

Chapter I

Introduction

This chapter introduces the study by describing the background, problem statement, purpose and significance.

1.1 Background of the study

The rising tuberculosis (TB) incidence has become one of the main health issues in the world. Although some interventions for the prevention and treatment of TB have been developed, the incidence and mortality rates of TB continue increasing (Easwaran et al., 2015; Depkes, 2011). According to the World Health Organization (WHO) (2017), there were 360,565 patients with TB in Indonesia. The Indonesian Ministry of Health also reported that TB was the fourth leading cause of death in Indonesia, and 6,371 patients developed TB in 2014. In addition, most of these new cases were adults aged between 25-34 (17.18%), 35-44 (17.18%), and 45-54 (17.33%) (Kemenkes, 2015). Furthermore, TB could cause significant mortality and morbidity in a community (Murray et al., 2014).

The high prevalence of tuberculosis impacts society, economy and the environment. One study from Nigeria found that TB patients' friends frequently have a discriminatory attitude towards them (Asuquo et al., 2014) due to the stigma linked to the disease (Dhuria, Sharma, & Ingle, 2008). The disease has social implications: most patients in one study conducted in Mexico reported losing their sense of identity, including loss of productivity and relationships with family, resulting in a severe perception of isolation (Morris et al., 2013).

Moreover, a study found that the costs associated with the illness impoverish many households, because many patients accumulate debt and experience loss of income and productive farm assets. Among the 160 cases of TB in this study conducted in China, most of the TB patients were household heads, the primary source of income for their households. After being diagnosed, they lost opportunities to work due to social stigma and the effects of the disease. As a result, 30% of the cases in that study earned incomes below the official poverty line (Jackson, Sleigh, Wang, & Liu, 2006). In Mexico, patients' inability to work and their uncertainty about how TB would affect their ability to survive financially appeared to reduce their sense of worth (Morris et al., 2013). The reason TB patients gave most frequently to explain their non-adherence to treatment in Indonesia was lack of money to pay for fees and transportation (Widjanarko, Gompelan, Dijkers, & der Werf, 2009). A study aiming to estimate a patient's cost for tuberculosis diagnosis and treatment from the patient's perspective found that these costs are a significant economic burden on patients in Zambia. Moreover, the three largest predictors of patient costs are treatment supervision strategy, patients' delays in seeking care and gender (Amsler et al., 2008). Furthermore, TB has a significant impact on quality of life of patients in several domains, including patient's environment and their psychological well-being (Dhuria et al., 2009). Many studies have shown that the environment has a great impact on TB transmission. For example, a study from Brazil demonstrated that the transmission of TB is directly linked to the community's living conditions (Farias et al., 2013). Therefore, the condition of patients' homes needs to be investigated, prioritizing those cases with inappropriate ventilation and overcrowding, as closed environments facilitate transmission and domestic

contacts put potential patients at greatest risk of catching the disease (Kemenkes, 2014). Conversely, other studies have reported that TB negatively affects quality of life in the environmental domain, such as sense of safety, transportation, financial security, quality and accessibility of health and social care, and opportunities for leisure activities. Other studies also found that TB's impact was the greatest on quality of life in the environmental and psychological domains (Dhuria et al., 2009; Sule et al., 2014).

Students' lack of knowledge about TB is one factor that causes the high incidence of TB in Indonesia. Specifically, lack of knowledge about the cause, prevention, transmission, and symptoms of TB result in poor behavior seeking treatment. For example, the National TB Team program of Indonesia reported that many TB patients stop taking medication before they fully recover, as they do not know that the disease can become latent and that improvement in symptoms does not necessarily indicate a cure (Depkes, 2011). Seeking proper treatment mainly depends on peoples' knowledge about TB and their perception of risks associated with it (Uchenna et al., 2014). For instance, patients in many countries believe that TB is hereditary and incurable. Due to such false perceptions regarding TB, patients may have less motivations to manage their symptoms (Dewi, Barclay, Passey, & Wilson, 2016; Hoa, Chuc, & Thorson, 2009). One study of 748 participants with suspected TB in Indonesia found that 11.3% had not yet sought care and approximately 33% would rather seek care from traditional health practitioners than health professionals (Ahmad, Richardus, & de Vlas, 2012). Moreover, adherence to isoniazid preventive therapy (IPT) for TB in Indonesia is low (Rutherford et al., 2012). Conversely, patients who have accurate knowledge of TB may seek more care. The more frequent they seek care, the more knowledge

