

Conference Paper

Analysis of the Smoking Behavior of Personnel at Major General HM Ryacudu North Lampung Regional Hospital, Indonesia in 2016

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Abstract

Smoking is a behavior that can endanger the health of individuals and have an impact on public health. Of the personnel at Major General HM Ryacudu North Lampung Regional Hospital in Indonesia 70% are smokers. This prevalence may be related to an individual's predisposition as well as factors that enable and reinforce this behavior. The study aimed to determine which factors are associated with smoking behavior in hospital personnel. The study used a cross-sectional design and a survey to obtain data. Qualitative and quantitative methods were employed. The sample included 97 hospital personnel; data were analyzed using univariate, bivariate, and multivariate methods. The dependent variable is the smoking behavior of hospital personnel; the independent variable is the characteristics of the personnel: gender, marital status, educational status, knowledge, attitudes, motivations, exposure to advertising, access to cigarettes, legislation and the influence of friends and family members. No correlation was found between smoking behavior and marital status, knowledge, motivation, exposure to advertising, and access to cigarettes. The statistical analysis results showed that legislation had the greatest impact on the smoking behavior of hospital personnel (p -value = 0.001); the influence of friends also had an impact (p -value = 0.016). There is need for a common commitment to increasing awareness about the negative impact of smoking, offering informational workshops, establishing an anti-smoking task force, and designating a no smoking, cigarette-free zone in the hospital.

Keywords: Behavior, Smoking, Hospital Personnel

1. INTRODUCTION

Smoking is harmful to smokers as well as the people around them due to the carcinogenic nature of cigarette smoke. Smokers have a twenty times greater risk of

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developing cancer. Passive smoker adults have a high risk of cardiovascular disease, lung cancer, and pulmonary disease. Moreover, passive smokers, including babies and children that live with or are exposed to cigarette smoke, have a higher risk for ear infections and sudden infant death syndrome.

Tobacco is a risk factor in six of the eight leading causes of death. By 2030, tobacco is expected to be the single highest cause of death worldwide. A World Health Organization (WHO) survey reported that 7 million people die each year due to smoking-related degenerative diseases, such as lung cancer and coronary heart disease. By 2030, more than 80% of the world's tobacco-related deaths will occur in low middle income and developing countries [40]. In developing countries, the prevalence of smoking increases an average of 2.1% each year. In developed countries, the prevalence of smoking has declined 1.1% each year. Indonesia ranks third in the number of smokers in the world after China and India (Simpson and Crofton 2008). According to WHO (in Simpson and Crofton 2008), in 2008 51.1% of the people in Indonesia are active smokers, which is the highest percentage in the Association of Southeast Asian Nations (ASEAN). In comparison, only 0.06% of the people in Brunei Darussalam smoke; in Cambodia only 1.15% of the people smoke. In Indonesia, Lampung Province ranks eighth in cigarette consumption; 26.5% of its population smokes [9].

In all, 80% of health workers in North Lampung district (both on duty at the health center and the hospital and its network) are smokers [6]. Likewise, a pre-survey of personnel at Major General HM Ryacudu North Lampung Regional Hospital; found that many health workers smoke, even in the rooms where they work. This includes personnel that work directly with patients as well as those that do not. The hospital's health promotion officers report that 70% of hospital workers smoke. This behavior is completely contrary to the country's Constitution and the principle of no smoking (KTR). This behavior is likely triggered by a variety of factors (Green 1980). According to Green (1980), smoking behavior is influenced by three main factors: a person's predisposition, and factors that enable and reinforce the behavior. The present study aimed to obtain information on the smoking behavior of officers at Major General HM Ryacudu North Lampung Regional Hospital and to identify the factors related to that behavior in 2016.

2. METHODS

This study used a cross-sectional design that employed quantitative and qualitative research methods. As such, qualitative methods are used to complement quantitative methods. A survey was used to obtain data from the study's participants.

