CHAPTER 6

Conclusions and Recommendations

This chapter reviews the conclusions of this study, lessons learnt, implications of the findings, and the limitations of the study. Some recommendations for further study are also presented.

Conclusions

This study had two phases. In Phase 1, the current situation of glycemic control among adults with T2DM was undertaken as a descriptive study. In this phase both quantitative data and qualitative data were obtained. This phase was followed by an ethnographic study to explore the influence of sociocultural context on glycemic control behavior among adults with T2DM in the phase II. In this phase, qualitative information were obtained by using participant observation along with in-depth interviews. The conclusions of the study are described as follows.

Glycemic control among majority of adults with T2DM in the study was not adequate. Of the subjects 71.3% had FBS level more than 126mg/dl. The poor level of glycemic control observed may be due to poor adherence to the prescribed life style modifications. There were statistically significant associations between the medication taking behavior and glycemic control ($p < .05$), and the age and glycemic control ($p < .05$). As highlighted though most adults (71.7%) had practiced diet control, their glycemic control was poor. Most that practiced diet control had no

knowledge with regard to the portion size of food, the most suitable food, vegetables and fruits, the need to time meals appropriately with the intake of medication, or the need to maintain regular meal times. Thus there was no planned diet control behavior among most of the adults with T2DM. The same pattern was observed among them with regards to regular exercise and physical activity. The majority (85.2%) did not exercise at all. With regard to medication taking behavior most (76.5%) complied with the medication regimen although the timing of the drugs and the meals were not consistent amongst most of them.

Qualitative information obtained from the adults with T2DM and health care personnel were categorized into three themes: 1) barriers to glycemic control, 2) reasons to adequate glycemic control, and 3) suggestions to improve glycemic control. Health care personnel and adults with T2DM perceived several barriers to attain glycemic control. Each theme has several sub themes as follows. These identified barriers were 1) insufficient knowledge about the illness; 2) low socioeconomic status; 3) lack of family support; 4) poor compliance to health advice; and 5) insufficient diabetes care. The reasons to have adequate glycemic control were 1) understanding about the illness; 2) sufficient family support; 3) adequate income and education; and 4) motivation to control. The above reasons were perceived by both health care personnel and adults with T2DM. Suggestions to improve glycemic control as perceived by health care personnel were 1) improve knowledge about diabetes and 2) provide better diabetes care. However the implementation of the above suggestions was impractical in the Sri Lankan health setting due to the large number of patients attending the diabetic clinic daily and scarcity of trained health care personnel to

deliver the above recommended diabetic care. Adults with T2DM suggested that they need to adhere more to health care advice.

On completion of the first phase the researcher gained an insight to further explore the above barriers and reasons more deeply in the day-to-day life of adults with T2DM. Using an ethnographic approach, it was found that the unique sociocultural context in Sri Lanka influenced the glycemic control behaviors practiced by the informants. The qualitative information obtained from this phase included five themes: 1) gaining religious support; 2) changing food habits as a struggle; 3) doing exercise is challenging; 4) taking Western medicine causes long term consequences; and 5) using Ayurveda/traditional treatment to be cured. Most informants believed that they got diabetes due to their bad karma and struggled to change food habits. Some of these were difficulty to be satisfied by eating less amount of rice, disappointment with taste of recommended diet and having conflict with preparing separate meal in family homes. Eating less rice was not practicable because traditionally Sri Lankans eat a large portion size of rice often at least two meals per day. Having tea with sugar several times per day and adding coconut milk to make a better taste of food are some of the traditional food habits. Restricting these food habits disappointed the informants. Additionally, eating family meals rather than prescribed diabetic meals created conflicts within informants' families. Some believed reducing sugar intake was enough, and limiting certain food could control diabetes. Furthermore, most of them perceived that doing exercise was a challenging situation in Sri Lanka due to their belief that doing household work or other work was enough exercise, having a busy life so no time to do exercise, and doing exercise may culturally not be appropriate in the local context. A number of informants believed

that taking Western medicine was harmful for the body and in turn they did not take their diabetes medicine regularly. Some of them skipped medicine when feeling good. Further, most of them used Ayurveda/traditional treatment to be cured. This study highlighted the frustration of informants face to achieve glycemic control. Often the same informants were observed seeking treatment from the Western medicine clinic, in conjunction with the Ayurveda practitioner. Despite obtaining a cocktail of treatment most informants had not achieved adequate glycemic control. In summary, the ethnographic study highlighted the influence of unique sociocultural context in Sri Lanka on glycemic control behavior practiced by the informants, and the treatment offered by Ayurveda practitioners /traditional healers.

