Chapter II

Literature Review

This chapter contains explanation from theories and previous researches that are relevant to the behavior of seeking treatment. This chapter is divided into two sections, first is the theoretical study and the second is empirical study.

2.1 Theoretical Study

2.1.1 The Law of Demand for Medical Care

Demand for medical care, taken from the text book of Health Economics (Santerre & Neun, 2010), is used to identify several reasons that influence someone's decision to look for treatment. Demand for medical care shows the relationship between quantity and price of the health services (e.g physician, dental, etc.). There are two options that determine the demand for medical health, the first one is economic factors and the second one is non-economic factors.

The economic reasons that influence someone's decision to seek out treatment are the price of medical care, income, the price of other goods, and time cost. The price of medical care has a negative relationship with the quantity of demanded medical services, we can see from Figure 2.1 which shows us the demand curve for physician services. If there is an increase in the price of physician services, then people will demand less quantity of physician services; ceteris paribus. This means that they will seek less physician services to treat their disease when the price

of healthcare increases, and vice versa. Just like demand curve for a normal good, income effect and substitution effect also have same effect on the equilibrium.

The income effect states that lower price increases real purchasing power of patient because real income increases resulting on higher purchase of medical care. Substitution effect states that a decrease in the price of physician services causes patients to purchase more of physician services compared to other medical care options, such as hospital outpatient service, etc.
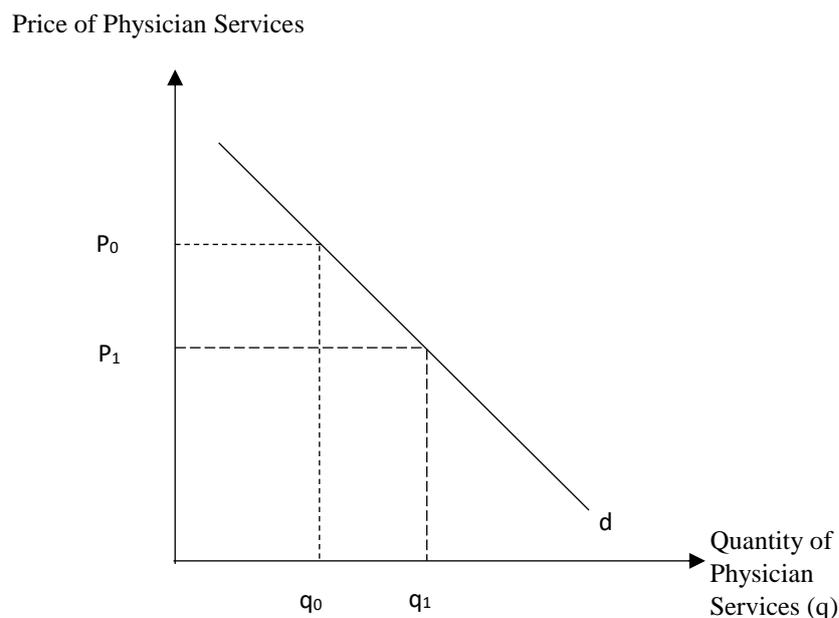
Price of Physician Services

P_0

P_1

d

Quantity of Physician Services (q)

q_0 q_1

Figure 2.1 Individual Demand Curve for Physician Service

Source: Health Economics text book by Santerre & Neun, (2010)

Second, the non-economic reasons are such as preferences (include personal characteristics,) physical and mental profile, state of health, and quality of care. The socioeconomic factor is a combination of social and economic condition. Thus, to

capture both factors we combined personal characteristics such as age, education, with economic reasons such as income and wealth.

2.1.2 Health-seeking

There are three health-related behavior. The first one is health behavior that is defined as any action taken to prevent disease or detect it in the early stage. Illness behavior is defined as activities taken by someone who feel ill to identify their health state and discover remedy. Next is sick-role behavior defined as activities undertaken for the purpose of healing, for those who think that they feel sick (Kasl & Cobb, 1966). The health seeking process or care-seeking is determined as an individual behavior to seek cures for their health problems (Ward, Mertens & Thomas, 1997). Treatment actions focus on the behavior in which individual engage to cure the impact of health problem. Four treatment categories in general are: activity alterations (exercise); the injection of substances; ritual behavior (prayer therapy); and physical intervention to the body. Source of treatment also defined into five category thus are: formal health professional (doctor, nurses); licensed health practitioners; alternative health practitioners; lay consultant; and self (Chrisman, 1977).

