FAMILY AND COMMUNITY SUPPORT AMONG OLDER CHILEAN ADULTS: THE IMPORTANCE OF HETEROGENEOUS SOCIAL SUPPORT SOURCES FOR QUALITY OF LIFE

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Introduction

Chile is one of the most aged countries in Latin America (Palloni, McEniry, Wong, & Pelaez, 2006). Current data indicates that 17.5% of the Chilean population is now over 60 (Chilean Ministry of Social Development, 2015). Despite the various social policies focused on this group, there is scant social investment in older persons and therefore no robust social protection system for old age. Older Chileans generally face an old age with financial insecurity, low income from pensions and benefits, and a limited public healthcare system in terms of care for and specialization in issues affecting the elderly (Huenchuan & Sosa, 2003). In this context, family, friends, and community play a central role in the promotion of well-being among older Chilean persons (Gallardo-Peralta, Sánchez-Moreno, Barrón, & Y Arias, 2015; Grundy et al., 2012). The context of old age in Chile hence represents a notable opportunity to increase available knowledge regarding the role of social support networks in the promotion of quality of life (QoL) in old age.

Social relationships and QoL in advanced ages: the key role of social Support Social relationships are related with well-being throughout life. However, it would appear that this association becomes more important among those of advanced ages (Antonucci, Ajrouch, & Birditt, 2014; Bélanger et al., 2016; Nguyen, 2017). There are various indicators of well-being in old age, but one of the most analyzed is QoL due to its comprehensive overview of well-being.

In this respect, the positive relationship between QoL and social support

networks in old age is well documented (Bélanger et al., 2016; Gallegos-Carrillo et al., 2009; García, Banegas, Perez-Regadera, Cabrera, & Rodriguez-Artalejo, 2005; LaRocca & Scogin, 2015; Serap, Erol, & Sut, 2016). In contrast, not having social networks is related with physical, cognitive, and social deterioration (Cacioppo & Cacioppo, 2014).

The changes that occur to social networks in old age have been widely discussed in social and behavioral sciences (Antonucci et al., 2014; Chappell & Funk, 2011; Fiori, Smith, & Antonucci, 2007). In general, results show that social networks tend to shrink as people age; however, significant social contacts remain stable (Lang & Carstensen, 1994). Social networks in old age are certainly reduced in size (Cloutier-Fisher, Kobayashi, & Smith, 2011) and become predominantly family-based in composition (Gallardo-Peralta, 2013). These changes in social networks can be the source of variations in levels and effects of social support for older adults. Social networks provide the context for social interactions the aims of which are to assist individuals in coping with everyday life, life events, and critical situations, enabling people to access interpersonal transactions involving such characteristics as the provision of aid, affect, and affirmation (Antonucci, 1985; Kahn & Antonucci, 1980; Pierce, Sarason, & Sarason, 1990). Social support can thus be understood as the emotional (demonstrations of love and caring, esteem and value, sympathy), informational (especially advice and access to key information) and instrumental (financial support, helping relationships, favors) provisions resulting from interpersonal interactions in the context of social networks. Moreover, the available empirical evidence that specifically focuses on older adults suggests that the three key dimensions of social support for well-being are functional support (Antonucci, Fuhrer, & Y Dartigues, 1997), perceived support – to a greater extent than enacted support (Antonucci et al., 2014) – and reciprocity in the supporting exchange (Lin, 1986), including the emotional and instrumental dimensions of support in everyday circumstances and/or crisis situations (Gracia, Herrero, & Musitu, 2002).

