

Psychosocial Indicators of Life Satisfaction of Thai Elderly

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INTRODUCTION

The increase in size and proportion of the older adult population in Thailand have prompted Thai gerontologists to examine factors that contribute to their well - being. Like many other developed countries, most of the investigations in this area in Thailand tended to focus on health factors. However, not that many sociological and psychological theories and models have been employed until this past decade (Panayotoff, 1993; Bass et al, 1992; Keawkungwal, 1984; Pornpiboon, 1984, Shock et al., 1984)

Life satisfaction of the elderly has been a major issue interested by gerontologists for several decades. This may due to the fact that perception of growing old is often associated with both physical and mental deterioration. Genrontologists and others have consistently found evidence of negative stereotyping of the elderly. Such stereotyping promotes negative attitudes towards aging persons and discriminatory practices based on the aged (Baltes, 1987; Butler, 1975; Butler & Leewis,

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1977; Mc Tavish, 1971; Papalia & olds, 1995) As indicated by Papalia & Olds (1995), negative stereotyping of the elderly circumscribes their potential by placing emphasis on the unproductive and unsuccessful older person and may become a self-fulfilling prophecy limiting capacities and experiences of the aged person. In order to be in a well-being state, the elderly need to accept their limitations as well as maintain positive attitude towards their self-image. A classic definition for life-satisfaction includes the following characteristics: happiness, self-fulfillment, self-worth, self-satisfaction, self-acceptance, being calm, positive attitude, and optimistic (Baltes, 1987; Costa, 1984; Lawton, 1972; Neugartn et al., 1974)

The term psychosocial indicators is frequently used by professionals to describe the constellation of social and emotional needs of a person (Dannefer, 1984; Riley, 1987; Vourlekis et al., 1992). Many studies indicated that life satisfaction among the elderly related to several psychosocial factors such as health perception, financial satisfaction, interpersonal relationship (Binstock & Post; 1991; Markides et al, 1985; Keawkungwal, 1984; Quinn, 1980). Other factors were reported as related to well-being of the elderly; these include, for example, environmental setting, living arrangement, death anxiety, death acceptance/denial, and reminiscence (Ferrans & Powers, 1985; Papalia & Olds, 1995; Ryff, 1989).

This study examined several psychosocial factors related to life satisfaction of the Thai elderly. In reviewing gerontology literature in Thailand, it was found that Thai elderly appeared to differ in various aspect, both psychological and social setting. Nine psychosocial indicators investigated in this current study included: (1) level of education attainment, (2) financial satisfaction, (3) health perception, (4) family structure, (5) living arrangement, (6) reminiscence, (7) death awareness, (8) peer group relationship, and (9) intergenerational relationship.

Since social structure may affect well-being of the elderly to a certain extent, this study attempted to compare level of life satisfaction of the elderly resided in different cultures and environmental settings within the country. The study was thus investigated in four different cultural and environmental settings in Thailand: Bangkok, North - eastern provinces (Roi-ed, Yasothon, Ubol and Udon), Northern provinces, (Chianrai, Lampoon, Sukhothai and Pijit), and Southern provinces (krabi, Trang, Yala, and Nakonsrithammarat). Bangkok represents a social setting as a large metropolitan setting with well-developed infrastructure. A large number elderly people living in Bangkok appear to be active in their family and within society at large; with a few, however, stay in well-

equipped nursing home. For the North-eastern provinces, despite its richness in terms of cultural and social bond, it represents area with the highest migration rate. Since the rural area in the North-eastern part of Thailand was less developed with low production rate, most youngsters move to other industrial cities within the country, or even to other countries. The Northern provinces has been highly regarded as religious society with culturally rich, especially in ritual ceremonies throughout the year. Even though rural area of these Northern provinces is mainly a fertile agricultural area, its family structure is rather loose. Most of the older generation still work in the farm whereas the younger ones tended to work in the city or in the local industry. Where as for the rural area in the Southern provinces, it represents as both agricultural and fishery area. In terms of environmental setting, the area is well reported as rich in natural resource. Although it is reported a strong family-tied structure in this part of the country, a large number of the younger generation appear to migrate throughout the country. (Keawkungwal, 1992, 1993)

METHODS

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The elderly, 60-70 years of age, in four different regions of the country were randomly selected and interviewed. Among 439 subjects, 107 were Bangkok metropolitan elderly, whereas 116, 112, 104 were elderly in rural area within North-eastern, Northern, and Southern provinces respectively. Three structured interview forms were developed and administered to the elderly individually by trained research study staff. The three forms included: Life Satisfaction Form, Life Experience Form and Life History Form.