2.1. Population

Of the 613 personnel at Major General HM Ryacudu North Lampung Regional Hospita, the study's sample included 97 male and female participants: 7 medical personnel (doctors and specialists), 50 paramedical care personnel (nurses, opticians, dental nurses, midwives), 13 non-care paramedics (magister health, public health personnel, X-ray technicians, health analysts, anesthesia coordinators, sanitation workers, nutritionists, and pharmacists), and 27 non-medical personnel (financial/administrative personnel, drivers, security guards). The proportional random sampling technique was used to select the participants. For the qualitative portion of the study, purposive sampling techniques were used and in-depth interviews were conducted with 5 hospital health promotion management personnel (*Promosi Kesehatan Rumah Sakit*) the head of maintenance, the head of development, the department secretary, and the department director).

2.2. Location and Time of the Study

This research study was conducted in May 2016 at Major General HM Ryacudu North Lampung Regional Hospita.

2.3. Data Collection

For the quantitative data collection portion of the study, participants completed a questionnaire. Toward that end, one enumerator administered the questionnaire and collected the data. Before doing so, the enumerator underwent training in order to understand the purpose of the study and the researchers' goals and objectives. The qualitative research portion of the study was conducted to complement the quantitative research. Tools and instruments are commonly used to support the data collection process in qualitative research. In the present study, the researchers were the qualitative instruments, and the tools included the interview guidelines, tape recorders, cameras, stationery, and notepads. The qualitative data were collected by conducting in-depth interviews.

The quantitative data were processed using editing, coding, data entry, and data cleaning. Univariate, bivariate, and multivariate analysis methods were used to analyze the data. After verifying the accuracy of the data obtained from the qualitative

methods, triangulation techniques were used to validate the data. The following triangulation technique was used: observation/documentation, collected record, described in written form in the form of a matrix.

3. RESULTS

3.1. Univariate Analysis

An overview of the results of the univariate analysis is presented in Table 1. The variables include the type of personnel (health professional or non-health personnel), marital status, knowledge, attitudes, motivation for not smoking, the influence of advertising, access to cigarettes, legislation, the influence of family members, and the influence of friends.

3.2. Bivariate Analysis

Bivariate analysis was used to determine the statistical relationship between the independent variables and smoking behavior. Table 2 presents the chi squared test results. The $\alpha = 0.05$ results indicate that the following factors are statistically significantly correlated with smoking: the type of personnel (health professional or non-health personnel), attitudes, laws and regulations, the influence of friends, and the influence of family members.

3.3. Multivariate Analysis

Logistic regression was used to conduct the multivariate analysis. In multivariate analysis, the bivariate variables are selected to determine the most dominant variables associated with the smoking behavior of personnel at Major General HM Ryacudu North Lampung Regional Hospita

3.4. The Final Multivariate Analysis Results

Legislation was found to be the most dominant factor, followed by the influence of friends, the influence of family members, and attitude (Table 4).

TABLE 1: Univariate Analysis Results.

Variable/Category	n=97	%
Health status of personnel		
Health personnel	70	72.2
Non-health personnel	27	27.8
Marital status		
Married	70	72.2
Not married	27	27.8
Knowledge		
Good	59	60.8
Not good	38	39.2
Attitude		
Good	51	52.6
Not Good	46	47.7
Motivation not to smoke		
Yes	14	14.4
No	83	85.6
Influence of advertising		
Yes	51	52.6
No	46	47.4
Access to cigarettes		
Easy	82	84.5
Difficult	15	15.5
Legislation		
Yes	33	34
No	64	66
Influence of friends		
Yes	44	45.4
No	53	54.6
Influence of family members		
Yes	51	52.6
No	46	47.4
Smoking behavior		
Yes	40	41.2
No	57	58.8

4. DISCUSSION

4.1. Factors Related to Smoking Behavior

TABLE 2: Bivariate Analysis Results.

