

Sources of social support and clinical and functional evolution of people with schizophrenia

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Abstract

Purpose: The impact of social support on comprehensive measures of results (clinical and functional) of the course of schizophrenia was studied, understood and evaluated as a multidimensional construct differentiating sources of support (family vs. nonfamily).

Methods: 152 patients diagnosed with schizophrenia were assessed with the Mannheim Interview on Social Support (MISS) and the Social Functioning Scale (SFS). The hypotheses were explored in a prospective longitudinal design, using a causal correlational analysis for their evaluation by applying structural equation models.

Results: The only explanatory factor of social functioning was nonfamily social support, while the only explanatory factor of clinical result measurements was family social support, observing a clearly differentiated impact of the different sources of support on the schizophrenia result measurements. It was also found that while family social support explained 6.8% of the variance in the clinical result measurements, nonfamily social support explained 13.7% of the variance in social functioning.

Conclusion: The results confirmed the differential importance of social support variables (family vs. nonfamily) in the clinical and functional result measurements of people with schizophrenia.

Keywords: Schizophrenia; family social support; nonfamily social support; clinical evolution; functional evolution

Introduction

In the theoretical framework of the vulnerability/stress models of schizophrenia, social support has been an important protective factor favoring modulation of the negative effects of social and environmental stressors (Anthony & Liberman, 1986; Nuechterlein, 1987; Nuechterlein & Dawson, 1984; Vázquez Morejón et al., 2018). Historically, there have been three basic lines of research on SS in schizophrenia (Hammer, 1986): 1) Comparing the social support characteristics of people with schizophrenia with those observed in people with other pathologies or with no psychopathological disorder, 2) Comparing social support of schizophrenia patients with different characteristics, usually chronic vs acute, with positive symptoms vs negative or patients with a first vs multiple hospitalizations, and 3) Analyzing the relationship between social support and results measured related to the evolution of schizophrenia: psychopathology, relapse, type of course, readmissions and social functioning.

Along the same line, prospective studies that have examined the relationship between social support and evolution of the disease are of special importance for their methodological interest. Although several studies have undertaken this relationship (Calsyn & Winter, 2002; Harvey et al., 2007; Lo & Lo, 1977; Salokangas, 1997; Siegrist et al., 2015; Strauss & Carpenter, 1977), very few have approached the relationship between social support and the evolution of schizophrenia with validated instruments in a prospective longitudinal design (Bengtsson-Top & Hansson, 2001; Clinton et al., 1998; Erickson et al., 1998; Erickson et al., 1989; Hultman et al., 1996; Hultman et al., 1997), and even fewer

simultaneously including both clinical and functional measures of results, as postulated by the vulnerability/stress model. Authors such as Erickson et al. (1998), Erickson et al. (1989), Hultman et al. (1996), Hultman et al. (1997) and Bengtsson-Top & Hansson (2001) explored these relationships including multidimensional measures of social support, but including simple measures of results in evaluating social functioning, usually based on overall scores from the Global Assessment of Functioning (GAF) scale. Only the study by Clinton et al. (1998) meets these requirements, and even so, with the limitation of a very short follow-up period (12 months), and more importantly, it lacks replication that can confirm its conclusions.

It is worth mentioning the absence of specific research on one aspect, which although identified collaterally in some of the studies (Becker et al., 1997; Corrigan & Phelan, 2004; Erickson et al., 1998; Erickson et al., 1989; Nguyen et al., 2016; Salokangas, 1997), has not been explicitly approached in the field of schizophrenia: The differential impact of social support sources in the various measures of results. Some social support components may have implications in different processes, and therefore, impact very differently on the main measures of results of schizophrenia. This complexity makes it indispensable to conceptualize and measure social support from a multidimensional perspective that allows the specific aspects of social support that come into play in a certain process or relationship to be determined. Weiss (1974), who identified six basic needs that are satisfied in social relationships, already mentioned that each of them requires “specialized” relationships. Different sources of support (family and nonfamily) could cover different needs, and also constitute critical variables for

very differentiated processes with consequences in different measures of results. From this perspective, it might be proposed that nonfamily relationships are the most closely related to social functioning measures and entail less impact on stress levels, and therefore, on clinical measures. On the contrary, family relationships, due to their characteristics, have a closer relationship with stress levels, and the quality of these relationships are particularly important, as demonstrated in studies of expressed emotion (Leff & Vaughn, 1985). In any case, the differences observed led Erickson et al. (1989) to mention that support by family or friends is differentially related to result measurements, which may reflect different relational processes.