In this vein, it is proposed that access to (and participation/reciprocity in) various sources of social support can be a key factor in greater well-being and

QoL (Cheng, Lee, Chan, Leung, & Lee, 2009; Fiori, Antonucci, & Akiyama, 2008; Li & Zhang, 2015; Litwin & Shiovitz-Ezra, 2011). Within this context, the present study distinguishes social support from primary groups from that of secondary groups (Thoits, 2011). The former is made up of “significant others” – people with whom individuals have a close emotional bond in the framework of small, informal, intimate and long-lasting groups (family, relatives and friends, for example). Secondary groups tend to be larger and/ or change in terms of size. They involve more formal interaction (governed by rules that are formalized to varying degrees but are to a large extent impersonal) and reciprocal knowledge is less personal. The secondary group category includes work groups and religious, voluntary and community organizations. This research analyzes the role played by social support emanating from social ties arising in an intimate and trusting context (primary networks) and support from interactions in community contexts (secondary networks). The following paragraphs outline this approach.

Social support from primary networks: family and friends

The family occupies a predominant position as a source of social support in old age (Chappell & Funk, 2011; Gray, 2009). Despite changes in family structure (Serap et al., 2016), family solidarity remains a central element in the social integration of older adults (Melchiorre et al., 2013). Numerous studies have analyzed the differentiated role of family support in the wellbeing of older adults, whether spouse or partner (Thomas, 2010), children (Grundy & Read, 2012), grandchildren (Moorman & Stokes, 2016), siblings (Jensen & Nielson, 2016), or other members of the extended family (Taylor & Chatters, 1991). In general, results indicate that family social support is complementary and can even be replaced in some situations. Along these lines, older persons perceive support from partner, children, siblings, and other relatives in descending order, and when any of the members are missing they are compensated by another (Peters, Hoyt, Babchuk, Kaiser, & Iijima, 1987).

Previous research show that older adults who enjoy well-being or good QoL tend to be flexible in replacing or seeking nonfamily sources of social support as they age; this source of support usually is incorporated into the space of emotional proximity, and described as close friends (Pahl & Pevalin,

2005). Friends are a potent source of social support, in the sense that they entail voluntary links with fewer rules than in families and greater equality (Grundy & Read, 2012). It is proposed that relationships of friendship offer greater independence to older adults, particularly independence from family. Moreover, they promote motivation, relaxation, and healthy emotional states (Cox & Dooley, 1996). For all these reasons, considering nonfamily sources of social support as part of primary networks appears to be fundamental to any assessment of the impact of social support on QoL.

Social support from secondary networks: neighbors, neighborhood, formal, and informal social groups.

The recent literature emphasizes the impact and risk of incidence of loneliness among older persons in contemporary societies (Coll-Planes et al., 2015; Gardiner, Geldenhuys, & Gott, 2018). This evidence increases the significance of the community's role as a potential source of social support that complements or helps in adaptation to the changes that occur to social networks in old age.

This support is conceptually and empirically different from that generated through primary network interactions. Neighbors and the neighborhood occupy a specific role in the daily life of older adults. Taking into account that one may have frequent and often unplanned or casual interactions with neighbors, they can provide support to older adults both in daily life and in crisis situations – or even perform a social control role due to their ability to conduct direct observation (Brown et al., 2009; MacKean & Abbott-Chapman, 2012).

Cantor (1979) conducted one of the first studies in this regard, observing that neighbors are principally important in the daily lives due to their availability. The support that this source provides is significant for emotional, instrumental and informational needs and is therefore associated with improved well-being in old age (Bowling, Barber, Morris, & Ebrahim, 2006). Well-being is increased by having contact with neighbors, feeling part of a neighborhood, and participating in leisure activities (participating in social groups, using public squares or other facilities, etc.) (Brown et al., 2009; Hand, Law, Hanna, Elliott, & McColl, 2012).

The neighborhood permits access to various kinds of social links, including religious, kin, friendship, neighbor, and informal jobs (Barnes, 2003), meaning it represents amultifunctional support network. Likewise, the neighborhood tends

to produce different instances of community participation, with older adults' organizations being of note in this regard.

