Family Size and Elderly Care

Wathinee Boonchalaksi

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Ms. Wathinee Boonchalaksi
Candidate

Prof. Aphichat Chamratrithirong, Ph. D.
Major-Advisor

Assoc. Prof. Philip Guest, Ph. D.
Co-advisor

Ms. Jawalaksana Rachapaetayakom, Ph. D.
Co-advisor

Prof. Liangchai Limlomwongse
Ph.D.
Dean
Faculty of Graduate Studies

Assoc. Prof. Pramote Prasartkul, Ph. D.
Chairman
Doctor of Philosophy Programme in
Demography
Institute for Population and Social Research

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Ms. Wathinee Boonchalaksi
Candidate

Prof. Aphichat Chamratrithirong, Ph. D.
Chairman

Assoc. Prof. Philip Guest, Ph. D.
Member

Ms. Jawalaksana Rachapaetayakom, Ph. D.
Member

Assoc. Prof. Porapan Punyaratabandhu, MD., M.P.H., M.H.S
Member

Prof. Liangchai Limlomwongse, Ph.D.
Dean
Faculty of Graduate Studies
Mahidol University

Assoc. Prof. Bencha Yoddumnern-Attig, Ph.D.
Director
Institute for Population and Social Research
Mahidol University

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Wathinee Boonchalaksi

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Thailand has been one of the most successful countries at reducing fertility levels in a short period of time. The average number of children in a family declined from six in the mid-1960s to two in the mid-1990s. This has created concern about whether the decline in family size will affect family-based support and care for the elderly.

The main objectives of this research are (1) to investigate the patterns of care for the elderly in terms of financial support, instrumental support, and emotional support; (2) to study the relationship between family size and elderly care in the three kinds of support mentioned above and; (3) to examine the effects of demographic and socio-economic characteristics of children and elderly on the care provided to the elderly.

The main hypothesis of the study was that the family size will have an effect on elderly care. Children from a small family are more likely to provide support to their elderly parents than are children from a large family, even other factors such as characteristics of the children themselves and characteristics of the elderly and property they own are controlled.

The 1995 Survey of the Welfare of the Elderly in Thailand was used in the study. The unit of analysis is children aged 15 –59 whose father or mother was aged 60-79. The sample covered 20,067 adult children. Detailed analysis was undertaken of the relationship between family size and elderly care and factors relating to characteristics of children and the elderly. Initial analysis used cross-tabulations and chi-square test. Based on the results of cross-tabulations, logistic regression and multinomial logic regression were utilized.

The research results are presented in the three areas, namely, the financial support, instrumental support, and the emotional support provided to the elderly. The results of bivariate analysis and multivariate analysis reveal that the number of siblings of children significantly affected the likelihood of financial support, instrumental support, and emotional support provided to elderly parents. Adult children from small families were more likely to provide support to their elderly parents and share the same house as their elderly parents compared to those from large families. This is consistent with the hypothesis where it was stated there would be a difference between adult children from different family size in terms of support to their elderly parents. The results of the study also indicate that it is the characteristics of adult children that have the strongest impact on whether a child will provide support to their elderly parents. A major policy implication of the results is that a small family size should be continuously promoted because a small number of children will raise the probability that a child will provide support to their parents and a smaller number of children will increase the chance of a child living with their elderly parents.

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ไทยเป็นประเทศหนึ่งที่ประสบความสำเร็จอย่างมากในการลดระดับภาวะเจริญพันธุ์ของประชากรลงได้ในระยะเวลาอันรวดเร็ว จำนวนบุตรโดยเฉลี่ยต่อครอบครัวลดลงจาก 6 คนในช่วงปี พ.ศ. 2503 เป็น 2 คนในช่วงปี พ.ศ. 2533 ซึ่งการลดลงของภาวะเจริญพันธุ์ดังกล่าว ก่อให้เกิดความวิตกกังวลว่าจะส่งผลกระทบต่อการให้การดูแลช่วยเหลือผู้สูงอายุในระดับครอบครัว

วัตถุประสงค์สำคัญในการศึกษา คือ (1) เพื่อศึกษารูปแบบของการให้การดูแลช่วยเหลือผู้สูงอายุใน 3 ด้านหลักๆ คือ ด้านการเงิน ด้านสิ่งของเครื่องใช้ และด้านอารมณ์และจิตใจ (2) เพื่อศึกษาความสัมพันธ์ระหว่างขนาดครอบครัวกับการให้การดูแลช่วยเหลือผู้สูงอายุใน 3 ด้านดังกล่าว (3) เพื่อศึกษาถึงปัจจัยต่างๆ ทางด้านประชากร เศรษฐกิจ และสังคมของบุตรและของผู้สูงอายุที่มีผลต่อการให้การดูแลช่วยเหลือผู้สูงอายุ

ข้อสมมติฐานหลักในการศึกษา คือ ขนาดครอบครัวน่าจะมีผลต่อการให้การดูแลช่วยเหลือผู้สูงอายุ แม้จะควบคุมปัจจัยอื่นๆที่เกี่ยวข้องทางด้านประชากร เศรษฐกิจ สังคมของบุตรและของผู้สูงอายุแล้วก็ตาม บุตรที่มีพี่น้องน้อยหรือมาจากครอบครัวขนาดเล็กน่าจะให้การดูแลช่วยเหลือผู้สูงอายุมากกว่าบุตรที่มีพี่น้องมากหรือมาจากครอบครัวขนาดใหญ่

ในการศึกษาครั้งนี้ใช้ข้อมูลจากโครงการสำรวจสภาวะผู้สูงอายุไทย ปี พ.ศ. 2538 หน่วยที่ใช้ในการวิเคราะห์ คือ บุตรอายุ 15-59 ปีจำนวน 20,067 คน ซึ่งมีบิดาหรือมารดาที่มีอายุ 60-79 ปี การวิเคราะห์ความสัมพันธ์ระหว่างขนาดครอบครัวกับการให้การดูแลช่วยเหลือผู้สูงอายุ และปัจจัยอื่นๆที่เกี่ยวข้องกับคุณลักษณะของบุตรและของผู้สูงอายุ ใช้ตารางไขว้และไคสแควร์เป็นสถิติในการทดสอบ ขั้นต่อมาใช้วิธีการวิเคราะห์ถดถอยโลจิทและมัลติโนเมียล

การวิเคราะห์ผลนำเสนอใน 3 ด้านตามลำดับดังนี้ การให้การดูแลช่วยเหลือผู้สูงอายุในด้านการเงิน การให้การดูแลช่วยเหลือผู้สูงอายุในด้านสิ่งของเครื่องใช้ และการให้การดูแลช่วยเหลือผู้สูงอายุในด้านอารมณ์และจิตใจ ผลการศึกษาที่ได้จากการวิเคราะห์โดยใช้ตัวแปรสองตัวและหลายตัว พบว่า จำนวนพี่น้องที่บุตรมีมีผลต่อความน่าจะเป็นในการที่บุตรจะให้การดูแลช่วยเหลือบิดามารดาสูงอายุ บุตรที่มาจากครอบครัวขนาดเล็กมีความน่าจะเป็นในการให้การดูแลช่วยเหลือบิดามารดาสูงอายุและการอยู่ร่วมบ้านเดียวกันกับบิดามารดาสูงอายุมากกว่าบุตรที่มาจากครอบครัวขนาดใหญ่ ซึ่งผลการศึกษาที่ได้สอดคล้องกับสมมติฐานที่ตั้งไว้ว่าน่าจะมีความแตกต่างกันในการให้การดูแลช่วยเหลือบิดามารดาสูงอายุระหว่างบุตรที่มาจากครอบครัวที่มีขนาดต่างกัน นอกจากนี้ ผลการศึกษาที่ได้ยังชี้ให้เห็นว่าคุณลักษณะของบุตรมีผลมากที่สุดต่อการที่บิดาหรือมารดาสูงอายุจะได้รับการดูแลช่วยเหลือจากบุตร ข้อเสนอแนะเชิงนโยบายที่สำคัญที่ได้จากผลการศึกษาครั้งนี้ คือ ควรสนับสนุนให้มีครอบครัวขนาดเล็กต่อไป เพราะการมีบุตรน้อยโอกาสที่บุตรแต่ละคนจะให้การดูแลช่วยเหลือบิดามารดาสูงอายุจะมีมาก และการมีบุตรน้อยโอกาสที่บุตรแต่ละคนจะอยู่ร่วมบ้านเดียวกันกับบิดามารดาสูงอายุก็จะสูงขึ้นด้วย

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CHAPTER 1

INTRODUCTION

1.1 Background and Rationale of the Study

World population will experience aging in the next century at a speed never experienced before in the history of humankind. In this sense, the twenty-first century can be called the "**Era of Population Aging**" (Kuroda, 1992).

The proportion of the elderly population aged 65 and over began to increase in 1980 after having long remained at only 5 percent of the world population. It is expected to show rapid growth from 6.2 percent in 1990 to 6.8 percent in 2000 and eventually reach about 10 percent in 2025 (United Nations, 1990). The absolute number of the elderly will also dramatically increase. From 200 million in 1970, to more than 400 million in the year 2000, more than doubling in three decades. It is expected to be 828 million in 2025.

Asia is a region where special attention should be focused on population aging, because in it dwells most of the elderly population in the world. However, the pattern of aging population varies considerably in terms of level and speed, as well as social system, stage of economic development and culture. Some countries are aging already because of rapid fertility reduction. It should be noted that the aging process will be very rapid in East Asia but slow in West Asia, this is primarily due to differences in their stages of demographic transition.

Demographic transition means a shift from a high to low level of fertility and mortality. It is known that a demographic transition is associated with economic and social development. A successful demographic transition process changes the age structure of population from a young to an old age distribution, owing to declines in fertility and mortality. It should be noticed that the demographic transition process varies considerably with a country's specific condition of economic growth and population control programmes.

The latest Thai census reported a total population of 56.5 million as of April 1, 1990. The population of Thailand is changing towards an older age structure as a result of rapid fertility decline during the last quarter of the century coupled with a decline in mortality. The total fertility rate dropped from over 6 births per woman in the mid-1960s to about 2 births per woman in the early 1990s (National Statistical Office, 1997). Life expectancy at birth increased during 1960-65 to 1990-95 from about 52 years to 67 years for men and from 56 years to 72 years for women (Boonchalaksi, 1995; Institute for Population and Social Research, 2000). The proportion of the population aged 60 years and over also increased from 4.8 percent in 1970 to 6.3 percent in 1990 and is projected to reach 10 percent by the year 2010 (National Economic and Social Development Board: NESDB, 1994; Chayovan and Knodel, 1997). Even more dramatic will be the rapid increase in the absolute size of the elderly population, i.e. from 1.7 million in 1970 to 3.4 million in 1990. Based on the UN medium variant projections, the number of the elderly will reach 10 million in 2020 and population aged 75 and above is projected to increase proportionately even faster than the population aged 60 and over. Thus the Thai population will be

noticeably older in the next few decades provided fertility remains low and mortality slightly increases (National Economic and Social Development Board: NESDB, 1994).

In Thailand the main institution responsible for care of the elderly is the family. Most elderly, over three-fourths, live with their children (National Statistical Office, 1994; Knodel, Chayovan and Siriboon, 1992a and 1992b). Government services for the elderly are quite limited although effort is being made to expand free medical care. Only a few token institutional residences have been established for elderly who are unable or unwilling to live with their families or on their own. These government homes have less than 2,000 residents, only a fraction of one percent of the total elderly population. Given the rapid increase in the absolute size of the elderly population that is certain to occur in the coming decades, any meaningful shift of responsibility for their welfare from the family to the state will require massive outlays of government funds. Undoubtedly in recognition of this, the Seventh Five-Year Plan (1992-1996) of the Thai government and the latest official declaration on Long-Term Policies and Plans for the Elderly (covering 1992-2011) appear to rely on and emphasize the responsibility of the family for providing welfare for elderly members. While social security schemes to provide old age financial assistance are scheduled to be implemented by the end of the decade, details of such schemes are still under discussion.

The family is still the principal source of support for the elderly. However, with recent fertility decline and smaller desired family size in Thailand, the completed family size of present childbearing population will be smaller than that of their

parents. This situation will be expected to effect support and care for the elderly at the family level. Therefore, it is essential to investigate the relationship between family size and elderly care to confirm that a smaller number of children is not an obstacle for elderly care and small family size policy should be continued. Moreover, formulation of effective policies as well as counter measures to prepare for a future aging society is also an important. A recent study on the effect of fertility decline on patronage of elderly in Thai families (Knodel, Chayovan and Siriboon, 1992b) found that fertility had minor effects on living arrangement but a greater effect on material support provided by children.

1.2 Research Question

This study raises the research question whether the family size will effect elderly care in terms of both financial and social support such as money, material needs and emotional support. Will care depend more on characteristics of each child and his or her capacity to take care of aged parents? Characteristics of the elderly is another factor determining whether they need care from their children since some elderly do not seek care from their offspring and some have the potential to provide care for their adult children.

1.3 Objectives of the Study

1. To investigate patterns of care for elderly persons aged 60 to 79 in Thailand in terms of financial support, instrumental support and emotional support by residential area and region.

2. To study the relationship between family size and elderly care in Thailand for the three kinds of support mentioned above, by residential area and region.

3. To examine the effects of socio-economic and demographic characteristics of children and elderly on the care provide to the elderly.

1.4 Hypotheses

Hypotheses in this study derive from various literature. The main hypothesis proposed is that family size is likely to have an effect on the elderly care. Children from a small family are more likely to provide support to their elderly parents than are children from a large family even other variables such as characteristics of the children themselves and characteristics of the elderly and property they own are controlled.

CHAPTER 2

REVIEW OF LITERATURE

In this chapter, patterns of elderly care in western, eastern and Thai societies will be reviewed. The investigation will cover three main topics which are:

1) Family structure and size
2) Family living arrangement
3) Expectation and need for care of the elderly by
   3.1 Characteristics of the elderly who expect and need care from their offspring.
   3.2 Characteristics of the offspring who provide care for their elderly parents.

Before examining patterns of care in each society, an overview of elderly care in the family level proposed by Shanas (1968) will be introduced.

Based on Shanas, in every society, elderly are not only care receivers from their children, but also care givers to their children. In each social class, and in every country, help flows in two directions, from parents to adult children, and from adult children to aged parents. In some social classes, such as middle and upper classes in the United Kingdom and the United States, the elderly view themselves as care givers to their children rather than care takers, but the perception is opposite for lower class parents who seem to receive help from their children more than what they give to them. Therefore, assistance in the family can be classified in three directions : 1) the

elderly as care receivers from their children, 2) the elderly as care givers to their children, and 3) the elderly as both care receivers and givers.

Shanas (1968) also agreed that care for the elderly at the family level depended on three main factors ; family size, family structure and family living arrangement.

Family Size is the number of living offspring of the elderly. The number depends on the value of childbearing in each society, and on the social class of each individual. Parents of upper and middle classes tend to have fewer children than their counterparts in lower classes. In industrial society or societies with high socio-economic development the number of children for each family is lower than in agricultural societies where the use of children's labour is needed.

Family Structure is a characteristic of the elderly and their offspring living in the same family. For example, the number of sons and daughters they have, age of their children, whether they are still too young to be independent. Mostly, children whom their parents can depend on are adult children who already have their own family and earn their own living. In some societies, the elderly tend to depend more on daughters than sons (Shanas, 1968; Townsend, 1957; Young and Willmott, 1957).

Family Living Arrangement refers to living with their offspring or living separately from them. In western societies, the elderly usually live apart from their children. Shanas found from the studies done in the United Kingdom, the United States, and Denmark that the elderly liked to live independently in their own home as long as possible. However, social class of the elderly was also important. In lower classes, parents may share a home with one of their children or their relatives. Although some elderly may live apart from their children, they tend to live in the immediate vicinity with

at least one child, irrespective of their social class. Some may share a household with their child and some live apart but within walking distance to their offspring' s residence.

2.1 Pattern of Elderly Care in Western Society

2.1.1 Structure and Size of Western Family

Western society is predominantly industrialized, with highly developed technology and is highly urbanized. Family structure in this society tends to be the conjugal family. This type of family is completely different from the extended family. Family size is small with parents and one or two children. Some families have no child, with the total fertility rate (TFR) in some countries lower than the replacement rate. The number of children each woman of fertility age has is lower than 2.1 on average (Population Reference Bureau, 1997). Mutual assistance tends to decrease whereas individualism is high (Bumpass, 1990; Goode, 1963a and 1963b). Children have different occupations from their parents. Everyone has specific skills that cannot be transferred to others, unlike in agricultural society where parents transfer their working skill to their children. Therefore the family is no longer production base. Employment and occupation depend solely on the labor market. Each individual makes his/her own decision on spouse selection. In this kind of society, parents' power over their children is limited (Ogawa and Retherford, 1997; 1994; 1993; Mason, 1992; Thornton and Fricke, 1987; Davis & van den Oever, 1981; William, 1968; Goode, 1963a and 1963b; William, 1963; Davis and Combs, 1950).

2.1.2 Living Arrangements in the Western Family

As cited above, the western family tents to be conjugal, with few family members. Some families have no child. Family bonds are loose and mutual assistance is rarely demanded. Each member is highly individualistic (Bumpass, 1990; Goode, 1963a and 1963b). When their offspring, either sons or daughters, get married, they prefer to set up their own family because they can afford to set up their own home. If they still live together, conflict will occur especially between parents and their daughter in-laws, because women have high education and greater individualism. A woman works outside home, has her own salary, so she will probably not obey her husband's parents. Their life-style is also different. Therefore separation of households is unavoidable. When parents grow old, they have to take care of themselves or became a burden for the state. However, some married children who live apart from their parents still come to visit and assist them (Cowgill and Holmes, 1972; Rosenmayr, 1972; Shanas, 1968).

2.1.3 Expectations and Need for Care of the Elderly in Western Society

In general elderly in every society expect care from their offspring when they get old, but in western society where industrialization and urbanization is advanced, their way of life is different from that of agricultural societies. Greater individualism and looses family bonds create normative change for elderly care. As transformation to an industrial society proceeds, the burden of caring for elderly parents tends to shift from adult children to the state, to businesses, unions, and other private sector organizations, and to the elderly themselves (Retherford, 1987; 1985; Retherford and Palmore, 1983; Lee, 1984; Davis and van den Oever, 1981; Cowgill

and Holmes, 1972; Davis and Combs, 1950). Therefore expectation being put on their children is less than in agricultural societies. Moreover, the elderly in western society mostly have high education. They are used to be employed and earned their own living, thus, they tend to be capable of taking care of themselves independently without the need to depend on their adult children.

2.1.3.1 Characteristics of the Elderly Who Need Care from Their Children

It is already noted that the elderly in western societies prefer to live separately from their offspring and are capable of depending on themselves, therefore assistance they get from their children is not in the form of living together or coresidence. Their children will render care by visiting, providing material needs, taking care when they are ill. Care from their adult children is still important and required, especially emotional support such as paying attention, listening to their disappointments, and taking care of them when they are ill. (Kuroda, 1992; Florentina, 1991; Cai, 1991; Ehn, 1987; Kendig, 1987; Rosenmayr, 1972)

Several studies in western society have show that social class of the elderly measured by variables such as occupation, education and income, influence the amount and direction of care either received from children or given to their children (Cowgill, 1972a; Sussman and Burchinal, 1968; Shanas, 1968; Sussman, 1953). The elderly who lost their spouse preferred to **"live near"** or **"live with"** their children rather than to live by themselves for mutual assistance and interrelationship (Cowgill, 1972a). However, the majority preferred to **"live near"** rather **"live with"** their offspring.

In American society, mutual assistance, especially financial support tends to flow from parents to their children, depending on the economic status of their parents (Cowgill, 1972a; Sussman, 1953). Children tend to provide companionship and socialability to their parents by rendering visits, letters and telephone calls ; providing transportation for parents who no longer can drive or take the bus or street car, and providing nursing services, and occasionally housing.

As they grow older, some elderly become unhealthy and need to be taken care of because they are unable to take care of themselves. Some aged parents receive care from their children and some from formal organizations (United Nations, 1988). At age 80 and over, the elderly tend to be frequently ill and are less able to take care of themselves.

In some western countries, projects aimed to give help to the elderly have been established, such as system of old age insurance, social security programmes, a supplementary system of old age assistance, and many private insurance and pension programmes. Therefore, need for care from the family's member is reduced. Some may not need help from their children at all.

2.1.3.2 Characteristics of the Children Who Give Care to the Elderly in Western Societies

In western societies, the elderly, although living apart from their children, still need care from their offspring. Studies in the United States, the United Kingdom. and Denmark (Shanas, 1968; Townsend, 1957 see also Young and Willmott, 1957) found that the elderly wanted to depend on offspring, and preferred to depend on daughters rather than sons. Several studies of old people that have investigated the

importance of offspring in the maintenance of family life in old age have concentrated on the **key role of the daughter**. The dependence of working class old people on a daughter is one of the major themes of several related studies of the elderly in East London. An American study of old people and their families suggests that irrespective of social class elderly in the United States are more likely to ask their daughters rather than their sons to help them. Other evidence shows that where there are no daughters, help flows from sons to aged parents. If there are no children, child-parent help must be non-existent. The elderly also seek help from their young unmarried adult child rather than from the married children.

2.2 Pattern of Elderly Care in Eastern Society

2.2.1 Structure and Size of Eastern Family

Eastern society, in general, ideally consists of the extended family with members of different generations. Parents like to have several children to help them in field work, and to take care of them when they grow old. After these eastern or Asian countries have developed their socio-economic condition to become more industrialized, the number of children in each family decreases. For some countries where industrialization develops very quickly such as Japan, Korea and Singapore, the number of children in each family on average is two or less (Population Reference Bureau: PRB, 1997; United Nations Population Fund: UNFPA, 1992). The One Child Policy, established in China, the most populus country, also reduces the Chinese family size. On the contrary, some countries in south Asia, such as Afghanistan, Bhutan and Pakistan still have family sizes with an average 6 children per family. In south-east Asia, the number of children differs according to each country's level of

development and family planning programme. For example, in Thailand, where the reduction of the population growth rate has been successfully implemented over the last 3 decades, family size is smaller with an average 2 number of children per family of two (Institute for Population and Social Research, 2000; Chamratrithirong et al., 1997; Guest, 1995).

2.2.2 Living Arrangements in Eastern Society

In eastern society, there are two types of kinship. One is patrilineage, and another is both patri and matrilineage (Mason, 1992). The kinship system has a very strong influence on elderly care and living arrangements because in Asian religion and culture, taking care of aged parents is a direct duty of every child.

The patrilineal or patriarchal joint and stem family system was found in east Asia such as China, Japan and Republic of Korea and in the northern tier of south Asia such as Bangladesh, northern India, Nepal and Pakistan. The bilateral, more egalitarian and conjugally oriented system was found in southeast Asia and the southern tier of south Asia such as southern India and Sri Lanka (Dyson and Moore, 1983; Mason, 1992).

In patrilineal or patriarchal family system, males have life long membership in the family into which they were born, whereas females are only temporary residents of their natal family and join the husband's family at marriage. Males are also involved in the ownership and control of family property and in family authority. All families of this type are characterized by the dominance of the senior male or males in family decision making. Hence, in this type of family, aged parents will get care from their sons, especially the eldest one.

The bilateral family system is organized on different principles from the patriarchal or patrilocal system. Kinship is traced bilaterally rather than patrilineally. Women and men are equal members of their natal families. The household in this family system tends to be organized around individual married spouses with a bias towards nearby residence or co-residence with the wife's parents rather than the husband's parents. Therefore, in a bilateral family, aged parents tend to receive care from their daughters, especially the youngest one, such as happens in Thailand (Knodel Chayovan and Siriboon, 1992a; Limanonda, 1990), because the daughter feels very close to both father and mother, but the mother develops more emotional closeness with their daughter than with their son. Aged mothers always receive more care from their daughter than does the aged father (Pramualratana, 1991; Geertz, 1961).

In the patrilineal or patriarchal systems of south Asia and east Asia, the status of parents in southeast Asian family system is traditionally one of authority and respect, confirmed by parental control over productive resources such as land. (Mason, 1992). In a bilateral family system, emotional ties may be more important for maintaining close intergenerational relationship than authority is. Nonetheless, maintenance of parental control over property until death in order to guarantee their children's loyalty and care can be found in both types of family system (Pramualratana, 1991; Mason,1992).

In a patrilineal or patriarchal family system, a woman's well-being depends on the willingness of fathers, husband or son to support female family members, whereas a man's well-being rests on his ownership and control of family property. The

consequences of this situation as individuals move into old age appear to vary according to the specific features of the family system, including the extent to which its male members own and control productive resources (Mason, 1992).

In the stem-family system found in Japan and the Republic of Korea, the older generation live only with the oldest son and his wife rather than with either son and daughter-in-laws. In the joint family system such as Taiwan, the mother traditionally rears their sons in ways that create strong emotional loyalty to the mother and thereby guarantee for her care in old age, even to the detriment of a father's care (Wolf, 1972; Mason, 1992).

In eastern society, aged parents will usually receive care from their children, irrespective of their family system.

2.2.3 Expectation and Need for Elderly Care in Eastern Society

Social values among aged parents in eastern society are very similar. Most hope that their children will take care of them when they grow old. As mentioned above, in Asian countries where a patrilineage systems practiced, the eldest son is expected to take care of his aged parents but in bilateral families, the youngest daughter is expected to take that role. However socio-economic changes in these Asian countries disrupt this behaviour.

As a country becomes more industrialized and urbanized, young adults migrate to work in the cities and live apart from their aged parents. The elderly in many families have to take care of themselves because they have no children dwelling with them, and instead, some parents have to take care of their grand children whose parents have moved to work in the cities. The transformation of family structure and

living arrangements also diminishes expectations of the elderly. Aged parents tend to have lower expectation for their children to give care to them.

A study in Japan (Ogawa and Retherford, 1997) among currently married women aged below 50, found that the expectation for care from children has decreased during the past 30 years (1950 - 1990) from 65 percent to 18 percent. The proportion of parents who did not expect to depend on their children when they grew old increased from 20 percent in 1950 to 62 percent in 1990. The increase from 1961 to 1963 was a sharp jump. The jump was probably due to the establishment of a formal pension and health care system at that time. Younger generations tended to value parental care as a natural duty, unavoidable, and not a good custom rather than a good custom as has been highly valued before. The proportion of "unavoidable" and "not a good custom" categories increased from 7 percent and 5 percent in 1986 to 22 percent and 12 percent in 1990, respectively. The increase was almost 3 times higher. Overall, these results indicate a marked decline in the proportion of women who expect to depend on their children in their old age, consistent with hypotheses about the effects of modernization on expectations about old-age support from children. A study in Nepal (Goldstein, Schuler and Ross, 1983) yielded a similar finding that a large number of married sons did not support their elderly parents economically and the majority of these Kathmandu elderly were economically independent and surviving on their own resources. The disjunction between ideal expectations and reality was reflected in responses to the question regarding whether it was necessary or important for elderly people to have their own private income rather than depending on their children as the ideal dictates. It is striking that 100 percent of the

respondents asserted emphatically that in today's world, it was essential for elderly people to have their own sources of income. Many said an old person was a fool if he hoped to depend on his sons when he was old.

2.2.3.1 Characteristics of the Elderly Who Expect Care from Their Children in Eastern Society

Changes in family structure and living arrangement in eastern society decrease the expectation for care among the elderly. A recent study in China (Treas and Wang, 1993) found that 79 percent of aged males and 65 percent of aged females living in urban cities viewed that they should depend on themselves or their spouse more than on their children, whereas 46 percent of rural males and 43 percent of rural females had the same opinion. This study also confirmed that the expectation for care was related to the property owned by the elderly. This finding is consistent to that found in Nepal (Goldstein, Schuler and Ross, 1983). The study in China also found that married elderly tended to depend on themselves and their spouse more than on their offspring, but widowed or divorced parents preferred to rely on their children, especially in their advancing age. The older they became, the more care they expected from their children, especially after they had become widowed and had poorer health. Less educated parents in rural areas were more likely to depend on their children than those with higher education. However the influence of education was not detected in aged males. In rural areas, aged person with moderate income were the most likely to demand care from their children compared to their counterparts with high and low income. Aged females who earned no income and had no pension tended to depend on their children more than those with income and pension. On the contrary, this

difference was not found among urban aged males. Rural aged males and females living in multi-generation household, stem family and joint family wished to depend on their children but aged person who lived alone or lived with member of the same generation such as with their spouse, tended to depend more on their spouse. The study also showed that the quality of inter-generational relations was also important. Respondents who reported their family atmosphere as **"good"** were more likely to favor depending on children than those who said their family atmosphere was **"so-so"** or **"bad".** The same was true for those who said their children were **"pious"** or **"respectful".** When children actually helped out, giving gifts or helped with housework, their aged parents were more likely to assume that older people should depend on children.

In eastern societies, the elderly are not only care receivers, but also care givers. A study in Korea (Kim and Choe, 1992) pointed out that although most forms of support ***flowed to*** the elderly, mainly owing to the Confucius tradition of filial piety, support also ***flowed from*** the elderly to their children in the form of goods, labour and service.

2.2.3.2 Characteristics of Children who Provide Care for the Elderly in Eastern Society

The capacity of children to provide care for their elderly parents depends on the stages of their life cycles. Demographically speaking, children aged under 15 are undependable because they are still in school, with no job, and no income. After they pass this early stage, finish school, and have income, they will be able to provide care for their elderly parents.

Previous studies in Thailand found that single children tended to live with their parents more than married children. Younger children were less capable of giving care to their parents than their elder sisters or brothers, because the younger children were still in school and dependent. Older children had mostly entered labor market, married and had their own family. Children who lived with their parents provided different care for their parents comparing to children who did not live with their parents. Married children who lived in the same location with their parents tended to give food and clothes to their parents, whereas unmarried children and children who lived farther away provided their parents with more financial support than children who lived near and who were married (Knodel, Chayovan and Siriboon, 1992a and 1992b).

A study in Korea (Kim and Choe, 1992) found that children who lived with their parents provided their parents with financial support, emotional support and assistance in activities of daily living. The finding was consistent to what has been found in the Philippines (Natividad and Cruz, 1997). Aged parents in Korea were more likely to live with at least one child. Aged females liked to stay with their married children. Rural aged females liked to stay with their married children more than urban aged females did.

In Vietnam, it was found that a married son (non-eldest, in particular) plays a particularly crucial role in the welfare and care of elderly parents. This makes sense, given the dominant norm under which daughters move out of their natal households upon marriage (Goodkind and Fricke, 1997).

2.3 Pattern of Elderly Care in Thai Society

2.3.1 Structure and Size of Thai Family

Thai families are mostly nuclear but their living arrangement are close to extended family. In the past, Thais had big families. In 1960, each family had 6 children on average. At present, the number of children has decreased to approximately 2, which has been lower than replacement rate for almost 5 consecutive years. The reduction is the result of the successful National Family Planning Project and a demand for few children (Institute for Population and Social Research, 2000; Chamratrithirong et al., 1997; Guest, 1995).

In Thai families, the kinship system is both patri and matrilineal. Women and men are equal members of their natal families. The household in this family system tends to be organized around each individual married couple, with a bias toward nearby residence or co-residence with the wife's parents rather than the husband's parents. In some instances, there is a stem-family household involving the youngest daughter, (Knodel et al., 1992a and 1992b; Limanonda, 1990), as opposed to the oldest son, as occurs in Japan and Republic of Korea. Emotional closeness especially between mother and daughter, is often a characteristic of this system (Geertz, 1961; Pramualratana, 1991), to insure that elderly mothers receive as much support and care as elderly fathers do, if not better.

The Thai family system is established around a network of kin, rather than a family line with clearly defined boundary, whether for better or worse, it is a factor that may influence the living situation of the elderly. It means that in this family

system, the strong kinship relations may give the elderly a greater choice of kin from whom to seek support or care in old age.

2.3.2 Living Arrangements in Thai Society

The most common pattern of residence for the elderly in Thailand is to continue residing in the same household and the same compound that they have occupied since marriage, with one or more children continuing to live in the same compound (Cowgill, 1972b). In northern and northeastern Thailand, such a child is usually the youngest daughter (De Young, 1955; Limanonda, 1990; Knodel, Chayovan and Siriboon, 1992a and 1992b). She and her husband will probably live in the same house as her parents or build another house within the same compound, but they remain members of an extended family in the sociological sense, since they are still part of the total group involved cooking, eating, working, playing, and visiting. The separate house usually serves only as separate bedrooms. Some households include members of three generations and some households rear additional unmarried children.

Families in central Thailand conform to what has been observed in northern and northeastern Thailand and are characterized by a bilateral kinship organization, except in Bangkok, where there is a more varied pattern of residence of the aged (Piker, 1975; Amyot, 1976). The study of Amyot (1976) showed that there were many cases when young couples started a new household immediately after marriage or moved in with the parents of the husband. This took place when the husband's family was wealthier than that of the wife, or when the husband was the only child, or there was no one else left to help at house. In this case, the man

inherited the land because he was the only heir or took care of his parents in their old age. Kaufman (1960) studied a village near Bangkok, found the same as Amyot, that the youngest son continued to reside with his parents and inherited the land.

Traditionally, in Thai society, the elderly tend to live in the same household that they have lived since marriage. Irrespective of how many children they have, eventually, they will have at least one child to stay with. (Knodel, Amornsirisomboon and Khiewyoo, 1997; Knodel, Chayovan and Siriboon, 1992a and 1992b; Pramualratana, 1990; Knodel, Havanon and Pramualratana, 1984; Cowgill, 1972b). Although living arrangements have changed in accordance with socio- economic development, Thai families in northeast and upper north still prefer to stay with the youngest daughter (Cowgill, 1972b; Keyes, 1975; Tambiah, 1977; Potter, 1977; Podhisita, 1984). The Survey on Aged Population in 1994 (National Statistical Office, 1994) found that 96.4 percent of the elderly did not live by themselves in their household. For those who did not live by themselves, 41.8 percent lived with their children and relatives, and 41.8 percent lived with their spouse.

However, living arrangements are not indicative of care and support that are received by parents. For example, living in an extended family system with one's children is no guarantee that adequate care is being provided, and living independently does not mean that one's care needs are not being met by family members. Evidence indicates that family members are still important in providing emotional support and care to elderly persons living alone, or away from their family members (Ehn, 1987; Florentina, 1991; Cai, 1991; Kendig, 1987; Kuroda, 1992).

Therefore the total number of children aged parents have and living arrangement are not indicators of care aged parents will get from their adult children. Actually, and eventually, there are very few children whom their parents can really depend on.

The 1994 survey, which covered 72.8 percent of the aged population in the whole country, found that 98.1 percent of the aged parents living with their children felt that they were happy to live with their children, 98.0 percent felt warm, 94.8 percent felt at ease. Most reported having good feelings. However, on the negative side, 96.6 percent felt that their children did not pay enough attention to them, 95.0 percent felt that their children did not obey them, 14.9 percent felt that their children liked to nag them and 12.4 percent felt lonely. All these feelings reported were felt similarly among the elderly both in urban and rural areas, and in several regions. From these findings, it is suggested that living with their children brings the elderly both happiness and uneasiness.

2.3.3 Expectations and Need for Elderly Care in Thai Society

Seniority has long been a general social value among Thai people. It was been taught that the aged are persons to be respected and honored by the younger generation. Specifically, parents are the most highly respected persons for children. Buddhism, the national religion of the country, plays a great role in influencing this value. In the Buddhist principles, parents are respected as God to their children because they are the ones who give life to children, feed them, bring them up and teach them to be good members of the society. Therefore, it is an obligation for children to look after their aged parents, as a return of gratitude to their parents.

Buddhists also regard parents as their holy protectors, so to worship and to take care of parents will bring them prosperity and every blessing. The importance of respecting parents is strengthened by Buddhist teachings that people need to pay high respect to their parents and this creates a tight bond between parents and their offspring. Such values are less common in western society.

Aged parents in Thai society have high expectation that their children will take care of them when they approach their advancing age. The wish harmonizes with the will of younger generations that taking care of their aged parents is a duty or an obligation. Many studies confirm this belief. There is at least one adult child who lives with and takes care of the aged parents (Cowgill, 1972b; Knodel, Havanon and Pramualratana, 1984; Pramualratana, 1990).

A recent study in rural central and northeastern areas (Wongsith,1990 and 1992) found that children conformed with the idea that it was the children's duty to take care of aged parents. Research on the relationship of old-age security motivation and fertility (Archavanitkul et al., 1992) in 4 rural provinces in central and northern parts using old and middle-aged respondents showed that parents still expected care from their children when they grew old. Respondents from the northern region expected help in family work and housework, whereas their counterparts from the central region expected financial support. Among the latter group, the fertility rate appeared to be higher than other groups who expected different support such as companionship or health care. However, the middle and the old-aged groups had different points of view towards number of children. The middle-aged felt that having children was financial burden, so few children would be sufficient to depend on in old

age. The old-aged viewed children as a main source of financial support and health care, although actually, they could not depend much on financial support. Old-aged parents in the northeastern region wished to have more children so they could get more financial support. However, it was found that financial status of the elderly had a negative relationship with number of children. In the northeastern region, aged parents who had many children were better-off, but in the central region aged parents with more children were poorer than those who had fewer children.

2.4 Factors Effecting Change of Elderly Care Patterns

2.4.1 Process Influencing Change of Elderly Care Patterns

According to Mason (1992) process creating change in the patterns of elderly care at the macro level are caused by three main factors; urbanization, industrialization and migration.

Urbanization and industrialization usually occur together. Cities are the center of development, including business, commerce and industry. Service centers are also gathered around the city, such as educational institutions, hospitals and recreational places. Some cities are the state capital. With all these advantages, urban life is so attractive that it pulls a flow of people, especially rural people. Rural migrants move to the city both temporarily and permanently to seek employment and high income. Therefore, most cities are highly populated.

2.4.2 Effect of Urbanization, Industrialization and Migration

Urbanization and industrialization change ways of life in both rural and urban families. The elderly and the children are the most effected since they still need someone to take care of them. Mason pointed out that urbanization and

industrialization had five different effects on family, of which four are negative and one is positive.

The four negative effects are:

2.4.2.1 Loss of Parental Power over the Young Generation

As industrialization occurs, a decreasing proportion of families earn their income from family-run enterprises such as a family farm or shop. Many of them come to rely for income on the wage employment of individual family members. One of the most universal and best documented consequences of this change is **a decline in the extent to which family elders are able to control younger family members** (Goode, 1963a; Thornton and Fricke, 1987; Mason, 1992), because young men and women are increasingly able to find an alternative means of income to the family-run enterprise. They can get factory or office jobs. Their parents' control of productive resources results in their having less hold on their loyalty and obedience. Moreover, with population growth and urbanization, a decreasing proportion of parents typically own productive resources.The implications for parental control of this shift in the family economy vary by social class. Among landless labourers, parental controls tend to be weak even in a preindustrial economy, whereas among the affluent, the lure of a large inheritance tends to maintain parental controls long after the advent of full industrialization and the decline of household production. Thus, industrialization shifts resources and power from the parental to the younger generation, resulting in the detriment of care and support during old age (Mason, 1992; Chang, 1992).

The consequence of the shift from family production to wage earning is also **a shift in the locus of mate selection from parents to the young generation** (Thornton and Fricke, 1987). This shift in who selects mates is in turn thought to produce or go along with a greater emphasis on personal attraction in mate selection than when parents control the process, although perhaps less so than early theorists speculated (e.g. Goode, 1963a). Personal attraction is in turn thought to increase the wife' s voice in family decisions, something that in the patrilineal/patriarchal family system of south and east Asia, often leads to the breakdown of joint-or stem-family households. Thus, one ultimate effect of industrialization on the situation of the elderly may be less co-residence with offspring (Mason, 1992).

2.4.2.2 Increased Female Labour Force Participation

The pathway through which industrialization is likely to reduce care of the elderly is via the increased labour force participation of wives and perhaps increased desire or ability to form a separate conjugal household rather than co-reside with their mother-in-laws. Because industrialization means that goods once produced in the family household are now more efficiently produced in the factory or shop, the cost of maintaining wives as full-time home-workers tends to rise, especially when the family is no longer a major productive unit and when fertility declines, as it eventually does, in most such instances. In other words, it is less costly to families for wives to earn money outside the home with goods and services that can be purchased than for wives to produce those goods and services at home (Brown, 1982). This circumstances along with the growth of labour-intensive industries interact in hiring female workers during the early phases of industrial development, and leads to an

increase in married women's wage employment during the course of industrialization, a change that makes women less available to care for elderly family members (Mason, 1992). For example, the female labour force participation rate in Singapore increased from 44 percent in 1980 to 50 percent in 1990 (Lee and Veloo, 1991). In Japan, this rate rose from 55 percent in 1965 to 58 percent in 1984 for those aged 25-44 years, and from 58 percent to 64 percent for those aged 45-54 years (Ogawa, 1987).

2.4.2.3 Increased Female Education

The third process involving reduced care of the elderly with modernization, reflects the effect of education on fertility and on norms of filial piety. Increased schooling, in concert with other consequences of industrialization, tends to **lower fertility,** that is, the average number of children born by each woman in the population. This in turn lowers the number of potential family care-givers in the younger generation. Increased survivorship helps to counter this effect - more children survive into adulthood and middle age - but when fertility reaches or falls below the long term replacement level of approximately 2.1 children per woman, and especially when sex asymmetries in expected care of aging parents exist, an increasing number of the elderly may be faced with a shortage of familial care-givers in the young generation. Consistent with this is Martin's (1989) finding that the elderly in three out of four Asian countries included in the WHO study of aging (Andrews et al., 1986) are less likely to reside with children when they have fewer of them.

In addition, increased education may **break down traditional values and norms**, including the value placed on the family and the specific obligations of children to support and care for their elderly parents. Although the evidence for such

effects remains incomplete, they are speculated to occur for 2 reasons ; 1) because increased schooling means that children spend less time receiving care and guidance from their parents and hence may feel less of a debt to them (Thornton and Fricke, 1987) and 2) because the content of formal schooling in some developing countries is heavily westernized and hence tends to introduce western values of individualism and self-actualization (Caldwell, 1980).

Both processes may undermine traditional norms of filial piety and leave members of both the senior and younger generations less willing to sacrifice the younger generation's prospects in order to provide physical care for elderly parents (Pramualratana, 1991; Yang and Chandler, 1991; Mason, 1992).

It is important to recognize, however, that such effects are by no means inevitable and may be strongly tempered by pre-existing, cultural values as well as by the content of formal schooling (Mason, 1992). For example, in Japan, although the proportion of women expecting to rely on their sons for old age support has fallen dramatically in the past 35 years, the proportions espousing the idea that children are obligated to support their elderly parents has changed little and is high in absolute terms (approximately three quarters of adult prime-aged women; see Kendig, 1989 cited in Mason, 1992). This resiliency of the norm of filial piety in Japan no doubt reflects the strength of this tradition in that country and may also reflect an educational system that has managed to reinforce this norm, rather than importing western values about inter generational relationships. (Mason, 1992).

2.4.2.4 Increased Migration

The final process involving reduced care of the elderly with modernization reflects the increased migration that typically accompanies industrialization and urbanization. In general migration involves the physical separation of the senior and young generations; the proportion of multi-generational households are consequently reduced (Mason, 1992). Although some developing societies in Asia have experienced relatively low rates of rural-urban migration-most notably, Hongkong and Singapore (by virtue of their urban character have no rural component) - it is common for industrialization to increase the rate at which young, unmarried individuals leave their rural homes and migrate to urban areas to take up employment. Because the senior generation frequently, although not inevitably, remains behind, there is increased physical separation of the elderly and their adult children. In this situation, physical care of the elderly by their children is likely to be especially problematic; even remittances may suffer if the emotional ties between parents and children weaken because of absence (Pramualatana, 1991; Mason 1992).

The positive effect is rising per capita income. Although, industrialization, urbanization and migration are likely to erode children's care of the elderly by reducing parental power, increasing wives' labour force participation, reducing the number of adult children per family and producing greater physical separation between generations, increasing incomes is one important process that may improve the welfare of the elderly. Although rising incomes may eventually undermine intergenerational families ties by making the financial safety net traditionally provided by the extended family less critical to individuals' survival, rising incomes also give

the elderly greater independence, thereby removing them from the status of dependents on their offspring. Among other things, this may allow the elderly to purchase greater privacy as well as care itself (Mason, 1992). This suggests that economic development is indeed likely to erode the family's traditional role in providing care for the elderly, but the point to be noted is that this erosion may involve positive gains for the elderly in the form of greater independence and overall welfare, rather than a simple loss of care.

In sum, based on Mason's theory, industrialization, urbanization and migration have mixed consequences for family systems, some of them detrimental to the elderly and others beneficial or neutral (Mason, 1992). There is consistent evidence that parents lose their traditional control over the young generation as society industrializes and wage employment replaces family production. Thus, the care of the elderly by their adult children is less consistent or certain. Industrialization also tends to make middle aged women less available as care-givers because of their increased labour force participation. By reducing fertility, industrialization may also result in there being fewer adult children available as care givers. The forces of modernization that accompany industrial development may also create greater physical separation between the generations and may break down norms of filial piety.

One obvious counter to the deterioration of elderly care with industrialization is the rising income of the senior generation that occurs with economic development. Another potentially positive aspect of industrialization is the possibility of increased income through remittances (Mason, 1992).