Variable	Does not smoke		Smokes		Odds Ratio (OR)	p-value
	n	%	n	%		
Type of personnel Health professional	46	65.7	24	34.3	2.788 (1.119–6.944)	0.045
Non-health personnel	11	40.7	16	59.3		
Marital Status Not married	16	59.3	11	40.7	1.029 (0.417–2.538)	1.000
Married	41	58.6	29	41.4		
Knowledge Good	38	64.4	21	35.6	1.810 (0.789–4.149)	0.232
Not good	19	50.0	19	50.0		
Attitude Good	40	78.4	11	21.6	6.203 (2.531–15.204)	0.000
Not Good	17	37.0	29	63.0		
Motivation not to smoke No	50	60.2	33	39.8	6.364 (2.484–16.299)	0.670
Yes	7	50.0	7	50.0		
Influence of advertising No	25	54.3	21	45.7	0.707 (0.314–1.592)	0.527
Yes	32	62.7	19	37.3		
Access to cigarettes Difficult	11	73.3	4	26.7	2.152 (0.214–1.521)	0.336
Easy	46	56.1	36	43.9		
Legislation Yes	29	87.9	4	12.1	9.321 (2.933–29.621)	0.000
No	28	43.8	36	56.3		
Influence of friends No	43	81.1	10	18.9	9.214 (3.614–23.492)	0.000
Yes	14	31.8	30	68.2		
Influence of family members No	35	76.1	11	23.9	4.194 (1.748–10.064)	0.002
Yes	22	43.1	29	56.9		

TABLE 3: Bivariate Variables Selected to be Multivariate Candidates.

Variable	p-value	Explanation
Marital Status	0.951	Not a candidate
Type of personnel	0.026	Candidate
Knowledge	0.160	Candidate
Attitude	0.000	Candidate
Motivation	0.474	Not a candidate
Influence of advertising	0.401	Not a candidate
Access to cigarettes	0.202	Candidate
Legislation	0.000	Candidate
Influence of friends	0.000	Candidate
Influence of family members	0.001	Candidate

TABLE 4: The Final Multivariate Analysis Results.

Variable	p-value	Odds Ratio (OR)
Legislation	0.001	8.370
Influence of friends	0.016	4.825
Influence of family members	0.238	2.091
Attitude	0.060	2.959

4.1.1. Type of personnel

The study's results show a correlation between the type of personnel and smoking behavior at Major General HM Ryacudu North Lampung Regional Hospita in 2016 ($p = 0.045$). Non-health personnel have the opportunity to engage in smoking behavior 2.788 times more often than health professionals. (OR = 2.788; 95% CL: 1.119 to 6.944). The finding differs from the results reported by Arno (2009) in a study on health personnel in Agam District in West Sumatra after a smoking area was designated. The results in Arno's (2009) study showed that there was no correlation between the characteristics of the respondents (the type of workforce) and smoking behavior ($p > 0.05$). This is because Law 36, enacted in 2014, stipulated that the function of health workers was to improve the quality of care provided to the community, to raise awareness of the willingness and the ability to lead a healthy life, and the need to use scientific information to support the behavior of health sector personnel.

4.1.2. Attitude

The study's results show a correlation between attitudes and smoking behavior in Major General HM Ryacudu North Lampung Regional Hospita in 2016 ($p = 0.000$). Respondents with a bad attitude were 6.203 times more likely to engage in smoking behavior than respondents with a good attitude (OR = 6.203; 95% CL; 2.531 to 15.204).

This finding is in line with the results of research conducted by Purba et al. (2013), which reported a significant correlation between attitude and smoking behavior ($p = 0.045$). This is similar to the findings reported by Simarmata and Sondra (2012), Humakor (2006), and Rochadi (2009), which also found a correlation between attitude and smoking behavior.

However, the present study's findings are in contrast to the results reported by Rahmadi (2013) ($p = 1.000$) and Muhammad (2008) ($p = 0.185$), which found that there is no relationship between attitude and smoking behavior. This is because attitude refers

to a readiness or willingness to act, not the implementation of a specific motive. An individual can have an open attitude or a closed attitude; thus, if a hospital personnel has a good attitude or a positive attitude towards smoking then it is more likely that he/she will engage in smoking behavior.