Life Satisfaction Form was selected from a standardized test – Life Satisfaction Index A (LSIA). The test was designed by Neugarten et. al. (1961). LSIA was translated into several languages and was translated into Thai language by Keawkungwal for use with Thai elderly in 1984 (Keawkungwal, 1984). This test consists of 18 items. It was employed in many other studies because it is compact and easy to administer.

Life Experience Form was also developed by Keawkungwal in 1984. This test was designed to measure four psychosocial factors: reminiscence (14 items), peer group relationships (19 items), intergenerational relationships (20 items), and death awareness (14 items). The test was evaluated by four experts in gerontology and statistical methodology both in the US and in Thailand.

Life History Form was developed to collect demographic variables of interest in this study. The form was designed to collect descriptive characteristics

of the elderly including: (a) demographic information, (b) financial satisfaction, (c) health perception, and (d) living arrangement.

ANALYSIS

Descriptive and bivariate statistics were employed to profile characteristics of the elderly as baseline information. Multiple stepwise regression were investigated as the model testing for the impact of major psychosocial factors on life satisfaction among each group of the elderly. It should be noted, however, that model testing for psychosocial factors were done separately for elderly in each region with no comparison purpose. This based on two assumptions that: (a) each region has its own unique social/environmental settings, and also differs from one another in terms of its cultural and family structure; and, (b) we cannot simply justify psychosocial value and belief of one group against any other group. In the model, we thus used region as blocking variable, whereas life satisfaction was a criterion variable and 9 psychosocial factors as predicted variables. Since we administered the same standardized life satisfaction test for all elderly in all four regions, we were able to compare level of life satisfaction based on the test scores employing analysis of variance.

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RESULTS

Of all 439 elderly persons collected from 4 regions, there were 107, 116, 112, and 104 from Bangkok, North-eastern, Northern, and Southern provinces respectively. Overall, there were 227 (52%) female and 212 (48%) male; the distribution of sexes within each region was about the same. Most of the elderly (80-95%), except those in Bangkok, attained the highest education in school upto primary level (6-7 years). It should be noted that at the time of this selected generation, the primary education level was mandated as national compulsory level; however, secondary education was a compulsory level for people at later generations. With the most advantages in terms of educational opportunity and school availability for the elderly in Bangkok, particularly in those days, only 46% attained the highest education at primary level and 32% attained education upto secondary level and 21% at higher education level. The elderly in other regions in this study appeared not to have a chance to attain education at higher education level at all.

Overall about 60% of the elderly lived with their spouses and 80% with their children in the same household. It should be noted, however, that higher

percentage of aged people in the Northern region appeared to live with their spouses (70%) and their children (85%). Compared to other groups, the elderly in Bangkok appeared to live with their children the least (74%). On the contrary, much higher percentage of the elderly in Bangkok lived with their relatives (22%) and other people (17%) compared to the percentages of other groups who lived with their relatives (3-9%) and others (0-2%). Overall only 4% of the elderly lived alone; among these included 6% in Bangkok, 7% in the Southern, 3% in the North-eastern, and 1% in the Northern region.

In terms of resident settings, about 80% of the elderly in all regions lived in their own houses. However, only 64% of the Bangkokian elderly lived in their own settings whereas 34% lived in other people's residents. It appeared that the highest percentage of aged people in the Northern (89%) lived in their own houses.

When considering level of satisfaction for their own financial status, about halves of the elderly in all regions reported as satisfied with their current financial status. Compared among different regions, however, the highest percentage of the elderly who satisfied with their financial status was shown for those in the Southern region (70%), followed by 52% in Bangkok, 48% in the Northern and 44% in the North-eastern. About 19% among the elderly in the North-eastern reported as not satisfied with their financial status, while 3% to 7% were reported among the elderly in other regions. It should be noted also that 25% of the Bangkokian elderly reported as very satisfied with their financial status whereas only 4% to 8% were reported among other groups.