While Erickson et al. (1998) examined the relationship between social support and functional evolution (albeit, with a very basic unidimensional measure, the GAF), Norman et al. (2005) explored the relationship between social support and clinical evolution (symptoms and rehospitalizations). However, neither of the two explored the two measures of results, symptomatology and social functioning, together from the theoretical framework of the vulnerability/stress model. Neither did they simultaneously explore the differential influence of different social support sources on each of the measures of results.

The importance of these measures is obvious considering that many areas in schizophrenia could be affected, that recovery occurs at different rhythms in different domains of results (Carpenter & Strauss, 1991; Harvey et al., 2007), and that the symptomatic and social results could be independent of each other (Öhman et al., 1989).

Therefore, we studied the impact of social support, understood and evaluated as a multidimensional construct differentiating sources of support, on comprehensive measures of results (clinical and functional) of the course of schizophrenia. This study posed the following hypotheses: Different sources of social support impact differentially on the evolution of schizophrenia: 1) social support of family members impacts on the clinical evolution of people with schizophrenia, so more social support from family members would correspond to a lower number of admissions, a shorter total hospitalization time and a longer survival time to admission; and 2) social support by people outside of the family impacts on the evolution of social functioning of people with schizophrenia, such that more social support from people outside of the family in a satisfactory network could correspond to a higher level of social functioning.

Methodology

Subjects

The sample consisted of 152 participants in treatment at a community mental health unit (Virgen del Rocío University Hospital in the Andalusian Health Service, Spain) who met the following inclusion criteria: 1) Diagnosed with schizophrenia according to ICD 10 (WHO, 1992) criteria; 2) aged 18 to 45; 3) no cognitive and/or psychopathological decline that would impede following instructions and answering interview questions coherently, and 4) agree to participate after being informed about the purpose of the study and that they were under no obligation to do so.

At first, 177 participants were identified including all the patients under treatment at the community mental health unit, although the study was finally done with only 152 since 25 of them had to be discarded (11 because the decline and/or severity of symptoms prevented their participating, 6 did not want to participate, 6 more because their data were incomplete as they only attended some of the interviews agreed upon for their evaluation, and 2 were discarded as their professionals advised against participating in the study). No differences were observed between patients included and excluded insofar as age, sex, living situation or marital status. However, significant differences were found in age at onset (22.75 in those included vs 18.70 in those excluded) and in number of admissions (1.46 of those included vs 2.91 of those excluded). These differences could be indicating that those excluded were more clinically severe, which was to be expected considering that 11 of the patients were excluded because of their decline and/or severity.

The mean age of the 152 participants was 30.9 years (*S.D.*= 6.97 and range 18-45), 105 were men (69.1%) and 47 were women (30.9%).

Their clinical characteristics were: mean age at onset 22.7 (*S.D.* = 5.78, range = 15-44), and 8.1 years of evolution (*S.D.*= 5.83, range = 0-25) from onset of the disorder and 1.46 mean hospital admissions (*S.D.*= 2, range=0-9) at the start of the study. Sixty-two participants (40.8%) had not been admitted previously to hospital, while 12 participants (7.9%) had been admitted more than five times. Age of onset of 36% of the participants was 20, while on the contrary, only 10% were over 30 at onset. Table 1 presents other sociodemographic characteristics.

Table 1

It should be mentioned that during the three-year follow-up, 16 participants were lost (12 men and four women) for various reasons (quitting, change of residence, death, etc.), and therefore, the final analyses could only be done with a total of 136 participants. However, no significant differences were observed between the two groups in any of the variables in the study.

Instruments

Mannheim Interview on Social Support (MISS; Veiel, 1990). This instrument attempts to combine the advantages of social support questionnaires and network-analytical approaches. The interview structure is based on a multidimensional concept of support, systematically distinguishing between a) Everyday support and crisis support; b) psychological-emotional and instrumental-material support; c) different sources of support and d) different descriptive (e.g., contact frequency, number of friends) and evaluative (evaluation of support received, satisfaction with the relationship) evaluation focal points (Veiel, 1985).