2.4.3 Process Influencing Change of the Pattern of Elderly Care in Thailand

Based on Mason's hypothesis on processes generating change in elderly care in Asian society, such change in Thai society may possibly be explained by three main factors, which are industrialization, urbanization and migration.

2.4.3.1 Industrialization

The overall image of Thai society during the second half of this century is of an agricultural-based society. Agriculture products, especially rice, have been the main source of national income. The majority of people who lived in rural areas are farmers. Upper class people lived in the city (Pongsapitch, n.d.). The number of population at 50 years ago was only 20 million which counted approximately one-third of the actual number of population in 1996 (Guest, 1995). Though Thailand had already developed some industries at that time, most were household industries, and gradually turned to be factory-based industries. Only in 1962 was the First Factory Legislation launched in accordance with the formal announcement of the First National Five-Year Plan. Since then, industrialization has been systematically planned, and extended to several parts of the country. Most industries were food and clothing based industries, with some start in export business. During 1967 - 1971, the period of the Second National Five-Year Plan, there was the growth of industries such as oil, steel, pulp, auto parts, household appliances, and leathers. In the Sixth National Five-Year Plan (1987 - 1991), industrialization jumped to a much higher stage. A large amount of foreign investment was drawn to the country accompanied with the introduction of natural gas and modern technology, telecommunication, computer and electronics parts (National Economic and Social

Development Board: NESDB, 1996). Since then, Thailand became more industrialized with an intensive demand for labour, especially in the urban areas. Although the country has faced several crises in politics and economics, industrialization eventually developed throughout the whole country. The share in agricultural product declined from 31.5 percent in 1975 to 12.4 per cent in 1992 (United Nations, 1995).

The big jump in industrialization brought progress and wealth to the economic sector, but it also created many negative outcomes, such as pollution, housing shortages and high cost of living. Since industries gather in big cities and their surrounding areas, housing for migratory labor working in these areas is very problematic and has resulted in many slums in the cities. Disorganized city plans have resulted as city plans have not been established in advance to serve investment of the business sector. Along with the growth of industrialization, breakdown of family living arrangement seems to be common. Family members stay apart from each other. Children do not stay with their parents and many spouses live separately from each other in order to fulfill their work obligations. Therefore, many aged parents and young children are left alone, if not abandoned. (National Economic and Social Development Board: NESDB, 1996).

2.4.3.2 Urbanization

Since socio-economic development was initiated in the First Five-Year Plan (1961), economic development has turned Bangkok into the biggest and the most important center of industry, with a consistent flow of foreign investment and modern technologies. Bangkok and some big cities have faced tremendous change, both in physical and social environment. Cooperation between

government and private sectors had increased the rate of production, expansion of local and international markets and higher income. The higher the level of industrialization, the faster the rate of urbanization (Knight, 1989).

During 1957 - 1977, the number of factories and labour in craft - industries increased immensely in Bangkok and its surrounding provinces, such as Samut-Prakan. In addition, many previously imported goods became locally produced, such as alcohol, soft drinks, cigarettes, canned food, clothing, chemical, household appliances, auto parts and communication devices (Dilokwanich, 1995).

From 1977 to 1987, Bangkok extended its growth to surrounding areas in every direction along main highways. Bangna-Trat and Theparuk are the two main roads showing outstanding expansion because the routes can connect with Laem-Chabang Harbor in Chonburi province and the intensive Maptaphut Industrialized Zone in Rayong province. Similarly important roads are Vibhavadi-Rangsit and Phahonyothin roads connecting Bangkok with the central part and the northeast, and Pinklao Nakhon-Chaisri, Petchkasem and Rama II roads which connect Bangkok with western and southern provinces.

The most visible effect of urbanization is migration, in every direction, including rural to urban, urban to rural, and international migration. Bangkok has become a primate city with its population exceeding that of Chiangmai, the second biggest city almost 30-40 times. Its population is approximately as big as the whole population of the southern region (Institute for Population and Social Research, 2000).

Several studies confirm that the growth of large cities in Thailand was caused mainly by migration. The central part is the most urbanized, and therefore pulls the largest flow of in-migrants especially to Bangkok.

2.4.3.3 Migration

Urbanization and industrialization are the most important pull factors for migration. Not only does migration increase income, but it also provides new skills and specialization in work. Migrants and their families both enjoy the benefit of migration. At a macro level, migration also supplies the labour need to overcome shortages.

The National Migration Survey, done in 1992 by the Institute for Population and Social Research (Chamratrithirong et al., 1995), revealed that the level of migration in Thailand was higher than any previous records. Approximately, 8.7 million people or 15 percent of the population migrated in the past 2 years prior to the survey, and if the duration was extended to 5 years, the number of migrants increased to 14.5 million or about 25 percent.

Among the group who migrated during the 2 years before the survey were first-time migrants (64 percent), another 19 percent were seasonal migrants, and the other 17 percent were repeat migrants. Most of the seasonal migrants were north and northeastern residents, more males, less educated and moved to work on farms. The findings indicated that there were many migrants who moved temporarily to find work after the harvest season.

Although women were found to be less migratory than males, the differences were not significant, and still exceeded the level of female migration in many countries (Chamratrithirong et al., 1995).

Most migrants still supported their families by sending home remittances. Bangkok migrants sent more remittances than their counterparts in other provinces, and women tended to send more money home than men did.

A follow-up study of northeastern migrants done in 1994 (Ritchter et al., 1997), found that migrants sent home money by various means but most of them brought money with them when they returned home. Daughters tended to send remittances more than their brothers. The findings are consistent with the results of other studies of with pattern of remittances in rural Thailand (Guest, Ritchter and Archavanikul, 1993).

It is very interesting to note that in households with more than three migrants, remittances are not higher than what household of two migrants. From this it can be inferred that aged parents get financial support from only a few migratory offspring, so if they have more children this does not mean higher remittances will get. It was also pointed out that married children rarely send remittances.

2.4.4 Effect of Industrialization and Urbanization in Thailand

According to Mason's theory, the effect of industrialization and urbanization on the pattern of elderly care in Thailand can be investigated as follows:

2.4.4.1 Decreased Family Size

It is well recognized that the fertility rate of Thai women in 1960s was very high, with the total fertility rate as high as 6 children per woman. This

was directly due to the government's pro-natalist policy after the Second World War. The impact of high population growth awakened the awareness of the government on population issues. Therefore the National Population Policy was launched in 1970. This emphasized the reduction of the fertility rate by means of family planning service. During the past 30 years, the policy has successfully reduced the fertility rate of Thai women so dramatics that it has been called the **"Family Size Revolution"** (Knodel, Chamratrithirong and Debavalaya, 1987). On an average, rural-urban Thai women have only one or two children. Desired family size is about two. The success of the fertility decrease is the outcome of two factors. One is the availability of family planning services throughout the country, and the other is socio-economic development that decreases the social value of big family size, and influences women not to marry or marry late. The fertility rate is expected to decrease faster in the future, and possibly reach to 1.5 within 20-25 years from now (Guest, 1995). The change of family size and structure is also expected to affect elderly care in the future.

2.4.4.2 Increased Female Labour Force Participation

Women in Thailand have always participated actively in economic activities. However, over time, the nature of their economic activities has changed significantly. Historically, most women worked as unpaid family workers or self-employed, hence economic and household work could be achieved simultaneously within the household. As self-employed or unpaid family workers, women make no obvious distinction between household and economic activities. They could easily shift back and forth between market and non-market activities. With economic development, production has shifted away from households and women's economic

activities have increasingly changed from unpaid to paid employment. The status of paid employment should make women more economically independent and, at the same time, give them the opportunity to achieve their own fulfillment as individuals, independent of their families. However, when the workplace is separated from the household, women may no longer be able to perform their other household activities as efficiently as before, if they participate in economic activities. Hence, women have to make a deliberate choice either to participate in or to stay out of labour market (United Nations, 1995b).

Women's labour force participation rates in Thailand have been very high and have fluctuated greatly from year to year. It was almost 72 percent in 1992. On average, the labour force participation rates of persons living in urban areas are lower than those in rural areas (National Statistical Office, 1971-1991). Urban and rural differences in the female labour force participation rate are a reflection of the differences in the nature of economic work performed by these two groups of women. In rural areas, women work mainly in agriculture or as unpaid workers in small family-owned enterprises. Hence, women can participate in economic activities while performing their basic responsibilities within the household. However, in urban areas, most economic activities take place outside the household and attachments to the labour market are more continuous. Therefore, performing economic activities will conflict with household duties (United Nations, 1995b).

A change in women's work status from unpaid family worker to employee in establishments separated from the family has many implications on the role and status of women. As a household member, a woman may play the role of daughter,

wife or mother. In Thai society, a daughter is expected to pay back to her parents for raising her. Thus, if an unmarried daughter works, a large proportion of her income will be shared with her parents. Moreover, a daughter is expected to take care of various household work, such as taking care of younger siblings or elders in the household. Paying back to parents via financial or labour contribution is anticipated more from a daughter than from a son because, under Buddhist belief, a son can pay back to his parents by sharing with them the merit accumulated while being a monk. This is a method of paying back to parents which is not available to a daughter. As a wife and a mother, a woman is expected to earn supplementary income whenever the husband's income is not adequate, and at the same time taking the main responsibility in the house. With several roles expected from women, they will have less time to take care of the young and the elderly in the family.

2.4.4.3 Changes in Family Relationships and Cooperation

Socio-economic changes in Thailand, influenced by the power of globalization, has an important effect on patterns of family formation and family life. The family has long been recognized as an essential component in Thai culture. However, a reduction of population growth accompanied with economic shifts has changed the structure of Thai families within one generation (National Economic and Social Development Board:NESDB, 1995). Previously, the structure of Thai families was extended, where members of many generations lived together and helped each other. At present, family size is smaller because of decreasing fertility. Thai families are now nuclear, with fewer kin living together. Some household heads have to leave their families to work in cities, leaving their young children with their aged parents.

Some families have one single parent because of divorce or death of a spouse. Some divorced mothers have to become household heads (Chutikul, 1996). The increasing prevalence of nuclear families tends to disrupt the security of family institution. Basic ways of life established on traditional ethics and beliefs are challenged by modern economic values, which may threaten family closeness, intimate relationships, and attention and care paid to children and the elderly in the family.

2.4.4.4 Increased Female Education

Education has been confirmed as a main supporter for sustainable development in many countries. Education also facilitates social and economic development and increases income. During the past three decades, education has been viewed as an important means for development. Therefore, the government has recommended education planning as part of development planning strategies since the First National Five-Year Plan.

Since 1960, the educational system and education of Thai people have been improved with many strategies introduced. The most successful was the 1978 Educational Reform. At present, almost everyone (93 percent) has at least elementary education, 23 percent go to secondary school and 7.1 percent have finished college. However, participation in education at high levels is still lower than in many countries. (National Economic and Social Development Board:NESDB, 1995; Sussangkarn, 1996). The government is making an effort to extend compulsory education from 6 years to 9 years, as well as increase the number of students pursuing higher education. Training for skilled work is also offered.

The effort to extend compulsory education and opportunities for higher education will be very beneficial for the development of human resources and socio-economic situation. However, as a result of the policy, women will be kept longer at school, and children and the elderly may be effected if no substitution is arranged.

Against all these negative effects, an increase of income is the most important advantage of economic development and industrialization. Per Capita Income of Thai people increased from $ 819.3 in 1985 to $ 1,556.2 in 1990. For the whole country, northeastern residents had the lowest income, from $ 327.7 in 1985 to $ 526.1 in 1990. The difference is also varies between urban and rural areas. In rural areas, income increased from $ 130.1 in 1985 to $ 356.6 in 1990. In urban areas, the level increased from $ 313.3 in 1985 to $ 1,078.8 in 1990. (The Government of Thailand, 1995). The higher income of the urban population is caused by the production structure where industries and services are the dominant modes of earning income, especially in Bangkok and its surrounding areas.

In sum, socio-economic development, specifically industrialization and urbanization, has introduced better living to the Thai population, facilitating higher income and better occupations, and higher education and labour force participation among women. Conversely, it has a negative effect on the family, especially living arrangements and family structure. More families become nuclear. Many live separately because of migration. Children and the elderly are more likely to be abandoned. The changing values towards smaller family size is also expected to effect care for children and the elderly, especially aged parents with few children, who may receive less care in comparison to their counterparts who have more children.

2.5 Concepts and Ideas of Elderly Care

2.5.1 Concepts of Elderly

Studies on the elderly yields different concepts on the elderly. The common question is "how old is old enough to be called elderly"? In general, the age is determined at 60 - 65 years old or using the calendar year, because it is very difficult to set an acceptable starting age since aging differs individually. In New England the elderly are persons aged 60 and over, whereas stating age cannot be officially determined in USA. Historically, Americans regarded aging as one stage of life cycle, which could start at 50, 80 or between 50-80 (Week, 1984). But in general, Americans view old ages in terms of birthdays and generally, old age begins at the 65th birthday (Cowgill, 1972).

In Thai society, old age begins at 60. Age is still computed in twelve-years cycles, and the sixtieth birthday marks the completion of the fifth cycle. In rural Thailand aging is a very gradual process, there are few abrupt changes or crises and there is certainly no trauma of retirement or old age. On the other hand, in urban Thailand where most people are employee of either government or private corporation , 60 years of age is still the prevailing age of retirement (Cowgill, 1972).

A recent study in Thailand of 1,500 respondents aged 15-44 (Wongsith, 1992) revealed that young people felt that women aged faster than males. About one-fourth of the respondents felt that both men and women were old when they were 50 years old, 10 years before the generally agreed upon age in Thai society. Such a perception may be caused by the young age of respondents, so they compared to

themselves that if they were 20 years older, would they call themselves old (Ninlert, 1996).

In addition to chronological age that could indicate aging, young respondents felt that physical appearance and health could be additional indicators such as grey hair, wrinkled skin or unhealthy condition. A qualitative study in a rural community in Thailand (Pramualratana, 1990) showed similar findings. People defined themselves or others to be old by their functional capacity during the farming process. If one could still work it meant that one is not old, not like in the government where at 60 one retired and was considered old.

Yodpetch (1993) also found that besides age, one could be determined "old" when they were not healthy, unable to work, grew grey hair, had a crooked back, even if they were not get 60. Some felt old when they had a grandchild or when they could perform less economic activity.

In Thailand, the "aged" is officially defined at 60 years and the age of 60 is taken by the Thais to mark the beginning of old age. Therefore, this study will focus only on persons aged 60 and over. The pre-aging group and persons aged 50 - 59 will not be included in the study because if they have children, their children will be too young to depend on.

2.5.2 Stages of Aging

As people live longer, gerontologists divide the aging period into 4 stages according to their biological and social-psychological conditions (Craig, 1980).

The Young Old : this stage starts from 60 - 69 years of age. It is the time when many serious changes occur such as retirement, loss of income, loss of social

status, loss of spouse and friends. In general, the aged person is still healthy but may occasionally need some assistance. The higher educated will possibly adjust themselves better than the less educated. Some still enjoy social activities both in and outside family.

The Middle Aged Old **:** the stage is between 70 -79 years old. The aged persons are getting unhealthy and facing deaths of peers and family members of similar age. They participate less in social activities either in nor outside family.

The Old Old : the aged are approaching age 80 - 90. They have more difficulty adjusting to the environment. They need both privacy and stimulating and more assistance. They also tend to spend most of their time recalling their past.

The Very Old Old : Very few persons will be able to live to this stage which starts at age 90. Studies on physical and mental condition of this group are few, including in Thailand. It may be assumed that the aged persons need more health care, and can perform only few tasks.

Care needs will vary according to different stages of aging. The very old person needs more assistance than the less old, because as their age advances their capacity to be independ diminishs.

2.5.3 Concepts of Elderly Care

Elderly care means assistance the elderly receive from persons living in the same community and outside. These care givers can be members in the family, kin, neighbors, etc. Assistance can be in visible forms such as food, cash, clothes, material objects, etc, or invisible such as encouragement, information, or recognition.

In this study, assistance from adult children, step and adopted children will be the focus.

2.5.4 Type of Support

Type of support can be separated into discrete categories. Kuroda (1992) classified type of support into three categories ; physical, social and economic ;

"Physical Support" is required only when an elderly person is sick and/or too frail and weak to attend to himself/herself. Such a function may be provided by the spouse or any member of the family, either with or without external support, at home, or in institutions if constant medical attention is required.

"Social Support" from the family comes through the conjugal relationship as well as through adult children, although the former is likely to be more important for men than women. This is because men of age 65 years and over are more likely to be married, usually to younger women, while elderly women are more likely to be widowed. Evidence from the 1984 Malaysian survey confirmed that elderly women were more likely to live in extended families of their children's while elderly men were staying in their own nuclear families (Arshat, Chang and Peng, 1989).

"Economic Support" comes from pensions or insurance schemes, which are likely to be provided to only a very small proportion of the elderly in most developing countries, and mainly to those living in the urban areas. For example, in Thailand it was estimated that in 1985, old age pensions, which covered government employees, state enterprise employees and private enterprise, only benefited about 7 percent of the elderly aged 60 and over, and mainly those living in urban areas (Kiranandana et al., 1988). In Korea, only 1.2 percent of the retired elderly (55 years and above) received

benefits from a retirement pension in 1990 (Ehn and Jung, 1991). This is also true of provident funds which cover only workers in the formal sector, and are paid out in a lump-sum upon retirement, and are usually inadequate. Most elderly persons therefore, work to advanced ages and depend almost entirely upon family support during their later years. This is common among Asian families (Concepcion, 1987). The care and support provided to parents are usually in form of shared housing, food and other necessities and, less often, in the form of direct transfers of income. Transfers, or remittances, are more likely to be made by children who live apart from their elderly parents (Kuroda, 1992).

Pramualratana (1990) found in his study in a rural community in Thailand that the types of support which were provided to the old could be categorized into three major headings ; active support, material support and social support. ***"Active Support"*** meant engaging in actual labour expending activities that provided assistance to the old. From this definition, active support necessitates the physical presence of the supporter. ***"Material Support"*** meant the provision of monetary and material goods. Similarly remittances by children to their parents were also considered as material support. ***"Social Support"*** was meant by an emotional feeling that one was being cared for. And a sense of belongingness within the household as with well as the wider community with a network of communication and obligation.

Hubbard et al. (1984) defined social support in 3 kinds : Physical, Emotional, and Social Support. ***Physical Support*** meant giving of money, material objects and labor. ***Emotional Support*** was indicated by receiving of love, warmth, care, bond, intimacy, trust, recognition, respect, acceptance and greetings. ***Social***

Support refered to recognition as a part of the society, social interaction and social belongingness.

House and Kahn (cited in Cronenwett,1984), classified social support in 4 types.

*1) **Emotional Support*** was indicated by sympathy, care, encouragement and bond *2) **Appraisal Support*** was regarded as acceptance of other's behavior and comparison with oneself. *3) **Information Support*** refered to the giving of information, warning, and advice. *4) **Instrumental Support*** was indicated by giving of materials, money, labor and time.

Type of support may be classified differently. In this study, it will be examined *as* three main kinds; financial support, instrumental support and emotional support. This restricted is because of limitations of the data used, and of the importance the elderly hold for the three types of support, especially financial support, which is viewed as the main source of comfortable life (Yodpetch et al., 1997 and 1998). Financial support refers to money for the elderly to cover their essential expenses and medical fees when they get ill. Instrumental support means giving food, clothes and material needs. Emotional support is defined as daily - life care, care when they are ill and occasional visits.

2.5.5 Components of Care

The important principle of social care deals with input and communication between the "receiver" and the "giver". Communication has to contain information which makes "the receiver" believe that they are given sincere attention, care, love, good wishes, and also recognition of worthiness. Other information should confirm to

the elderly that they are part of the society and can still contribute to the society. Input of support may come in forms of information, money, material objects or emotional support to help the "receiver" fulfill their different needs (Trakulwong, 1985).

2.5.6 Source of Support

Source of support refers to persons in the support system which can be classified into 2 main categories. The first is the group having bonds by nature and the second is professional care givers. The former includes direct family kin, which are spouses, grandparents, parents children, and indirectly, family's close friends such as friends, neighbors, colleagues, members of the same workplace or birthplace. The latter is professional workers whose occupation is to encourage, protect, maintain and rehabitate people's capacity (Niwatchai, 1984 cited in Yodpeth et al., 1997 and 1998).

Brown (1996) revealed similar findings with Mac (1978) that family was the most important institution to provide social support to the elderly, followed by kins, siblings, neighbors and the community, respectively. Adult children are the main source of support focused upon in this study.

2.5.7 Level of Support

Gottlieb (Yodpetch et al., 1997 and 1998) classified level of support into 3 levels, which are macro, mezzo and micro levels. ***Macro*** level meant consideration of social participation which could be measured by relationships with social institutions, social groups and ways of living. ***Mezzo*** level focused on structure and function of social network by specifically investigating persons the elderly have regular contacts with such as neighbors. Support at this level came in the form of advice, friendship, material and emotional support. ***Micro*** level was the relationship of the elderly with

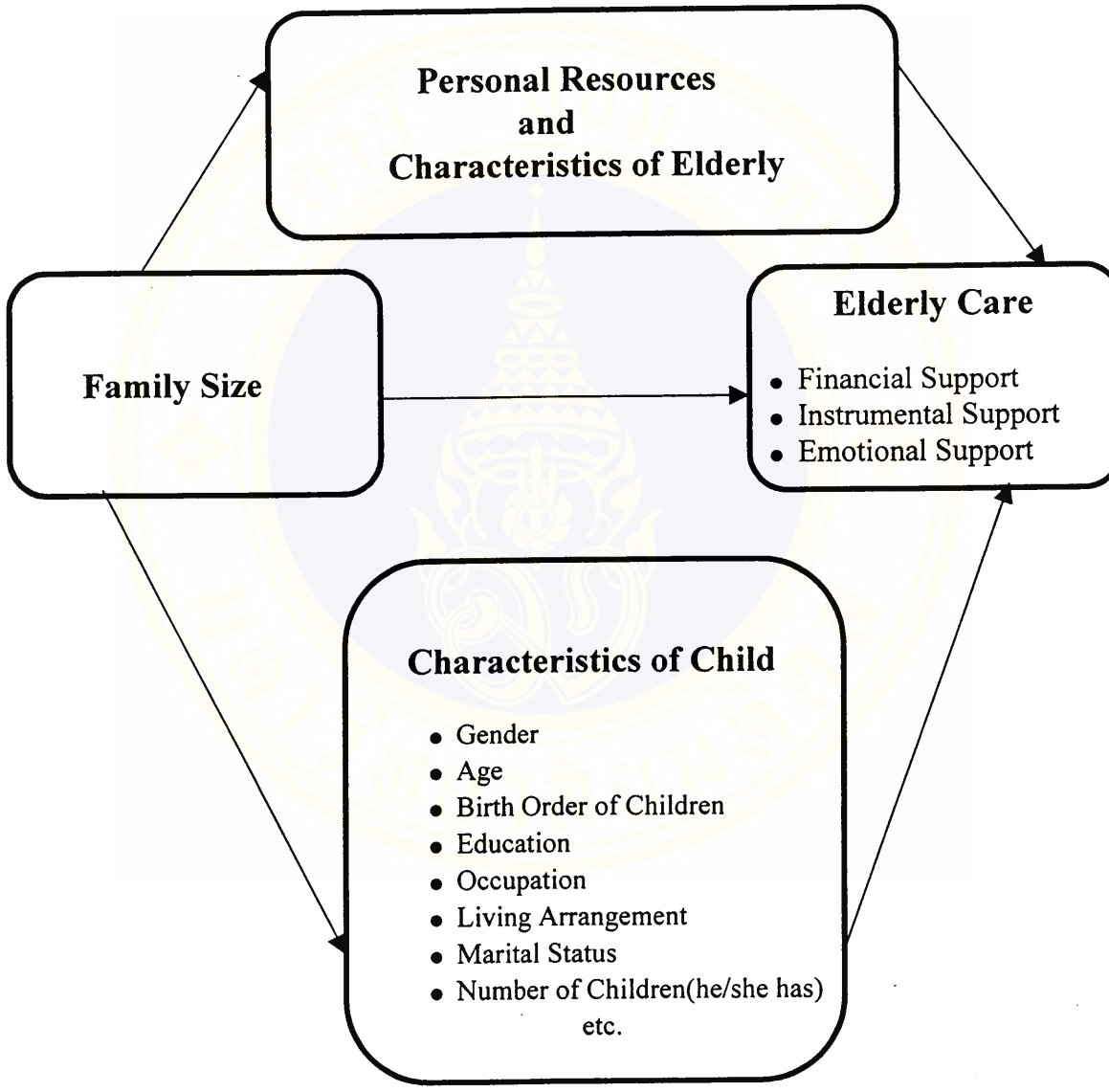
the closest person, such as spouse, child or family member. It was believed that this level of support was the best quality relationship as it brought the closest emotional understanding. In this study, only a micro level focus adult children will be undertaken.

2.5.8 Conceptual Framework

Reviews of several related ideas and studies suggest that the number of children the elderly have is likely to have effect on elderly care on several dimensions of support including financial, material support and visits. Living with children in the same household provides no guarantee that the elderly will receive care from their adult children. On the contrary, some aged parents have to give assistance to their adult children. Therefore, in the rapid changing socio-economic situation of Thailand, elderly care may depend on characteristics of both the elderly and their children. The adult children's age, gender, education, occupation, income, marital status, number of children of children and living with parents are assumed to effect the possibility for and quality of, elderly care. For the elderly themselves, receiving care may depend on their age, gender, education, present or former occupation, health condition, living with their spouse, properties they own, and their expectation and need for care.

Framework drawn from the mentioned concepts can be designed as follows:

Figure 2.1: Conceptual framework of factors influencing elderly care



CHAPTER 3

METHODOLOGY

3.1 Data Used in the Study

This study uses data from the 1995 survey of the Welfare of the Elderly in Thailand. This survey was jointly conducted by the Ministry of Public Health (MOPH), the Health Systems Research Institute (HSRI), and the Institute of Population Studies (IPS) of Chulalongkorn University. MOPH and HSRI were responsible for the implementation of the fieldwork while IPS provided technical assistance including training on how to conduct the interviews and administer the questionnaire and was in charge of office editing, coding, data entry, data cleaning and data processing (Chayovan and Knodel, 1997).

3.1.1 Sampling Design

The population in the survey covered persons aged 50 years and over who were usual residents in private households. The multi-stage sampling procedure was designed to yield a nationally and regionally representative sample with the 1990 census used as the sampling frame. At the time of the survey there were 72 provinces. The 72 provinces of Thailand were allocated to 13 strata as defined by administrative areas of the Ministry of Public Health. Twelve of strata have 5 or more provinces (range 5 to 7), the thirteenth stratum contains only Bangkok.

3.1.2 Sample Selection

Except for Bangkok, the sampling proceeded as follows: two provinces were selected systematically within each stratum for a total of 24 provinces, each selected province was divided according to administrative classification into municipal urban and non-municipal rural areas. For the urban areas, one block was selected systematically from all blocks. Within the selected block, 50 households containing a person 50 years or older, were selected from among all eligible households. From the rural areas within each selected province, two districts were systematically selected. Then within each selected district, three villages were systematically selected. In all, 144 villages were selected from 12 strata (see figure A1 in appendix). From listing of all eligible households were selected for the final sample, resulting in 250 households per sample province.

From Bangkok, 24 blocks within the city were selected randomly and the intention was to sample 50 households per block from among all eligible households. As described below this practice was effectively modified. The 48 blocks selected in Bangkok and the urban areas, and the 144 villages selected contained 19,200 households according to the 1990 census data. It was expected that these would yield approximately 8,000 households with at least one person 50 years or older. To facilitate the field work operations a pre-survey was conducted to update the household lists in the selected sample blocks and villages, and to identify the number and location of eligible household (those with at least one person 50 years and older).

In addition to selection of households there was the selection of an eligible person within the household. This was accomplished by a random selection in the

field, from a table supplied to interviewers. Interviewers were instructed to list everyone in an eligible household 50 years or older in order from oldest to youngest. A table was then entered based on the number of eligible respondents and the last digit of the household address. The cell entry of the table identified the line number of the person to be selected of interviewing.

3.1.3 Questionnaire

The survey involved two types of questionnaire: household and individual. The household questionnaire was used to list all usual members of the household. For each of the individuals listed in the household, information was collected on the relationship to household head, gender, age and birth year, marital status, duration of stay in the present residence, education, and work. Information from the household questionnaire was used to identify the eligible respondents for the individual interview. To be eligible, the respondent had to be 50 years old or over and a usual resident of the sampled household. For households with more than one eligible respondent, only one randomly selected respondent per household was interviewed.

The individual questionnaire was administered to the selected eligible respondents (aged 50 years and over) present in the interviewed household. The information collected included background characteristics of the respondents, the respondents' spouse, children, their own parents and spouse's parents, work/ employment, economic conditions, kin network, exchange of support, health, and knowledge and attitudes about elderly issues.

Within the interviewed households, 7920 eligible respondents were identified and selected for an individual interview, of which 7,713 persons were successfully interviewed. Most respondents provided interviews by themselves.

3.2 Unit of Analysis

In this study the unit of analysis is the child whose father or mother has reached age 60 to 79. The sample covers 20,067 children aged 15-59. Variables are selected from the individual interview questionnaire to analyze their effect on elderly care. These variables are socio-economic and demographic characteristics of the children and their aged parents, support for financial and material needs and visits undertaken to aged parents. A new data file was constructed by merging selected characteristics of each child and characteristics of his or her elderly parents.

3.3 Variables Used in the Study

Variables expected to have effect on elderly care were selected from the individual interview questionnaire. These variables included characteristics of children and their aged parents.

3.3.1 Independent Variables are characteristics of children and the elderly.

3.3.1.1 Number of Siblings

3.3.1.2 Characteristics of Children

- ***Gender*** *(male/female)*
- ***Age*** *(in full years)*
- ***Marital Status*** *(married /single, widowed, separated, divorced)*
- ***Birth Order of Children***

- ***Number of Children They Have***
- ***Education*** *(number of full years in school)*
- ***Occupation*** *(professional, administrative and related worker / commercial / agriculture / labour or service / no occupation)*
- ***Living Arrangement*** *(same house / next to each other / in the same village / same province / elsewhere or different province)*

3.3.1.3 Characteristics of the Elderly

- ***Gender*** *(male/female)*
- ***Age*** *(in full year)*
- ***Marital Status*** *(married / widowed, separated, divorced)*
- ***Education*** *(number of full years in school)*
- ***Main Job/Last Job*** *(agriculture /non-agriculture / no occupation)*
- ***Working Status*** *(own account or family workers /employed in private or government sector/ no occupation)*
- ***Health Status*** *(independent / dependent)*
- ***Age of Spouse*** *(in full year)*
- ***Education of Spouse*** *(number of full years in school)*
- ***Main Job/Last Job*** *(agriculture /non-agriculture / no occupation)*
- ***Working Status of Spouse****(own account or family workers /employed in private or government sector/ no occupation)*
- ***Income of the Elderly and Spouse in the Past Year*** *(<5,000 / 5,000 -19,999 / 20,000 - 49,999 / 50,000+)*

- ***Main Source of Income of Household*** *(own work, own money, dividends, pension, lump sum retirement pay, spouse/ children / relatives, others)*
- ***Responsibility for Household Expenses*** *(myself, spouse, myself and spouse / children / relatives, others)*
- ***Ownership of House*** *(self-owner, spouse, both /children/others)*
- ***Ownership of Land*** *(self-owner, spouse, both/children/others)*
- ***Savings, Loans Owned*** *(self-owner, spouse, both / do not have)*
- ***Property or Inheritances*** *(self-owner, spouse, both / do not have)*

3.3.1.4 Residential Areas *(urban / rural)*

3.3.1.5 Regions *(North/ Northeast/ Center/ South/ Bangkok)*

3.3.2 Dependent Variable

- ***Elderly Care*** *(financial support, instrumental support and emotional support)*

3.4 Definitions

3.4.1 ***Elderly*** means male and female population aged 60 to 79.

3.4.2 ***Family Size*** means number of siblings of children and themselves.

3.4.3 ***Number of Siblings*** is measured as the total number of living children the elderly have, including step and adopted children aged 15-59. In order to explore the association between the family size and the support provided to the elderly parents, the number of siblings are divided into three groups: children with a small number of siblings (elderly parents with ≤ 3 adult children), children with a medium number of

siblings (4-6 adult children), and children with a large number of siblings (≥7 adult children).

3.4.4 ***Dependent Elderly*** refers to the elderly who can not eat, walk, dress, bathe, and use toilet facilities by her/himself.

3.4.5 Independent Elderly refers to the elderly who can eat, walk, dress, bathe, and use toilet facilities by her/himself.

3.4.6 ***Elderly Care*** is defined as assistance provided to persons aged 60 and over in the past year in 3 main types : financial support, instrumental support and emotional support

3.4.6.1 ***Financial Support*** is the money children provided to elderly parents in the past year. In bivariate analysis financial support was divided into three groups according to the questionnaire: adult children who provide more than 1,000 baht, 1,000 baht and less, and adult children who do not provide any financial support. In order to estimate the net effect of each variable on the financial support given to the elderly, for the multivariate analysis financial support was divided into two groups : provided support and provided no support to the elderly.

3.4.6.2 ***Instrumental Support*** is essential materials such as food, clothes and consumer products, that may be given to elderly on occasions or when children come for a visit. To investigate the association between the family size and the instrumental support provided to the elderly parents, six patterns of support have been created: support given daily, weekly, monthly, 1-3 times a year, no support and share the same house as their elderly parents. For multivariate analysis, the six patterns were regrouped into four groups: children who provided instrumental support to their

elderly parents >1-3 times a year, with an inclusion of providing support every day, every week and every month into this group; children who in the past year never provided the instrumental support to their elderly parents at all; children who shared the same house as their elderly parents; and children who provided instrumental support to their elderly parents 1-3 times a year.

The reason for including children who shared the same house as their elderly parents into the analysis is to delete the selective bias. The result from the National Survey on the Elderly in Thailand in 1994 indicated that children who shared the same house as their elderly parents had a high level of providing support to their elderly parents (National Statistics Office, 1997). More than 80 percent of children who lived in the same house as their elderly parents in the past year prior to the survey provided food to their elderly parent (81.1 percent for elderly father and 86.2 percent for elderly mother) and about 50 to 60 percent provided clothes to their elderly parents (50.1 percent for elderly father and 58.6 percent for elderly mother). Moreover, it was found that about 86 and 88 percent of children who lived in the same house as their elderly parents had supported their elderly parents by taking care in daily life (86.5 percent for elderly father and 88.1 percent for elderly mother). When their parents got sick about 93.5 percent of children who shared the same house as their elderly parents took care of elderly father and 94.5percent took care of elderly mother. So it was assumed in the study that children who shared the same house as their elderly parents provided both physical and emotional supports to their elderly parent on a daily basis.

3.4.6.3 ***Emotional Support***, in general, is hard to measure since it involves the mental realm and individual sentiments. However, this study used emotional support demonstrated through **"visits"** to reflect the attention and care on the part of children that they provide for their elderly parents. In bivariate analysis, the pattern of visits paid to the elderly parents was divided into 6 groups. These 6 groups are as follows: visited their elderly parents every day, every week, every month, 1-3 times a year, not visited their elderly parents at all in the past year, and shared the same house as their elderly parents. For multivariate analysis, these 6 groups of visits children paid to their elderly parents was regrouped into four new categories as follows: children who visited their elderly parents > 3 times a year (with an inclusion of paying visit every day, every week and every month into this group); children who did not visit their elderly parents at all in the past year; children who shared the same house as their elderly parents; and children who visited their parents 1-3 times in the year before the survey. The reason for including children who shared the same house as their elderly parents into the analysis is same as for the instrumental support that is most children who shared the same house as their elderly parents provided both physical and emotional supports to their elderly parent on a daily basis.

3.5 Data Analysis

3.5.1 Descriptive analysis was undertaken of general socio - economic and demographic characteristics of both children and the elderly, property owned by the elderly and elderly care in financial, instrumental and emotional support. Descriptive statistics such as percentage and mean are utilized in this part of the analysis.

3.5.2 Detailed analysis is undertaken on the relationship of family size and elderly care and factors relating to characteristics of children and the elderly. Variables used in the analysis are primarily measured at the nominal level. Therefore initial analysis uses cross-tabulations. Based on the results of cross-tabulations, logistic regression and multinomial logistic regression is utilized. Since the dependent variable in this study is dichotomous, the results are presented as odds ratios.

3.6 Limitations of the Study

The study used secondary data for analysis. It is limited by the scope of the questionnaire. Therefore, some variables that, based on theoretical models, should be included are not available. Secondly, the variable of frequency of providing financial support was asked in a different way from frequency of providing instrumental and emotional support. The frequency for providing financial support had only three choices for answer while the other two areas of support allowed for seven choices. Therefore the three variables could not be grouped together to provide a measure of overall support provided by children to their elderly parents.

CHAPTER 4

CHARACTERISTICS OF POPULATION STUDIED

As mentioned in chapter 3, the study focuses on children with parents aged 60 to 79 and consists of 20,067 children aged 15 to 59. The reason for selecting children in this age group was because they are at an independent age and hence they can help support their families. As for the elderly in this age group, they are able to answer questions by own without assistance from others. This chapter will describe general demographic and socio-economic characteristics of the population studied. The general characteristics of adult children and their elderly parents will be discussed at the national and at the urban and rural levels, and the patterns of care in term of money, essential materials in everyday life and visits will be discussed later.

4.1 Demographic and Socio-Economic Characteristics of Children

The result of the study from 20,067 adult children shows that female children slightly outnumber male children (table 1). The majority of the adult children are of working age (aged 30-39). About one–third of children have established or aged 40-59, while one-fourth are still dependent on their parents or others and have just started to establish themselves.

Two–thirds of the adult children studied are of birth order three or higher. The rest are the first and second birth order in the family. Three–fourths of them are married, especially those whose elderly parents living in rural areas. One–fifth are

single, and only about 5 percent are divorced. Therefore only 23.4 percent are not currently married (table 1). However, there were more single, divorced and separated adult children whose elderly parents lived in the urban areas than those in the rural areas. The family size of the elderly' s adult children by own is small with an average of 2 children, with 2.03 for adult children whose elderly parents lived in urban areas and 2.13 for those whose elderly parents lived in rural areas. This is the result of the population policy in Thailand that since 1960s has helped reduce Thai population growth rates from 3 percent per year to about 1 percent in the current year, and this has led to the newly adopted value of having a small family size in Thailand in the past thirty to forty years.

Table 1: Percentage distribution of characteristics of children by area of residence of elderly.

Characteristics of Children	Total	Urban	Rural
Sex of Children			
Male	49.2	48.5	49.4
Female	50.8	51.5	50.6
Total	100	100	100
(N)	(20,067)	(4,873)	(15,194)
Age of Children			
<30	24.5	20.3	25.9
30-39	44.1	45.2	43.7
40-59	31.4	34.5	30.4
Total	100	100	100
(N)	(20,067)	(4,873)	(15,194)
Mean	**35.41**	**36.2**	**35.15**
Birth Order of Children			
1st	18.6	20.1	18.2
2nd	17.7	18.9	17.4
3rd +	63.6	61.0	64.5
Total	100	100	100
(N)	(20,067)	(4,873)	(15,194)
Mean	**3.76**	**3.62**	**3.81**

Table 1: (Continued)

Characteristics of Children	Total	Urban	Rural
Marital Status of Children			
Married	76.6	67.3	79.6
Single/Separated/Widowed/Divorced	23.4	32.7	20.4
Total	100	100	100
(N)	(20,054)	(4,867)	(15,187)
No. of Children They Have			
0	9.6	11.7	9.0
1	24.1	24.4	24.0
2	35.8	34.7	36.1
3+	30.6	29.2	31.0
Total	100	100	100
(N)	(16,201)	(3,505)	(12,696)
Mean	**2.11**	**2.03**	**2.13**
Education of Children			
≤ Prathom 4 (Early Primary School)	55.1	29.3	63.3
Prathom 5-7 (Late Primary School)	15.7	11.5	17.1
Mattayom (Secondary School)	17.7	31.6	13.2
University	11.5	27.6	6.3
Total	100	100	100
(N)	(19,935)	(4,800)	(15,135)
Mean	**7.57**	**11.38**	**6.36**
Occupation of Children			
Professional	17.6	33.0	12.7
Commercial	11.1	22.2	7.6
Agriculture	37.8	4.4	48.5
Labour	23.8	25.3	23.3
No Occupation	9.7	15.2	7.9
Total	100	100	100
(N)	(19,912)	(4,821)	(15,091)
Living Arrangement of Children			
Same House as Elderly Parents	21.2	30.9	18.1
Close House as Elderly Parents	9.6	6.2	10.7
Same Village as Elderly Parents	16.4	8.7	18.9
Same Province as Elderly Parents	21.6	26.5	20.0
Other Provinces as Elderly Parents	31.2	27.7	32.3
Total	100	100	100
(N)	(20,060)	(4,870)	(15,190)

In addition, it was found that most of the adult children studied had a low level of education, only 4 years of schooling or less (table 1). Two–thirds of the adult

children whose elderly parents lived in the rural areas had four or less years of schooling while one–third of the adult children whose elderly parents lived in the urban area had a secondary level. However, it is interesting that one–third of the adult children whose elderly parents lived in the urban area had a college education or had completely university. On average, the adult children spent 7 years in school. Adult children whose elderly parents lived in urban areas spent an additional 11 years in school compared to those whose elderly parents lived in the rural.

In the past year, 37.8 percent of the adult children worked as farmers or worked in agriculture related occupation. For those whose elderly parents lived in the rural areas, nearly 50 percent were farmers and the second largest occupational group was unskilled labor. The rest, or 30 percent, were in the academic and business fields, constituting almost half of the adult children whose elderly parents lived in the urban areas. About 10 percent of all adult children studied were students, or were jobless or had not worked in the past year, most of whom had elderly parents were in the urban areas.

Regarding the living arrangements of adult children, one–third of the adult children do not live in the same province as their elderly parents. Only one–fifth of them live in the same house as their elderly parents and another one–fifth live in the same province. The rest live in the same village and the same area as their elderly parents, but in a different house. It was also found that those whose elderly parents lived in the urban areas, a higher proportion of adult children lived with their elderly parents, while in the rural areas a higher proportion of adult children lived in a different province from their parents.

4.2 Demographic and Socio–Economic Characteristics of the Elderly

It was found that the age of most of the elderly (about 70 percent) ranged from 60–69 years (table 2). The female elderly outnumbered the male elderly. More than half of the adult children studied had both parents alive, 47 percent of the adult children studied had only one parent. The other parent may have died or could be separated or divorced. This situation can be seen more in the case of elderly parents lived in the urban areas where the majority are female. The reason the female elderly outnumber the male elderly is because female life expectancy is 3–4 years longer than that of the males (National Statistical Office, 1998; Institute for Population and Social Research, 1999).

More than half of the elderly had 4 children or more (table 2). Only 10 percent of the elderly had 3 or fewer children. On average, the elderly parents of the population studied had 6.58 children. The average number of children of elderly parents in urban areas was 6.27 and was 6.68 in rural areas.

Most of the elderly studied had 4 years of schooling or finished primary school and were farmers (table 2). About 81 percent of the elderly living in the rural areas were farmers while in the urban areas only 16 percent had an agricultural occupation. About 84 percent of all the elderly in the urban areas had jobs outside of the agricultural sector. Approximately 81 percent worked in businesses that were family owned or owned by their spouse or themselves, rather than by the state, the government or the private sector.

Only five percent of the adult children have elderly parents who are dependent on help for activities that included getting around the house, eating, putting

on their clothes, and using the bathroom (table 2). Some elderly depend on care to help them with more than one activity and some are totally dependent on their family or their children. The elderly who needed care were more likely to be found more in the urban than in the rural areas.

Table 2: Percentage distribution of characteristics of elderly by area of residence.

