CHAPTER 5

DISCUSSION, CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

This chapter includes four sections. First, the findings are discussed in relation to the key objectives of the study. Next, conclusions are drawn based on the findings. Then, the implications of the study findings regarding nursing practice, nursing education, nursing research, and governmental policy are described. Finally, recommendations for future research and limitations of the study are proposed.

Discussion

The Psychometric Properties of the Elder Abuse Scale

With the need for a more comprehensive, yet less western biased, an abuse measurement instrument for the study of elder abuse among Thai older adults, the Elder Abuse Scale of the present study was developed based on the literatures and focus group discussions. The researcher hopes that it would help shed some light on the evidences of elder abuse problem in Thai society. The psychometric properties of the Elder Abuse Scale were discussed in relation to the evidences for both its validity and reliability.

In the present study, the validity assessments of the Elder Abuse Scale focused on content, construct, and criterion-related validity. Content validity is concerned with how well the content of the scale relevant to the construct being measured (Burns & Grove, 2001; Waltz et al., 1991). The results from the present study offer

preliminary evidence for the content validity of the Elder Abuse Scale. The panel of five experts unanimously agreed upon the operational definitions of elder abuse and its components. The index of content validity (CVI) of the Elder Abuse Scale was 0.915. Since the Elder Abuse Scale had CVI above the expected value of the CVI for the new instrument (0.80), it is indicated that there was an evidence of the content validity of the scale. In general, the determination of content validity is more subject to error than other kinds of validity since content validity is depended on subjective judgments (Allen & Yen, 1979). Nevertheless, establishing the content validity of a new instrument is still the first concern in any measurement development and an important aspect of the usefulness of the scale. The instrument also can be revised and improved through item analysis techniques. The fact that an instrument has evidence of the content validity is not sufficient to justify its utilization so that it should have verified evidences of other types of validity, such as construct validity and criterion-related validity (Allen & Yen, 1979).

Exploratory factor analysis (EFA) is one statistical method employed to prove the construct validity of an instrument by identifying clusters of variables that are intercorrelated (Burns & Grove, 2001; Munro, 2001). In the present study, EFA of the original 59 items in the Elder Abuse Scale resulted in the elimination of 19 items which did not meet psychometric requirements for inclusion in the scale. The final Elder Abuse Scale is composed of 40 items and yields a five-component solution, neglect, psychological abuse, physical abuse, violation of rights, and exploitation (Table 10). However, some components of this solution shared similar construct, or had only two items per component.

Component 1, neglect, had the highest eigenvalue and consisted of twelve items describing the perception of neglect. Component 2, psychological abuse, comprised twelve items reflecting the perception of psychological abuse. Component 3, physical abuse, composed of eight items, including six from physical abuse component and two from exploitation component. These two items from exploitation, item number 6, *"Your family member(s) has/have taken your money without permission."* and item number 7, *"Your family member(s) has/have taken your belongings either to use or to possess without permission."*, were loaded across to the physical abuse component. These two items might share similar concept and have close relationship with the physical abuse component. The main reason is most participants in focus group discussions often stated their experiences that abusers beat them if they did not give them the money or property. Component 4, violation of rights, contained six items: five from the violation of rights sub-scale and one from the psychological abuse sub-scale. The psychological abuse item number 15, *"Your family member(s) has/have acted to make you feel they don't want you to live with them."*, was loaded across to the violation of rights sub-scale. The reason is the words used in this item might not clearly reflect the psychological abuse sub-scale or there is an overlap between the psychological abuse and violation of rights concept. The last component was exploitation consisted of only 2 items. There is a concern about the exploitation component. As Streiner (1994) noted, each component should be consisted of at least 3 items; if there are fewer, the component should be eliminated or ignored. Nevertheless, Carmines and Zeller (1979) stated, "if the results of a factor analysis are interpreted without theoretical guidance, it can lead to misleading conclusions concerning the validity of measuring instruments" (p. 63). Guided by

literature review and focus group discussions of this study, the exploitation component is included in the scale in order to avoid loss of meaningful information of elder abuse.

Overall, this study provides supportive evidence for the construct validity of the EAS. The five components of elder abuse account for 59 % of the total variance and confirms the Streiner's viewpoint (1994) that factors should explain at least 50% of the variance. Future research is needed to focus on the development of alternative items to tap the exploitation component.

The evidence for the criterion-related validity of the EAS demonstrated theoretical consistent, though modest, negative correlation with the Life Satisfaction Scale and positive correlation with the Modified H.A.L.F. Assessment Tool (Table 11). In general, life satisfaction has been defined as individual's cognitive evaluation of his or her well being or happiness (Diener & Diener, 1995; Yoshida, Sauer, Tidwell, Skager, & Soreson, 1997). Diminished life satisfaction might be a common feature of elder abuse since elder abuse can affect both physical and mental health of victims. Thus, older adults who had at least one abusive behavior are more likely to be unhappy or unsatisfied with their life. In addition, it also can be seen in the fact that the EAS was positively correlated with the Modified H.A.L.F. Assessment Tool since results from research confirm that the more risk factors present in a family environment, the greater the likelihood of elder abuse (Lachs et al., 1997; Pillemer & Finkelhor, 1988).

