

就学前の子どもを持つ母親の家族力学と精神状況

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Family Dynamics and Mental Status of Mothers of Preschool Children

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Abstract

The purpose of this study was to identify relationships of the family dynamics, mental status and socio-demographic variables of mothers of preschool children.

Data were collected using Family Dynamics Measure II (FDM II) and a questionnaire that addressed socio-demographic characteristics and mental status. Population were mothers who brought their children under 5 years old to 3 local municipal health agencies in Yamagata prefecture in Japan. Participation was voluntary.

Findings: Participants were 130 mothers of preschool (under 5 years old) children. Average age of participants was 32.2(SD = 5.3). Mothers were married (93.8%) and living with their parent(s) (24.6%). There was an average of 5.6 (SD = 1.7) persons in a family. The participants had 1 child (n = 80, 61.5%) to 3 (2 or more n = 50, 38.5%) preschool children. One third had problems/changes and one fifth had illness in their family. Mental status score was 27.3 (SD = 6.9). Family size was strongly to mildly relate to family member's age and positions in a family. Mental status related to negatively with family member's age (age group of 12-17) and problems/ changes in a family. Number of children (one or more) was not related to age of participants, scores of mental status, and illness and problems/changes in a family. All 6 dimensions of FDM II were positively correlated with mental status, indicating more positive the family dynamics, better their mental health.

Professional (public health and home care)nurses who deal with mothers of preschool children should give an attention to mental status of these mothers since it was directly and positively related to dimensions of family dynamics. When assessing family health, problems/changes in the family should be identified due that a factor affecting negative relationship with mental status of these mothers. Supports and care needs for these mothers could be provided for them to gain problem solving skills and awareness to identify threatening changes in their family.

Key words : family dynamics, Family Dynamics Measure II (FDM II), mothers, preschool children, mental status, Yamagata Prefecture

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(受付日 2016. 12. 21, 受理日 2017. 3. 6)

Introduction

Women who are married and have young preschool children are challenged by many roles in their daily life. Particularly young mothers are said to face many difficulties around family matters/obligations and parenting. They are highly stressed, and may feel isolated and tensed. Preschool children are quite active absorbing and adapting to their social circumstances. Discipline in family in this age group requires maximum work and patience. Children need love and encouragement regarding what they do, in order to develop trust and warmth to others through these nurturing years. Children need to gain knowledge to avoid accident when playing outside; and children develop sense of self, self-esteem/respect, and learn important social promises/rules before entering to the school system¹⁾. Most of these rules and responsibilities is usually provided and expected to be carried out by their mothers.

With these parental and family responsibilities, mothers with preschool children may overwhelm their tasks between mother and family obligations. They need to look for help and assistance from not only spouses but also other family members. Their family dynamics/function could be quite affective for their mental stability. Changes in parenting environment, i. e. increased working mothers, choice of having fewer children, and divorce, may result diversified family and lowered family function²⁾. A study carried on Japanese mothers of young children in New York found that mental health of the mothers was poor. And there were significant relationship between poor mental health, child rearing, dissatisfaction with life, isolation, and lack of support, due husband was busy with his work/business³⁾. Similar factors could be found in the newest Japanese government report. The report titled “One day in Japan” that surveyed episodes happened in Japan during a day, focused on child-rearing of parents who have children under 6 years old. A Japanese husband involved in family chores and caring children is minimal among developed countries, i.e. a Japanese husband spends parenting for 1 hour 7

minutes and a wife does for 7 hours 41 minutes in Japan⁴⁾. It looks quite clear that a Japanese wife spends her time for parenting almost 7 times more than her husband.

