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Analysis of Factors Affecting the Workload of Health Workers in the Namrole Public Health Center and Wamsisi Public Health Center in South Buru Regency

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Abstract

The workload on health workers in Public health centers can be seen from aspects such as tasks that are carried out based on their main functions. The purpose of this study was to analyze the factors that influence the workload of health workers in the Namrole Public health center and the Wamsisi Public health center in South Buru Regency. This type of research is a quantitative cross-sectional study design. The population in this study were all health workers with the status of civil servants who worked in the Namrole Public health center as many as 73 officers and Wamsisi Public health center as many as 27 officers. The sampling technique in this study was proportional random sampling to obtain a sample of the Namrole Public health center as many as 58 officers and Wamsisi Public health center as many as 22 officers. The results showed that there was no influence of the level of education on the workload of health workers in the Namrole public health center and the Wamsisi public health center in South Buru regency ($p = 0.622 > 0.05$). Working time significantly affected the workload ($p = 0.000 < 0.05$) and years of service are protective factors for the workload of employees at the Namrole public health center and the Wamsisi public health center in South Buru regency ($p = 0.053 > 0.05$). To the Regional Government of South Buru Regency to emphasize more regulations related to working hours, especially for employees at public health care centers, so that they are able and comfortable to carry out their duties and functions effectively and efficiently with optimal work time and not excessive.

Keywords: *Workload, work time, Wamsisi Public Health Center, Namrole Public Health Center.*

Introduction

Workloads on healthcare personnel in public health centres can be seen from aspects such as tasks that are executed based on their main functions. Tasks that carried out include basic tasks, additional tasks/double, the number of patients who should be served,

the working capacity in accordance with the education of health workers, the working time used to work on the task in accordance with the working hours of the day, as well as the completeness of facilities that can help the health workforce in solving their work well.¹

The Public health Center is a healthcare facility that organizes public health efforts and first-rate individual health efforts, with a greater emphasis on promotive and preventive efforts, to achieve the highest degree of public health in its working area².

Based on the results of the research Nafizta, showing the calculation and analysis of the workload of

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the nurses using the work sampling method resulted that the workload on 6 working days of nursing workers in the public health center Poncol differ. Nursing personnel workloads are the highest on Mondays and Thursdays during long working hours, while for short working hours the highest workload of caregivers is on Saturday.³

Namrole Public Health Center and Wamsisi Public Health Center are two public health centres located in the South Buru regency. Namrole Public Health Center and Wamsisi Public Health Center is a health service with inpatient unit based on the visit data that is obtained shows that patients who come to the public health center are many and tend to increase, since the NHI era, number of visits in Namrole Public Health Center in 2018 as many as 13,858 patients and in 2019 as of October 17,157 patients⁴ Meanwhile, in the Public health center of Wamsisi in 2018 as many as 7,556 patients and in the year 2019 as of October 4,934 patients⁵. The aim of the study was to analyse the factors affecting the workload of healthcare personnel at the Namrole Public Health Center and the Public Health center of South Buru Regency.

Materials and Method

This research uses quantitative research method of cross sectional study design. The population in this research is all health officers who are the status of civil servants who work in the Namrole Public Health Center, which is 73 officers and the Public health center of Wamsisi is as many as 27 officers. The sampling technique in this study is proportional random sampling so that the information obtained by the Namrole Public Health Center is as many as 58 officers and the Public health center of Wamsisi is as many as 22 officers. Data collection is obtained through a live interview using a questionnaire.

Results

Based on table 1 shows respondents who are 26–35 years more than 55 people (68.8%), while the respondents are the least in the age group of 18-25 who are 9 people (11.2%). According to the gender the number of female respondents was more than 69 people (86.2%), while male respondents were only 11 people (13.8%) While based on the working area of the number of respondents working in the Namrole Public Health Center as many as 58 people (72.5%), while the respondents who worked in wamsisi public health centers as many as 22 people (27.5%).