In summary, QoL is increased by a feeling of social integration which manifests in viewing the neighborhood as one's own, identifying with the community in which one is spending one's life, perceiving that one is important to others and that one's opinions are well received by those in our environment (Gracia et al., 2002; Herrero & Gracia, 2007). In this context, it is possible to differentiate between two sources of community support. First, informal social support is an important dimension of the community. Various studies confirm the positive association between social participation and well-being in old age (Adams, Leibbrandt, & Moon, 2011; Chen & Chen, 2012; Gallardo-Peralta, Conde-LLanes, & Córdova-Jorquera, 2016), specifically by increasing QoL (Silverstein & Parker, 2002). Older adults who participate in social organizations or groups tend to have higher self-esteem, greater life satisfaction and fewer depressive symptoms (Donnelly & Hinterlong, 2010). Second, formal social support networks represent another participation-related dimension. These include social services, health centers and other public institutions for older adults. These services positively influence QoL for older adults, offering preventive, therapeutic and support-service options that are provided by professionals or caregivers, promoting independent home living and delay or prevent admission to institutions (Van Bilsen, Hamers, Groot, & Spreeuwenberg, 2008).

Present study

This article focuses on analyzing perceived social support from several sources and its association with QoL. The majority of studies tend to analyze the role of intimate or close social support networks in well-being. However, few studies identify community as a significant dimension of analysis (Gracia & Herrero, 2004; Heinze, Kruger, Reischl, Cupal, & Zimmerman, 2015). For this reason, the present research includes personal (primary) and community (secondary) support.

In specific terms, we analyze the association between social support from personal/primary social networks (social support from partner, children, grandchildren, siblings, other family members, and friends) and community social networks (social support from neighbors and neighborhood, group

companions and formal social support networks) with QoL for a sample of older Chilean adults. Specifically, the following hypotheses are formulated:

1. Support from primary groups:

1a. Family social support. It is expected that social support from partner, children, and other family members will be positively associated with QoL. This hypothesis is based on the proximity and importance of interaction with these sources in the case of older persons. This proximity means that the nuclear family (partner/children) is clearly central, as well as potentially those extended family members who live or interact daily with the older person.

1b. Social support from friends. A positive relationship is hypothesized between this variable and QoL. As stated, support from this source tends to be functionally equivalent to that received from other sources of support whose importance falls as a person ages (children, grandchildren, etc.) during old age.

2. Support from secondary groups: social support from community. Social support from community sources is expected to be positively associated with QoL. In this same regard and as the empirical evidence shows, integration in the community increases feelings of well-being in old age.

Method

Participants and procedure

The sample was made up of 777 older Chilean adults living in the region of Arica and Parinacota, in the far north of Chile. Use was made of a sample stratified by sex, ethnicity and place of residence (rural and urban) to ensure representativeness. The fundamental characteristics of the sample are set forth in Table 1. Notable among these data are the average age (69.93 years; SD = 7.12) and the presence in the sample of a percentage of older adults belonging to an indigenous ethnicity (30%), the Aymara ethnicity being the most common (88% of cases).

The questionnaire was applied via personal interview, having first obtained the informed consent of participants. Qualified social work and psychology professionals administered it between June and August 2015. The Ethics Committee of Taracapá University and the National Council for Science

and Technology of Chile approved and monitored the ethical aspects of the study. All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

The research was conducted in five different places: Arica, Putre, Socoroma, Visviri, and Codpa. Participants were contacted via two procedures. When possible and desirable, the research team made first contact directly and arranged an appointment to perform the interview. When first contact entailed greater difficulty, it was made via key social agents, including council personnel (mainly social workers) and the most important neighborhood leaders (priest, president of the neighborhood board). In both cases, the interviewer attended the place indicated for the interview, which took 40 min to complete.