Reliability coefficient is one of the most important indicators of an instrument's quality (DeVellis, 1991). Of particular concern for the present study was the test of the internal consistency, which examines the extent to which all items in

the scale consistently measured the same construct (Burn & Grove, 2001). Overall, in the present study, the internal consistency reliability of the five sub-scales and the total EAS appeared to be good (Table 12). In fact, in the early stage of the instrument development, the expected value of the Cronbach alpha coefficient of 0.70 was sufficient (Nunnally & Bernstein, 1994). In the present study, the sub-scale with the fewest items, exploitation sub-scale, demonstrated the reliability coefficient of below 0.70. The major reason is that the value of the Cronbach alpha coefficient depends on the average inter-item correlation as well as the number of items in the instrument (Carmines & Zeller, 1979). DeVellis (1991) proposed the tool that had the Cronbach alpha coefficient above 0.90 should be considered shortening in order to avoid scale redundancy. The alphas that exceeded 0.90 for the EAS in this study were the overall score, the neglect sub-scale, and the psychological abuse sub-scale. Even though these findings suggest that all 40 items of the EAS were reasonably consistent and twelve items of the neglect and the psychological sub-scale were homogeneous within each component, some items in these components might be redundant. Future research should be focused on adding new items to the exploitation sub-scale, shortening items in the psychological abuse and neglect sub-scale, and testing on another sample in order to determine the improvement of the reliability coefficient.

As mentioned earlier, elder abuse is a culturally sensitive issue. The instrument developed in one culture may not be appropriated for use in another culture. The EAS developed in this study is primarily based on Thai older adults' perceptions. It is partly commented by the experts who are also Thai. It is, therefore, considered as being specific for Thai society. In addition, the EAS is readily and appropriately used for screening elder abuse in the community setting since it is

developed from all abusive behaviors mentioned by Thai older adults residing in communities. As shown in reviewed literature, the instruments developed by western authors including the Elder Assessment Instrument (Fulmer et al., 1984), and Elder Abuse Assessment Guideline (Haviland & O'Brien, 1989), were normally used in clinical settings. The authors often used pathologic signs and symptoms, such as bruising, dehydration, and fracture to identify elder abuse. This approach tends to get false positive/ false negative reports because a number of older adults might have these markers from other causes, such as a disease or medication reaction (Fulmer, 2002). Other instruments, the H.A.L.F Assessment Tool (Ferguson & Beck, 1983), and An Index for Assessing the Risk of Elder Abuse in the Home (REAH) (Hamilton, 1989) considered only context of risk factors instead of abusive behaviors. None of the instruments above, except the Conflict Tactic Scale (CTS), are widely used in the study of elder abuse (Fulmer, 2002). Although the CTS was developed to identify intrafamily conflict and violence, it was not a specific tool for screening elder abuse. Therefore, the EAS developed in this study, culturally sensitive measure, is suitable to employ for screening elder abuse among Thai older adults.

In summary, the present study provided evidences to support the content validity, the criterion-related validity, and the construct validity as well as the internal consistency reliability of the EAS. Since the establishing of the validity of a scale is an on-going process, the next step in examining the validity should involve other types of validity, such as predictive validity. The Cronbach alpha coefficient estimates were satisfactory in the physical abuse sub-scale and the violation of rights sub-scale. Future work is needed toward including and evaluating additional items to

the exploitation sub-scale and reducing items in the neglect and psychological abuse sub-scale to improve their internal consistency and the total scale reliability.

The Prevalence of Elder Abuse

Data from the present study demonstrated that the estimated overall prevalence rate for elder abuse in Chiang Mai municipality, Thailand was 48.4%. Results also indicated that the prevalence rate of various types of elder abuse was 43.1% for psychological abuse, 20.7% for exploitation, 14.8% for violation of rights, and 12.8% for neglect. The finding of physical abuse was less common, with only 8.6% of the elderly participants reporting such experiences. The prevalence rates of elder abuse found in the present study were much higher than those found in other countries, such as the United States (3.2%) (Pillemer & Finkelhor, 1988), Great Britain (5.6%) (Ogg & Bennett, 1992), Canada (4.0%) (Podkieks, 1992), Australia (4.6%) (Kurrle et al., 1992), Amsterdam in Netherlands (5.6%) (Comijs, Pot, et al., 1998), and Costa Rica (2.2%) (Gilliland & Picado, 2000). There are several explanations for these differences.