Table 1. Distribution of Respondents based on Characteristics of Respondents in Namrole public health centers and Wamsisi public health centers in 2020

Characteristics of Respondents	Amount (n)	Percent (%)
a. Age (yr)		
18-25	9	11.2
26-35	55	68.8
36-45	16	20.0
Total	80	100
b. Gender		
Male	11	13.8
Girl	69	86.2
Total	80	100
c. Working area		
Namrole public health center	58	72.5
Wamsisipublic health center	22	27.5
Total	80	100

Source: 2020 Primary Data

Table 2. Effects of education, work time and work period on workloads Namrolepublic health center and Wamsisipublic health center 2020

Research variable	Workload				Total		P.
	Light		Weight		N	%	
	n	%	N	%			
Education							0.622
High	54	72	21	29	75	100.0	
Low	3	60	2	40	5	100.0	
Total	57	71.3	23	26	80	100.0	
Working time							0,000
Normal	44	93.6	3	6,4	47	100.0	
Abnormal	13	39.4	20	60.6	33	100.0	
Total	57	71.3	23	28.7	80	100.0	
Years of service							0,000
Enough	49	89.1	6	10.9	55	100.0	
Less	8	32.0	17	68.0	25	100.0	
Total	57	71.3	23	28.7	80	100.0	

Table 2 shows that from 50 respondents that the variable is located from 80 respondents there are 75 people who are highly educated, who are 54 people (72%) Of those who felt a mild workload and 21 people (28%) The rest feels its burden is quite heavy. Meanwhile, out of 5 low-educated respondents were 3 people (60%) That feels it has a lightweight workload and 2 people (40%) have heavy workloads. Statistical test result X^2 Fisher’s Exact Test obtained the value $P = 0,622$ or value $p > 0.05$, thus H_0 accepted and H_a rejected. So it can be concluded that there is no meaningful relationship between the level of education and the workload of health workers in the Namrole public Health Center and wamsisi Public Health center in 2020.

Based on the variable working time table 2 shows that from 80 respondents there were 47 people who had normal working time, of which 44 people (93.6%) Of those who felt the burden of light and 3 people (6.4%) The rest feels its burden is quite heavy. While from 33 respondents who have abnormal working time, there are 13 people (39.4%) That feels it has a lightweight workload and 20 people (60.6%) Others feel that the workload is quite heavy. The test result of the Ikchi-square Statistic is derived from the value $p = 0,000$ or P value < 0.05 , thus H_0 is rejected and H_a is accepted. So it can be concluded that there is a meaningful relationship between working time with the workload of health workers in the Namrole public Health Center and the wamsisi public Health Center in 2020.

Based on a working period variable table 2 shows that from 80 respondents there were 55 people who had sufficient employment, of which 49 people (89.1%) Of those who felt a mild workload and 6 people (10.9%) The rest feels its burden is quite heavy. As for 25 respondents who have a less working period, there are 8 people (32.0%) That feels it has a lightweight workload and 17 people (68.0%) Others feel that the workload is quite heavy. The test result of the Ikchi-square Statistic is derived from the value $p = 0,000$ or P value < 0.05 , thus H_0 rejected and H_a accepted, so that there is a meaningful relationship between the working time with the workload of health care in the Namrole public Health Center and the wamsisi public health center in 2020.

Discussion

Effect of education on workload: From the analysis results with the X^2 statistical test *Likelihood Ratio* obtained the value $P = 0.622$ ($P > 0.05$), thus there is no link between the level of education with the workload. It is in accordance with the research of Umamah which proves that there is no link between the level of education and the workload. The research is also in line with the findings of VenyYuliani (2017) which proves there is no link between the level of education and the workload with the value $P = 0.17 > 0.05$.

Meanwhile, Maryam (2017) states that performance is heavily influenced by the internal factors of workload

i.e. education level. This is because the higher the mastery of one's intellectual degree, the more it is open ability to increase the productivity of its work. In addition to the higher level of education of a person, the likelihood of analyzers in addressing problems is also higher.

Effect of working time on workloads: Everyone has been stressed and will experience it, but the levels vary and within the same period⁶. Nurazizah states that stress is a thorough response from both physical and mental bodies to any demands or disturbing changes, threatening security and individual self-esteem⁷.

Working in a public health center in every opportunity will meet patients with varying characteristics that impact different conditions and workloads. For that, Nurses should act as all-round personnel, have initiatives, behave creatively and have a broad insight with the motivation of hard work, intelligent, sincere and quality work. The types of patients who are hospitalized or treated in an inpatient room can be viewed as a claim to health care if not managed properly, it will result in stressful work⁷.

The results of this research in line with the research of SrieWulandari, et al. (2017) said that the workload in the Emergency Instaltance space is heavy because it has to do the treatment of patients who come quickly and precisely⁸. According to research Nurazizah is known to occur decrease in overall brain function. With a tool that can display the picture of the brain using advanced technology, it is found that more severe damage occurs in areas responsible for attention, complicated planning, complex mental processes and on the area of decision making.