Health perception was another psychological variable of interest. About 40% of elderly in the Northern and Southern regions perceived their health as in poor state. The highest percentage of the aged who perceived their health as poor was shown for those in the North-eastern region (50%) while the lowest was reported among those in Bangkok (24%). Not that many elderly in all regions perceived their health as in excellent condition (about 3% to 6%); most rated their health as either fair or good. (See Table 1.)

Table 1 : Demographic Characteristics Among Four Groups of Thai Elderly

Characteristics		Bkk (107)	NE (116)	N (112)	S (104)	All* (439)
Sex	Female	49.5	53.0	53.6	50.0	51.6
	Male	50.5	47.0	46.4	50.0	48.4
Education	Primary (1-6 yrs)	46.6	83.4	94.6	93.2	79.8
	Secondary (7-12 yrs)	32.0	16.5	5.4	6.8	15.0

Characteristics	Bkk (107)	NE (116)	N (112)	S (104)	All* (439)
Higher Ed. (> 13 yrs)	21.3	0.0	0.0	0.0	5.1
People living in the same house					
Spouse	57.0	55.2	70.5	62.5	61.3
Children	73.8	81.9	84.8	78.9	80.2
Relatives	22.4	2.6	5.4	9.6	9.8
Others	16.8	2.6	0.0	0.0	4.8
None	5.6	3.4	0.9	6.7	4.1
Living in their own house					
Yes	63.6	84.5	89.3	82.7	80.2
No	36.4	15.5	10.7	17.3	19.8
Financial Satisfaction					
Not very satisfied	2.8	19.1	7.1	5.8	8.9
Not satisfied	20.8	33.9	40.2	17.5	28.4
Satisfied	51.9	43.5	48.2	68.9	52.8
Very satisfied	24.5	3.5	4.5	7.8	9.9
Health Perception					
Poor	24.3	49.9	41.1	40.4	39.2
Fair	35.5	20.7	26.8	32.7	28.7
Good	33.6	25.9	28.6	23.1	27.8
Excellent	6.5	3.4	3.6	3.8	4.3

Based on a multivariate analytical model testing, it was found that for the overall elderly in Thailand there were seven out of nine factors that could be used to explain life satisfaction of the elderly. These factors included reminiscence, health perception, death awareness, intergeneration relationship, financial satisfaction, living with relatives, and living in one's own house respectively. As shown in Table 2, the level of relationship among all seven predictors and life satisfaction was found at $R^2 = 0.36$ ($p < .001$).

Table 2 : Stepwise Regression Model of Life Satisfaction as Associated With Psychosocial Variables Among Thai Elderly

Step	Variables	R ²	F
1	Reminiscence	.17	86.88***
2	Health Perception	.25	71.17***
3	Death Awareness	.29	58.47***
4	Intergeneration Relationship	.33	50.48***
5	Financial Satisfaction	.35	43.82***
6	Living with Relatives	.35	38.25***
7	Living in One's Own House	.36	33.80***

$p^{***} < .001$

It was also found, however, that the strength to which psychological variable related to life satisfaction of the whole group and of each group differed. Different psychosocial variables could be used to explain life satisfaction of each group. As shown in Table 3, life satisfaction of the elderly in Bangkok was related significantly to six psychosocial variables: financial satisfaction, death awareness, intergenerational relationship, health perception, living with spouse, and living with relatives ($R^2 = 0.45$, $p < .001$).

For those elderly who lived in the Southern region, four psychosocial variables were found significantly related to their life satisfaction. These variables included death awareness, health perception, intergenerational relationship, and living in their own house respectively ($R^2 = 0.39$, $p < .001$). Among the elderly in the Northern region, only three psychosocial variables could be used to explain their life satisfaction including reminiscence, death awareness, and health perception ($R^2 = 0.40$, $p < .001$).