they have about TB. This is because patients can be given correct information while getting treatment from health care providers (Yousif, Donaldson, & Husseynova, 2011). Hossain et al. (2015) reported that accurate knowledge is an important factor in predicting patients' care seeking behaviors. Therefore, it is essential for governments to develop intervention programs that promote knowledge, prevention, and treatment of TB.

The Indonesian government recommends conducting more research on TB prevention in Indonesia (Depkes, 2011). A number of studies have been done in Indonesia about prevention of and rehabilitation from TB. Some have screened people for TB (Lock et al., 2011; Triasih et al., 2016). Few studies have focused on patients' knowledge about TB. These revealed that knowledge among people suspected of having TB living in Yogyakarta had a moderate level of knowledge about the disease, whereas others had low knowledge (Ahmad, Richardus, & de Vlas, 2012; Lock et al., 2011). Patients with inadequate knowledge of TB were at higher risk of getting inadequate treatment compared to patients who had acquired more information about TB (Fatiregun, Ojo, & Bamgboye, 2009). Therefore, this study is investigating knowledge about TB among students in Indonesia. This will be one of the first studies to evaluate knowledge about TB in a non-patient population.

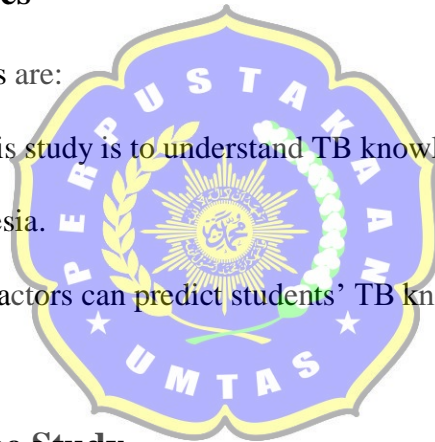
1.2 Statement of Problem

TB is more common among adults during their productive years (Heemskerk, Caws, Marais, & Farrar, 2016). Approximately 53% of TB patients are adults in Indonesia (Kemenkes, 2015). In places with high TB incidence in the United States, lack of knowledge may result in treatment delays (Marks, Deluca, & Walton, 2008). Similarly, high incidence of TB in Indonesia is also due to the lack of knowledge about preventing the spread of TB (Kemenkes, 2015). Therefore, it is important to assess TB knowledge among students in Indonesia.

1.3 Research Purposes

The research purposes are:

1. The purpose of this study is to understand TB knowledge among University students in Indonesia.
2. To explore what factors can predict students' TB knowledge.



1.4 Significance of the Study

The incidence of TB keeps increasing every year. One of the most important factors for decreasing the burden of TB in Indonesia is to educate the general public on how to prevent TB. Patients and the people around them must have accurate knowledge about how TB is spread in order to prevent transmission. The findings of this study will provide new information for healthcare providers about knowledge of TB among university students—the most educated subset of Indonesian students. If this well-informed subset of student does not possess accurate knowledge about TB, it is even less likely that other students would know. Furthermore, the findings will help the university design strategic programs

by measuring the knowledge of TB among their students. With accurate knowledge of TB, students can help reduce its prevalence in Indonesia. Finally, the results will provide to other researchers with new information about public health so that they can extend, replicate, and modify the study for other segments of the Indonesian population.