First, it might be due to the difference in the instrument used to screen abusive behaviors, in which the present study included all abusive behaviors emerged from the focus group discussions among Thai older adults. Furthermore, some items of the EAS might not be able to specifically identify the abusive behaviors, since the questions used did not reveal the intention for doing. For instance, exploitative behaviors may be considered as bad but may not cause that hurt to the older adults like the abusive one. This might account for the very high prevalence of elder abuse.

Therefore, some items of the EAS should be revised by adding situational specificity of elder abuse.

Second, the difference of the prevalence rates of elder abuse could be explained by cultural differences between the west and the east. In general, older adults in the west, especially the United Stated, love to live separately from their children, whereas Thai older adults will co-reside with their children (Klausner, 1993; Knodel, Chayovan, & Siriboon, 1992). The co-resident characteristic of Thai older adults might imply the high prevalence of psychological abuse, while living alone among older adults in the west may lead to the high prevalence of neglect. The norm of living with children during old age also found in the present study in which about 76.5% of the participants lived with at least one child. Pillemer and Finkelhor (1988) stressed that older adults who live with others are more likely to be abused than those who live alone. Therefore, it was possible that the co-residence may lead to a conflict between older adults and their children resulted in the high prevalence of abuse, especially psychological abuse. This study also showed that, of the various types of abuse that older adults are subject to, psychological abuse tended to be the most prevalent. This finding was similar to Yan and Tang' s study (2001), but in contrast with the national research carried out in the United States (NCEA, 1998) that neglect is the most common type of elder abuse in domestic settings.

Third, obligation to one's parent is a cultural and moral imperative in Thailand, whereas in the west, where a highly competitive industrialized society characteristics, there is a general rejection of responsibility for one's parents (Klauser, 1993). In addition, the reduction of fertility, industrialization, urbanization, as well as economic constraint in Thailand may also result in there being fewer adult children

available to care for older adults when they are in need of assistance (Jitapunkul, Chayovan, & Kespichayawattana, 2002; Mason, 1992). Since children cannot transfer such responsibility to impersonal institutions (Klausner, 1993) and they are usually ashamed in not taking care of their parents (Jitapunkul et al., 2002), this crucial obligation might cause children' strain and stress leading to abuse their parents.

Fourth, the abuse may occur since Thai older adults lose their traditional control over the younger generation as society industrialization and wage employment replaces family production (Mason, 1992). Fifth, most Thai older adults had lower educational level than those in the west. In the present study, about 14.5% of participants had secondary education and only 5.9% had bachelors degree, whereas about 67% of American older adults had complete high school (Federal Interagency Forum on Aging-Related Statistics, 2000a). It may imply that older adults who had no education or had low educational level might be more easily deceived or exploited by their own children than those who had high education.

Lastly, since education influences socioeconomic status, and can play a role in older adults' well being. Higher educational levels are usually associated with higher incomes, and higher standard of living (Federal Interagency Forum on Aging-Related Statistics, 2000a). As mentioned above, in the present study, most Thai older adults had low educational level, and about 59.5% of older adults had no income or had income below poverty line (897.4 Baht). Therefore, Thai older adults tend to rely on adult children's finance which is a significant economic resource for the elderly in Thailand (Sobieszczyk, Knodel, & Chayovan, 2002). On the other hand, American older adults depend on their own social security benefits, pensions, asset income, and

personal earning (Federal Interagency Forum on Aging-Related Statistics, 2000b; Klausner, 1993). As a result, Thai older adults may encounter abusive situations more than older adults in western countries because of their financial dependency.

The researcher also believes that prevalence rates for elder abuse in the present study might be underestimated. Two explanations are: first, Asian people including Thai older adults generally avoid confrontation and would rather tell a lie than cause anyone in their family and oneself trouble and losing face (Malley-Morrison, You, & Mills, 2000; Singelis, Triandis, Bhawuk, & Gelfand, 1995). Older adults also might want to protect their family members from external sanction, as their abusers were either their spouses or their own children (Yan & Tang, 2001). Second, older adults who are abused may attempt to hide their situations from others since they fear of retribution from their family members, fear of being removed from homes to institutions, and importantly, they do not want to betray their loved ones by telling the abusive story to others (Fulmer et al., 1984; Kleinschmidt, 1977; Wiehe, 1998).

Risk Factors for Elder Abuse

There was no study related to risk factors for elder abuse in Thailand. The discussion of each risk factor of this present study, therefore, uses finding from other countries for comparison. The factors included in the study were age, gender, marital status, religion, level of education, perception of income adequacy, family history of mental illness, family history of substance abuse, personal health problems, perception of health, attitudes toward aging, living arrangement, finance, as well as functional ability. The factors that demonstrated the significant association with elder abuse were level of education, perception of income adequacy, family history of

substance abuse, family history of mental illness, personal health problems, perception of health, attitude toward aging, living arrangement, finance, as well as functional ability ($p < .05$) (Table 14-18). However, the significant association between age, gender, marital status, religion, and living situation were not found. The discussion of each factor is provided below.

