

Family Dynamics and Mental Status of Japanese Family Care Providers

Yoshiko SEKITO

Abstract : The purpose of this study was to grasp how Japanese family care providers perceive family dynamics in order not to let them out of appropriately care.

Samples were 35 family care providers who lived a city near Tokyo. The selection method used was convenience sampling. Participation was voluntary. Instruments used were two questionnaires: The Family Dynamics Measure II (FDM II) with six dimensions and a socio-demographic questionnaire (inclusive of mental status items).

The average age of family care providers was 58.2, married (80.0%), and living with their parent(s) (37.1%). Average size of family was 3.40. Higher rate of illness and health problems in family were reported, 65.7% and 54.3% respectively. The strong magnitudes of relationship were found between Mutuality-Communication, Mutuality-Stability, and Stability-Communication. Flexibility and Role reciprocity showed moderate relationships with 3 and 4 dimensions of FDM II, respectively. Mental status showed moderate magnitude of relationship with Individuation.

Role reciprocity and mental status showed somewhat lower score than Japanese participants in past studies. This could suggest that providing care at home may influence Role and mental status of care providers in a negative way.

Findings would help nurses to provide appropriate care to family care providers and also to their families.

Key words : Family dynamics, Care provider, Mental status, Japanese family, FDM II

Introduction:

Elderly population in Japan has been increasing rapidly. It has said that speed of this increase had never experienced in any countries in the world. For example, ratio in population of persons over 65 in 1995 was 14.5% and in 2003 was 19.0%¹⁾. Further it forecasts ratio of persons over 65 in 2025 will be 25% and in 2050 will be 32.3%²⁾. According to Survey by Ministry of Labor and Welfare, higher portion of elderly wishes to stay home and cared at home when physically disabled. For example, 71.6% of elderly ages over 65 wishes to stay home when physically disabled. When looking at trend of wishes to stay home by age groups, older the age group higher percentage for wishing to stay home. Particularly this number goes up for ages over 70, with the ratio of 73.3%³⁾.

Couple only family increased 14.4% in 1986 to 21.4% in 2003. Family with one parent with unmarried child decreased 46.4 in 1986 to 38.4% in 2003. Extended and three generation family decreased 21.0% in 1986 to 17.1% in 2003. Overall trend of nuclear family is increasing and compound family is decreasing¹⁾.

Female workers in aggregate labor population in 2003 was 40.8%, 160,000 persons increase from 2002¹⁾.

On the other hand elderly who needs some kind of care increases with aging. Particularly, ages over 75 needs for help notably increases. It is said that ages over 85, 24% of elderly may become bed-ridden condition or dementia and target for care-need. In addition, 20% become need for assistance²⁾.

Number of care service users receiving services at

home increased. In three years, since the start of long-term care insurance during April 2000 to December 2003, elderly being taken care at home increased 1.42 times. Total population of care service users almost doubled. In the same duration of period, eligibility of persons for certified care needs increased 1.7 times⁴. By year 2010 (government speculation), elderly being cared at home will be increased to 75.5% compared to 69.6 % in year 2000. That is an increase of 106.6 million persons². In Japan, even though long-term care insurance has been effort to provide support for care needs of elderly, main care provider at home has been counted on a family member.

Therefore it is important to grasp how these family care providers (hidden victims?) perceive family dynamics in order not to let them out of appropriate care.

Definition: Family in this study was defined according to Family Dynamic Measure II (FDM II). In this measure family was defined as a group of two or more people who had a commitment to each other and who lived together. Most cases of these people might be related by blood or marriage. However, family could also be a group of two or more people who care about each other and who lived together whether related by blood or marriage.

Purpose:

The purpose of this study is to grasp how Japanese family care providers perceive family dynamics and mental status in order not to let them out of an appropriate care.

Research Questions:

1. What is their perceived family dynamics of Japanese family care providers?
2. What is their mental status?
3. What relationships are there between family dynamics, mental status and selected socio-demographic variables?

Methods:

1. Samples were 35 Japanese care providers. The participants were reached through visiting nurses employed at several visiting nurse stations in a city near

Tokyo.

To be included in the sample participants must be a primary care provider for a family member who has ill health and cared at home. In addition, a participant must be a family member in a family with 2 or more adults (18 years old or over) in the same household.

The selection method used was convenience sampling. Participation was voluntary.