The four general categories of support evaluated in the interview arise from the combination of these two basic distinctions in support functions (psychological vs instrumental, daily vs crisis): 1) Psychological Everyday Support (PES), 2)

Instrumental Everyday Support (IES), 3) Psychological Crisis Support (PCS) 4) Instrumental Crisis Support (ICS).

This way scores may be found for size of network, each of the four support functions (PES, IES, PCS, ICS), and the multiplicity and frequency of contact. Evaluation focused on the satisfactory social support network, understood as support from members of the family the patients themselves think they have a satisfactory relationship with, that is, higher quality.

The original version has satisfactory psychometric characteristics, very similar to those found in the Spanish adaptation used in this study (Vázquez Morejón & Jiménez García-Bóveda, 1997). The temporal reliability for a six-week period varies from .60 to .84 for the family and .68 to .97 for nonfamily.

Social Functioning Scale (SFS; Birchwood, Smith, Cochrane, Wetton & Copestake, 1990). This scale was specifically designed to evaluate those areas of social functioning most crucial to keeping people with schizophrenia in the community. The scale covers seven areas: Social Engagement/Withdrawal, Interpersonal Behavior, Prosocial Activities, Recreation, Autonomy-Execution, Independence-Competence, Employment/Occupation. It provides a total social functioning score and a score for each of the seven areas. Higher scores always indicate a higher level of social functioning. There are two versions, depending on the source of information: the patient (self-reported) or key informant (other-reported). The psychometric characteristics have been explored in both the English (Birchwood et al., 1990), and Spanish (Vázquez Morejón & Jiménez García-Bóveda, 2000) versions, with results that support its validity and reliability.

In the Spanish version, adequate internal consistency was observed for the complete scale, with a Cronbach's alpha of .85. The temporal reliability for a three-month period was .84 and convergent validity with the GAF showed a correlation of .74.

Design

The hypotheses were explored in a prospective longitudinal design, using a causal correlational analysis for their evaluation by applying structural equation models, in which two latent factors (Family social support and Nonfamily social support) were considered, and MISS scores for size, PES, IES, PCS, ICS, multiplicity and frequency of contact for each source of support in the satisfactory network were the measurement variables.

Clinical and functional evolution were the dependent latent factors. The number of hospitalizations, total time hospitalized, number of relapses, survival time to relapse and survival time to hospital admission, were the clinical evolution measurement variables, while the functional evolution measurement variables included the total scores and dimensions on the Social Functioning Scale.

Procedure

When the participants who met the inclusion criteria had been selected, they were listed in alphabetical order. The order of this list, matched with the appointments scheduled for their usual checkup at the center, was the reference for collecting data in interviews with the patients and their family members. Patients and their

key-informants were explained the reason for the interview and were invited to participate, and that participation was absolutely voluntary. Whenever possible, the interview was on the same day of their appointment for their usual checkup. Data on their evolution during the three-year follow-up were taken from their clinical histories and the databases at the center where data for hospitalized patients were normally collected weekly. The usual follow-up at the community mental health unit includes periodic reviews, family contact in case of relapse, house visits and crisis intervention, as well reference of admissions to hospital (even when the team itself did not intervene in admission).

At the end of the follow-up period, the follow-up summary sheet was filled in, calculating the follow-up variables and classifying type of evolution by the categories mentioned above.

This research was approved by the Andalusian Biomedical Research Ethics Committee (code 1384-N-19).

Data analysis

All of the data were coded and processed using SPSS v22.0. To simplify the variables and to avoid any danger of multicollinearity, the factors were identified by principal component factor analysis, and included as independent variables in the structural equation models

Structural equation models with LISREL v8.5 confirmed data fit to the models proposed for the study of each of the hypotheses.

Indicators used in the model as Family social support were scores on the factors derived from the principal components analysis of the Family social support

measurements, and as indicators of Nonfamily social support, the scores on the factors derived from the principal components analysis of the measurements of Nonfamily social support. Thus, the model included:

Independent variables: 1) Family social support (Factor 1 of Family social support), taken from the following variables: network size, PES, IES, PCS, ICS, multiplicity and frequency of contacts, and 2) Nonfamily social support (Factor 1 of Nonfamily social support), taken from the following variables in the nonfamily network: size, PES, IES, PCS, ICS, multiplicity and frequency of contacts.

Dependent variables: 1) Clinical: Number of hospitalizations, total time hospitalized, survival time to admission, number of relapses and time of survival to relapse, 2) Functional: Total SFS score, Isolation, Communication, Independence-Execution, Independence-Competence, Recreation, Prosocial and Employment.