As for the level of education, it was found that there was a positive association between educational levels and elder abuse. Thai older adults who had no formal education are more likely to be abused than those who had at least primary education. This finding supports the study of Chan (1985, cited in Kwan, 1995); and Lachs, Berkman, Fulmer, and Horwitz (1994), which revealed that low educational level was significantly associated with elder abuse. Possible underlying factors resulting in this finding could include that older adults who had low levels of education may not be able to earn enough income and have to rely on adult children as their main source of income (Sobieszczyk et al., 2002). Moreover, educated older adults are better to learn new things, to accept the alterations of old age, as well as to adapt themselves. Adult children normally view older adults who had low level of education as old-fashioned. These enable the older adults to be abused.

Regarding the perception of income adequacy, there was a positive association between the perception of income adequacy and elder abuse. Older adults who reported inadequate income are more likely to be abused than those reported adequate income. The finding in the present study is in line with the study of Chan (1985 cited in Kwan, 1995); Gilliland and Picado (2000), and Lachs et al. (1997), which indicated that older adults at the low income level experience the high rates of abuse. It is probable that inadequate income may contribute to older adults' and adult children'

stress that increases conflict, burden, and lead to abuse (Hogstel & Curry, 1999). However, the finding of the present study was contrary to the study of Pillemer and Finkelhor (1988), which indicated that the rates of abuse were not significantly different for those of any economic background.

Like previous studies, the present one indicated that family history of substance abuse was positively associated with elder abuse (Anetzberger, Korbin, & Austin, 1994; Choi & Mayer, 2000; Gilliland & Picado, 2000; Hwalek et al., 1996; Kosberg & Nahmiash, 1996; Neale et al., 1996; Reay & Browne, 2001). Compared with those who had no family history of abuse, older adults who had at least one family member drinking alcohol reported more abuse. It could be explained that adult children with alcohol problems tend to be more hostile, impulsive, and aggressive than those without alcohol problems (Bradshaw & Spencer, 1999). Chronic alcoholism also can lead personality changes in which increase the tendency to blame others (Boles & Miotto, 2003). Furthermore, in term of financial circumstance, adult children who has substance abuse problem can experience continuing economic crises, especially if the problem is affecting his or her ability to get or keep a job (Bradshaw & Spencer, 1999). As a result, inadequate financial resource, lack of insight, and judgement, as well as aggressive behaviors in adult children who have substance abuse problem can induce stresses that increase the risk of abuse.

Data from the present study also demonstrated that family history of mental illness was significantly associated with elder abuse. The finding in this study is consistent with the study of Reis and Nahmiash (1998), which found that the caregivers' mental health and behavior problems were strong predictors of likely abuse. Paveza et al. (1992), in their study of Alzheimer's caregiver, also found that

caregiver depression was a significant risk factor for abusive interactions between caregivers and patients. It is possible that adult children who had mental illness might decrease ability to tolerate frustration, conflict, and to control behaviors resulting in abuse and neglect (Gordon & Brill, 2001).

As for the personal health problem and the perception of health, data from the present study demonstrated the positive associations between personal health problem and the perception of health and elder abuse. Older adults who had personal health problems and/or perceived as unhealthy were more likely to be abused than those who had no personal health problem and/or perceived as healthy. The finding of the study is consistent with the study of Chan (1985 cited in Kwan, 1995); Choi and Mayer (2000); and Pillemer and Finkelhor (1988), which indicated that older adults who had physical health problems were more likely to have been abused. Comijs and colleagues (1998) also reported that there was a significant relationship between bad subjective health and chronic verbal aggression. It could be explained that older people in poor health may need a great deal of care and financial supports and thus place greater demand on family members resulted in abuse. Poor health might also decrease an older adult's ability to seek help and to defend her/himself (Schiamberg & Gans, 1999).

The finding in the present study also revealed that attitudes toward aging were positively associated with elder abuse. Older adults whose adult children had bad attitudes toward aging are more likely to be abused than those adult children with good attitudes. Nagpaul (1997) stressed that older adults are increasingly becoming unwanted creatures because of negative view toward older adults of young generations. Therefore, in the presence of a bad attitude toward aging of adult

children, such as seeing the elders as old-fashioned, and frail, the need and the right of an older adult can be less concerned. An older adult also may not be valued as an individual (Hogstel & Curry, 1999; Ward, 2000). As a result, a bad attitude toward aging of adult children may contribute to elder abuse.

Data from the present study showed the positive association between living arrangement and elder abuse. Older adults who encountered with bad living conditions are more likely to be abused than those who had good living conditions. This finding is partly in line with the study of Chan (1985 cited in Kwan, 1995); and Gilliland and Picado (2000), which reported that a number of a larger household was a risk factor for elder abuse. Possible underlying factors resulting in this finding could include that bad living conditions, such as a house had no privacy and too crowed for all family members, may be able to set a stage of conflict (Ferguson & Beck, 1983). Older adults and adult children may have difficulties in avoiding confrontation with each other that can lead to elder abuse.

