

Informal support and depressive symptoms among the aged in Kangwha, Korea

Kyeonga YOON

Abstracts

The aim of this study is to provide a relatively in-depth analysis of informal support process among the elderly in Kangwha, Korea. Concrete purposes of this study were as follows : investigating the demographic characteristics and depressive symptoms of the elderly ; examining the mutual support process between elderly and support system ; and finally evaluating informal social support process affecting depressive symptoms of the elderly.

Based on the findings, the conclusion of this research is that an exchange process between the focal person (elderly) and the support system. Informal support is also effective in decreasing depressive symptoms. In particular, the result indicate that structural support significantly decrease depressive symptoms, both directly and indirectly through functional support. This study could contribute as a baseline model to study and develop further networking and network intervention using informal support system.

1. Introduction

The importance of informal support for health and well-being has been emphasized by a series of articles since mid-1970s (Kessler & Wortman,

1985), and the possibilities of informal support's positive influence on health and well-being have attracted much interest in various fields of Gerontology, Health Education, Psychology, Social Work, Sociology, etc, (Cohn & Syme, 1985). Based on these early interests the importance of informal support has been proved through many further researches. However, the problems of informal support conceptualization and its measures have still remained to be studied. Furthermore, there has been few studies on informal support process which presents how informal support process affects on health and well-being of the aged. Therefore, the purpose of this paper are to introduce characteristics of informal support between the aged and their support system, to identify the influence of informal support on the aged's depressive symptoms, and also to specify how informal support affects on the aged's depressive symptoms at the same time. In detail, with the survey of the aged in Kangwha (a small island in Kyongki Province, Korea), this research is to find out structure, function, and process of the informal support which the aged exchange with informal support system like their families and neighbors at the same time.

In this research, informal support has been conceptualized as a multi-dimensional entity, consisting of structural support and functional support. It is assumed that the aged and informal support system have two-way exchangeable relationship. The reason why the aged depressive symptoms are considered as important variables to evaluate the influence of informal support is that depression is one of the most popular mental disorders of the aged (Blazer, 1982; Gurland et al., 1983), and informal support is associated more strongly with depression than with other dimensions of psychological distress (Dean et al., 1981).

2. Methods

2.1 The sample

Respondents were drawn in a community survey of persons 65 years of age and older who were living in Kangwha, Korea in 1994. Interviews were conducted face-to-face in the respondents' homes or community center. The average age of the survey participants was 74 years, and among them 61% was female. 53.6% of them were single because of divorce or death of their partners. Over 60% of them had little education at all, and over 90% of them answered that they only finished elementary school of 6 years. Concerning their health, most of them had no chronic diseases. They had no problems in their every day life, and thought of themselves relatively healthy.

2.2 Analysis

Data were analyzed by using statistical techniques such as frequency, regression and path analysis. First, frequency analysis was introduced to evaluate the social network and interpersonal exchange. Second, regression analysis was used to evaluate the effect of informal support on depressive symptoms of the elderly. And third, using path analysis, the relationship of structural support and functional support was elaborated by controlling for information about demographic characteristics.

2.3 Measures

2.3.1 depressive symptoms

In this research, Center for Epidemiological Studies depressive (CES-D) scale (Radloff, 1977) and Diagnostic Interview Schedule (DIS) scale were adapted to assess depressive symptoms of the aged. CES-D and DIS were developed to measure depressive symptoms of community people,

not for a diagnostic purpose.

In this paper, depressive symptoms were measured by 7 questions selected from CES-D and DIS. The questions are as follows; (1) I feel a little weak in my body recently, (2) Sometimes my heart beats very fast, (3) I have a hard time to walk straight, (4) I do not feel fine after I get up in the morning, (5) I do not sleep well and wake up many times at night, (6) I think I am lonely very often, (7) I feel lonely even though I have people around me. The scale was from 1 to 4 (4 means very high in depressive symptoms). The average of scale of the 7 questions was 2.42, the standard deviation was .62, and $\alpha = .68$ from reliability test.