2. Instruments: Two kinds of questionnaires were used; 1) The Family Dynamics Measure II (FDM II) and 2) a socio-demographic questionnaire.

1. The Family Dynamics Measure II (FDM II)⁹:

Family in this measure had been defined as a group of two or more people who had a commitment to each other and who lived together. Most cases of these people might be related by blood or marriage. However, family could also be a group of two or more people who care about each other and who lived together regardless of related by blood or marriage.

The FDM II consists of the following six dimensions and are based on the conceptual framework of Barnhill's family health cycle⁶.

The six dimensions are:

- (1) Individuation-Enmeshment
- (2) Mutuality-Isolation
- (3) Flexibility-Rigidity
- (4) Stability-Disorganization
- (5) Clear communication-Unclear/distorted communication .
- (6) Role reciprocity-Role conflict

The higher score means more positive the family dynamics.

The Japanese version of the FDM II was established by back-translation method. The Cronbach alpha coefficients of FDM II Japanese version obtained ranged from .47 to .90⁷. Test-retest coefficients of FDM II Japanese version ranged from .70 to .92⁷.

2. A socio-demographic questionnaire:

A socio-demographic questionnaire of 13 items addressed family size, attributes of participants and

family member(s), mental status of participants, illness and problems/ changes in a family. These were to obtain background information. Mental status was measured by seven items modified from the Medical Outcome Study (MOS) 36-item Short Form Health Survey (SF-36) (Ware, 1996)⁸⁾.

The reliability coefficients of the SF-36 ranged from .70 to .90 in various studies. These questions were translated from English into Japanese. The sum of scores of 7 items, i.e. 7 being the lowest and 42 being the highest, was indication of their mental status.

The Cronbach alpha obtained by Japanese family study in U.S. and Japan was .83⁹⁾ and .69¹⁰⁾ to .79¹¹⁾ respectively. The return of the questionnaires was the evidence of consent to participate in the study.

Occupation was estimated from referring to the occupational scale in the Hollingshead Four Factor Index Social Status¹²⁾. The scale ranged from 9 to 1 (0 being a housewife or retired/not working).

The following is the examples of occupation corresponding to the scale:

- 9. Higher Executives, Major Professionals;
Physicians, Lawyers, Teachers (college/university)
- 8. Administrators, Lesser Professionals;
Authors, Editors, Registered Nurses. Pharmacists, Teachers (secondary school)
- 7. Minor Professionals, Managers;
Actors, Artists, Social Workers, Teachers (except the above)

- 6. Technicians, Semiprofessionals;
Sales managers, Secretaries, Foremen, Dental hygienists
- 5. Clerical and Sales workers;
Bank tellers, Bookkeepers, Cashiers, Telephone operators
- 4 Skilled Manual Workers Craftsmen;
Bakers, Carpenters, Repairmen, Tailors
- 3. Machine Operators, Semiskilled Workers;
Barbers, Bus drivers, Hairdressers, Housekeepers, Sailors
- 2. Unskilled Workers;
Bartenders, Gardeners, Messengers, Waiters
- 1. Farm Laborers, Menial Service workers;
Attendants, Cleaners, Maids, Laundresses

Findings:

Characteristics of participants:

Family care providers were mainly female (74.3%) and were married (80.0%). Some of them were living with children (40.0%) and with their parent(s) (37.1%). Average number of persons in a family was 3.40(SD=1.42). Average age of participants was 58.20(SD=17.38), ranged from 24 to 87 years old. The education level of participants was above senior high school, i.e. average schooling was 13.26 (SD =3.90) years in school. Occupation of participants was either skilled worker or house wives. Actually about one out of 4 was house wives. Nearly 60% of participants had person(s) with ill health and had health problems/changes that affected them in a family. (Table 1)

Table1: Characteristics of participants (N=35)

Sex(female)	74.3% (n=26)	Age of participants	mean=58.20
Married(spouse)	80.0% (n=28)	(Age range of participants 24 to 87 years old)	SD=17.38
With children(parent)	40.0% (n=14)	Education of participants	mean=13.26
Living with their parents	37.1% (n=13)		SD=3.90
Other	20.0% (n= 7)	Education of other family members	mean=13.62
Illness in family	65.7% (n=23)		SD=3.92
Problems/changes in family	54.3% (n=19)	Occupation of participants	mode=0,4
Number of persons in family	mean=3.40	Occupation of other family members	mode=0,3,4,5
	SD=1.42		

The largest age group of family member was ages between 50 and 69, followed by ages over 70. In fact in aggregate 60% of families consisted of family member ages over 50. (Table 2)

Score mean (SD) and reliability of 6 dimensions and mental status:

Highest score earned by individual item (tentatively score mean of each dimension divided by number of items in a dimension) was Mutuality, followed by Communication, Stability, Individuation, Role, and Flexibility. The lowest score earned by individual item was Mental Status.