A region of northern part of Japan is known among Japanese to maintain traditional Japanese family system/custom in even these recent times, than other areas of Japan comparatively. The Journal of Health and Welfare Statistics 2014/2015 reported that families of this region could be characterized by lower percentages of single family and nuclear family and higher percentage of extended/three generation family compared to the national average⁵⁾. Particularly Yamagata prefecture where this study was carried showed these typical characteristics strongly. According to a study in Yamagata prefecture with mothers of 5 years old child, employment rate was very high among women ages 25-47 compared to the national average⁶⁾. Since Yamagata prefecture kept the highest rate of three generation families for many years, we could speculate the women in this prefecture may expect to play many roles of parenting and family tasks. Young mothers are quite possibly expected to serve many roles in a family, e. g. mother, spouse, daughter (adult child living with parent), daughter-in-law, sister-in-law, aunt, and worker (employed and/or a member of family business).

The effort of present study is based on conditions already described, that mothers of young children were highly stressed and family dynamics and some socio-demographic variables were said to mitigate factors of stresses. Thus, young mothers in Yamagata prefecture could be ideal to identify those relationships.

Purpose:

The purpose of this study was to identify relationships among the family dynamics, mental status and selected socio-demographic variables of mothers of preschool children.

Research questions are;

1. What dimensions of FDM II relate with selected socio-demographic variables?
2. What selected socio-demographic variables

relate with mental status of mothers of preschool children?

3. What dimensions of FDM II relate with mental status of mothers of preschool children?
4. What is the relationship among number of preschool children in a family and mothers' selected socio-demographic variables and mothers' mental status?

Method:

1. Data collection period; 2011-2012.
2. Participants; The participants obtained for this study was 130 mothers (valid response rate: 73.4%) and the selection method used, as below, was convenience sampling. Population consisted of 391 mothers of preschool children (under 5 years old), who attended a child health screening program operated by three local municipal health agencies in Yamagata prefecture. Two kinds of measurement instruments were enclosed when an official notice of the program of health screening schedule for a child was mailed to a mother. The face letter of the study asked mothers to fill-in and bring the questionnaires when they came to visit the program, if they agreed to participate in the study. A locked box was prepared and placed in a hallway outside the screening site, thereby guaranteed for mothers' voluntary participation. (Number of surveys collected: 177; Collection rate: 45.3%).

3. Measurement ;

Two kinds of measurement were used to obtain data.

1) The Family Dynamics Measure II (FDM II)

The Family Dynamics Measure II (FDM II) has been developed by nurse researchers in the United States, and recognized as a scale of measuring family dynamics / function⁷⁾. FDM II consisted of 66 positively and negatively worded items on a six-point Likert scale with 6 dimensions was used to measure family dynamics. 6 dimensions were Individuation-Enmeshment (Individuation),

Mutuality-Isolation (Mutuality), Flexibility-Rigidity (Flexibility), Stability-Disorganization (Stability), Clear communication-Unclear communication (Communication), and Role reciprocity-Role conflict (Role). The FDM II (scores) meant the higher the score the more positive the family dynamics. The original FDM II was written in English and was translated into Japanese, the version used in this study⁷⁾. Cronbach's alpha of 6 dimensions obtained at past studies ranged from .47 to .87⁸⁻¹³⁾. For this study of mothers of preschool children Cronbach's alpha ranged .52 to .89

2) A socio-demographic questionnaire including items of mental status

A socio-demographic questionnaire was to ask selected back ground information regarding participants' age, education, and position in family; and family matters regarding age of family members, number of persons in a family, illness and problems/changes in family (answer; Yes or No) etc. Seven items with a six-point scale, ranged between all of the time and none of the time were used to measure mental status. Cronbach's alpha of mental status obtained at past studies ranged from .75 to .85¹¹⁻¹³⁾ and the mothers of preschool children at this study was .87.

4. Ethics committee: Approved by the university that the first author was employed at the time.

Findings:

1. Main characteristics of the participants were: Mean age of participants were 32.2(SD = 5.3), married (93.8%) ,living with parent (24.6%), and other role and function of mother in family (50.8%). Number of persons in a family was 5.6 (SD = 1.7). (see Table 1)
2. Age-groups of family members were: 30-49 age-group (79.2%), 50-69 age-group (59.2%), and 5-11 age-group (34.6%). Within preschool children, mothers had either one child (61.5%) or two or more children (38.5%). (see Table 2)
3. Reliability range of 6 dimensions was .52 to .89.

