

## CHAPTER V

### DISCUSSION

This study revealed that access to medicine for children living in poor households in Peninsular Malaysia including the Klang Valley (urban area) and East Coast of Peninsular Malaysia (rural area) appear to be good. This is based on the findings that interviewed caregivers in the poor households managed to obtain medicines for all the instances when their children became sick in the preceding one month and six months periods prior to the interview. The medicines given were either prescribed and dispensed by government or private hospitals or clinics, bought over-the-counter (OTC) at local pharmacies (privately run) and general stores, but in some cases were reused from previous prescriptions or taken from medicines prescribed to other household members. This finding is also supported by another of findings where almost 100% of the children in the poor households managed to be fully immunised.

#### 5.1 Demographical Characteristics in Relations to Child Health

This study confirmed that the interviewed poor households are living with a monthly income per capita that is considered poor based on definition of eKasih database. A single grandmother who was living with RM100 per month together with her grandchild had the least income reported in this study. To survive with such low

income in the high living cost situation in Selangor, Lembaga Zakat Selangor (a charity organisation by Muslims in Malaysia) aided her with a monthly donation of RM300 and The Social Welfare Department of Malaysia (JKMM) helped the child with his school fees. In Malaysia, beside the government effort to aid the poor members in the society, the responsibility to help the poor is also being shouldered by Lembaga Zakat Malaysia in every state in Peninsular Malaysia and together with the institution of Baitulmal (Nik Mustapha, 1987). However, with the aid and assistance provided, the poor households in both urban and rural areas in this study appeared to have almost similar socio-demographical characteristics. Furthermore, this study also found that these poor populations have similarity in terms of health status of both the caregivers and the children. It is postulated that despite the seeming disparity of healthcare facilities between states in Peninsular Malaysia, there appears to be adequate services provided both to urban and the rural population (Ariff & Teng, 2002). Children in poor households of these areas managed to get medicines every time when they get sick. In 2010, Malaysia has 6,739 health service and 2,413 social work service institutions that played a significant contribution in ensuring survival in term of access to medicines among the poor in urban and rural areas in Peninsular Malaysia (Department of Statistics Malaysia, 2012). This reinforces the findings where there seemed to be good access to children's medicines in this population. The healthcare system in Malaysia that provides universal access to all its residents with a minimum RM1.00 fee has allowed these children to access the medicines at affordable prices especially in government healthcare centres. In 2012, there were 109 1Malaysia health clinics to provide health services to rural and urban poor populations throughout Malaysia. These 1Malaysia health clinics has increased the quality, capacity and coverage of the healthcare infrastructure that is equitable and affordable

even for the poorest section of the nation in urban or rural areas. In other words, almost all the poor households in Peninsular Malaysia should be able to access medicines for their children.

Another issue of concern is the family size or the high number of children found in each household (Zunika & Rusmawati, 2013). This study found that the biggest family was with 12 children, two households have 11 children and another two households with 10 children. It is also found that if the caregiver were so poor then they could not afford to get their children treated due to the tight budget of the households and large number of members per family. According to Goode et al. (2014), the parental health consciousness, household sanitation condition and nutrition intake and children health are associated with family income. Most of them use the money to obtain food that seem to be much more important rather than medications. This will result in increased sharing of medication among the children when they get sick. This situation also occurred in families with a single parent. Many children who live with single parents tend to have less access to medicines and have increased risk to develop health problems in the long term (Mather, 2010). The reasons was that most of the single parent families have limited financial resources available to cover the children's education, child care and health care costs (Mather, 2010). In the US, 24% of the 75 million children under 18 years old live in a single parent family (Mather, 2010) and in Malaysia there were 166,973 people who were divorced or permanently separated. This finding is consistent with a study by Weitot et al. (2003) that indicated that growing up with one parent seemed to entail disadvantages in several aspects such as socio-demographic circumstances and health. Another study found that the parental divorce and single parenthood has negative implications on

children's educational achievement, conduct, psychological adjustment, social competence and health (Amato & Keith, 1991). This study found that single parents did not have much time and money to monitor their children's health when they spent more time working to earn the income for the family. Some of the child's illnesses were left untreated. Therefore, it is very important for the government to ensure that single parents especially single mothers have access to education, job training, quality child care and equal wages in order to ensure the children's health.