The psychosocial variables investigated in this study could be used to explain life satisfaction among the elderly in the North-eastern the least ($R^2 = 0.20$, $p < .001$). According to the model testing for the impact of nine psychosocial

Table 3 : Stepwise Regression Model of Life Satisfaction as Associated With Psychosocial Variables Among Different Groups of Thai Elderly

Group Step		Variables	R^2	F
Bangkok	1	Financial Satisfaction	.23	30.20***
	2	Death Awareness	.32	22.83***
	3	Intergeneration Relationship	.37	18.94***
	4	Health Perception	.40	16.08***
	5	Living with Spouse	.42	14.05***
	6	Living with Relatives	.45	12.07***
North-East	1	Financial Satisfaction	.10	11.87***
	2	Intergeneration Relationship	.16	10.48***
	3	Health Perception	.20	8.86***
North	1	Reminiscence	.32	50.04***
	2	Death Awareness	.37	31.18***
	3	Health Perception	.40	23.94***
South	1	Reminiscence	.24	32.32***
	2	Health Perception	.30	21.65***
	3	Intrageration Relationship	.35	17.78***
	4	Living in One's Own House	.39	15.58***

$p^{***} < .001$

factors on life satisfaction of the North-eastern elderly, three variables were found significantly related. These included financial satisfaction, intergenerational relationship, and health perception respectively.

Based on the score calculated from LSIA, it was found that the scores which represented levels of life satisfaction for each group of the elderly differed significantly. The highest level of life satisfaction was shown for the Bangkok group ($x = 58.6$, $SD = 7.9$). The North-eastern had the lowest level of life satisfaction ($x = 53.9$, $SD = 7.9$). Mean scores for LSIA of the elderly in the Northern ($x = 56.0$, $SD = 7.1$) and the Southern ($x = 55.4$, $SD = 7.1$) were not that much different. The results from analysis of variance show that levels of life satisfaction among these four groups were statistically different ($F = 7.9$, $p < .001$). When performing a post hoc analysis testing, it was found that the Bangkokian elderly had significantly higher level of life satisfaction than the North-eastern and Southern subjects.

DISCUSSION

It was noticeable that those psychosocial variables which related to life satisfaction of the elderly as a whole group and as groups breakdown were all statistically significant at $p < .001$. For the overall Thai elderly, seven psychosocial variables could be used to explain their life satisfaction. Different psychosocial variables, however, were entered into stepwise regression models of elderly in four social structures and environmental settings selected in this study.

Financial satisfaction was of primary importance to life satisfaction of the Bangkok and North-eastern elderly. This finding suggested that the elderly in Bangkok needed to consider their own financial status for their survival in the largest metropolitan area of the country. To survive in a big city, ones needed to have enough money to support oneself and family as well as to maintain their social activities. On the other hand, the North-eastern elderly needed to concern about their financial status because of their deficiency in terms of economic status. This findings confirmed differences among the two groups such that most of Bangkokian elderly rated their financial satisfaction level as very satisfied (25%) and satisfied (52%) whereas more North-eastern elderly rated as not very satisfied (19%) and not satisfied (34%).

On the contrary to the elderly in Bangkok and North-eastern region, reminiscence was of primary important to life satisfaction among those in the Northern and Southern regions. It should also be noticed that financial

satisfaction was not entered as a variable related to life satisfaction of these two later groups at all. Even though the two groups did not report themselves as very satisfied with their financial status as reported by those in Bangkok, but they appeared to be satisfied enough to not consider it as a primary factor for their life satisfaction. This might suggest that life satisfaction among these elderly came from their inner-selves that was stimulated from being able to reminisce. This finding was similar to the other studies which concluded that the propensity of the elderly for thinking and talking about the past was the natural and normal part of growing and being old. (Butler, 1974; Taf & Nehrke, 1990; Wallence, 1992; Wong & Watt, 1991)

When considering life satisfaction among Thai elderly in all regions combined, it was found that their life satisfaction was also related to reminiscence as a primary factor, followed by health perception, death awareness, intergeneration relationship, financial satisfaction, living with relatives, and living in one's own house. This may reflect that Thai elderly appeared to rank inner peace and happiness within oneself as the most important factors and the environmental settings and social status as supportive factors.

