CHAPTER 5

DISCUSSION

5.1 Discussion

Although the components of the WIMET program are different from other cognitive/behavioral therapy programs, this program is effective for the reduction of bodyweight in Thai schizophrenic patients with obesity or overweight. Obese/overweight schizophrenic patients receiving the WIMET program can reduce the bodyweight more than patients in usual care for 2.21 kg. and the body mass index of 0.78 kg./m^2. The decrease of waist circumference was also significantly more in the intervention group for all three time points of assessment. To our knowledge, this is the first study examining the characteristics of obese or overweight schizophrenic patients who are likely to respond to a cognitive/behavioral program for weight reduction. It can be seen that the patients with lower level of illness severity have a better chance to respond to the WIMET, a cognitive/behavioral program of weight reduction for obese/overweight schizophrenia.

Although self-efficacy has received increasing attention for its role in weight loss, similar to other studies (Cargill & Clark, 1999; Fontaine & Cheskin, 1997; Prochska et al., 1992), this program can not improve physical self-efficacy within three months.

The results of this study are in concordance with those of other studies applying cognitive/behavioral programs in this population. The mean difference of decreased bodyweight of 2.21 kg. is comparable to that of 1.69 kg. in the pooled data of three cognitive/behavioral programs included in a meta-analysis (Faulkner et al., 2007). In

the respect of mean difference of decreased body mass index, the WIMET program may be able to reduce the body mass index at the similar level of an integrated of nutrition and exercise program (0.78 kg./m^2 vs. 0.90 kg./m^2, respectively) (Melamed et al., 2008). It has been shown consistently that obesity may impact quality of life (Kawachi, 1999). However, this program does not improve it in obese/overweight schizophrenic patients, so as another one-year study (Kolotkin, 2001). However, in comparison to this three months study, the previous one is a one year study. However, it should be noted that the components of WIMET program are relatively different from previous exercise programs. Firstly, instead of promoting the sessions of intensive exercise, the WIMET program aims to increase physical activity all day long. Secondly, to our knowledge, this is the first cognitive/behavioral program for obese/overweight schizophrenic patients that includes the motivational interviewing for changing patient's behavior.

In comparison to previous predictors of completing and responding to weight reduction programs in general people, this present study do not find any general characteristic significantly different between SWL and UWL groups. The lower level of schizophrenia severity is a characteristic that cannot be compared with any characteristic of general obese people participating in a weight reduction program. While high self-efficacy which was found to be a predictor of completing weight reduction program in a study (Teixeira et al., 2004) and successful weight reduction in a review, these findings were not evident in this study. However, these dissimilar results may be caused by the different self-efficacy measures and participants. The 10-item rating scale for assessing the self-efficacy on exercise in the previous study may

be more comprehensive than 5-item questionnaire applied in the WIMET study. In addition, both diet and exercise were included in the self-efficacy measures found in the review. Regarding the participants, it is likely that self-efficacy for exercise of obese/overweight schizophrenic patients may be lower than that of obese people without schizophrenia.

The WIMET program is easy to be implemented. At present, a high-quality pedometer is small, inexpensive, and easy to be operated. Walking is also a type of physical activity that can be done anytime at no cost. Motivational interviewing that has been developed for the people with alcohol problems is also applicable for schizophrenic patients. The motivational interviewing applied in the WIMET is modified from the original one in two respects. Firstly, the contents of feedback mainly focus on health problems and behavior related to obesity and overweight. Secondly, the target of changed behavior is the increase of pedometer walking.

The effectiveness of the WIMET program appears to be modest. By average, obese or overweight schizophrenic patients could decrease their bodyweight only for an average of 0.8 kg in 12 weeks. This small figure may suggest that a sizable proportion of patients do not response well to this program, and, therefore, cognitive/behavioral programs of weight reduction may not be useful for all obese/overweight schizophrenic patients. The means (SDs) of CGI-S scores of the SWL and UWL groups were significant different [1.41 (0.51) and 1.07 (0.26)], respectively (see table 5).