In the present study, there was a positive association between financial status and elder abuse. Older adults who had financial dependency on their children and/or had their children rely on older adults' finance were more likely to be abused than those who had no financial dependency. The finding is in line with the study of Chan (1985 cited in Kwan, 1995); Gilliland and Picado (2000); and Yan and Tang (2001), which indicated that financially dependent upon a family member was a significant risk factor for elder abuse. Pillemer's study (1986 cited in Schiamberg & Gans, 1999) suggested that the opposite was true. He found that some abusers were actually more dependent on older adults than vice versa, particularly with regard to finance and housing. Given that co-residence between Thai older adults and adult children is

common. Older adults co-residing with adult children often provide housing and a variety of household chores including preparing meal, doing laundry, cleaning house, and caring for grandchildren when other do not at home, while adult children generally provide money for their parents (Sobieszczyk et al., 2002). Although exchanges of support and services between parents and adult children are generally prevalent in Thai culture (Sobieszczyk et al., 2002), over-dependency may lead to conflict and burden. Therefore, financial dependency on either older adults or adult children may contribute to elder abuse.

Like previous studies, the present one indicated that functional ability was positively associated with elder abuse (Comijs, Smit, et al., 1998; Lachs et al., 1994; Lachs et al, 1997; NCEA, 1998; Podnieks, 1992). Compared with those who had no difficulties in ADL, older adults who had more difficulties with ADL, both basic activities of daily living and instrumental activities of daily living, reported more abuse. It could possibly be explained by the fact that elder abuse may be related to the burden and stress the older adult with functional disability place on their family members (Wiehe, 1998). Additionally, greater functional impairment decrease an older adults ability to defend her/himself or to escape the abusive situation (Bonnie & Wallace, 2003; Lachs & Pillemer, 1995)

In this study, no statistically significant association was found between age and elder abuse indicating that age did not affect elder abuse. The finding is consistent with what was reported in the study of Choi and Mayer (2000); Comijs, Pot, et al. (1998); and Pillemer and Finkelhor (1988), which found that the prevalence of elder abuse did not differ in age. It could be explained that the participants in the present study were relative young. Only 16.4% of participants were over 75 years of

age. However, the finding is in contrast to previous studies which indicated that the prevalence of elder abuse was higher for older, aged over 75 years old, than for younger older adults (Lachs et al., 1994; NCEA, 1998).

The findings from the present study did not show a statistically significant association between gender and elder abuse. It can imply that both male and female are the victims of elder abuse. The result of this study is similar to what was reported from previous studies (Choi & Mayer, 2000; Comijs, Pot, et al., 1998; Dimah & Dimah, 2002; Pillemer & Finkelhor, 1988; Yan & Tang, 2001), and different from other studies which reported that women are more likely to be abused than men (Chan cited in Kwan, 1995; Lachs et al., 1994; Lashs et al, 1997; NCEA, 1998; Soeda & Araki, 1999). Although no statistically significant gender difference was found between male and female victims in their abusive experiences, there was a trend of more reports of abuse from female participants when compared with males (37.5% versus 10.9%). Two explanations are: first, it was possible that older women outnumber men as they live longer than men. Data from the present study also showed that the majority of participants was female (75.7%). Second, among Thai older adults, older women are also somewhat more likely than men to report feeling their family lack warmth (Sobieszczyk et al., 2002).

The present study indicated that there was no statistically significant association between marital status and elder abuse indicating that married elders had no difference in magnitude of abuse from those who were single, widow, divorce, or separated. The finding in this study is contrary to the study of Comijs, Smit, et al. (1998), which found that chronic verbal aggression has significant relationship with marital status. It means that a married elder is more likely to be exposed to abuse than

a single, divorced, widowed, or separated elder. An explanation of this finding is related to the living situation and the fact that a vast majority of older Thais either married or not normally live with their adult children which is obviously a high risk situation for abusive interactions (Pillemer & Finkelhor, 1988; Schiamberg & Gans, 1999).

Although almost all participants in the present study (97.4%) were Buddhist, data from the present study revealed that there were no significant association between religion and elder abuse. The finding is consistent with the study of Pillemer and Finkelhor (1988), which reported that the rates of abuse were not significantly different for those with any religion.

Regarding living situation, although no statistically significant association between living situation and elder abuse was found, there was a trend of more reports of abuse from older adults who live with other family members as compared with those who live alone (43.4% versus 4.9%). Thus, this study's finding is incongruent with those from previous studies of which older adults who live alone are less likely to be the victims of elder abuse (Comijs, Smit, et al., 1998; Pillemer & Finkelhor, 1988; Wolf & Pillemer, 2000). It is probable that generally a vast majority of older Thais even married, single, widow, divorced, or separated either living with or very near at least one of their adult children or relative (Sobieszczyk et al., 2002). Shared living situation between an older adult and other family members may create opportunity for contact, tension and frustration that may lead to abuse (Schiamberg & Gans, 1999; Wieland, 2000).

