



Family empowerment as an effort to prevent hypertension in the adolescent group in the working area of the Kebonsari Health Center Surabaya

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ARTICLE INFO	ABSTRACT
<p>Article history Received: 2021-10-12 Revised: 2021-11-19 Accepted: 2022-02-22 Published: 2022-02-22</p> <p>Keywords Adolescent hypertension Family empowerment Prevention of hypertension</p>	<p>Hypertension in adolescents is increasing in Indonesia, including in East Java. An unhealthy lifestyle, activity, eating less vegetables and fruits and increasing smoking habits are the causes of the increasing prevalence of hypertension in adolescents. This condition is a big problem, because the incidence of hypertension in adolescence will continue in adulthood and have a higher risk of morbidity and mortality. This service activity aims to identify the role of the family in preventing hypertension in adolescents before and after the empowerment process, as well as identifying family behavior to prevent hypertension after the empowerment process. The method used is an empowerment intervention to the family. The result of this empowerment activity is that the empowerment that has been carried out can increase the role of the family in preventing the occurrence of hypertension in adolescents. The empowerment process is carried out through the activities of providing health education, mentoring, and monitoring the increase in the role of the family.</p>
<p>Kata Kunci Hipertensi remaja Pemberdayaan keluarga Pencegahan hipertensi</p> <div data-bbox="263 1512 391 1646"></div> <div data-bbox="167 1646 470 1724"></div>	<p>Pemberdayaan keluarga sebagai upaya pencegahan hipertensi pada kelompok remaja di wilayah kerja Puskesmas Kebonsari Surabaya. Angka kejadian penyakit hipertensi pada remaja semakin meningkat di Indonesia termasuk di Jawa Timur. Gaya hidup yang tidak sehat, aktifitas, makan sayur dan buah yang kurang, serta kebiasaan merokok yang meningkat merupakan penyebab meningkatnya prevalensi hipertensi pada remaja. Kondisi ini menjadi masalah besar, karena kejadian hipertensi pada usia remaja akan berlanjut pada usia dewasa dan berisiko morbiditas dan mortalitas yang lebih tinggi. Kegiatan pengabdian ini bertujuan untuk mengidentifikasi peran keluarga dalam mencegah penyakit hipertensi pada remaja sebelum dan sesudah proses pemberdayaan, serta mengidentifikasi perilaku keluarga untuk mencegah penyakit hipertensi sesudah proses pemberdayaan. Metode yang digunakan adalah intervensi pemberdayaan kepada keluarga. Hasil dari kegiatan pengabdian ini menunjukkan bahwa pemberdayaan yang telah dilakukan dapat meningkatkan peran keluarga dalam mencegah terjadinya hipertensi pada remaja. Proses pemberdayaan yang dilakukan melalui kegiatan pemberian pendidikan kesehatan, pendampingan, dan pemantauan peningkatan peran keluarga.</p> <p>Copyright © 2022, Kholifah et al This is an open access article under the CC-BY-SA license</p> <div data-bbox="1125 1657 1316 1736"></div>

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INTRODUCTION

Today's youth groups are prone to suffer from hypertension due to an unhealthy lifestyle. Surabaya is a metropolitan city with its adolescent lifestyle applying a low proportion of physical activity. Surabaya experienced an increase in the number of hypertension cases from 26.1% to 33.5%. In addition, data on the proportion of less fruit/vegetable consumption in the population > 5 years in East Java Province has increased from 93.5% to 95.5%. The physical activity of adolescents at home is very less, while sports are carried out at school according to the schedule of sports lessons. The smoking rate at the age of <20 years in 2016 in Indonesia is 11.1% of the entire population (Kemenkes RI, 2016). This research is the reference for this community service activity. The results of Riskesdas 2017, the prevalence of hypertension in Indonesia in the population >18 years is 34.1%, an increase from 25.8% (Health RI, 2018). In the city of Surabaya, the number of people with hypertension is 18.42% of the total population. Of the 53 health centers in the city of Surabaya, the highest prevalence of hypertension is the working area of the Kebonsari Public Health Center, Surabaya, which is 6,759 people.

Adolescents who are susceptible to hypertension need prevention efforts. Looking at the causes of hypertension in adolescents, 80% is essential hypertension, thus, the role of the family is very important to prevent it. Family empowerment is an important component in health care efforts (Kim et al., 2016; Rahman et al., 2018; Shahhosseini et al., 2012; Tomayko et al., 2021) including prevention of hypertension. Families in making prevention efforts are closely related to behavior or lifestyle. Family is a role model for teenagers. Most of the families in the working area of the Kebonsari Health Center are immigrants, with socioeconomic levels ranging from low to high. Almost all of the youth in this area live with their families. Families play an important role in controlling eating behavior (Tomayko et al., 2021), physical activity, exercise, and smoking habits in adolescents.

