increased efficacy and participation in change. Furthermore, empowerment will have an impact on health and well-being with indicators of increasing awareness of risky behaviors, behaviors that improve health (Wilson *et al.*, 2008). Meanwhile, individual change in a society related to empowerment is known as individual community-related empowerment (ICRE), which consists of five dimensions, namely: self-efficacy, intention, participation, motivation and critical awareness (Kasmel and Tanggaard, 2011). Thus, ICRE is an indicator of the success of community empowerment at the individual level (Kasmel and Tanggaard, 2011).

The role of empowerment in most studies is an outcome and there was only one study that used a mediator. Empowerment indicators that involve groups or include individual competencies in groups were participation, social contact, social support and joint decision making. Individual and group indicators were related to the political dimension of empowerment produce advocacy and collective action where the main indicators are vision, reflection, problem-solving, critical awareness, leadership, resource mobilization or networks (Lindacher *et al.*, 2018).

The main principle of empowerment is participation and allowing the target to reflect on the quality of the measurements received the number of researchers collaborating with

members of the target group (youth community) during data collection design and data interpretation (Lindacher *et al.*, 2018). Empowerment evaluation still proves to be a challenge, so researchers need to use a variety of innovative and multilevel designs and methods. In the empowerment evaluation, a minimum standard of results should be made and it is important to achieve this without limiting the researcher's ability to respond to specific aspects of the context. It is recommended that further research includes participant preferences in the research study design, discussion and evaluation (Lindacher *et al.*, 2018).

7. Conclusion

Health promotion through youth empowerment to prevent and control smoking behavior starts from program design, planning, implementation and evaluation. The determinants of the youth empowerment process are adolescent predisposing factors, group structure, adult involvement and group climate. Indicators of the success of the empowerment process are reflected in the increase in the empowerment domain. Meanwhile, the output of the youth empowerment will have an impact on positive individual health indicators and the group-level changes. The framework outlined in this article is the first step to clarifying and understanding how youth empowerment goals can be systematically accommodated in health promotion programs. In addition, all of the domains presented here are the impact of group structure and climate, and the role of the adults involved is important to consider when developing local initiatives in youth and hopes to achieve both their growth as individuals and successful group efforts for all involved. Although this framework was designed to be sensitive to the context of smoking prevention and control, much of what is presented can be used as a guide in developing any local program efforts that involve youths.

References

Albert-Lőrincz, E., Paulik, E., Szabo, B., Foley, K. and Gasparik, A.I. (2019), "Adolescent smoking and the social capital of local communities in three counties in Romania", *Gaceta Sanitaria*, Vol. 33 No. 6, pp. 547-553, doi: 10.1016/j.gaceta.2018.05.009.

Backinger, C.L., Fagan, P., Matthews, E. and Grana, R. (2003), "Adolescent and young adult tobacco prevention and cessation: current status and future directions", *Tobacco Control*, Vol. 12 Suppl. 4, pp. IV46-53, doi: 10.1136/tc.12.suppl_4.iv46.

Badan Pusat Statistik-Central Statistics Agency (2018), *Statistik Pemuda Indonesia 2018*, Badan Pusat Statistik, Jakarta.

Bartholomew, L.K., Parcel, G.S., Kok, G. and Gottlieb, N.H. (2006), *Planning Health Promotion Programs: An Intervention Mapping Program*, Jossey-Bass.

Butterfoss, F. and Kegler, M. (2002), "Toward a comprehensive understanding of community coalitions : mowing from practice to theory", in DiClemente, R., Crosby, R. and Kegler, M. (Eds), *Emerging Theories in Health Promotion Practice and Research*, Jossey-Bass, pp. 27-52.

Centers for Disease Control and Prevention (2014), *Best Practices for Comprehensive Tobacco Control Program*, National Center for Chronic Disease Prevention and Health Promotion, Atlanta.