Reliability of six dimensions ranged from .68 to .79. Reliability of mental status was .75. All reliability stayed satisfactory levels. (Table 3)

Correlations between selected socio-demographic variables and 6 dimensions and mental status:

Family position was found to have both positive and negative relationships. Parent showed negative relationships with Individuation, whereas child showed positive relationships Individuation and Mutuality. Number of family members in a family was about equal magnitude of relationships however bipolar with Individuation and Stability: positive with Stability and negative with Individuation respectively. Illness in family was positively related with Stability. Age of participants was negatively related to Flexibility and Mutuality.

No significant relationships were found between selected socio-demographic variables and Communication, Role and Mental status. (Table 4)

Table2: Age groups of family members

Age groups	N=34
over70	64.7% (n=22)
50 - 69	76.5% (n=26)
30 - 49	41.2% (n=14)
18 - 29	35.3% (n=12)
12 - 17	8.8% (n=3)
5 - 11	8.8% (n=3)
under5	0

Table3: Score mean (SD) and reliability of 6 dimensions and mental status

Dimensions	Number of items	Range of score	Score mean (SD)	Reliability
Individuation-Enmeshment	13	13 - 78	55.34(5.21)	.79
Mutuality-Isolation	11	11 - 66	50.89(6.21)	.68
Flexibility-Rigidity	10	10 - 60	38.26(6.24)	.71
Stability-Disorganization	9	9 - 54	40.89(4.61)	.70
Clear communication-Unclear communication	11	11 - 66	50.26(6.45)	.69
Role reciprocity-Role conflict	12	12 - 72	47.80(7.06)	.73
Mental status	7	7 - 42	27.37(6.78)	.75

Table4: Correlations between selected socio-demographic variables and 6 dimensions (and mental status)

	Number of Family members ¹⁾	Age of Participants ¹⁾	Parent ²⁾	Child ²⁾	Illness in Family ¹⁾
Individuation-Enmeshment	-.342*		-.509**	.358*	
Mutuality-Isolation		-.394*		.294*	
Flexibility-Rigidity		-.419*			
Stability-Disorganization	.345*				.336*
Clear communication-Unclear communication					
Role reciprocity-Role conflict					

¹⁾ Pearson r correlation

²⁾ Spearman's Rho correlation

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

Relationships among mental status and selected socio-demographic variables:

Mental status was positively related with Age group of 18-29 and negatively related with Age group of over 70 and education of participants. Mental status and Illness in family did not show significance. However, it should be noted that a trend of relationship was shown. Problem/changes in family and living with parents were shown to have positive relationships with Illness in family. Illness in family and Age group of over 70 showed a positive relationship. (Table 5)

Correlations among 6 dimensions and mental status:

Strong magnitudes of relationships were found with Mutuality and Communication and Stability, and Stability and Communication. Individuation did not show any relationship with other dimensions. Yet, only Individuation showed positive relationship with Mental Status. (Table 6)

cities or counties. It could be speculated that behaviors of Tokyo megalopolis spread nearing cities influencing on elderly behaviors. Particularly the trend to which influenced largely on was decrease in three generation family. As a matter of fact, aggregate rate of three generation family, family with single parent and unmarried child and family with parents and unmarried child in 1986 was 55.9%, and in 2002 was 39.3%. Drastic change was noted with decrease of three generation family. Whereas it was 44.8% in 1986, it came down to 23.7% in 2002. Almost half of what was 16 years ago. Even with the change in expectation by elderly, family member who could count on to care at home became two thirds of 1986 was the fact they have to face¹⁵⁾. In national survey, conditions of elderly living with children indicated that to be 47%. Careful inspection with this figure, it could be said that the participants who live with their parents in this study were lower than national level.¹⁵⁾

In this study 60% of family members belonged to ages over 50 whereas 35.6% belonged to the same age group with ordinary family. Particularly when percentages of age groups were compared to ordinary family, the differences were quite clear: 64.7% vs 19.2% for ages over 70 and 76.5% vs 56.9% for ages of 50-69 group¹¹⁾. Among Japanese population, 17.2% was ages over 65 group¹⁶⁾. Compared with this national level, this study group had very high percent of elderly in their family.