Kebonsari Health Center Surabaya has implemented the Health Nursing program community (Perkesmas). One of the activities of this program is nursing care for families with hypertension. However, the home visit program for families with adolescents has not yet been implemented, especially for the prevention of hypertension as a promotive and preventive effort. This service activity aims to identify the role of the family in preventing hypertension in adolescents before and after the empowerment process, as well as identifying family behavior to prevent hypertension after the empowerment process.

The implementation of this community service will later become part of the Perkesmas program, especially the target of families with teenagers which so far have not been implemented. Efforts to prevent hypertension require self-discipline, so that independence in prevention is needed for adolescents and their families. Empowerment efforts can gradually grow independence; thus, it is expected to be able to carry out sustainable independent prevention. The success of this hypertension prevention effort will reduce the prevalence of hypertension and improve the health quality of families and groups of adolescents.

METHOD

The design of this community service implementation used empowerment interventions for families. The targets are families who have teenage children, living in the area of the Kebonsari Health Center Surabaya. The participants of this service program were 65 people.

The techniques for implementing this service activity were summarized into four points. *First*, the licensing process. The implementation of community service activities began with applying for a permit to BAKESBANGPOLINMAS and the Surabaya City Health Office. *Second*, the preparation of the module. *Third*, assessing the role of the family in preventing hypertension in adolescents. *Fourth*, providing health education about preventing hypertension in adolescents using the compiled module. This fourth activity included providing a pretest on knowledge about preventing hypertension in adolescents, providing material about preventing hypertension in adolescents, and a post-test on knowledge about preventing hypertension in adolescents. *Fifth*, providing assistance actions. This mentoring activity was carried out in terms of implementing hypertension prevention in adolescents. What was done in this activity was to carry out discussions with families and adolescents about the difficulties experienced during carrying out various hypertension prevention measures, accommodate all complaints that were felt during carrying out various preventive measures, provide a diary (for 7 days) to the family and to record all activities undertaken, discussions about joint commitments between families and adolescents in carrying out various hypertension prevention actions, providing knowledge and skills strengthening for families, and giving rewards to families if they took action correctly. Empowerment actions were carried out by providing an opportunity for one week for families to carry out various prevention measures for hypertension in adolescents, as well as monitoring all the obstacles experienced by families and adolescents undertaking preventive actions through *WhatsApp*. In addition, there were also discussions with families and adolescents about the benefits of prevention that had been implemented, plans to be carried out after the completion of this program and building a shared commitment to carry out prevention efforts independently and sustainably and then assessing the role of families in implementing hypertension prevention measures in adolescents. *Sixth*, Evaluation. The evaluation was carried out using several methods, namely: evaluating the family's understanding of hypertension care through pre-test and post-test;

meanwhile, evaluating changes in the role of the family towards preventing hypertension in adolescents done using a checklist for monitoring changes in family roles which was filled out every day for up to 7 days.

RESULTS AND DISCUSSION

Location description

The implementation of community service activities is carried out on families with teenagers in the Kebonsari Health Center area of Surabaya. Map of the location of the service program is shown in Figure 1.



Figure 1. Map of the location of community service activities

Kebonsari Public Health Center in Surabaya, which is located in Jambangan District, South Surabaya. The Kebonsari Health Center has three sub-health centers, namely Jambangan, Karah and Pagesangan Health Centers. The location of the Puskesmas is very easy to reach, including all its areas.

Implementation of community service

The implementation of the community service program began with submitting a permit to Bakesbangpolinmas and the Surabaya City Health Office. After the permit was granted, the service team prepared the module. The module detailed health education, including hypertension, factors that influence hypertension, family support in preventing hypertension, and prevention of hypertension. The learning methods applied during the service implementation were lectures, questions and answers, and discussions. The duration of time used for learning was 90 minutes. Participants were enthusiastic in listening and asking questions during the learning session.

The next stage is the process of assessing the role of the family in preventing hypertension before the empowerment process. The results of the assessments that have been carried out are presented in Table 1.