2.3.2 Informal support

In this paper, informal support is classified based on the two criteria of “aspects” and “support subject (server) and support object (receiver)”, informal support has two aspects; structural and functional. 6 variables are developed according to whether it is support subject or object. Structural aspects are measured by size, distance, and frequency of contact. Contact frequency is measured by contact frequency 1 (number of frequency when the aged call or visit support system first), and contact frequency 2 (number of frequency when support system calls or visits the aged first). It is to know whether who is the subject or the object of the informal support.

Functional aspects are measured by instrumental support and emotional support. Instrumental support between the aged and support system is direct means, and it is measured by questions concerning financial support or doing household stuff. Emotional support depends on the support surver's characteristics or behavior and it is measured by frequency of having time to talk with or discuss problems together. Instrumental and emotional support are measured by 4 variables on the

basis of support subject and object.

2.3.3 Need of informal support

Assessing the amount of informal support may provide important insights into informal support process, but this conceptual approach fails to recognize that individuals do not all require the same amount of support and that variations in the need for support exist (Ward, 1985). Therefore, this dimension was treated as an important variable in the analysis. In this paper, need for support means how much instrumental and emotional support the aged want from support system. It is measured by 5 scale Likert method (1=very low; 4=very high). The reliability estimate for 4-item instrumental support measure was $\alpha = .78$. Scores on this measure could range from 1 to 4. The means was 2.40 and the standard deviation was .64. The reliability estimate for 2-item emotional support measure was $\alpha = .79$. Scores on this measure could range from 1 to 4. The means was 2.32 and the standard deviation was .84.

2.3.4 Support satisfaction

Support satisfaction means feelings of satisfaction with informal support can arise only if the need for support has been met. In this paper, support satisfaction was measured with a single-item that ask respondents to rate their satisfaction from never satisfied (scored 1) to very satisfied (5). Of the 360 respondents, 60% indicated that the support system met their needs, and over 90% reported that satisfied with the support they had given. In the process of interviews with the aged, it was found out that the aged had a negative feeling for support from other people, and even the support from their children was taken as a burden to them.

2.3.5 Demographic measures

General characteristics of demographics in this survey are sex, age,

education, marital status, and number of children. Male is given 1 by dummy variable, and female is given 0. Age of the aged is calculated by their birth dates. Marital status is also measured by dummy variable. The aged who have partners are given 1, and single is given 0.

3. Results

3.1 depressive symptoms

Since the survey participants were not depressive patients but ordinary community elders, only the depressive symptoms were measured. The results showed that half of them were in between 2 and 2.86 (1=depressive at all, 4=very depressive), and 75 people which is 23.5% of total sample group were in between 3 and 4. It varies a lot whether what kind of standards are accepted as depressive symptoms, the sample group's depressive symptoms were a bit high when compared to Blazer's study (1989) which reports that 10-15% of community elders have depressive symptoms in general.

3.2 Structural aspects of support

Structual aspects of informal support, in other words, structural support is relationship structure between the aged and their private support system. It was measured by size, distance, composition and frequency of contact. First, the size of the support system varied from 1 person to 18 people. The average support system size was 5 people, and most of the aged exchange support with less than 6 people. Most of their support system was consisted of their family members. It proved that family still play a key role in supporting and caring for the aged.

However, the reason why support system was mainly consisted of

family members may reflect the rural elders' real life. There are relatively little welfare resource in rural area than urban cities. Therefore it remains rooms for "quality of informal support" to be improved, in particular, informal support system is the very first place for the aged, even though it lacks of professional service provider functions compared to formal support system. It is more likely that informal support system resource is not plentiful for the aged who do not have much resource within themselves. Therefore it is not recommended that the aged rely on private informal support system only.

Considering characteristics of data given in this research, distance of support system was measured by whether the aged have support system in Kangwha or not. Among support system, people who live in Kangwha consisted of 85.3%. It showed that most of the sample group exchange their support with people living in Kangwha.