Comparison of average score of 6 dimensions with ordinary family, Role is the only dimension seems to show somewhat lower score. In past studies, average dimension scores of role reciprocity with Japanese ordinary families in U.S.A and in Japan was 50.91(SD=9.2)¹¹⁾ and 48.72(SD=7.98)¹⁷⁾ respectively whereas the current study group of care providers was 47.80(SD=7.06). This could mean when there was a family member who needed care at home, family care provider(participants in this study) perceived less positively with Role reciprocity than participants of ordinary family. This could be interpreted that care

provider might not be all happy to take care role of ill family member, indicating that taking care of family member influenced Role perception of care provider. Care should be shared by family members no to be pushed to a person in family. Mental status also showed quite low score compared with ordinary Japanese family. Average scores of mental status with Japanese ordinary families in U.S.A and in Japan was 31.37(SD=5.07)⁹⁾ and 31.59(SD=5.28)¹⁷⁾ respectively whereas the current study group of care providers was 27.37(SD=6.78). Typical care style of Japanese family had been identified to choose one person in family and gave entire care responsibility to this person. Once became care providers, they could hardly have their own free hours; go outing, do hobby, joining friends etc^{18,19,20,21)}. Lower score of mental status indicating that these conditions had not been improved long while for family care providers. Again care should be shared among family members and needed support should be explored and obtained in order to avoid centering elder care to one person. Thus, take in these considerations could contribute to obtain better mental status for their care providers.

When there were more family members, Individuation was disturbed. However, Stability was enforced. Average number of persons in family in this study was 3.40 ranging from 2 to 7 persons in family. As a matter of fact, 2 to 3 persons in family occupied 60%. Further, 74.3% of participants belonged to 2 to 4 persons in family.

National average of family size was 2.81 in 1999²²⁾. The trend of family size seemed to be shrinking. Yet, the study family, in comparison, had somewhat more members in family. It could be speculated that because of care needs of a family member imposed of living together regardless of their wishes or desires. Thus, more family members tended to keep their distance within family made difficult and made Individuation less positive. At the same time more members in family could provide needed help and support thus made perception more positive with Stability. However, age of participants seemed to make behavior somewhat different. When participants were

older they responded with less positive perception of Mutuality and Flexibility. These results meant that older participants who were looking after ill family member might feel they were not taken care of or looked after within family. Is this a reality of elder-elder care situation? In addition, position of family also seemed to make different perception with Individuation. When they were parents, they perceived less Individuation. Traditionally and even currently, social norm was to parents in Japanese family were still expected to act favor of children. Thus, it could be understandable that they perceive less positive with Individuation. This sub-dimension, even though Japanese culture had been acculturated to western culture, might mean there was still left a little niche to westernization.

When there was illness in family, trouble or changes in family existed. Particularly when participants were over 70 years old and had a member with illness in family, their perception of mental status was tended to be lower. In addition, mental status is lower when participants have longer schooling. The average schooling of participants was 13.26 years in education. This was beyond senior high school level or junior college level. From this point in view, participants could hope for some career rather than staying home and socially secluded because of care role. Or higher education had explored against their intent of being obedience and non-questioning. Thus, making them perceive lower mental status.

Relationships between three dimensions showed strong magnitude of relationships: Mutuality-Clear communication, Mutuality-Stability, Clear communication-Stability. These relationships seemed to prove Barnhill's healthy family systems.

Conclusions:

Role reciprocity and mental status showed somewhat lower score than Japanese participants in past studies. This could suggest that providing care for family member at home might influence Role reciprocity and mental status in negative way.

Implications:

Findings would help nurses to provide appropriate care to not only family care providers but also to their families.

Families of care providers could also be helped by knowing how their family members who tend for caring to their beloved perceive the family dynamics. Thus, this awareness of family members could help to strengthen their family function/dynamics. In addition, the aggregate of improvement of family dynamics could lift mental status of family care providers.