## 5.2 Caregiver's Knowledge, Attitude and Practice in Child Health

Although the findings on access are encouraging, this study has raised concerns on whether the medicines are being given appropriately and safely to the children. The US Food and Drug Administration (FDA) has recommended that OTC cold and cough products should not be given to children under 2 of ages due the risk of serious adverse effects (Garbutt et al., 2010; Lazarus et al., 2013). According to Arencibia et al. (2012), giving OTC and aspirin to children without consultation by a physician before use is highly not recommended and inappropriate. Other studies also have warned against the use of OTC analgesic medicines in children without consultation with a physician before use (Du & Knopf, 2009; Nor Aripin & Choonara, 2009).

Furthermore, there were some cases where the caregiver shared medicines prescribed to one child with other children in the household. This occurred mainly when left-over medicines from a prior visit were kept to be given for another episode of illness or to another child. This practice has been documented previously among the Malaysian parents (Chan & Tang, 2012). Most of them claimed this practice would

not harm the child since the left over medicines were kept according to the instructions. Most of them knew the shelf lives and storage of the medicines, but very few knew the risk of dispensing medicines without prescription. Although this is convenient for the caregivers, sharing prescription medicines potentially places the children at risk of adverse outcomes (Edwards & Aronson, 2000; Goldsworthy et al., 2008). Adverse drug reaction (ADRs) is significant problem in the paediatric population in controlled conditions such as in hospital (Smyth et al., 2011) and in clinical trials (Nor Aripin et al., 2012), thus more research is needed to investigate the risk of ADRs in less monitored paediatric populations such as in this study.

Knowledge and management of the caregivers towards their children illnesses often seem inadequate and many misconceptions are seen in treating their children with medicines (Birchley & Conroy, 2002). Previous studies have also indicated that parental knowledge regarding childhood illness is still inaccurate especially in managing fever (Joginder, 1980; Abney & Smith, 1996; Arencibia & Choonara, 2012). When a child becomes unwell, the parental concerns and decision-making on seeking treatment for their children are influenced by their knowledge on that illness and advice from media, through family tradition, from friends and other sources (Joginder, 1980; Joginder et al., 1981; Blenkinsopp & Bradley, 1996). This study found that most of the parents would wait for at least two days before seeking medication. Family tradition or folk practices like getting the child's hair wet or 'Jelum' with water every morning and evening were believed to relieve the fever. Some of them would wet the child's hair with water together with hibiscus leave extract or tamarind paste. In some cases, parents did not seek treatment if their children had fever without other symptoms like cough and cold. The parent believed

that when the child was developing in his or her milestones like sitting to crawling or when the child gets his or her first tooth, it is common to get fever. Some of them also believed that when the children play outside after dark, they could easily get fever, which they usually relate to evil spirits or 'tersampuk hantu'. In such condition the parent will seek for traditional or spiritual healers like 'bomoh' and 'pawang' rather than seek for modern medicines. This could be a reason of the many deaths of children grouped as having fever in the late 70's (Joginder et al., 1981). Even though the cases of parents who believed in 'bomoh' and 'pawang' were relatively very small in this study, it still becomes a concern and this perception needs to be corrected. Thus, health awareness and effective education on child care should be given to the caregiver to achieve a better management of childhood illnesses such as epilepsy, measles, asthma and others.

Another risk found in this study is dealing with counterfeit or fake medicines when some of the caregivers purchased medicines at the local grocery or convenience shop (Zucker & Rago, 2007; Lai & Teoh, 2012). Reportedly, many of them purchased products namely 'Cortal' and 'Ubat batuk cap ibu dan anak' to treat cough and cold especially among children in rural areas. Cortal is one of the most popular analgesic and antipyretic drugs among rural Malaysian populations since the last four decades. It is formulated to treat cold and fever (GlaxoSmithKline, 5 December 2014) and is relatively cheaper than other medicines prescribed in private clinics and is easily found in general and convenience stores. This could be the answer to explain why more parents or caregivers depend on this product for the instant solution in treating children's illnesses. Some of the caregiver claimed that they often give herbal product or TCAM to the children. However, the presence of unregistered and adulterated

products in Malaysia, can equally jeopardize the safety of consumers and this problem is apparently in herbal products (Asiah, 2009). In 2004, the Pharmacy Enforcement Division seized 7,704 products with a market value of RM20.62 million. In 2007, the value of seizure of counterfeit medicine in the Malaysia market amounted to RM35.8 million (Asiah, 2009). Buying medicines or herbal products from general or convenience stores will increase the risk of consuming counterfeit or fake medicines to the children. Thus, caregivers should always obtain the medicine for the children with the consultation of physician or pharmacist. Therefore, an awareness campaign is needed to educate people on counterfeit medicines and management on child health.