Measures

Measures QoL

The WHOQoL-BREF scale was used, from the QoL group of the World Health Organization (WHO, 1998). It comprises a total of 26 items, split into 2 general questions (satisfaction with health and QoL) and 24 questions that are grouped into a total of five dimensions: (1) Physical domain. Evaluates physical pain, energy/fatigue, and satisfaction with sleep. This subscale has a total of three items and is measured on a five-point scale evaluating the degree to which symptoms are present. (2) Psychological domain. Evaluates positive and negative feelings about life, ability to concentrate, satisfaction with self, and acceptance of bodily appearance. This subscale has a total of five items and is measured on a five-point scale (1 = not at all; 5 = an extreme amount/extremely). (3) Level of Independence. Evaluates mobility, daily living activities, need for medical treatment and capacity for work. This subscale has a total of four items and is measured on a five-point scale (1 = not at all/ very poor; 5 = completely/very good). (4) Social Relationships. Evaluates social relations, support from friends, and sexual activity. This subscale has a total of three items and is measured on a five-point scale (1 = very dissatisfied; 5 = very satisfied). (5) Environment domain. Evaluates various environmental dimensions, such as physical safety, household conditions,

financial resources, availability of information to resolve day-to-day problems, access to medical services, opportunities for and participation in leisure activities, surroundings, and transport. This subscale has a total of eight items and is measured on a five-point scale (1 = very dissatisfied; 5 = very satisfied). The total score for QoL was calculated for analysis purposes in line with the criteria established in the scale handbook (WHO, 1998). The internal consistency index (Cronbach's alpha) for the general questionnaire was .89.

Two measures of social support were introduced in light of the study aims. The first is designed to measure the functional elements of perceived social support from various family sources (i.e., personal networks made up of family members and close friends). The second instrument is focused on measuring support from community networks (i.e., secondary networks), incorporating the role played by neighbors and relevant community institutions into the analysis. The features and dimensions of each instrument are set out next.

Perceived social support

The Perceived Social Support Questionnaire (PSSQ) (Gracia et al., 2002) evaluated the functional dimensions of support (emotional, instrumental, and informational). The instrument comprised 9 items with questions on the source (partner, children, grandchildren, siblings, relatives including daughter-in-law, son-in-law and nieces and nephews, and friends). The items measure the three main dimensions of perceived social support: emotional (example: "To what extent could you freely share and express feelings with your partner/friend/etc.?"), instrumental (example: "If you were ill and needed to be taken to the doctor, to what extent would this person help you?"), advisory (example: "To what extent would your [family member/ friend] help you if you had to take an important decision?"), including reciprocity (example: "If your [family member/friend] was anxious, depressed, or had personal or family problems, would they come to you?"). The corresponding scale for each item ranged from 0–5 (higher scores representing higher levels of social support provision). The PSSQ is a widely used instrument in Spanish-speaking populations, having been validated in various contexts (residential, general, hospital) (Gracia & Herrero, 2004).

This instrument provides separate scores for the different aforementioned sources of social support. Scores for the items corresponding to each source and representing the different types of support (emotional, instrumental, advisory) were combined to produce a composite functional support score for each source considered. The internal consistency index (Cronbach's alpha) was .94.

Community social support

The Community Social Support Questionnaire created by Gracia et al. (2002) was applied. This questionnaire has a total of 25 items distributed across four dimensions and each dimension is made up of a subscale that can be separately analyzed. The first two subscales directly evaluate perceived social support from the community: (1) Social support from informal systems. Eleven items that report on the subject's perception in terms of social support with respect to the informal resources of the community: social groups in which the subject participates (older adults' groups, cultural, sporting, indigenous, and other group), via statements such as "I could find people in this group who will help me to resolve my problems" or "in this group I would find someone who will listen to me when I am down." The internal consistency index (Cronbach's alpha) for the subscale was .64. (2) Social support from formal systems. This provides information on the subject's perception in terms of social support with respect to the formal resources of the community: family health center, hospital, council and ministerial offices, and various public services; this subscale has a total of five items, via statements such as "If I had problems (personal, family, etc.), I could find people in these organizations who would help me to resolve them" or "These organizations and services are an important source of support." The internal consistency index (Cronbach's alpha) for the subscale was .85. The other two subscales measure perceived degree of integration and participation in the community: (3) Integration within the community. This evaluates the subject's integration within their neighborhood or local community, with a subscale totaling four items, via statements such as "My opinions are well-received in my neighborhood" or "I feel identified with my neighborhood." The internal consistency index (Cronbach's alpha) for the subscale was .85.

