CHAPTER V

DISCUSSION, CONCLUSION AND RECOMMENDATION

5.1 Discussion

The research on "Preventive behaviors regarding stress management in essential-mild hypertension patients at BMA Health Center Region 48, Thailand" was, by nature, an analytical cross-sectional study. The main focus was on patients' demographic data, knowledge, and attitudes (dependent variables) and practices (independent variable) of preventive behaviors regarding stress management, and the relationship among them. The tool for data collection was self-administered questionnaire which was pre-tested for 40 samples in BMA Health Center No. 43 and 45 with satisfactory Cronbach's Alpha reliability test score. The data collection was from February 7- March 12, 2008. The samples were 300 OPD patients visiting Hypertension Clinic during the stated period and were within inclusion criteria. Most of them were 35 years old and above with pure hypertension. For data analysis, descriptive statistics and Chi-square were used by SPSS program. Data were analyzed in the following orders:

1. General characteristics: almost all of the samples (97.7%) were from Bangkok area. They were mostly female 68.3%, age between 55-64 (32.0%) and 65-74 (30.0%). They were married for 62.7%. Most of them (60.7%) finished their Prathomsuksa. On their occupation, 54.0% were housekeepers while 29.0% were general laborers-not working at the moment-own small own business. Their family

size was around 4-5 persons per household (43.3%). Monthly household income was in the range of 9,001-28,000 baht (43.0%) with less than 9,001 baht household expenditure (47.7%). 53.0% had no family history who has hypertension. 47.0% had family history who has hypertension, which from their understanding were their husbands, wives, and sons, in addition to fathers, mothers, siblings, and brothers, as asked in this questionnaire. Causes of stress were due to financial problems and family problem 34.3% and 24.7% accordingly. For those who replied "other" items, they included health-related issues and stress from work as causes of stress. 81.7% of the subjects had an ability to relieve stress and only 18.3% had no ability to relieve stress. 68.3% of the samples had 6-8 hours of sleep and 44.3% of them had BMI between 18.5-24.9. 58% of the samples had systolic blood pressure in the range of 130-150mmHg. 39.75% of them had diastolic blood pressure in the range of 80-89mmHg, and 31% had diastolic blood pressure 90mmHg and over.

2. **Knowledge, attitudes, and practices level** about preventive behaviors regarding stress management: the sample's level of knowledge of preventive behaviors regarding stress management was on a high level (53.0%), the level of attitudes was medium (44.3%), while the practice was also on a medium level (51.0%).

3. **Associations** between **general characteristics and practices** about preventive behaviors regarding stress management: there were no significant associations between almost general characteristics and knowledge, attitudes and practices of preventive behaviors regarding stress management, but only an **ability to relieve stress** had a key role with KAP. An ability to relieve stress did not have any relationship with practices of preventive behaviors regarding stress management,

however. The monthly-measured blood pressure of the subjects had no significant relationship with ability to relieve stress. And there was also no significant relationship between cause of stress and blood pressure of the subjects.

4. Associations between an **ability to relieve stress and knowledge** of preventive behaviors regarding stress management: there was a strong statistically significant relationship with knowledge of preventive behaviors regarding stress management ($p<0.05$) in a positive direction of association. As a matter of fact, high level of knowledge had an ability to relieve stress for 56.3%. For those with poor knowledge would be able to relieve their stress for 12.7%.

5. Associations between an **ability to relieve stress and attitudes** of preventive behaviors regarding stress management: there was a strong statistically significant relationship with attitudes of preventive behaviors regarding stress management ($p<0.001$). As a matter of fact, high level of attitudes had an ability to relieve stress for 45.3%. For those with poor attitudes would be able to relieve their stress for only 10.6%.

6. Associations between **knowledge and attitudes** of preventive behaviors regarding stress management: the study found that there was a highly significant association between knowledge and attitudes of preventive behaviors regarding stress management ($p<0.001$) with positive direction of association in moderate and high level of attitudes. In the subjects with high level of attitudes would have high level of knowledge for 47.2%, while those with low attitudes would have low knowledge for 41.3%. On the other hand, those with low attitudes had high knowledge for only 7.5% and those with high attitudes had low knowledge for 23.9%. This result is consistent with the study by Fahey & Silagy (1994); Kovaeie et al. (2002) who stated that the

level of knowledge and attitudes of the subjects climb up and go down in the same direction. However, it is contrary to the findings in Thailand by Pongsiri (1993) in which there was no association between knowledge and attitude.

7. **Associations** between **knowledge and practices** of preventive behaviors regarding stress management: as p value stood at 0.142, it showed no statistically significant relationship between these 2 variables. This is consistent with the study in India (Sivagnanam G, et al 2004). Most of KAP studies also showed that there is no association between knowledge and practices. However, it is contrary to the findings in Thailand by Srinuan (1993) in which there was association between knowledge and practice. It is the researcher own comment that in case the samples were provided with information and awareness about hypertension and preventive behaviors regarding stress management, their practice level may finally been changed positively.