Das Gupta, M., Engelman, R., Levy, J., Luchsinger, G., Merrick, T. and Rosen, J.E. (2014), *State of World Population 2014 the Power of 1,8 Billion Adolescents, Youth and the Transformation of the Future*, UNFPA (United Nation Population Fund), New York, Vol. 136.

Dunn, C.L. and Pirie, P.L. (2005), "Empowering youth for tobacco control", *American Journal of Health Promotion*, Vol. 20 No. 1, pp. 7-10, doi: 10.4278/0890-1171-20.1.7.

Golechha, M. (2016), "Health promotion methods for smoking prevention and cessation: a comprehensive review of effectiveness and the way forward", *International Journal of Preventive Medicine*, Vol. 7 No. 7, pp. 1-5, doi: 10.4103/2008-7802.173797.

Hinnant, L.W., Nimsch, C. and Stone-Wiggins, B. (2004), "Examination of the relationship between community support and tobacco control activities as a part of youth empowerment programs", *Health Education and Behavior*, Vol. 31 No. 5, pp. 629-640, doi: 10.1177/1090198104268680.

Holden, D.J., Messeri, P., Evans, W.D., Crankshaw, E. and Ben-Davies, M. (2004), "Conceptualizing youth empowerment within tobacco control", *Health Education and Behavior*, Vol. 31 No. 5, pp. 548-563, doi: 10.1177/1090198104268545.

Holden, D.J., Evans, W.D., Hinnant, L.W. and Messeri, P. (2005), "Modeling psychological empowerment among youth involved in local tobacco control efforts", *Health Education and Behavior*, Vol. 32 No. 2, pp. 264-278, doi: 10.1177/1090198104272336.

Kasmel, A. and Andersen, P.T. (2011), "Measurement of community empowerment in three community programs in Rapla (Estonia)", *International Journal of Environmental Research and Public Health*, Vol. 8 No. 3, pp. 799-817, doi: 10.3390/ijerph8030799.

Kasmel, A. and Tanggaard, P. (2011), "Evaluation of changes in individual community-related empowerment in community health promotion interventions in Estonia", *International Journal of Environmental Research and Public Health*, Vol. 8 No. 6, pp. 1772-1791, doi: 10.3390/ijerph8061772.

Kirby, P. and Bryson, S. (2007), *Measuring the Magic? Evaluating and Researching Young People's Participation in Public Decision Making*, Carnegie Young People Initiative, London.

Laverack, G. (2006), "Improving health outcomes through community empowerment: a review of the literature", *Journal of Health, Population and Nutrition*, Vol. 24 No. 1, pp. 113-120, available at: http://www.jstor.org/stable/23499274.

Laverack, G. (2007), *Health Promotion Practice: Building Empowered Communities*, 1st ed., Open University Press, New York.

Laverack, G. (2017), "The challenge of behaviour change and health promotion", *Challenges*, Vol. 8 No. 2, p. 25, doi: 10.3390/challe8020025.

Laverack, G. and Labonte, R. (2000), "A planning framework for community empowerment goals within health promotion", *Health Policy and Planning*, Vol. 15 No. 3, pp. 255-262.

Lee, J.P., Lipperman-Kreda, S., Saephan, S. and Kirkpatrick, S. (2012), "Youth-led tobacco prevention: lessons learned for engaging Southeast Asian American youth", *Progress in Community Health Partnerships: Research, Education, and Action*, Vol. 6 No. 2, pp. 187-194, doi: 10.1353/cpr.2012.0022.

Lindacher, V., Curbach, J., Warrelmann, B., Brandstetter, S. and Loss, J. (2018), "Evaluation of empowerment in health promotion interventions: a systematic review", *Evaluation and the Health Professions*, Vol. 41 No. 3, pp. 351-392, doi: 10.1177/0163278716688065.

Linstrom, M. (2018), "Social capital and health related behaviors", in Kawachi I, D.K. and Subramanian (Eds), *Social Capital and Health*, Springer US, pp. 215-225.