Results

Factor Analyses

Factor analysis of Family social support only identified a single factor that would explain 63.77% of the variance, which includes multiplicity, although with considerably less saturation. The rotated component matrix is shown in Table 2.

Table 2

For the Nonfamily social support variables, factor analysis also identified a single factor that explained 64.17% of the variance. The rotated component matrix is shown in Table 3.

Table 3

The correlations between the factors found in each of the social support networks showed notable independence of factors related to Family social support and Nonfamily social support, with a minimum correlation between the scores on the factors in social support sources ($r = .25$; $p < .002$).

Structural Model

Matrix correlation analysis (Table 4) showed that: a) the functional dependent variables make up a group of closely interrelated indicators (Isolation, Communication, Independence-Execution, Independence-Competence, Recreation, Prosocial and Employment) that enable a functional psychological or psychosocial concept to be established; b) the dependent clinical variables also form a group of closely interrelated indicators, leading to a concept related to health condition that would explain certain clinical aspects (number of hospitalizations, number of relapses, survival time to relapse, etc.); 3) the variables or factors related to Family social support (Family SS Factor 1) and Nonfamily social support (Nonfamily SS Factor 1) also make up an interrelated group.

In addition, considering Family social support and Nonfamily social support factors independent variables, in view of the correlations presented in Table 4, it may be said that with respect to the functional dependent variables, the isolation, communication, recreation, prosocial, employment and total functioning variables seem to be related to Nonfamily social support (Nonfamily social support Factor 1).

Moreover, all of the clinical variables (number of hospitalizations, total hospitalization time, number of relapses, survival time to admission and survival time to relapse) are related to Family social support. In turn it should be mentioned that there were no “marginal” correlations (p .05 to .10).

The indicators of the Structural Fit Model were the following (Figure 1): The model showed a significant fit with a Chi square equal to 69.07, with 51 degrees of freedom and a probability of error of 0.048; RMSEA = 0.048; RMSR = 0.0550; GFI = 0.929; AGFI = 0.892; NFI= 0.937; 90 Percent Confidence Interval for RMSEA = (0.00620 ; 0.0755); P-Value for Test of Close Fit (RMSEA < 0.05) = 0.511.

This model shows that the only explanatory factor of social functioning was Nonfamily social support, while the only explanatory factor of clinical result measurements was Family social support, observing a clearly differentiated impact of the different sources of support on the schizophrenia result measurements.

We also found that while Family social support explained 6.8% of the variance in the clinical result measurements, Nonfamily social support explained 13.7% of the variance in Social Functioning.

Discussion

In general, the results confirmed the differential importance of perceived social support variables in the clinical and functional result measurements of people with schizophrenia.

The simultaneous inclusion in this study of social support measurements differentiated by source, and of result measurements that include the clinical and functional areas proposed by the vulnerability/stress model enables an overall approach to this subject: different sources of social support impact differentially on the evolution of schizophrenia. To begin with, the results confirm our hypothesis by showing very different relationships between Family social support and Nonfamily social support on one hand, and clinical and functional result measurements on the other. It may be said that Family social support has a protective function related to clinical evolution, while Nonfamily social support is significantly involved in the functional evolution of people with schizophrenia.

A more detailed analysis found that clinical result measurements related to hospitalization (number, duration and survival time) and relapse (number, survival time to relapse) showed the importance of Family social support in the satisfactory network, which protects from relapse and hospitalization, and explains part of the variability in each of these measurements.

Family social support in the satisfactory network quantifies support from family members with whom the relationship is satisfactory, that is better-quality. Therefore, it is not the quantity but the quality and intensity of family relations, and in particular, those with whom the relationship is considered satisfactory,

which comprises the critical element in the clinical evolution of people with schizophrenia. As observed by Dozier et al. (1987), enlargement of the network beyond a certain minimum does not seem to reflect more support. Rather it would be the intensity and quality of family relations that would ensure protective support.

These results are consistent with those of Norman et al. (2005), who in an exploratory study, found that the quality of family relations correlated significantly with the number of hospitalizations, while relationships with friends did not.

These results also seemed to be related to these people's high sensitivity to stress and would be in agreement with reports of studies on the Expressed Emotion construct (Brown, Monck, Carstairs & Wing, 1962; Leff & Vaughn, 1985; Vaughn & Leff, 1976), which identified family relational dimensions as critical to the clinical evolution of people with schizophrenia.