2.2 Empirical Study

The research from Chowdhury et al (2015) in Dhaka, divides healthcare options into three categories which are: professional healthcare provider, non-professional healthcare provider, and no-treatment. The research collects data by conducting a cross-sectioned survey. Using generalized estimating equations with logit link function it is found that among people who experience diarrhea episodes,

the decision to choose professional healthcare provider are driven by: age of the patient, educational status of the household head, and hygienic practice. Of 316.766 people suffering from diarrhea 80% of them sought care initially from non-professional healthcare provider, which implies that their severity of diarrhea is not that serious. 6% of them sought professional healthcare provider implies that they have more serious diarrhea episodes. Around 88%, of people who did not seek any treatment at the first time, did not seek any treatment anymore probably due to mild diarrhea they experienced. On the research it has been found that children with diarrhea disease were more likely to get treated with professional care. Those who use soap for hand-washing and those whose head of household bears a higher level of education were more likely to visit professional healthcare. Meanwhile those who treated their water prior to consumption are less likely to visit professional healthcare. The limitation of the research is the possible effect of severity illness to treatment choice. According to WHO severe persistent diarrhea is when diarrhea lasts 14 days or more (World Health Organization (WHO), 2017). Severe persistent diarrhea that includes cholera cannot be treated only by rehydration treatment but need more serious treatment on professional healthcare-facility.

Dagnew, Tewabe, & Murugan (2018) used cross-sectional survey and logistic regression analysis on bivariate and multivariate analysis. Multivariable analysis found that age of mother, age of child, number of family members and perceived severity of illness were significantly associated.

On the other hand Pillai et al. (2003) research more specific factors that drove parents to make a treatment decision on children related diseases which are

acute respiratory disease and diarrhea. The research use data from 1996 Indian National Family Health Survey then analyze it using bivariate and logistic regression−for multivariable−analysis. Of 469 children age below 4 years old who suffer from acute respiratory illness or diarrhea episode within two weeks prior to the interview, 83% of them receive medical treatment and 17% of them did not receive medical care. 88% of those receiving medical treatment, received allopathic medical care and 12% of them received alternative medical care. The result from multivariate analysis shows factors that drove parents not to seek treatment: when the child's disease is mild; the child has had specific diagnosis; the mother previously made antenatal visit; the family had a higher economic status. Weaker evidence shows that when the child is younger, family live in rural area, and mother had education, they were more likely to seek care.

Conversely to Pillai et al. (2003) research from Page et al. (2011) shows that of all 1.066 caretakers that reported to recall child diarrhea for the last 27days, 70.4% of them reported consulting on formal healthcare provider, meanwhile the rest went to non-formal healthcare structure and later considered as not consulting. There is also no association between consultation and the level of education of the care taker, instead increasing number of children below 5 years old and the age of children influence the decision for consultation.

Different from the previous research, Ogunlesi & Olanrewaju (2010) divide treatment into three parts: care-seeking within 24 hours onset of the illness, care-seeking outside the home, and utilization of orthodox healthcare. The research used cross-sectional survey among ill children in the Children Emergency Room of a

Nigerian tertiary care hospital. They use bivariate analysis and factors that showed significant relationship were entered into a binary logistic regression as independent variables. The result from logistic regression to find factors that are associated with care-seeking within 24 hours show that maternal education has a positive significant impact. On determining care-seeking outside the home, age of children less than one year, first child, only child, maternal age, polygamous family, maternal education, and high social status each have a significant impact. The last result for utilization of orthodox healthcare shows that children age less than one year and maternal education each has a significant impact.

2.3 Hypothesis

From the result of empirical studies above we can conclude that:

1. Children age and gender associate with the choice of treatment.

2. Mother age and education level associates with the choice of treatment.

3. Household wealth, sanitary practice, and residential associate with the choice of treatment.

2.4 Research Framework