(4) Participation in the community. This evaluates participation in the neighborhood or local community, with a subscale totaling five items, via statements such as “I participate in social activities in my neighborhood” or “I respond when people ask for help in my neighborhood.” The internal consistency index (Cronbach’s alpha) for the subscale was .88. A Likert-type scale was used to produce response categories for all questions, ranging from (1) strongly disagree to (5) strongly agree. Scores were obtained for each dimension evaluated. While the first two dimensions implement the measurement of perceived social support in the community, the latter two refer to measures of integration (such as sense of community, feelings of attachment to one’s community, and sense of belonging) and participation. As such, their inclusion in the analytical models permits a clarification of both the role of community as a source of support as well as the extent to which the individual engages in actions to contribute to community development. In this regard, the consideration of community involvement and active participation in community activities entails a certain replication of the idea of reciprocity with the community (Herrero & Gracia, 2007).

Control variables

Sex (0 = man, 1 = woman), age, ethnicity (0 = nonindigenous, 1 = indigenous), monthly income, employment status (0 = retired, 1 = retired but still working), residence (0 = rural, 1 = urban), having partner (0 = without partner, 1 = with partner), living accompanied (0 = living alone, 1 = living accompanied), and size of social network. Those variables are widely used in previous studies about determinants of QoL in advanced ages (García et al., 2005; LaRocca & Scogin, 2015; Serap et al., 2016).

Analysis

Data analysis was conducted in two phases to fulfill the objectives of this study. The first phase involved descriptive analyses of the study variables, together with the bivariate correlations among the main study variables. In the case of dichotomous variables (men/women, indigenous/nonindigenous, working/not working, urban/rural resident, with/without partner, living with others/alone), comparisons of averages were performed (Student’s t test for independent samples) for the QoL, perceived social support (partner, children,

grandchildren, siblings, other family members, and friends), and community social support (integration, participation, informal support systems and formal support systems) variables.

Second, a hierarchical regression analysis was conducted for the QoL variable, which entailed the production of four models trying to account for QoL (dependent variable). Model 1 included control variables. Models 2 and 3 added variables measuring social support from primary network. Model 2 included social support from the family: that is, social support from partner/spouse, children, grandchildren, siblings and extended family. In the same vein, model 3 incorporated social support from friends. Finally, model 4 included the dimensions assessing support from secondary networks, such as integration within community/neighborhood, participation in community/neighborhood, and informal and formal social support from the community. As may be observed, the four models provide information on the hypotheses. The IBM-SPSS program version 23 was used for the analyses.

Results

Table 2 sets forth the descriptive statistics and correlations of the main study variables. The results in this respect highlight the statistically significant associations found among the study variables. For the purposes of this research it is worth emphasizing the association between QoL and support from partner, friends, community integration, and informal systems. The results also show that men receive more social support from their partner ($t = -3.717$; $p < .001$), while women receive more social support from children ($t = 5.211$; $p < .001$) and grandchildren ($t = 2.248$; $p < .05$) and perceive themselves as more integrated ($t = 2.185$; $p < .05$) and more participative ($t = 2.245$; $p < .05$) in the community. For ethnicity, it is notable that the indigenous population (Aymara) receive more social support from children ($t = 2.320$; $p < .05$) and are more integrated ($t = 5.325$; $p < .001$) and participative ($t = 1.892$; $p < .05$) in the community. Older persons who are working receive more support from their partner ($t = 2.111$; $p < .05$) and are more integrated in the community ($t = 2.217$; $p < .05$). In contrast, those who are not working score more highly for QoL ($t = 2.699$; $p < .01$). Those living in rural areas have higher levels of integration ($t = -8.674$; $p < .001$) and participation ($t = -4.669$; $p < .001$) in the

community. Those without a partner have more social support from friends ($t = -2.984$; $p < .01$) and those with a partner report a higher average score for QoL ($t = 2.531$; $p < .01$). Finally, those living with others receive more social support from children ($t = 5.006$; $p < .001$), grandchildren ($t = 8.624$; $p < .001$) and formal support systems ($t = 1.927$; $p < .05$) and have a higher QoL

($t = 2.706$; $p < .05$), while those living alone receive more social support from friends ($t = -4.664$; $p < .001$).