Health perception was important to life satisfaction of all groups of elderly. This finding was similar to other studies conducted in the US (Fries, 1990; Quinn, 1980; Wolinsky, 1992; Shock, 1984) This study as well as many other gerontological studies confirmed the importance of health care as related to well-being of the elderly (Fries, 1990; Keawkungwal, 1984; Wolinsdy, 1992; Shock, 1984). However, it is suggested by several gerontologists in Thailand that more health care services and facilities should be established for the elderly, especially for those in the rural area. (Keawkungwal, 1984; Viriyavejakul, 1995)

Death awareness was found as an important factor for life satisfaction of the elderly as a whole and especially for those in two regions, Bangkok and the Northern. For both groups, death awareness entered into the model as second factor. It is suggested that fear of death, especially among older person, would show in forms of feeling lonely, emotional instability, and worry with everything outside and unknown. However, if ones think of death as a common phenomenon and think of it often enough, ones would not fear of death and would have peace in mind (Buddhatas, 1993; Fromm, 1947, 1956). Almost all Thais are Buddhist and lead their life according to the Buddhist doctrines, thus they tended to view death as a common phenomenon to accept and accept it well when it actually comes. Therefore, thinking of death is not an unpleasant thought that would reduce ones' morale but makes ones accept more about life itself. It might be that Bangkokian elderly were those with higher education

and thus tended to be able to understand and accept it quite easily. Also, the elderly in the Northern tended to play important roles in a rich culture of the Northern social structures which emphasized religious events throughout the year; thus they felt attached to life and death ritual within the northern ways of living.

In terms of relationships with other people, it was found that elderly in Bangkok and the North-eastern were satisfied when having relationships with younger generation whereas the elderly in the Southern region preferred having relationships with peer group or people of the same age. It was quite interesting that life satisfaction of the elderly in the Northern region appeared not to relate to both intergeneration and intra- generation relationships. This may due to the fact that elderly in the Northern region lived and related themselves to their spouses (70%) more than elderly in other groups (57% in Bangkok, 55% in North-eastern, and 62% in the Southern). This finding also suggested that further study is needed to investigate the notion that the elderly in the Southern social structure were rather independent and they did not place emphasis on having to rely on their children as much as elderly in other regions. As shown in Table 1 that more Southern elderly lived alone when compared to other groups.

For overall Thai elderly in this study, it was found that relationships with younger generation was one of the major factor that could be used to explain their life satisfaction. One of the most widely accepted facts in gerontology is that intergenerational relationship would boost the elderly morale and being able to cope with fear of getting old (Erikson, 1959, 1982; Lefrancois, 1993; Papalia & Olds, 1995). It is also believed that intergenerational relationship could facilitate life review, helping the older person find new meaning in the face of impending death. It could lead to the reorganization and reintegration of personality, creating sense of wisdom and serenity in the old age (Butler, 1963; Coleman, 1986; Erikson, 1964; Merriam, 1980). Several studies in gerontology revealed that intergeneration relationship would not only prompt the elderly to realize and maintain zest for life but also help the younger generation learn from experiences of the older person. The younger generation could get help from the elderly in terms of taking care of one's home and the younger generations in the family. Furthermore, this relationship would fulfill need for rootedness of both ends, creating sense of belonging and unity (Papalia & Olds, 1995; Storm & Storm; 1990; Wood & Robertson, 1978). This finding thus challenged Thai society as a whole such that current economic and social structure had conditioned and/or forced the younger generation to focus on surviving in present time rather than paying much attention to the aged.

Emphasis on services and care for the elderly thus should be made either by government or private sector especially for those in the rural area with high rate of youth migration.

The other two minor factors that entered into the life satisfaction model were living with relatives and living in one's own house. This may due to the fact that most Thai elderly still lived within a family rather than in nursing home. This conclusion was supported by demographic information that there were such a few elderly who lived alone (about 4%). Most of the elderly lived with their spouse, relatives, or children in their own home. This finding was somewhat different from several studies in the US that most of the US elderly preferred to live alone after their spouse died (Butler & Lewis, 1877; Keawkungwal, 1984; Papalia and Olds, 1995; U.S. Department of Health and Human Service, 1991,1992). The results of this study was thus in contrast with those in the US in which researchers suggested that the various losses associated with aging were correlated with fear of losing independence and worry over meeting other's expectation in the future (Litvin, 1992). Living in one's own home was also listed as a minor factor for life satisfaction especially for those in the Southern region. This finding was similar to other studies that indicated that living in one's house was preferable to living in nursing home (Keawkungwal, 1984; Papalia & Olds, 1995; Pornpiboon, 1983;).