Characteristic of Elderly	Total	Urban	Rural
Sex of Elderly			
Male	41.5	37.1	43.0
Female	58.5	62.9	57.0
Total	100	100	100
(N)	(20,067)	(4,873)	(15,194)
Age of Elderly			
60-69	70.1	68.1	70.8
70-79	29.9	31.9	29.2
Total	100	100	100
(N)	(20,067)	(4,873)	(15,194)
Mean	**67.30**	**67.64**	**67.20**
No. of Children of Elderly			
≤ 3	10.2	13.8	9.0
4-6	39.8	42.5	39.0
7+	50.0	43.6	52.0
Total	100	100	100
(N)	(20,067)	(4,873)	(15,194)
Mean	**6.58**	**6.27**	**6.68**
Marital Status of Elderly			
Married	53.3	44.6	56.1
Widowed/Divorced/Separated	46.7	55.4	43.9
Total	100	100	100
(N)	(20,067)	(4,866)	(15,191)
Education of Elderly			
≤ Prathom 4	43.8	42.7	44.1
Prathom 4+	56.2	57.3	55.9
Total	100	100	100
(N)	(20,002)	(4,816)	(15,186)
Mean	**3.10**	**4.00**	**2.82**
Main/Last Occupation of Elderly			
Non-Agriculture	34.6	84.1	18.8
Agriculture	65.4	15.9	81.2
Total	100	100	100
(N)	(20,051)	(4,862)	(15,189)

Table 2: (Continued)

Characteristic of Elderly	Total	Urban	Rural
Work Status of Main/Last Occupation of Elderly			
Self/Spouse/Self & Spouse/Family	81.3	68.3	85.4
Private/Government Sector	16.3	24.3	13.7
No Occupation	2.5	7.4	0.9
Total	100	100	100
(N)	(20,051)	(4,862)	(15,189)
Health Status of Elderly			
Dependent	5.0	7.2	4.4
Independent	95.0	92.8	95.6
Total	100	100	100
(N)	(20,067)	(4,873)	(15,194)

Adult children with both parents still living are most likely to have parents aged 60–69. That is to say, the age gap between them is small (table 3). Nearly one-sixth of the adult children have parents whose spouse' s age does not exceed 60 and another nearly one-sixth were older than 70 years. Most of the adult children (around one–third) have parents whose spouses had 4 years of education or more. About one-fourth of the adult children have parents whose spouses had an agricultural occupation, especially in the rural areas where they constituted one–third of the number of the spouses. Only 3.4 percent of the spouses of the elderly in the urban areas had this occupation, while about one- fifth worked in non-agricultural occupation. Most of the working spouses of elderly parents were self–employed and not employed by the state or private sectors. One–fourth of the adult children have elderly parents whose spouses were not employed. This may be because of their old age or because they received financial support from their families.

Table 3: Percentage distribution of characteristics of elderly' s spouse by area of residence of elderly

Characteristic of Elderly' s Spouse	Total	Urban	Rural
Age of Elderly' s Spouse			
<60	14.8	13.0	15.4
60-69	28.3	25.1	29.3
70+	13.5	12.2	13.9
No Spouse	43.5	49.7	41.5
Total	100	100	100
(N)	(20,055)	(4,873)	(15,182)
Mean	**63.94**	**63.85**	**63.96**
Education of Elderly' s Spouse			
< Prathom 4	21.0	17.0	22.3
≥ Prathom 4	35.5	33.8	36.0
No Spouse	43.5	49.2	41.7
Total	100	100	100
(N)	(19,862)	(4,725)	(15,137)
Mean	**3.56**	**4.74**	**3.19**
Occupation of Elderly' s Spouse			
Non-Agriculture	9.5	20.2	6.1
Agriculture	23.5	3.4	29.9
No Occupation	25.8	29.6	24.5
No Spouse	41.2	46.7	39.4
Total	100	100	100
(N)	(20,032)	(4,861)	(15,171)
Work Status of Elderly' s Spouse			
Spouse/Self/Spouse & Self/Family	27.6	18.1	27.6
Private/Government Sector	3.9	3.6	3.9
No Occupation	25.1	28.6	25.1
No Spouse	43.5	49.7	41.5
Total	100	100	100
(N)	(20,067)	(4,873)	(15,194)

Half of the adult children had elderly parents who received no income, or had a total income less than 5,000 baht in the past year. This was most noticeable in the urban areas (table 4). Adult children whose elderly parents made 20,000 baht or more constituted only one–fourth of the sample, with one–third in the urban areas and one–fourth in the rural areas.

Table 4 : Percentage distribution of economic status of elderly by area of residence.

Economic Status of Elderly	Total	Urban	Rural
Total Income of Elderly & Spouse			
No Income/<5,000	51.1	56.1	49.5
5,000 - 19,999	21.3	11.6	24.5
20,000 - 49,999	16.3	13.4	17.3
50,000+	11.3	18.9	8.8
Total	100	100	100
(N)	(20,067)	(4,873)	(15,194)
Main Source of Income			
Own Work/Own Saving/ Interest/Pension/Lump Sum/ Spouse	38.9	35.9	39.8
Child	53.7	59.4	51.9
Other	7.4	4.7	8.3
Total	100	100	100
(N)	(20,050)	(4,862)	(15,188)
Who Takes Care of Household Expense			
Self/Spouse/Self & Spouse	49.1	40.4	51.9
Child	45.0	52.9	42.5
Other	5.9	6.7	5.6
Total	100	100	100
(N)	(20,034)	(4,854)	(15,180)

When asked about the main source of income of household, it was found that more than half of the elderly parents had main source of income came from their children (table 4). This was the case of nearly 60 percent of the elderly parents living in the urban areas. It was also found that nearly 40 percent of the adult children have elderly parents who had a source of income from pension or retirement benefits and other savings. When asked about who take cares of household expenses, it was found that most elderly parents, or spouses of the elderly parents, or both elderly parents and their spouses, take care of household expenses (table 4).

In rural areas, the elderly parents and their spouses were more burdened with household expenses than were those living in urban areas. About 45 percent of

adult children had the responsibility for household expenses, and this proportion was higher in the urban areas. Only 6 percent of the responds said that household expenses were shared by others, and the percentage of other people sharing the cost of household expenses in urban areas was to a small degree higher than those in the rural areas.

It was found that 70 to 80 percent of the adult children said that their elderly parents or the spouse of their elderly parents or their elderly parents and their spouses (table 5) own the house and land they live in. In the rural areas especially 88.9

Table 5: Percentage distribution of properties of elderly by area of residence.

Properties of Elderly	Total	Urban	Rural
Owner of House They Live in			
Self/Spouse/Self & Spouse	80.1	52.3	88.9
Child	11.9	20.2	9.2
Others	8.1	27.5	1.8
Total	100	100	100
(N)	(20,056)	(4,862)	(15,194)
Owner of Land They Live in			
Self/Spouse/Self & Spouse	70.3	45.5	76.3
Child	12.1	20.0	10.2
Others	17.6	34.4	13.5
Total	100	100	100
(N)	(18,803)	(3,686)	(15,117)
Property (Own House)			
Own Name/Spouse Name/Joined Name	82.2	58.6	89.8
No	17.8	41.4	10.2
Total	100	100	100
(N)	(20,052)	(4,862)	(15,190)
Property (Own Land)			
Own Name/Spouse Name/Joined Name	73.7	45.5	82.8
No	26.3	54.5	17.2
Total	100	100	100
(N)	(20,052)	(4,862)	(15,190)
Property (Have Saving)			
Own Name/Spouse Name/Joined Name	34.0	41.9	31.5
No	66.0	58.1	68.5
Total	100	100	100
(N)	(20,041)	(4,857)	(15,184)

percent of the elderly parents own the house they live in and 76.3 percent of these elderly parents own the land on which their houses are built. In the urban areas, however, only 52.3 percent of the elderly parents own only their house while 45.5 percent own the land as well. There was only 12 percent of the children who owned the house and the land. Regarding assets of the elderly parents, such as land, house, savings or shares, it was found that about 70 to 80 percent of the adult children said their elderly parents or spouses of their elderly parents, or both elderly parents and their spouses, have their own house and land. However, only one–third of the elderly parents have assets such as saving and shares. About 42 percent of the elderly parents in the urban areas have savings and shares while 32 percent of the elderly parents in the rural areas have these types of assets.

4.3 Types of Elderly Care

This study will discuss only 3 types of elderly care: financial, instrumental and emotional support.

The data collected for this study reveals 3 main types of elderly care. Regarding financial support given by adult children, it was found that not all adult children gave money. Only 62.6 percent of the adult children gave money to their elderly parents (table 6). The amounts of money which they gave was around 1,000 baht, some gave 1,000 baht to their elderly parents, some gave more than 1,000 baht, and some gave less than 1,000 baht. Adult children whose elderly parents lived in urban areas give a more money than the adult children whose elderly parents lived in rural areas, with most of the adult children whose elderly parents lived in urban areas giving more than 1,000 baht to their elderly parents. However, on the average 37

percent of the adult children did not provide financial support to their elderly parents in the past year. The number of adult children who did not provide money to their elderly parents in the past year was greater for those whose elderly parents lived in the rural areas than those whose elderly parents lived in urban areas.

Table 6: Percentage distribution of children giving money to elderly parents in the past year.

Pattern of Care	Total	Urban	Rural
Give Money to Elderly			
Give>1,000	39.4	53.6	34.8
Give 1,000/<10,000	23.2	11.3	27.0
Never Give	37.4	35.2	38.2
Total	100	100	100
(N)	(19,944)	(4,838)	(15,106)

With regard to instrumental assistance (table 7), it was found that 57.2 percent of the adult children gave instrumental support in several forms with different frequency; daily, weekly, monthly and occasionally 1–3 times a year. Most adult

Table 7: Percentage distribution of children provided food /clothes to elderly parents in the past year.

Pattern of Care	Total	Urban	Rural
Give Food/Clothes to Elderly			
Daily	4.8	3.3	5.3
Weekly	8.5	7.8	8.7
Monthly	12.1	12.8	11.9
1-3 Times/Year	31.8	25.2	33.9
Never	21.5	19.9	22.0
Same House	21.3	31.0	18.1
Total	100	100	100
(N)	(20,022)	(4,861)	(15,161)

children whose elderly parents lived in urban and rural areas gave instrumental support 1–3 times a year, although a higher proportion of adult children in the rural areas provided this frequency of support. This was probably due to the fact that adult children in rural areas are less likely to share the house with their parents because they have to migrate to other places to find work or look for a job. On the other hand, most adult children in the urban areas live in the same house with their parents. However, about one–fifth of the adult children in both urban and rural areas did not provide instrumental support to their parents.

For emotional support (table 8), it was found that about two–third or 71.9 percent of the adult children pay their parents visits at frequencies that are similar to the pattern found for instrumental support. Some visit their elderly parents on a daily, weekly, monthly and yearly basis or 1–3 times a year. But most adult children in urban and rural areas visit their parents at least 1–3 times a year. Adult children whose elderly parents lived in the rural areas paid their parents more visits than those whose elderly parents living in the urban areas, probably due to migration (as discussed in the case

Table 8: Percentage distribution of children paid visit to elderly parents in the past year.

Pattern of Care	Total	Urban	Rural
Visit Elderly			
Daily	21.8	14.4	24.2
Weekly	9.5	10.3	9.2
Monthly	13.8	15.4	13.3
1-3 Times/Year	26.8	22.4	28.3
Never	6.7	6.3	6.8
Same House	21.3	31.2	18.2
Total	100	100	100
(N)	(19,949)	(4,823)	(15,124)

of instrumental support). Only 6–7 percent of the adult children whose elderly parents lived in urban and rural areas never did not paid a visit to their elderly parents in the past year.

CHAPTER 5

FINANCIAL SUPPORT FOR THE ELDERLY

There are variations among people in the conception of the value of money. Some place great importance to money, some people do not think money is important. However, money can be regarded as one of the basic essentials of life, being necessary for shelter, clothes, food and medicine. In general, the elderly need financial assistance from their adult children for living expenses and for maintaining their good health or for when they become dependent due to illness.

Some studies of the elderly in Thailand (Yodpetch et al., 1997 and 1998) have found that the elderly feel relaxed and secure and not neglected when they have some money to spend on the things they need every month. Though a small amount, this money assists the elderly feel happy because most elderly suffer from health problems. Even though in Thailand, some elderly have health card for free health services in all Public Health Ministry Hospitals, most dislike using it (Kumnuansilapa et al.,1999). They believe that free medical care is of low quality. They like to pay when they are sick and go to hospitals. However, based on the belief that money is necessary for the elderly in everyday life, in this study financial support from adult children was included as one of the important factors contributing to the care of the elderly.

It should be borne in mind that in general Thai adult children provide their elderly parents with financial support. In this study 62.6 percent of adult children

provide various degree of financial support to their elderly parents, however, there was a significant proportion of adult children who provided no financial support to their elderly parents.

5.1 The Relationship between the Number of Siblings and the Pattern of Financial Support Given to the Elderly Parents

Before 1970, family size in Thailand was large, with an average number of children in a family of about six (Punpuing and Guest,1996; Guest,1995; The Government of Thailand, 1994; Knodel, Chamratrithirong and Debavalaya,1987; National Statistical Office,1960). Because of infectious diseases, many children died at a young age and because of the need for labour for working in the field and the need for security in old age of parents, most Thai families had a large number of children. At that time the population growth rate was about 3 percent per year (Punpuing and Guest,1996; Knodel, Chamratrithirong and Debavalaya, 1987).

The pressure of high population growth rate was recognized as a major cause of the country's developmental problems. Population increase was a barrier to improving the standard of living and to increasing the nation's gross domestic product. In 1970, a policy of reducing the population growth rate in Thailand was adopted. Family planning was the main strategy to reduce the population growth rate, particularly in terms of the provision of subsidized contraceptive services (The Government of Thailand, 1994). In the last two decades, the National Family Planning Program in Thailand has been very successful. The population growth rate has been reduced to about 1 percent per year (Institute for Population and Social Research, 2000; Guest, 1995). Family size in Thailand has been small. The average

number of children in a family is about 2 (Institute for Population and Social Research, 2000; Guest,1995). The smaller family size has affected the age structure of population in Thailand, decreasing the number and proportion in the young age group and increasing the number and proportion in the old age group. This has created concern about whether the decline in family size will affect elderly care. **The aim of the analyses in this chapter is examine the association between the number of siblings the children had and care of aged parents.**

The number of siblings are divided into three groups: children with a small number of siblings (elderly parents with ≤ 3 adult children), children with a medium number of siblings (elderly parents with 4–6 adult children), and children with a large number of siblings (elderly parents with ≥7 adult children). The study also divides adult children into three groups according to the amount of financial support they give their parents: adult children who provide more than 1,000 baht, 1,000 baht and less, and adult children who do not provide any financial support.

The results show that there is a substantial difference between adult children with a small and a large numbers of siblings (table 9). In the past year, adult children with a small number of siblings were more likely to give financial support to their elderly parents of an amount of 1,000 baht or more (46 percent) compared to adult children with a large number of siblings (35.6 percent). This is consistent with the hypothesis proposed in Chapter 2 where it was stated there would be difference between the two groups of the adult children with a small and a large numbers of siblings in terms of support to their elderly parents. **However, it should also be noted that there was small variation among categories in terms of those not providing financial assistance. While those adult children with a smaller**

number of siblings gave more money than adult children with a larger number of siblings, this was compensated for by the opposite relationship in the category 1-1,000 Baht.

Table 9: Percentage distribution of children providing money to elderly parents in the past year by number of siblings of children and area of residence of elderly.

No. of Siblings	Give >1,000	Give 1,000/ <1,000	Never Give	Total
Whole Kingdom				
≤ 3	46.0	19.0	35.0	100(2,015)
4-6	42.4	21.6	36.0	100(7,950)
7+	35.6	25.3	39.1	100(9,979)
	χ^2 = 134.802, Sig. = .000			
Urban				
≤ 3	56.0	7.6	36.4	100 (662)
4-6	55.2	10.8	34.0	100(2,060)
7+	51.2	12.9	35.9	100(2,116)
	χ^2 = 18.844, Sig. = .001			
Rural				
≤ 3	41.1	24.5	34.4	100(1,353)
4-6	37.9	25.4	36.7	100(5,890)
7+	31.4	28.6	40.0	100(7,863)
	χ^2 = 89.334, Sig. = .000			

The difference between the pattern of financial support of the two groups may be explained in terms of socio-economic variation. The group with a small number of siblings might have better education, have higher status occupations and more income than the group with a large number of siblings. In this stage of study other related factors that might affect financial support from the adult children to the elderly, such as their place of residence, their living arrangements, characteristics of

the children, such as age, gender, birth order, education, occupation, income, marital status etc., and characteristics of the elderly parents such as age, health status, income, property of the elderly etc. are not controlled.

Another reason may be psychological. Adult children with a small number of siblings might feel more responsible for their aged parents because they cannot depend on their other siblings to provide care, as in the case of the adult children with a large number of siblings. Adult children with a large number of siblings might feel that their siblings have provided help to their aged parents already, so there is no need for them to do so. They might feel that only a little help is sufficient because it is enough to maintain love, respect and ties between themselves and their parents.

5.1.1 Area of Residence and the Pattern of Financial Support

Factors expected to affect adult children' s financial support of their aged parents are controlled in this chapter. One of these factors is area of residence of the elderly. The likelihood of financial support provided by the adult children may be different by place of residence of elderly. For example, elderly who lives in an urban area is different from elderly who lives in a rural area in their socio–economic background, occupation, income etc. **After area of residence of the elderly is controlled it is found that the effect of family size on support for elderly parents is strongest in the urban area** (table 9). There is very little difference in the urban areas between the two groups of the adult children in terms of providing financial assistance to their parents. This suggests that in the urban areas no matter what size of family the elderly have, children were equally likely to provide financial assistance. However, in the rural areas there was a significant difference in the likelihood of support given by the two groups of the adult children. Adult children with a large

number of siblings are less likely to be able to support their elderly parents. **It should be noted that while adult children whose elderly parents lived in urban areas, compared to adult children whose elderly parents lived in rural areas, provide a greater amount of financial assistance to their aged parents, there is little difference by place of residence in the likelihood of providing assistance.**

5.1.2 Region of Residence and the Pattern of Financial Support

Region was also controlled to determine if region of residence plays any role in differentiating the type of support given by adult children. The underlying rationale of this is based on the fact that each region of the country has its own customs, traditions and values. The culture and values of each region might influence children's attitudes towards elderly care. After region of the elderly was controlled, it was found that there was a large and significant difference in the pattern of financial support given to elderly parents by the adult children with both a small and a large numbers of siblings whose elderly parents lived in the three regions, the central, the north and the northeast (table 10). In the central and northeastern regions the situation was similar to the pattern of assistance for the whole country. In the northern region it was found that although there was also a difference by family size in the financial assistance given to the elderly parents, the pattern of assistance was different. While adult children with a small number of siblings are more likely to give more money to their elderly parents, there is little difference among adult children from different size groups in the level not providing money to their parents.

However, the picture of assistance to parents in Bangkok Metropolis and the South is different from other regions. No significant difference in the pattern of support was found between adult children with a small and a large numbers of

Table 10: Percentage distribution of children providing money to elderly parents in the past year by number of siblings of children and region of residence of elderly.

No. of Siblings	Give >1,000	Give 1,000/ <1,000	Never Give	Total
North				
≤ 3	42.5	25.7	31.8	100 (513)
4-6	38.0	28.6	33.4	100(1,817)
7+	34.4	31.3	34.3	100(1,948)
	χ^2 = 14.207, Sig. = .007			
Northeast				
≤ 3	41.6	27.4	31.0	100 (361)
4-6	36.2	26.9	36.9	100(1,644)
7+	29.4	29.9	40.7	100(2,923)
	χ^2 = 38.194, Sig. = .000			
Central				
≤ 3	50.1	15.0	34.9	100 (581)
4-6	45.7	17.4	36.8	100(2,476)
7+	38.7	20.2	41.1	100(2,702)
	χ^2 = 40.226, Sig. = .000			
South				
≤ 3	39.4	17.7	42.9	100 (282)
4-6	37.4	21.7	40.9	100(1,091)
7+	32.4	25.9	41.7	100(1,454)
	χ^2 = 15.320, Sig. = .004			
Bangkok				
≤ 3	56.5	5.0	38.5	100 (278)
4-6	59.2	9.5	31.3	100 (917)
7+	53.3	12.7	34.0	100 (952)
	χ^2 = 19.812, Sig. = .001			

siblings.This is similar to the situation in urban areas. In the Bangkok area no matter what size of family an elderly person had, children were equally likely to provide financial assistance. In the south, there was also no difference in the pattern of

assistance between the adult children of different family sizes, but the pattern of assistance was different from the pattern of assistance in Bangkok, with higher proportions providing no financial support to their aged parents. This is probably due to the economic status of the region which income per capita is the third highest in the country which effects on the economic status of each household while the income per capita in the northeast is the lowest in the country (National Statistic Office, 1996). It may be concluded that regional differences affects the pattern of financial support that the elderly receives from their adult children.

5.2 Characteristics of Children and the Relationship between the Number of Siblings and the Pattern of Financial Support Given to the Elderly Parents

The difference in financial assistance provided to parents by adult children with both a small and a large numbers of siblings might result from the individual characteristics of adult children. Therefore, demographic and socio–economic characteristics of the adult children was also included in the analyses.

5.2.1 Gender

The gender of the adult children is one factor that may affect financial support to the elderly parents. The results from study show that there was no difference in the pattern of assistance given to the elderly parents between the male and the female adult children groups (table 11). However, there was a statistically significant difference in the level of support, female adult children with both a small and a large numbers of siblings provided higher level of support suggesting that for females, patterns of assistance are similar no matter what size of family they come

from. In Thai society it is the duty of female adult children to take care of their parents. The expectation is that they will support their parents in any way they can. A daughter's duty is to earn a living for the family to repay her debt of gratitude to the parents, while a son's is to spend time as monk. The economic burden of the family is placed on the daughter' s shoulders rather than on the son's (UNAIDS, 1999; United Nations, 1995; Boonchalaksi and Guest, 1994). In the male adult children group it was found that there was a difference in the pattern of financial support. The male adult children with a small number of siblings tended to provide more financial assistance to their parents than those male adult children with a large number of siblings.

Table 11: Percentage distribution of children providing money to elderly parents in the past year by number of siblings and sex of children.

No. of Siblings	Give >1,000	Give 1,000/ <1,000	Never Give	Total
Male				
≤ 3	43.5	18.1	38.3	100(1,004)
4-6	40.3	21.0	38.8	100(3,866)
7+	33.5	24.9	41.6	100(4,938)
	χ^2 = 68.998, Sig. = .000			
Female				
≤ 3	48.5	19.8	31.8	100(1,011)
4-6	44.4	22.3	33.3	100(4,084)
7+	37.7	25.6	36.7	100(5,041)
	χ^2 = 66.610, Sig. = .000			

5.2.2 Age

It was expected that the age of adult children might affect the pattern of financial support. Younger adult children might not be able to afford the same amount

of assistance as could older adult children, some who are beginning their working career and some of whom are still dependent (United Nations,1988).

When age of adult children is controlled, the results show that the pattern of financial support of adult children aged 30 and younger and adult children aged 30–39 was different from the pattern found for the whole country (table 12). There was little difference among family size groups in the pattern of support provided to parents by children aged 30 or less. Furthermore, adult children at this age were the least likely to provide support to their parents. The reason for this is that many adult children in this age group are still dependent. Some are still studying and do not have an income to support themselves and those with an income might not to able to afford financial assistance to their aged parents because they are just starting their jobs. At this stage some of the aged elderly may still have to provide for their children.

Table 12: Percentage distribution of children providing money to elderly parents in the past year by number of siblings and age of children.

No. of Siblings	Give >1,000	Give 1,000/ <1,000	Never Give	Total
Aged<30				
≤ 3	41.7	13.7	44.6	100 (451)
4-6	43.7	17.5	38.8	100(1,795)
7+	37.1	21.6	41.3	100(2,628)
	χ^2 = 32.685, Sig. = .000			
Aged 30-39				
≤ 3	49.0	19.0	32.1	100 (907)
4-6	43.9	21.3	34.8	100(3,666)
7+	37.0	26.1	36.9	100(4,228)
	χ^2 = 71.112, Sig. = .000			
Aged 40-59				
≤ 3	44.9	22.5	32.6	100 (657)
4-6	39.3	25.1	35.6	100(2,489)
7+	32.5	27.3	40.2	100(3,123)
	χ^2 = 50.526, Sig. = .000			

Adult children aged 30–39 years were most likely to provide support to their parents. Most adult children at this age have permanent jobs and incomes so they can provide for both their parents and their siblings. However, number of siblings has little affect on the amount of assistance given by adult children of this age group.

In the 40–59 year age group the pattern of assistance was similar to that outlined previously for the whole country. That is, children with a smaller number of siblings were more likely to give more money to their elderly parents compared to the adult children with a larger number of siblings.

5.2.3 Birth Order

Birth order of children might affect patterns or amounts of financial support provided to parents. Some studies in east Asia, such as in Japan and Republic of Korea, show that the first born children were expected to provide more assistance to the aged parents than other siblings (Mason,1992; Wolf, 1972). However, for the current study there was little difference in the pattern of financial support by birth order of children. Regardless of birth order, adult children with a small number of siblings were still most likely to provide financial assistance to their elderly parents (table 13). This means that the birth order is not likely to affect the pattern of assistance given by adult children with a small or a large number of siblings.

5.2.4 Marital Status

The marital status of adult children is another variable that potentially could affect the pattern of financial assistance provided to parents. The results show that the pattern of assistance by family size varied among the two groups (table 14).

Table 13: Percentage distribution of children providing money to elderly parents in the past year by number of siblings and birth order of children.

No. of Siblings	Give >1,000	Give 1,000/ <1,000	Never Give	Total
1st Birth Order				
≤ 3	45.8	19.1	35.1	100 (889)
4-6	39.8	22.3	37.9	100(1,595)
7+	30.7	28.0	41.3	100(1,230)
	χ^2 = 56.519, Sig. = .000			
2nd Birth Order				
≤ 3	45.3	20.2	34.6	100 (709)
4-6	41.2	22.4	36.4	100(1,605)
7+	31.4	27.3	41.3	100 (1,229)
	χ^2 = 45.829, Sig. = .000			
3nd Birth Order+				
≤ 3	47.7	16.5	35.7	100 (417)
4-6	43.7	21.1	35.2	100(4,750)
7+	37.1	24.5	38.4	100 (7,520)
	χ^2 = 68.731, Sig. = .000			

Table 14: Percentage distribution of children providing money to elderly parents in the past year by numberof siblings and marital status of children.

No. of Siblings	Give >1,000	Give 1,000/ <1,000	Never Give	Total
Married				
≤ 3	46.6	21.8	31.6	100(1,502)
4-6	40.5	24.2	35.3	100(6,114)
7+	33.6	28.2	38.1	100(7,673)
	χ^2 = 128.968, Sig. = .000			
Single/Separted/Widowed/Divorced				
≤ 3	44.4	10.6	45.0	100 (509)
4-6	48.6	13.1	38.3	100(1,835)
7+	42.3	15.6	42.1	100 (2,298)
	χ^2 = 24.481, Sig. = .000			

The pattern of financial support in the married group did not deviate from the basic pattern, with higher levels of assistance provided by children with a small number of siblings. In the single/ divorced/ widowed/ separated group there was very little difference between family size categories. This can probably be explained that the single /divorced / widowed /separated children do not have to support their own family. They can provide more support to their elderly parents than married children, especially single children.

5.2.5 Number of Children of Adult children

Additional children means extra responsibilities on the part of adult children (Pramualratana,1992; Caldwell, 1982), this can lead to a decline in the ability of adult children to support their parents. However, the effect of number of children of adult children on support for elderly parents only appears pronounced with three or more children (table 15). At most family size levels there is very little difference across groups of number of children of adult children for no child, one child or two children. However, at three children or more there is a marked drop in levels of support more money. So with large of families of their own, adult children are less likely to be able to support their elderly parents. It also appears that even a small number of children, means a drop off in support provided to elderly parents by adult children with a large number of siblings. This suggests that as extra pressure is put on an adult child, in this case from having to provide for their own children, it is children with a large number of siblings that are first to stop assistance, very likely because they expect their siblings to contribute.

Table 15: Percentage distribution of children providing money to elderly parents in the past year by number of siblings and number of children the children had.

No. of Siblings	Give >1,000	Give 1,000/ <1,000	Never Give	Total
Have no Child				
≤ 3	48.3	17.5	34.3	100 (143)
4-6	52.8	16.9	30.2	100 (615)
7+	43.8	21.2	35.0	100 (783)
	χ^2 = 11.855, Sig. = .018			
Have 1 Child				
≤ 3	51.6	19.7	28.7	100 (401)
4-6	45.6	22.9	31.6	100(1,618)
7+	36.9	25.9	37.2	100 (1,858)
	χ^2 = 43.897, Sig. = .000			
Have 2 Children				
≤ 3	48.5	18.3	33.2	100 (563)
4-6	40.4	24.0	35.6	100(2,399)
7+	33.7	29.7	36.6	100(2,818)
	χ^2 = 66.144, Sig. = .000			
Have 3 Children and More				
≤ 3	38.3	27.9	33.7	100 (501)
4-6	32.3	28.1	39.6	100(1,818)
7+	27.8	29.6	42.6	100(2,605)
	χ^2 = 28.340, Sig. = .000			

5.2.6 Education

Socio–economic status of adult children, as indexed by education, were also taken into consideration to see whether it might affect the pattern of financial support provided to their elderly parents. The group of children with an education of Prathom 4 were as likely as children from other educational categories to provide support to their elderly parents, but the level of support provided was lower, also children with a small number of siblings were significantly more likely to provide

support than children with a large number of siblings (table 16). The differences between a small and a large numbers of siblings are smaller among the university educated. These was basically no difference in the likelihood of support according to family size, although the level of support was highest of any educational group. This may be due to the fact that the adult children with more education have more incomes, better jobs and can afford to provide more assistance to their aged parents.

Table 16: Percentage distribution of children providing money to elderly parents in the past year by number of siblings and education of children.

No. of Siblings	Give >1,000	Give 1,000/ <1,000	Never Give	Total
≥Pathom 4 (Early Primary School)				
≤ 3	37.3	28.0	34.7	100 (931)
4-6	32.8	29.1	38.1	100 (4,231)
7+	27.5	30.5	42.0	100 (5,773)
	χ^2 = 57.235, Sig. = .000			
Pathom 5-7 (Late Primary School)				
≤ 3	44.6	23.9	31.5	100 (276)
4-6	42.6	21.2	36.2	100(1,152)
7+	38.8	25.7	35.5	100 (1,681)
	χ^2 = 10.802, Sig. = .029			
Mattayom (Secondary School)				
≤ 3	55.3	8.3	36.4	100 (423)
4-6	53.8	11.4	34.9	100(1,460)
7+	46.3	15.9	37.8	100(1,615)
	χ^2 = 33.281, Sig. = .000			
University				
≤ 3	58.0	4.6	37.4	100 (369)
4-6	65.8	5.3	28.9	100(1,050)
7+	63.3	8.3	28.3	100 (854)
	χ^2 = 19.279, Sig. = .001			

5.2.7 Occupation

The study found a difference in the pattern of financial assistance among the occupation groups (table 17). As might be expected assistance was most likely to be provided from persons in occupations that are likely to provide the highest income.

Table 17: Percentage distribution of children providing money to elderly parents in the past year by number of siblings and occupation of children.

No. of Siblings	Give >1,000	Give 1,000/ <1,000	Never Give	Total
Professional				
≤ 3	70.6	6.3	23.1	100(445)
4-6	66.2	10.3	23.5	100(1,545)
7+	60.1	13.8	26.1	100(1,495)
	χ^2 = 29.567, Sig. = .006			
Commercial				
≤ 3	53.9	16.0	30.1	100(206)
4-6	50.6	16.9	32.6	100(872)
7+	53.1	17.7	29.2	100(1,126)
	χ^2 = 2.927, Sig. = .570			
Agriculture				
≤ 3	31.2	31.5	37.2	100(650)
4-6	26.0	31.1	42.9	100(2,771)
7+	19.9	34.0	46.1	100(4,060)
	χ^2 = 62.917, Sig. = .000			
Labour				
≤ 3	51.2	19.5	29.3	100(482)
4-6	48.3	22.2	29.5	100(1,980)
7+	44.3	24.9	30.9	100(2,255)
	χ^2 = 13.421, Sig. = .009			
No Occupation				
≤ 3	22.1	9.4	68.5	100 (213)
4-6	30.0	15.0	55.0	100 (733)
7+	24.2	17.7	58.1	100 (962)
	χ^2 = 20.122, Sig. = .000			

Within occupational groups it was found that in the professional/technical/administrative group, the business/entrepreneurs/commercial group, and the unskilled labor group with a small number of siblings were the most likely to provide more money to the elderly parents. Professional/technical/administrative workers with a small number of siblings were most likely to provide more money to their parents (70.6 percent), but a high proportion with a large number of siblings also provided the same amount of money to their parents (60.1 percent). These levels are high when compared with children from other occupational groups. This is probably due to the fact that this group of adult children have a good education and high income. Therefore, the adult children with both a small and a large numbers of siblings can afford to give their parents financial support.

In the business/ entrepreneur/commercial and unskilled labor group, it was found that a high percentage of adult children with both a small and a large numbers of siblings provided similar levels of money to their elderly parents. This study found that there was no difference in the pattern of financial assistance from the adult children with both a small and a large numbers of siblings given to their elderly parents in the three occupational groups. They all tended to provide more money to their elderly parents.

Adult children with agricultural or related jobs or who were jobless had high proportions that provided no financial assistance to their elderly parents. This is almost certainly due to their limited resources. They not only provided no financial support to their parents, but they also might have to depend on their parents for help.

5.2.8 Living Arrangements

It was found that the effect of living arrangements on support for the elderly was pronounced (table 18). Adult children who live close to their parents and adult children who share the same province with their parents followed the same

Table 18: Percentage distribution of children providing money to elderly parents in the past year by number of siblings and living arrangement of children.

No. of Siblings	Give >1,000	Give 1,000/ <1,000	Never Give	Total
Same House				
≤ 3	48.6	16.1	35.3	100(703)
4-6	49.7	14.1	36.1	100(1,768)
7+	41.1	18.2	40.7	100(1,706)
	χ^2 = 30.519, Sig. = .000			
Close House				
≤ 3	35.7	30.6	33.7	100(196)
4-6	25.9	32.0	42.2	100(820)
7+	22.2	34.9	42.9	100(905)
	χ^2 = 16.934, Sig. = .002			
Same Village				
≤ 3	29.7	27.5	42.8	100(236)
4-6	24.5	30.8	44.7	100(1,255)
7+	24.1	31.8	44.1	100(1,798)
	χ^2 = 4.030, Sig. = .402			
Same Province				
≤ 3	42.7	21.5	35.8	100(330)
4-6	40.8	25.8	33.4	100(1,679)
7+	31.9	29.4	38.7	100(2,302)
	χ^2 = 42.236, Sig. = .000			
Other Provinces				
≤ 3	55.3	13.3	31.5	100 (550)
4-6	53.1	15.9	31.0	100 (2,424)
7+	45.4	19.9	34.7	100 (3,267)
	χ^2 = 46.414, Sig. = .000			

pattern of assistance as described for the whole sample, with children of small number of siblings most likely to provide money to their parents.

Children who lived in a different province from their parents were most likely to provide money to their elderly parents when compared with the other groups. In addition, there was little difference among family size categories in the proportion providing financial assistance to parents. This may be because children who live in another province may have left home to find a job to send money home to maintain their household. Children who lived in the same village as their parents were less likely to provide financial support than did children from other groups, there was also little difference among family size categories in terms of the pattern of financial assistance provided. Adult children living in the same village as their parents may give their parents other kinds of support such as providing household appliances and helping their parents in the rice fields and fruit gardens.

The picture for children who lived in the same house as their parents was different from that of other groups. While children with a small number of siblings were most likely to provide money to their parents, there was little difference among children from different size groups in the proportions not providing money to their parents. Adult children who share the household as their elderly parents may be the ones who have to care for their parents and have to pay household expenses as the main source person of income in the household. Another reason might be that adult children living with their parents have their own income and they can afford to give money to their elderly parents to share the expenses in the household that their parents have to pay.

5.2.9 Summary

In conclusion many characteristics of adult children such as gender, age, marital status, family size, education, occupation, living arrangement have been shown to affect the pattern of financial support of the adult children with both a small and a large numbers of siblings. Only birth order was not found to affect the financial support given by the adult children with a small and a large numbers of siblings.

5.3 Characteristics of the Elderly and the Relationship between the Number of Siblings the Children Had and the Pattern of Financial Support Given to the Elderly

Besides the characteristics of the adult children, research reviewed in Chapter 2 suggest that characteristics of elderly parents can affect the pattern of financial support given by their adult children. Therefore, in this study selected demographic and socio–economic characteristics and property of the elderly were controlled for in the analysis of the relationship between family size and pattern of financial support.

5.3.1 Gender, Age and Marital Status of the Elderly Parents

There are differences in the relationship between family size and pattern of financial support given to the elderly parents according to the sex of the elderly parents (table 19). Children with a small number of siblings compared to those with a large number of siblings were more likely to provide high levels of support of elderly parents, both male and female, with female parents most likely to receive support. However, for male parents this pattern was reversed for a medium level of support, with the result that there was a little difference among family size categories in

Table 19: Percentage distribution of children providing money to elderly parents in the past year by number of siblings of children, sex of elderly parents, age of elderly parents and marital status of elderly parents.

No. of Siblings	Give >1,000	Give 1,000/ <1,000	Never Give	Total
Sex of Elderly Parents				
Male				
≤ 3	42.7	14.7	42.6	100(841)
4-6	41.5	20.6	37.9	100(3,258)
7+	33.3	25.1	41.7	100(4,183)
	χ^2 = 88.411, Sig. = .000			
Female				
≤ 3	48.4	22.2	29.6	100(1,174)
4-6	43.0	22.4	34.6	100(4,692)
7+	37.3	25.4	37.2	100(5,796)
	χ^2 = 69.006, Sig. = .000			
Age of Elderly Parents				
60-69				
≤ 3	46.6	16.9	36.5	100(1,414)
4-6	43.1	18.8	38.1	100(5,727)
7+	35.5	24.3	40.7	100(6,857)
	χ^2 = 140.189, Sig. = .000			
70-79				
≤ 3	44.6	23.8	31.6	100(601)
4-6	40.5	29.0	30.5	100(2,223)
7+	37.0	27.5	35.5	100(3,122)
	χ^2 = 24.153, Sig. = .000			
Marital Status of Elderly Parents				
Married				
≤ 3	44.7	14.6	40.7	100(989)
4-6	42.6	19.8	37.6	100(4,157)
7+	32.4	25.4	42.2	100(5,480)
	χ^2 = 154.130, Sig. = .000			
Widowed/Divorced/Separated				
≤ 3	47.3	23.3	29.3	100(1,016)
4-6	42.2	23.6	34.2	100(3,793)
7+	39.5	25.1	35.4	100(4,499)
	χ^2 = 24.458, Sig. = .000			

the proportion providing no support. Children in Thai society are considered closer to their mothers than father (Pramualratana, 1991; Geertz,1961). Furthermore, elderly

females often do not have an income because their role in the house is usually housewives or home maker serving the families (United Nations, 1995b), and their possibility of getting a new spouse after being widowed is lower than that of male elderly (Mason,1992; Andrews et al., 1986). Therefore support for female parents is typically more important for than for male parents.

It was found that the pattern of financial assistance in the group of adult children with parents aged 70–79 was different than the pattern for the younger elderly, with adult children with both a small and a large numbers of siblings providing more money (table 19). Parents at this older age need more care, regardless how many children they have. In the younger age group of elderly there was still a difference among family size categories in the pattern of support provided. Children with a small number of siblings were most likely to provide money to their parents. However, there was a little difference between age groups in the level of support, children with a small number of siblings are more likely to provide support to younger elderly than to older elderly. This was probably because at younger ages their parents are living apart from them but as their parents' age they may have to live with their children.

Apart from sex and age of the elderly, the study also included the elderly parents' marital status. It was found that children were more likely to provide financial support to widowed/ divorced/ separated parents than to married parents (table 19). Elderly married often receive substantial care from their spouses (Cowgill, 1972a). Within marital status categories there was little difference among family size categories in the proportion providing financial assistance.

5.3.2 Education, Occupation and Work Status of the Elderly Parents

Education attainment is sometimes used as an indicator of economic and health status amongst the elderly (Sussman,1953; Shanas,1968; Sussman and Burchinal,1968; Cowgill,1972a; Treas and Wang,1993; Nayar,1996). Children whose elderly parents had a high level of education were more likely to provide financial support than those whose elderly parents have a low level of education (table 20). This is probably because children of parents with a high level of education have more resources to provide assistance.

Regardless of the level of parental education, children with a smaller number of siblings were more likely to provide support at a level of 1,000 baht. However, this pattern is reversed among children with parents with a higher level of education for support of 1-1,000 baht. The result is that there is little difference among family size categories in the proportion not providing financial support for elderly parents for those parents with a higher level of education. Furthermore, the most likely to provide at least some financial support to elderly parents, were those children whose parents had a low level of education. It appears that elderly parents with the lowest level of education have the highest level of need for financial support, and this is reflected in their children being more likely to provide support, albeit at a lower level than children of parents with a higher level of education. Children with a small number of siblings probably have a greater capacity and a greater obligation given that there are fewer siblings to share the obligation, to provide the support.

Table 20: Percentage distribution of children providing money to elderly parents in the past year by number of siblings of children, education of elderly parents, main occupation of elderly parents, and work status of elderly parents.

No. of Siblings	Give >1,000	Give 1,000/ <1,000	Never Give	Total
Education of Elderly Parents				
<Prathom 4				
≤ 3	40.9	24.8	34.4	100 (844)
4-6	37.6	27.1	35.3	100(3,391)
7+	32.8	26.9	40.3	100(4,456)
	χ^2 = 37.442, Sig. = .000			
Prathom 4+				
≤ 3	49.7	14.8	35.5	100(1,166)
4-6	45.9	17.5	36.5	100(4,551)
7+	37.6	24.2	38.3	100(5,471)
	χ^2 = 135.641, Sig. = .000			
Main/Last Occupation of Elderly Parents				
Non-Agriculture				
≤ 3	51.6	10.9	37.5	100 (819)
4-6	50.2	14.6	35.1	100(2,670)
7+	44.8	16.7	38.5	100(2,908)
	χ^2 = 32.910, Sig. = .000			
Agriculture and Related Job				
≤ 3	41.0	25.2	33.8	100(1,131)
4-6	37.6	25.8	36.6	100(5,075)
7+	31.0	29.1	39.9	100(6,841)
	χ^2 = 80.996, Sig. = .000			
Work Status of Main/Last Occupation of Elderly Parents				
Self/Spouse/Self & Spouse/Family				
≤ 3	44.8	20.7	34.5	100(1,504)
4-6	41.3	22.7	35.9	100(6,292)
7+	34.8	26.6	38.6	100(3,248)
	χ^2 = 100.922, Sig. = .000			
Private/Gov.Sector				
≤ 3	47.8	14.1	38.1	100 (446)
4-6	44.7	18.6	36.7	100(1,453)
7+	37.1	17.7	45.1	100(1,336)
	χ^2 = 30.587, Sig. = .000			

Table 20: (Continued)

No. of Siblings	Give >1,000	Give 1,000/ <1,000	Never Give	Total
No Occupation				
≤ 3	60.3	12.7	27.0	100 (63)
4-6	57.5	9.5	33.0	100(200)
7+	55.2	22.6	22.2	100(221)
	χ^2 = 16.606, Sig. = .002			

The occupation of the elderly in the previous year or, if currently unemployed, the last occupation of the elderly, is also expected to effect the pattern of financial support from adult children. If the elderly parents had good jobs and earned high incomes they would not need much assistance from their adult children. The results shows that the occupation of the elderly parents affects on the pattern of financial assistance from children, and the effect is most pronounced in the group of elderly parents did not work in agriculture or related jobs. The proportion providing assistance is higher than that in the group of agriculture or related jobs (table 20). However, there was little difference by the family size in the level of support provided, although children with a small number of siblings were more likely to provide assistance. Elderly who had non–agricultural occupation were also likely to have children in non-agricultural jobs and hence the children were more likely to be in a position to provide financial support to their parents.

Work status of the elderly indicates the elderly' s financial status. The result shows that there was the same pattern of financial assistance in the group of elderly parents who were self-employed/worked for their spouse/worked for their family, and in the group of elderly parents worked for the government and private

sector (table 20). Children with a small number of siblings were most likely to provide financial assistance to their parents. Adult children in the group of elderly parents who worked for the government and private sector had a higher level of providing assistance than elderly parents who were self-employed/ worked for their spouse/ worked for their family. The elderly parents who worked for the government and private sector generally had a lower income than those who were self-employed. No matter what the work status of the elderly parents were they receive more financial support from their children if they had small families than is they had large families.

5.3.3 Health Status of the Elderly Parents

Aging is characterized by a general reduction in functional capacity as well as structural changes in the body. The health of the elderly is a factor that can affect the level of financial support the elderly receive from their children. If the elderly parents have poor health or are handicapped this will increase the likelihood and level of care provided by their children (United Nations, 1988).

However, **in this study it was found that the proportion receiving assistance in the good health group is higher than that in the poor health group**. This may be because the children whose elderly parents are in poor health give their parents other kinds of support, such as using their time to take care of them or regularly spending their money for their medical care. However, no significant difference was found in the poor health group by size of family (table 21). **This indicates that regardless of how many children the elderly parents had they are equally as likely to receive financial support from their children if they are in poor health**.

Table 21: Percentage distribution of children providing money to elderly parents in the past year by number of siblings of children and health status of elderly parents.

No. of Siblings	Give >1,000	Give 1,000/ <1,000	Never Give	Total
Health Status of Elderly Parents				
Dependent				
≤ 3	39.8	26.9	33.3	100 (93)
4-6	42.1	23.6	34.3	100 (394)
7+	35.8	27.5	36.7	100 (520)
	χ^2 = 4.248, Sig. = .373			
Independent				
≤ 3	46.3	18.6	35.1	100 (1,922)
4-6	42.4	21.5	36.1	100 (7,556)
7+	35.6	25.2	39.2	100(9,459)
	χ^2 = 132.627, Sig. = .000			

5.3.4 Age, Education, Occupation and Work Status of the Elderly ' s Spouse

Besides the characteristics of the elderly themselves, characteristics of their spouses may affect the pattern of financial support the elderly received. Spouses below 60 years of age are likely to be able to support their families, the 60–69 years age group is expected to be independent of care in many ways, but might not have an income due to their retirement, and spouses aged 70 years and over may be dependent in many ways.