Table 1. Frequency distribution of family roles in preventing hypertension

No.	Activities	Category		
		Good N(%)	Sufficient N(%)	Less N(%)
1	Providing balanced nutrition for adolescents (rice, side dishes, vegetables, fruit)	50 (65%)	12 (15%)	4(20%)
2	Reminding to exercise 2-3 times a week	20 (6%)	34 (52%)	11 (26%)
3	Banning smoking	65 (100%)	0	0
4	Forbid <i>playing games</i> for more than 1 hour per day	65 (100%)	0	0
5	Providing facilities to do useful activities outside the home.	27 (12%)	34 (52%)	4 (36%)
6	Paying attention to hours of sleep at night and day (7-8 hours/day)	52 (38%)	13 (62%)	0
7	Becoming a friend to confide in	33 (18%)	20 (25%)	12 (66%)
8	Motivating youth to actively worship and pray	20 (31%)	45 (67%)	0
9	Paying attention to adolescent complaints	50 (77%)	15 (23%)	0
10	Discussing with adolescents before taking decision	15 (23%)	35 (44%)	15 (23%)
11	Monitoring adolescent overweight	10 (15%)	24 (37%)	31(47%)
12	Providing information about preventing hypertension in adolescents	0	0	65 (100 %)

Table 1 describes the role that has been done by the family in preventing the occurrence of hypertension in adolescents. Most (65%) families are categorized as good in providing balanced nutrition. All families forbade their children to smoke and play *games* for more than one hour per day (100%). More than half (52%) of families are included in the sufficient category in providing useful facilities outside the home. 62% of families are included in the category

sufficient to pay attention to the hours of sleep at night and during the day (7-8 hours). Most (66%) families are less in the role of friends to confide in adolescents. Most (67%) families in the category are sufficient in motivating adolescents to actively worship and pray. Most (77%) pay attention to the complaints of teenagers. Category of families are sufficient in carrying out discussions with adolescents before making decisions. Families categorized as less in monitoring adolescent overweight and all families have not provided information about preventing hypertension.

The role of the family has a great influence on the development of their children. Various research reports have stated that family involvement, especially parents, has a positive influence on various aspects of child development such as education (Khajehpour & Ghazvini, 2011), health (Danford et al., 2015; Rahman et al., 2018; Tomayko et al., 2021). The data on family knowledge before and after the service program are presented in Table 2.

Table 2. Frequency Distribution of Family Knowledge Before and After Health Education

No	Family knowledge	Health education	
		Prior N (%)	After N (%)
1	Good	19 (29%)	46 (71%)
2	Sufficient	4 (6%)	15 (23%)
3	Less	42 (65%)	4 (6%)
	Total	65 (100)	65 (100)

Table 2 shows an increase in knowledge in the "Good" category in families about preventing hypertension in adolescents from 29% to 71%. On the other hand, there was a decrease in the percentage of knowledge in the "Less" category from 65% to 6%. Increased knowledge is important in order to improve family attitudes towards health care. Various previous studies have shown that increasing a person's knowledge of a disease is related to perceptions (Berger et al., 2018; Salinas et al., 2020), attitudes (Giroto et al., 2018; Szymona-Pałkowska et al., 2016), prevention and their treatment (Figueira et al., 2017; Singh et al., 2010) for the disease. Realizing the importance of this knowledge, some researchers have even developed a knowledge-based learning system to diagnose and treat malaria (Diriba & Meshesha, 2016).

Service activities are continued with family empowerment. This activity provides an opportunity for families to take steps to prevent hypertension in adolescents independently. During the implementation of the activity, a discussion was held with the family about the efforts that had been made to prevent hypertension. The conclusions from the discussion results include: difficulty in controlling the habit of playing games, not used to exercising together with teenagers, difficulty in controlling smoking habits in fathers (from teenagers), some mothers say their teenage children are not used to venting to them, some teenagers do not like eating vegetables and have to be forced, some families are still awkward to discuss with teenagers if there are problems and make decisions, some families have not monitored the teenager's weight.

In addition to discussing with the family, a monitoring process was also carried out. The service team monitored the behavior change process using a *checklist* detailing the behavior shown by the family in preventing the occurrence of hypertension in adolescents (*checklist* attached). Monitoring was carried out for 7 days.

The results of identifying the role of the family after the empowerment process in preventing hypertension are presented in Table 3.