The results in this study revealed that there were significantly difference in life satisfaction among elderly in different social structures and environmental settings. Level of life satisfaction of the elderly in Bangkok appeared to be higher than those of other regions, especially those in the North-eastern whose level of life satisfaction was the lowest among the four groups. As indicated in Table 3 that the chosen psychosocial variables explained life satisfaction of the Bangkok elderly the most (6 variables, 45%); whereas they less explained life satisfaction of the Northern elderly (3 variables, 40%), the Southern elderly (4 variables, 39%), and North-eastern the least (3 variables, 19%). This may reflect that the psychosocial variables selected for this study were somewhat related to life satisfaction among those who had advantages in terms of education, economic, and social environment such as Bangkok and other well-developed regions. As suggested before that North-eastern region tended to be regarded as the least prosperous region within the country along with high rate of youth migration; whereas the other two regions were somewhere between the North-eastern and Bangkok. Therefore, level of services and facilities for the elderly should be placed as needed by each respective group.

Although additional study, especially need assessment study, is necessary

for developing policies and interventions that would promote well-being of the elderly as a whole; the findings of this study help highlight the importance of several psychosocial variables that can be regarded as basic needs for facilitating life satisfaction of Thai elderly.

REFERENCES

- Baltes, P.B. (1987). Theoretical propositions of life - span developmental psychology : On the dynamics between growth and decline. *Developmental Psychology* 23 : 611-626.
- Bass, D.M., Looman, W.J., & Ehrlich, P. (1992). Predicted the volume of health and social services: Integrating cognitive impairment into the Modified Anderson Framework. *The Gerontologist* 32 : 33-41.
- Binstock, R.H. & Post, S.G. (1991). *Too old for health care? Controversies in medicine, law, economics, and ethics*. Baltimore: Johns Hopkins University.
- Buddhadasa, P. (1993) *Death in Buddhism*. Bangkok: Dhammasapa.
- Butler, R.N. (1974). Successful aging and the role of the life review. *Journal of the American Geriatrics Society* 12 : 529-535.
- Butler, R.N. (1963). The life review: An interpretation of reminiscence in the aged. *Journal for the Study of Interpersonal Processes* 25 : 65-76.
- Butler, R.N. (1975). *Why Survive? Being old in America*. New York: Harper & Row.
- Butler, R.N. & Lewis, M. (1977). *Aging and mental health: Positive psychosocial approaches*. Saint Louis: The C.V. Mosby Co.
- Coleman, P.G. (1986). *Aging and reminiscence processes*. Chichester: John Wiley & Sons.
- Costa, P.T., & McCree R.R. (1984). Personality as a lifelong determinant of well - being. In Shock, N.W. (Ed.), *Normal human aging: The Baltimore longitudinal study of aging*. (pp. 129-146). Washington D.C.: N.H. Publication.
- Darnnefer, D. (1984) Adult development and social theory: A paradigmatic reappraisal. *American Sociological Review* 49 : 100-116.
- Erikson, E. (1959). *Identity and the life cycle*. Psychological Issues Monograph I. New York: International University Press.
- Erikson, E.H. (1964). *Insight and responsibility*. New York: Norton.
- Erikson, E.H. (1982) *The life cycle completed: Review*. New York: Norton.
- Ferrans, Co, & Powers, M. (1985). Quality of Life Index: Development and psychometric properties. *Advances in Nursing Science*. 8 (1) : 15-24.
- Fries, J.F. (1990). Medical perspectives upon successful aging. In P.B. Baltes & M.M. Baltes (Eds.) *Successful aging: Perspectives from the behavioral sciences* (PP. 35-49). New York: Cambridge University Press.
- Fromm, E. (1947). *Man for himself*. Connecticut: Fawcett Publishing.
- Fromm, E. (1956). *The art of loving* New York: The Perennial Library.
- Issacs, L.W. & Bearison, D.J. (1986). The development of children prejudice against the aged. *International Journal of Aging and Human Development* 23 : 175-194.
- Keawkungwal, S. (1984). *Life satisfaction of Thai and American elderly as related to psychosocial variables*. Unpublished doctoral dissertation, University of Maryland.