Lessons learned

1. Learning about ethnography from textbooks is not adequate when conducting a study in the real situation. Hence a novice researcher who anticipates using an ethnographic approach needs to be well organized and prepared to conduct the field work.

2. Selecting suitable participants with rich information and building a trustworthy relationship with them is one of the most important aspects of an ethnographic study. The researcher needs to spend time to understand participants and have the necessary skills to build up rapport with them. The researcher also needs to empathize and support the participant when painful aspects are discussed to obtain the correct perspectives from the participant. This was observed in the sense of hopelessness in some participants who had not achieved glycemic control despite following some diet control behavior and insulin treatment.

3. The researcher needs a certain quantum of practice when conducting participant observations, holding informal interviews and making field notes. These aspects are challenging tasks in an ethnographic study as cursory observations and inferences may produce incorrect results and lead to wrong conclusions. These aspects should be carefully addressed before, during, and after the study.

4. A novice researcher needs to spend time as well as exercise extreme patience when conducting qualitative research.

5. During the period of observation, details of voice inflection, change of tone, meeting the eye during discussions are some of the aspects that carry many unspoken messages. Sensitivity of the researcher and an ear and eye to detail will help in determining the unspoken information and give an opportunity to clarify vague information at the conclusion of the data collection.

6. The notes made during the interview need to be done and reassessed as soon as the interview is completed to maintain the true information provided by the participant.

Implications of Findings

This is the first study conducted by a nursing professional to explore the influence of sociocultural context on health behavior among adults with T2DM in Sri Lanka. Some implications can be drawn to improve nursing education and nursing clinical practice in Sri Lanka. Implications to improve nursing education, nursing practice and health policy are briefly explained below:

Implications for Nursing Education

Currently, the nursing education is more focused on prevention of T2DM and its complications, and the implications of this study are as follows:

1. The study findings revealed that nurses in Sri Lanka need specialized education and practice on diabetic nursing care and correct cultural assessment.

2. Health education is in the curriculum of nursing education. However it should be restructured to include the importance of culturally appropriate health education for Sri Lankan patients.

3. Nurse educators should apply the findings as evidence to modify the health promotion curriculum for adults with T2DM.

4. Nurse educators can apply the findings to develop culturally appropriate health education programs for adults with T2DM.

5. Nurse educators can apply the findings to influence the administrators to promote community health nursing and policies for nursing education. Primary health care nurse cadre positions are an important health care worker group that is still lacking amongst the nursing profession in Sri Lanka.

Implications for Nursing Practice

This study showed that the importance of considering the sociocultural context of adults with T2DM in order to provide health education for them. The implications of these findings for nursing practice are as follows:

1. Nurses need to understand the cultural practices of their patients.

2. Nurses need to provide more culturally appropriate health education and more organized care for adults with T2DM in order to improve their compliance to control glycemic levels.

3. Nurses need to be aware of alternative medicines and practices available for adults with T2DM.

Implication for Nursing and Health Policy

1. Community nursing at a primary care level need to be urgently implemented in Sri Lanka. This study highlights the need to establish this category serving the community at a primary care level in Sri Lanka.

2. At a broader level the total care package for patients with T2DM requires major review, government support and polices to provide appropriate and culturally relevant care in Sri Lanka.

Limitation of the Study

According to the best of the author's knowledge, this study was the first study conducted in Sri Lanka to obtain qualitative information regarding glycemic control, and glycemic control behaviors among adults with T2DM. However the study has some limitations. Participants had obtained their FBS and PPBS reports from different laboratories and therefore did not have uniformity in measurement. This may affect their glycemic control assessments.

Furthermore, the second phase was conducted only in two settings in the district of Colombo, in the Western province due to the limited time and resources available for the researcher. Moreover, study findings were based upon 14

participants, which is a small sample with limited generalizability. Therefore these findings may not represent the influence of the sociocultural context in other districts or other provinces in Sri Lanka. A similar study should be conducted in other provinces in order to explore the influence of sociocultural context on glycemic control behavior.

Recommendations for Further Study

This study demonstrated the importance of exploring the sociocultural context on behaviors of adults with T2DM in order to improve their health status. Based on the above findings, the following recommendations are posed for further study:

1. Further research should be conducted on people with T2DM in other regions of Sri Lanka using various methodologies.

2. This study can serve as a guideline for conducting research on other topics relevant to health behavior for non-communicable diseases among adults by focusing on identifying the sociocultural influence on such behaviors.

3. This study design can be used to conduct further research on knowledge, attitudes and practice among adults with non-communicable disease in Sri Lanka.

4. Further research on Sri Lankan women with T2DM need to be conducted as they are more vulnerable to noncompliance to self-care behaviors because of gender inequality.