The results show the age of the spouse has a pronounced to effect on the pattern of support for the elderly when the spouse is aged 60 years and lower. The proportion of children providing assistance to elderly parents is lowest where the spouse is aged 60 or less. However, when the age of the spouse increases the levels of support also increases (table 22). Most spouses aged 60 or less are still working.

Table 22: Percentage distribution of children providing money to elderly parents in the past year by number of siblings of children, age of elderly's spouse, education of elderly' s spouse, occupation of elderly' s spouse, and work status of elderly' s spouse.

No. of Siblings	Give >1,000	Give 1,000/ <1,000	Never Give	Total
Age of Elderly' s Spouse				
<60				
≤ 3	41.3	9.3	49.4	100 (344)
4-6	43.7	15.2	41.0	100(1,228)
7+	32.4	22.9	44.7	100(1,377)
	χ^2 = 65.832, Sig. = .000			
60-69				
≤ 3	47.3	16.1	36.6	100(503)
4-6	44.7	17.8	37.5	100(2,205)
7+	32.0	24.9	43.0	100(2,931)
	χ^2 = 112.829, Sig. = .000			
70+				
≤ 3	47.9	19.1	33.0	100(188)
4-6	36.8	28.2	35.0	100(1,029)
7+	34.5	27.2	38.4	100(1,462)
	χ^2 = 15.843, Sig. = .003			
No Spouse				
≤ 3	46.6	23.8	29.6	100(980)
4-6	42.1	24.3	33.6	100(3,483)
7+	39.6	25.7	34.7	100(4,202)
	χ^2 = 18.646, Sig. = .001			
Education of Elderly' s Spouse				
<Prathom 4				
≤ 3	38.4	18.3	43.3	100 (323)
4-6	37.5	24.3	38.2	100(1,423)
7+	28.0	27.5	44.6	100(2,397)
	χ^2 = 49.136, Sig. = .000			
Prathom 4/>Prathom 4				
≤ 3	48.3	12.9	38.8	100(1,222)
4-6	44.7	17.2	38.0	100(4,966)
7+	36.3	23.0	40.7	100(5,859)
	χ^2 = 84,752, Sig. = .000			

Table 22: (Continued)

No. of Siblings	Give >1,000	Give 1,000/ <1,000	Never Give	Total
No Spouse				
≤ 3	46.8	23.9	29.3	100(963)
4-6	42.1	24.4	33.5	100(3,454)
7+	38.9	26.1	35.0	100(4,170)
	χ^2 = 24.033, Sig. = .000			
Occupation of Elderly' s Spouse				
Non-Agriculture				
≤ 3	45.6	9.1	45.2	100 (252)
4-6	45.4	15.2	39.4	100(804)
7+	37.2	23.6	39.1	100(846)
	χ^2 = 38.845, Sig. = .000			
Agriculture				
≤ 3	41.0	19.3	39.7	100(363)
4-6	39.1	21.5	39.4	100(1,810)
7+	26.7	27.5	45.8	100(2,514)
	χ^2 = 89.465 Sig. = .000			
No Occupation				
≤ 3	49.5	13.5	37.0	100(465)
4-6	44.8	19.5	35.7	100(2,044)
7+	37.2	23.2	39.6	100(2,606)
	χ^2 = 49.358, Sig. = .000			
No Spouse				
≤ 3	46.4	24.4	29.2	100(924)
4-6	41.9	24.6	33.5	100(3,279)
7+	39.8	25.6	34.6	100(4,002)
	χ^2 = 15.776, Sig. = .003			
Work Status of Elderly' s Spouse				
Spouse/Self/Spouse & Self/Family				
≤ 3	41.7	16.1	42.1	100 (496)
4-6	40.9	19.3	39.8	100 (2,141)
7+	29.8	24.8	45.4	100 (2,869)
	χ^2 = 83.449, Sig. = .000			

Table 22: (Continued)

No. of Siblings	Give >1,000	Give 1,000/ <1,000	Never Give	Total
Private/Gov. Sector				
≤ 3	47.1	6.9	46.0	100(87)
4-6	41.8	19.9	38.3	100(311)
7+	26.3	35.5	38.2	100(372)
	χ^2 = 46.455, Sig. = .000			
No Occupation				
≤ 3	49.3	14.0	36.7	100(450)
4-6	44.6	19.6	35.8	100(2,011)
7+	37.0	23.7	39.3	100(2,539)
	χ^2 = 48.174, Sig. = .000			
No Spouse				
≤ 3	46.5	23.7	29.7	100(982)
4-6	42.1	24.3	33.6	100(3,487)
7+	39.6	25.7	34.7	100(4,199)
	χ^2 = 18.206, Sig. = .001			

They can support their old elderly spouse (aged over 60). The size of their family had little impact on the likelihood of receiving support.

The education of the spouse of the elderly affects the pattern of financial support received by the elderly. The higher the education the higher the proportion of elderly receiving support (table 22). In the group of spouses with a high level of education, children with a small number of siblings were more likely to provide financial support than those with a large number of siblings. Elderly parents who had spouses with more than 4 years schooling and who had a small number of children are more likely than other to receive financial care from their children. For the group of spouses with a low level of education the pattern of support was different. A higher

proportion of children provided no support to their parents and there was little difference by number of siblings of children.

Similar to education of the spouses of the elderly, occupation of the elderly' s spouses had affects on financial support given by their adult children. In the group of spouses that had non–agriculture jobs there was little difference in the level of support between children with a small and a large numbers of siblings (table 22). This was probably because the spouses who did not have agriculture or related jobs did not have children in this occupation too. In addition agriculture or related job usually do not produce steady incomes like non–agriculture related job. Adult children of this group were therefore able to provide more financial support to their parents. In the group of the spouses that had agriculture or related jobs and were not employed the pattern of assistance was not different from the regular pattern of assistance. That is children with a small number siblings still provided more money to their elderly parents compared to those with a large number of siblings.

Work status of the spouses of elderly parents was also controlled. The pattern of financial assistance in group of spouses who worked for the government and private sector is different from the group who were self-employed/employed by their spouse or both/employed by their family, and the group of whose elderly' s spouse were not employed (table 22). Children with both a small and a large numbers of siblings were most likely to provide more money to their elderly parents, even there was a difference in the proportion of assistance, children with a small number of siblings provided more money to their elderly parents than those with a large number of siblings. This was probably because the elderly parents' spouses of both groups employee of the private sector and the government were not owners of

businesses that would be able to support themselves for life. For the other two groups, the pattern of financial support between adult children with a small and a large numbers of siblings is still different. Adult children with a small number of siblings were most likely to provide 1,000 baht and higher while adult children with a large number of siblings were most likely to provide none to their elderly parents.

5.3.5 Responsibility for Household Expenses, Main Source of Income of Household, and Total Income of the Elderly Parents

When taking care of household expenses was controlled, the pattern of financial support was different from the regular pattern in the group of the elderly parents/ elderly parents' spouses/ both elderly parents and their spouses took care of household expenses, and in the group of adult children themselves took care of household expenses. This indicates that who taking care of household expenses affects on the pattern of support the elderly parents received from their children. In the group of children themselves took care of household expenses adult children with a small and a large numbers of siblings were most likely to provide more money to their elderly parents (table 23), even there was a difference in the proportion of support by the family size. This means that regardless of how many children the elderly parents had they will receive more financial support from their children. This was probably because the parents whose adult children took care of the household expenses were dependent on their children's care. They were old, had no work or income, and no savings or property. They were dependent on care from their children. In the group where the elderly parents/elderly parents' spouses/both elderly parents and their spouses took care of the household expenses, it was found that the pattern of care is different compared the group of adult children who took care of the

household expenses. Children with a small and a large numbers of siblings were equally likely not to provide financial assistance to their elderly parents. This was probably due to the fact that the elderly parents whose took care of household expenses themselves were educated, had good jobs and high income, and had their own property. They did not need much financial assistance from their children.

The effect of main source of income of the household on the support of the elderly is most prominent in the group in which the main source of income came from their elderly parents' income/saving/other benefits and in the group in which the main source of income came from adult children themselves. The pattern of care is different from the basic pattern (table 23). In the group in which main source of income came from their elderly parents' income/saving/other benefits both children with a small and a large numbers of siblings were equally likely not to provide financial assistance to their elderly parents. This indicates that in group in which main source of income came from their elderly parents, no matter what size of family an elderly had, children were equally likely to provide no financial assistance.

In the group in which main source of income came from adult children themselves, the pattern of assistance was different. Children with a small and a large numbers of siblings were most likely to provide financial assistance to the elderly parents. This was probably because the elderly parents whose main income came from their children are usually dependent of their children due to their age, having no labour income, no savings and no property. These elderly parents may also have poor health and need care from their children.

The total income of elderly parents and spouses in the past year was also analyzed. The result shows that differences in income level affect the pattern of care

Table 23: Percentage distribution of children providing money to elderly parents in the past year by number of siblings of children, care taker of household expense and main source of income of household.

No. of Siblings	Give >1,000	Give 1,000/ <1,000	Never Give	Total
Who Take Care of Household Expense				
Elderly/Spouse/Elderly & Spouse				
≤ 3	40.9	14.5	44.6	100(1,049)
4-6	40.5	18.4	41.2	100(3,873)
7+	32.2	24.9	42.9	100(4,874)
	χ^2 = 117.803, Sig. = .000			
Child				
≤ 3	54.5	23.9	21.6	100 (809)
4-6	44.1	25.0	31.0	100(3,626)
7+	39.8	25.0	35.1	100(4,504)
	χ^2 = 78.903, Sig. = .000			
Others				
≤ 3	36.5	23.1	40.4	100 (156)
4-6	46.7	21.9	31.4	100 (430)
7+	32.2	29.3	38.5	100 (590)
	χ^2 = 24.144, Sig. = .000			
Main Source of Income of Household				
Elderly (Own Work/Own Saving/Interest/Pension/Lump Sum/ Spouse)				
≤ 3	36.9	15.1	48.0	100 (946)
4-6	37.2	17.8	44.9	100(3,059)
7+	27.3	25.8	47.0	100(3,754)
	χ^2 = 130.306, Sig. = .000			
Child				
≤ 3	57.7	21.9	20.5	100 (860)
4-6	47.6	23.4	29.1	100(4,294)
7+	42.2	24.3	33.5	100(5,538)
	χ^2 = 94.513, Sig. = .000			
Others				
≤ 3	39.6	24.6	35.7	100 (207)
4-6	32.0	28.3	39.6	100 (593)
7+	28.7	29.6	41.7	100 (676)
	χ^2 = 8.868, Sig. = .064			

provided to the elderly. The effect of income only appears prominent in the group in which elderly parents and spouses earned 50,000 baht and more. Children with a

small and a large numbers of siblings were most likely not to provide financial assistance. There was very little difference in the proportion not providing financial assistance by family size (table 24). This may be because elderly parents with a high income might not receive care from their children because they think that their parents did not need it. However, they might provide other types of care such as paying them visits.

Table 24: Percentage distribution of children providing money to elderly parents in the past year by number of siblings of children and total income of elderly and spouse.

No. of Siblings	Give >1,000	Give 1,000/ <1,000	Never Give	Total
Total Income of Elderly & Spouse				
No Income/<5,000				
≤ 3	45.3	25.5	29.2	100(1,037)
4-6	39.4	26.2	34.4	100(4,207)
7+	34.3	27.7	38.0	100(4,937)
	χ^2 = 59.417, Sig. = .000			
5,000-19,999				
≤ 3	43.3	19.1	37.7	100 (393)
4-6	44.3	20.5	35.2	100(1,579)
7+	30.8	27.6	41.7	100(2,273)
	χ^2 = 84.782, Sig. = .000			
20,000-49,999				
≤ 3	54.3	10.5	35.3	100 (258)
4-6	48.4	16.5	35.1	100 (1,215)
7+	42.5	22.7	34.8	100(1,794)
	χ^2 = 36.156, Sig. = .000			
50,000+				
≤ 3	45.0	4.9	50.2	100(327)
4-6	44.9	9.7	45.4	100 (949)
7+	41.2	12.3	46.5	100(975)
	χ^2 = 16.496, Sig. = .002			

For the group whose elderly parents had no income or who low income (table 24), it was found that if they had small families they had a better chance to receive care from a child. In the group whose elderly parents and spouses earned medium income, children with both small and large number of siblings were most likely to provide money to their elderly parents. However, the proportion providing assistance was different, children with a small number of siblings were more likely to provide than those with a large number of siblings. **This may be due to children with a small number of siblings could not depend on other siblings to provide support to elderly parents while children with a large number of siblings could relied upon other siblings to support their parents.**

5.3.6 Property of the Elderly Parents

Studies in some countries have found that if the elderly parents had property, their children would provide them with higher quality care (Goldstein, Schuler and Ross, 1983). The results of this study reveal that there was no different in the proportion providing assistance to the elderly among the three family size groups. However, the effect of the property on the support for the elderly appears pronounced in the group of adult children who owned the land and house in which they lived (table 25). Adult children with both a small and a large number of siblings were equally likely to provide support to their parents. This was probably because the elderly parents sharing the same house owned by their children probably did not have any earnings or savings. Therefore, the size of family the adult children came from did not make a difference because elderly parents still received the care.

In the other two groups where elderly parents/elderly parents' spouse/ both elderly parents and spouses owned the land and house they lived in, or where the

Table 25: Percentage distribution of children providing money to elderly parents in the past year by number of siblings of children, owner of house and owner of land.

No. of Siblings	Give >1,000	Give 1,000/ <1,000	Never Give	Total
Owner of House They Lived in				
Elderly/Spouse/Elderly & Spouse				
≤ 3	46.7	17.8	35.5	100(1,500)
4-6	41.8	21.4	36.9	100(6,301)
7+	32.9	27.0	40.1	100(8,171)
	χ^2 = 196.511, Sig. = .000			
Child				
≤ 3	47.0	29.6	23.3	100(270)
4-6	42.4	26.8	30.8	100(1,011)
7+	46.2	19.9	33.9	100(1,073)
	χ^2 = 24.564, Sig. = .000			
Others				
≤ 3	40.8	14.3	44.9	100(245)
4-6	48.6	15.8	35.6	100 (638)
7+	51.4	13.4	35.2	100 (724)
	χ^2 = 10.702, Sig. = .030			
Owner of Land They Lived in				
Elderly/Spouse/Elderly & Spouse				
≤ 3	46.0	19.1	34.9	100(1,215)
4-6	40.5	22.6	36.9	100(5,033)
7+	32.2	27.7	40.1	100(6,892)
	χ^2 = 147.998, Sig. = .000			
Child				
≤ 3	45.8	25.7	28.5	100(253)
4-6	40.4	25.1	34.5	100(943)
7+	44.2	21.7	34.1	100(1,070)
	χ^2 = 7.669, Sig. = .104			
Others				
≤ 3	47.8	18.3	33.8	100(393)
4-6	47.3	19.4	33.3	100(1,469)
7+	38.7	22.5	38.8	100(1,420)
	χ^2 = 25.374, Sig. = .000			

elderly parents had relatives and other who owned the land and house they lived in, the pattern of financial support received from children followed the same pattern as noted for the whole country. That is, children with a small number of siblings were

most likely to provide money to their elderly parents. This suggests that if the elderly parents had small family size they would have a chance to receive better care from their children.

The effects of other property on the pattern of support for the elderly is pronounced in the group of elderly parents/elderly parents' spouse/elderly parents and spouse with other property (table 26). Adult children with a small and a large numbers of siblings were most likely to provide more money to their elderly parents. This is probably due to the fact that parents who did not own their home or land may be poor and dependent of care from their children. Therefore, no matter what family size they had they received care from their children. For the group of elderly parents/ elderly parents' spouse/ elderly parents and spouse that had savings, adult children were most likely to provide money to their elderly parents, but the proportion providing assistance is higher in the adult children with a small number of siblings than those with a large number of siblings.

5.3.7 Summary

In conclusion, many characteristics of the elderly parents have been found to affect the likelihood and level of financial care they receive from their children. These characteristics include gender, age, marital status, education, occupation, age of the spouse of the elderly, education of the spouse of the elderly, occupation of the spouse of the elderly, work status of the spouse of the elderly, who takes care of household expenses, main source of income of household, income of elderly and their spouse

Table 26: Percentage distribution of children providing money to elderly parents in the past year by number of siblings of children and properties of house, land and saving of elderly parents.

No. of Siblings	Give >1,000	Give 1,000/ <1,000	Never Give	Total
Properties (Own House)				
Own Name/Spouse Name/Joined Names				
≤ 3	46.3	17.8	35.9	100(1,581)
4-6	42.1	21.2	36.7	100(6,426)
7+	33.3	26.9	39.7	100(8,385)
	χ^2 = 193.303, Sig. = .000			
No				
≤ 3	44.9	23.3	31.8	100(434)
4-6	43.6	23.5	33.0	100(1,520)
7+	47.9	16.2	35.8	100(1,583)
	χ^2 = 28.424, Sig. = .000			
Properties (Own Land)				
Own Name/Spouse Name/Joined Names				
≤ 3	46.4	18.2	35.5	100(1,443)
4-6	40.9	21.6	37.5	100(5,710)
7+	32.9	27.2	39.9	100(7,555)
	χ^2 = 166.827, Sig. = .000			
No				
≤ 3	45.1	21.0	33.9	100(572)
4-6	46.2	21.7	32.2	100(2,236)
7+	44.4	19.1	36.5	100(2,413)
	χ^2 = 11.317, Sig. = .023			
Properties (Have Saving)				
Own Name/Spouse Name/Joined Names				
≤ 3	50.9	9.9	39.3	100 (741)
4-6	49.5	14.5	35.9	100(2,674)
7+	43.2	19.9	36.9	100(3,370)
	χ^2 = 67.629, Sig. = .000			
No				
≤ 3	43.2	24.3	32.6	100 (1,274)
4-6	38.8	25.3	35.9	100(5,261)
7+	31.8	27.9	40.3	100(6,598)
	χ^2 = 96.718, Sig. = .000			

and property of the elderly. Only work status of elderly parents and health status of elderly parents were found to have no influence on how adult children with a small and a large number of siblings provided financial care to the elderly parents.

5.4 Results of Multivariate Analysis

Logistic Regression analysis was used to estimate the net effect of each variable on the financial support given to the elderly when all the other variables were controlled. Four models were estimated: **model I** included the number of siblings of each child had; **model II** included both the number of siblings of each child had and demographic and socio-economic characteristics of adult children; **model III** included all the features in model II and the demographic socio-economic characteristics of the elderly themselves; and **model IV** included all the features of model III plus the demographic and socio-economic characteristics of the spouse of the elderly.

In the **first model** in which only the number of siblings of each child had was included, it was found that the number of siblings of each child had had significantly affected the likelihood of financial support the elderly parents received from a child (table 27). It was found that **the odds of a child providing financial support to their elderly parent' s decreased by 4 percent with each additional sibling of an adult child** (- i.e. each additional sibling of the index child) **an increased of 1 sibling** (odd ratio = .9606). While this does not necessarily mean that elderly parents with fewer children had a greater chance for financial support than those with more children, it does suggest that adult children with a small number of siblings are under greater pressure to support their elderly parents. This confirms the results of the bivariate analysis conducted earlier which revealed that in large families the adult

Table 27: Odds ratios of the effect of characteristics of the child, characteristics of the elderly, and characteristics of the elderly' s spouse on the likelihood of financial support being provided by adult children to their elderly parents.

	Model I	Model II	Model III	Model IV
- 2 Log likelihood	25455.316	24207.907	23643.053	23589.506
Model Chi-square	43.595***	1291.004***	1855.858***	1909.406***
N	19288	19288	19288	19288
No. of Sibling	.9606**	.9491***	.9645***	.9664***
Characteristics of Child				
Sex				
-male		.6752***	.6729***	.6714***
-female (ref.)		1.0000	1.0000	1.0000
Age		1.0210***	.9972	.9972
Birth Order		1.0517***	.9891	.9889
Marital Status				
-single/separate/ widowed/divorced		.7030***	.7150***	.7129***
-married (ref.)		1.0000	1.0000	1.0000
No. of Children				
-single		1.2537**	1.2215*	1.2256*
-0		1.1674**	1.1785**	1.1726**
-1		1.2366***	1.2384***	1.2360***
-2		1.1363**	1.1403**	1.1394**
-3+ (ref.)		1.0000	1.0000	1.0000
Education		1.0055	1.0157***	1.0159***
Occupation				
-professional		2.4728***	2.5273***	2.5317***
-commercial		1.7930***	1.7844***	1.7905***
-labour		1.9780***	1.9701***	1.9710***
-no occupation		.5678***	.5671***	.5654***
-agriculture (ref.)		1.0000	1.0000	1.0000
Living Arrangement				
-same house		1.0195	.9652	.9593
-close house		.7488***	.7566***	.7535***
-same village		.7286***	.7361***	.7368***
-same province		.9402	.9384	.9367
-other province (ref.)		1.0000	1.0000	1.0000

Table 27: (Continued)

	Model I	Model II	Model III	Model IV
Area of Residence of the Elderly				
-urban		.7589***	.7572***	.7676***
-rural (ref.)		1.0000	1.0000	1.0000
Region of Residence of the Elderly				
-North		1.3265***	1.3103***	1.3188***
-Northeast		1.2373***	1.1719***	1.1623***
-South		1.0103	1.0648	1.0834
-Bangkok		1.4090***	1.3278***	1.3566***
-Center (ref.)		1.0000	1.0000	1.0000
Characteristics of Elderly				
Sex				
-male			.9272	.9865
-female (ref.)			1.0000	1.0000
Age			1.0235***	1.0228***
Marital Status				
-widowed/divorced/ separated/			1.0495	.7013***
-married (ref.)			1.0000	1.0000
Education			.9997	.9972
Occupation				
-non-agriculture			.9679	.9538
-agriculture (ref.)			1.0000	1.0000
Work Status				
-private/gov. sector			.8643**	.8435***
-no occupation			1.2866*	1.2855*
-spouse/self & spouse/ family (ref.)			1.0000	1.0000
Health Status				
-dependent			.9302	.9368
-independent			1.0000	1.0000
Who Take Care of Household Expenses				
-child			1.0301	1.0375
-other			1.1368	1.1613*
-elderly/spouse/elderly&spouse/ family (ref.)			1.0000	1.0000

Table 27: (Continued)

	Model I	Model II	Model III	Model IV
Main Source of Income of Household				
-elderly (own work/own saving/interest/pension/ lump sum/spouse)			.5447***	.5346***
-others			.6891***	.6771***
-child (ref.)			1.0000	1.0000
Total Income of Elderly & Spouse				
- 5,000 - 19,999 Baht			1.0149	1.0182
-20,000 - 49,999 Baht			1.2689***	1.2767 ***
-50,000 + Baht			.8086***	.8055 ***
-no income/<5,000 Baht (ref.)			1.0000	1.0000
Owner of House They Lived in				
-child			1.4537***	1.5043 ***
-others			1.1721	1.2310
-elderly/spouse/elderly & spouse (ref.)			1.0000	1.0000
Owner of Land They Lived in				
-child			.7652***	.7674 ***
-others			.8687*	.8673 *
-elderly/spouse/elderly & spouse (ref.)			1.0000	1.0000
Properties (own house)				
-no			.7335**	.7124 ***
-own name/spouse name joined name (ref.)			1.0000	1.0000
Properties (own land)				
-no			1.2176**	1.1985 **
-own name/spouse name joined name (ref.)			1.0000	1.0000
Properties (saving)				
-own name/spouse name joined name			1.0437	1.0490
-no (ref.)			1.0000	1.0000

Table 27: (Continued)

	Model I	Model II	Model III	Model IV
Characteristics of Elderly' s Spouse				
Age				
- < 60				.9042
-60 - 69				.9416
-no spouse				1.1902
-70 + (ref.)				1.0000
Education				
- < p 4				.8835 **
-no spouse				1.9045 *
-p 4/> p 4 (ref.)				1.0000
Occupation				
-non-agriculture				1.7025 *
-agriculture				1.6172 *
-no spouse				1.6585 **
-no occupation (ref.)				1.0000
Work Status				
-private/gov. sector				1.2781 **
-no occupation				1.5474 *
-no spouse				.6185
-spouse/self & spouse/ family (ref.)				1.0000

* P < .05 ; ** P < .01 ; *** P < .001

children usually relied upon other siblings to support their parents while in the case of the adult children with a small number of siblings the adult children took the responsibility to take care of their aging parents since they feel it is their duty to do so.

When the demographic and socio-economic characteristics of the adult children were included in **Model II**, it was found that the number of siblings retained its influence on the likelihood of a child providing financial support to their elderly parents. Characteristics of the child such as sex, age, marital status, birth order, occupation, place of residence in respect to the elderly parents, and the number of the

adult children' own children also affected financial support given to the elderly. Occupation and sex were the two factors that had the strongest impact on the likelihood of a child providing financial support to their elderly parents (R= .1652 and .0760 respectively).

The professional group of the adult children were most likely to give financial support to their elderly parents, with the odds of providing support 2.4 times higher for children with a professional occupation compared to children in agriculture (reference category). Adult children with a commercial or labour occupation were also significantly more likely to provide financial support to their parents compared to children with an agricultural occupation (1.9 and 1.7 times more likely respectively). Adult children who were not employed were least likely to provide financial support, with the odds of providing financial support being 43.2 percent lower than the odds for children with agricultural occupations (odds ratio = .5678). This, as discussed earlier, is probably because the adult children in the agricultural profession, unlike the children of other occupations, have small and irregular incomes. The adult children in the professional and commercial sectors usually had a more regular and secure income.

The odds of male adult children providing financial assistance to their parents were about 32 percent less than the odds for female adult children (odds ratio = .6752). As discussed earlier in this chapter, in Thai society it is the duty of female adult children to take care of their parents. The economic burden of the family is placed on the daughter rather than the son (UNAIDS,1999; United Nations,1995b; Boonchalaksi and Guest, 1994).

In the **third model** the characteristics of the elderly parents were added. These variables significantly improved the fit of the model, and also changed some of the effects estimated in model II. However, the effect of the number of siblings on the likelihood of a child providing financial assistance remained significant in model III. Some of the characteristics of children, such as age and birth order, which had displayed significant positive effects in model II, were not significant in model III. This is probably because these characteristics are related to the parents age, and when parents age is controlled in model III they become significant. Hence it is the parents age, rather than the age of the adult child, that affects the likelihood of a child providing financial support to their parents. One variable, education of the adult child, which was not significant in model II, displayed a positive and significant effect in model III. This is probably a result of elderly parents who do not require support having more highly educated children (i.e. the parents from higher socio-economic backgrounds have more highly educated children). When the socio-economic level of the parents is controlled, we find that more educated children are more likely to provide financial support to their parents than are less educated children. This is probably because more educated children are in a better economic position to provide financial support than are less educated children. The effects of other characteristics of the children do not change from model II to model III.

Among other variable, age, occupation, and work status of the elderly, and whether the elderly were the main source of the household income affected the likelihood of receiving financial support from their adult children (when all the other variables were controlled). When the elderly parent was the main source of income of the household the effect on financial support from children was the greatest. A child

whose elderly parent was the main source of household income (parent's household) had odds of providing financial support that were 45 percent less compared to a situation where a child was the main source of income. The odds of providing support were 31 percent when 'others', compared to a child, were the main source of household income.

It is notable that other variables related to the economic position of the household, such as household income and ownership of property, also had strong effects on the likelihood of an adult child providing financial support. In general, the high the level of assets of the elderly parents, the less likely that an adult child would provide financial support.

In **Model IV**, characteristics of the spouse of the elderly were included (for those elderly not married a category of no spouse was added to all variables). The addition of the characteristics of spouses of the elderly added very little to the explanatory power of the model. Furthermore, it had only a very marginal effect on the values of characteristics of the children and parents in model III. The education, occupation and work status of the spouse of an elderly parent did the likelihood of a child providing financial support to a parent, with a child more likely to provide support to an elderly parent if the spouse of that parent had higher education, and was working, but the effects were not great.

In the full model (model IV) it was found that the variables with the strongest impact on the likelihood of a child providing support to their elderly parents were characteristics of the child. As with model II, the occupation of the adult children had the strongest impact (R = .1652). Among the variables related to

characteristics of the elderly parent, the main source of income of the household of the elderly parent had the strongest impact (R = .0886).

In summary, the multivariate analysis has demonstrated that it is the characteristics of the adult children that have the strongest impact on whether a child will provide financial support to their elderly parents. When a child is in a financial position to provide such support, or when they are in culturally delineated categories that prescribe such support (e.g. they are a daughter), they are likely to provide the support irrespective of the situation of their elderly parents. This indicates the strong cultural basis in Thai society of financial support for elderly.

This does not mean, however, that the economic situation of the parents is unimportant in decisions of children to provide support. After controlling for the characteristics of the children, it is clear that financial support for an elderly parent is most likely to be forthcoming from a child when the parent has few resources.

Finally, it is clear that there is an extra burden on children to provide financial support to their parents when they have a small number of siblings. This is irrespective of other characteristics of the child and characteristics of the elderly parents. So it appears that one response to providing financial support to elderly parents in the face of decreasing family size, is an increase in the likelihood of a child providing support. This increase is net of increases that might be expected from the better position of children from small families to provide such support (because of better education and occupations of children from small families) and from the high level of resources of parents with small families. It appears that it addition to these factors it reflects a deeply held cultural expectation that at least one child provides financial support to their parents.

CHAPTER 6

INSTRUMENTAL SUPPORT FOR THE ELDERLY

Providing instrumental or material support to the elderly is equally as important to the elderly as providing financial support, since food, clothing and daily necessities are basic essentials of the lives of the elderly. The majority of the elderly in the country are poor (Chayovan and Knodel,1997). Some have never had any kind of income and this lack of basic essentials often affects the quality of life of the elderly. Some elderly people can afford to buy necessities, but most cannot. Research on the elderly in Thailand found that clothes are the most common essential items provided by the adult children (Yodpetch et al., 1997 and 1998) and the most important source of support to the elderly comes from their children (Yodpetch et al., 1997 and 1998; Wongsith and Siriboon, 1999).

In rural areas, tops, shirts and blouses, pants, pakhaomas (wrap-around cloth for men), sarongs and towels are very popular gifts provided to the elderly. Food such as dried food products is the second most popular gift. These products either come from stores or are homemade. Adult children who live far from their elderly parents normally buy and bring these gifts when they return home to visit. Adult children who live close by or live in the same compound as their elderly parents normally provide support through cooking for their elderly parents. (Wongsith and Siriboon, 1999)

As mentioned earlier, the most important source of support to the elderly comes from their children and giving material support to the elderly is a common

custom in Thai society and improves the quality of life of the elderly. For this reason, instrumental support is analyzed in this chapter.

It should be borne in mind that at the national level about 57 percent of adult children in Thailand have been found to give their elderly parents instrumental support. Only one-fifth or 22 percent do not give this type of support at all, and the rest of the adult children or about 21 percent share the same house as their elderly parents (see table 7). Hence, most elderly people in Thailand receive instrumental support from their children.

6.1 The Relationship between the Number of Siblings and the Pattern of Instrumental Support Given to the Elderly Parents

As discussed earlier, family size in Thailand is small, with an average number of children in a family about 2. This has created concern about whether the decline in family size will affect elderly care. The aim of the analysis in this chapter is to investigate the association between the number of siblings the children had and the pattern of instrumental support provided to their elderly parents.

As in chapter 5, number of siblings were divided into three groups: children with a small number of siblings (elderly parents with ≤3 adult children), children with a medium number of siblings (elderly parents with 4-6 children), and children with a large number of siblings (elderly parents with ≥7 adult children). Six patterns of support have been created to measure the level of support given by adult children: support given daily, weekly, monthly, 1-3 times a year, no support and share the same house as their elderly parents.

A substantial difference was found in patterns of instrumental support between adult children from different family size (table 28). In the year prior to the survey, adult children with a large number of siblings were most likely to provide instrumental support to their elderly parents 1-3 times a year (33.5 percent) compared to those with a small number of siblings (24 percent). This is consistent with the hypothesis proposed in Chapter 2 where it was stated there would be difference between the two groups of adult children with different number of siblings in terms of support to their elderly parents. However, it should also be noted that there was a large variation among categories in terms of sharing the same house as their elderly parents. Adult children with a smaller number of siblings were more likely to share the same house as their elderly parents (35.5 percent) than adult children with a larger

Table 28: Percentage distribution of children giving food/clothes to elderly parents in the past year by number of siblings of children and area of residence of elderly.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
Whole Kingdom							
≤3	4.9	7.3	11.8	24.0	16.6	35.5	100(2,033)
4-6	5.0	8.9	12.8	31.6	19.1	22.6	100(7,981)
7+	4.7	8.4	11.7	33.5	24.4	17.3	100(10,008)
			$\chi^2 = 414.960$, Sig = .000				
Urban							
≤3	3.3	7.3	11.5	21.3	14.6	41.9	100 (670)
4-6	4.0	8.4	12.9	23.1	20.2	31.6	100(2,070)
7+	2.6	7.4	13.0	28.5	21.6	26.8	100(2,121)
			$\chi^2 = 75.938$, Sig = .000				
Rural							
≤3	5.7	7.3	12.0	25.2	17.5	32.3	100(1,368)
4-6	5.3	9.1	12.7	34.6	18.9	19.4	100(5,911)
7+	5.3	8.6	11.3	34.9	25.2	14.8	100(7,887)
			$\chi^2 = 323.607$, Sig = .000				

number of siblings (17.3 percent). This shows that the number of siblings affect the pattern of instrumental care.

The difference between the pattern of instrumental support of the two groups may be explained in term of living arrangement and socio-economic variations of adult children and the elderly. However, in this stage of the study related factors that may affect instrumental support from adult children to the elderly parents, such as their place of residence, demographic and socio-economic characteristics of adult children such as gender, age, birth order, marital status, education, occupation etc. and characteristic of the elderly parents such as sex, age, education, occupation, health status, income, property of elderly etc. are not controlled.

For the pattern of instrumental support given by daily, weekly, and monthly, the results show that there was no significant difference in the level of support adult children with a small and a large numbers of siblings provided to their elderly parents. There are relatively large differences for the proportion providing no instrumental support to their elderly parents between adult children with a small and a large numbers of siblings. This can be explained by the fact that children with a large number of siblings are probably under less pressure to provide support because their siblings are already providing support.

6.1.1 Area of Residence and the Pattern of Instrumental Support

Factors expected to affect adult children' s instrumental support of their aged parents are controlled in analysis presented in this section. One of these factors is area of residence of the elderly parents. A difference in the behavior of support might be seen in children whose elderly parents lived in different areas i.e. urban and rural areas. It was found that after area of residence of elderly was controlled the

pattern of instrumental support in urban and rural areas did not deviate from the basic pattern (table 28). A substantial difference in the proportion of giving support by family size was found in the patterns of sharing the same house as their elderly parents and providing support to their elderly parents 1-3 times a year. However, the proportion providing support 1-3 times a year was higher for children whose elderly parents lived in the rural areas than those whose elderly parents lived in the urban areas and the proportion sharing the same house as their elderly parents was higher for those whose elderly parents lived in the urban areas than those whose elderly parents lived in the rural areas. This might be due to their living arrangement and their occupation.

In rural areas, often one or two children from a household normally migrate to another province to find work (Richter et al., 1997). Consequently, many adult children whose elderly parents lived in the rural areas do not have a chance to live close or live near to their elderly parents. They can pay their parents visits 1-3 times a year when they have chance or time, such as during the Thai New Year. This may be a reason that a higher percentage of adult children whose elderly parents lived in rural areas, compared to children whose elderly parents lived in urban areas, provided support 1-3 times a year.

6.1.2 Region of Residence and the Pattern of Instrumental Support

Another factor that might affect the pattern of instrumental support by adult children is region of residence of the elderly as the cultural context varies by region. This variable was controlled to see if there was a difference in the pattern of support given by the adult children with different family size. When region is controlled, the pattern of instrumental support of the adult children in all 5 regions of

Thailand is similar to that reported for the whole country (table 29). There was a significant difference in the level of support by number of siblings in the two patterns. Adult children with a small number of siblings were most likely to share the same house as their elderly parents while adult children with a large number of siblings were most likely to provide instrumental support 1-3 times a year to their elderly parents.

Table 29: Percentage distribution of children giving food/clothes to elderly parents in the past year by number of siblings of children and region of residence of elderly.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
North							
≤3	5.1	8.2	10.0	30.5	16.8	29.4	100 (511)
4-6	5.5	11.2	11.2	37.2	16.3	18.5	100(1,815)
7+	5.8	9.0	9.4	40.3	20.5	15.0	100(1,944)
			$\chi^2 = 75.997$, Sig = .000				
Northeast							
≤3	7.7	3.0	9.6	25.2	22.5	32.1	100(365)
4-6	8.8	8.2	10.0	33.0	20.5	19.5	100(1,650)
7+	7.0	7.9	10.2	33.5	27.3	14.1	100(2,941)
			$\chi^2 = 111.629$, Sig = .000				
Central							
≤3	3.2	7.4	14.7	23.7	15.9	35.0	100 (591)
4-6	3.2	8.3	14.9	31.7	19.6	22.2	100(2,494)
7+	2.2	6.7	13.6	33.0	26.1	18.3	100(2,712)
			$\chi^2 = 124.989$, Sig = .000				
South							
≤3	7.8	12.0	11.3	18.7	14.1	36.0	100(283)
4-6	5.2	8.8	15.0	32.1	19.7	19.2	100(1,095)
7+	5.6	10.4	13.0	30.2	25.3	15.4	100(1,453)
			$\chi^2 = 93.486$, Sig = .000				
Bangkok							
≤3	1.8	6.0	12.4	16.3	12.4	51.2	100(283)
4-6	1.6	7.4	12.3	17.4	20.3	41.0	100 (927)
7+	1.1	10.2	12.9	26.2	17.3	32.2	100 (958)
			$\chi^2 = 60.302$, Sig = .000				

However, there were some differences in patterns of instrumental support by region of residence. Bangkok had the highest level of children with a small and a large numbers of siblings sharing the same house as their elderly parents compared to those in other regions. In contrast to Bangkok, adult children with a small and a large numbers of siblings whose elderly parents lived in the north were most likely to provide instrumental support to their elderly parents 1-3 times a year while adult children with a small and a large numbers of siblings whose elderly parents lived in Bangkok were least likely to provide instrumental support 1-3 times a year to their elderly parents. Adult children with a small and a large numbers of siblings whose elderly parents lived in the northeast were most likely to provide no instrumental support to their elderly parents while adult children with a small and a large numbers of siblings whose elderly parents lived in Bangkok were least likely to provide no instrumental support.

This may be due to the north and the northeast have poorer economic status compared to Bangkok, the highest regional level of socio-economic status as measured by average income per household per month (National Statistical Office, 1993, 1996 and 2000). Some adult children whose elderly parents lived in the north and the northeast have to live far from their parents to work or establish themselves, particularly for people from the northeast, the region with the lowest rate of economic status. Thus, they can pay their visits and provide instrumental support to elderly parents around 1-3 times a year during important holidays such as New Year holiday, Chinese New Year, Thai New Year's Day.

6.2 Characteristics of Children and the Relationship between the Number of Siblings and the Pattern of Instrumental Support Given to the Elderly Parents

The difference patterns of instrumental support of adult children at the national level may be due to the characteristics of adult children themselves and/ or the characteristics of elderly parents. In this section, selected demographic and socio-economic characteristics of adult children such as gender, age, birth order, marital status, number of children of adult children had, education and occupation of children are controlled.

6.2.1 Gender

In general, the elderly are normally cared for by women rather than men. The literature suggests that the elderly were more likely to receive care from daughters than sons (United Nations, 1995b; Mason, 1992; Shanas, 1998; Townsend, 1957; Young and Willmott,1957). After the gender of adult children was controlled it was found that the pattern of support still followed the basic pattern of instrumental support. This means that the gender of adult children does not affect the pattern of support given by adult children with a small and a large numbers of siblings . There was still a significant difference in the proportion of support between adult children with a small and a large numbers of siblings as described earlier (see table 30).

However, it was found that there was difference by sex of children. Female adult children were most likely to share the same house as their elderly compared to male adult children. While male adult children were most likely to provide no instrumental support to their elderly parents compared to female adult

Table 30: Percentage distribution of children giving food/clothes to elderly parents in the past year by number of siblings and sex of children.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
Male							
≤3	4.1	7.0	11.7	25.3	21.7	30.1	100(1,013)
4-6	4.0	7.6	12.4	32.8	23.5	19.8	100(3,882)
7+	3.7	7.8	11.9	32.5	28.4	15.7	100(4,948)
			χ^2 = 140.953, Sig = .000				
Female							
≤3	5.7	7.5	11.9	22.6	11.5	40.8	100(1,020)
4-6	5.9	10.1	13.1	30.6	15.0	25.2	100(4,099)
7+	5.8	9.0	11.4	34.6	20.5	18.9	100(5,060)
			χ^2 = 295.401, Sig = .000				

children. This was probably because in Thailand a daughter is expected to pay back to her elderly parents for raising her and to take care of them through living in the same household. Paying back to elderly parents via financial and instrumental contribution is anticipated more from a daughter than from a son (United Nations, 1995b) because, under Buddhist belief, a son can pay back to his parents by sharing with them the merit accumulated while being a monk: an option that is not available to a daughter.

6.2.2 Age

As mentioned in previous chapters (Chapter 2 and Chapter 5), the capacity of children to provide care for their elderly parents depends on stages of their life cycles. It was found that after age of adult children was controlled there was still a significant difference in the level of instrumental support between adult children with a small and a large numbers of siblings in the two patterns (table 31).

When compared among age groups it was found that children in the younger age group (aged <30) were most likely to sharing the same house as their elderly parents compared to adult children in the older age group. This was probably due to a higher proportion of the younger adult children being dependent on their parents. Some might still be studying and not have an income. Others might be raising their young families (United Nations, 1988). The second age group (30-39 years) is of working age and must take full responsibility for their families, although some are married and others are still not married. The third group (aged 40-59) are more established and some are entering old age. Children in the older age group are more able to take care of their elderly parents than are children in the younger age group.

Table 31: Percentage distribution of children giving food/clothes to elderly parents in the past year by number of siblings and age of children.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
Aged<30							
≤3	1.7	2.8	7.4	19.7	18.8	49.6	100 (458)
4-6	2.3	5.2	8.7	28.5	18.6	36.7	100(1,808)
7+	2.4	4.2	8.5	28.3	25.6	31.0	100(2,638)
			$\chi^2 = 85.921$, Sig = .000				
Aged 30-39							
≤3	4.0	7.9	13.6	24.1	15.3	35.0	100 (916)
4-6	5.1	9.1	13.4	32.1	18.8	21.4	100(3,677)
7+	5.3	9.0	12.3	34.9	23.2	15.3	100(4,235)
			$\chi^2 = 219.457$, Sig = .000				
Aged 40-59							
≤3	8.3	9.6	12.3	26.7	16.8	26.3	100(659)
4-6	6.7	11.3	14.8	33.2	20.0	14.1	100(2,496)
7+	5.9	11.0	13.4	36.1	25.1	8.5	100(3,135)
			$\chi^2 = 193.969$, Sig = .000				

Therefore, the level of support given to their elderly parents by daily, weekly and monthly was higher for children in the older age group than the younger age group.

6.2.3 Birth Order

In some countries, the firstborn child is expected to give more support to elderly parents are children of lower birth order (Wolf, 1972; Mason, 1992). In this study, birth order did not affect the relationship between family size and patterns of instrumental support. Differences in patterns of support, irrespective of family size, were also small among the children of different birth orders (table 32).

Table 32: Percentage distribution of children giving food/clothes to elderly parents in the past year by number of siblings and birth order of children.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
1st Birth Order							
≤3	6.1	7.3	12.7	24.0	15.6	34.3	100 (896)
4-6	6.3	11.2	14.1	34.4	20.4	13.7	100(1,601)
7+	6.2	9.7	12.7	39.2	23.8	8.3	100(1,236)
			$\chi^2 = 288.146$, Sig = .000				
2nd Birth Order							
≤3	4.5	8.4	11.7	25.3	16.9	33.2	100 (716)
4-6	6.0	9.9	13.7	33.4	19.9	17.2	100(1,607)
7+	5.9	11.5	12.2	36.6	24.9	8.9	100(1,231)
			$\chi^2 = 196.122$, Sig = .000				
3rd Birth Order+							
≤3	3.1	5.5	10.0	21.6	18.1	41.8	100(421)
4-6	4.2	7.8	12.0	30.1	18.5	27.4	100(4,773)
7+	4.3	7.6	11.4	32.1	24.4	20.2	100(7,541)
			$\chi^2 = 197.418$, Sig = .000				

6.2.4 Marital Status

In general, it can be expected that single, divorced, widowed and separated children might provide more support than married children because

married siblings need to provide support to their own families. However, a previous study of the elderly in Thailand found that married children who lived in the same location as their elderly parents tended to give food and clothes to their elderly parents more often than unmarried children and other children who live farther away (Knodel, Chayovan, and Siriboon, 1992).