Almost all the caregivers in this study reported that they had their children (99.3%) fully immunised. One of the households admitted that they did not obtain immunisation for their children, as they believed it was unnecessary due to perceived low risk of contracting the diseases targeted by immunisation and concerns on adverse effects. The other case, in which the children failed to get immunised is due to the parent claiming have no time and forgetting to immunise their child. Nevertheless, the high immunisation rate in this population was heartening particularly with the recent rise of the anti-immunisation movements (Dolley & Douglas, 2014). This movement has influenced people by giving the wrong interpretation on advantages of immunisation and vaccination programmes. In Malaysia, there is concrete evidence supporting the childhood immunisation programme as one of most cost effective interventions in preventing childhood diseases and reducing childhood mortality and morbidity (Norlijah et al., 2005; Ministry of Health Malaysia, 2014). The Ministry of Health (MOH) implemented the immunisation programme to build up immunity to individual health through vaccinations in preventing childhood diseases such as

diphtheria, pertussis, and polio, TB, Hepatitis B, Measles, Mumps Rubella and *Haemophilus influenza* Type B (Ministry of Health Malaysia, 6 December 2014). However, the parents should be reminded and counselled by the health workers on the importance of getting vaccine and fully immunised. Educational campaigns seem to be the most effective way to explain the benefit of immunisation and vaccination and eliminate the wrong interpretation especially among young parents.

A prominent theme garnered from the qualitative information was an apparent mistrust of modern medicine and an overreliance on traditional remedies. Even though, the number of herbalist and homeopathy services were increasing (Department of Statistics Malaysia, 2011), the use of these services should be carefully monitored to reduce the number of risk to health. Previous research by Chan and Tang (2006) has suggested that caregivers may be prone to misconceptions and distrust on medicines prescribed to their children. This phenomenon has been previously documented even in developed or high-income countries (Rajakumar et al., 2009).

This study revealed that, the management of asthmatic children in poor household is coexisting with traditional and complementary medicine (TCAM). Parents seek the alternative treatments because of the cheaper price of TCAM, the ineffectiveness of modern medicines for their complaint and the concerns of side effects of using them for a longer time period (Siti et al., 2009). The adherence to the modern medicines and treatment for a long term seem to be an economic burden to the poor households. This study found that many traditional and folk practices were adopted by the caregivers. For example, they believed that asthma could be cured by

giving the child powder from the liver of camel or eel soup. The children will be told to avoid certain food in 'food taboos' that they believe will exaggerate the asthma such as coffee, water melon and cold drinks. The parents also reported that they were aware with the need to maintain the cleanliness in the family and the child will be warned to avoid pets like cats and dogs. However, previous research suggested that, seeking alternative medicines for treating asthma is increasing (Heggenhougen, 1980; Babar et al., 2012). This finding warrants further exploration and comparison with other studies, to support the development of public health strategies to overcome the negative perception of important childhood modern medicines.

Parent's knowledge and awareness on epilepsy is worrying in this study where none of the caregivers has good knowledge on epilepsy. Most of them were referring to epilepsy as febrile illnesses (Ramasundram et al., 2000). However, caregivers claimed that they would bring their child to the hospital whenever it is occurs. Unfortunately, most of them disagree that they need to bring their children to the hospital frequently. Adherence to treatment will create an economic burden to their families. Some of them reported that they would seek for traditional complimentary medicines to treat this condition. According to Leonardi & Ustun (2002), epilepsy has contributed to the global burden of disease in the year 2000 and is found in developing countries. Epilepsy has been clearly demonstrated to have the significant implications on healthcare service needs, premature mortality and lost work productivity (De Boer et al., 2008). Another issue that raised concern was stigmatization to the people that live with epilepsy. This is because epilepsy is always associated with discrimination and stigmatization (Boer et al., 2008; Choonara, 2014). Some of the parents reported that they were reluctant to tell their friends and relatives if their children were

diagnosed to have epilepsy. According to them, they feel embarrassed with the condition and due to this reason the child would be untreated. People who were diagnosed with epilepsy tend to have a low self-esteem and the health seeking behaviour seem low. This finding found similar to a study by Ryu et al. (2015) indicating that Korean adolescents and their mothers had a low level of knowledge about epilepsy. Therefore, the society needs to be educated on epilepsy, the prognosis and the treatment available. This effort might eliminate the discrimination to the patients, once the general population have better knowledge on epilepsy (WHO, 1997). An increasing awareness is crucial to ameliorate this stigma. Concerted effort actions are required to increase awareness and acceptability of people with epilepsy (Gzirishvili et al., 2013).