Table 1 : Characteristics of participants

Attributes	N=130		
	N	(%)	Mean±SD
Age (years)			32.2±5.3
Married	122	(93.8)	
Living with parent	32	(24.6)	
Other role and function of mother in family	66	(50.8)	
Number of persons in family			5.6±1.7
Years in school of participants			14.0±2.6
Years in School of other family members (husband, etc)			13.6±2.7
Illness in family	31	(23.8)	
Problems/changes in family	45	(34.6)	

Percentage is of respondents in all instances. Multiple answers possible.

Table 2 : Age groups of family members

Age groups	N=130	
	N	%
over70	49	(37.7)
(two members over70)	17	(13.1)
50-69	77	(59.2)
30-49	103	(79.2)
18-29	52	(40.0)
12-17	5	(3.8)
5-11	45	(34.6)
under5	130	(100)
number of children 1	80	(61.5)
2	48	(36.9)
3	2	(1.6)

Percentage is of respondents in all instances. Multiple answers possible.

Table 3 : Score mean (SD) and reliability of 6 dimensions and mental status

N=130					
	Number of items	Range of scores	Score mean ± SD	Item mean	Reliability
Total FDM II	66	66-396	267.9 ± 37.3	4.06	.88
<u>Dimensions</u>					
Individuation-Enmeshment	13	13-78	52.4 ± 6.3	4.03	.52
Mutuality-Isolation	11	11-66	47.6 ± 9.7	4.32	.89
Flexibility-Rigidity	10	10-60	36.4 ± 5.3	3.64	.61
Stability-Disorganization	9	9-54	38.4 ± 6.9	4.26	.78
Clear communication-Unclear communication	11	11-66	45.3 ± 9.3	4.12	.88
Role reciprocity-Role conflict	12	12-72	47.9 ± 8.8	3.99	.83
Mental status	7	7-42	27.3 ± 6.9	3.90	.87

The highest reliability was found Mutuality-Isolation and the lowest was Individuation-Enmeshment. Mental status was .87. The highest score of 6 dimensions was Mutuality-Isolation and the lowest one was Flexibility-Rigidity. Score of mental status was the second lowest next to Flexibility-Rigidity when included among the 6 dimensions. (see Table 3)

4. Correlation between some of selected socio-demographic variables and 6 dimensions were found to have small to moderate relationships. Main characteristics of positive relationships were

found between years in school of other family member (husband, etc) and Stability-disorganization ($r = .243, p < .01$), and Clear communication-Unclear communication ($r = .212, p < .05$). Lest of relationships were found to be negative relationships: Somewhat moderate relationships were found between other role and function of mother in family and Flexibility-Rigidity ($\rho = -.358, p < .01$), and Clear communication-Unclear communication ($\rho = -.278, p < .01$). Number of persons in family and Flexibility-Rigidity ($r = -.288, p <$

Table 7 : Correlations among 6 dimensions and mental status

	Individuation -Enmeshment	Mutuality- Isolation	Flexibility- Rigidity	Stability- Disorganization	Clear communication- Unclear communication	Role reciprocity- Role conflict
N=130						
Individuation-Enmeshment						
Mutuality-Isolation	.433**					
Flexibility-Rigidity	.330**	.495**				
Stability-Disorganization	.436**	.840**	.438**			
Clear communication-Unclear communication	.318**	.831**	.529**	.799**		
Role reciprocity-Role conflict	.279**	.667**	.442**	.683**	.635**	
Mental status	.351**	.574**	.322**	.610**	.456**	.516**
Pearson r correlation						**p<.01

Table 8 : Relationships between 2 groups of number of children and socio-demographic variables

	One child (n=80)	2 &3 children (n=50)	Significance	
N=130				
Age (Mean ± SD)	32.7±5.0	31.6±5.7	ns †	
Number of persons in family (Mean ± SD)	5.4±1.8	6.0±1.6	p<.05 †	
Mental status (Mean ± SD)	26.7±7.0	28.4±6.6	ns †	
Problems/changes in family	yes, etc	28 (35.0%)	17 (34.0%)	ns ††
	no	52 (65.0%)	33 (66.0%)	
Illness in family	yes, etc	22 (27.5%)	9 (18.0%)	ns ††
	no	58 (72.5%)	41 (82.0%)	