This study has a number of limitations. Firstly, it had a small sample size. Despite the use of randomization, the intervention patients were still significantly older and tended to have less severity of illness with larger waist circumferences. In addition, a nonsignificant difference found in this study might be caused by a type II error. This problem is a barrier to conduct a logistic regression analysis, which is a more accurate statistic technique for prediction. Second, no blindness was applied in this study. Bias on the study outcomes, therefore, could not be excluded. Third, without the record of daily steps, we did not know the patient's compliance to the studied intervention. In addition, different from other high-quality, randomized-controlled trials (Butler & Dwyer, 2004; Ornes, 2005), we did not give a sealed pedometer to the control patients. The bias in this respect is therefore possible. For example, the given pedometer played a role in increasing or maintaining motivation in the intervention group. Fourth, we did not record the participants' nutrition, which might be a confounder of this study. Finally, due to the short duration of the WIMET study, the findings in this analysis may be applicable for patients in short-term follow-up only
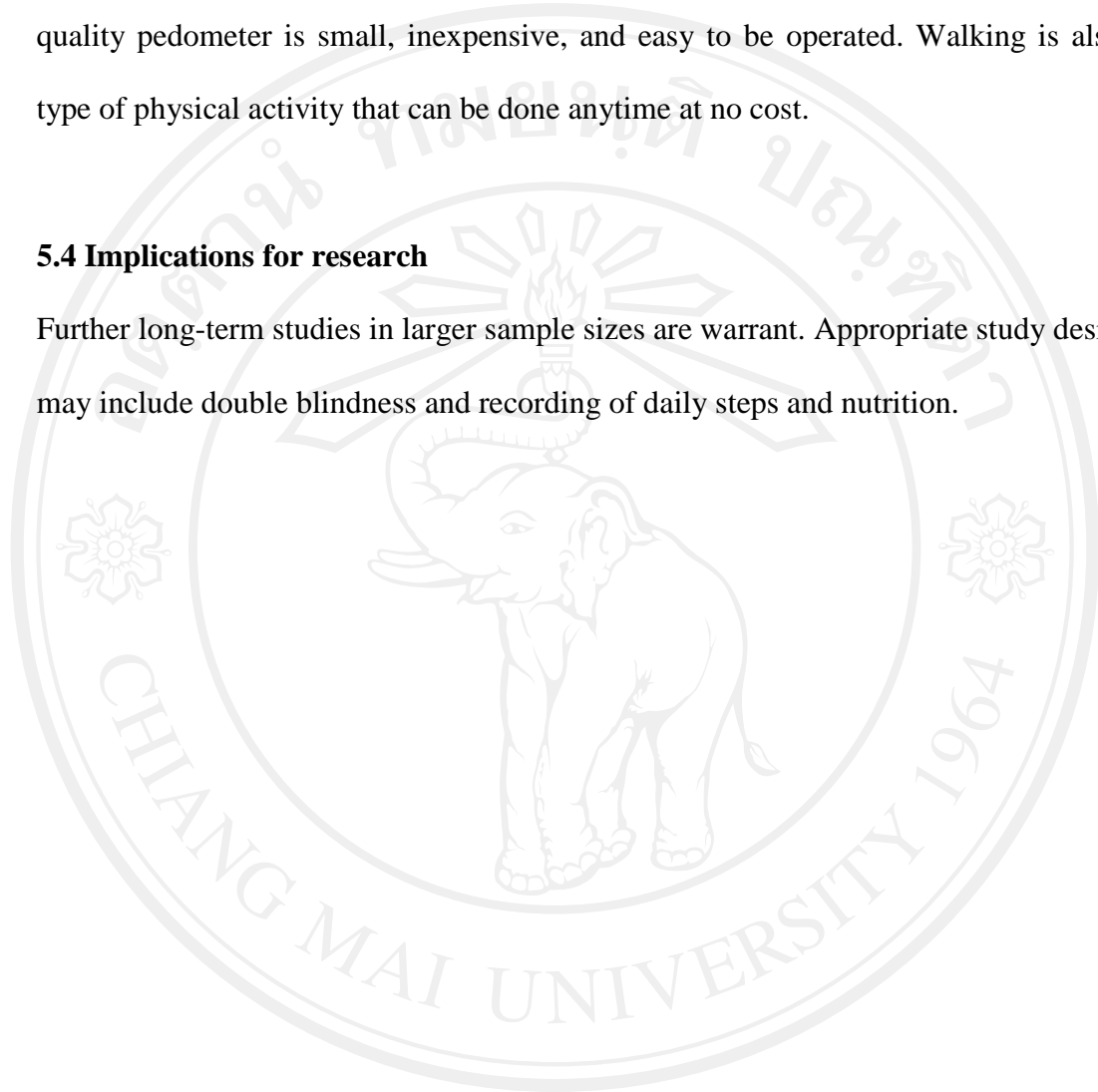
5.2 Summary and conclusions

In conclusions, increased physical activity by pedometer walking plus individual motivational interviewing may be an effective program for the reduction of bodyweight and body mass index in only some schizophrenic patients with obesity and overweight. Of those, patients with low levels of illness severity may have a better chance to respond to the program. Its efficacy may be comparable to other cognitive/behavioral program consisting of diet and exercise interventions.

5.3 Implications for practice

The WIMET program is effective and easy to be implemented. At present, a high-quality pedometer is small, inexpensive, and easy to be operated. Walking is also a type of physical activity that can be done anytime at no cost.

5.4 Implications for research

Further long-term studies in larger sample sizes are warrant. Appropriate study designs may include double blindness and recording of daily steps and nutrition.