Significant Predictors of Elder Abuse

As noted above, an analysis of the multivariate logistic regression found that of the ten factors highest correlated with elder abuse in univariate logistic regression, five were associated significantly which are attitudes toward aging, living arrangement, family history of substance abuse, the perception of health, and financial status. Although five factors including perception of income adequacy, personal health problem, level of education, basic activities of daily living, and instrumental activities daily living were found to be related to elder abuse in the univariate logistic regression analyses, they were not significant predictors of elder abuse in the prediction equation. The five factors in the prediction equation provided a power of prediction of 78.9% and explanation event of 52.6% of variance (see Table 18). The findings of the present study are partly consistent with the longitudinal study of Lachs and colleagues (1997), which indicated that functional disability was identified as risk factors for abuse, but in different magnitude (OR = 1.3, CI = 1.0-1.8). It could be explained that functional disability was not a significant predictor in the present study since the majority of participants (88.16%) reported high ADL score, which indicated that they were independent and had no difficulties in ADL at all.

The five significant predictors, attitudes toward aging, living arrangement, family history of substance abuse, the perception of health, and financial status, found in present study were different from findings of other studies (Lachs et al., 1994; Lachs et al., 1997) which indicated that age, race, poverty, functional disability, and cognitive impairment were identified as risk factors for reported elder abuse. This result could be explained that the conceptual framework guiding these studies was

different. The conceptual framework used in the present study included three categories of risk factors for elder abuse (elder-related factors, caregiver-related factors, and caregiver context factors), while other studies focused only elder-related factor. Moreover, cultural differences may affect the findings. However, these five significant predictors were congruent with risk factors for elder abuse proposed by Ferguson and Beck (1983). Since risk factors for elder abuse have not been sufficiently studied, the relevant abuser factors are still little known. Thus, further studies related to predictors for elder abuse should be conducted.

Management Strategies of Elder Abuse among Thai Older Adults

Data from phase III of the present study showed that there were seven management categories reported by the participants. For the most prevalent management strategy, participants have tried to keep silent, be patient, and be dependent upon themselves as much as they can. This finding is consistent with the study of Le (1997), which also indicated that the victims preferred to keep their problem to themselves. It is probable that Asian older adults including Thai older adults are unwilling to reveal family problems to others and fear of raising conflict among their adult children and relatives. The Thais also normally view the overt expressions of anti-social behaviors and attitudes as culturally inappropriate (Klausner, 1993). Additionally, based on the fact that the majority of participants (97.4%) were Buddhist, they normally practice the Buddhist philosophy to guide and direct their live. Therefore, the ways that Thai older adults normally use to manage the abusive situations were embraced in the Buddha's teachings. Buddhism helped older adults to understand the reality of life under the law of karma, the thought that

everything was the result of past actions (Tongprateep, 2000). This understanding also help them to remain calm in the face of difficulties in life so that participants may be able to be silent and patient with the abusive situation. Furthermore, Thai people, especially Thai older adults widely practice conflict avoidance (Cooper & Cooper, 1990). They intend to maintain a peaceful home by letting go the conflicts and anger, and being patient as well as trying to be dependent on themselves. However, some older adults may run away from home and ask for help from others when the abusive situations get worse.

Data from the present study also indicated that some Thai older adults have tried to prevent the repetition of the abuse by attempting to solve and discuss the problem with abusers. This finding is in line with the study of Comijs, Pot, et al. (1998), which found that most victims have tried to discuss with the abuser in order to solve the abusive problems. Some participants also have tried to admonish and teach morality to adult children in order to inspire adult children' kindness, gratitude, and appropriateness. Additionally, the management strategies among Thai older adults may be dependent on the severity of the abusive condition and the magnitude of older adults' dependency on adult children. Therefore, some participants have tried to lodge a protest with the police or commit suicide when the abusive situation was severe. On the other hand, some older adults (0.68%) who were the house owner and did not rely on adult children finance have tried to turn an abuser out of the house.

The finding from the present study also demonstrated that Thai older adults not only tried to help themselves or ask for help from others in dealing with the abusive situations, but they also believed that the Dharma and God could help them to cope with that situation. It could be explained that the victims who believe in Buddha

think that the rules of practice in Buddhism teach them to accept the problem (Tum Jai) and let go the feeling down (Ploi Wang), whereas those who are not Buddhist and believe in god think that god will help them to solve the problem.