As mentioned, a hierarchical regression analysis was performed for the QoL variable. This analysis entailed defining four models according to the study variables. The results obtained are described later and summarized in Table 3. Conducting a specific analysis by contrasted model demonstrates that the main predictive variables are as follows: for model 1 (control variables), age ($\beta = -.129$; $p < .05$), income ($\beta = .136$; $p < .01$) and size of network ($\beta = .156$; $p < .01$) are included.

Models 2 to 4 represent the key results for the objectives of this work. For model 2 (family support), age ($\beta = -.126$; $p < .05$) and income ($\beta = .125$; $p < .05$) significant associations remain with QoL, but the added variables do not appear as predictive. In model 3 (social support from friends), age ($\beta = -.145$; $p < .01$), size of network ($\beta = .283$; $p < .05$) remain, and added predictive variables are social support from partner ($\beta = .236$; $p < .01$), social support from children ($\beta = .277$; $p < .01$), social support from other family members ($\beta = .146$; $p < .05$), and social support fromfriends ($\beta = .290$; $p < .001$). As such, the incorporation of networks of friends permitted other variables of social support from family members to be predictive of QoL. Therefore, the regression coefficients for the variables measuring support from partner, children, and other family members are significant in model 3. It is important to emphasize the possibility of a suppressor effect for social support from friends. In this regard, the four aforementioned variables were measured using the same questionnaire and social support from friends correlated significantly with support from children and from other family (see Table 2).

In model 4 (social support from secondary networks/community), age ($\beta = -.132$; $p < .01$), social support from partner ($\beta = .236$; $p < .01$), social support from children ($\beta = .209$; $p < .01$) and social support from friends

(β = .250; p < .001) remain, while community integration (β = .238; p < .001) and support from informal systems (β = .228; p < .001) are added. It is important to note that model 4 represents an outstanding increase in capacity to explain QoL, with an explained variance percentage of 25.8%. As such, the inclusion of the dimensions of community social support entails a significant contribution to the understanding of QoL among older Chilean adults. In sum, QoL is positively related with size of social network and social support from partner, children, extended family and friends, as well as with community integration and social support from informal systems (social groups).

Discussion

Our results show that having social support from primary and secondary networks is related with higher levels of QoL, showing the importance of considering social support on the basis of where it has come from (the source). In this regard, the coexistence of significant effects for support from primary and secondary groups suggests that heterogeneity in network composition could enable older persons to access support in a more flexible and QoL-enhancing fashion. This interpretation is consistent with previous studies concluding that diversely or heterogeneously composed sources of support are linked to better well-being in old age, since they permit broader social integration and access to various types of support (Nguyen, 2017).

Our hypotheses relating to primary groups were to a large extent confirmed. This statement is particularly true when describing support from friends. Along the lines of previous research, this source of support is of great significance for QoL in our sample. The available empirical evidence suggests that the aging process increases the importance of friends in the context of primary groups (Faquinello & Silva, 2011; Li, Ji, & Chen, 2014). In terms of the analysis of support from primary groups, where our results are of special note is their significance for the consideration of the family group. In this vein, it is important to note that not all sources of family support analyzed influence QoL. In this vein, support from grandchildren, siblings and extended family members did not reach significance in our last model (model 4). Several implications can be stated. Firstly, this finding invites a discussion of the specific role of social support from family in Latin American family-oriented contexts (such as Chile) in the promotion of

QoL in old age. It is absolutely necessary to take into account that in Chile as in many other Latin American countries, family is changing – and the family's role of caring for older adults is also changing as a result (Melchiorre et al., 2013). Though the debate over well-being in old age may revolve around family composition and the possibility of substitution of its members (robust network), the scientific literature proposes that the possibility of enjoying well-being in old age will depend on the capacity of the older adult to be flexible in seeking support and optimizing the social resources available to them (Jopp & Rott, 2006).