† T test

†† Chi-square test

ns = no significance

Mutuality-Isolation ($r = .840, p < .01$), Mutuality-Isolation and Clear communication-Unclear communication ($r = .831, p < .01$), and Clear communication-Unclear communication and Stability-Disorganization ($r = .799, p < .01$). All 6 dimensions showed strong to mild relationships with mental status. (see Table 7)

8. Number of preschool children were divided to two groups (one vs. two or more children), and correlated with some selected socio-demographic variables of mothers, namely: Number of persons in family, average age of mother, illness in family, problems/changes in family and mental status. There was no significant relationship found

between two groups of mothers' of preschool children and selected socio-demographic variables (see Table 8)

Discussion:

Yamagata prefecture this study had carried was known to keep traditional family system and customs. Typical of these evidences were, in 2013 when national average of person in a family was 2.4, the least Tokyo was 2.0, and Yamagata prefecture was 2.9. The family size was the largest in Japan⁹⁾. However, participants lived in a larger family, their family size was 5.6. This was more than twice as large as the

national average and even larger than the average of the prefecture. This family size is shown positive relationships with family members consisting of different age groups (age under 5, age 5-11, age 50-69, and age over 70) and residing with their parents/in-laws. In fact, participants who were living with their parents was 24.6%, one out of 4 participants belonged in three generation family. Considering 50.8% of other role and function of mother in family, three generation families might be rather higher than the average of prefecture that was 38.0%¹⁴⁾. Yamagata prefecture has high rate of both working among young couples that was 57.8% whereas national rate was 44.4%¹⁵⁾. This high rate of working couples might be supported by many members of another family living with. As for the participants it looked as though there were always 2-3 persons in a family available to look after a child among family members excluding themselves. This condition was quite fortunate for the mothers to seek help from family members if she was to work or expected to manage many family roles.

Mental status of participants showed negative and mild relationship with problems/changes in a family. In fact 33.1% of participants reported problems/changes in family. This means that almost one person in three participants had problems/changes in family. When compared with past studies, problems/changes in family seemed to show similar trends of negative relationships among Japanese families in the U.S.A and in Japan⁸⁻¹³⁾. Mental status score of participants was 27.3 (SD = 6.9). This score is lower than previous studies: 31.6 (Japan)¹⁰⁾, 31.4 (U. S. A.)¹⁰⁾, 31.5 (Thailand)¹¹⁾, and 27.4 (care providers in Japan)¹²⁾ respectively. However, higher than ordinary residents in Yamagata that was 25.9¹³⁾. The study in A city in Japan compared with mothers in New York, 31 mothers with ages 31-35 of whom 41% had one child. Among these mothers average number of children was 1.66 (SD = 0.61). Mothers who were working were 42.5% and were stressed. Most affected stress factor was child-rearing and the reason of stress was they had no time to relax. Isolation and no time to relax were at great risk of poor mental health³⁾.

Yamagata participants were fortunate to have help from family and far less feeling isolated, indicating the highest score (47.6) of Mutuality-Isolation among 6 dimensions. Role enhancement theory suggested multiple works and family commitments had beneficial effects on health, due that multiple roles might mitigate health, whereas the role strain model postulated multiple role occupancy was associated with poor health¹⁶⁾. This study was based on mid-life wives 45-59 years old in Britain. Wives' level of social participation was found to be negatively related to their husbands' intensive care role. It concluded that care-giving should be viewed as shared activity where one partner provides the caring and the other partner provides a support function to the care-giver¹⁶⁾. In this study, British participants were older than the present study participants. If care sharing encouraged social interaction, it contributed for less stress and feeling of isolation. One could say husbands/ family members' involvement to child-rearing/ parenting could be a critical factor to achieve good mental health of mothers.