In this study it was found that marital status of adult children affects their pattern of instrumental support they provide to their elderly parents (table 33). The effect of marital status of children on the pattern of instrumental support appears pronounced in the group of single/ separated/ widowed/ divorced. Children with a small and a large numbers of siblings were most likely to share the same house as

Table 33: Percentage distribution of children giving food/clothes to elderly parents in the past year by number of siblings and marital status of children.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
Married							
≤3	6.4	8.9	14.4	26.6	16.4	27.4	100(1,510)
4-6	6.0	10.7	14.5	34.8	20.1	13.8	100(6,128)
7+	5.6	10.1	13.5	37.1	25.5	8.1	100(7,695)
				χ^2 = 522.376, Sig = .000			
Single/Separated/Widowed/Divorced							
≤3	0.8	2.7	4.4	16.4	16.6	59.2	100(519)
4-6	1.5	3.1	7.1	21.1	15.8	51.5	100(1,852)
7+	1.8	2.6	5.6	21.5	20.4	48.1	100(2,305)
				χ^2 = 39.121, Sig = .000			

their elderly parents. The proportion of sharing the same house is highest for children with a small number of siblings (60 percent) and also high for children with a large number of siblings (48 percent). Moreover, siblings in the single /divorced /widowed /separated group were least likely to provide support to elderly parents by

daily, weekly, monthly, and 1-3 times a year compared to children with few and more siblings in the married group. This can probably be explained by a higher proportion of the adult children in the single/divorced/ widowed/ separated group being dependent on the help of their parents and thus they may be both the givers and receivers of support at the same time. For married group, the basic pattern of instrumental support was observed, with children with a large number of siblings most likely to provide support to their parents 1-3 times in a year and children with a small number of siblings were most likely to share the same house as their elderly parents.

6.2.5 Number of Children of Adult Children

People with a lot of children have large expenses in taking care of them (Knodel, Chamratrithirong and Debavalya 1987; Caldwell, 1982). Hence variation in the number of children of each adult child could be expected to affect their pattern of instrumental support for their parents. It was found that the pattern of instrumental support by family size did not change according to the number of children of adult children (i.e. grandchildren of the elderly being studied here) (table 34).

Some difference was found for the level of instrumental support provided to their elderly parents on a daily, weekly, and monthly basis among categories of the number of children adult children had. Children with a small and a large numbers of siblings who had a large number of children were most likely to provide support to their elderly parents. This may be because children who had a large number of children normally live near or close to their elderly parents. Hence, the elderly parents can help them to take care of their children and look after the house. On the other hand, children can frequently assist in food preparation or food buying. This indicates that

mutual support or support exchange between the elderly parents and their children is still at a high level.

Table 34: Percentage distribution of children giving food/clothes to elderly parents in the past year by number of siblings and number of children the children had.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
Have no Child							
≤3	4.1	4.1	18.6	24.8	14.5	33.8	100 (145)
4-6	3.6	6.3	12.5	33.7	22.0	22.0	100 (615)
7+	2.8	5.7	11.5	38.0	26.5	15.5	100 (786)
			χ^2 = 45.353, Sig = .000				
Have 1 Child							
≤3	3.0	7.5	12.9	25.6	13.7	37.3	100 (402)
4-6	4.5	9.3	14.5	33.5	16.9	21.3	100(1,626)
7+	4.7	9.0	12.4	35.6	22.8	15.5	100(1,859)
			χ^2 = 118.119, Sig = .000				
Have 2 Children							
≤3	6.2	9.0	13.8	26.9	16.1	28.0	100 (565)
4-6	6.6	11.4	13.7	35.9	18.2	14.3	100(2,401)
7+	6.4	9.9	13.5	38.1	23.9	8.3	100(2,824)
			χ^2 = 200.083, Sig = .000				
Have 3 Children and More							
≤3	9.1	10.3	12.7	24.8	19.6	23.6	100 (505)
4-6	7.2	11.5	15.3	33.0	24.3	8.7	100(1,821)
7+	6.3	11.9	14.2	35.0	28.4	4.2	100(2,618)
			χ^2 = 242.474, Sig = .000				

6.2.6 Education

Adult children with good education are expected to have higher socio-economic status than those with less education. After controlling for education it was found that there was still a difference in the two patterns of support between adult children with a small and a large numbers of siblings (table 35). This

indicates that even the educational level the adult children does not affect the pattern of instrumental support given to the elderly parents, with children with low education just as likely as children from the other educational groups to provide instrumental support to their elderly parents.

Table 35: Percentage distribution of children giving food/clothes to elderly parents in the past year by number of siblings and education of children.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
≤Pathom 4 (Early Primary School)							
≤3	7.3	8.1	10.6	23.8	18.4	31.9	100(937)
4-6	6.4	10.8	12.1	32.3	21.4	16.9	100(4,240)
7+	5.5	10.0	11.7	34.7	26.2	11.9	100(5,791)
			$\chi^2 = 295.403$, Sig = .000				
Pathom 5-7 (Late Primary School)							
≤3	2.9	6.1	10.0	26.1	17.1	37.9	100 (280)
4-6	3.8	6.5	9.8	28.4	18.2	33.3	100(1,161)
7+	4.3	5.7	10.8	29.3	21.4	28.5	100(1,690)
			$\chi^2 = 18.010$, Sig = .000				
Mattayom (Secondary School)							
≤3	3.0	5.4	13.3	22.0	15.2	41.1	100 (428)
4-6	2.8	6.8	13.3	33.0	16.7	27.4	100(1,468)
7+	3.1	6.1	10.7	32.6	23.6	24.0	100(1,615)
			$\chi^2 = 80.300$, Sig = .000				
University							
≤3	3.0	8.4	15.1	25.3	11.9	36.4	100 (371)
4-6	3.4	7.2	17.5	30.5	13.8	27.5	100(1,055)
7+	3.6	6.9	15.2	35.4	18.8	20.0	100(855)
			$\chi^2 = 51.260$, Sig = .000				

6.2.7 Occupation

The occupation of adult children also reflects the socio-economic status of both adult children and the elderly parents. The result of the study shows that the occupation factor appeared to effect the likelihood of instrumental support provided to

the elderly (table 36). Children with a small and a large numbers of siblings in the non-occupational group were most likely to share the same house as their elderly parents and the proportion given no support was also higher than the other groups. This was probably due to the fact that adult children being unemployed had no source of income. They might even depend on their parents for financial support.

For adult children who had an occupation in the past year, the proportion providing instrumental support to their elderly parents 1-3 times a year was low for children in the agricultural group. This was probably because adult children in the agricultural group live in the same compound as their elderly parents and give their elderly parents other kinds of support, such as helping them in the rice field or working for them in the household. The level of providing daily support to their elderly parents was also high for children with a small and a large numbers of siblings in this occupational group.

6.7.8 Summary

In conclusion, the result of the study show that there was association between number of siblings the children had and the pattern of instrumental support given to the elderly. When other factors expected to affect the pattern of instrumental support by family size were controlled, it was found that only marital status and occupation of adult children were likely to affect the pattern of instrumental support given by the children with both a small and a large numbers of siblings.

Table 36: Percentage distribution of children giving food/clothes to elderly parents in the past year by number of siblings and occupation of children.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
Professional							
≤3	2.7	5.8	17.1	29.8	9.6	35.1	100(450)
4-6	3.2	7.9	16.3	36.3	14.9	21.5	100(1,554)
7+	3.3	5.7	14.2	40.3	21.6	14.9	100(1,498)
			χ^2 = 128.551, Sig = .000				
Commercial							
≤3	6.2	9.5	11.9	27.1	10.5	34.8	100(210)
4-6	5.7	10.2	13.5	29.0	15.3	26.4	100(876)
7+	4.2	8.4	11.6	38.8	16.8	20.4	100(1,125)
			χ^2 = 46.139, Sig = .000				
Agriculture							
≤3	7.5	9.9	10.1	18.9	16.3	37.3	100(656)
4-6	7.7	11.4	12.4	27.2	18.5	22.8	100(2,781)
7+	6.9	11.2	12.0	28.7	24.0	17.2	100(4,081)
			χ^2 = 173.037, Sig = .000				
Labour							
≤3	3.1	6.0	10.7	30.2	22.1	27.9	100(484)
4-6	2.8	6.2	11.7	38.3	22.8	18.2	100(1,983)
7+	3.0	6.5	11.2	38.4	27.5	13.4	100(2,254)
			χ^2 = 72.127, Sig = .000				
No Occupation							
≤3	5.1	3.7	9.3	10.3	20.1	51.4	100(214)
4-6	3.5	8.3	9.2	24.7	21.5	32.8	100(738)
7+	2.6	5.1	8.2	27.6	28.6	28.1	100(969)
			χ^2 = 75.181, Sig = .000				

6.3 Characteristics of the Elderly and the Relationship between the Number of Siblings the Children Had and the Pattern of Instrumental Support Given to the Elderly

The analytical framework proposed for this study assumes that the differences in patterns of support provided by adult children with a small and a large

numbers of siblings is likely to depend, to some degree, on the characteristics of the adult children and the elderly. Therefore, in this section of study characteristics, such as socio-economic and demographic characteristics and property of the elderly parents, in terms of the relationship between family size and the pattern of instrumental support were controlled.

6.3.1 Gender, Age and Marital Status of the Elderly Parents

Sex of elderly parents was expected to play a role in the adult children's pattern of support. Some studies have found that female elderly parents received more care than male elderly parents (Pramualratana,1991; Geertz 1961). In this study it was found that gender of the elderly parent does not affect how children from different family size provide instrumental support to elderly parents (table 37). Children with a small number of siblings were most likely to share the same house as their elderly parents compared to those with a large number of siblings, while adult children with a large number of siblings were most likely to provide support to both elderly parents at a frequency of 1-3 times a year. No difference in the pattern of support by gender of elderly was found. This indicates that adult children with both a small and a large numbers of siblings gave support to their elderly parents whether they were their fathers or mothers.

The elderly normally need more care the older they get, especially when they become dependent and are without an income (Ogawa, 1988). Results shown in table 37 indicate that age does not affect the relationship between family size and pattern of instrumental support. However, it should be noted that when the age of elderly parents increases the level of frequent instrumental support also increases. This indicates that the older the parent the more frequent the support they receive.

Table 37: Percentage distribution of children giving food/cloth to elderly parents in the past year by number of siblings of children, sex of elderly parents, age of elderly parents and marital status of elderly parents.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
Sex of Elderly Parents							
Male							
≤3	4.4	6.3	13.1	23.1	17.8	35.4	100(848)
4-6	4.8	8.6	11.8	32.1	18.6	24.1	100(3,276)
7+	4.6	7.6	11.3	34.5	25.0	17.1	100(4,203)
			χ^2 = 199.817, Sig = .000				
Female							
≤3	5.3	8.0	10.9	24.6	15.7	35.5	100(1,185)
4-6	5.1	9.1	13.5	31.3	19.5	21.5	100(4,705)
7+	4.8	8.9	11.9	32.8	24.0	17.5	100(5,805)
			χ^2 = 229.911, Sig = .000				
Age of Elderly Parents							
60-69							
≤3	4.2	6.7	12.6	22.9	17.6	36.0	100(1,431)
4-6	4.6	8.1	12.7	31.6	19.5	23.4	100(5,746)
7+	4.5	8.2	10.5	33.1	25.6	18.1	100(6,863)
			χ^2 = 304.082, Sig = .000				
70-79							
≤3	6.6	8.6	9.8	26.6	14.1	34.2	100(602)
4-6	5.8	11.1	12.9	31.6	18.1	20.4	100(2,235)
7+	5.3	8.7	14.2	34.4	21.8	15.5	100(3,145)
			χ^2 = 141.925, Sig = .000				
Marital Status of Elderly Parents							
Married							
≤3	5.4	7.5	13.3	22.8	15.0	35.9	100(997)
4-6	4.7	8.8	13.2	32.5	18.2	22.6	100(4,177)
7+	4.5	8.7	11.6	34.0	24.7	16.5	100(5,504)
			χ^2 = 272.913, Sig = .000				
Widowed/Divorced/Separated							
≤3	4.5	7.1	10.3	25.0	17.9	35.1	100(1,026)
4-6	5.3	9.1	12.3	30.7	20.1	22.6	100(3,804)
7+	5.0	8.0	11.7	33.0	24.0	18.3	100(4,504)
			χ^2 = 157.598, Sig = .000				

Based on the results of previous studies, it was expected that divorced, widowed or separated parents were likely to receive more care than elderly parents whose spouses were still living with them (Treas and Wang, 1993). However, the results shown in table 37 indicate that there were relatively small differences among marital status groups in terms of levels of instrumental support. Furthermore, after controlling for age the pattern of instrumental support provided by children with a small and a large numbers of siblings did not differ from the overall pattern.

6.3.2 Education, Occupation and Work Status of the Elderly Parents

The socio-economic characteristics of the elderly parents such as their education, occupation and work status were expected to affect the adult children's instrumental support (Sussman,1953; Shanas,1968; Sussman and Burchinal,1968; Cowgill,1972a; Treas and Wang, 1993). It was found that after the education of the elderly was controlled, there was still a significant difference in the patterns of support according to family size. Adult children with a small number of siblings were most likely to share the same house as their elderly parents and adult children with a large number of siblings were most likely to provide the instrumental support 1-3 times a year (table 38). No difference in the level of support was found between adult children whose elderly parents had less than 4 years of schooling and higher than 4 years of schooling. This shows that the education of elderly parents does not directly affect the adult children' s pattern of instrumental support.

It was found that occupation of the elderly parents is not likely to effect the pattern of instrumental support adult children provided to their elderly parents (table 38). Adult children with a small and a large numbers of siblings still followed the

Table 38: Percentage distribution of children giving food/cloth to elderly parents in the past year by number of siblings of children, education of elderly parents, main/ last occupation of elderly parents and work status of main/last occupation of elderly parents.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
Education of Elderly Parents							
<Prathom 4							
≤3	5.5	6.8	8.7	23.9	19.9	35.2	100(854)
4-6	5.5	9.3	11.9	31.0	21.3	21.0	100(3,405)
7+	4.8	8.0	11.1	33.0	25.5	17.5	100(4,479)
			χ^2 = 162.971, Sig = .000				
Prathom 4 / >Prathom 4							
≤3	4.5	7.7	14.1	24.1	14.1	35.4	100(1,174)
4-6	4.5	8.7	13.4	32.2	17.6	23.7	100(4,568)
7+	4.7	8.7	12.0	33.8	23.6	17.1	100(5,477)
			χ^2 = 269.327, Sig = .000				
Main/Last Occupation of Elderly Parents							
Non-Agriculture							
≤3	4.2	6.8	11.8	22.7	14.6	39.8	100(895)
4-6	4.2	8.1	13.5	26.7	19.5	28.0	100(2,887)
7+	3.4	6.9	12.4	31.0	25.0	21.3	100(3,131)
			χ^2 = 166.406, Sig = .000				
Agriculture and Related Job							
≤3	5.5	7.7	11.7	25.0	18.1	32.0	100(1,136)
4-6	5.4	9.4	12.4	34.4	19.0	19.5	100(5,089)
7+	5.4	9.0	11.3	34.7	24.2	15.4	100(6,868)
			χ^2 = 227.571, Sig = .000				
Work Status of Main/Last Occupation of Elderly Parents							
Self/Spouse/Self & Spouse/Family							
≤3	5.3	7.5	12.0	25.0	16.2	34.0	100(1,516)
4-6	5.6	9.2	12.8	32.3	18.0	22.1	100(6,310)
7+	5.0	8.4	11.5	34.6	23.6	16.8	100(8,436)
			χ^2 = 318.880, Sig = .000				
Private/Government Sector							
≤3	3.1	5.8	10.4	22.1	17.9	40.7	100(452)
4-6	2.7	7.9	12.7	29.8	22.8	24.0	100(1,461)
7+	3.0	6.9	11.9	27.8	31.7	18.8	100(1,340)
			χ^2 = 113.521, Sig = .000				

Table 38: (Continued)

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
No Occupation							
≤3	9.5	14.3	15.9	12.7	15.9	31.7	100(63)
4-6	2.4	7.3	12.7	22.9	28.3	26.3	100(205)
7+	4.5	14.8	14.3	27.4	12.6	26.5	100(223)
			χ^2 = 30.867, Sig = .001				

same pattern of support as for the whole country. The proportion sharing the same house as their elderly parents was highest for adult children whose elderly parents had non-agriculture jobs (40.4 and 20.9 percent) compared to adult children whose elderly parents had agriculture jobs (32.0 and 15.4 percent). The proportion providing no instrumental support is also high for children whose elderly parents had agricultural occupation. Elderly parents who had non-agricultural occupations were also likely to have children in non-agricultural occupations and their children were more likely to be in a position to provide support to them.

The adult children' s pattern of instrumental support changed somewhat when work status of the elderly parents was controlled (table 38). It was found that adult children with a large number of siblings whose elderly parents worked for the government and private sector were most likely to provide no instrumental support to their elderly parents. This was probably because adult children with a large number of siblings whose parents worked for the government and private sector did not do well financially. The other reason might be the adult children with more siblings thought that elderly parent had their pension and could support themselves financially and might not need their children's assistance. They might provide other types of care

instead. This indicates that work status of parents affects how adult children with a small and a large numbers of siblings give instrumental support to their parents. Adult children whose elderly parents worked for themselves/their spouses/their own families still followed the same pattern of instrumental support as seen for the whole country.

6.3.3 Health Status of the Elderly Parents

Health status of elderly parents did not affect the relationship between number of siblings the children had and pattern of instrumental support (table 39). No matter what health condition the elderly parents, adult children from small and large families followed the regular pattern of support.

6.3.4 Age, Education, Occupation and Work Status of the Elderly Spouse

Besides, the characteristics of the elderly parents, it was necessary to include the characteristics of their spouses that were expected to affect instrumental support given by the adult children. It was expected that if the spouses of elderly parents could still care for them because they were younger and stronger and if they still had a source of income or had an income in the recent past the elderly parents would need less care from their adult children (Treas and Wang, 1993). For this reason all of the above characteristics were included in the study.

The results show the age, education, occupation and work status of the elderly parents' spouse does not affect the relationship between the number of siblings the children had and the pattern of instrumental support for the elderly parents (table 40). However, it should be noted that the proportion of elderly receiving assistance

Table 39: Percentage distribution of children giving food/cloth to elderly parents in the past year by number of siblings of children and health status of elderly parents.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
Health Status of Elderly Parents							
Dependent							
≤3	4.3	8.6	10.8	22.6	14.0	39.8	100(93)
4-6	7.1	8.8	15.6	23.9	20.2	24.4	100(397)
7+	4.6	11.2	10.6	31.9	25.0	16.7	100(520)
			χ^2 = 41.697, Sig = .000				
Independent							
≤3	4.9	7.2	11.9	24.0	16.7	35.3	100(1,940)
4-6	4.9	8.9	12.6	32.0	19.1	22.5	100(7,584)
7+	4.7	8.2	11.7	33.6	24.4	17.3	100(9,488)
			χ^2 = 386.127, Sig = .000				

from their children generally increases when age of spouse increase. This may be because most younger spouses of the elderly are still working. They can support more to their elderly spouse (aged over 60).

There were some differences in patterns of instrumental support by occupation. The proportion of adult children providing support 1-3 times a year is higher for children whose elderly' s spouse worked in agricultural and the proportion of providing instrumental support by daily, weekly and monthly is higher for children whose elderly parents spouse had no job. This was probably because the elderly parents whose spouse worked in agricultural occupation and unemployed had low income.

6.3.5 Responsibility for Household Expenses, Main Sources of Income of Household and Income of the Elderly Parents

Whether or not elderly parents could still support themselves financially is likely to affect support from their adult children. Who is responsible for the

Table 40: Percentage distribution of children giving food/cloth to elderly parents in the past year by number of siblings of children, age of elderly 's spouse, education of elderly' s spouse, occupation of elderly 's spouse, and work status of elderly' s spouse.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
Age of Elderly' s Spouse							
<60							
≤3	2.3	5.5	9.8	20.5	19.6	42.4	100(347)
4-6	2.9	7.5	12.1	30.1	19.1	28.2	100(1,234)
7+	2.7	5.8	8.2	36.4	29.5	17.4	100(1,385)
			χ^2 = 149.997, Sig = .000				
60-69							
≤3	6.1	8.9	16.7	24.6	12.8	30.9	100(508)
4-6	4.8	8.3	12.9	34.1	18.8	21.1	100(2,213)
7+	4.5	8.8	12.0	34.2	23.8	16.7	100(2,935)
			χ^2 = 103.350, Sig = .000				
70							
≤3	8.5	8.5	11.2	22.9	16.0	33.0	100(188)
4-6	6.2	11.5	15.3	31.1	18.1	17.9	100(1,036)
7+	6.1	11.3	13.4	30.3	23.7	15.3	100(1,475)
			χ^2 = 51.006, Sig = .000				
No Spouse							
≤3	4.5	6.9	10.1	25.1	17.6	35.9	100(990)
4-6	5.4	9.0	12.2	30.7	19.7	22.9	100(3,493)
7+	5.1	7.9	12.0	33.3	23.4	18.4	100(4,206)
			χ^2 = 158.526, Sig = .000				
Education of Elderly' s Spouse							
<Prathom 4							
≤3	4.9	7.4	11.3	22.5	17.9	34.0	100(324)
4-6	4.3	11.8	13.2	29.8	20.0	20.7	100(1,428)
7+	4.5	8.8	10.8	31.9	27.1	17.0	100(2,418)
			χ^2 = 92.426, Sig = .000				
Prathom 4+							
≤3	5.4	7.8	13.6	23.0	14.5	35.7	100(705)
4-6	4.7	7.5	13.3	33.3	18.1	23.0	100(2,994)
7+	4.5	8.7	11.9	34.8	23.9	16.2	100(3,339)
			χ^2 = 187.001, Sig = .000				

Table 40: (Continued)

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
No Spouse							
≤3	4.6	7.0	10.1	25.2	17.5	35.7	100(973)
4-6	5.4	9.1	12.1	31.2	19.6	22.6	100(3,464)
7+	5.2	8.0	12.0	33.1	23.6	18.2	100(4,174)
			χ^2 = 157.243, Sig = .000				
Occupation of Elderly' s Spouse							
Non-Agriculture							
≤3	1.6	3.6	12.3	21.3	16.2	45.1	100(253)
4-6	2.4	7.8	14.7	29.8	20.9	24.4	100(808)
7+	2.5	10.5	11.2	28.6	24.6	22.6	100(849)
			χ^2 = 67.860, Sig = .000				
Agriculture							
≤3	5.5	7.1	13.4	26.2	16.4	31.4	100(366)
4-6	5.6	8.5	12.0	36.0	17.3	20.6	100(1,817)
7+	4.1	8.3	9.7	36.2	27.4	14.3	100(2,514)
			χ^2 = 138.514, Sig = .000				
No Occupation							
≤3	7.2	10.9	14.1	20.7	13.9	33.3	100(469)
4-6	4.8	9.4	13.8	29.9	18.6	23.4	100(2,054)
7+	5.4	8.7	12.9	32.7	22.8	17.5	100(2,633)
			χ^2 = 100.984, Sig = .000				
No Spouse							
≤3	4.5	6.6	10.0	25.4	18.0	35.5	100(934)
4-6	5.4	9.1	12.1	30.7	20.1	22.7	100(3,289)
7+	5.1	7.8	12.2	33.3	23.6	18.0	100(4,001)
			χ^2 = 152,646, Sig = .000				
Work Status of Elderly' s Spouse							
Spouse/ Self/ Spouse & Self/Family							
≤3	3.8	6.2	13.9	24.9	17.1	34.1	100(498)
4-6	4.8	8.3	12.9	34.2	18.1	21.7	100(2,152)
7+	3.8	8.8	9.9	35.5	26.3	15.8	100(2,875)
			χ^2 = 155,918 Sig = .000				

Table 40: (Continued)

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
Private/Government Sector							
≤3	2.2	2.2	7.9	22.5	14.6	50.6	100(89)
4-6	1.9	8.0	11.9	34.1	23.2	20.9	100(311)
7+	2.7	8.2	12.0	27.2	33.0	16.9	100(367)
			χ^2 = 58.007, Sig = .000				
No Occupation							
≤3	7.5	10.4	14.1	20.9	13.9	33.3	100(454)
4-6	4.8	9.5	13.8	30.0	18.7	23.2	100(2,021)
7+	5.5	8.7	13.1	32.6	22.8	17.3	100(2,563)
			χ^2 = 97.830, Sig = .000				
No Spouse							
≤3	4.5	6.9	10.0	25.0	17.7	35.8	100(992)
4-6	5.5	9.0	12.2	30.8	19.7	22.9	100(3,497)
7+	5.1	7.9	12.0	33.3	23.3	18.4	100(4,203)
			χ^2 = 157.223, Sig = .000				

household expenses had effect on the pattern of instrumental support by the adult children with both a small and a large numbers of siblings (table 41). The pattern of support was different from the regular pattern in the group of children whose elderly parents had relatives or other people took care of the household expenses. There was no difference in the proportion receiving support 1-3 times a year from children with a small and a large numbers of siblings. Children with a small and a large numbers of siblings were equally likely to provide instrumental support to the elderly parents. This may be because the elderly parents whose relatives or other people took care of the household expenses have poor income or poor health which will increase the likelihood and level of care provided by their children (United Nations, 1988). However, it should be noted that the proportion receiving no support

Table 41: Percentage distribution of children giving food/cloth to elderly parents in the past year by number of siblings of children, care taker of household expense and main source of income of household.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
Who Take Care of Household Expense							
Elderly/Spouse/Elderly & Spouse							
≤3	4.2	8.6	13.1	25.7	19.2	29.2	100(1,055)
4-6	4.7	8.7	12.5	33.8	20.8	19.4	100(3,882)
7+	4.7	7.9	11.4	35.8	25.9	14.4	100(4,884)
			χ^2 = 177.461, Sig = .000				
Children							
≤3	5.5	5.7	11.1	20.5	13.4	43.8	100(821)
4-6	5.2	9.0	13.2	29.1	17.8	25.7	100(3,648)
7+	4.8	8.6	12.3	31.4	22.8	20.2	100(4,523)
			χ^2 = 246.085, Sig = .000				
Others							
≤3	7.1	6.4	6.4	30.8	15.4	34.0	100(156)
4-6	5.8	9.8	10.9	33.3	15.1	25.1	100(430)
7+	4.6	11.2	9.2	31.9	23.7	19.5	100(590)
			χ^2 = 30.205, Sig = .000				
Main Source of Income in Household							
Elderly (Own Work/Own Saving/Interest/Pension/Lump Sum/Spouse)							
≤3	4.6	8.5	12.5	22.5	19.8	32.1	100(953)
4-6	4.7	8.8	12.5	32.5	20.7	20.8	100(3,063)
7+	4.2	8.3	10.9	33.3	27.6	15.7	100(3,748)
			χ^2 = 182.694, Sig = .000				
Children							
≤3	5.4	6.1	12.1	23.7	13.6	39.2	100(870)
4-6	5.1	9.1	13.4	30.6	17.9	23.8	100(4,318)
7+	5.2	8.4	12.7	33.4	21.8	18.6	100(5,567)
			χ^2 = 219.633, Sig = .000				
Others							
≤3	4.3	6.7	7.7	32.2	13.5	35.6	100(208)
4-6	5.4	8.4	9.6	34.2	20.0	22.5	100(596)
7+	3.8	8.4	7.2	36.5	27.9	16.3	100(682)
			χ^2 = 51.535, Sig = .000				

from children by different family size appeared pronounced in the group of children whose elderly parents and spouse took care of household expense. This means that elderly parents could still support themselves and possibly support their children.

The main source of income of the household and the main source of income of the elderly did not affect the relationship between family size and the pattern of instrumental support provided by adult children to their elderly parents (tables 41 and 42). There was little difference in the proportion receiving support 1-3 times a year from children with a small and a large numbers of siblings whose elderly parents had their main source of income from relatives or other people and the proportion receiving support was higher when compared to the other groups. This may be the same reason as the elderly parents whose relatives or other people took care of the household expenses. That is the elderly parents whose main source of income came from relatives or other may were old, had no work or income and no saving or property which will increase the likelihood and level of care provided by their children (United Nations, 1988).

6.3.6 Property of Elderly Parents

Previous studies have shown that the property owned by the elderly parents affects elderly care. In Nepal it was found that if the elderly parents had some property their children would provide them high quality care (Goldstein, Schuler and Ross,1983). This was partly because the children were expecting to inherit some of their parents' property. In this study it was found that the effect of ownership of land and house only appears prominent in the group in which adult children owned the house they lived in and in the group in which their relatives or other owned the land they lived in (table 43). There was very little difference by the family size in the

Table 42: Percentage distribution of children giving food/cloth to elderly parents in the past year by number of siblings of children and total income of elderly and spouse.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
Total Income of Elderly & Spouse							
No Income/< 5,000							
≤3	5.1	5.9	10.9	23.6	15.4	39.1	100(1,052)
4-6	5.2	9.1	11.4	29.9	20.4	24.0	100(4,227)
7+	4.5	8.1	12.1	32.3	23.7	19.2	100(4,944)
			χ^2 = 219.816, Sig = .000				
5,000-19,999							
≤3	4.3	10.3	8.3	25.9	22.4	28.9	100(398)
4-6	4.5	9.0	11.6	35.1	21.2	18.6	100(1,586)
7+	5.4	9.6	10.8	33.8	25.7	14.7	100(2,296)
			χ^2 = 63.561, Sig = .000				
20,000-49,999							
≤3	5.9	5.9	14.5	25.0	15.6	33.2	100(256)
4-6	4.6	8.8	17.3	33.2	15.0	21.1	100(1,217)
7+	4.9	8.1	10.6	37.3	24.0	15.1	100(1,787)
			χ^2 = 115.818, Sig = .000				
50,000+							
≤3	4.3	9.2	16.8	22.0	14.1	33.6	100(327)
4-6	5.2	8.1	14.8	31.7	15.6	24.7	100(951)
7+	3.8	7.2	13.3	31.9	25.6	18.2	100(981)
			χ^2 = 71.951, Sig = .000				

proportion of providing support 1-3 times a year in the group where relatives or others owned the land they lived in (28 and 29.6 percent). In the group in which adult children owned the house they lived, the proportion of children with a large number of siblings providing no support to elderly parents are the same as the proportion of providing support 1– 3 times a year to their elderly parents. This might be due to children from a large families who owned the house already provided other types of support to their elderly parents.

Table 43: Percentage distribution of children giving food/cloth to elderly parents in the past year by number of siblings of children, owner of house and owner of land.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
Owner of House They Lived in							
Elderly/Spouse/Elderly & Spouse							
≤3	5.6	8.1	12.4	24.5	16.6	32.9	100(1,509)
4-6	5.4	9.2	13.2	32.5	18.1	21.7	100(6,322)
7+	5.2	8.7	11.6	34.5	23.7	16.3	100(8,190)
			χ^2 = 307.980, Sig = .000				
Children							
≤3	3.3	7.3	10.9	22.3	14.6	41.6	100(274)
4-6	3.8	9.5	11.2	31.3	21.8	22.4	100(1,019)
7+	3.3	8.3	14.9	27.1	27.2	19.2	100(1,084)
			χ^2 = 80.556, Sig = .000				
Others							
≤3	2.8	2.4	9.2	22.8	18.8	44.0	100(250)
4-6	2.8	5.6	10.9	23.6	25.6	31.4	100(640)
7+	1.5	4.6	7.7	32.6	27.8	25.7	100(723)
			χ^2 = 49.397, Sig = .000				
Owner of Land They Lived in							
Elderly/Spouse/Elderly & Spouse							
≤3	6.0	7.9	11.9	24.3	16.0	33.9	100(1,224)
4-6	5.5	9.2	13.0	33.3	17.4	21.7	100(5,053)
7+	5.6	8.5	11.5	34.8	23.4	16.2	100(6,909)
			χ^2 = 284.949, Sig = .000				
Children							
≤3	5.5	8.3	13.4	20.5	16.1	36.2	100(254)
4-6	4.8	9.7	14.4	32.7	19.4	19.0	100(947)
7+	3.5	8.7	14.6	31.4	25.7	16.0	100(1,076)
			χ^2 = 70.840, Sig = .000				
Others							
≤3	3.0	6.6	11.4	28.0	17.7	33.3	100(396)
4-6	4.6	8.7	12.0	28.4	21.8	24.5	100(1,475)
7+	2.8	9.8	11.4	29.6	27.1	19.3	100(1,428)
			χ^2 = 54.485, Sig = .000				

Table 44: Percentage distribution of children giving food/cloth to elderly parents in the past year by number of siblings of children, properties of house, land and saving of elderly parents.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
Properties (Own House)							
Own name/Spouse Name/Joined Names							
≤3	5.4	8.0	12.3	24.5	16.7	33.1	100(1,591)
4-6	5.4	9.2	13.4	32.3	18.0	21.7	100(6,452)
7+	5.2	8.7	11.8	34.3	23.6	16.3	100(8,406)
			χ^2 = 320.725, Sig = .000				
No							
≤3	3.2	4.8	10.0	21.9	16.1	44.1	100(442)
4-6	3.2	7.7	9.9	29.1	24.0	26.1	100(1,525)
7+	2.3	6.5	11.1	29.6	28.1	22.4	100(1,591)
			χ^2 = 98.233, Sig = .000				
Properties (Own Land)							
Own name/Spouse Name/Joined Names							
≤3	5.6	7.7	11.9	24.2	16.3	34.2	100(1,453)
4-6	5.3	9.2	13.1	32.6	18.0	21.7	100(5,733)
7+	5.4	8.8	11.5	34.7	23.2	16.5	100(7,573)
			χ^2 = 306.458, Sig = .000				
No							
≤3	3.1	6.2	11.6	23.3	17.2	38.6	100(580)
4-6	4.1	8.0	11.9	29.1	22.1	24.7	100(2,244)
7+	2.8	7.0	12.1	30.0	28.1	20.0	100(2,424)
			χ^2 = 115,897, Sig = .000				
Properties (Have Saving)							
Own Name/Spouse Name/Joined Names							
≤3	5.9	9.8	11.1	25.1	13.2	34.9	100(745)
4-6	4.3	10.1	13.9	32.3	15.4	24.0	100(2,683)
7+	5.5	9.1	13.9	36.4	18.1	17.1	100(3,370)
			χ^2 = 146.590, Sig = .000				
No							
≤3	4.3	5.8	12.2	23.3	18.6	35.8	100(1,288)
4-6	5.3	8.3	12.2	31.2	21.1	21.9	100(5,283)
7+	4.3	8.0	10.5	32.1	27.5	17.4	100(6,627)
			χ^2 = 295.682, Sig = .000				

In addition to the factor of the ownership of land and houses the elderly parents currently lived in, other property factors such as the land and houses they own and their saving were also controlled. It was found that the ownership of assets of the elderly does not affect the relationship between family size and pattern of instrumental support (table 44). However, it should be noted that the proportion providing support to the elderly on a daily or weekly basis was high in the group of 'elderly parents/spouses of elderly parents/ both parents and their spouses' that had no property of land or house. Also, the proportion not providing support was also high for the group of 'elderly parents/spouses of elderly parents/both parents and their spouses' that had no saving.

6.3.7 Summary

In conclusion, the result of study show that selected characteristics of elderly parents were likely to affect the pattern of instrumental of support adult children with a small and a large numbers of siblings provided to the elderly. Work status of the elderly parents, locus of responsibility for household expenses, ownership of land and house they currently lived affected the relationship between the number of siblings the children had and the basic pattern of instrumental support provided to their elderly parents.

6.4 Result of Multivariate Analysis

In order to establish the net effect of each independent variable on the instrumental support given to the elderly parents when other variables were controlled Multinomial Logistic Regression was utilized. Since there were several subgroups in the dependent variables, they were regrouped from 6 into 4 new subgroups. These 4

subgroups were group 1 : children who provided instrumental support to their elderly parents >1-3 times a year, with an inclusion of children who provided support every day, every week and every month into this group. Group 2 were children who in the past year never provided the instrumental support to their elderly parents. Group 3 were children who shared the same house with their elderly parents and group 4 were children who provided the instrumental support to their elderly parents 1-3 times a year which implied that the support this group provided was infrequent.

These 4 groups results in six pairs of comparisons. **Pairs 1** compared group 1: children who provided the support >1-3 times with group 4: children who provided the support 1-3 times. **Pairs 2** compared group 2: children who never provided the support with group 4. **Pairs 3** compared group 3: children who shared the same house with their elderly parents with group 4. **Pairs 4** compared group 2 with group 1. **Pairs 5** and **Pairs** 6 compared group 2 with group 3, and group 3 with group 1, respectively (table 45).

Each pairs is analyzed using 4 sequential models. **Model I** examines only the effect of total number of siblings each child had. **Model II** adds demographic and socio-economic characteristics of the child to the number of siblings examined in Model I. **Model III** contains the two variables in Model II plus the characteristics of the elderly themselves, and **Model IV** includes all features of Model III with the addition of characteristics of the spouse of the elderly.

The findings show that there are statistically significant differences in the effects of the number of siblings on the amount of intrumental support provided to elderly parents by adult children. In Model I, when comparisons were made among children who provided support to the elderly parents, it was found that an increase in

the number of siblings reduced the amount of instrumental support provided to elderly parents. An increase in the number of siblings of an adult child living in the same house as their elderly parent reduced the odds of that child providing instrumental support to their elderly parents (by 21 percent compared to never providing support, by 14 percent when compared to providing support 1-3 times a year, and by 9 percent when compared to providing support more than 1-3 times a year). In addition, an increase in the number of siblings increased the likelihood that an adult child would not provide instrumental support to their eldelry parants (with the addition of each sibling an increase of 4 percent in the odds of not providing support compared to providing support 1-3 times a year and an increase of 10 percent in the odds of not providing support compared to providing support more than 1-3 times a year). Finally, an increase of a sibling reduced the likely of providing support more 1-3 times a year by 5 percent compared to providing support 1-3 times a year.

In summary, as the number of siblings increase the probability of an adult child providing instrumental support, and the frequency of such support decreases. However, this finding did not mean that the elderly who have more children would receive less instrumental support. The finding does imply that an increase in the number of siblings lessens the burden that each child has in taking care of their elderly parents. With more siblings the need for any one sibling to contribute instrumental support decreases.

Controlling for the characteristics of children does affect the relationships between the number of siblings and the likelihood of providing instrumental support. The effects can all be found in the comparisons that involve living in the same house.

Table 45: Odds ratios of the effect of characteristics of the child, characteristics of the elderly, and characteristics of the elderly' s spouse on the likelihood of instrumental support being provided by children to their elderly parents.