Secondly (and in related fashion), the particular findings of this research show how the inclusion of social support from secondary groups (model 4) increases the explanatory capacity of the model in a particularly significant manner. In fact, the inclusion of the variables evaluating social support from the community increases the explanatory capacity of the model to almost 26% of variance in QoL, while the variables measuring support from primary groups (model 3) account for 14.5%. These findings underline the importance of the surrounding community as a source of support (and especially of neighborhood relationships and those occurring within the context of voluntary groups) in the promotion of QoL at advanced ages. Our results are in line with recent studies showing how the creation of social support networks with neighbors and the promotion of social participation in older persons' groups prevent loneliness and are positively associated with QoL (Coll-Planes et al., 2015).

Thirdly, it is necessary to note that the importance in our results of social support from secondary networks has both a quantitative and qualitative dimension. A careful comparison of our models 3 (support from primary and secondary groups) and 4 (support from primary groups) reveals that informal support from the community and community integration explain the effect obtained in model 3 for support from extended family. This result means that the only two family sources that contribute to the improvement of QoL in our sample are partner and children. The significant effect of support from friends is maintained. As a whole, this pattern of results suggests a specificity of primary and secondary networks in the generation of social support, on one hand, and the key role of community as a source of

support in the case of older persons, on the other. This conclusion is reinforced if we examine a second particularly significant variation in our model 4. As may be observed, the inclusion of the variables measuring social support from community explains the statistically significant association of the size of support network present in model 3. These results suggest that the role of the community does not derive from its influence on extension of the network in structural terms, but rather from the capacity of that network to create feelings of belonging and integration and to increase the perception of social support among older persons (Herrero & Gracia, 2007; Sánchez-Moreno, 2004).

Social support from primary and secondary groups can operate through several mechanisms for enhancing QoL: social influence/social comparison, social control, role-based purpose and meaning (mattering), selfesteem, sense of control, belonging and companionship, and perceived availability of support (Thoits, 2011). Given the results obtained in this study, these mechanisms may differ depending on the source of support (primary or secondary). Specifically, partner, children, and friends exercise social control in the daily lives of older adults, since they attempt to supervise, monitor, persuade or even pressure the person to maintain positive practices. The most concrete example is support in the medical treatment of chronic illnesses (Penninx et al., 1999), but also promoting physical or mental health (Mui, 1996; Seeman, 2000) and improving the sense of being loved and cared for. All these mechanisms would be characteristic of intimacy, of a confidence-based relationship. On the other hand, social support from members of the neighborhood community or group peers act in areas such as influence/social comparison. In other words, they influence the behavior associated with healthy lifestyles – whether promoting physical activity or maintaining a balanced diet (Brown et al., 2009). They are also associated with a feeling of belonging and companionship; this recognition implies acceptance by and integration within a group, which not only guarantees security but also forms part of a circuit of reciprocal social support (Herrero & Gracia, 2007). Future research can be oriented to the clarification of potential different mechanisms

implied in the promoting effect on QoL of social support from Though this research focuses on perceived social support, it is also worth mentioning some implications for the study of social networks. It would seem that the availability of heterogeneous social networks provides access to a more flexible, open and dynamic support system for older adults. This type of network can be more versatile in providing social support during crisis situations or merely in daily life. Available evidence suggests that there are four kinds of networks identified in terms of composition in old age: diverse, family-focused, non-kin-focused, and restricted (Nguyen, 2017). Those relying on restricted networks were more likely to be lonely and isolated compared to others (Burholt & Dobbs, 2014). In contrast, diverse social networks offer greater social integration to older persons (Nguyen, 2017). Along these lines, the results of our research suggest a significant role for support from the community, which in turn appears important for the design of social work intervention programs. The importance of aging in the living space (McDonough & Davitt, 2011) implies that it is appropriate to adjust the community environment to the support needs of older adults, in order to reduce loneliness and increase contexts of social interaction (Prieto-Flores, Fernández-Mayoralas, Forjaz, & Martinez-Martin, 2011).