The management strategies among Thai older adults found in the present study are quite similar to those found among older adults in the Netherlands (Comijs, Pot, et al., 1998) and the Vietnamese elders residing in the United States (Le, 1997). It is probable that older adults in any country still need to deal with the abusive problem by themselves whether there is mandatory reporting law for elder abuse and an adult protective service or not, since most of them did not know how to report elder abuse, where to go, and whom to ask for help. However, a study conducted by the U.S. Government Accounting Office reported that mandatory reporting was second only to public and professional awareness in practically identifying the victims of elder abuse (Otto, 2000). Ensuring the safety of the victims provided by the APS is a key to management (Melvin & Rhyne, 1998); thus, the establishments of the APS are needed to help the victims and family members to solve the problem. Since the management strategies of elder abuse are still not well known, further studies are needed.

Conclusion

The purposes of the study were met by means of a descriptive research design and cross-sectional design, case comparison, and using a three-phase approach. The inclusion criteria for recruitment of the sample in all phases were: being 60 years of age and older with no cognitive impairment by receiving the score of $\geq$ 15 on the Chula Mental Test; being able to communicate verbally; and willing to participate in the study.

In phase one, focus group discussions were conducted among 27 older adults to obtain the information about the meaning and the components of elder abuse among Thai older adults necessary for developing the EAS.

Phase two of the present study was pilot testing the EAS and the modified H.A.L.F assessment tool with 80 participants. Revisions of the EAS were made based on the feedback received.

Phase three was conducted with 304 older adults residing in Chiang Mai municipality, Thailand to investigate the psychometric properties of the EAS, identify the prevalence of elder abuse, examine the risk factors for elder abuse, and describe the management strategies of elder abuse. Data were obtained by using a demographic data sheet, the EAS, the Modified H.A.L.F. Assessment Tool of Furguson and Beck (1983), the Barthel ADL of Jitapunkul et al. (1994), and the Chula ADL index of Jitapunkul et al. (1999), and the interview guideline for investigating the management strategies of elder abuse. Based upon the findings and the preceding discussion, the conclusions may be listed as followed:

1. The 304 older adults who participated in the present study can be considered as representatives of the urban elderly population of Chiang Mai, Thailand, but do not represent the general elderly population.

2. The psychometric properties of the EAS appeared to be good. The EAS (52 items) had been validated by five experts with an interrater agreement of 0.915 and a Content Validity Index of 0.915. The evidence of the construct validity for the EAS was investigated using the Principal Component Factor Analysis. This analysis yielded five components of elder abuse: physical abuse, psychological abuse, neglect, exploitation, and violation of rights. Fifty-nine items were entered into the factor

analysis. Forty items remained which together accounted for 59.00% of variance. The inter-item correlation of the EAS ranged from –0.04 to 0.85. The internal consistency reliability for physical abuse sub-scale, psychological abuse sub-scale, exploitation sub-scale, neglect sub-scale, violation of rights sub-scale, and the total scale were 0.75, 0.91, 0.51, 0.93, 0.75, and 0.93, respectively.

3. Of all 304 participants, approximately 48.4% of the participants had experienced at least one abusive behavior. Psychological abuse was the most prevalent abuse in the present study with a prevalence rate of 43.1%. The prevalence rate of the various types of elder abuse was 20.7% for exploitation, 14.8% of violations of rights, 12.8% for neglect, and 8.6% for physical abuse.

4. Elder abuse was positively correlated with perception of income adequacy, family history of substance abuse, personal health problem, level of education, perception of health status, attitudes toward aging, living arrangement, finance, and functional ability ($p < 0.01$). Family history of mental illness was also associated with elder abuse ($p < 0.05$).

5. Family history of substance abuse, perception of health status, attitudes toward aging, living arrangement, and finance were significant predictors for elder abuse. They can predict elder abuse with a predictive power of 78.9%. These predictors explained 52.6% of variance in elder abuse. The older adults with family history of substance abuse were approximately seven times more likely to be abused by their family members than those without family history of substance abuse. Those who had bad attitudes toward aging and bad living arrangement were roughly six times more likely to be abused than those who had good attitudes toward aging and good living arrangement. The older adults with financial dependency were

approximately four times more likely to be abused than those with no financial dependency, and those who were perceived as unhealthy were just about three times more likely to have abuse than those who were perceived as healthy.

The model predicting elder abuse is presented as follow:

$$\ln px / qx = -2.518 + 1.914 \text{ (family history of substance abuse)} + 0.953 \text{ (health status)} + 1.792 \text{ (attitudes toward aging)} + 1.786 \text{ (living arrangement)} + 1.421 \text{ (financial dependency)}$$

6. Seven management strategies reported were: (1) keeping silent, and being patient; being dependent upon oneself; (2) running away from home and asking others for help; (3) preventing the repetition of the abuse by attempting to solve and discuss the problem with abusers, (4) admonishing and teaching morality, (5) lodging a protest with the police, (6) trying to commit suicide, and (7) turning an abuser out of the house.

7. Three categories of responses about helpful persons were: (1) themselves; (2) other people, such as relatives, neighbors; and (3) the Dharma and God.