From the analysis of support system contact frequency by telephone calls and home visits, it turned out very positively that support system contacts the aged first. However, the aged themselves and support system have similar contact frequency. However, the result presented very low percentage in reciprocal relationship with the aged and the support system. Percentage of frequency when the aged didn't call or visit support system became 70% and percentage of frequency when their support system didn't call or visit the aged became 40-45% during a year. The reason for this is considered as follows, First, 84% of the sample group live together with their family members. Second, when the support system does not contact the aged the way they want, the support system's real contact frequency with them could be underestimated.

3.3 Functional aspects of support

Functional support includes emotion, materials, information and other instrumental support. Except for structural aspects of support, this functional support alone is accepted to be called informal support (Kahn, 1979; Schaefer, Coybe & Lazarus, 1981; House, 1981; Cohn & Hoberman, 1983). In this paper, functional support is defined in more detail including concepts of not only instrumental/emotional support but also need for instrumental/emotional support and support satisfaction.

As for the result, the aged who provide both instrumental/emotional support showed very low percentage in the survey. The aged's support for their support system as their "food/material provider" and "talking partner" were relatively high. Approximately 30% of them provided these kinds of support. From the result, it is proved to be very restricted for he aged to provide any resource for their support system.

As for support for the aged from their support system, the result showed that it was higher than from the aged for both instrumental and emotional support. The result presented, however, still very high percentage (40-80%) in "not doing" category. The categories of "doing household stuff (73.5%)" and "caring for patients (80.8%)" particularly showed very high "not doing" percentage. This may have caused because this survey was conducted for relatively healthy elders. Over 70% of the aged who were on the interview in this survey thought that they were quite healthy. There were not many elders who had chronic diseases (29%). "Doing household stuff" and "caring for patients", however, are regarded as very urgent support when the aged cannot care themselves because of weakness in their bodies. Therefore unless support system cannot afford to provide these kinds of support when needed, formal support system should play an important role instead. As our

society has more elders, formal support system becomes more important as supplementary support system for private support system which is lead mainly by family members.

It was confirmed that the aged were not receiving support from informal support system only. The aged and the informal support system reciprocally exchange instrumental/emotional support even though the percentage is low. This was a similar result to contact frequency analysis.

3.4 depressive symptoms, informal support, and support process

Until now, the structure of informal support has been reviewed. Following is the discussion of informal support on the relationship with the aged's depressive symptoms. A regression analysis was conducted as shown in Table 1 in order to identify the relationship between the aged's depressive symptoms and the influence of informal support. With 8 subordinate variables, 8 times of regression analysis were practiced as given in Table 1.

The result showed that both demographics characteristics of the aged and structural aspects of support influence on instrumental support. The predictable variables for instrumental support 1 were sex, number of children, distance, contact frequency 1 and contact frequency 2, and for instrumental support 2 they were age, number of children and distance. The aged who provide instrumental support first are females with having few children. They have support system who live in Kangwha, and they contact their support system first. The less support system contacts them first, the more they support instrumental support first. The older they get and the fewer children they have, they get more instrumental support. These dlders also have support system in Kangwha. The