The excess sleep time also poses a problem, theoretically if the body is too much sleep, then blood circulation becomes slow. The impact will be about the whole body, because metabolism will also slow down. If it happens for a long time then the condition will cause a variety of problems. According to him, shift work affects health in the first 5 (five) years, called the adaptation phase⁹.

Effect of working period on workload: Through analysis with the Chi-Square test obtained the value $P = 0,000$ ($P < 0.05$), thus there is a relationship between the working period and the workload. The results of this study are in line with the findings of Zulkifli, DKK (2018) stating that the longer working life is closely related to the experience and understanding of the better

job description. This experience and understanding will assist in addressing the problem (stresor) that exist in the prevention of stress due to excessive workload¹⁰.

Meanwhile, the results of this research are contrary to the research results of VennyYulianti which says that there is no relationship between the working period and the workload with the value $P = 0.91$ ($p > 0.05$)¹¹. This is due to the longer the working period, the greater the burden and responsibilities of the employees. The difference in workers whose work period is less than 5 years still needs self-adjusting with the working environment and any work risk that can occur. Because of the negative impact for a company if it gives a mental workload too high or too low for employees, it provides special attention to the right mental workload for its employees. Additionally, respondents who experienced the dominant heavy workload have been working long enough (> 5 years). It can be assumed in addition to the effect of demands on speed of work, thoroughness and prudence there are also other factors that cause heavy workload that is also boredom due to the destruction of the work.

In overcoming the boredom of work because the specialization of work is required the right solution. Changing tasks can increase the stimulation of mental workers or passions, as well as the involvement of their duties, so that it can improve performance within the company¹¹⁻¹⁵. Many companies do a variety of work boredom prevention measures to make workers not feel bored with the activities that must be done daily, by conducting work rotation, involving workers in decision making, conducting the meeting of all employees, giving the opportunity to do leave, and many other things. All these activities aim to prevent or reduce the boredom of work on employees.¹⁷

Conclusion

The research concluded that there was no level of education on the workload of healthcare personnel at the Namrole Public Health Center and the WamsisiPublic Health center of the South Buru regency ($p = 0,622 > 0.05$), the working time significantly affects the workload ($P = 0.000 < 0.05$) and the working period is a protective factor against personnel workloads in the Namrole Public Health Care Center and the wamsisiPublic Health center of the South Buru regency ($p = 0,053 > 0.05$). To the local government of South Buru Regency to be more emphasized regulation related to working hours

especially for employees at the Public health Care center, so that they can afford and comfortably fulfill their duties and functions effectively and efficiently with optimal uptime and not excessive

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Al-Qoran Views of Tobacco Smoke Exposure on Pregnant Women

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Abstract

Smoking has become a serious problem for all nations of the world. The threat of the adverse effects of smoking on the health of pregnant women has shown an adverse effect. Pregnant women affected by tobacco smoking may give birth to low birth weight babies (LBW), preterm birth and stillbirth. The religion of a person can play a role in changing the attitude of a society towards bad actions. The teachings of Islam through verses of the Koran teaches to create environmental conditions that are appropriate for a pregnant woman. Achieve safety in the fabric of human life through prevention of negative behaviors that lead. Realizing a healthy family environment situation. Creating a harmonious family full of happiness and meeting physical and spiritual needs.

Keyword: Tobacco smoke, pregnancy, Qoran, pregnant outcome.

Introduction

Smoking has become a global public health problem. Since the beginning of the 20th century tobacco smoke consumption has increased throughout the world. Around 1.1 billion people aged 15 years and over are smokers. Smoking not only has an effect on active smokers but also has the potential to be a health disorder for those around them exposed to cigarette smoke.^{1,2} According to the World Health Organization (WHO) in the Global Tobacco Epidemic report, smoking is a global health problem that causes death in 5 million people every

year.^{3,4} The adverse effects of smoking on pregnancy are widely known, the prevalence of smoking in women has decreased in high-income countries in 50 years, but the prevalence has increased in middle and low income countries.^{5,6}