- Keawkungsal, S. (1992). *Relationships and attitudes of Thai Buddhist children towards young and older adults*. Chiangmai: Chiangmai University.
- Keawkungwal, S. (1993). *Relationships and attitudes of Thai Muslim children towards young and old adults*. Bangkok: National Research Council of Thailand.
- Lefrancois, G.R. (1993). *The lifespan* (4th ed.) California: Wadsworth Publishing, Co.
- Lawton, M.P. (1972). The dimension of morale. In D. Kent, R.Kastenbaum, & S. Sherwood (Eds.), *Research, planning and action for the elderly*. New York: Behavioral Publications.
- Litvin, S.J. (1992). Status transitions and future outlook as determinants of conflict: The caregiver's perspective. *The Gerontologist* 32 : 68-76.
- Markides, K.S. & Krause, N. (1985). Intergenerational solidarity and psychosocial well-being among older Mexican American: A three generations study. *Journal of Gerontology*, 40(3) : 390-392.
- Merriam, S. (1980). The concept and function of reminiscence: A review of the research. *The Gerontologist* 20 : 604-608.
- Neugartion, B.L. (1974). Successful aging in 1970 and 1990. In E. Pfeiffer (Ed.), *Successful aging: A conference report*. North Carolina: Center for the study of aging and human development.
- Neugartion, B.L., Harvighurst, R.J., & Tobin, S.S. (1961). The measurement of life satisfaction. *Journal of Gerontology* 16 : 134-145.
- Panayotoff, K.G. (1993). The impact of continuing education on the health of older adults. *Educational Gerontology* 1 : 9-20.
- Papalia, D.; & Olds; S. (1995). *Human development* (6th ed.) New York: McGraw-Hill.
- Powers, C.B., Wisocki, P.A., Whitbourne, S.K. (1992). Age differences and correlates of worrying in young and elerly adults. *The Gerontologist* 32 : 82-88.
- Pornpiboon, B. (1983). *The world of the aged: Preparation for happy aging*. Chiangmai: Prasingha Press.
- Quinn, W.H. (1980). Relationships of older parents and a recursive model of a theory of interaction and their effects on psychological well being of the aged. Unpublished doctoral dissertation, Verginia Polytechnic Institute and State University.
- Riby, M.W. (1987). On the significance of age in sociology. *American Sociological Review* 52 : 1-14.
- Ryff, C.D. (1989). In the eye of the beholder: Views of psychological well-being amony middle aged and older adults. *Psychology and Aging* 4 : 195-210.
- Shock, N.W. (Ed.) (1984). *Normal human aging: the Baltimore longitudinal study of aging*. Washington D.C.: NH Publication.
- Strom, R., & Strom, S. (1990). Raising expectations for grandparents: A three generational study. *International Journal of Aging and Human Development* 31(3) : 161-167.
- Taft, L.B. & Nehrke, M.F. (1990) Reminiscence, life review, and ego integrity in nursing home residents. *International Journal of Aging and Human Development* 30 (3) : 189-196.
- U.S. Department of Health and Human Services (USDHHS). (1991). Aging America: Trends and projections. (DHHS Publication No. [FCoA] 91-28001). Washington, DC: U.S. Government Printing Office.
- U.S. Department of Health and Human Services (USDHHS). (1992) Health United States 1991, and Prevention Profile. (DHHS Publication No. PHS 92-1232). Washington, D.C.: U.S. Government Printing Office.

- Viriyavejakul, a. (Ed.) (1995). *A review of research studies in gerontology in Thailand*. Bangkok: Mahidol University.
- Vourlekis, B.S., Gelfand, D.E. & Greene, R.R. (1992). Psychosocial needs and care in nursing homes: Comparison of views of social workers and home administrators. *The Gerontologist* 32 : 113-119.
- Wallence, J.B. (1992). Reconsidering the life review: The social construction of talk about the past. *The Gerontologist* 32 : 120-125.
- Wolinsky, F.D., & Johnson, R.J. (1992). Perceived health status and mortality among older men and women. *Journal of Gerontology* 47(6) : 304-312.
- Wong, P.P.P., & Watt, L.M. (1991) What types of reminiscences are associated with successful aging? *Psychology and Aging* 6(2) : 272-279.
- Wood, V. & Robertson, J.F. (1978) Friendship and kinship interaction: Differential effect on the morale of the elderly. *Journal of marriage and the Family* 40 : 367-375.