First, only Nonfamily social support in the satisfactory network showed a significant relationship with the total Social Functioning Scale score, which partly explained the variability in total social functioning, while none of the Family social support variables appeared to be involved in this measure of results. This is in agreement with Erickson et al. (1989) and Erickson et al. (1998), who found that Nonfamily social support predicted adaptive functioning, showing this relationship to be specific to people with schizophrenia, as it is not observed in those with affective psychosis. Although these authors also found that the number of family relationships in the social network predicted poorer results in social functioning at 18 months, results that would contradict those found in this study, in their second study (Erickson et al, 1998), with a longer follow-up period of five years,

they found that the number of family members did not predict the results in the mid-term, which is consistent with the mid-term follow-up of three years in our study.

Nonfamily social support in the satisfactory network was particularly important in the Social Functioning dimensions, where the variables in five of the seven social support dimensions showed a significant relationship explaining from 11.8% in Isolation to 21.6% in Communication.

Concerning the importance of social support quantity vs quality, Becker et al. (1998) already reported that the quality of social relations is especially important, and that focus on the number of contacts may lead to erroneous conclusions. The results of our study also show that it is not quantity, but quality, of social support that is especially associated with better evolution. Thus, it may be observed how the satisfactory network constitutes the most explanatory factor of variance in the result measurements. Barrera (1986) pointed out that social integration measurements (structural measurements) captured the extent of the connection by evaluating the number of persons recognized as support providers and the frequency of social participation, while social support measurements (functional measurements) are more sensitive to the basic mechanisms of the connection, that is, the adequacy of support to the person's needs.

All these results confirm the importance of support perceived by patients, and not so much real availability, which is crucial to favorable evolution, as already mentioned by various authors (Clinton et al., 1998; Turner, 1981; Hengartner et al., 2017; El-Monshed & Amr, 2020). As mentioned by Cohen et al. (1984), relationships between social support, life experiences and results represent a

continuous, dynamic process more than cause-effect. It is even possible that there are different causal models depending on the dimensions of social support measured and the processes studied (Trumbetta et al., 1999). Calsyn and Winter (2002), in their study of people with severe mental disorders using structural equation models, found that a reciprocal model explained the relationship between social support and psychiatric symptoms better, while a social causation model would better explain the relationship between social support and the type of residence where these people lived.

Among the limitations of the study that should be mentioned is the number of quitters. However, the percentage of 7.2% observed differed only slightly from the 10.3% found by Ericson et al. (1989) at 18-month follow-up and is much lower than the 22% referred to by both Bengtsson-Top and Hansson (2001) and Hultman et al. (1997) in their 18-month and four-year follow-ups, respectively.

With regard to diagnostic criteria, a structured interview could confirm the diagnoses, which would have made them more reliable. This is important in view of the observations made by various authors on the specific relationship between social support and different diagnoses (Beels, 1981; Erickson et al., 1989). Although strict compliance with ICD-10 diagnostic criteria was confirmed, for practical reasons, it was not possible to include any of the structured interviews for diagnostic confirmation in the study.

In another vein, it could certainly be suggested that only the direct effect of social support was considered, since to evaluate the buffer effect, it would be necessary to evaluate the life events each of the participants was exposed to during the follow-up period. More so, the advisability of studying the adequacy of available

social support to the type of life event experienced has even been mentioned (Thoits, 1986). Even recognizing the great interest of this type of study, it should be considered that, in view of the results of Hultman et al. (1997), in which 72% of the patients with schizophrenia had experienced some life experience during the nine-month follow-up, during our three-year follow-up period, most of the participants would have been exposed to some life event, so that the buffer effect of their social support would have, although very partial, some type of impact on the measurements of results. In this sense, it should also be recalled that some types of support could be useful in coping with most stressors (Cohen & Wills, 1985) and that in view of the omnipresence of stressors throughout life, both direct and interactive effects could be considered in terms of buffering (Antonovsky, 1979).

It should also be mentioned that, although all the subjects included in the study were on medication with antipsychotics, the dose and adherence to them may have varied considerably, a point not evaluated here, and which should be taken into account in other studies, since it could influence some of the results presented.