4.1.3. Legislation

The study's results show no relationship between legislation and smoking behavior in Major General HM Ryacudu North Lampung Regional Hospita in 2016 ($p = 0.000$). With the absence of legislation, respondents have a 9.321 times greater chance of smoking than if legislation is in place (OR = 9.321; 95% CL; 2.933 to 29.621).

This finding is in line with research conducted by Fatmasari (2013), found that legislation does not have an impact on smoking behavior. In the present study's in-depth interviews with the directors of the hospital, director (informant 1) said that KTR regulations about in health and education services have not been enacted; they have only been signed by regents, even though the government has mandated legislation that stipulates that hospitals should implement KTR as part of their health services. In order for hospital directors to commit to establishing KTR in their organizations, they need to form an anti-smoking task force or provide informational seminars and workshops, and promptly disseminate information about smoking's negative impact on health to hospital personnel, patients, and visitors.

4.1.4. Influence of friends

The study's results show no relationship between the influence of friends and smoking behavior in Major General HM Ryacudu North Lampung Regional Hospital in 2016 ($p = 0.000$). Respondents that indicated they were influenced by friends were 9.214 times more likely to engage in smoking behavior than respondents that were not influenced by friends (OR = 9.214; 95% CL; 3.614 to 23.492). This finding is in line with the results reported by Muhammad (2008) ($p = 0.033$) and Simarmata (2012), which found a connection between peer pressure and smoking behavior.

However, the present study's finding is not in line with the results reported by Azizah et al. (2013), which found no correlation between the influence of friends and smoking behavior ($p = 0.157$). Therefore, KTR should be implemented in the hospital so personnel will reduce their smoking behavior, or even quit smoking. This is especially the

case for evening and night duty security guards, as the in-depth interviews conducted for the present study found that these personnel often smoke while working.

4.1.5. Influence of family members

The study results show no relationship between the influence of family members and smoking behavior in Major General HM Ryacudu North Lampung Regional Hospita in 2016 ($p = 0.002$). Respondents that were influenced by family members were 4.194 times more likely to engage in smoking behavior than respondents that were not influenced by family members (OR = 4.194; 95% CL; 1.748 to 10.064). This finding is in line with the results reported by Simarmata (2012), which found that there is a relationship between family influence and smoking behavior. However, the present study's finding is in contrast with the results reported by Nurul (2013), ($p = 0.874$) and Muhammad (2008) ($p = 0.715$), both of which found no relationship between family influence and smoking behavior. Therefore, according to the present study's findings, the influence of family members can help decrease smoking behavior.

4.2. Factors Unrelated to Smoking Behavior

4.2.1. Marital status

The study's results show no association between marital status and smoking behavior ($p = 1.000$). This finding is in line with the results reported by Arno (2009), which found no connection between the characteristics of respondents and smoking behavior.

This is in contrast to existing research in the field, which demonstrate that there is no association between marital status and smoking behavior. This is likely caused by several factors; for example, an individual's smoking behavior could due to addiction or studies might not have differentiated between married and unmarried participants. In the present study, this is supported by information gained from the in-depth interviews with two informants who said that smoking behavior is different in people who are married or unmarried.

4.2.2. Knowledge

The study's results show that there was no significant relationship between knowledge and smoking behavior ($p = 0.232$). This finding is in line with the results reported by

Dewirosaria (2011) which found no significant relationship between knowledge and smoking behavior. This is in contrast to research conducted by Rohmayani (2007), which found that there is a relationship between knowledge and smoking behavior, as well as research conducted by Purba et al. (2013) ($p = 0.001$) and Muhammad (2008) ($p = 0.02$ and $OR = 4.9$). The relationship between knowledge and smoking behavior might be understood by examining one of the arguments about tobacco use, which is that a smoker who buys cigarettes might make that decision based on the knowledge he/she already has (informed decision).