Ma, G.X., Toubbeh, J.I., su, X. and Edwards, R.L. (2004), "ATECAR: an Asian American community-based participatory research model on tobacco and cancer control", *Health Promotion Practice*, Vol. 5 No. 4, pp. 382-394, doi: 10.1177/1524839903260146.

Marr-Lyon, L., Young, K. and Quintero, G. (2008), "An evaluation of youth empowerment tobacco prevention programs in the southwest", *Journal of Drug Education*, Vol. 38 No. 1, pp. 39-53, doi: 10.2190/DE.38.1.d.

Martin, J.D., Ribisl, K.M., Jefferson, D. and Houston, A. (2001), "Teen empowerment movement to prevent tobacco use by North Carolina's youth", *North Carolina Medical Journal*, Vol. 62 No. 5, pp. 260-265.

Minkler, M. and Wallerstein, N. (2008), "The theoretical, historical, and practice roots of CBPR", *Community-Based Participatory Research for Health*, pp. 25-46.

Mohajer, N. and Earnest, J. (2009), "Youth empowerment for the most vulnerable: a model based on the pedagogy of Freire and experiences in the field", *Health Education*, Vol. 109 No. 5, pp. 424-438, doi: 10.1108/09654280910984834.

Ng, N., Weinehall, L. and Öhman, A. (2007), "'If I don't smoke, I'm not a real man' - Indonesian teenage boys' views about smoking", *Health Education Research*, Vol. 22 No. 6, pp. 794-804, doi: 10.1093/her/cyl104.

Pratiwi, R.Y. (2013), "Kesehatan Remaja di Indonesia", available at: http://www.idai.or.id/artikel/seputar-kesehatan-anak/kesehatan-remaja-di-indonesia.

Ribisl, K.M., Steckler, A., Linnan, L., Patterson, C.C., Pevzner, E.S., Markatos, E., Goldstein, A.O., McGloin, T. and Peterson, A.B. (2004), "The North Carolina youth empowerment study (NCYES): a participatory research study examining the impact of youth empowerment for tobacco use prevention", *Health Education and Behavior*, Vol. 31 No. 5, pp. 597-614, doi: 10.1177/1090198104268550.

Rosen, J.E. (2004), *Adolescent Health and Development (AHD) A Resource Guide for World Bank Operations Staff and Government Counterparts*, Hnp Discussion Paper, (Issue April).

Ross, H.M., Dearing, J.A. and Rollins, A.L. (2015), "Oklahoma's youth-driven tobacco policy campaigns: assessment of impacts and lessons learned", *American Journal of Preventive Medicine*, Vol. 48 No. 1, pp. S36-S43, doi: 10.1016/j.amepre.2014.10.001.

Roth, J.L. and Brooks-gunn, J. (2003), "Youth development programs: risk, prevention and policy", *Journal of Adolescent Health*, Vol. 32 No. 3, pp. 170-182, doi: 10.1016/S1054-139X(02)00421-4.

Salam, R.A., Das, J.K., Lassi, Z.S. and Bhutta, Z.A. (2016), "Adolescent health and well-being: background and methodology for review of potential interventions", *Journal of Adolescent Health*, Vol. 59 No. 2, pp. S4-S10, doi: 10.1016/j.jadohealth.2016.07.023.

Sawyer, S.M., Azzopardi, P.S., Wickremarathne, D. and Patton, G.C. (2018), "The age of adolescence", *The Lancet Child and Adolescent Health*, Vol. 2 No. 3, pp. 223-228, doi: 10.1016/S2352-4642(18)30022-1.

Smith, L., Rosenzweig, L. and Schmidt, M. (2010), "Best Practices in the reporting of participatory action research: embracing both the forest and the trees", *The Counseling Psychologist*, Vol. 38 No. 8, pp. 1115-1138, doi: 10.1177/0011000010376416.