	>1-3 VS 1-3 times	Never VS 1-3 times	Same House VS 1-3 times	Never VS >1-3 times	Never VS Same House	Same House VS >1-3 times
Model I						
Log likelihood	-26578.703	-26578.703	-26578.703	-26578.703	-26578.703	-26578.703
Chi-square	480.68***	480.68***	480.68***	480.68 ***	480.68***	480.68***
N	19,555	19,555	19,555	19,555	19,555	19,555
No. of Sibling	**.9491*** **	**1.0397*** **	**.8617*** **	**1.0955*** **	**1.2066*** **	**.9079*** **
Model II						
Log likelihood	-23796.318	-23796.318	-23796.318	-23796.318	-23796.318	-23796.318
Chi-square change	5564.77***	5564.77***	5564.77***	5564.77***	5564.77***	5564.77***
N	19,555	19,555	19,555	19,555	19,555	19,555
No. of Sibling	**.9398*** **	**1.0199**	**.7490*** **	**1.0852*** **	**1.3616*** **	**.7970*** **
Characteristics of Child						
Sex						
-male	1.1327***	.6154***	1.2753***	.5433***	.4825***	1.1259*
-female (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Age	1.0122***	.9841***	.9814***	.9722***	1.0027	.9696***
Birth Order	1.0158	1.0144	1.1797***	.9986	.8599***	1.1613***
Marital Status						
-single/separate/ widowed/divorced	.9310	.6692***	.1698***	.7188**	3.9421***	.1823***
-married (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
No. of Children						
-single	.5212***	.7192**	2.4630***	1.3800**	.2920***	4.7261***
-0	.7897**	.8616	2.6043***	1.0911	.3308***	3.2978***
-1	.9925	.7248***	2.4292***	.7303***	.2984***	2.4476***
-2	.9849	.7644***	1.6170***	.7761***	.4727***	1.6418***
-3+ (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Education	1.0139**	.9700***	.9889**	.9567***	.9810***	.9753***
Occupation						
-professional	.4762***	.5828***	.1540***	1.2238*	3.7850***	.3233***
-commercial	.5458***	.5363***	.3422***	.9825	1.5671***	.6270***
-labor	.4491***	.7332***	.2178***	1.6327***	3.3659***	.4851***
-no occupation	.5472***	1.2346***	.4694***	2.2564***	2.6304***	.8578
-agriculture (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Area of Residence of Elderly						
-urban	.7052***	.5760***	.4107***	.8168**	1.4024***	.5824***
-rural (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Region of Residence of Elderly						
-North	.7960***	.6533***	.5873***	.8207**	1.1122	.7378***
-Northeast	.8470**	.8947**	.6640***	1.0563	1.3475***	.7839***
-South	1.2017**	.9811	.8513**	.8165**	1.1525	.7084***
-Bangkok	1.1954*	.8213	1.7841***	.6871***	.4603***	1.4925***
-Central (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Table 45: (Continued)

	>1-3 VS 1-3 times	Never VS 1-3 times	Same House VS 1-3 times	Never VS >1-3 times	Never VS Same House	Same House VS >1-3 times
Model III						
Log likelihood	-233363.966	-233363.966	-233363.966	-233363.966	-233363.966	-233363.966
Chi-square change	864.7***	864.7***	864.7***	864.7***	864.7***	864.7***
N	19,555	19,555	19,555	19,555	19,555	19,555
No. of Sibling	**.9368*** **	**1.0254***	**.7670*** **	**1.0946*** **	**1.3369*** **	**.8187*** **
Characteristics of Child						
Sex						
-male	1.1293**	.6200***	1.2607***	.5490***	.4918***	1.1163*
-female (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Age	1.0065	.9929	.9610***	.9865**	1.0332***	.9548***
Birth Order	1.0081	1.0316*	1.1180***	1.0233	.9228***	1.1089***
Marital Status						
-single/separate/ widowed/divorced	.9194	.6877***	.1594***	.7481*	4.3158***	.1733***
-married (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
No. of Children						
-single	.5091***	.7764	2.4852***	1.5251**	.3124***	4.8816***
-0	.7837**	.8971	2.7482***	1.4464	.3264***	3.5065***
-1	.9730	.7438***	2.4375***	.7645***	.3052***	2.5053***
-2	.9602	.7841***	1.6141***	.8166***	.4858***	1.6811***
-3+ (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Education	1.0046	.9776***	.9899	.9732***	.9876*	.9854*
Occupation						
-professional	.4572***	.5772***	.1468***	1.2624**	3.9317***	.3211***
-commercial	.5436***	.5159***	.3160***	.9491	1.6327***	.5813***
-labor	.4401***	.6970***	.2051***	1.5837***	3.3990***	.4659***
-no occupation	.5411***	1.1879*	.4512***	2.1954***	2.6336***	.8336
-agriculture (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Area of Residence of Elderly						
-urban	.7140***	.6744***	.4728***	.9446	1.4263***	.6623***
-rural (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Region of Residence of Elderly						
-North	.7942***	.6725***	.5463***	.8468*	1.2311**	.6878***
-Northeast	.8495**	.9957	.6603***	1.1720*	1.5078***	.7773***
-South	1.2722***	1.0035	.9023	.7888***	1.1122	.7093***
-Bangkok	1.4360***	.6598***	1.7862***	.4594***	.3694***	1.2438*
-Central (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Characteristics of Elderly						
Sex						
-male	1.1116*	.9433	1.1241*	.8486**	.8391**	1.0113
-female (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Age	1.0061	.9836**	1.0074	.9776* **	.9763***	1.0013

Table 45: (Continued)

	>1-3 VS 1-3 times	Never VS 1-3 times	Same House VS 1-3 times	Never VS >1-3 times	Never VS Same House	Same House VS >1-3 times
Model III (cont.)						
Marital Status						
- widowed/divorced separated	1.1638***	.9784	1.0712	.8407***	.9134	.9204
-married (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Education	1.0174*	.9747**	.9925	.9580***	.9821	.9755**
Occupation						
-non agriculture	.9038	.8381**	.7187***	.9273	1.1662*	.7952***
-agriculture (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Work Status						
-private/gov.sector	1.0245	1.3427***	1.1107	1.3106***	1.2088**	1.0842
-no occupation	1.4145*	1.3007	1.0861	.9195	1.1975	.7679
-self/spouse/self & spouse/family (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Health Status						
-dependent	.8386*	.8550	.8928	1.0195	.9576	1.0646
-independent (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Who Take Care of Household Expenses						
-child	1.2144***	1.1044	2.4087***	.9094	.4585***	1.9834***
-other	1.2337*	.9187	2.0177***	.7447**	.4553***	1.6355***
-elderly/spouse/ family(ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Main Source of Income of Household						
-own work/ own saving/ interest/pension/ lump sum/spouse	.9292	1.4200***	1.1769*	1.5281***	1.2066**	1.2665***
-other	.6366	1.2108*	1.0906	1.9019***	1.1102	1.7131***
-child (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total Income of Elderly & Spouse						
- 5,000–19,999 baht	1.0205	.9800	.8537*	.9603	1.1480*	.8366**
-20,000-49,999 baht	1.0722	.8095***	.8854	.7550***	.9143	.8258**
-50,000+ baht	1.1572*	.9579	1.0400	.8278*	.9210	.8987
-no income/<5,000 baht (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Owner of House They Lived in						
-child	1.1976	1.2141	1.1207	1.0138	1.0833	.9358
-other	.7898	1.0437	.6251**	1.3215	1.6697***	.7915
-elderly /spouse / family (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Owner of Land They Lived in						
-child	1.1569	1.0118	.9100	.8746	1.1118	.7866*
-other	1.0311	1.1738*	.9841	1.1384	1.1927	.9545
-elderly/spouse/ family (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Table 45: (Continued)

	>1-3 VS 1-3 times	Never VS 1-3 times	Same House VS 1-3 times	Never VS >1-3 times	Never VS Same House	Same House VS >1-3 times
Model III (cont.)						
Properties (own house)						
- no	1.6679***	.9208	.9055	.5521***	1.0169	.5429***
-own name/ spouse name/ joined name (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Properties (own land)						
- no	1.0497	.9472	1.1578	.9024	.8180	1.1030
-own name/ spouse name/ joined name (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Properties (saving)						
- no	.9407	1.3740***	.9818	1.4606	1.3993***	1.0437
-own name/ spouse name/ joined name (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Model IV						
Log likelihood	-23312.305	-23312.305	-23312.305	-23312.305	-23312.305	-23312.305
Chi-square change	103.33***	103.33***	103.33***	103.33***	103.33***	103.33***
N	19,555	19,555	19,555	19,555	19,555	19,555
No. of Sibling	**.9378***	**1.0230***	**.7683***	**1.0908***	**1.3314***	**.8193***
Characteristics of Child						
Sex						
-male	1.1297**	.6174***	1.2662***	.5465***	.4876***	1.1208*
-female (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Age	1.0040	.9930	.9593***	.9890*	1.0352***	.9554***
Birth Order	1.0015	1.0322*	1.1138***	1.0306*	.9268***	1.1121***
Marital Status						
-single/separate/ widowed/ divorced	.9181	.6874***	.1578***	.7488**	4.3563***	.1719***
-married (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
No. of Children						
-single	.5128***	.7723	2.4842***	1.5061**	.3109***	4.8444***
-0	.7846**	.8961	2.7653***	1.1421	.3240***	3.5246***
-1	.9783	.7463***	2.4447***	.7629***	.3053***	2.4990***
-2	.9627	.7836***	1.6203***	.8139***	.4836***	1.6830***
-3+ (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Education	1.0045	.9775***	.9906	.9731***	.9868*	.9862*
Occupation						
-professional	.4575***	.5803***	.1446***	1.2685**	4.0138***	.3160***
-commercial	.5456***	.5154***	.3141***	.9447	1.6409***	.5757***
-labor	.4421***	.6949***	.2039***	1.5720***	3.4076***	.4613***
-no occupation	.5432***	1.1982*	.4408***	2.2058***	2.7181***	.8115*
-agriculture (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Table 45: (Continued)

	>1-3 VS 1-3 times	Never VS 1-3 times	Same House VS 1-3 times	Never VS >1-3 times	Never VS Same House	Same House VS >1-3 times
Model IV (cont.)						
Area of Residence of Elderly						
-urban	.7219***	.6818***	.4770***	.9445	1.4295***	.6607***
-rural (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Region of Residence of Elderly						
-North	.7910***	.6725***	.5375***	.8502**	1.2510**	.6796***
-Northeast	.8610**	1.0087	.6500***	1.1715**	1.5517***	.7549***
-South	1.2763***	.9999	.8930	.7835***	1.1197	.6997***
-Bangkok	1.4432***	.6501***	1.7548***	.4504***	.3705***	1.2159
-Central (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Characteristics of Elderly						
Sex						
-male	1.0534	.9729	1.0949	.9235	.8885	1.0393
-female (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Age	1.0013	.9819***	1.0044	.9806***	.9776***	1.0031
Marital Status						
- widowed/divorced separated	1.1838	.6789***	1.7750***	.5735***	.3825***	1.4994**
-married (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Education	1.0200**	.9783**	.9947	.9591***	.9835	.9752**
Occupation						
-non agriculture	.9363	.8443**	.7458***	.9016	1.1320	.7965***
-agriculture (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Work Status						
-private/gov.sector	1.0182	1.3401***	1.0984	1.3162***	1.2200**	1.0788
-no occupation	1.4340**	1.2919	1.0926	.9009	1.1824	.7620
-self/ spouse /self & spouse/family (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Health Status						
-dependent	.8387	.8761	.8927	1.0446	.9814	1.0644
-independent (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Who Take Care of Household Expenses						
-child	1.1913***	1.0991	2.3870***	.9226	.4605***	2.0037***
-other	1.2304**	.9116	1.9908***	.7408**	.4579***	1.6179***
-elderly/spouse/ family (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Main Source of Income of Household						
-own work/ own saving/ interest/pension/ lump sum/spouse	.9507	1.4376***	1.2152**	1.5120***	1.1830*	1.2782***
-others	.6502***	1.2321**	1.1197	1.8949***	1.1004	1.7221***
-child (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Table 45: (Continued)

	>1-3 VS 1-3 times	Never VS 1-3 times	Same House VS 1-3 times	Never VS >1-3 times	Never VS Same House	Same House VS >1-3 times
Model IV (cont.)						
Total Income of Elderly & Spouse						
- 5,000–19,999 baht	1.0386	.9862	.8690*	.9496	1.1349	.8368**
-20,000-49,999 baht	1.1002	.8112***	.9124	.7374***	.8893	.8292**
-50,000+ baht	1.1749*	.9653	1.0592	.8216*	.9113	.9016
-no income/<5,000 baht (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Owner of House They Lived in						
-child	1.2066	1.1799	1.1778	.9779	1.0018	.9762
-others	.7782	.9933	.6559**	1.2763	1.5144**	.8429
-elderly/ spouse / family (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Owner of Land They Lived in						
-child	1.1518	1.0063	.9177	.8737	1.0965	.7968*
-other	1.0320	1.1637	1.0008	1.1277	1.1628	.9698
-elderly /spouse/ family (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Properties (own house)						
- no	1.6607	.8947	.9346	.5387***	.9573	.5628***
-own name/ spouse name/ joined name (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Properties (own land)						
- no	1.0414	.9398	1.1624	.9024	.8085*	1.1162
-own name/ spouse name/ joined name (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Properties (saving)						
-own name/ spouse name/ joined name	.9416	1.3685***	.9786	1.4533***	1.3984***	1.0393
- no (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Characteristics of Elderly 's Spouse						
Age						
-<60	.7580**	1.0048	.9361	1.3257**	1.0734	1.2350
-60-69	.8557*	.9053	.8343*	1.0579	1.0852	.9749
-no spouse	.9621	.7722	3.2854***	.8027	.2351***	3.4148***
-70+ (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Education						
-< p 4	1.1091	1.1611**	1.0498	1.0470	1.1061	.9466
-no spouse	.9910	.7226	.6827	.7292	1.0584	.6890
-p 4/> p 4 (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Occupation						
-non-agriculture	1.0111	.9501	.9544	.9396	.9955	.9438
-agriculture	.8471**	.9119	.8263**	1.0764	1.1036	.9754
-no spouse	.9491	1.1668	.6479**	1.2294	1.8008***	.6827
-no occupation(ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

* p<.05; ** p < .01 ; *** p <.001

In all three of these comparisons, the likelihood of an adult child living in the same house as their elderly parents compared to providing different levels of instrumental support to their elderly parents is reduced compared to model I. This reduction is 16, 11 and 10 percentage points for the comparisons with never provide support, provide support 1-3 times a year, and provide support more that 1-3 times a year respectively.

These results clearly indicate that there are characteristics of adult children that result in them more likely to be living in the same house as their elderly parents and that these same characteristics are related to the effect of increases in the number of siblings on the likelihood of providing instrumental support to their parents. When we control for the characteristics of adult children, the differences in the likelihood of living in the same house as their elderly parents as opposed to providing instrumental support increase, but the differences in the frequency of providing support, for those providing support does not change. When a parent has only one child that child is likely to live with their parents when they become old. An increase in the number of siblings reduces the likelihood of a child living with their parents, and hence increases the likelihood of instrumental support.

Model II provides a significantly better fit to the data than does model I (Pseudo R^2 increases from .0090 to .1127). This indicates that the characteristics of children are very important in determining the extent of instrumental support provided to elderly parents. When each independent variable was investigated, several variables concerning the characteristics of the child are observed to be statistically significant. This finding is different from the result of bivariate analysis in which only two variables: marital status and occupation of the child, showed their influences on the instrumental support provided.

Adding the characteristics of the elderly (Model III) and the spouses of the elderly (Model IV) does little to improve the fit of model II. This suggests that it is the characteristics of children that are most important in determining the extent of instrumental support provided by adult children to the parents and the likelihood that children will live with their elderly parents.

It was also found that adding the characteristics of the elderly and their spouses had very little impact on the effect of the number of siblings on the likelihood of providing instrumental support to the elderly. Whatever the characteristics of the elderly of their spouses, an increase in the number of siblings in their family decreases the likelihood and frequency of any one child providing instrumental support to the elderly parents.

In summary, when all other variables were controlled, the study indicated that the total number of siblings influenced the likelihood of the instrumental support the elderly parents would receive from their children, and the characteristics of the child were the most important variables affecting the provision of the instrumental support. Considering the characteristics of the elderly themselves and those of the spouse of the elderly, it was found that only few variables on the characteristics of the elderly showed the effect on the instrumental support whereas the characteristics of the spouse of the elderly suggested no such effect. These findings are similar to those found in a bivariate analysis, except for one result which indicated that controlling for other independent variables, several variables concerning the characteristics of the child, (rather than only a few variables) had effects on the instrumental support each child provided to the elderly parents.

CHAPTER 7

EMOTIONAL SUPPORT FOR THE ELDERLY

Entering old age is a major turning point in life, affecting the roles and lifestyle of the elderly. Health problems, as well as changes in economic and social status, usually result in a decrease in the elderly's out-of-home life and their life may become more restricted to the home and surroundings (United Nations, 1995a; Wongsith and Siriboon, 1999).

Old age naturally brings both physical and emotional changes. There is general deterioration in the brain as well as the nervous system. These tremendous changes normally cause a confused state of mind as well as anxiety and a fear of death. The elderly may feel unwanted, depressed and sometimes oversensitive. As a result some of the elderly need special care while others can better adjust themselves to these changes. In general the elderly need love and care from their families. Happiness and well being of the elderly usually lie in their satisfaction with their surrounding especially interaction and relationships with family members.

Emotional health in the elderly, in general, is hard to measure since it involves mental realm and individual sentiments (Wongsith and Siriboon, 1999). However, this study used emotional support demonstrated through visits to reflect the attention and care on the part of children that they provide for their elderly parents. Research about the elderly in Thailand (Yodpetch et al., 1997 and 1998) showed that attention given to the elderly through regular visits and communication provides emotional security. Even when their children live far away from them, children's

concern is enough to sustain them emotionally. Elderly parents accept that their children sometimes need to live far away from them in order to make a living. Hence, this study placed an emphasis on visits. These visits are considered an important form of emotional support that adult children could show their elderly parents.

7.1 The Relationship between the Number of Siblings and the Pattern of Visits Paid to the Elderly Parents

Data in chapter 4 shows that about 72 percent of adult children in Thailand paid regular visits to their elderly parents, with only 6.7 percent were not paid such regular visits while the remainder (21.3 percent) lived in the same house as their elderly parents (table 8). The analyses in this chapter explore the association between children with different family size and the pattern of visits paid to elderly parents. Visits adult children paid to their elderly parents was divided into 6 groups: visited their elderly parents every day, every week, every month, 1-3 times a year, not visited their elderly parents at all in the past year; and shared the same house as their elderly parents.

The results show a significant difference between adult children from a small and a large families in the pattern of visiting their elderly parents. Adult children who had a large number of siblings were most likely to pay visit 1-3 times a year to their elderly parents compared to those with a small number of siblings. While adult children who had a small number of siblings were most likely to share the same house as their elderly parents (table 46).

The place of residence and the living arrangements of adult children and the elderly parents which may not enable the adult children to pay more visits to their

elderly parents. Some adult children live and work far away in a different province or in a different region. Some studies in Thailand have pointed out that migration for job finding has reduced a proportion of co-residing with their children (Wongsith and Siriboon, 1999; Nandhamongkolchai, 1999; Richter et al., 1997; Chamratrithirong et al., 1995; National Statistical Office, 1993). However, other factors that might affect the pattern of visits such as the different individual characteristics of the adult children and their elderly parents are not controlled in this stage of study.

Table 46: Percentage distribution of children visiting elderly parents in the past year by number of siblings of children and area of residence of elderly.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
Whole Kingdom							
≤ 3	18.0	7.2	11.9	21.1	6.2	35.6	100(2,027)
4-6	22.3	9.7	13.6	25.5	6.2	22.6	100(7,960)
7+	22.2	9.8	14.4	29.1	7.1	17.4	100(9,962)
			$\chi^2 = 361.933$, Sig = .000				
Urban							
≤ 3	12.9	8.2	11.7	19.9	5.2	42.1	100 (668)
4-6	15.7	11.1	13.8	21.4	6.4	31.7	100(2,068)
7+	13.7	10.1	18.3	24.1	6.6	27.2	100(2,089)
			$\chi^2 = 72.082$, Sig = .000				
Rural							
≤ 3	20.5	6.7	12.1	21.6	6.7	32.4	100(1,359)
4-6	24.7	9.2	13.6	26.9	6.2	19.5	100(5,892)
7+	24.5	9.7	13.3	30.4	7.3	14.8	100(7,873)
			$\chi^2 = 272.172$, Sig = .000				

It should be noted that the frequency of paying visits to their elderly parents every day was also high for adult children with a small and a large numbers of siblings. In addition, there was a little difference in the proportion of visits adult

children with a small and a large numbers of siblings paid to their elderly parents every week and every month and there was no difference among family size in the proportion not visiting their elderly parents.

7.1.1 Area of Residence and the Pattern of Visiting

The effect of family size on visits paid to their elderly parents is strongest for adult children whose elderly parents lived in urban area (table 46). Adult children with a small and a large numbers of siblings whose elderly parents lived in urban areas were most likely to share the same house as their elderly parents. This suggests that in urban areas no matter the size of the family, children were likely to share the same house as their elderly parents. For adult children whose elderly parents lived in rural areas there was a significant difference in the likelihood of paying visits by the two groups of children. Adult children with a small siblings and a large numbers of siblings whose elderly parents lived in rural areas were most likely to pay visit to their elderly parents 1-3 times a year compared to those whose elderly parents lived in the urban areas. This may be because adult children whose elderly parents lived in rural areas lived far from their parent or lived in other provinces. Those who lived far from their parents had to spend time to work to their own families. They had no chance to visit their elderly parents on a daily basis. Each visit paid to their elderly parents means time and money. Whereas, in urban areas, adult children were most likely to share the same house as their elderly parents and can keep in touch with their elderly parents everyday by other means of communication, such as the telephone, while this means of communication is less accessible in rural areas.

The proportion of adult children with a small and a large numbers of siblings who visited their elderly parents every day was high for children whose

elderly parents lived in the rural areas. In rural areas some of the elderly parents and their adult children may live near or live close each other and may have the same occupation such as agriculture or related occupations that encourages them to visit their parents every day.

7.1.2 Region of Residence and Pattern of Visits

Besides the area of residence, the region of residence of elderly was another factor that was included in the study. As mentioned in chapter 5 and 6, each region has its own socio-cultural context that might affect the pattern of visits of adult children. It was found that the pattern of visit paid to elderly parents who lived in Bangkok is different from other regions and similar to the situation in urban areas. Bangkok has the highest proportion of adult children that share the same house as their elderly parents, although there was a large difference in the level of sharing the same house as their elderly parents by different family sizes.

Moreover, adult children with a small and a large numbers of siblings whose elderly parents lived in Bangkok were least likely to pay visits to their elderly parents on a daily basis while adult children with a small and a large numbers of siblings whose elderly parents lived in the north and in the south were most likely to visit their parents every day. This was probably because more of the children whose elderly parents lived in the north and the south probably lived in the same vicinity or the same compound and have same occupation as their elderly parents. In Bangkok, the traffic problem may be one factor that contributed to the low frequency of daily visits. Some of elderly parents and their adult children might live across town from each other and some adult children may be tied up with their work. One trip to see each other could take times due to heavy traffic in the morning and evening rush

hours (Puangsamlee and Ross; 1992). This may be one reason why some children whose elderly parents lived in Bangkok could not pay more visits to their elderly parents. However, children whose elderly parents lived in Bangkok can use the telephone to communicate with their parents on a daily basis.

Table 47: Percentage distribution of children visiting elderly parents in the past year by number of siblings of children and region of residence of elderly.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
North							
≤ 3	20.0	6.5	10.8	26.4	7.0	29.4	100 (511)
4-6	26.6	11.7	12.4	25.4	5.4	18.6	100(1,810)
7+	25.0	10.5	12.1	32.2	5.2	15.1	100(1,933)
			$\chi^2 = 81.786$, Sig = .000				
Northeast							
≤ 3	16.8	5.5	11.3	25.0	9.3	32.1	100 (364)
4-6	27.1	7.1	9.0	30.2	7.1	19.5	100(1,644)
7+	25.3	9.2	11.1	32.3	8.0	14.1	100(2,934)
			$\chi^2 = 103.436$, Sig = .000				
Central							
≤ 3	16.8	8.2	15.0	19.6	5.3	35.2	100 (588)
4-6	19.5	9.4	18.2	25.5	5.1	22.2	100(2,493)
7+	19.9	8.8	17.7	28.8	6.6	18.2	100(2,713)
			$\chi^2 = 92.846$, Sig = .000				
South							
≤ 3	26.8	7.5	8.6	17.9	2.9	36.4	100 (280)
4-6	24.3	9.7	11.9	26.7	8.2	19.3	100(1,088)
7+	24.3	10.8	14.8	26.6	8.1	15.4	100(2,825)
			$\chi^2 = 83.952$, Sig = .000				
Bangkok							
≤ 3	9.9	8.5	12.0	12.7	6.0	51.1	100 (284)
4-6	10.7	11.1	14.1	16.0	7.0	41.1	100 (380)
7+	10.5	11.4	19.0	17.5	8.3	33.3	100 (308)
			$\chi^2 = 36.816$, Sig = .000				

For children whose elderly parents lived in the north, the northeast, the central and the south the pattern of visits paid to their elderly parents was similar to

the pattern of visit that occurs at the national level. Adult children with a small number of siblings were most likely to share the same house as their parents compared to those with a large number of siblings. Adult children with a large number of siblings were most likely to visit their elderly parents 1-3 times per year (table 47). However, when comparing among regions, adult children with a small and a large numbers of siblings whose elderly parents lived in the north and northeast had the highest proportion who made visits to their elderly parents 1-3 times a year, while Bangkok has the lowest level.

This may be explained in terms of differentials in socio-economic and cultural context among regions and differences in the pattern of migration. The north and the northeast have the lowest level of socio-economic status as measured by average income per household per month (National Statistic Office,1996 and 2000). Adult children whose elderly parents lived in the north and the northeast are more likely to leave home to find work, or to join their spouses in other places. Therefore, they are unable to pay their parents more visits because of the distances involved, the travel expense and the lack of time.

7.2 Characteristics of Children and the Relationship between the Number of Siblings and the Pattern of Visits Paid to the Elderly Parents

Variation in the pattern of visits to their elderly parents may result from demographic and socio-economic characteristics of adult children. Such characteristics could include gender, age, birth order, marital status, number of children of adult

children, education, occupation, and living arrangements of the adult children. All of these variables were included in the analysis.

7.2.1 Gender

In Thai society women rather than men are expected to take care of the elderly parents (UNAIDS, 1999; United Nations, 1995b; Boonchalaksi and Guest, 1994). However, the visiting pattern of male and female adult children is not significantly different (table 48). However, the proportion of adult children sharing the same house as their elderly parents and the proportion paying visits 1-3 times a year to their elderly parents were higher for female adult children than for male adult children. Moreover, female adult children with both a small and a large numbers of siblings were most likely to visit their elderly parents every day and also least likely to pay no visit to their elderly parents. This indicated that elderly parents who had small or large families and had female adult children were visited more often than those who had male adult children.

Table 48: Percentage distribution of children visiting elderly parents in the past year by number of siblings and sex of children.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
Male							
≤ 3	16.6	8.1	13.5	23.5	8.3	30.1	100(1,014)
4-6	20.0	10.3	14.8	27.8	7.2	19.8	100(3,865)
7+	20.9	10.1	14.9	30.8	7.6	15.8	100(4,934)
			$\chi^2 = 127.490$, Sig = .000				
Female							
≤ 3	19.4	6.3	10.4	18.7	4.1	41.1	100(1,013)
4-6	24.5	9.1	12.6	23.3	5.3	25.3	100(4,095)
7+	23.6	9.5	13.9	27.4	6.7	19.0	100(5,028)
			$\chi^2 = 253.130$, Sig = .000				

7.2.2 Age

When age of adult children was controlled, the study reveals that the effect of age of children appears pronounced with the younger and the older age groups. The pattern of visits of adult children aged <30 and 40-59 are different from the basic pattern (table 49). Adult children aged 40-59 were most likely to visit their elderly parents daily and weekly. This was probably because they were living close to their elderly parents in the same village or in the same district and probably shared the same occupation as their elderly parents. Therefore, they can pay frequent visits to their elderly parents. For adult children aged <30, the results show that adult children with a small and a large numbers of siblings were most likely to share the same house as elderly parents. This confirms that many children in this age group are still dependent. Some elderly parents may have to provide care for them.

Table 49: Percentage distribution of children visiting elderly parents in the past year by number of siblings and age of children.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
Aged<30							
≤ 3	8.4	5.5	10.1	19.6	6.4	50.0	100 (454)
4-6	12.7	7.0	10.4	27.3	5.9	36.7	100(1,805)
7+	12.2	7.0	12.2	31.3	6.2	31.0	100(2,633)
			χ^2 = 74,622 Sig = .000				
Aged 30-39							
≤ 3	17.7	7.5	12.2	21.5	6.0	35.2	100 (912)
4-6	24.1	10.0	13.7	25.0	5.8	21.5	100(3,666)
7+	25.1	10.1	15.2	27.5	6.7	15.4	100(4,206)
			χ^2 = 197.036, Sig = .000				
Aged 40-59							
≤ 3	25.1	8.0	12.9	21.5	6.4	26.2	100 (661)
4-6	26.8	11.2	15.9	25.0	7.1	14.1	100(2,489)
7+	26.9	11.7	15.0	29.4	8.5	8.5	100(3,123)
			χ^2 = 175.058, Sig = .000				

However, the pattern of visits remained the same for adult children aged 30-39 i.e. children with a small number of siblings were most likely to share the same house as their elderly parents while children with a large number of siblings were most likely to visit their elderly parents 1-3 times a year.

7.2.3 Birth Order

Research in some countries in East Asia, such as Japan, Taiwan and Republic of Korea show that the first born pays more visits than the children of lower order because these societies place more importance to the first born, especially the eldest son (Mason, 1992; Wolf, 1972). In some countries in Southeast Asia, such as Thailand, more importance is given to the last born, especially the youngest daughter

Table 50: Percentage distribution of children visiting elderly parents in the past year by number of siblings and birth order of children.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
1st Birth Order							
≤ 3	19.7	7.6	12.3	20.1	5.8	34.4	100 (892)
4-6	29.2	10.1	14.0	26.0	7.1	13.7	100(1,597)
7+	28.4	11.4	14.5	29.1	8.2	8.4	100(1,232)
			$\chi^2 = 276.081$, Sig = .000				
2nd Birth Order							
≤ 3	18.4	6.7	12.5	23.1	5.9	33.4	100(713)
4-6	25.7	11.3	15.4	24.1	6.2	17.2	100(1,603)
7+	28.7	10.9	14.7	28.9	7.9	8.9	100(1,229)
			$\chi^2 = 199.535$, Sig = .000				
3rd Birth Order+							
≤ 3	13.7	7.1	10.2	19.7	7.6	41.7	100(422)
4-6	18.9	9.0	12.9	25.8	5.9	27.4	100(4,760)
7+	20.2	9.3	14.3	29.1	6.8	20.3	100(7,501)
			$\chi^2 = 168618$, Sig = .000				

(Knodel et al. 1992; Limanonda, 1990), in this case the last born might pay more visits than children of other birth orders.

From table 50 it can be seen that the pattern of visits for the first birth order and the second birth order of children with a small and a large numbers of siblings varied from the basic pattern (table 50). The level of sharing the same house as their elderly parents for children with a small number of siblings were 4 times higher than that of children with a large number of siblings. This indicated that there was a large variation in the level of sharing the same house as their elderly parents among family size. Moreover, adult children with a small and a large numbers of siblings in the first birth order and in the second birth order have the highest level of paying visit to their elderly parents everyday even children with a small number of siblings were less likely to pay visit to their elderly parents everyday than children with a large number of siblings. This was probably because some of children in the first birth orders and in the second birth orders have their own children and take them to their elderly parents for taking care of.

7.2.4 Marital Status

It was expected that marital status of adult children might be another factor affecting their pattern of visits. The single/widowed/ divorced/ separated group may visit their elderly parents more often than the married group, because some of them do not take responsibility for their own families (Shanas,1968; Townsend,1957; Young and Willmott,1957).

When marital status of adult children was controlled, it was found that the marital status of children effects the pattern of visits in the single/ widowed/ divorced/

separated group (table 51). Adult children with a small and a large numbers of siblings most likely to share the same house as their elderly parents, especially adult children with a small number of siblings (59.4 percent). This indicated that most of the single/widowed/ divorced/separated children live with their parents. No change in

Table 51: Percentage distribution of children visiting elderly parents in the past year by number of siblings and marital status of children.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
Married							
≤ 3	23.0	8.2	13.5	22.1	5.8	27.5	100(1,506)
4-6	27.3	11.2	14.9	26.2	6.4	13.9	100(6,103)
7+	26.9	11.5	15.7	30.4	7.2	8.2	100(7,663)
			$\chi^2 = 474.217$, Sig = .000				
Single/Widowed/Divorced/Separated							
≤ 3	3.7	4.4	7.5	18.0	7.0	59.4	100(517)
4-6	5.9	4.6	9.6	23.0	5.5	51.3	100(1,856)
7+	6.6	4.0	9.9	24.7	6.5	48.4	100(2,291)
			$\chi^2 = 29.975$, Sig = .000				

the pattern of visits was found among the married adult children with a small and a large numbers of siblings. However, it should be noted that the level of paying visits to their elderly parents every day was also high for the married children with a small and a large numbers of siblings compared to the single/ widowed/ divorced/ separated children. This was probably because their elderly parents were the caretakers of their children. When children visited their elderly parents it means that they went to see their children too.

7.2.5 Number of Children of Adult Children

The number of children usually means an added responsibility on the part of the parents (Pramualratana, 1991; Caldwell, 1982). Therefore the number of

children is likely to affect the care provided to elderly parents. It was found that the effect of number of children the children had on paying visits to their elderly parents appears pronounced with two and three or more children (table 52). Children with two and those with three and more offspring were most likely to visit their elderly parent's everyday. This was probably because adult children with two children and those with three and more children had put their children in the care of their elderly parents so that they could work (Richter et.al., 1992). It is more expensive to hire a nanny or to send them to day - care centres (Soonthorndhada et al., 1998; Ruffolo and

Table 52: Percentage distribution of children visiting elderly parents in the past year by number of siblings and number of children the children had.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
Have no Child							
≤ 3	15.9	8.3	12.4	23.4	6.2	33.8	100 (145)
4-6	13.7	10.5	14.4	31.5	7.8	22.1	100 (612)
7+	14.4	10.3	16.2	36.8	6.7	15.7	100 (779)
			$\chi^2 = 33.486$, Sig = .000				
Have 1 Child							
≤ 3	14.5	7.5	13.5	20.8	6.0	37.6	100 (399)
4-6	22.7	10.8	13.7	26.0	5.4	21.3	100(1,622)
7+	21.9	9.3	15.5	30.5	7.1	15.6	100(1,855)
			$\chi^2 = 114.616$, Sig = .000				
Have 2 Children							
≤ 3	22.8	8.8	12.0	22.6	5.8	27.9	100 (566)
4-6	30.3	11.3	14.3	24.7	5.3	14.3	100(2,391)
7+	29.8	11.7	15.6	27.9	6.7	8.3	100(2,810)
			$\chi^2 = 179.960$, Sig = .000				
Have 3 Children and More							
≤ 3	29.3	7.0	13.5	20.5	6.0	23.7	100 (502)
4-6	30.9	10.6	15.9	25.8	8.1	8.7	100(1,816)
7+	30.2	12.2	15.3	29.7	8.3	4.2	100(2,606)
			$\chi^2 = 236.889$, Sig = .000				

Wongboonsin,1996). Another reason for leaving their children with their elderly parents was that they could trust them to provide the best and safest care for their children (Richter et.al., 1992).

7.2.6 Education

As education typically is closely related to occupation, those with good education are likely to have better jobs than those with less education. For this reason education was also included in the study. It was found that the pattern of visits for children with four years of schooling or less was different from adult children with a higher level of education (table 53). Those adult children with low education were

Table 53: Percentage distribution of children visiting elderly parents in the past year by number of siblings and education of children.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
≤Pathom 4 (Early Primary School)							
≤ 3	23.0	7.0	11.3	21.0	5.8	32.0	100(935)
4-6	29.5	10.0	12.6	23.7	7.3	16.9	100(4,230)
7+	27.2	10.5	13.4	28.9	8.1	11.9	100(5,768)
$\chi^2 = 283.551$, Sig = .000							
Pathom 5-7 (Late Primary School)							
≤ 3	18.6	4.6	9.3	21.1	8.6	37.9	100(280)
4-6	18.3	6.3	9.7	26.7	5.5	33.5	100(1,155)
7+	19.2	8.0	12.4	27.3	4.6	28.6	100(1,684)
$\chi^2 = 30.875$, Sig = .001							
Mattayom (Secondary School)							
≤ 3	12.2	7.0	13.8	18.7	7.0	41.2	100(427)
4-6	12.8	10.2	15.4	28.7	5.3	27.4	100(1,465)
7+	13.2	8.3	16.5	31.7	6.3	24.1	100(1,608)
$\chi^2 = 64.706$, Sig = .000							
University							
≤ 3	12.0	10.1	13.3	24.2	3.8	36.7	100(368)
4-6	11.5	11.2	19.8	26.4	3.6	27.5	100(1,054)
7+	12.4	11.3	21.2	29.5	5.3	20.3	100(844)
$\chi^2 = 43.348$, Sig = .000							

more likely to share the same house with their elderly parents or visit them every day. This was probably due to the fact that some of adult children with lower level of education lived near or lived close and shared the same occupation as their elderly parents. So, they had a chance to visit their elderly parents any time they wanted.

7.2.7 Occupation

It is possible that the occupation of the adult children reflects not only the socio-economic status of children themselves but also reflects the time children could spare for their families or their elderly parents. Adult children in professional/ technical/ administrative occupations or who were in business / self-employed or entrepreneur / commerce groups might not be able to give their families a lot of time while adult children who had agricultural occupation /agricultural related jobs were expected to have more time.

The pattern of visits by adult children who were unskilled laborers, unemployed and those who were in agricultural or related jobs were different from the basic pattern (table 54). When compared among occupations, it was found that adult children with a small and a large numbers of siblings with agricultural or related jobs were most likely to visit their elderly parents every day. This was probably because of their living arrangements, adult children who were in agricultural occupation were normally living close to their elderly parents. So they had an opportunity to visit their elderly parents more often than other adult children because their living arrangements allowed them to pay daily visits to their elderly parents.

For adult children who were in unskilled occupations, the pattern of visits was different from other groups. Adult children with a small and a large

Table 54: Percentage distribution of children visiting elderly parents in the past year by number of siblings and occupation of children.

No. of Siblings	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Same House	Total
Professional							
≤ 3	11.4	8.7	16.3	25.4	2.9	35.3	100(448)
4-6	12.0	11.3	18.6	32.0	4.6	21.6	100(1,549)
7+	11.8	9.7	19.3	37.3	6.8	15.0	100(1,489)
			$\chi^2 = 104.419$, Sig = .000				
Commercial							
≤ 3	21.2	5.3	13.9	20.7	3.8	35.1	100(208)
4-6	20.2	9.7	13.6	25.0	5.0	26.4	100(875)
7+	17.2	10.8	15.1	32.2	4.3	20.5	100(1,116)
			$\chi^2 = 41.676$, Sig = .000				
Agriculture							
≤ 3	28.4	7.5	10.1	13.0	3.7	37.4	100(655)
4-6	34.8	10.5	11.1	15.8	4.9	22.9	100(2,770)
7+	33.7	11.6	12.3	20.1	5.2	17.2	100(4,069)
			$\chi^2 = 164.288$, Sig = .000				
Labour							
≤ 3	11.6	7.9	11.6	30.6	10.4	28.0	100(483)
4-6	16.5	8.2	13.9	35.6	7.6	18.2	100(1,980)
7+	15.2	7.5	15.0	39.1	9.7	13.4	100(2,256)
			$\chi^2 = 78.347$, Sig = .000				
No Occupation							
≤ 3	13.1	4.2	8.5	14.6	8.0	51.6	100(213)
4-6	16.4	7.5	12.7	22.1	8.5	32.8	100(738)
7+	13.6	7.0	14.0	28.2	8.6	28.5	100(953)
			$\chi^2 = 53.486$, Sig = .000				

numbers of siblings were most likely to pay visits to their elderly parents 1-3 times a year. This was probably due to the fact that children who were unskilled labor lived and worked far from their elderly parents. They had no opportunity to visit their elderly parents more often and had less free time to spare than those who were in agriculture.

Adult children with a small and a large numbers of siblings who were unemployed were most likely to share the same house as elderly parents compared to those the other groups. This was probably because they have no income and remain dependent on their parents. Some of the aged elderly may still have to provide care for them.

In conclusion, some characteristics of adult children such as age, birth order, marital status, number of children, education and occupation affected the pattern of visits of adult children paid to their elderly parent. However, in almost instances controlling for the characteristics of adult children did not change the underlying relationship between the family size and the pattern of visiting elderly parents.

7.3 Characteristics of the Elderly and the Relationship between the Number of Siblings the Children Had and the Pattern of Visits Paid to the Elderly

Besides the characteristics of adult children, the characteristics of elderly parents themselves might affect the pattern of visits by the adult children. Therefore, socio-economic and demographic characteristics of the elderly as well as the property the elderly parents owned are included in the analysis.

7.3.1 Gender, Age and Marital Status of the Elderly Parents

Several studies found that the female elderly parents receive more care from their children than the male elderly parents (Pramualratana, 1991; Geertz, 1961; United Nations, 1996). In this study it was found that gender of the elderly parents does not affect the patterns of visits children with a small and a large numbers of siblings paid to their elderly parents (table 55). Adult children with a large number of

Table 55: Percentage distribution of children visiting elderly parents in the past year by number of siblings of children, sex of elderly parents, age of elderly parents and marital status of elderly parents.

No. of Siblings	Daily	Weekly	Monthly	1-3 Time/ Year	Never	Same House	Total
Sex of Elderly Parents							
Male							
≤ 3	16.6	7.6	12.6	21.0	6.8	35.5	100(844)
4-6	22.3	9.3	13.4	24.5	6.3	24.2	100(3,265)
7+	21.3	10.7	14.2	29.2	7.4	17.2	100(4,178)
			$\chi^2 = 172.483$, Sig = .000				
Female							
≤ 3	19.0	6.9	11.5	21.1	5.8	35.6	100(1,183)
4-6	22.3	9.9	13.8	26.2	6.2	21.6	100(4,695)
7+	22.9	9.1	14.5	29.0	6.9	17.5	100(5,784)
			$\chi^2 = 204.218$, Sig = .000				
Age of Elderly Parents							
60-69							
≤ 3	17.1	7.0	12.1	21.6	5.9	36.2	100(1,424)
4-6	21.9	9.5	12.9	26.0	6.2	23.5	100(5,728)
7+	22.2	9.3	13.4	29.6	7.4	18.2	100(6,840)
			$\chi^2 = 244.916$, Sig = .000				
70-79							
≤ 3	20.1	7.6	11.4	19.7	7.0	34.2	100(603)
4-6	23.5	10.1	15.6	24.1	6.3	20.4	100(2,232)
7+	22.4	10.9	16.5	28.0	6.5	15.7	100(3,122)
			$\chi^2 = 125.320$, Sig = .000				
Marital Status of Elderly Parents							
Married							
≤ 3	19.0	8.2	12.5	19.4	4.8	36.1	100(993)
4-6	22.3	9.5	14.5	25.8	5.4	22.6	100(4,162)
7+	22.0	10.6	15.1	28.8	6.8	16.6	100(5,470)
			$\chi^2 = 219.28$, Sig = .000				
Widowed/Divorced/Separated							
≤ 3	17.2	6.3	11.4	22.4	7.6	35.2	100(1,024)
4-6	22.4	9.9	12.7	25.2	7.2	22.6	100(3,798)
7+	22.5	8.8	13.4	29.4	7.5	18.3	100(4,492)
			$\chi^2 = 159.091$, Sig = .000				

siblings were most likely to visit their elderly parents 1-3 times a year while children with a small number of siblings were most likely to share the same house as their elderly parents. The results also show that the pattern of visits of adult children according to family size was not affected by the age of parents (see table 55).

It was expected that the elderly parents who had lost their spouses by divorce or death were likely to need more care from their children and grandchildren than those whose spouses were still living (Treas and Wang,1993). The results showed that the pattern of visits in the adult children whose elderly parents were married and the adult children whose elderly parents were widowed, divorced or separated did not changed from the regular pattern (table 55).

7.3.2 Education, Occupation and Work Status of the Elderly Parents

It was expected that some socio-economic characteristics of the elderly such as education and occupation of the elderly were likely to affect the pattern of visits adult children paid to their elderly parents. However, it was found that the pattern of visits of adult children with a small and a large numbers of siblings whose elderly parents had a lower level of schooling than primary 4 and the adult children whose elderly parents had a level of schooling of primary 4 and higher did not change from the basic pattern (table 56).

However, the proportion visiting their elderly parents every day was high for the adult children whose elderly parents had a lower level of schooling. This was probably due to some adult children whose elderly parents had a lower level of education, living near or living in the same village as their elderly parents, so they had an opportunity to visit their elderly parents whenever they wanted. Moreover, some of

Table 56: Percentage distribution of children visiting elderly parents in the past year by number of siblings of children, education of elderly parents, main/ last occupation of elderly parents and work status of main/ last occupation of elderly parents.

No. of Siblings	Daily	Weekly	Monthly	1-3 Time/ Year	Never	Same House	Total
Education of Elderly Parents							
<Prathom 4							
≤ 3	20.2	5.0	10.3	21.9	7.2	35.3	100(852)
4-6	24.7	9.3	13.5	24.2	7.2	21.1	100(3,390)
7+	22.3	10.3	13.5	29.3	7.0	17.7	100(4,441)
			$\chi^2 = 168.196$, Sig = .000				
Prathom 4+							
≤ 3	16.5	8.8	13.1	20.5	5.6	35.6	100(1,170)
4-6	20.6	10.0	13.7	26.5	5.5	23.8	100(4,562)
7+	22.2	9.3	15.1	29.1	7.2	17.1	100(5,469)
			$\chi^2 = 227.933$, Sig = .000				
Main/Last Occupation of Elderly Parents							
Non-Agriculture							
≤ 3	14.7	9.0	11.6	19.6	5.3	39.9	100(893)
4-6	18.5	9.8	14.1	22.7	6.8	28.0	100(2,878)
7+	17.0	9.3	16.5	28.4	7.4	21.5	100(3,112)
			$\chi^2 = 152.729$, Sig = .000				
Agriculture and Related Job							
≤ 3	20.7	5.8	12.2	22.2	7.0	32.2	100(1,132)
4-6	24.5	9.6	13.4	27.1	5.9	19.6	100(5,076)
7+	24.6	10.0	13.4	29.5	7.0	15.5	100(6,841)
			$\chi^2 = 201.979$, Sig = .000				
Work Status of Main/Last Occupation of Elderly Parents							
Self/Spouse/Self & Spouse/Family							
≤ 3	20.3	6.3	11.6	21.0	6.6	34.1	100(1,512)
4-6	23.3	9.7	13.5	25.6	5.8	22.2	100(6,297)
7+	22.9	10.0	14.0	29.3	6.9	16.9	100(8,392)
			$\chi^2 = 274.443$, Sig = .000				
Private/Government Sector							
≤ 3	10.9	8.9	12.0	21.8	5.3	41.0	100(449)
4-6	18.8	9.4	13.6	26.2	7.9	24.0	100(1,461)
7+	19.0	7.8	15.0	30.2	9.2	18.7	100(1,339)
			$\chi^2 = 103.066$, Sig = .000				
No Occupation							
≤ 3	14.1	15.6	18.8	17.2	3.1	31.3	100(64)
4-6	16.2	10.7	19.8	17.8	8.1	27.4	100(197)
7+	14.4	13.1	26.1	14.9	5.0	26.6	100(222)
			$\chi^2 = 7.435$, Sig = .684				

these adult children might share the same occupation with their elderly parents, such as agriculture, which enabled them to pay their visits to their elderly parents every day.

When occupation of the elderly parents was controlled, the result showed that the pattern of visits by with a small and a large numbers of siblings did not change. Adult children whose elderly parent had an agricultural occupation in the past year or whose last main occupation was agriculture, showed a high percentage who visited their parents every day. As mentioned above, this was probably because of sharing the same occupation that allowed adult children to visit their parents on a daily basis.

The work status of the elderly parents was another factor that was controlled. The results of the study show that the work status of the elderly parents affects on patterns of visits adult children paid to their elderly parents, and the effect is most pronounced in the group of elderly parents who did not work (table 56). Adult children with a small and a large numbers of siblings whose elderly parents did not work were most likely to share the same house as their elderly parents, although there was a difference by the family size in the level of sharing the same house as their elderly parents. For adult children whose elderly parents worked for themselves/ their spouses /both themselves and spouses/their family and whose elderly parents worked for the government or private sector the result shows that there was the same pattern of visits as for the whole country. However, it should be noted that adult children with a small and a large numbers of siblings whose elderly parents worked for themselves/their spouses/both themselves and spouses/ their family, the level of paying visit to their elderly parents every day was also high when compared to the other groups.

7.3.3 Health Status of Elderly Parents

If elderly parents were in good health they would not be totally dependent on care from their children. On the other hand, if they were in poor health they could become a great burden for their children. The results of this study indicate that the health condition of elderly parents does not affect the pattern of visits according to family size (table 57).

Table 57: Percentage distribution of children visiting elderly parents in the past year by number of siblings of children and health status of elderly parents.

No. of Siblings	Daily	Weekly	Monthly	1-3 Time/ Year	Never	Same House	Total
Health Status of Elderly Parents							
Dependent							
≤ 3	14.0	14.0	9.7	18.3	4.3	39.8	100(93)
4-6	19.3	5.9	17.8	22.9	9.4	24.7	100(393)
7+	21.4	13.8	14.2	26.7	6.8	17.0	100(513)
			$\chi^2 = 47.338$, Sig = .000				
Independent							
≤ 3	18.2	6.9	12.0	21.2	6.3	35.4	100(1,934)
4-6	22.5	9.9	13.4	25.6	6.1	22.5	100(7,567)
7+	22.3	9.6	14.4	29.2	7.1	17.4	100(9,449)
			$\chi^2 = 342.787$, Sig = .000				

7.3.4 Age, Education, Occupation and Work Status of the Spouse of the Elderly

If a spouse of the elderly is still young and capable of taking care of themselves financially, they might not need a lot of care from their children (Treas and Wang, 1993). This study found that the proportion visiting their elderly parents

Table 58: Percentage distribution of children visiting elderly parents in the past year by number of siblings of children,age of elderly's spouse, education of elderly' s spouse, occupation and work status of elderly' s spouse.