These data may also be supported by the information obtained in the present study from the interview with one of the informants who said that diseases, such as heart disease and lung cancer that require hospitalization, might influence a person's decision to quit smoking. But it does take a long time. This is likely due to the lack of available seminars or workshops about the dangers of smoking. Moreover, at the hospital investigated in the present study, an anti-smoking task force has not been established, which may ultimately reduce the number of health and non-health personnel, patients, and hospital visitors that smoke.

4.2.3. Motivation not to smoke

The study's results show that there was no relationship between motivation not to smoke and smoking behavior ($p = 0.670$). A case study conducted by Bahar (2012) found the following motivations for smoking: trial and error (69.8%), friend's influence (8.5%), and symbol of pride (3.8%). This is consistent with Satiti's (2009) theory that smoking cigarettes is pleasurable.

4.2.4. Influence of advertising

The study's results show no correlation between advertising exposure and smoking behavior ($p = 0.527$). This finding is consistent with the results reported by Sumarna (2009), which found that advertising is one of the important environmental factors that predispose a person to smoke, as well as the results reported by Simarmata (2012), which found that there is a relationship between advertising exposure and smoking behavior. In contrast, Oktavia (2011) reported that there was no relationship between advertising and smoking behavior.

4.2.5. Access to cigarettes

The study's results show that there was no connection between access to cigarettes and smoking behavior ($p = 0.336$). This finding is in line with the 2006 Global Youth Tobacco Survey study, which reported that 21.6% of male students never received offers of free cigarettes in activities sponsored by tobacco industry companies. This is in contrast with the results of the present study's observations of written materials at the hospital that merchants are prohibited from selling tobacco products in area hospitals, with the hope of reducing the ability to buy cigarettes. However, in reality 70% of the personnel at this hospital smoke, and merchants sell cigarettes in the morning when the directors are working as well as throughout the day and night when other hospital personnel are working, such as security guards that smoke during their afternoon and evening work shifts. Hospital directors should improve their surveillance in the afternoon and evening and create a non-smoking area in the hospital.

4.2.6. The most dominant factor

The study's results show that legislation is the most dominant factor that influences smoking behavior ($p = 0.001$), followed by the influence of friends ($p = 0.016$). So, the most dominant variables that affect smoking behavior are the rule of law and the influence of friends, followed by the influence of family members and an individual's attitude.

Therefore, a ban on smoking in the workplace could have positive outcomes for smokers and non smokers. This ban could reduce the exposure of non smokers to environmental tobacco smoke and reduce cigarette consumption among smokers. Thus, placing strict restrictions on smoking or prohibiting smoking in the workplace could provide economic benefits; Thus, prohibiting smoking in the hospital or placing strict restrictions on doing so in the workplace could reduce the economic impact that smoking has on public health costs. Toward that end, the hospital should provide a designated smoking area for personnel and visitors. It is also important to designate areas in the hospital where people can smoke.

5. CONCLUSIONS

The study's results show that most of the RSD personnel at Major General HM Ryacudu North Lampung Regional Hospita do not smoke (58.8%), 72.2% are health professionals, 72.2% are married, 60.8% have good knowledge about the health risks associated with smoking, 52.6% are motivated to smoke, 85.7% are motivated to not smoke, 52.6% are influenced by advertising, 84.5% have easy access to cigarettes, 66% are impacted by the lack of legislation, 54.6% indicated that they are not influenced by friends, and 52.6% indicated they are influenced by family members. The factors associated with smoking behavior are the type of personnel (health or non-health professional), attitude, legislation (laws and regulations), the influence of friends, and the influence of family members.

6. RECOMMENDATIONS

The hospital should be committed to establishing an anti-smoking task force, offering educational seminars, and promptly disseminating information about the health risks of smoking to all hospital personnel, patients, and visitors. The hospital should hold a workshop for hospital personnel about the dangers of smoking behavior for smokers and non smokers, and make it part of the accreditation system. The hospital should also increase the scrutiny of its evening and night security guards to ensure that they do not smoke while working. The hospital should also work with educational institutions to conduct further research on the factors associated with the smoking behavior of personnel in a private hospital in North Lampung District using a mixed design method.