United Nations (2014), "Adolescent and youth demographics: a brief overview", available at: https://www.unfpa.org/sites/default/files/resource-pdf/One pager on youth demographics GF.pdf.

US National Cancer Institute and World Health Organization (2016), *The Economics of Tobacco and Tobacco Control. Monograph 21*, Vol. NIH Public No. 1, US Department of Health and Human Services, National Institutes of Health, National Cancer Institute; and Geneva, CH: World Health Organization, Bethesda, MD.

Wallerstein, N. and Duran, B. (2003), "The conceptual, historical, and practice roots of community based participatory research and related participatory traditions", in Minkler M, W.N. (Ed.), *Community Based Participatory REsearch For Health*, Jossey Bass, pp. 27-52.

Wheeler, D.P., Carter, R.E., Cobb, V.L. and Louis, B.J. (2007), "Engaging African American youth in smoking prevention efforts", *American Journal of Health Study*, Vol. 22 No. 2, p. 114.

Wilson, N., Minkler, M., Dasho, S., Wallerstein, N. and Martin, A.C. (2008), "Getting to social action: the youth empowerment strategies (YES!) project", *Health Promotion Practice*, Vol. 9 No. 4, pp. 395-403, doi: 10.1177/1524839906289072.

Woodall, J., South, J. and Warwick-booth, L. (2010), "Empowerment and health and wellbeing. Evidence review", *Centre for Health Promotion Research*, Leeds Metropolitan University, Vol. 2, September.

World Health Organization (2009), *Milestones in Health Promotion: Statements from Global Conferences*, Vol. 6, World Health Organization, available at: http://apps.who.int/iris/handle/10665/70578.

World Health Organization, T. (2011), *WHO Report on the Global Tobacco Epidemic, 2011: Warning About the Dangers of Tobacco*, World Health Organization, Geneva, pp. 1-32.

World Health Organization (2014), *Health for the World's Adolescents: A Second Chance in the Second Decade*, World Health Organization, Geneva.

World Health Organization. Regional Office for South-East Asia (2015), *Global Youth Tobacco Survey (GYTS) 2014*, available at: https://apps.who.int/iris/handle/10665/205147.

World Health Organization (2017), *WHO Report on the Global Tobacco Epidemic, 2017: Monitoring Tobacco use and Prevention Policies*, World Health Organization, Geneva.

World Health Organization (2018), "Factsheet Indonesia 2018", available at: https://apps.who.int/iris/bitstream/handle/10665/272673/wntd_2018_indonesia_fs.pdf?sequence=1.