8. **Associations** between **attitudes and practices** of preventive behaviors regarding stress management: with p value < 0.001, it demonstrated a strong statistically significant relationship between these 2 variables, with positive direction of association in high level of practices. Those with high attitudes had high practice for 37.3% and those with low attitudes had low practice for 40.8%. In comparison, those with low attitudes had high practice only for 12.3% and those with high attitudes had low practice for only 16.9%. This showed that practice level would be changed in accordance with the level of attitudes of preventive behaviors regarding stress management. In other words, this result said that the sample's practice level was closely associated with their attitude level of preventive behaviors regarding stress management.

5.2 Conclusion

The results based on the sample size of 300 at BMA Health Center No. 48 at Hypertension Clinic during the period of February 7 to March 12, 2008 in an analytical cross-sectional survey told us that these Bangkokians who were mostly female, between 55-74 years old, being housekeepers and general laborers, having different causes of stress, with BMI between 18.5-24.9 and had high level of knowledge of preventive behaviors regarding stress management (knowledge score mean was 7.26 from total score 9), had medium level of attitudes of preventive behaviors regarding stress management (mean score of attitude was 26.28 from total score of 30), and medium level of practice of preventive behaviors regarding stress management (mean score of practice was 29.99 from total score of 39). If they know how to relieve their stress, it plays a key role in their relevant level of knowledge and attitudes, but not with the practice of preventive behaviors regarding stress management. In addition, there were no significant relationship between blood pressure and ability to relieve stress & between cause of stress and blood pressure of the subjects. The results showed that if the samples have good knowledge, they tend to have good attitudes of preventive behaviors regarding stress management. The same pattern was between attitudes and practices, but not though in the pattern between knowledge and practices of preventive behaviors regarding stress management.

5.3 Recommendation

It can be said that this study result is one of the supporter for the statement that "knowledge does not correspond to the practice of one's preventive behavior

regarding stress management" per se though there was a strong relationship between knowledge and attitudes AND between attitudes and practice of preventive behaviors regarding stress management. It is noticeable that when knowledge increases, attitude increases; when attitude increases, an ability to relieve stress increases; but an ability to relieve stress does not associate with the practices of preventive behaviors regarding stress management.

The missing link learnt from this study seems to be an ability to relieve one's stress as well as one's skills to cope with stress. It is expected that, when conducting health education/ health promotion campaign for the patients by BMA health personnel with an emphasis on the said ability and coping skills, the level of practice of preventive behaviors regarding stress management will be positively impacted and thus increase in terms of the level.

Therefore, the key recommendation made for clinical practice is that a complete cycle of **intervention** should be achieved, namely, knowledge, attitudes, ability to relieve stress and skills to cope with stress, and practices, in order to increase patients' practices of preventive behaviors regarding stress management. The shortage of an ability to relieve stress and skills to cope with stress to KAP on the current issue is the main improvement required for existing health prevention/promotion campaign offered by the involved public sector. It is essential to enhance people vision of health prevention and promotion, engaged costs and benefits, to promote the practice of self-care at home. The ultimate goal is to enable the patients to avoid stress situation and to turn the stress from being the "break" of a person factor to be the "make" one.

5.4 Future research suggestions

From this study, the key lessons learnt for an improvement in the future research are:

1. In this study, the author measured the sample's perception on their ability to relieve stress by "yes" or "no" reply (question number 13) only. In the future study, perhaps, Stress Test Form (SuanPrung Stress Test, for instance) by the Ministry of Public Health of Thailand, may be employed to check in-depth regarding the status of stress in the samples, if it matches with learning objective.

2. In question No. 12, regarding cause (s) of stress, as shown in table 14, all subjects reported that they were all stressful (100%). In the future, when asked for causes of stress, more specific question may used ie. if the samples were stressful for the past 30 days or so, in order to differentiate the past stress from the existing one.

3. A few more questions on relaxation techniques, ranging from Hatha Yoga, biofeedback, exercise, healthy diet, meditation, progressive relaxation, autogenic training, and communication and social support should be incorporated in the future questionnaire, in order to learn more about the techniques the samples use in managing their stress or in being relaxed from stress situations.

4. As shown in table 5, 68.3% of the samples in this study were female, which might be the true nature of customers at BMA health centers in general. However, due consideration should be taken in future research in order to avoid or reduce this sampling selection bias in gender which might tell us different outcomes of the study.

5. Due to the limit of time, the researcher had done only 300 sample size at BMA Health Center No. 48. Thus, it could not be a representative of all Bangkok area. In the future, there should be more study on other BMA Health Centers. As far

as it is now, BMA has divided their health centers into 3 levels: inner city level, central level, and outer ring level. As BMA Health Center No. 48 is one of the outer ring levels, next research may be conducted with another six health centers covering all outer ring group so as to see the pattern of KAP complete cycle in these population of Bangkok suburb.

6. Future research could be carried out in larger areas with more sample sizes in different population (such as middle-income people) with focus on KAP complete cycle survey of preventive behaviors regarding stress management.

7. Studies on determinants of home care practices and observational study on compliance behavior of patients in the context should also be conducted.