(This study had been presented at 7th International Family Nursing Conference on June 3, 2005 in Victoria, Canada)

References:

1. Health and Welfare Statistics Association: Supplement to Journal of Health and Welfare Statistics 2004.
2. Ministry of Labor and Welfare: White Paper of Ministry of Labor and Welfare 1999.
3. Ministry of Health and Welfare: Report on Survey Study of Social Security, 1992. White Paper of Ministry of Health and Welfare 1995.
4. Ministry of Labor and Welfare: Utilization Report on Long-term Care Insurance. White Paper of Ministry of Labor and Welfare 2004
5. Lasky, P.: Developing an instrument for the assessment of family dynamics. *Western Journal of Nursing Research*, 7(1): 40-57, 1985.
6. Barnhill, L.: Healthy family systems, *Family Coordinator*, 28: 94-100, 1979.
7. Sekito, Y.: Developing Japanese version of Family Dynamics Measure II (FDMII), *Yamagata Journal of Health Sciences*, 8: 33-40, 2005.
8. Ware, J. E.: "The MOS 36-item short-form health survey (SF-36)", In *Outcome Assessment in Clinical Practice*, Sederer, L. I. & B. Dicky (Eds.), Baltimore, Williams & C Wilkins, pp. 61-64, 1996.
9. Sekito, Y.: Family dynamics and mental status of Japanese in the United States. *Annual of Keio Junior College of Nursing*, 10: 59-64, 2000.

10. Sekito, Y.: Men's perception of family dynamics and mental status. Yamagata Journal of Health Sciences, 8: 25-32, 2005.
 11. Sekito, Y.: Characteristics of family dynamics among Japanese families in Japan. Bulletin of Health Sciences Kobe, 18: 11-21, 2002.
 12. Hollingshead, A. B.: Four-factor index of social status. New Haven, Yale University, 1975.
 13. Ministry of Labor and Welfare: National Basic Survey of Daily Life, 1992. White Paper of Ministry of Labor and Welfare 1995.
 14. Ministry of Labor and Welfare: Awareness Survey on Social Security, 2000. White Paper of Ministry of Labor and Welfare 2003.
 15. Ministry of Labor and Welfare: National Basic Survey of Daily Life, 2002. White Paper of Ministry of Labor and Welfare 2003.
 16. Ministry of Health: White Paper of Health, 2000.
 17. Sekito, Y.: Family dynamics among Japanese families in the United States. Annual of Keio Junior College of Nursing, 9: 25-31, 1999.
 18. Sekito, Y.: Characteristics of utilization of care resources at home for bed ridden elderly. Reports of Research Fund Assisted Researches, Keio Gijuku, p.134, 1994.
 19. Takeda, J. Kawamura, T. Ei, M.: Conditions of care providers for elderly and home care services. Journal of Health and Welfare Statistics, 43(10):17-22, 1996.
 20. Urayama, Y. Ooi, S. Taguchi, R. et al: Study to explore care burden and utilization of social resources at home. 24th Proceedings of Japan Nursing Association (Community Health Nursing), pp.98-101, 1993.
 21. Kaneko, H. Iiyoshi, N. Sasaki, M. et al: Effects of social support for home care on persons with certified care need. 28th Proceedings of Japan Nursing Association (Community Health Nursing), pp.57-59, 1997.
 22. Health and Welfare Statistics Association: Social Welfare of National trends. Journal of Health and Welfare Statistics, 46(12): 1999.
- 2007. 2. 8 受稿, 2007. 3. 22 受理 —

要 旨

この研究の目的は、家族介護者の家族内での孤立が指摘される中、彼（女）らの家族力学の受け止めと精神状況について把握することにある。

サンプルは自由意志で研究協力に同意した東京近郊の家族介護者35人。便利標本である。データ収集には2種類の質問紙—家族力学尺度Ⅱ（FDMⅡ）と家族現況調査—を使用した。家族介護者は、平均年齢が58.2才、主に女性（74.3%）で、結婚しており（80.0%）、親と同居（37.1%）していた。家族数の平均は3.40人であった。家族内に高率の疾患の存在（65.7%）や健康問題（54.3%）があった。FDMⅡの家族機能6側面に関しては、相互依存—コミュニケーション、相互依存—安定性、安定性—コミュニケーションに高い関係性が示された。精神状況は個別性と中程度の関係を示した。役割相互依存と精神状況の得点が過去の日本人家族の研究結果に比べ低い傾向にあった。これは家で介護をすることが、家族介護者の役割や精神状況に否定的な影響を及ぼしていることを示唆していると推測された。

キーワード：家族介護者, 家族力学尺度Ⅱ（FDMⅡ）, 日本人家族, 精神状況