Appendix

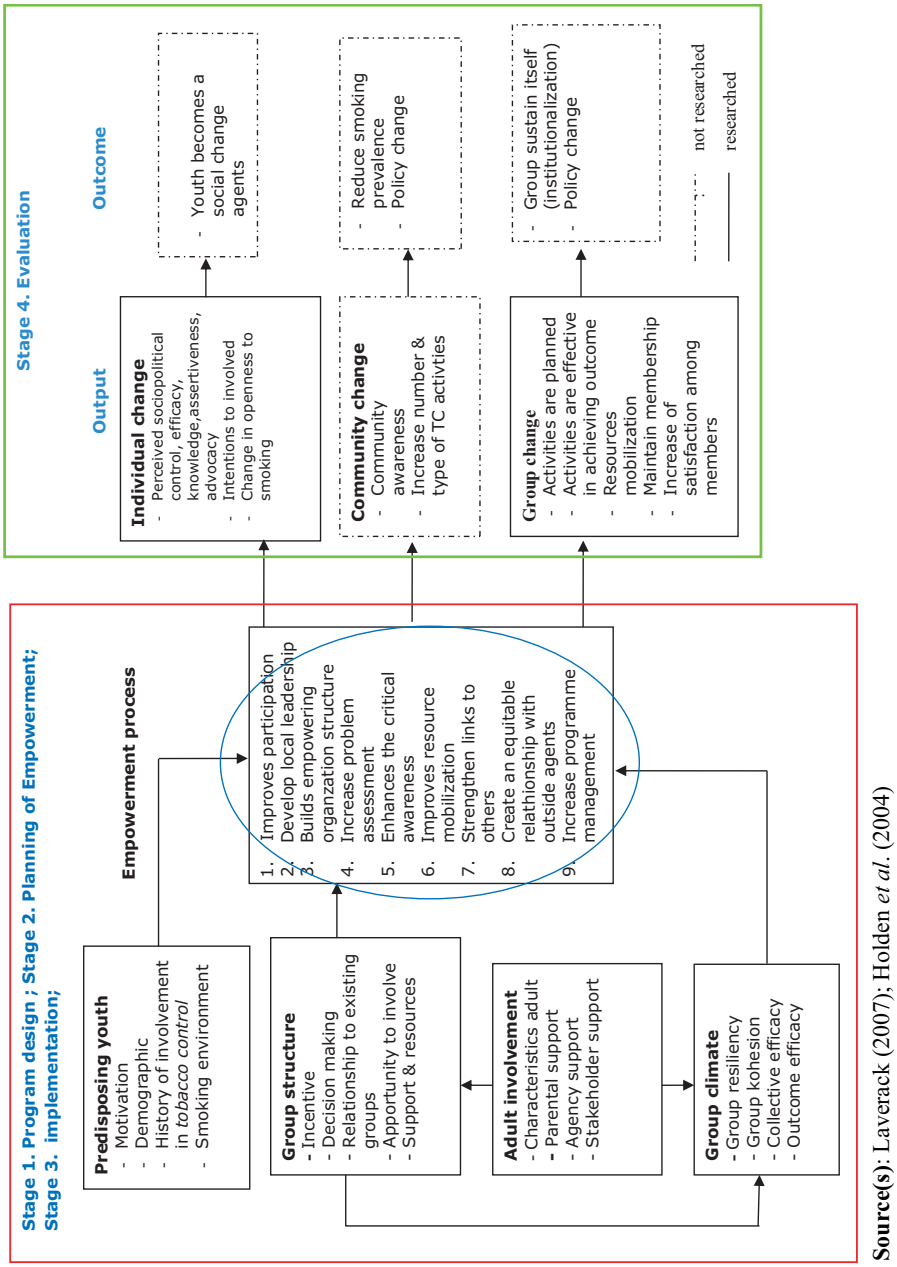

Figure 1.
Model of health promotion through youth empowerment in tobacco prevention and control

Source(s): Laverack (2007); Holden *et al.* (2004)