Passive smoking is estimated to cause death in 1.0% of the world's population, 603,000 deaths in children and adults and the number is increasing every year. Secondary smokers are people who are exposed to cigarette smoke from the environment (environmental tobacco smoke, ETS).⁷ Exposure to secondary tobacco smoke during pregnancy is often associated with various health problems for mothers and the babies. Various studies have shown pregnant women who are exposed to cigarette smoke increase the risk of babies born. Pregnant women exposed to tobacco smoke have the possibility to give birth to low birth weight babies (LBW), give birth pretermly and stillbirth.⁸⁻¹² Exposure to tobacco smoke during pregnancy also increases the risk of babies born with Respiratory distress syndrome

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(RDS), being treated in intensive neonatal care and early neonatal complications.¹³

Religion also pays serious attention to the effects caused by smoking. The religious teachings adopted by a pregnant woman also have a strong influence on her pregnancy. That research shows 47% rate believes that spiritual is very influential on a pregnant woman's pregnancy. This indicates that religious teachings are the most important part and basic needs in pregnancy. Islam based on the Qur'an Surah Maryam verse 16 contains instructions to Maryam who will enter the labor process. Mary is a symbol of the role of a woman who is pregnant must do something positive for herself. Self-protection Maryam who is pregnant is part of the teaching of protection against external interference that can endanger her and prepare herself carefully in accepting her responsibilities as a mother.

Effect of Smoking on Health: Cigarettes contain a variety of harmful substances including nicotine, cotinin, cadmium carbon dioxide, asbestos, arsenic, benzene and radon gas.^{14,15} Nicotine is a water-soluble bioactive alkaloid with parasympathomimetic effects and addictive substances. Nicotine is obtained from the leaves and stems of the tobacco plant *Nicotianatabacum* which originates from North and South America. Tobacco was later introduced to Europe for pleasure effects and some medical benefits.¹⁶

Exposure to secondhand smoke significantly increases the risk of lung cancer in adult smokers and increases the risk of asthma, lower respiratory tract infections and decreases lung function in children. Smoking increases the risk of apnea during sleep and exacerbation of asthma in the adult population and pregnant women. Active and passive smokers increase the risk of tuberculosis infection.¹⁷

Tobacco Smoke Exposure on Pregnant Women: Pregnant women who are exposed to cigarette smoke from the environment or passive smokers have the potential to be a health problem in the community, about 22-30% of non-smokers women are exposed to cigarette smoke from the environment.¹⁸ Data from other studies show that 37% of pregnant women are passive smokers.¹⁹ Nicotine is a major component of smoking, its effects on pregnancy have been found in several studies.¹

Nicotine and carbon monoxide can cause various disorders for the fetus, ranging from disorders of the placenta to disorders of the fetal circulation.^{9,14,20,21}

Smoking during pregnancy is not only dangerous for the mother but also the fetus in her womb.²² Smoking in pregnancy can cause preterm birth, miscarriage, ectopic pregnancy, antepartum bleeding, placenta previa, small babies for gestational age, small baby head circumference, increased risk of low birth weight babies (LBW) and congenital anomalies. The effects of smoking on pregnancy that cause adverse effects on birth are well known, but the effects of pregnant women as passive smokers have not been so widely studied and understood.¹⁸

Pregnant women are an active risk group for cigarette smoke both actively and passively. ETS smoke is a complex mixture consisting of most of the smoke emitted from the smoker's body plus the smoke produced by burning cigarettes and the surrounding air.⁷ Exposure to ETS in pregnant women causes increased levels of CO, nicotine and cotinin in maternal serum or urine, in infants and in amniotic fluid. The influence of ETS on pregnant women can occur from the first semester to the third semester. Pregnant women are usually exposed to ETS in various places with different duration of time. Places that have the potential to become ETS exposure locations include at home, at work and the outside environment.¹⁰

The physical environment has an important role in determining the weight of babies born and their health in the future. Research in Jordan shows that ETS exposure in non-smoking pregnant women causes an increased incidence of low birth weight babies (LBW). Increased ETS exposure increases the risk of LBW infants. All ETS exposure in the home, office and outside environment has the potential to reduce the weight of babies born. It was also found that second and third semester exposures were the most vulnerable time of exposure causing LBW. LBW infants tend to be more at risk for neurological problems including cerebral palsy, seizures, severe mental retardation, respiratory diseases and other morbidity.¹⁰ Research shows that smoking during pregnancy increases the risk of preterm birth by 25%.⁶