In the future, it would be of interest to explore the impact of different sources of social support, especially in the early stages of psychotic disorders (Gayer-Anderson & Morgan, 2013), with more complex models that incorporate coping mechanisms as possible mediators (Davis & Brekke, 2014) and include variables not undertaken in this study, in particular, formal support by professionals and peer support. The impact of other specific support categories in line with those identified from the perspective of family members could also be explored

(Chronister et al., 2020). Moreover, it would be of interest to analyze the data by gender due to the importance of gender roles in social support, and include results more focused on positive points such as recovery (Corrigan & Phelan, 2004; Cullen et al., 2017) and quality of life (Prabhakaran et al., 2021). It would also be of interest to identify specific subgroups in which intervention in family and nonfamily networks could exert a stronger effect on clinical and functional evolution (Beckers et al., 2022).

In conclusion, it is worthy of mention that in the scope of schizophrenia, our results confirm the proposal that social support has a direct significant relationship with clinical and functional evolution, at the same time that, coherent with Weiss (1974), they show that support provided should be developed in various relationships and involves different processes and consequences. The sources of support and quality of relationships entail various consequences, showing the complexity of the relationship between social support and the evolution of schizophrenia.

In any case, the limited intensity of relationships between social support and results measurements is foreseeable, since, as the vulnerability/stress model argues, in schizophrenia, the result is the fruit of interaction of a wide diversity of factors: genetic predisposition, psychopathologic severity, stress levels, personal skills and competencies, social support, and others (Nuechterlein et al., 1992). As mentioned by Hammer (1981), there is no reason to suppose that social processes are less complex than biological.

Major focus on the process of social support resources in line with therapeutic models directed at resources, as an alternative or complement to deficit-oriented

models (Priebe et al., 2014) could promote pragmatic intervention strategies focused on strengthening people with schizophrenia and their recovery (Terzian et al., 2013).

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Table 1. *Sociodemographic information*

Variables	<i>N</i>	%
Marital status		
Single	129	84.9
Married	7	4.6
Separated	15	9.9
Widow/widower	1	0.7
Living situation		
Mother and father	89	58.6
Mother	28	18.4
Father	4	2.6
Spouse	7	4.6
Alone	8	5.3
Others	16	10.6
Educative level		
Primary school incomplete	4	2.6
Primary education	14	9.2
Primary school/ Vocational training I	51	33.6
High school/Vocational training II	50	32.9
University	33	21.7

Table 2. Rotated Component Matrix for Family Social Support in the satisfactory network

Variables	Components
	Factor 1 Family Social Support in the satisfactory network
Size of network	.902
Psychological Everyday Support	.761
Instrumental Everyday Support	.824
Instrumental Crisis Support	.863
Psychological Crisis Support	.821
Multiplicity	.499
Contact frequency	.852

Table 3. Rotated Component Matrix for Nonfamily Social Support in the Satisfactory Network

Variables	Components
	Factor 1 Nonfamily social support in the satisfactory network
Network size	.926
Psychological Everyday Support	.899
Instrumental Everyday Support	.792
Instrumental Crisis Support	.696
Psychological Crisis Support	.808
Multiplicity	.668
Contact frequency	.784

Table 4. Correlation matrix between variables included in Model

	Correlation	Independence						Total SFS	N°		Survival time to admission	Survival time to relapse		
		Isolation (SFS subscale)	Communication (SFS subscale)	Execution (SFS subscale)	Recreation (SFS subscale)	Prosocial (SFS subscale)	Independence (SFS subscale)		Employment (SFS subscale)	Hospitalizations			Total time hospitalized	
		(VDFunctional)	(VD Functional)	(VDFunctional)	(VDFunctional)	(VDFunctional)	(VD Functional)	(VD Functional)	(VD Clinical)	(VDClinical)	(VD Clinical)	(VD Clinical)	(VD Clinical)	
FAC1 Family Social Support	Pearson Correlation	.118	.058	-.102	.045	.007	-.048	.025	-.005	-.236	-.258	-.227	.227	.206
	Sig. (2-tailed)	.167	.497	.234	.597	.938	.575	.767	.957	.005	.002	.007	.007	.014
FAC1 Nonfamily Social Support	Pearson Correlation	.226	.278	.106	.269	.259	.115	.231	.269	.078	.098	.000	-.059	.010
	Sig. (2-tailed)	.008	.001	.214	.001	.002	.179	.006	.001	.357	.247	.997	.487	.910

Figure 1. Causal diagram of Structural Equation Model 3