Implications

The results of the present study have identified the psychometric properties of the EAS, the prevalence of elder abuse, and several factors association with elder abuse which have important implications for nursing practice, nursing education, nursing research, and governmental policy.

Implications for Nursing Practice

The EAS developed in the present study can identify the prevalence of elder abuse; thus, nurses can use it to identify the victims since early detection of abuse and the provision of assistance for victims are nursing responsibilities. The severity of the elder abuse problem can be reduced if suitable interventions are provided.

The findings of this study demonstrated the association between several risk factors, elder-related factors, caregiver-related factors, and caregiving context factors, and elder abuse. Understanding risk factors and predictors for elder abuse, nurses can appropriately plan the interventions to solve and prevent elder abuse.

Nurses should be educated in order to assess and detect as well as report all categories of elder abuse. The assessment should cover all vulnerable older adults both women and men who are at risk for elder abuse. The assessment should cover all holistic dimensions of the at risk older adults. It should cover elder-related factors, caregiver-related factors, and caregiving context factors.

Not only education for nurses, but also that for the public is needed. Nurses can provide this education to all social groups they work with, such as people coming to temples, churches, and family groups. Nurses should work with mass media both to provide information about elder abuse to public and to launch campaign to raise their awareness.

Since elder abuse problem is a complex problem, nurses should collaborate with other disciplines in order to solve this problem effectively. The collaboration should include the development of plans and interventions which include counseling,

rehabilitation, and home visitation in order to help the victims and family members deal with the problem.

Since family history of substance abuse was one of the most significant predictors for abuse, plan to encourage and help current drinkers and drug users to stop drinking and using drug are also needed. Health education program, such as promotion of physical activity also should be provided for healthy individuals to promote and maintain older adults' functional abilities and to decrease financial dependency. Additionally, family therapy programs aimed at improving communications and interaction between family members and older adults, as well as teaching problem-solving skills could be beneficial for improving family relationship and reducing bad attitudes toward aging. Nurses should also provide the information about support services available for older adults, their families, and communities. Early interventions provided by nurses may be able to decrease the severity of elder abuse problem.

Implications for Nursing Education

The findings of the present study provide the invaluable information about the magnitude of elder abuse problem, factors predicting elder abuse, and management strategies of elder abuse that should be included in gerontological nursing content. However, risk factors for elder abuse vary among individuals. Thus, the students should be taught to assess the potential clients extensively so that they can provide an appropriate intervention program for each individual.

Implications for Nursing Research

The findings from the present study will be the basis information for further research studies on developing a standardized elder abuse scale for Thai older adults, and reducing risk factors for elder abuse. Knowledge of prevalence and risk factors for abuse and modification strategies for each risk factor, as well as the efficacy and cost effectiveness of each plan are required and can be obtained through research studies. The comparison of the prevalence and risk factors for elder abuse between urban and rural older adults should be conducted, so that the findings can be generalized to a larger population.

Implications to Governmental Policy

The findings from the present study demonstrated that Thai older adults have to deal with elder abuse problem alone, so it is important that the cabinet or the policymaker in Thailand needs to seriously pay attention to elder abuse problem. Government service planners need to advance a national policy on elder abuse. The government should establish a comprehensive protective service system for vulnerable older adults with the authority to intervene in cases of elder abuse. Income security for older adults through a national system may be needed in order to decrease financial dependency on their family members and family conflict since poverty continues to be the great threat to elder abuse. Other services, such as shelters, job accessibility, and legal information need to be adequately provided in order to use as a solution to elder abuse in a substantial number of cases.

Recommendations for Further Study

Based on the findings, conclusions, and implication of the present study, the following recommendations are derived:

1. The meaning and components of elder abuse should be explored with other populations, such as adult children, and health care providers, so that the conclusive definition of abuse and its components for Thai older adults can be defined.

2. The Elder Abuse Scale developed in the present study should be extensively tested with older adults in other regions of Thailand, so that the standardized elder abuse instrument can be developed and appropriately use among Thai older adults.

3. The study should be replicated with older adults both in urban and rural areas in other regions of Thailand to achieve a more representative sample for the Thai elderly population and increase generalizability of the findings.

4. Since the findings of the present study are based on cross-sectional data, it is not suitable to draw causal inferences. Longitudinal studies are needed to investigate associations between risk factors and elder abuse to determine causal relationships.

5. Modification programs for each risk factor should be established based on the predictors being identified from the present study. Research studies should be conducted to investigate the efficacy and cost-effectiveness.

Limitations of the Study

The present study had a numbers of limitations that might restrict the generalizability of its findings.

1. Since a number of older adults in each community in Chiang Mai municipality are unequal, the proportionate random sampling method should be considered in order to draw more accurate prevalence of elder abuse.

2. The findings from the present study were based on reports from older adult experiences, which might be subject to recall bias.