ETS exposure also specifically has an influence on preterm birth.^{23,24} Smoking is known to cause an increased risk of spontaneous and elective preterm birth, but has a stronger relationship with spontaneous preterm birth. Passive smoking in pregnancy also has a risk of preterm birth both spontaneous and elective.²⁰ Elective preterm delivery is likely to be related to cigarette-

related obstetric complications such as placenta previa, placental abruption and impaired fetal growth. Research shows that smoking during pregnancy increases the risk of preterm birth by 25%.⁶ ETS exposure also specifically has an influence on preterm birth.^{23,24}

Smoking can also increase the risk of preterm rupture of membranes through several mechanisms, namely: (1) smoking decreases immunity and becomes a predisposing factor for infection, (2) smoking decreases copper levels and ascorbic acid in the blood. The micronutrients can cause a decrease in the elasticity of the membranes and increase the risk of rupture of the membranes. Both of these mechanisms have the potential to cause preterm birth.⁶

The Qoran Views Of Smoking: Based on the negative effects of smoking in the order of human life, the Qoran forbids all forms of actions that lead to harm and adverse effects of a human action or policy (QS. Al-baqarah; 2: 195). This proposition becomes the basis for the prohibition of all human attitudes and actions that can threaten his survival. The teachings of the Qoran require human life in good condition. Every part of his life must avoid evil and harm and survival threaten. In Surah al-Nahl verse 97 explains that everyone who does a joint activity, then positive things must be a priority in the environment:

Whoever works righteousness, man or woman, and has Faith, verily, to him will We give a new Life, a life that is good and pure and We will bestow on such their reward according to the best of their actions.

The teachings in this verse are aimed at all people without having to distinguish roles in the sex in doing good. The responsibility of doing good is an obligation that must be done for those who believe if they want to perfect their faith. Salih is the opposite of alfasad (bad or error). Positive deeds, salih must be a priority scale for humans. Because salih is a real thing in human life, it should be the spearhead in the order of life.²⁵

The Qur'an requires human life in the circumstance of thayyibah. Hayatanthayyibah is a picture of a life that deserves goodness. The state of life that meets the healthy requirements and meets both the material, psychological and spiritual needs so as to create a good and comfortable life without being overwhelmed by anxiety and boredom. Good and comfortable are not based on the availability of material, so the material will not affect/damage the desire for religious obligations.²⁶

The Quran And Tobacco Smoke Exposure On Pregnant Mother: The goal as a family is to be achieved is the realization of the *sakinah, mawaddahwarahmah* as revealed in surah Arrum verse 21: that God has planted the potential in each family to live happily, meet each other's needs and maintain harmony with one another.

And among His Signs is this, that He created for you mates from among yourselves, that ye may dwell in tranquillity with them, and He has put love and mercy between your (hearts): verily in that are Signs for those who reflect.

Life is full of peace with the pronunciation of Yaskunu in the above verse using the verb expression, giving a signal that the family must keep trying to find and maintain peace in family life so that all the hearts of family members are always calm. The word mawaddah in the context of this verse means love and love for all life activities and gives birth to a sense of comfort. Family members must have a good relationship, a sense of caring gives birth to a safe and loving situation, mercy.²⁷

A pregnant woman with the responsibility of maintaining the health of the fetus (hifz al-nasl) it contains is very dependent on a healthy environment. A healthy environment will play an important role in creating a comfortable situation and giving birth to high-quality offspring and a person is not justified in making efforts to eliminate the comfort of others, including in the family. Conversely, in an environment that threatens the lives of women and fetuses due to smoking, which is conceived, stated: "If a man kills a believer intentionally, his recompense is Hell, to abide therein (For ever): And the wrath and the curse of Allah are upon him, and a dreadful penalty is prepared for him." (Al-Nisa [4]:93), "And those who annoy believing men and women undeservedly, bear (on themselves) a calumny and a glaring sin." (Al-Ahzab [33]: 58) .

Conclusion

Various studies showed that smoking has a negative effect on the mother and the baby. Stillbirth, preterm birth and malnutrition in infants are the effects of tobacco smoke on pregnant women. The adverse effects of smoking can threaten human life, the Qoran prohibits all forms of actions that lead to harm and adverse effects of an action or human policy (Surah Al-Baqarah; 2: 195). This proposition becomes the basis for the prohibition of all human attitudes and actions that can threaten his survival. The teachings of the Koran require

human life in good condition and benefits. Whatever is a part of his life must avoid evil and harm and threaten human survival. In surah al-Nahl verse 97 explains that everyone who does joint activities,

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