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References

- [1] Arno. 2009. *Determinan Perilaku Merokok pada petugas Pasca Penerapan Kawasan tanpa Rokok di Dinas Kesehatan Kabupaten Agam Propinsi Sumatra Barat*. Yogyakarta: Gajah Mada University Press.

- [2] Artati P, Humakor. 2006. *Sikap dan Perilaku merokok Tenaga kesehatan di kabupaten Toli-Toli*. Yogyakarta: Universitas Gajah Mada.
- [3] Azizah, Nurul, et al. 2013. *Faktor yang Berhubungan dengan Perilaku Merokok Anak Jalanan di Kota Makassar tahun 2013*. Makassar: Universitas Hasanudin Makassar.
- [4] Azwar, Eddy. 2009. *Determinan Perilaku Merokok Pada Mahasiswa Fakultas Kesehatan Masyarakat Universitas Muhammadiyah Aceh Provinsi Naggroe Aceh Darusalam*. Aceh: Universitas Muhammadiyah Aceh.
- [5] Bahar, Nur Akbar, et al. 2012. *Determinan Keberlangsungan Kebiasaan Merokok Dokter dan Dokter Gigi di Kota Makassar tahun 2012*. Makassar: Universitas Hasanudin Makassar.
- [6] Binahar, Renata Sari. 2014. *Program Kesehatan Berhenti Merokok Pada Tenaga Kesehatan di lampung Utara (Tesis)*. Tidak Dipublikasikan.
- [7] Caldwell, Ernest. 2012. *Berhenti Merokok*. Yogyakarta: Lkis Printing Cemerlang.
- [8] Crofton, John dan David Simpson. 2009. *Tembakau Ancaman Global*. Jakarta: Alex Media Komputindo.
- [9] Departemen Kesehatan Republik Indonesia. 2013. *Laporan Hasil Riset Kesehatan Dasar Indonesia (Riskesdas)*. Jakarta: Depkes RI.
- [10] Departemen Kesehatan RI. 2006. *Panduan Promosi Tidak Merokok*. Jakarta: Departemen Kesehatan RI.
- [11] Departemen Kesehatan RI. 2011. *Rencana Pengembangan Tenaga kesehatan Tahun 2011 – 2025*. Jakarta: Depkes RI.
- [12] Fatmasari, Intan. 2013. *Perilaku Supir Angkutan Pasca Penetapan Kawasan Tanpa Rokok di Kota Makassar Tahun 2013*. Makassar: FKM Universita Hasanudin.
- [13] Fi, Muhamad. 2008. *Perilaku Merokok Remaja di Lingkungan RW 22 Kelurahan Suka Tani kecamatan Cimanggis Depok Tahun 2008*. Depok: FKM UI.
- [14] Flandorver, Priska, Christian Wagner, and Isabella Buber. 2010. *Gender Roles and Smoking Behaviour*. Viena Institute of Demography. OAW.
- [15] Green, Lauren W. 2005. *Health Program Planning an Educasional and Ekological Approach*. Boston Burr. Madison New York.
- [16] Hastono, S. 2001. *Analisa Data*. Depok: FKM UI.
- [17] Komalasari, D and Helmi, A F. 2000. *Faktor-Faktor Penyebab Perilaku Merokok Pada Remaja*. Jurnal Psikologi Universitas Gajah Mada Yogyakarta: Universitas Gajah Mada Press
- [18] Lapau, Buchari. 2012. *Metode Penelitian kesehatan*. Jakarta: Yayasan Pustaka Obor Indonesia.