Table 1. Effects of informal support on depressive symptoms

Independent variables	Dependent variables						
	Instrumental support 1a	Emotional support 1a	Instrumental support 2b	Emotional support 2b	Need for instrumental support	Need for emotional support	Support satisfaction
Sex	-.088** (-.136)	-.116 (-.095)	.001 (.002)	-.029 (-.024)	.152 (.117)	.072 (.043)	.188 (.099)
Age	.029 (.062)	-.017 (-.019)	.052* (.093)	.030 (.034)	-.152** (-.161)	-.147** (-.120)	-.034 (-.025)
Education	.010 (.015)	.037 (.031)	-.013 (-.017)	.022 (.018)	.055 (.042)	.215** (.129)	.132 (.070)
Marital status	-.006 (-.009)	.009 (.007)	.003 (.004)	-.012 (-.010)	-.191** (-.150)	-.055 (-.033)	-.039 (-.021)
Number of children	-.021** (-.128)	-.026 (-.082)	-.036** (-.181)	-.030* (-.096)	.005 (.004)	.043 (.096)	.090*** (.185)
Distance	.161*** (.159)	.276** (.143)	.250*** (.206)	.467*** (.246)	.269** (.143)	.100 (.039)	-.104 (-.038)
Size	-.026 (-.093)	-.036 (-.067)	-.011 (-.032)	-.083*** (-.157)	-.060 (-.110)	-.200*** (-.278)	.016 (.020)
Frequency 1a	.072* (.156)	.448*** (.354)	.051 (.064)	.215*** (.173)	.220** (.175)	.278** (.163)	-.233 (-.128)
Frequency 2b	-.085** (-.139)	.016 (.014)	.074 (.100)	.170** (.100)	.009 (.008)	.028 (.018)	.048 (.028)
Instrumental support 1a					-.111 (-.052)	-.369** (-.131)	-.254 (-.082)
Emotional support 1a					-.019 (-.018)	-.179* (-.126)	.277** (.179)
Instrumental support 2b					.144 (.084)	.343** (.150)	.510*** (.205)
Emotional support 2b					-.181* (-.167)	-.107 (-.075)	-.235* (-.151)
Need for instrumental support							-.184* (-.124)
Need for Emotional support							-.134 (-.116)
Support satisfaction							-.088** (-.130)
Constant	.263	.297	.419	.457	2.505	2.624	3.95
R2	.095***	.138***	.089***	.117***	.091**	.147***	.141***

***p<.001, **p<.01, *p<.05, *p<.10

a=frequency or support aged first, b=frequency or support support system first

analysis of emotional support 1 showed similar aspects to instrumental support. The most predictable variable for emotional support 1 was contact frequency and for emotional support 2 it was distance. The two regression models explained 10-14% of the variation.

The need for support was influenced not only by demographics of the ages but also by the support which already provided for them. The important variables for the need for instrumental support were age, contact frequency 1 and emotional support 2. On the other hand, the need for emotional support was well-predicted by the size of the support system and contact frequency 1. These two regression models also served similar support to the support which was practiced in reality.

Number of children, emotional support 1, and instrumental support 2 were useful variables for support satisfaction prediction. This model explained 14% of the variation. The aged participated in this survey were more satisfied with their support when they had many children, when they gave much emotional support to their support system, and when they received much instrumental support from their support system. Even though they exchange support not with all the children they had, the fact that they had many children gave positive influence on the aged's support satisfaction.

This has been the review of relationship among the aged's demographic characteristics and informal support and depressive symptoms based on the result of the regression analysis. The main issue of this paper will follow which controls the aged's demographics characteristics and identifies relationship between informal support and depressive symptoms in order discuss informal support process further. In order to find out how structural support and functional support influence on the aged's depressive symptoms, path analysis was conducted.

As shown in Figure 1 and Table 1, all 4 variables which measured structural support presented statistically significant influence on the aged's depressive symptoms. 'Contact frequency 2' directly or indirectly affected on the aged's depressive symptoms, and except for contact frequency 2 other variables affected indirectly on the aged's depressive symptoms through functional support. It doesn't mean that structural support does not influence on the aged's depressive symptoms since it does not have direct influence. It was proved that structural support directly affected on the aged's depressive symptoms through functional support.

Table 2 showed that variables for structural support had little influence on the aged's depressive symptoms in general, and frequency 2 was the most significant variable among the 4 variables. 'Distance' and 'contact frequency 1' had postive correlation with the aged's depressive symptoms, whereas 'size' and 'contact frequency 2' reported negative correlation. In other words, the aged find themselves more depressive when they have people who live in Kangwha, and when they contact support system first.