No. of Siblings	Daily	Weekly	Monthly	1-3 Time/ Year	Never	Same House	Total
Age of Elderly' s Spouse							
<60							
≤ 3	12.5	6.7	9.3	22.1	6.7	42.7	100(344)
4-6	18.9	8.6	11.4	24.7	8.2	28.2	100(1,234)
7+	18.4	8.1	13.8	33.0	9.2	17.5	100(1,380)
			χ^2 = 116.663, Sig = .000				
60-69							
≤ 3	19.9	9.5	15.8	20.1	3.7	31.0	100(507)
4-6	22.1	9.8	15.5	26.2	5.1	21.2	100(2,206)
7+	23.1	10.8	14.3	28.5	6.5	16.7	100(2,927)
			χ^2 = 73.180, Sig = .000				
70+							
≤ 3	28.7	7.4	10.6	13.3	6.9	33.0	100(188)
4-6	25.7	9.7	15.2	27.4	4.1	18.0	100(1,029)
7+	22.5	12.5	17.4	26.3	6.2	15.4	100(1,457)
			χ^2 = 63.191, Sig = .000				
No Spouse							
≤ 3	16.9	6.2	11.1	22.7	7.2	35.9	100(988)
4-6	22.7	10.0	12.8	24.7	6.9	22.9	100(3,488)
7+	22.8	8.6	13.7	29.2	7.2	18.4	100(4,194)
			χ^2 = 163.918, Sig = .000				
Education of Elderly' s Spouse							
<Prathom 4							
≤ 3	21.9	8.0	11.4	18.8	5.9	34.0	100(324)
4-6	25.7	10.5	13.6	23.3	6.2	20.8	100(1,425)
7+	22.9	10.5	13.3	28.6	7.6	17.1	100(2,402)
			χ^2 = 69.122, Sig = .000				
Prathom 4+							
≤ 3	17.7	8.0	13.6	19.7	5.1	35.9	100(701)
4-6	20.4	9.1	14.8	27.2	5.5	23.1	100(2,981)
7+	21.2	10.8	16.0	29.1	6.7	16.3	100(3,321)
			X^2 = 152.256, Sig = .000				
No Spouse							
≤ 3	17.4	6.1	11.1	22.6	7.0	35.8	100(970)
4-6	22.8	9.9	12.7	25.0	6.9	22.7	100(3,459)
7+	22.8	8.6	13.7	29.4	7.3	18.2	100(4,163)
			χ^2 = 160.985, Sig = .000				

Table 58: (Continued)

No. of Siblings	Daily	Weekly	Monthly	1-3 Time/ Year	Never	Same House	Total
Occupation of Elderly' s Spouse							
Non-Agriculture							
≤ 3	38.8	7.2	14.7	17.5	6.4	45.4	100(215)
4-6	18.8	11.0	14.1	25.7	6.1	24.4	100(809)
7+	19.5	8.7	15.9	27.5	5.6	22.8	100(841)
			χ^2 = 65.715, Sig = .000				
Agriculture							
≤ 3	21.9	7.1	14.5	19.2	5.8	31.5	100(365)
4-6	22.5	9.6	13.7	27.5	5.9	20.8	100(1,806)
7+	22.5	11.3	13.0	31.1	7.7	14.3	100(2,517)
			χ^2 = 94.199, Sig = .000				
No Occupation							
≤ 3	22.4	9.6	10.0	20.1	4.5	33.3	100(468)
4-6	22.8	8.9	15.1	24.4	5.2	23.5	100(2,048)
7+	22.1	10.6	15.5	27.5	6.7	17.7	100(2,605)
			χ^2 = 80.013, Sig = .000				
No Spouse							
≤ 3	17.0	6.0	11.2	23.0	7.3	35.6	100(932)
4-6	22.8	9.9	12.6	25.0	7.1	22.7	100(3,284)
7+	22.8	8.5	14.1	29.2	7.3	18.0	100(3,988)
			χ^2 = 158.299, Sig = .000				
Work Status of Elderly' s Spouse							
Spouse/Spouse & Elderly/Family							
≤ 3	17.9	7.6	14.5	18.9	6.8	34.2	100(497)
4-6	21.6	10.4	13.7	26.6	5.9	21.8	100(2,143)
7+	21.7	11.0	14.1	30.2	7.2	15.9	100(2,864)
			χ^2 = 110.467, Sig = .000				
Private/Government Sector							
≤ 3	8.0	5.7	14.9	18.4	1.1	51.7	100(87)
4-6	20.3	5.8	14.8	31.0	7.1	21.0	100(310)
7+	21.2	6.7	13.1	33.2	9.1	16.6	100(373)
			χ^2 = 79.226, Sig = .000				
No Occupation							
≤ 3	22.3	9.3	10.4	20.3	4.4	33.3	100(453)
4-6	22.8	9.0	14.9	24.7	5.3	23.2	100(2,015)
7+	22.1	10.8	15.9	27.0	6.6	17.5	100(2,534)
			χ^2 = 76.109, Sig = .000				

Table 58: (Continued)

No. of Siblings	Daily	Weekly	Monthly	1-3 Time/ Year	Never	Same House	Total
No Spouse							
≤ 3	17.0	6.2	11.1	22.7	7.2	35.9	100(990)
4-6	22.7	10.0	12.8	24.8	6.9	22.9	100(3,492)
7+	22.8	8.6	13.7	29.3	7.2	18.4	100(4,191)
			$\chi^2 = 162.400$, Sig = .000				

everyday was high for adult children whose elderly parents had spouses aged 70 and over. This means that the older the parents' spouses, the more frequent the adult children paid their visits, especially in the group where the spouses of elderly parents were 70 years old and higher. However, controlling for this variable did not affect the relationship between family size and the pattern of visiting elderly parents.

Similarly, controlling for the level of education, occupation and work status of the spouse of the elderly parent did not affect the underlying relationship between family size and pattern of visits (table 58). However, it should be noted that adult children whose spouses of the elderly parents have had agriculture or related jobs and whose spouses were unemployed the level of the adult children with a small number of siblings visited their elderly patents every day were also high.

7.3.5 Responsibility for Household Expenses, Main Sources of Household Income and Total Income of the Elderly Parents

The elderly' s ability to earn and manage their own income is likely to affect the care they receive from their adult children. The results indicate that the location of responsibility for household expenses did not affect the patterns of relationships between family size and visits to elderly parents (see table 59).

Table 59: Percentage distribution of children visiting elderly parents in the past year by number of siblings of children, care taker of household expense and main source of income of household.

No. of Siblings	Daily	Weekly	Monthly	1-3 Time/ Year	Never	Same House	Total
Who Take Care of Household Expense							
Elderly/Spouse/Elderly & Spouse							
≤ 3	18.9	8.2	13.3	22.8	7.5	29.3	100(1,050)
4-6	21.6	9.3	13.8	28.8	7.0	19.4	100(3,879)
7+	21.5	10.0	14.1	32.0	7.9	14.4	100(4,872)
			χ^2 = 150.304, Sig = .000				
Child							
≤ 3	17.3	6.2	10.6	17.7	4.3	43.9	100(360)
4-6	23.2	10.1	13.6	21.9	5.5	25.7	100(936)
7+	22.7	9.7	14.9	25.9	6.4	20.3	100(914)
			χ^2 = 224.132, Sig = .000				
Others							
≤ 3	15.4	5.8	9.6	27.6	7.7	34.0	100(156)
4-6	22.2	9.2	11.8	26.2	5.0	25.5	100(423)
7+	24.7	8.3	11.8	29.6	6.1	19.5	100(591)
			χ^2 = 21612, Sig = .017				
Main Source of Income							
Elderly (Own Work/Own Saving/Interest/Pension/Lump Sum/Spouse)							
≤ 3	19.1	7.2	13.0	21.2	7.3	32.2	100(951)
4-6	22.3	9.2	13.7	27.4	6.6	20.8	100(3,064)
7+	22.5	9.8	13.3	30.8	8.0	15.7	100(3,745)
			χ^2 = 148.153, Sig = .000				
Child							
≤ 3	16.8	7.1	11.6	20.5	4.6	39.3	100(868)
4-6	22.0	10.4	13.8	23.9	6.0	23.9	100(4,302)
7+	22.2	9.8	15.2	27.6	6.5	18.6	100(5,543)
			χ^2 = 203.285, Sig = .000				
Others							
≤ 3	18.0	7.8	8.3	22.8	7.3	35.9	100(206)
4-6	25.1	6.9	12.0	27.1	6.1	22.7	100(509)
7+	21.3	9.5	13.0	32.5	7.2	16.5	100(671)
			χ^2 = 44.156, Sig = .000				

Similarly, controlling for the main source of household income did not change the relationship between family size and pattern of visits (table 59).

There were large differences in the proportion of adult children visiting their elderly parents among income groups (table 60). Adult children whose elderly

Table 60: Percentage distribution of children visiting elderly parents in the past year by number of siblings of children and total income of elderly and spouse.

No. of Siblings	Daily	Weekly	Monthly	1-3 Time/ Year	Never	Same House	Total
Total Income of Elderly & Spouse							
No Income/< 5,000							
≤ 3	16.8	6.2	10.8	20.8	6.3	39.2	100(1,049)
4-6	22.9	9.8	13.3	23.7	6.2	24.1	100(4,208)
7+	22.4	9.6	15.2	27.0	6.5	19.3	100(4,908)
			χ^2 = 208.612, Sig = .000				
5,000-19,999							
≤ 3	22.1	8.5	9.8	23.1	7.8	28.8	100(399)
4-6	22.5	8.8	12.6	30.1	7.4	18.6	100(1,584)
7+	24.5	9.7	12.1	30.8	8.1	14.8	100(2,280)
			χ^2 = 52.577, Sig = .000				
20,000-49,999							
≤ 3	16.4	7.8	16.4	20.7	5.5	32.2	100(256)
4-6	22.0	10.0	15.7	26.1	5.1	21.1	100(1,216)
7+	19.1	10.8	13.7	32.7	8.8	15.1	100(1,797)
			χ^2 = 87.364, Sig = .000				
50,000+							
≤ 3	18.3	8.4	14.9	19.8	4.6	34.1	100(323)
4-6	20.0	10.1	14.4	24.9	6.0	24.7	100(952)
7+	21.9	9.2	16.6	29.0	5.0	18.3	100(980)
			χ^2 = 41.796, Sig = .000				

parents and their spouses had an income 5,000–19,999 baht had the highest proportions of adult children with a small number of siblings who visited their elderly parent everyday and 1-3 times a year. Overall, however, controlling for income did not have a major effect on the relationship between family size and pattern of visits to elderly parents.

7.3.6 Property of the Elderly Parents

The property of the elderly parents was another factor expected to affect care given to the elderly. It was found that house and the land ownership of elderly parents do not affect the pattern of visits by the adult children paid to their elderly parents. Whether or not their elderly parents owned the land and house they lived in, the pattern of visits did not change by family (table 61). However, it should be noted that the proportion who visited their elderly parents everyday was high for the adult children whose elderly parents / spouses of elderly parents / both elderly parents and spouses owned the land and house they lived in.

Other property such as house, land and saving were also included in the study (table 62). Again it was found that the basic patterns between family size and the frequency of visiting elderly parents remained unchanged after controlling for these variables, although ownership by the elderly of assets was typically associated with a higher frequency of visiting by their adult children.

7.3.7 Summary

In conclusion, the result of the analysis show that only the work status of the elderly parents has a significant effect on the pattern of visits they received. The pattern of visit of adult children with a small and a large numbers of siblings did not change from the basic pattern.

Table 61: Percentage distribution of children visiting elderly parents in the past year by number of siblings of children, owner of house and owner of land.

No. of Siblings	Daily	Weekly	Monthly	1-3 Time/ Year	Never	Same House	Total
Owner of House They Lived in							
Elderly/Spouse/Elderly & Spouse							
≤ 3	20.1	7.8	12.4	20.8	6.0	33.0	100(1,506)
4-6	23.4	9.6	13.4	25.8	6.0	21.8	100(6,304)
7+	23.7	9.8	13.9	29.4	6.9	16.4	100(8,175)
		χ^2 = 252.165, Sig = .000					
Child							
≤ 3	15.5	7.4	10.3	18.8	5.9	42.1	100(271)
4-6	21.7	10.7	14.1	24.3	6.7	22.5	100(1,015)
7+	18.1	10.3	14.3	29.2	8.5	19.5	100(1,064)
		χ^2 = 72.077, Sig = .000					
Others							
≤ 3	8.4	3.6	11.2	24.8	8.0	44.0	100(250)
4-6	12.5	8.9	15.6	24.0	7.6	31.4	100(641)
7+	11.8	8.6	20.0	25.6	8.2	25.8	100(720)
		χ^2 = 39.676, Sig = .000					
Owner of Land They Lived in							
Elderly/Spouse/Elderly & Spouse							
≤ 3	20.6	7.4	11.6	20.8	5.5	34.0	100(1,219)
4-6	24.6	9.2	12.9	26.2	5.4	21.7	100(5,043)
7+	24.3	9.8	13.9	28.8	7.0	16.2	100(6,895)
		χ^2 = 235.677, Sig = .000					
Child							
≤ 3	19.4	8.7	11.1	19.0	5.5	36.4	100(253)
4-6	21.2	11.7	16.5	25.0	6.4	19.2	100(939)
7+	19.8	9.8	13.9	33.0	7.3	16.1	100(1,066)
		χ^2 = 71.817, Sig = .000					
Others							
≤ 3	13.9	6.6	14.6	23.5	8.1	33.3	100(396)
4-6	19.2	9.9	13.9	24.2	8.3	24.5	100(1,471)
7+	19.4	10.6	14.4	28.8	7.2	19.6	100(1,409)
		χ^2 = 45.279, Sig = .000					

Table 62: Percentage distribution of children visiting elderly parents in the past year by number of siblings of children,property asset of house, land and savings of elderly.

No. of Siblings	Daily	Weekly	Monthly	1-3 Time/ Year	Never	Same House	Total
Properties (Own House)							
Own Name/Spouse Name/Joined Names							
≤ 3	19.7	7.7	12.3	21.2	6.0	33.1	100(1,588)
4-6	23.4	9.6	13.4	25.7	6.1	21.8	100(6,435)
7+	23.6	9.8	14.1	29.3	6.8	16.4	100(8,387)
			χ^2 = 263.467, Sig = .000				
No							
≤ 3	11.8	5.5	10.5	20.7	7.1	44.4	100(439)
4-6	17.9	9.8	14.6	24.5	7.0	26.2	100(1,521)
7+	15.1	9.5	16.0	28.1	8.6	22.7	100(1,572)
			χ^2 = 95.924, Sig = .000				
Properties (Own land)							
Own Name/Spouse Name/Joined Names							
≤ 3	20.1	7.4	11.4	21.1	5.7	34.3	100(1,448)
4-6	23.9	9.4	13.4	25.9	5.6	21.8	100(5,723)
7+	24.0	9.8	13.9	29.0	6.8	16.5	100(7,553)
			χ^2 = 261.475, Sig = .000				
No							
≤ 3	12.8	6.7	13.3	20.9	7.6	38.7	100(579)
4-6	18.3	10.3	14.4	24.4	7.8	24.9	100(2,233)
7+	16.6	9.7	15.8	29.5	8.3	20.2	100(2,406)
			χ^2 = 102.871, Sig = .000				
Properties (Have Saving)							
Own Name/Spouse Name/Joined Names							
≤ 3	19.7	8.3	11.0	20.6	5.4	35.0	100(743)
4-6	21.4	10.6	15.1	24.7	4.2	24.1	100(2,672)
7+	23.3	10.7	16.3	27.0	5.5	17.2	100(3,364)
			χ^2 = 134.687, Sig = .000				
No							
≤ 3	17.1	6.5	12.5	21.3	6.7	35.9	100(1,284)
4-6	22.8	9.3	12.9	25.8	7.3	21.9	100(5,273)
7+	21.7	9.3	13.4	30.2	7.9	17.5	100(6,595)
			χ^2 = 245.593, Sig = .000				

7.4 Result of Multivariate Analysis

In this section the net effect of each independent variable on the frequency of visits paid to their elderly parents by their adult children was examined applying the same pattern and model of analysis as used in Chapter VI. Multinomial Logistic Regression was the method used to undertake the analysis. The dependent variable has four categories as follows: Group consists of children who visited their elderly parents >3 times a year. This group includes children who paid visit every day, every week and every month. The second group comprises children who in the past year did not visit their elderly parents. Group 3 consists of children who shared the same house as their elderly parents, and group 4 includes who visited their parents 1-3 times in the year before the survey.

These 4 groups were then matched into 6 pairs so that comparison could be made among each of the groups. See Chapter VI for details of the pairings. The models used in the analysis are also the same as those used in Chapter VI, with Model I including only the variable number of siblings each child had. Model II adds demographic and socio-economic characteristics of the children to the total number of siblings. Model III adds additional variables related to the demographic and socio-economic characteristics of the elderly themselves. The full model, Model IV, adds variables indexing the characteristics of the spouse of the elderly.

The findings shown in table 63 indicate that variation in the number of siblings has significantly affects the frequency that an adult child visits their elderly parents. When comparisons are made between children who lived in the same house as their elderly parents, with those that did not, the study reveals that an increase in the

number of sibling of an adult child increases the probability of visiting parents compared to living in the same house. The effect is strong. For example, each increase in the

Table 63: Odds ratios of the effect of characteristics of the child, the elderly, and the elderly' s spouse on the likelihood of an adult child visiting their elderly parents.

	>1-3 VS 1-3 times	Never VS 1-3 times	Same House VS 1-3 times	Never VS > 1-3 times	Never VS Same House	Same House VS > 1-3 times
Model I						
Log likelihood	-23417.296	-23417.296	-23417.296	-23417.296	-23417.296	-23417.296
Chi-square	406.29***	406.29***	406.29***	406.29***	406.29***	406.29***
N	19,459	19,459	19,459	19,459	19,459	19,459
No. of Sibling	**.9601*** **	**1.0104**	**.8481*** **	**1.0524*** **	**1.1913*** **	**.8834*** **
Model II						
Log likelihood	-20432.88	-20432.88	-20432.88	-20432.88	-20432.88	-20432.88
Chi-square change	5968.83***	5968.83***	5968.83***	5968.83***	5968.83***	5968.83***
N	19,459	19,459	19,459	19,459	19,459	19,459
No. of Sibling	**.9679*** **	**.9887**	**.7455*** **	**1.0215**	**1.3262*** **	**.7702*** **
Characteristics of Child						
Sex						
-male	1.1361***	.8678*	1.5099***	.7638***	.5747***	1.3290***
-female (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Age	1.0050	1.0112*	.9858***	1.0062	1.0257***	.9809***
Birth Order	.9789	1.0258	1.1575***	1.0478**	.8862***	1.1825***
Marital Status						
-single/separate/ widowed/divorced	1.0470	.6288**	.1933***	.6006**	3.2528***	1 .1846***
-married (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
No. of Children						
-single	.5124***	.6562*	2.2141***	1.2807	.2964***	4.3211***
-0	.7792***	.9311	2.5136***	1.1950	.3704***	3.2258***
-1	1.0242	.9458	2.6699***	.9234	.3542***	2.6067***
-2	1 .2054***	.9508	1.9557***	.7888**	.4862***	1.6224***
-3+ (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Education	1.0162***	.9649***	.9991	.9496***	.9658***	.9832***
Occupation						
-professional	.2891***	.6831***	.1093***	2.3626***	6.2518***	.3779***
-commercial	.3434***	.5577***	.2524***	1.6244***	2.2103***	.7349***
-labour	.2760***	.8634	.1479***	3.1286***	5.8366***	.5360***
-no occupation	.3709***	1.2563*	.3020***	3.3876***	4.1604***	.8143**
-agriculture (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Area of Residence of the Elderly						
-urban	.7242***	.9053	.4544***	1.2500*	1.9921***	.6275***
-rural (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Region of Residence of the Elderly						
-North	.8467***	.8643	.6473***	1.0209	1.3354**	.7645***
-Northeast	.5914***	1.0988	.5476***	1.8582***	2.0066***	.9260
-South	.9583	1.4385***	.8177**	1.5012***	1.7592***	.8533*
-Bangkok	1.2982**	1.9041***	2.2264***	1.4667***	.8552	1.7150***
-Central (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Table 63: (Continued)

	>1-3 VS 1-3 times	Never VS 1-3 times	Same House VS 1-3 times	Never VS > 1-3 times	Never VS Same House	Same House VS > 1-3 times
Model III						
Log likelihood	-20103.233	-20103.233	-20103.233	-20103.233	-20103.233	-20103.233
Chi-square change	659.29***	659.29***	659.29***	659.29***	659.29***	659.29***
N	19,459	19,459	19,459	19,459	19,459	19,459
No. of Sibling	**.9571*** **	**.9781**	**.7574*** **	**1.0220**	**1.2913*** **	**.7914*** **
Characteristics of Child						
Sex						
-male	1.1309***	.8709*	1.4866***	.7701***	.5858***	1.3146***
-female (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Age	1.0041	1.0255***	.9651***	1.0214***	1.0626***	.9612***
Birth Order	.9843	1.0612**	1.1005***	1.0781***	.9642	1.1181***
Marital Status						
-single/separate/ widowed/ divorced	1.0122	.6393**	.1776***	.6316**	3.5988***	.1755***
-married (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
No. of Children						
-single	.4820***	.6653*	2.1263***	1.3805	.3129***	4.4118***
-0	.7699***	.9278	2.6015***	1.2051	.3566***	3.3792***
-1	.9908	.9464	2.6285***	.9553	.3601***	2.6530***
-2	1.1705**	.9480	1.9216***	.8099**	.4933***	1.6417***
-3+ (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Education	1.0067	.9636***	.9956	.9572	.9678***	.9890*
Occupation						
-professional	.2802***	.6744***	.1032***	2.4069***	6.5323***	.3685***
-commercial	.3332***	.5484***	.2311***	1.6461***	2.3733***	.6936***
-labour	.2728***	.8431*	.1402	3.0909***	6.0139***	.5140***
-no occupation	.3666***	1.2428	.2909	3.3899***	4.2721***	.7934**
-agriculture (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Area of Residence of the Elderly						
-urban	.7360***	1.0201	.5062***	1.3860**	2.0150***	.6878***
-rural (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Region of Residence of the Elderly						
-North	.8124***	.8896	.5853***	1.0951	1.5201***	.7204***
-Northeast	.5818***	1.1503	.5235***	1.9772***	2.1973***	.8998
-South	.9850	1.4497***	.8604	1.4717***	1.6850***	.8734
-Bangkok	1.4213	1.8259***	2.3507***	1.2847	.7768	1.6539***
-Central (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Characteristics of Elderly						
Sex						
-male	.9591	.7390***	1.0531	.7705***	.7018**	1.0980
-female (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Age	.9976	.9815*	1.0071	.9838 **	.9746**	1.0095

Table 63: (Continued)

	>1-3 VS 1-3 times	Never VS 1-3 times	Same House VS 1-3 times	Never VS > 1-3 times	Never VS Same House	Same House VS > 1-3 times
Marital Status						
- widowed/divorced separated	1.2195***	.7940**	1.1396	.6511***	.6968***	.9345
-married (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Education	1.0033	1.0086	.9966	1.0052	1.0120	.9933
Occupation						
-non agriculture	.8711**	.8375*	.7128***	.9614	1.1750	.8182***
-agriculture (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Work Status						
-private/gov.sector	.9640	1.0604	.9842	1.1000	1.0774	1.0210
-no occupation	1.6603***	1.2933	1.2305	.7790	1.0510	.7412*
-self/spouse/self & spouse/family (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Health Status						
-dependent	.9537	.7857	.9488	.8239	.8281	.9948
-independent (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Who Take Care of Household Expenses						
-child	1.3433***	.8675	2.5905***	.6458***	.3349***	1.9284***
-other	1.0434*	.7289	1.9408***	.6986*	.3755***	1.8601***
-elderly/ spouse/family (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Main Source of Income of Household						
-elderly(own work/ own saving/ interest/pension/ lump sum/spouse)	.9107	1.0652	1.0328	1.1696	1.0314	1.1340*
-other	.7751***	1.0479	1.0346	1.3518*	1.0129	1.3347**
-child (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total Income of Elderly & Spouse						
- 5,000–19,999 baht	.9246	1.1244	.8200**	1.2161*	1.3712***	.8869*
-20,000-49,999 baht	.9732	1.0933	.9058	1.1234	1.2069	.9308
-50,000+ baht	1.0840	.9794	1.0408	.9036	.9410	.9602
- no income / <5,000 baht (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Owner of House They Lived in						
-child	.9449	1.3388	1.0026	1.4168	1.3353	1.0611
-other	.8624	1.0984	.5913***	1.2737	1.8576	.6857**
-elderly/ spouse/ family (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Owner of Land They Lived in						
-child	.9784	.7924	.8372	.8099	.9465	.8557
-other	.9467	.9607	.9027	1.0148	1.0643	.9535
-elderly/ spouse/ family (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Table 63: (Continued)

	>1-3 VS 1-3 times	Never VS 1-3 times	Same House VS 1-3 times	Never VS > 1-3 times	Never VS Same House	Same House VS > 1-3 times
Properties (own house)						
- no	1.1525	1.1510	.8646	.9987	1.3312	.7502*
-own name/ spouse name/ joined name (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Properties (own land)						
- no	1.1223	.8515	1.2231	.7587*	.6962**	1.0898
-own name/ spouse name/ joined name (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Properties (saving)						
- no	.8007***	1.1858	.8143***	1.4809***	1.4562	1.0170
-own name/ spouse name/ joined name (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Model IV						
Log likelihood	-20052.09	-20052.09	-20052.09	-20052.09	-20052.09	-20052.09
Chi-square change	102.29***	102.29***	102.29***	102.29***	102.29***	102.29***
N	19,459	19,459	19,459	19,459	19,459	19,459
No. of Sibling	**.9590*** **	**.9739**	**.7597*** **	**1.0155**	**1.2819*** **	**.7922*** **
Characteristics of Child						
Sex						
-male	1.1333***	.8651*	1.4953***	.7634***	.5786***	1.3194***
-female (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Age	1.0025	1.0286***	.9634***	1.0261***	1.0677***	.9610***
Birth Order	.9804	1.0701**	1.0968***	1.0915***	.9756	1.1187***
Marital Status						
-single/separate/ widowed/ divorced	1.0102	.6323**	.1755***	.6259**	3.6018***	.1738***
-married (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
No. of Children						
-single	.4818***	.6533*	2.1169***	1.3559	.3086***	4.3938***
-0	.7679***	.9340	2.6139***	1.2163	.3573***	3.4040***
-1	.9878	.9505	2.6239***	.9622	.3623***	2.6562***
-2	1.1669**	.9462	1.9218***	.8109*	.4923***	1.6470***
-3+ (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Education	1.0066	.9627***	.9962	.9565***	.9664***	.9897
Occupation						
-professional	.2807***	.6759***	.1015***	2.4081***	6.6580***	.3617***
-commercial	.3329***	.5433***	.2293***	1.6317***	2.3690***	.6888***
-labour	.2745***	.8305**	.1395***	3.0258***	5.9554***	.5081***
-no occupation	.3673***	1.2346	.2835***	3.3611***	4.3555***	.7717**
-agriculture (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Table 63: (Continued)

	>1-3 VS 1-3 times	Never VS 1-3 times	Same House VS 1-3 times	Never VS > 1-3 times	Never VS Same House	Same House VS > 1-3 times
Area of Residence of the Elderly						
-urban	.7447***	1.0323	.5111***	1.3862**	2.0199***	.6863***
-rural (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Region of Residence of the Elderly						
-North	.8089***	.8917	.5752***	1.1023	1.5503***	.7110***
-Northeast	.5794***	1.1465	.5097***	1.9788***	2.2493***	.8797*
-South	.9848	1.4294***	.8493*	1.4514***	1.6830***	.8624*
-Bangkok	1.4304***	1.7984***	2.3230***	1.2573	.7742	1.6240***
-Central (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Characteristics of Elderly						
Sex						
-male	.9195	.8499	1.0168	.9243	.8359	1.1058
-female (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Age	.9967	.9865	1.0058	.9897	.9808*	1.0091
Marital Status						
- widowed/divorced separated	1.5429***	.5373***	2.2838***	.3482***	.2353***	1.4802**
-married (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Education	1.0029	1.0114	.9968	1.0085	1.0146	.9940
Occupation						
-non agriculture	.8847*	.8141**	.7328***	.9202	1.1109	.8283**
-agriculture (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Work Status						
-private/gov.sector	.9628	1.0488	.9733	1.0893	1.0775	1.0109
-no occupation	1.6590***	1.2553	1.2342	.7567	1.0171	.7439*
-self/self & spouse/ family (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Health Status						
-dependent	.9481	.8059	9421	.8500	.8554	.9937
-independent (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Who Take Care of Household Expenses						
-child	1.3401***	.8851	2.5842***	.6605***	.3425***	1.9283***
-others	1.0436	.7175*	1.9154***	.6875**	.3746***	1.8353***
-elderly/spouse/ family (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Main Source of Income of Household						
-elderly(own work/ own saving/ interest/pension/ lump sum/spouse)	.9144	1.0786	1.0599	1.1795	1.0176	1.1591*
-others	.7745***	1.0695	1.0541	1.3808*	1.0146	1.3610***
-child (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Table 63: (Continued)

	>1-3 VS 1-3 times	Never VS 1-3 times	Same House VS 1-3 times	Never VS > 1-3 times	Never VS Same House	Same House VS > 1-3 times
Total Income of Elderly & Spouse						
- 5,000–19,999 baht	.9295	1.1133	.8314**	1.1978*	1.3391***	.8945
-20,000-49,999 baht	.9805	1.0648	.9265	1.0860	1.1493	.9449
-50,000+ baht	1.0854	.9699	1.0522	.8936	.9217	.9695
-no income/<5,000 baht (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Owner of House They Lived in						
-child	.9706	1.2883	1.0772	1.3273	1.1960	1.1098
-others	.8907	1.0757	.6434**	1.2076	1.6719*	.7223*
-elderly/spouse/ elderly&spouse/family (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Owner of Land They Lived in						
-child	.9789	.7970	.8464	.8142	.9417	.8646
-other	.9461	.9537	.9180	1.0081	1.0389	.9703
-elderly/spouse elderly & spouse/family (ref).	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Properties (own house)						
- no	1.1820	1.1345	.9148	.9599	1.2403	.7739*
-own name/ spouse name/ joined name (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Properties (own land)						
- no	1.1171	.8568	1.2305*	.7669*	.6963	1.1015
-own name/ spouse name/ joined name (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Properties (saving)						
-own name/ spouse name/ joined name	.8019***	1.1782*	.8135***	1.4692***	1.4483	1.0144
- no (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Characteristics of Elderly' s Spouse						
Age						
-<60	.8623	1.6080**	.9626	1.8648***	1.6705**	1.1163
-60-69	.9778	1.1162	.8841	1.1416	1.2626	.9042
-no spouse	1.9803**	1.0537	5.0276***	.5321	.2096***	2.5389***
-70+ (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Education						
-< p 4	.9754	1.0500	.9537	1.0765	1.1010	.9777
-no spouse	.6398*	.5606	.5606*	.8761	.9999	.8762
-p 4/> p 4 (ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Occupation						
-non-agriculture	1.0942	.8351	.9911	.7632*	.8426	.9058
-agriculture	.9830	.9710	.8774	.9877	1.1066	.8926
-no spouse	.9824	1.2304	.6472**	1.2527	1.9012**	.6589**
-no occupation(ref.)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

* p< .05; ** p < .01 ; *** p <.001

number of siblings increases the odds of making 1-3 yearly visits, compared to living in the same house, by 15 percent and increases the odds of making more than 3 yearly visits by 12 percent. Finally, an increase of one sibling increases the odds of not visiting at all compared to living in the same house.

What these results indicate is that in Thai society the norm that at least one child remain to live with their elderly is closely followed. As the number of siblings increases the likelihood that any one child needs to live with their parents decreases. Those children who are not living with their elderly parents then are in a position to visit, or not visit, their parents according to their individual circumstances. One outcome of the reduction in fertility (family size) that has occurred over the last three decades is an increase in the proportion of children living with their elderly parents.

Increases in the number of siblings also provide an opportunity for less frequent visits to elderly parents. For example, an increase of one sibling reduces the odds that an adult would pay more than 3 visits a year, compared to visiting 1-3 times a year, by 4 percent. While the odds of not visiting their elderly parent at all in the last year, compared to visiting them more than 3 times, increases by 5 percent with the addition of an extra sibling.

In conclusion, as the number of siblings increase the probability of an adult child visiting their elderly parents decreases. However, this does not mean that the elderly who have more children receive fewer visits by their offspring. It only implies that children of big family can take turns in visiting their parents, therefore they did not feel the burden of performing this duty as much as their counterpart who had few or no siblings.

Controlling for the characteristics of adult children does affect the relationships between the number of siblings and the likelihood of paying visit. The effects can all be found in the comparisons that involve living in the same house. In all three of this comparisons, the likelihood of an adult child living in the same house as their elderly parents compared to paying different levels of visit to their elderly parents is reduced compared to model 1. This reduction is 13 percent, 10 and 11 percentage points for the comparisons with never pay visit, pay visit 1-3 times a year, and pay visit more than 1-3 times a year respectively.

These findings clearly indicate that there are characteristics of adult children that result in them more likely to be living in the same house as their elderly parents and that these same characteristics are related to the effect of increase in the number of sibling on the likelihood of paying visit to their elderly parents. When we control for the characteristics of adult children, the differences in the likelihood of living in the same house as their elderly parents as opposed to paying visits increase, but the differences in the frequency of paying visit, for those paying visit does not change. When a parent has only one child that child is likely to live with their parents when they become old. An increase in the number of siblings decreases the likelihood of a child living with their parents, and hence increases the likelihood of paying visits.

In Model II when the demographic and socio-economic characteristics of adult children were included into the model, the findings show a significantly better fit to the data than does model I (Pseudo R2 increased from .0086 to .1349). This indicates that the characteristics of adult children had a strong effect on explaining patterns of visiting elderly parents, although much of this impact comes through improvements in predicting the likelihood of children living in the same house as their

elderly parents. When each variable was examined, several independent variables measuring the characteristics of the adult child are significantly related to dependent variable. The findings are consistent with those described in the bivariate analysis. Gender, occupation and residence of the child seemed to be the most important factors affecting the visits paid to the elderly.

Adding the characteristics of the elderly (Model III) and the spouses of the elderly (Model IV) do little to improve the fit of model II (Pseudo R2 increased from .1349 to .1489; and .1349 to .1511). This suggests that it is the characteristics of the children that are important in determining the likelihood of visits paid by adult children and the likelihood that adult children will live with their elderly parents.

It was also found that adding the characteristics of the elderly and their spouses had very little impact on the effect of the number of siblings on the likelihood of paying visit to the elderly. Whatever the characteristics of the elderly of their spouses, and increase in the number of siblings decreases the likelihood and frequency of a child visit their elderly parents.

In summary, the most important variables affecting visiting patterns were the characteristics of children. Only a few variables concerning the characteristics of the elderly themselves, such as marital status, and caretaker of household expenses had significant effects. No variable related to the characteristics of the elderly' s spouse had an effect. These findings are consistent with the bivariate analysis.

CHAPTER 8

CONCLUSION AND RECOMMENDATIONS

Thailand has been one of the most successful countries at bringing down its fertility level in a short period of time. The average number of children in a family declined from six in the mid-1960s to two in the mid-1990s. It is inevitable that the smaller family size affects the age structure of population. There is decreasing number of people and a smaller proportion of the population in the young age groups and an increasing number and proportion in the older age group. This has created concern about whether the decline in family size will affect support and care for the elderly by the family. Therefore, it is essential to investigate the relationship between family size and elderly care to establish is smaller family size is an obstacle to elderly care.

Three research questions are raised in this study. The first question is whether the family size will effect elderly care in terms of money, material needs and emotional support. The second question is whether level of care depends on the characteristics of the children of the elderly. The final question is whether characteristics of the elderly will effect the care whether they received from their children.

The main objectives of the study are: (1) to investigate the pattern of care for the elderly in terms of financial support, instrumental support, and emotional support; (2) to study the relationship between family size and elderly care in the three

kinds of support mentioned above, and; (3) to examine demographic and socio-economic characteristics of children and elderly on the care provided to the elderly.

Hypotheses in this study derived from previous research propose that family size is likely to have an effect on the elderly care. Children from a small family are more likely to provide support to their elderly parents than are children from a large family even other variables such as characteristics of the children themselves and characteristics of the elderly and property they own are controlled.

The 1995 Survey of the Welfare of the Elderly in Thailand, conducted by the Ministry of Public Health (MOPH), the Health System Research Institute (HSRI) and the Institute of Population Studies (IPS) of Chulalongkorn University was used in the study. The unit of analysis is children aged 15 –59 whose father or mother is aged 60-79. The sample covered 20,067 adults children. Variables are selected from the individual questionnaire and include characteristics of children and their aged parents.

The analysis examined the relationship between elderly care in the areas of financial, instrumental and emotional support and the demographic and socio-economic characteristics of children and the elderly parents, and property owned by the elderly parents. Descriptive statistics were utilized such as percentage and mean. Detailed analysis was made of the relationship between family size and elderly care and factors relating to characteristics of children and the elderly parents. Variables used in the analysis are primarily measured at the nominal level. Therefore initial analysis used cross-tabulations and chi-square test (χ^2). Based on the results of cross-tabulations, logistic regression and multinomial logic regression were utilized.

The research results are presented in the three areas, namely, the financial support provided to the elderly parents, the instrumental support provided to the

elderly parents, and the emotional support provided to the elderly parents. These results are meant to identify the ranges of possible links between family size and the three main areas of support children provided to the elderly parents.

8.1 Financial Support for the Elderly

The results of the bivariate analysis reveal that there was a substantial difference between adult children from different family size in the level of **financial support** provided to elderly parents. Adult children with a small number of siblings were more likely to give financial support to their elderly parents of an amount of 1,000 baht or more compared to adult children with a large number of siblings. This is consistent with the hypothesis where it was stated there would be difference between the two groups of the children from different family size in terms of support to their elderly parents. However, it should also be noted that there was small variation among categories in terms of those not providing financial assistance. While those children with fewer siblings gave more money than children with more siblings, this was compensated for by the opposite relationship in percentages of children who provided 1-1,000 baht.

The difference between the pattern of financial support of the two groups may be explained in terms of socio-economic variation. The group with a small number of siblings might have better education, have higher status occupations and more income than the group with a large number of siblings.

Another reason may be psychological. Adult children with a small number of siblings might feel more responsible for their aged parents because they cannot depend on their other siblings to provide care, as in the case of the adult children from

large families. Adult children from a large family might feel that their siblings have provided help to their aged parents already, so there is no need for them to do so. They might feel that only a little help is sufficient because it is enough to maintain love, respect and ties between themselves and their parents.

When other related factors that might affect financial support from the adult children to the elderly parents were controlled it was found that many characteristics of adult children such as gender, age, marital status, family size, education, occupation, and living arrangements affected the pattern of financial support provided by adult children with both a small and a large numbers of siblings. Only birth order was not found to affect the financial support given by the adult children. Characteristics of elderly parents were also found to affect the likelihood and level of financial care they received from their adult children. These characteristics included gender, age, marital status, education, occupation, age of the spouse of the elderly, education of the spouse of the elderly, occupation of the spouse of the elderly, work status of the spouse of the elderly, who takes care of household expenses, main source of income of household, income of elderly and their spouse, and property of the elderly. Only work status of elderly parents and health status of elderly parents were found to have no influence on how adult children from small and large families provided financial care to their elderly parents.

When logistic regression analysis was used to estimate the net effect of each variable on the financial support given to the elderly, it was found that the number of siblings significantly affected the likelihood of financial support the elderly received from a child. The odds of a child providing financial support to their elderly parent's decreased with each additional sibling. This does not necessarily mean that

elderly parents with fewer children had a greater chance for financial support than those with more children. It does suggest that children from small families are under greater pressure to support their elderly parents. This also confirms the results of the bivariate analysis which suggested that in large families adult children may rely upon other siblings to support their parents while adult children from a small family felt a stronger duty to take care of their aging parents.

It was also found that characteristics of the children such as sex, age, marital status, birth order, occupation, place of residence in respect to the elderly parents, and the number of the adult children' s own children also affected financial support given to the elderly. Occupation and sex were the two factors that had the strongest impact on the likelihood of a child providing financial support to their elderly parents.

When the characteristics of the elderly parents were added to the analysis, it was found that it is the parent's age rather than the age of the adult children that affects the likelihood of a child providing financial support to their parents. More educated children are more likely to provide financial support to their parents than are less educated children. This is probably because more educated children are in a better economic position to provide financial support than are less educated children.

Characteristics of the elderly such as age, occupation, and work status, and whether the elderly were the main source of the household income also affected the likelihood of receiving financial support from their adult children. It is notable that other variables related to the economic position of the household, such as household income and ownership of property, had strong effects on the likelihood of an adult

child providing financial support. This indicates that the higher the level of assets of the elderly, the less likely that an adult child would provide financial support.

The addition of the characteristics of spouses of the elderly added very little to the explanatory power of the model. Furthermore, it had only a very marginal effect on the values of characteristics of the children and parents.

In sum, the multivariate analysis has demonstrated that it is the characteristics of the adult children that have the strongest impact on whether a child will provide financial support to their elderly parents. When a child is in a financial position to provide such support, or when they are in culturally delineated categories that prescribe such support (e.g. they are a daughter), they are likely to provide the support irrespective of the situation of their parents. This indicates the strong cultural basis in Thai society of financial support for elderly parents.

However, this does not mean that the economic situation of the parents is unimportant in decisions of children to provide support. After controlling for the characteristics of the children, it is clear that financial support for an elderly parent is most likely to be forthcoming from a child when the parent has few resources.

Finally, it is clear that there is an extra burden on children to provide financial support to their parents when they come from small families. This is irrespective of other characteristics of the child and characteristics of the elderly parent. So it appears that one response to providing financial support to elderly parents in the face of decreasing family size, is an increase in the likelihood of a child providing support. This increase is net of increases that might be expected from the better position of children from small families to provide such support, because of better education and occupations of children from small families, and from the high

level of resources of parents with small families. It appears that it addition to these factors it reflects a deeply held cultural expectation that at least one child provides financial support to their parents.

8.2 Instrumental Support to the Elderly

In terms of **instrumental support** for the elderly the results of the study show that there was association between the number of siblings the children had and the pattern of instrumental support given to the elderly parents. Adult children with a large number of siblings were most likely to provide instrumental support to their elderly parents 1-3 times a year compared to those with a small number of siblings. Again this is consistent with the hypothesis proposed in Chapter 2 where it was stated there would be difference between the two groups of the children from small and large families in terms of support to their elderly parents. It should also be noted that there was a large variation among categories in terms of sharing the same house as their elderly parents. Adult children with a small number of siblings were more likely to share the same house as their elderly parents than were adult children with a larger number of siblings. This shows that the number of siblings the children had affect the pattern of instrumental care.

When other factors expected to affect the pattern of instrumental support by family size were controlled in bivariate analysis, it was found that only marital status and occupation of adult children were likely to affect the pattern of instrumental support given by the children with both a small and a large numbers of siblings. Selected characteristics of elderly parents were also likely to affect the pattern of instrumental support adult children with both a small and a large numbers of siblings

provided to the elderly. Work status of the elderly parents, locus of responsibility for household expenses, and ownership of land and house where they currently lived affected the relationship between the number of siblings the children had and the basic pattern of instrumental support provided to their elderly parents.

In order to establish the net effect of each independent variable on the pattern of instrumental support given to the elderly parents multinomial logistic regression was used. The findings show statistically significant differences in the effects of the number of siblings on the amount of instrumental support provided to elderly parents by adult children. When comparisons were made among children who provided support to the elderly parents, it was found that an increase in the number of siblings of each child reduced the level of instrumental support provided to elderly parents. An increase in the number of siblings of an adult child living in the same house as their elderly parent reduced the odds of that child providing instrumental support to their elderly parents. An increase in the number of siblings increased the likelihood that an adult child would not provide instrumental support to their elderly parents. The addition of each sibling increased the odds of not providing support compared to providing support 1-3 times a year and providing support more than 1-3 times a year. Finally, increases in the number of siblings reduced the likelihood of providing support more than 1-3 times a year compared to providing support 1-3 times a year.

In summary, as the number of siblings increase the probability of an adult child providing instrumental support and the frequency of such support decreases. However, this finding did not mean that the elderly who have more children would receive less instrumental support. The finding does imply that an increase in the

number of siblings lessens the burden that each child has in taking care of their elderly parents. With more siblings the need for any one sibling to contribute instrumental support decreases.

Controlling for the characteristics of adult children does affect the relationships between the number of siblings and the likelihood of providing instrumental support. The effects can all be found in the comparisons that involve living in the same house. As the number of siblings increase the likelihood of an adult child living in the same house as their elderly parents providing instumental support their elderly parents is reduced when compared to never provide support, provide support 1-3 times a year, and provide support more that 1-3 times a year respectively.

These results clearly indicate that there are characteristics of adult children that result in them more likely to be living in the same house as their elderly parents and that these same characteristics are related to the effect of increases in the number of siblings on the likelihood of providing instrumental support to their parents. When we control for the characteristics of adult children, the differences in the likelihood of living in the same house as their elderly parents as opposed to providing instrumental support increase, but the differences in the frequency of providing support, for those providing support does not change. When a parent has only one child that child is likely to live with their parents when they become old. An increase in the number of siblings reduces the likelihood of a child living with their parents, and hence increases the likelihood of instrumental support.

The result of multivariate analysis also indicates that the characteristics of children are very important in determining the extent of instrumental support provided

to elderly parents. When each independent variable was investigated, several variables concerning the characteristics of the child are observed to be statistically significant. This finding is different from the result of bivariate analysis in which only two variables: marital status and occupation of the child, showed their influences on the instrumental support provided.