Table 3. Distribution of frequency on family role in preventing hypertension after the empowerment process

No	Activities	Category		
		Good	Sufficient	Less
1	Providing balanced nutrition for adolescents (rice, side dishes, vegetables, fruit)	52 (80%)	4 (6%)	9 (14%)
2	Reminding to exercise 2-3 times a week	28 (43%)	20 (31%)	17 (26%)
3	Banning smoking	65 (100%)	0	0
4	Forbid playing games for more than 1 hour per day	65 (100%)	0	0
5	Providing facilities to do useful activities outside the home	32 (49%)	29 (45%)	4 (6%)
6	Paying attention to hours of sleep at night and day (7-8 hours/day)	45 (69%)	20 (31%)	0
7	Becoming a friend to confide	32 (49%)	18 (28%)	15 (23%)
8	Motivating adolescents to actively worship and pray	58 (89%)	7 (11%)	0
9	Paying attention to adolescents complaints	50 (77%)	15 (23%)	0
10	Discussing with adolescents before making a decision	23 (35%)	30 (46%)	12 (18%)
11	Monitoring adolescent's overweight	19 (29%)	24 (37%)	22 (34%)
12	Providing information about preventing hypertension in adolescents	65 (100%)	0	0

Table 3 explains the increasing role of the family in preventing the occurrence of hypertension in adolescents. Providing balanced nutrition with good categories increased to 80%. All families forbade their children to smoke and play games for more than one hour per day (100%). Families providing useful facilities outside the home increased from the Sufficient category to the Good category. Families paying attention to the hours of night and day sleep (7-8 hours)

increased from the Sufficient category to the Good category (69%). The role of the family has increased as a teenager's confidant from the moderate category to the good category. Families motivate teenagers to actively worship and pray, increasing from the moderate category to the good category. Most (77%) paid attention to adolescent complaints in the good category. Families in carrying out discussions with adolescents before making decisions increased to the Sufficient category (46%) and all families had provided information about preventing hypertension.

Family intervention to adolescents is very important in managing their health. The existence of families, especially fathers and mothers, provides a considerable intervention in the lives of adolescents (Branje, 2018; Ramadhana et al., 2019). A positive interference is also believed to be a stimulant that must be given to adolescents so that they have a healthy lifestyle. Sufficient time allocation for sharing with youth provides an opportunity for them to share the difficulties and challenges they face. This is important for the family to know so that various supports can be provided, including in building the patient's self-discipline in caring for himself, controlling emotions, as well as carrying out various regulations in self-care (Kim et al., 2016). Mona et al. (2018) mention the importance of self-control and communication skills in controlling emotions and patient self-care. Moreover, self-efficacy and adherence to the treatment that patients must receive requires support from their environment (Martos-Méndez, 2015).

Table 3 also shows that there is an increase in the role of the family in preventing hypertension in adolescents after the empowerment process. The health care function that has the strongest relationship with the incidence of hypertension found at the Darul Iman Health Center Aceh Besar. Family health care functions by providing physical needs and health care to sick family members. Health care carried out by the family and efforts to prevent illness for each family member are the most relevant parts of the health care function. Family is an important component as a supporter in maintaining adolescents' health (Shahhosseini et al., 2012).

The empowerment process that has been carried out encourages family independence to prevent adolescent hypertension. Community empowerment can be interpreted as an effort to restore or improve the ability of a community to be able to act in accordance with their dignity in carrying out their rights and responsibilities as members of the community. The concept of empowerment emphasizes that people acquire sufficient skills, knowledge, and power to influence their lives and the lives of other people of concern. The empowerment process carried out aims to achieve family independence in preventing the occurrence of hypertension. The emergence of independence is an important factor in patient self-care. Independent families will be able to make decisions aimed at preventing and managing disease (Riegel et al., 2017). Independence is the ability to manage one's potential and be ready to accept the consequences of the decisions taken. Independence as a motivational force within the individual to make decisions and accept responsibility for the consequences. Family empowerment is meant in this activity is a process to gain the ability to take action in preventing the occurrence of hypertension in adolescents.

CONCLUSION

Empowerment that has been done can increase the role of the family in preventing the occurrence of hypertension in adolescents. The empowerment process is carried out through the provision of health education, mentoring, and monitoring to increase the role of the family. The role of the family in preventing hypertension in adolescents includes providing balanced nutrition, forbidding their children to smoke and playing games for more than one hour per day, providing useful facilities outside the home, paying attention to sleeping hours at night and during the day (7-8 hours), venting friends for teenagers, motivate adolescents to actively worship and pray, pay attention to adolescent complaints, carry out discussions with adolescents before making decisions, and provide information about hypertension prevention.

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