Figure 1. Path model of the effects of informal support on depressive symptoms among the aged

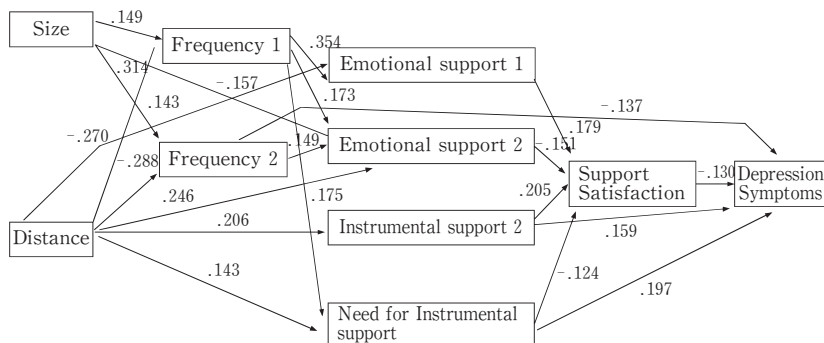


Table 2 showed that when the aged have support people who live in Kangwha, they exchange support with the support system more, and the need for instrumental support grows bigger. The more they need for instrumental support, the more depressive the aged become. Therefore, distance and aged's depressive symptoms have positive correlation. On the other hand, the aged feel less depressive when they have large support system, and also when support system contacts them first.

Table 2. Direct and indirect effect of structural support on depressive symptoms among the aged

Variables	Direct effect	Indirect effect	Total effect
Size	—	-.040	-.040
Distance	—	.099	.009
Frequency 1	—	.032	.032
Frequency 2	-.137	.003	-.134

4. Summary and Discussion

In this paper, the characteristics of informal support which the aged exchanges with, and informal support's influence on the aged's depressive symptoms were reviewed. This research also discussed informal support process. The result showed that both structural and functional support had positive correlation with the aged's depressive symptoms, and structural support, in particular, had influence on aged's depressive symptoms through functional support.

In detail, by regression analysis of informal support and depressive symptoms, this research found out that the aged's demographic characteristics have positive correlation with the aged's depressive symptoms. Functional aspects of support system had more significant relationship with depressive symptoms than structural aspects of informal support

system. When the aged do not have their partners and do not have many children, their depressive symptoms get worse.

Regarding the variables of structural aspects of support, contact frequency 2 alone showed significant influence on the aged's depressive symptoms. As for variables of the functional aspects of support, the instrumental support for the aged provided by the support system was proved to be important. And the need for instrumental support and the support satisfaction were proved to be important, too. In short term, the aged become more depressive when they have little contact with support system, when they have more instrumental support from support system, when they need instrumental support more and when they are less satisfied with their support. From the result, it is confirmed then the aged have more depressive symptoms when they get support from the support system only not providing any support to the support system. Therefore when social workers intervene in support system for the aged, not only support system quality should be improved but also the aged's support abilities should be forced at the same time.

The structural support like support system size and distance showed no relationship with the aged's depressive symptoms. This proved they indirectly influenced on the aged's depressive symptoms through the functional support, need for support, and support satisfaction. In fact, the structural support affected on the aged's depressive symptoms directly, and it also influenced indirectly through functional aspects of informal support, need for support, and support satisfaction. This showed process of informal support which has important networking concept. In other words, in support system networking, it is important for the aged to be satisfied with both the support perceived by themselves and the support provided in reality. The support system size and dis-

tance, however, are also to be considered very significantly.

This research had some problems which limit the result of this paper to be generalized. Further studies on informal support or informal support process for the aged should note the followings. First, this research survey was conducted at one time. It makes difficult to identify the cause and effect relationships in more detail. Therefore, long term influence of informal support is needed.

Second, this research survey was conducted to the aged in the rural area. Therefore, the result of this paper could not be generalized for all the aged in Korea. More researches on the informal support of urban elders in order to review informal support, for them, and a lot of comparative researches of both rural and urban elders' informal support are also recommended.

Third, since this paper depended only on the aged themselves, there has some limitations on collecting real facts. For example, reciprocal support between the aged and the support system could be overestimated or underestimated even though support system visits the aged's houses or provide instrumental/emotional support at same level, if the aged's expectations for the support system differ. Therefore, in the study on informal support, opinions should be gathered not only from the aged themselves but also from the support system to get more objective information.

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