### 5.3 Barriers in Accessing Medicines

Notwithstanding the positive findings on access, further exploration using qualitative methods revealed existing barriers to access medicines for children in this population. The interviewed caregivers described interrelated factors such as cost, convenience, transportation and disability acting as barriers to them in accessing medicines for their children. Although many of the households obtained medicines at public facilities which were free, several families bought medicines at their own cost. This occurred in emergency situations such as when the children has high temperature fever and they need to bring the child to the nearest clinics immediately. In Malaysia, the public health clinic officially operates from 8.00 in the morning and is closed in the evening at 5.00 o'clock. The relatively high cost of medicines at private facilities or pharmacists may influence the caregiver's behaviour in accessing medicines or

managing their children's condition (Schafheutle et al., 2001). In Malaysia, this problem exists when caregivers in poor households have to pay for the prescriptions from private health care which cost at least RM30 per treatment. One household reported that he had to pay RM200.00, when the child underwent an operation for the fractured hand. However, this cost included the transportation cost and others. It has been reported that high medication cost will influence the individual behaviour in managing their condition such as not having prescribed items dispensed, taking a smaller dose or buying a cheaper OTC product (Schafheutle et al., 2001). This study revealed that, some of the poor households were comfortable to buy medicines in general store where the long waiting time to obtain medicines from government health facilities could be avoided. Again, the behaviour of seeking appropriate medicines raised concern.

Another barrier in accessing medicines is transportation or else can be defined as the distances between the living areas of the population to healthcare centres. An inverse relationship exists between distance or travel time to health facilities and use of health services and this has been demonstrated as an important barrier to access (Peters et al., 2008). This barrier becomes more pertinent in remote areas where health care facilities are located far from the community. A study in Punjab by Booth & Verma (1992), concluded that distance from a health facility is a substantial barrier to receive medical care. Remote health centres mean that more time and money is needed to be spent on travel related expenditures and this will affect poor people in seeking medicines. From the interviews with the poor households, they commonly have only a motorcycle to get them to the healthcare facility. One of the caregiver claimed that she has to take her child on the motorcycle for almost a 2 hour journey to

the nearest hospital. Taking a taxi is not an option, as the fare is high and they may not afford to pay the price. Unfortunately, for those who have no transport, they have to travel by taxi or bus to the hospital. This study found that the maximum fare for a single trip to the by taxi was RM20.00 and depending on how far the living area to the nearest healthcare facilities. This is the scenario where some of the parent opt to buy medicine from the grocery store. In some cases if all the children were sick, the caregiver usually bring only one child to the doctor and the rest of the children will share the same prescription. Products such as ‘Cortal’ can easily be found in the remote or rural area. Therefore, the ability for the children to get treatment and appropriate medicines is a concern. However, this phenomenon is now less seen in Malaysia due to the effort of the government in ensuring the medicines can be accessed by every part of the nation.

The physical ability of the caregiver is another barrier to consider. Caregivers whom are categorised as disabled parents (OKU) seldom seek a doctor to treat their children. This is due to their inability to bring their children to the healthcare facility. One of the caregivers reported that he needs his relative’s support to send his child when they get sick. Unfortunately, this support was not always available.

#### 5.4 Limitations of Study

This study has several possible limitations. Firstly, the eKasih database does not include certain populations such as aborigines, rural agricultural smallholders (both are managed by their specific governmental agencies) (Merican and Yon, 2002) and

unregistered or illegal immigrant households. However, future research studies are currently being planned to study access to medicines for children in these populations.

Secondly, this study might be affected by recall bias since retrospective information is collected. Nevertheless, the conduct of face-to-face interviews in this study was meant to minimize this effect as it enabled the interviewers to double check information where possible. Thirdly, the relatively small numbers of households interviewed might limit the generalisability of the findings. However, the study designed to focus on the hardcore poor population and these households are getting less in numbers due to the rapid economic developments experienced in Peninsular Malaysia. It was a very difficult task to complete the actual number of households need to be interviewed to strengthen the finding. This is due to certain factors such as time and cost. The location of the households that sometimes is located far away has raised some logistical issues to set up the interview sessions. However, the number of households interviewed in this study have provided important and useful quantitative information.

This is the first study investigating access to medicines in children living in poor households in Malaysia and among the very few studies on this issue globally. The findings will support local and national measures especially by the Ministry of Health to improve access and safe use of paediatric medicines in this population, as well as stimulate further research into this area with the goal of improving overall child health.