Work-family conflict was expected to be the highest with working-parents of child under 6 years old¹⁷⁾ and sense of burden was greater from younger children¹⁸⁾. Mental health was related to positive dealing with role adjustment and sharing expected family role between the couple¹⁹⁾. Working mothers have strong/ great conflict of feeling toward child and child-rearing²⁰⁾. Emotional support, anxiety of child development, and career satisfaction affected parenting satisfaction¹⁷⁾. Most (90%) of Yamagata participants was working. However, mental status of these mothers was positively related with all 6 dimensions of FDM II, particularly strong relationships were shown with Stability-Disorganization and Mutuality-Isolation. Role reciprocity-Role conflict did not have any relationship with socio-demographic variables. However, it showed moderately positive relationships with all other dimensions. Role reciprocity-Role conflict acceptance and adjustment supported by husbands and family members for these mothers could be key factors to maintain their mental status and to adopt multi-roles satisfactorily^{20, 21)}.

Large size of family and family position were negatively related with Flexibility-Rigidity: more persons in a family and position of an in-law, mothers feel less flexible among family matters. Less work-family conflict maintained could enforce satisfaction from child-rearing experience.

Number of children was not affected mothers' mental status nor problems/changes and illness in a family. There was study anticipation that more number of preschool children could cause stressful situation and troublesome for a mother to manage roles properly during the child-rearing period. However, this was not the case for these mothers in Yamagata prefecture. It could imply that family support could mitigate enough to lessen feeling of much stress of mothers doing child-rearing.

Lower score of mental status could be interpreted due that their position in their family. In traditional family system, daughter/daughter-in-law may have permitted only to express limited and subtle wish and opinions in the family in order to maintain peace in a family.

Conclusions:

High rate of mothers of preschool children in Yamagata prefecture belonged to traditional three generation family system. Child-rearing and multi-roles in family matters were seemed supported by this family system, many persons in a family. Mental status of them was mainly supported by positive relations with all 6 dimensions of family dynamics. A factor problems/changes in family showed negative relationship to mental status of participant mothers of preschool children. Lower score of mental status could mean their delicate and subtle position in a family, indicative of a traditional family system.

Implication:

In order for these mothers of preschool children to maintain mental status well, health care professionals

should be aware and should pay an attention to the problems/changes in their family. Due that this factor showed negative relationship with mental status of these mothers. This recognition and understanding are quite important to provide appropriate care and needed supports to these mothers. For example, health care professionals could provide problem-solving skills and awareness training to mothers to identify and deal with threatening problems/changes in their family at the early stages of development.

Disclosure of Conflict of Interest; First author and co-author have no COI with regard to our paper.

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和文要旨

本研究の目的は、就学前の子どもを持つ母親の家族力学、精神状況、属性との関係を把握することにある。山形県の3地域在住で5歳以下の子どもを持つ母親に対して無記名自記式の質問紙を391人に配布し、個別返信により177人から回収した(回収率45.3%)。家族力学については家族力学尺度II(FDM II)を用いた。有効回答は130名(有効回答率73.4%)であった。母親の平均年齢は 32.2 ± 5.3 歳で、ほぼ全員(93.8%)が結婚しており、三世同居が24.6%であった。家族の平均人数は 5.6 ± 1.7 人で、子ども1人が61.5%、2人以上が38.5%であった。精神状況は平均 27.3 ± 6.9 点であった。家族数は家族の年齢や母親の家族内の位置づけと正の相関があった。家族の年齢と家族の問題・変化は精神状況と負の相関を示した。子どもの数は、母親の年齢、精神状況、家族の病気、家族の問題・変化に関係がなかった。家族力学尺度IIの全6側面は精神状況と正の相関を示した。就学前の子どもを持つ母親とかかわる看護職者は、母親の精神状況が密接に家族力学と関係あることに留意し、母親の問題解決スキルや家族問題・変化への気づきに対する支援を提供する必要がある。

キーワード：家族力学、家族力学尺度II(FDM II)、就学前の子どもの母親、
精神状況、山形県在住