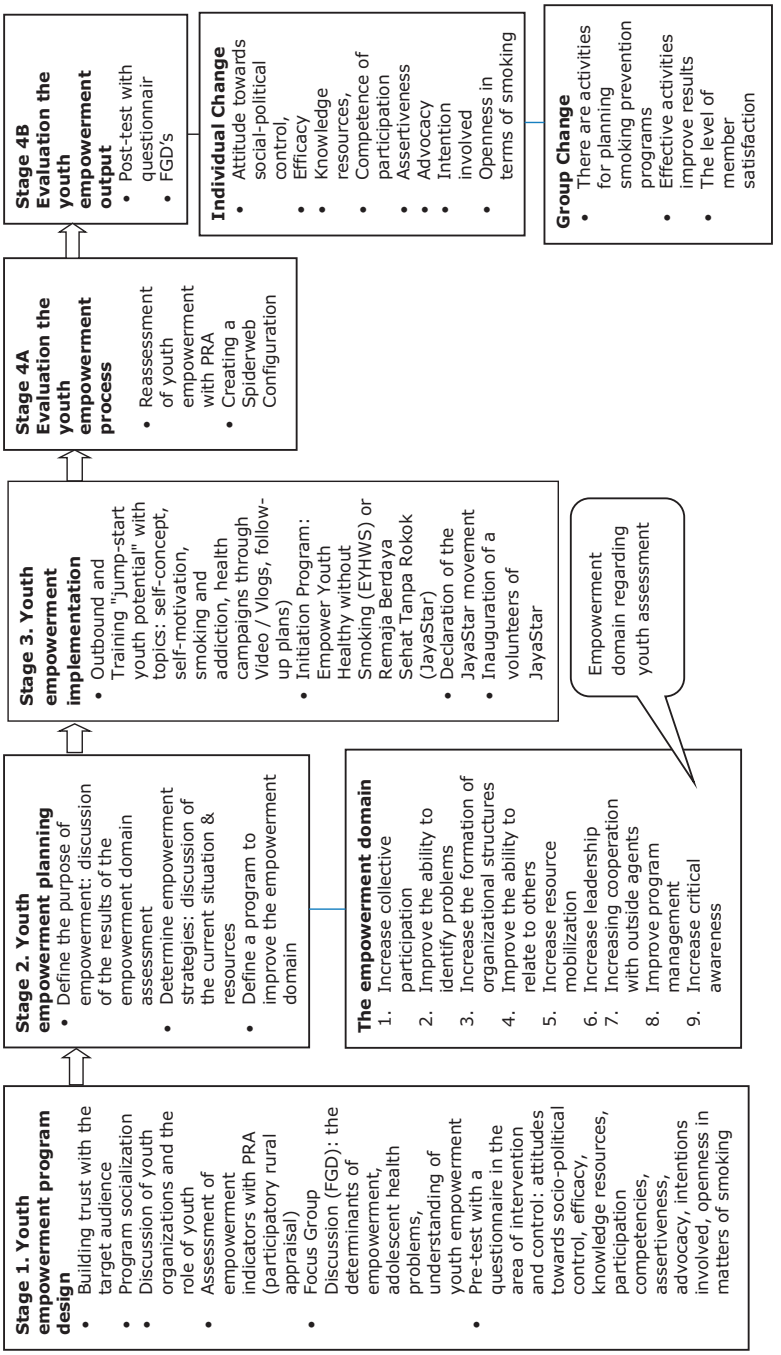

Figure 2.
Model of health promotion through youth empowerment to prevent smoking behavior

About the authors

Heni Trisnowati, SKM, MPH Heni Trisnowati as a lecturer, researcher and health promoter at Universitas Respati Yogyakarta. She is a Masters of Public Health with an interest in Behavioral and Health Promotion. She is responsible for teaching health promotion, qualitative methodology, health research methods and health promotion media. Her research interest is in health promotion, empowerment, tobacco control, smoking prevention and prevention of non-communicable diseases. Currently, she is a doctoral candidate in the field of Health Promotion and community empowerment at the Faculty of Medicine, Public Health and Nursing Universitas Gadjah Mada (UGM). Heni Trisnowati is the corresponding author and can be contacted at: heni_trisnowati@mail.ugm.ac; heni_trisnowati@respati.ac.id

Prof. Dr. Djauhar Ismail, SpA(K), PhD Djauhar Ismail is a professor at the department of child health, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada with a social pediatrics background and doctor in Public Health. He is a consultant in healthy child and adolescent development. His publication is international journals in the field of social pediatrics and public health. He is also responsible for teaching adolescents health, child development, social pediatrics and immunization.

Dr. Dra Retna Siwi Padmawati, MA Retna Siwi Padmawati is a doctor in health policy and management at the Faculty of Medicine, Public Health and Nursing at Gadjah Mada University. Her research interest is in health policy and health sciences or public health. She is a trainer in the qualitative methods for academic and public health since 2009, tobacco cessation training and community empowerment in tobacco control. Her publication is international journal tobacco control, community empowerment and health policy. She is currently the head of the Center of Health Behavior and Promotion at Universitas Gadjah Mada.