Adding the characteristics of the elderly and the spouses of the elderly does little to improve the fit of model and had very little impact on the effect of the number of siblings the children had on the likelihood of providing instrumental support to the elderly. Whatever the characteristics of the elderly or their spouses, an increase in the number of children in their family decreases the likelihood and frequency of any one child providing instrumental support.

In summary, when all other variables were controlled, the study indicated that the total number of siblings each child had influenced the likelihood of the instrumental support they provided to their elderly parents, and the characteristics of the child were the most important variables affecting the provision of the instrumental support. Considering the characteristics of the elderly themselves and those of the spouse of the elderly, it was found that only a few variables related to the characteristics of the elderly showed the effect on the instrumental support whereas the characteristics of the spouse of the elderly suggested no such effect. These findings are similar to those found in a bivariate analysis.

8.3 Emotional Support for the Elderly

Emotional health of the elderly is hard to measure since it involves the mental realm and individual sentiments. However, this study used emotional support

demonstrated through visits to reflect the attention and care on the part of adult children that they provide for their elderly parents.

The results of bivariate analysis show a significant difference between adult children with a small and a large numbers of siblings in the pattern of visiting their elderly parents. Adult children with a large number of siblings were most likely than those with a small number of siblings to visit their elderly parents 1-3 times a year, while adult children with a small number of siblings were most likely to share the same house as their elderly parents. This is also consistent with the hypothesis proposed in Chapter 2 where it was stated there would be difference between the two groups of the adult children with a small and a large numbers of siblings in terms of support to their elderly parents. This may be because the place of residence and the living arrangements of adult children and the elderly parents may not allow the adult children to pay more visits to their elderly parents.

When factors that might affect the pattern of visits, such as the individual characteristics of adult children and their elderly parents, were controlled it was found that characteristics of adult children such as age, birth order, marital status, number of children, education and occupation affected the pattern of visits that adult children made to their elderly parent. However, in almost all instances controlling for the characteristics of adult children did not change the underlying relationship between the family size and the pattern of visiting elderly parents.

The net effect of each independent variable on the frequency of visits paid to elderly parents by their adult children was examined using multinomial logistic regression. The findings indicate that variation in the number of siblings significantly affects the frequency that an adult child visits their elderly parents. When

comparisons are made between children who lived in the same house as their elderly parents, with those that did not, the study reveals that an increase in the number of siblings of an adult child increases the probability of visiting parents compared to living in the same house. The effect is strong. Each increase in the number of siblings increases the odds of making 1-3 yearly visits and more than 3 yearly visits compared to living in the same house. An increase in the number of siblings also increases the odds of not visiting compared to living in the same house.

What these results indicate is that in Thai society the norm that at least one child remain to live with their elderly child is closely followed. As the number of siblings increases the likelihood that any one child needs to live with their parents decreases. Those children who are not living with their elderly parents then are in a position to visit, or not visit, their parents according to their individual circumstances. One outcome of the reduction in fertility that has occurred over the last three decades is an increase in the proportion of children living with their elderly parents.

Increases in the number of siblings also provide an opportunity for less frequent visits to elderly parents by adult children. An increase of one sibling reduces the odds that an adult would pay more than 3 visits a year compared to visiting 1-3 times a year. The odds of not visiting an elderly parent in the last year increases with the addition of an extra sibling compared to visiting them more than 3 times.

In conclusion, as the number of siblings increase the probability of an adult child visiting an elderly parent decreases. However, this does not mean that the elderly who have more children receive fewer visits by their offspring. It only implies that children of big family can take turns in visiting their parents as they may not feel

the burden of performing this duty as much as their counterparts who have few or no siblings.

Controlling for the characteristics of adult children affected the relationships between the number of siblings and the likelihood of paying visit. The effects can all be found in the comparisons that involve living in the same house. The likelihood of an adult child living in the same house as their elderly parents compared to paying different levels of visit to their elderly parents is reduced with increasing numbers of siblings.

These findings clearly indicate that there are characteristics of adult children that result in them being more likely to be living in the same house as their elderly parents and that these same characteristics are related to the effect of an increase in the number of sibling on the likelihood of visiting their elderly parents. When we control for the characteristics of adult children, the differences in the likelihood of living in the same house as their elderly parents as opposed to paying visits increase, but the differences in the frequency of paying visits, for those paying visits, does not change. When a parent has only one child that child is likely to live with their parents when they become old. An increase in the number of siblings decreases the likelihood of a child living with their parents, and hence increases the likelihood of paying visits.

When the demographic and socio-economic characteristics of adult children were included in model, the findings show a significantly better fit to the data. This indicates that the characteristics of adult children had a strong effect on explaining patterns of visiting elderly parents, although much of this impact comes through improvements in predicting the likelihood of children living in the same house as their

elderly parents. When each variable was examined, several independent variables measuring the characteristics of the adult child are significantly related to dependent variable. The findings are consistent with those described in the bivariate analysis. Gender and occupation of the child seemed to be the most important factors affecting the visits paid to the elderly.

Adding the characteristics of the elderly and the spouses of the elderly did little to improve the fit of model. This suggests that it is the characteristics of the children that are important in determining the likelihood of visits paid by adult children and the likelihood that adult children will live with their elderly parents.

In summary, the most important variables affecting visiting patterns were the characteristics of children. Only a few variables related to the characteristics of the elderly, such as marital status, and caretaker of household expenses had significant effects. No variable related to the characteristics of the elderly spouse had an effect. These findings are consistent with the bivariate analysis.

8.4 Policy Recommendations

1. The results of the study suggest that a small family size should be promoted. Even it is clear that there is an extra burden on children to provide support to their parents when they come from small families. This suggestion is based upon the following reasons:

1.1 A small number siblings will raise the probability of support each child will provide to their parents. The child cannot deny this duty because he or she does not have big family to help share this duty.

1.2 In Thai society, it is strongly expected that children will provide care to their elderly parents. Therefore, in each family there will be at least one child who performs this duty, no matter how many children the family has.

1.3 Children from a family with fewer siblings are likely to provide better care to their elderly parents than their counterparts from a family who have more children due to their better socio-economic status. There is evidence that the quality of children is better in a small family where they will likely to get better care, better education, obtain a better occupation and achieve a higher income. These children will be able to provide better care to their elderly parents.

1.4 A smaller number of siblings will increase the chance of a child living with their elderly parents. The result show that an increase of family size decreases the chance of a child living with the elderly parent and increases the chance of a child staying away from the parent. In addition, the child from a smaller family spends more time with their parents when they visit.

2. The study also found that the characteristics of the child are the most important factors affecting the care given to elderly parents, especially when compared to the characteristics of the elderly themselves. The occupation of the child is the most significant indicator of the financial support the child will be able to provide to the elderly parents. Therefore, employment policy should emphasize occupation or jobs, which can provide sufficient income to workers so they can support elderly parents. Workplace is another important concern. A workplace in a close by area, such as in the same village or province is more preferable because the child can live with the parents or can come to visit them frequently. Living separately at a distance makes frequent visits impractical. In these case elderly parents may be

left to take care of themselves. In the present socio-economic condition, a promotion of small and medium enterprises (SMEs) is very appropriate, especially in rural areas, so that the elderly and their children can live together.

3. The study supports the policy aiming to place the family as the main provider of elderly care. The study also confirms that the family is the basic social unit that will provide the best care to its members. Besides support from the elderly' s spouse, children are the main source of support the elderly need, no matter whether they live in the same household or not. It is not practical to transfer this duty to the state or any organization outside the family, because the state has to bear many other burdens and the number of the elderly is rapidly increasing. The state is unable to provide good care for these elderly. The family of the elderly are, and should be, the main source of support.

4. Although most Thai children still provide care to their elderly parents, it appears that a significant number of children do not provides care to their parents. Members of this group include children who are still young, children with economic problems and children who live separately from their parents. It is assumed that the number of this group is likely to increase as the rate of poverty and unemployment increase during the economic crisis. It is recommended that the community and the state should take part in helping this group and their elderly parents.

5. The findings suggest that the elderly should lessen their expectations for care provided by their children and prepare themselves in terms of their health, income, savings and property, in the case that their children are not able to support them.

8.5 Recommendations for Further Study

1. The population in this study tended to have large families as the effects of the fertility decline has not yet been strongly reflected in the family size of those who are now aged over 60. However, in the next decade an increasing number of elderly would have gone through their reproductive ages during the period of declining fertility and will have only a few children. Hence there will be a need to undertake further studies on the effect of family size on the care of elderly parents.

2. It such studies it is recommended that a comparison of care between children who live in the same household with their parents and their counterparts who live apart from their parents should be a main focus of research. The study should also collect detailed information on the type and magnitude of support each sibling provides to the parents because it cannot be positively assumed that siblings living with their parents will provide support to their parents as some siblings still depend on their parents. The present place of residence of both siblings and the parents should also be obtained.

3. Much more research on the care and support involving children and their elderly parents is required to study both by quantitative and qualitative methods before we have an adequate understanding of the issues. This research includes the need for more detailed information on the scope, amount and magnitude of care at the family level. It is important to establish the potential of the family for providing care to the elderly so that policy and assistance can be developed that is consistent with actual needs.

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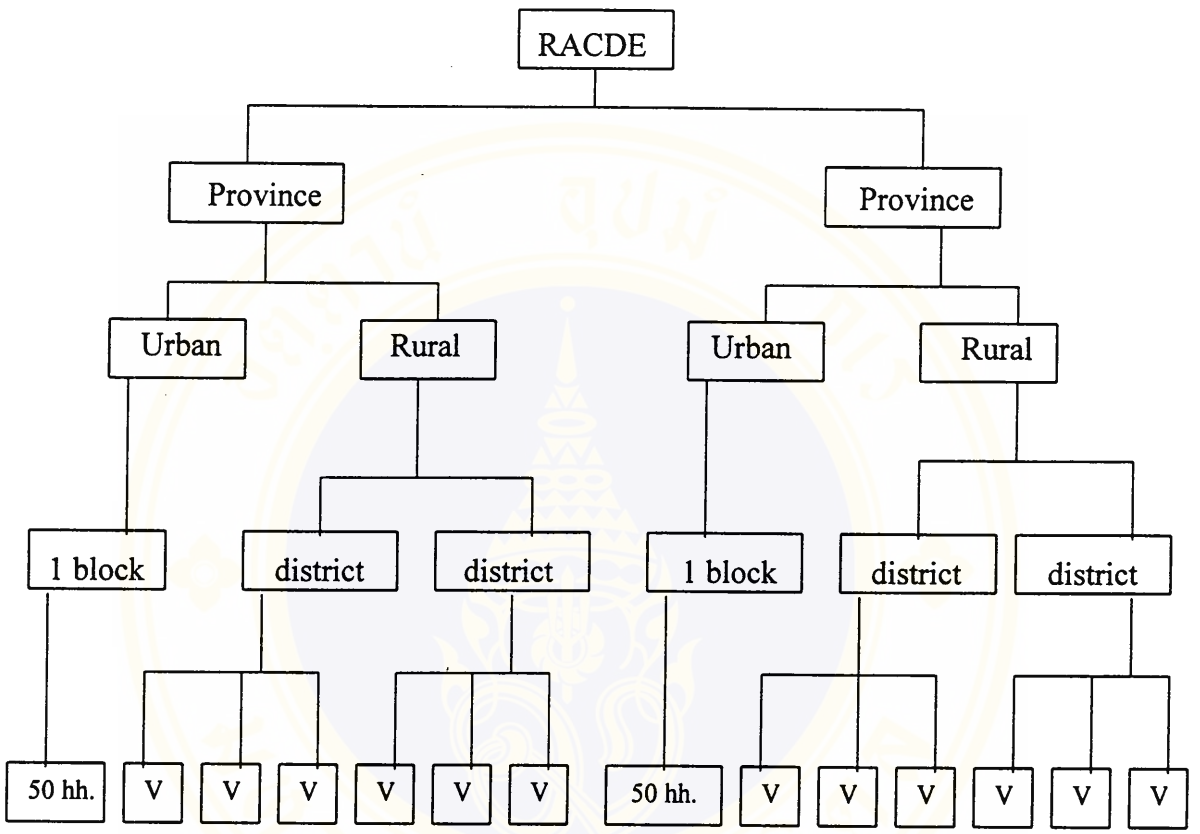
Appendix

Figure A1 : Sample Design and Sample Selection



Note : classified 72 provinces in Thailand into 13 strata according to the Regional Areas of Communicable Disease Control (RACDE)

: covered 24 blocks from 12 RACDC

: covered 24 blocks from Bangkok

: covered 144 villages (V) from 24 provinces

: contained 19,200 households (hh.)

: covered approximately 8,000 households (hh.)

Table A1: Percentage distribution of education of children by level of education and main/last occupation of the elderly.

Education of children	Education of elderly		Main/last occupation of elderly	
	<Prathom 4	≥ Prathom 4	Non-agriculture	agriculture
Prathom 4	66.6	46.5	34.7	65.9
Prathom 5-7	14.5	16.7	14.1	16.8
Mattayom	12.9	21.2	28.5	11.9
University	6.1	15.5	22.7	5.4
Total	**100**	**100**	**100**	**100**
(N)	**(8,667)**	**(11,207)**	**(6,375)**	**(13,059)**

Table A2: Percentage distribution of occupation of children by level of education and main/last occupation of elderly.

Occupation of children	Education of elderly		Main/last occupation of elderly	
	<Prathom 4	≥ Prathom 4	Non-agriculture	agriculture
Professional	12.1	21.8	28.3	11.9
Commercial	12.3	10.0	18.8	7.1
Agriculture	42.8	34.1	12.6	51.3
Labour	23.1	24.5	27.3	22.0
No occupation	9.8	9.6	13.0	7.7
Total	**100**	**100**	**100**	**100**
(N)	**(8,671)**	**(11,176)**	**(6,391)**	**(13,020)**

Table A3: Percentage distribution of children giving food/clothes to elderly parents in the past year by number of siblings of children and place of residence of elderly parents.

No. of Sibling	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Total
Whole Kingdom						
<3	7.6	11.3	18.3	37.1	25.7	100(1312)
4-6	6.4	11.5	16.5	40.9	24.7	100(6180)
7+	5.7	10.1	14.1	40.5	29.5	100(8275)
			χ^2 = 70.693, Sig = .000			
Urban						
<3	5.7	12.6	19.8	36.8	25.2	100(389)
4-6	5.9	12.2	18.9	33.9	29.2	100(1415)
7+	3.5	10.2	17.8	39.0	29.5	100(1552)
			χ^2 = 20.775, Sig = .008			
Rural						
<3	8.5	10.7	17.7	37.3	25.9	100(923)
4-6	6.6	11.3	15.8	42.9	23.4	100(4765)
7+	6.2	10.1	13.2	40.9	29.5	100(6723)
			χ^2 = 75.122, Sig = .000			

Note : excluding children who shared the same house as their elderly parents.

Table A4: Percentage distribution of children giving food/clothes to elderly parents in the past year by number of siblings of children and region of residence elderly parents.

No. of Sibling	Daily	Weekly	Monthly	1-3 Times/ Year	Never	Total
North						
<3	7.2	11.6	14.1	43.2	23.8	100(361)
4-6	6.7	13.8	13.8	45.7	20.0	100(1479)
7+	6.8	10.6	11.0	47.5	24.1	100(1652)
			χ^2 = 19.986, Sig = .010			
Northeast						
<3	11.3	4.4	14.1	37.1	33.1	100(248)
4-6	10.9	10.2	12.4	41.0	25.4	100(1329)
7+	8.2	9.2	11.9	39.0	31.7	100(2527)
			χ^2 = 30.834, Sig = .010			
Central						
<3	4.9	11.5	22.7	36.5	24.5	100(384)
4-6	4.2	10.7	19.1	40.8	25.3	100(1940)
7+	2.8	8.2	16.7	40.4	32.0	100(2217)
			χ^2 = 44.893, Sig = .010			
South						
<3	12.2	18.8	17.7	29.3	22.1	100(181)
4-6	6.4	10.8	18.5	39.8	24.4	100(885)
7+	6.7	12.3	15.4	35.7	29.9	100(1229)
			χ^2 = 31.289, Sig = .000			
Bangkok						
<3	3.6	12.3	25.4	33.3	25.4	100(138)
4-6	2.7	12.6	20.8	29.4	34.4	100(547)
7+	1.7	15.1	19.1	38.6	25.5	100(650)
			χ^2 = 22.392, Sig = .004			

Note : excluding children who shared the same house as their elderly parents.

Table A5: Odds ratios of the effect of characteristics of the children, characteristics of the elderly, and characteristics of the elderly' s spouse on the likelihood of instrumental support being provide by adult child to their elderly parents.

	> 1-3 VS 1-3 times	**Never VS 1-3 times**	**Never VS 1-3 times**
Model I			
Log-likelihood	-16613.11	-16613.11	-16613.11
Chi-square	118.04***	118.04***	118.04***
N	15375	15375	15375
No. of Sibling	**.9475*** **	**1.0408*** **	**1.0985*** **
Model II			
Log-likelihood	-16041.94	-16041.94	-16041.94
Chi-square change	1142.35***	1142.35***	1142.35***
N	15375	15375	15375
No. of Sibling	**.9354*** **	**1.0242*** **	**1.0949*** **
Model III			
Log-likelihood	-15783.10	-15783.10	-15783.10
Chi-square change	517.68***	517.68***	517.68***
N	15375	15375	15375
No. of Sibling	**.9328*** **	**1.0292** **	**1.1033*** **
Model IV			
Log-likelihood	-15756.17	-15756.17	-15756.17
Chi-square change	53.87***	53.87***	53.87***
N	15375	15375	15375
No. of Sibling	**.9340*** **	**1.0269** **	**1.0995*** **

* P < .05 ** P < .01 *** P < .001

Note : excluding children who shared the same house as their elderly parents.

Table A6: Odds ratios of the effect of characteristics of the child, characteristics of the elderly, and characteristics of the elderly' s spouse on the likelihood of instrumental support being provided by an adult child to their elderly parent.

	>1-3 VS 1-3 times	Never VS 1-3 times	Never VS >1-3 times
Model I			
Log likelihood	-16613.115	-16613.115	-16613.115
Chi-square	118.04***	118.04***	118.04***
N	15375	15375	15375
No. of Sibling	**.9475*** **	**1.0408*** **	**1.0985*** **
Model II			
Log likelihood	-16041.94	-16041.94	-16041.94
Chi-square change	1142.35***	1142.35***	1142.35***
N	15375	15375	15375
No. of Sibling	**.9354*** **	**1.0242***	**1.0949*** **
Characteristics of Child			
Sex			
-male	1.1440***	.6083***	.5317***
-female (ref.)	1.0000	1.0000	1.0000
Age	1.0111***	.9839***	.9731***
Birth Order	1.0180	1.0130	.9951
Marital Status			
-single/separate/ widowed/divorced	.9401	.6749***	.7179**
-married (ref.)	1.0000	1.0000	1.0000
No. of Children			
-single	.5263***	.7650*	1.4536*
-0	.7690**	.8758	1.1389
-1	.9726	.7273***	.7478***
-2	.9711	.7653***	.7881***
-3+ (ref.)	1.0000	1.0000	1.0000
Education	1.0152***	.9683***	.9538***
Occupation			
-professional	.4927***	.5835***	1.1841*
-commercial	.5609***	.5467***	.9747
-labour	.4656***	.7287***	1.5651***
-no occupation	.5445***	1.2541**	2.3033***
-agriculture (ref.)	1.0000	1.0000	1.0000
Area of Residence of Elderly			
-urban	.7179***	.5841***	.8135**
-rural (ref.)	1.0000	1.0000	1.0000
Region of Residence of Elderly			
-North	.8029***	.6474***	.8063***
-Northeast	.8801*	.8828*	1.0031
-South	1.2052**	.9735	.8077**
-Bangkok	1.1928	.8121*	.6809***
-Central (ref.)	1.0000	1.0000	1.0000

Table A6: (Continued)

	>1-3 VS 1-3 times	Never VS 1-3 times	Never VS >1-3 times
Model III			
Log likelihood	-15783.10	-15783.10	-15783.10
Chi-square change	517.68***	517.68***	517.68***
N	15375	15375	15375
No. of Sibling	**.9328*** **	**1.0292** **	**1.1033*** **
Characteristics of Child			
Sex			
-male	1.1435***	.6116***	.5348***
-female (ref.)	1.0000	1.0000	1.0000
Age	1.0042	.9931	.9890*
Birth Order	1.0071	1.0321*	1.0248
Marital Status			
-single/separate/ widowed/divorced	.9300	.6963***	.7487*
-married (ref.)	1.0000	1.0000	1.0000
No. of Children			
-single	.5162***	.8309	1.6097**
-0	.7615**	.9013	1.1837
-1	.9521	.7364***	.7734***
-2	.9455	.7813***	.8263***
-3+ (ref.)	1.0000	1.0000	1.0000
Education	1.0063	.9760***	.9699***
Occupation			
-professional	.4727***	.5819***	1.2311*
-commercial	.5577***	.5295***	.9494
-labour	.4557***	.7000***	1.5361***
-no occupation	.5315***	1.2113*	2.2789***
-agriculture (ref.)	1.0000	1.0000	1.0000
Area of Residence of Elderly			
-urban	.7311***	.6807***	.9311
-rural (ref.)	1.0000	1.0000	1.0000
Region of Residence of Elderly			
-North	.8013***	.6658***	.8309**
-Northeast	.8808*	.9821	1.1150
-South	1.2811***	.9965	.7779***
-Bangkok	1.4624***	.6506***	.4449***
-Central (ref.)	1.0000	1.0000	1.0000
Characteristics of Elderly			
Sex			
-male	1.1185*	.9392	.8397***
-female (ref.)	1.0000	1.0000	1.0000
Age	1.0077	.9837**	.9761***

Table A6: (Continued)

	>1-3 VS 1-3 times	Never VS 1-3 times	Never VS >1-3 times
Model III (cont.)			
Marital Status			
-widowed/divorced separated	1.1678***	.9873	.8454***
-married (ref.)	1.0000	1.0000	1.0000
Education	1.0194**	.9729***	.9543***
Occupation			
-non agriculture	.9143	.8449**	.9241
-agriculture (ref.)	1.0000	1.0000	1.0000
Work Status			
-private/gov. sector	1.0177	1.3456***	1.3221***
-no occupation	1.4314**	1.2870	.8991
-spouse /self /self & spouse/family (ref).	1.0000	1.0000	1.0000
Health Status			
-dependent	.8229	.8707	1.0580
-independent (ref).	1.0000	1.0000	1.0000
Who Take Care of Household Expenses			
-child	1.2243***	1.0816	.8835*
-other	1.2566*	.8895	.7079***
-spouse/ self/ self & spouse/family (ref).	1.0000	1.0000	1.0000
Main Source of Income of Household			
-own work/ own saving/ interest/pension/ lump sum/spouse	.9206	1.4154***	1.5375***
-other	.6400***	1.2009*	1.8764***
-child (ref).	1.0000	1.0000	1.0000
Total Income of Elderly & Spouse			
- 5,000–19,999 baht	1.0254	.9818	.9575
-20,000-49,999 baht	1.0762	.8068***	.7497***
-50,000+ baht	1.1561*	.9703	.8393*
-no income/<5,000 baht (ref).	1.0000	1.0000	1.0000
Owner of House They Lived in			
-child	1.2203	1.1580	.9490
-other	.7922	1.0093	1.2738
-spouse/self / self & spouse/family (ref).	1.0000	1.0000	1.0000
Owner of Land They Lived in			
-child	1.1595	.9984	.8611
-other	1.0358	1.1691	1.1286
-spouse/self/ self & spouse/family (ref).	1.0000	1.0000	1.0000

Table A6: (Continued)

	>1-3 VS 1-3 times	Never VS 1-3 times	Never VS >1-3 times
Model III (cont.)			
Properties (own house)			
- no	1.6956	.8871	.5232
-own name/ spouse name/ joined name (ref.)	1.0000	1.0000	1.0000
Properties (own land)			
- no	1.0447	.9308	.8909
-own name/ spouse name/ joined name (ref.)	1.0000	1.0000	1.0000
Properties (saving)			
- no	.9339	1.3885***	1.4867***
-own name/ spouse name/ joined name (ref.)	1.0000	1.0000	1.0000
Model IV			
Log likelihood	-15756.17	-15756.17	-15756.17
Chi-square change	53.87***	53.87***	53.87***
N	15375	15375	15375
No. of Sibling	**.9340*** **	**1.0269***	**1.0995*** **
Characteristics of Child			
Sex			
-male	1.1447***	.6092***	.5322***
-female (ref.)	1.0000	1.0000	1.0000
Age	1.0018	.9931	.9923
Birth Order	1.0004	1.0324*	1.0320*
Marital Status			
-single/separate/ widowed/ divorced	.9276	.6939***	.7480
-married (ref.)	1.0000	1.0000	1.0000
No. of Children			
-single	.5199***	.8242	1.5852**
-0	.7622**	.9035	1.1854
-1	.9569	.7389***	.7722***
-2	.9480	.7809***	.8238***
-3+ (ref.)	1.0000	1.0000	1.0000
Education	1.0062	.9760***	.9700***
Occupation			
-professional	.4731***	.5849***	1.2354*
-commercial	.5604***	.5282***	.9427
-labour	.4589***	.6984***	1.5219***
-no occupation	.5335***	1.2218*	2.2903***
-agriculture (ref.)	1.0000	1.0000	1.0000

Table A6: (Continued)

	>1-3 VS 1-3 times	Never VS 1-3 times	Never VS >1-3 times
Model IV (cont.)			
Area of Residence of Elderly			
-urban	.7373***	.6909***	.9670
-rural (ref.)	1.0000	1.0000	1.0000
Region of Residence of Elderly			
-North	.7983***	.6655***	.9335**
-Northeast	.8937*	.9928	1.1109
-South	1.2876***	.9903	.7691***
-Bangkok	1.4728***	.6455***	.4383***
-Central (ref.)	1.0000	1.0000	1.0000
Characteristics of Elderly			
Sex			
-male	1.0584	.9766	.9227
-female (ref.)	1.0000	1.0000	1.0000
Age	1.0029	.9825***	.9797***
Marital Status			
-widowed/divorced /separated	1.1766	.6894***	.5860***
-married (ref.)	1.0000	1.0000	1.0000
Education	1.0215**	.9770**	.9564***
Occupation			
-non agriculture	.9429	.8490**	.9005
-agriculture (ref.)	1.0000	1.0000	1.0000
Work Status			
-private/gov.sector	1.0102	1.3405***	1.3270***
-no occupation	1.4483**	1.2730	.8790
-spouse/self & spouse/ family (ref).	1.0000	1.0000	1.0000
Health Status			
-dependent	.8213*	.8903	1.0840
-independent (ref).	1.0000	1.0000	1.0000
Who Take Care of Household Expenses			
-child	1.2019***	1.0778	.8968
-other	1.2557*	.8802	.7010***
-spouse/self/self & spouse/ family (ref).	1.0000	1.0000	1.0000
Main Source of Income of Household			
-own work/ own saving/ interest/pension/ lump sum/spouse	.9421	1.4343***	1.5224***
-others	.6538***	1.2234*	1.8713***
-child (ref).	1.0000	1.0000	1.0000

Table A6: (Continued)

	>1-3 VS 1-3 times	Never VS 1-3 times	Never VS >1-3 times
Model IV (cont.)			
Total Income of Elderly & Spouse			
- 5,000–19,999 baht	1.0412	.9891	.9499
-20,000-49,999 baht	1.1047	.8097***	.7330***
-50,000+ baht	1.1729*	.9782	.8340*
-no income/<5,000 baht (ref).	1.0000	1.0000	1.0000
Owner of House They Lived in			
-child	1.2300	1.1255	.9150
-others	.7772	.9635	1.2397
-spouse/self/self & spouse/family (ref).	1.0000	1.0000	1.0000
Owner of Land They Lived in			
-child	1.1498	.9937	.8642
-other	1.0344	1.1582	1.1197
-spouse/self/self & spouse/family (ref).	1.0000	1.0000	1.0000
Properties (own house)			
- no	1.6830***	.8645	.5137***
-own name/ spouse name/ joined name (ref.)	1.0000	1.0000	1.0000
Properties (own land)			
- no	1.0372	.9245	.8914
-own name/ spouse name/ joined name (ref.)	1.0000	1.0000	1.0000
Properties (saving)			
-own name/ spouse name/ joined name	.9344	1.3833***	1.4805***
- no (ref.)	1.0000	1.0000	1.0000
Characteristics of Elderly 's Spouse			
Age			
-<60	.7543**	1.0264	1.3608**
-60-69	.8608*	.9142	1.0621
-no spouse	.8909	.8556	.9604
-70+ (ref.)	1.0000	1.0000	1.0000
Education			
-< p 4	1.1038	1.1596	1.0505
-no spouse	1.0539	.6823	.6474
-p 4/> p 4 (ref.)	1.0000	1.0000	1.0000
Occupation			
-non-agriculture	.9971	.9354	.9381
-agriculture	.8546	.9110	1.0660
-no spouse	.9556	1.1261	1.1784
-no occupation(ref.)	1.0000	1.0000	1.0000

* p<.05; ** p < .01 ; *** p <.001

Note : excluding children who shared the same house as their elderly parents.

Table A7: Percentage distribution of children visiting elderly parents in the past year by number of siblings of children and place of residence of elderly parents.

No. of Sibling	Daily	Weekly	Monthly	1-3 Times Year	Never	Total
Whole Kingdom						
<3	27.9	11.2	18.5	32.7	9.6	100(1306)
4-6	28.9	12.5	17.6	32.9	8.1	100(6159)
7+	26.9	11.8	17.4	35.2	8.6	100(8229)
			χ^2 = 17.780, Sig = .023			
Urban						
<3	22.2	14.2	20.2	34.4	9.0	100(387)
4-6	22.9	16.3	20.2	31.3	9.3	100(1413)
7+	18.8	13.9	25.1	33.2	9.0	100(1520)
			χ^2 = 19.621, Sig = .012			
Rural						
<3	30.4	9.9	17.8	32.0	9.9	100(919)
4-6	30.6	11.4	16.9	33.4	7.7	100(4746)
7+	28.8	11.4	15.6	35.7	8.5	100(6709)
			χ^2 = 20.843, Sig = .008			

Note : excluding children who shared the same house as their elderly parents.

Table A8: Percentage distribution of children visiting elderly parents in the past year by number of siblings of children and region of residence of elderly parents.

No. of Sibling	Daily	Weekly	Monthly	1-3 Times Year	Never	Total
North						
<3	28.3	9.1	15.2	37.4	10.0	100(361)
4-6	32.7	14.3	15.2	31.2	6.6	100(1474)
7+	29.5	12.3	14.2	37.9	6.1	100(1641)
			χ^2 = 27.996, Sig = .010			
Northeast						
<3	24.7	8.1	16.6	36.8	13.8	100(247)
4-6	33.6	8.8	11.2	37.5	8.8	100(1323)
7+	29.4	10.7	12.9	37.6	9.4	100(2520)
			χ^2 = 22.834, Sig = .004			
Central						
<3	26.0	12.6	23.1	30.2	8.1	100(381)
4-6	25.1	12.1	23.4	32.7	6.6	100(1939)
7+	24.3	10.8	21.6	35.2	8.0	100(2218)
			χ^2 = 10.447, Sig = .223			
South						
<3	42.1	11.8	13.5	28.1	4.5	100(178)
4-6	30.1	12.0	14.8	33.0	10.1	100(878)
7+	28.7	12.7	17.5	31.5	9.6	100(1233)
			χ^2 = 19.105, Sig = .014			
Bangkok						
<3	20.1	17.3	24.5	25.9	12.2	100(139)
4-6	18.2	18.9	23.9	27.2	11.9	100(545)
7+	15.7	17.0	28.5	26.3	12.5	100(617)
			χ^2 = 5.153, Sig = .741			

Note : excluding children who shared the same house as their elderly parents.

Table A9: Odds ratios of the effect of characteristics of the child, the elderly, and the elderly' s spouse on the likelihood of an adult child visiting their elderly parents.

	> 1-3 Vs 1-3 times	**Never VS 1-3 times**	**Never VS 1-3 times**
Model I			
Log-likelihood	-13475.31	-13475.31	-13475.31
Chi-square	42.74***	42.74***	42.74***
N	15279	15279	15279
No. of Sibling	**.9589*** **	**1.01064**	**1.0539*** **
Model II			
Log-likelihood	-12733.70	-12733.70	-12733.70
Chi-square change	1483.21***	1483.21***	1483.21***
N	15279	15279	15279
No. of Sibling	**.9620*** **	**.9897** **	**1.0287**
Model III			
Log-likelihood	-12583.29	-12583.29	-12583.29
Chi-square change	300.83***	300.83***	300.83***
N	15279	15279	15279
No. of Sibling	**.9520*** **	**.9796** **	**1.0290**
Model IV			
Log-likelihood	-12556.73	-12556.73	-12556.73
Chi-square change	53.13***	53.13***	53.13***
N	15279	15279	15279
No. of Sibling	**.9540*** **	**.9753**	**1.0223**

*P < .05 ** P < .01 ***P < .001

Note : excluding children who shared the same house as their elderly parents

Table A10: Odds ratios of the effect of characteristics of the child, characteristics of the elderly, and characteristics of the elderly' s spouse on the likelihood of an adult child visiting their elderly parent.

	>1-3 VS 1-3 times	Never VS 1-3 times	Never VS >1-3 times
Model I			
Log likelihood	-13475.31	-13475.31	-13475.31
Chi-square	42.74***	42.74***	42.74***
N	15279	15279	15279
Total No. of Sibling	**.9589*** **	**1.0106**	**1.0539*** **
Model II			
Log likelihood	-12733.70	-12733.70	-12733.70
Chi-square change	1483.21***	1483.21***	1483.21***
N	15279	15279	15279
No. of Sibling	**.9620*** **	**.9897**	**1.0287**
Characteristics of Child			
Sex			
-male	1.1559***	.8690*	.7517***
-female (ref.)	1.0000	1.0000	1.0000
Age	1.0033	1.0111*	1.0077
Birth Order	.9821	1.0249	1.0436*
Marital Status			
-single/separate/ widowed/divorced	1.0563	.6338**	.6000***
-married (ref.)	1.0000	1.0000	1.0000
No. of Children			
-single	.5326***	.6979	1.3104
-0	.7601***	.9276	1.2204
-1	.9937	.9468	.9531
-2	1.1783***	.9535	.8082*
-3+ (ref.)	1.0000	1.0000	1.0000
Education	1.0189***	.9640***	.9461
Occupation			
-professional	.2997***	.6970**	2.3258***
-commercial	.3559***	.5673***	1.5938***
-labour	.2906***	.8742	3.0085***
-no occupation	.3668***	1.2697*	3.4613***
-agriculture (ref.)	1.0000	1.0000	1.0000
Area of Residence of Elderly			
-urban	.7420***	.9163	1.2348*
-rural (ref.)	1.0000	1.0000	1.0000
Region of Residence of Elderly			
-North	.8566**	.8665	1.0116
-Northeast	.6232***	1.1038	1.7711***
-South	.9573	1.4435***	1.5079***
-Bangkok	1.3024**	1.8743***	1.4391*
-Central (ref.)	1.0000	1.0000	1.0000

Table A10: (Continued)

	>1-3 VS 1-3 times	Never VS 1-3 times	Never VS >1-3 times
Model III			
Log likelihood	-12583.29	-12583.29	-12583.29
Chi-square change	300.83***	300.83***	300.83***
N	15279	15279	15279
No. of Sibling	**.9520*** **	**.9796**	**1.0290**
Characteristics of Child			
Sex			
-male	1.1531***	.8714	.7558***
-female (ref.)	1.0000	1.0000	1.0000
Age	1.0010	1.0249***	1.0239***
Birth Order	.9835	1.0592**	1.0770***
Marital Status			
-single/separate/ widowed/divorced	1.0240	.6460**	.6298**
-married (ref.)	1.0000	1.0000	1.0000
No. of Children			
-single	.5038***	.7112	1.4117
-0	.7532***	.9230	1.2254
-1	.9614	.9439	.9817
-2	1.1458**	.9487	.8280
-3+ (ref.)	1.0000	1.0000	1.0000
Education	1.0094*	.9626***	.9537***
Occupation			
-professional	.2893***	.6875**	2.3767***
-commercial	.3441***	.5609***	1.6302***
-labour	.2866***	.8595	2.9993***
-no occupation	.3561***	1.2545	3.5233***
-agriculture (ref.)	1.0000	1.0000	1.0000
Area of Residence of Elderly			
-urban	.7564***	1.0314	1.3636**
-rural (ref.)	1.0000	1.0000	1.0000
Region of Residence of Elderly			
-North	.8198***	.8910	1.0869
-Northeast	.6099***	1.1547	1.8931***
-South	.9880	1.14532**	1.4709***
-Bangkok	1.4286***	1.7931***	1.2552
-Central (ref.)	1.0000	1.0000	1.0000
Characteristics of Elderly			
Sex			
-male	.9599	.7393***	.7701***
-female (ref.)	1.0000	1.0000	1.0000
Age	.9996	.9823*	.9827*

Table A10: (Continued)

	>1-3 VS 1-3 times	Never VS 1-3 times	Never VS >1-3 times
Model III (cont.)			
Marital Status			
- widowed/divorced/separated	1.2277***	.7969**	.6518***
-married (ref.)	1.0000	1.0000	1.0000
Education			1.0026
Occupation			
-non agriculture	.8830*	1.0082	.9546
-agriculture (ref.)	1.0000	1.0000	1.0000
Work Status			
-private/gov.sector	.9556	.8429	1.1169
-no occupation	1.6784***	1.0675	.7859
-spouse/self & spouse/family (ref).	1.0000	1.0000	1.0000
Health Status			
-dependent	.9340	.7935	.8496
-independent (ref).	1.0000	1.0000	1.0000
Who Take Care of Household Expenses			
-child	1.3622***	.8669	.6365***
-other	1.0680	.7335*	.6868
-spouse/self/self & spouse/family (ref).	1.0000	1.0000	1.0000
Main Source of Income of Household			
-own work/ own saving/ interest/pension/ lump sum/spouse	.8991*	1.0595	1.1783
-other	.7894**	1.0466	1.3257*
-child (ref).	1.0000	1.0000	1.0000
Total Income of Elderly & Spouse			
- 5,000–19,999 baht	.9260	1.1263	1.2162*
-20,000-49,999 baht	.9777	1.1000	1.1251
-50,000+ baht	1.0936	.9861	.9017
-no income/<5,000 baht (ref).	1.0000	1.0000	1.0000
Owner of House They Lived in			
-child	.9674	1.3002	1.3440
-other	.8639	1.0817	1.2521
-spouse/self/self & spouse/family (ref).	1.0000	1.0000	1.0000
Owner of Land They Lived in			
-child	.9813	.7902	.8053
-other	.9575	.9589	1.0014
-spouse/self/self & spouse/family (ref).	1.0000	1.0000	1.0000

Table A10: (Continued)

	>1-3 VS 1-3 times	Never VS 1-3 times	Never VS >1-3 times
Model III (cont.)			
Properties (own house)			
- no	1.1623	1.1318	.9738
-own name/ spouse name/ joined name (ref.)	1.0000	1.0000	1.0000
Properties (own land)			
- no	1.1125	.8443	.7589*
-own name/ spouse name/ joined name (ref.)	1.0000	1.0000	1.0000
Properties (saving)			
- no	.7901***	1.10803*	1.4940***
-own name/ spouse name/ joined name (ref.)	1.0000	1.0000	1.0000
Model IV			
Log likelihood	-12556.73	-12556.73	-12556.73
Chi-square change	53.13***	53.13***	53.13***
N	15279	15279	15279
No. of Sibling	**.9540*** **	**.9753**	**1.0223**
Characteristics of Child			
Sex			
-male	1.1547***	.8641*	.7484***
-female (ref.)	1.0000	1.0000	1.0000
Age	.9995	1.0277***	1.0282***
Birth Order	.9795	1.0673**	1.0896***
Marital Status			
-single/separate/ widowed/ divorced	1.0223	.6348	.6209**
-married (ref.)	1.0000	1.0000	1.0000
No. of Children			
-single	.5048***	.6951	1.3768
-0	.7512***	.9352	1.2450
-1	.9591	.9458	.9861
-2	1.1427*	.9470	.8287*
-3+ (ref.)	1.0000	1.0000	1.0000
Education	1.0091*	.9619***	.9532***
Occupation			
-professional	.2896***	.6857**	2.3679***
-commercial	.3437***	.5527***	1.6081***
-labour	.2885***	.8443	2.9263***
-no occupation	.3563***	1.2471	3.5002***
-agriculture (ref.)	1.0000	1.0000	1.0000

Table A10: (Continued)

	>1-3 VS 1-3 times	Never VS 1-3 times	Never VS >1-3 times
Model IV (cont.)			
Area of Residence of Elderly			
-urban	.7626***	1.0527	1.3803**
-rural (ref.)	1.0000	1.0000	1.0000
Region of Residence of Elderly			
-North	.8168***	.8948	1.0954
-Northeast	.6080***	1.1489	1.8896***
-South	.9901	1.4259**	1.4401***
-Bangkok	1.1367***	1.7832***	1.2412
-Central (ref.)	1.0000	1.0000	1.0000
Characteristics of Elderly			
Sex			
-male	.9167	.8537	.9313
-female (ref.)	1.0000	1.0000	1.0000
Age	.9985	.9878	.9893
Marital Status			
- widowed/divorced /separated	1.5241***	.5325***	.3494***
-married (ref.)	1.0000	1.0000	1.0000
Education	1.0045	1.0114	1.0068
Occupation			
-non agriculture	.8911*	.8135*	.9129
-agriculture (ref.)	1.0000	1.0000	1.0000
Work Status			
-private/gov. sector	.9542	1.0576	1.1083
-no occupation	1.6755***	1.2705	.7583
-spouse /self / self & spouse/ family (ref).	1.0000	1.0000	1.0000
Health Status			
-dependent	.9306	.8160	.8769
-independent (ref).	1.0000	1.0000	1.0000
Who Take Care of Household Expenses			
-child	1.3584***	.8830	.6500***
-other	1.0706	.7167	.6695**
-spouse /self /self & spouse/ family (ref).	1.0000	1.0000	1.0000
Main Source of Income of Household			
-own work/ own saving/ interest/pension/ lump sum/spouse	.9022*	1.0739*	1.1903*
-others	.7873**	1.0740	1.3640*
-child (ref).	1.0000	1.0000	1.0000

Table 10A: (Continued)

	>1-3 VS 1-3 times	Never VS 1-3 times	Never VS >1-3 times
Model IV (cont.)			
Total Income of Elderly & Spouse			
- 5,000–19,999 baht	.9289	1.1182	1.2038*
-20,000-49,999 baht	.9843	1.0724	1.0895
-50,000+ baht	1.0932	.9796	.8962
-no income/<5,000 baht (ref).	1.0000	1.0000	1.0000
Owner of House They Lived in			
-child	.9954	1.2492	1.2550
-others	.8921	1.0632	1.1918
-spouse/ self/ self & spouse/family (ref).	1.0000	1.0000	1.0000
Owner of Land They Lived in			
-child	.9811	.8001	.8155
-other	.9563	.9535	.9971
-spouse/ self/ self & spouse/family (ref).	1.0000	1.0000	1.0000
Properties (own house)			
- no	1.1925	1.1169	.9366
-own name/ spouse name/ joined name (ref.)	1.0000	1.0000	1.0000
Properties (own land)			
- no	1.1083	.8537	.7703
-own name/ spouse name/ joined name (ref.)	1.0000	1.0000	1.0000
Properties (saving)			
-own name/ spouse name/ joined name	.7913***	1.1762*	1.4864***
- no (ref.)	1.0000	1.0000	1.0000
Characteristics of Elderly 's Spouse			
Age			
-<60	.8543	1.6076	1.8818***
-60-69	.9800	1.1131	1.1358
-no spouse	1.8288	1.1344	.6203
-70+ (ref.)	1.0000	1.0000	1.0000
Education			
-< p 4	.9643	1.0420	1.0806
-no spouse	.6752	.5277	.7816
-p 4/> p 4 (ref.)	1.0000	1.0000	1.0000
Occupation			
-non-agriculture	1.0811	.8134	.7523
-agriculture	.9963	.9688	.9724
-no spouse	.9913	1.1863	1.1968
-no occupation(ref.)	1.0000	1.0000	1.0000

* p<.05; ** p < .01 ; *** p <.001

Note : excluding children who shared the same house as their elderly parents.

BIOGRAPHY

NAME	Wathinee Boonchalaksi
DATE OF BIRTH	1st January, 1953
PLACE OF BIRTH	Bangkok, Thailand
INSTITUTION ATTENDED	Doctor of Philosophy in Demography from Mahidol University, Bangkok, Thailand in 2000. Master of Arts (M. A.) in Demography from Mahidol University, Bangkok, Thailand in 1987. Certificate on Population Studies from International Institute for Population Studies, Bombay, India in 1980. Bachelor of Arts (B. A.) with honours in Anthropology from Silapakorn University, Bangkok, Thailand in 1975.
POSITION & OFFICE	Associate Professor, Institute for Population and Social Research, Mahidol University, Salaya, Phutthamonthon, Nakhon-Pathom, 73170 Thailand.