- [19] Lemenshow, Stanley. 1997. *Besar sampel Dalam Penelitian Kesehatan*. Yogyakarta: Gajah Mada University Press.
- [20] Maman. 2009. *Hubungan Antara tingkat Stres dan Perilaku Merokok*. <http://wordpress.com/2009/05/03/> diakses tanggal 14 maret 2016.
- [21] Neltjesaly, Jeane. 2009. *Efektivitas Peraturan Terkait Pengendalian Produk Tembakau Terhadap Kesehatan, Laporan Akhir Penelitian Hukum, Badan Pembinaan Hukum Nasional Kementerian Hukum dan Hak Azazi Manusia RI*.
- [22] Notoatmodjo, Soekidjo. 2012. *Promosi Kesehatan dan Perilaku Kesehatan (edisi Revisi)*. Jakarta: Rineka Cipta.
- [23] Oktavia, Dewi. 2011. *Faktor-Faktor yang Berhubungan dengan Tindakan Merokok Siswa laki-Laki di SMA Negeri Kota Padang Tahun 2011*.
- [24] Pamela, M Ling. 2009. *Young Adult Smoking Behavior*.
- [25] Priyoto. 2014. *Teori Sikap dan Perilaku dalam Kesehatan*. Yogyakarta: Nuha Medika.
- [26] Profil Pelayanan Rumah Sakit daerah Mayjen HM Ryacudu Tahun 2015.
- [27] Pujiyanto, et al. 2009. *Praktek Dokter Terkait Perilaku Merokok Pasien*. Administrasi Kebijakan Kesehatan. Jurnal Kesmas Nasional vol 4 no 3.
- [28] Purba, Ranto, et al. 2013. *Analisis Determinan Perilaku Merokok Siswa Laki-laki di SMA Negeri 1 Unggulan Kecamatan Inderalaya Utara Kabupaten Ogan Ilir Provinsi Sumatera Selatan Tahun 2013/2014*.
- [29] Rahmadi, Afdol, et al. 2015. *Hubungan Pengetahuan dan Sikap Terhadap Rokok dengan Kebiasaan Merokok Siswa SMP di Kota Padang*. Jurnal Kesehatan Andalas Vol 2 no 1 (2013).
- [30] Rochmayani, Dewi Sari. 2007. *Faktor-faktor yang Berhubungan dengan Kebiasaan Merokok pada Remaja di Kelurahan Ngaliyan, Kota semarang Tahun 2007 (Jurnal Unnes tahun 2007)*.
- [31] Rosari, Amalia Dewi. 2014. *Hubungan Pengetahuan dan Motivasi Merokok Remaja pada usia 12- 15 di Desa Ngumpul*. Surakarta: Universitas Sebelas Maret Surakarta.
- [32] Sastroasmoro, Sudigdo. 2011. *Dasar-dasar Metodologi Penelitian Klinis*. Jakarta: Sagung Seto.
- [33] Satii, Alfi. 2011. *Strategi Rahasia Berhenti Merokok*. Yogyakarta: Data Media.
- [34] Sihombing. 2010. *Hubungan Prilaku Merokok Konsumsi Makanan Minuman dan Aktifitas Fisik dengan Penyakit Hipertensi di Indonesia*. Jurnal Majalah Kedokteran Indonesia Voi 60 no 9 September 2010.
- [35] Sugiyono. 2014. *Metode Penelitian kombinasi (MiX Methods)*. Bandung: AlfaBeta.

- [36] Sumarna, Riny. 2009. *Pengetahuan Sikap dan Perilaku Mahasiswa Ekstensi Angkatan 2007 di FISIP UI tahun 2009*. Depok: FKM UI.
- [37] TCSC, IAKMI, Pusat Penelitian dan Pengembangan Ekologi dan Status Kesehatan. 2009. *Fakta Tembakau Permasalahannya di Indonesia*.
- [38] Triwidayani, Aryda Luh Nyoman. 2014. *Profil Merokok pada Tenaga Kesehatan di Rumah Sakit Jiwa Propinsi Bali*. Bali: Universitas Udayana.
- [39] World Health Organisation (WHO). 2017 Fact sheet Tobacco. Accessed October 10.2017. Available at <http://www.who.int/mediacentre/factsheets/fs339/en/>
- [40] World Health Organisation (WHO) Western Pacific Region. 2016 Tobacco Fact sheet. Accessed October 10.2017. Available at http://www.wpro.who.int/mediacentre/factsheets/fs_201203_tobacco/en/