Limitations

This study presents certain limitations that must be taken into account. First and most importantly, the study is cross-sectional in design, which impedes establishing causal relations among variables. Analysis of the theoretical and empirical background and the literature examining the relationship between social support and well-being in general suggest that our general approach, hypotheses, strategic analysis and interpretation of results represent a contribution to the knowledge of QoL among older persons. However, certain elements of QoL may be at the root of differences in levels of perceived social support, especially when the sources of that support are secondary groups. This is the case for physical and mental health problems. It is hence necessary to conduct research designed in a manner that permits clarification of the meaning of the causal relationship, taking into account the possibility that such relationship between QoL and

social support may be bidirectional. Secondly, future research should examine possible differences on the basis of disadvantaged groups, especially those defined by sex and ethnicity. Both groups have experienced tougher life pathways in Chile, which translate into an old age with greater likelihood of social risk and vulnerability. It is hence important for social policy in Chile to retrieve information and generate knowledge in order to discuss the dynamics of positive discrimination in favor of socially disadvantaged
groups.

Implications

In summary, social support from secondary groups is a key factor in understanding QoL at advanced ages. Perhaps the main contribution of this study relates to the understanding of social support from secondary groups (specifically, the community) in the case of older persons. In this regard, our results emphasize the importance of informal support – beyond the support generated in formal institutions – and of community integration and a sense of belonging,beyond the direct participation of older persons in matters affecting their community. The role played by community support complements and contributes to promote well-being among elderly people when support from primary groups – especially family – reduces its intensity. In Chile and in various cultural contexts, there has been a change in the close networks of older adults toward a combination of family members and friendships. In a further step, our results suggest that networks open to a broader composition are related with increased well-being in old age (Fiori, Antonucci, & Cortina, 2006; Gray, 2009; Li & Zhang, 2015; Pahl & Pevalin, 2005). In Latin American contexts such as Chile where there is a lack of a robust social protection system for the elderly, the work performed by these secondary networks is important. It is hence necessary to continue to conduct studies analyzing the specific role of the benefits of social networks – and in specific terms, the buffering mechanisms in terms of social support offered by these social networks. It is important to emphasize that our results indicate a notable level of importance for informal community support, but not for support from formal/institutional organizations.

This suggests that intervention in this respect should be oriented not only toward strengthening the role of public or formal institutions, but rather toward the development of informal community associations and links.

There are social policies in Chile such as the Vínculos (Links) program aimed at strengthening the contact networks of older adults. Specifically, social workers are the professionals who integrate older adults within various community networks and peer groups (National Service for Elderly People). However, this social program is intended for older adults in situations of social vulnerability and faces the limitation of not reaching all persons who are aged over 65 years. As such, gerontological interventions in contexts like the Chilean one should include the development of links between people and secondary groups as a central feature of their intervention strategy. This should occur through the creation, strengthening, or improvement of those networks that would have a direct impact on QoL.

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References

Adams, K. B., Leibbrandt, S., & Moon, H. (2011). A critical review of the literature on social and leisure activity and wellbeing in later life. Ageing and Society, 31(04), 683–712. doi:10.1017/S0144686X10001091

Antonucci, T. C. (1985). Personal characteristics, social support, and social behavior. In R. H. Binstock & E. Shanas (Eds.), Handbook of aging and the social sciences (2nd ed., pp. 94–128). New York, NY: Van Nostrand Reinhold.

Antonucci, T. C., Ajrouch, K. J., & Birditt, K. S. (2014). The convoy model: Explaining social relations from a multidisciplinary perspective. The Gerontologist, 54(1), 82–92. doi:10.1093/geront/gnt118

Antonucci, T. C., Fuhrer, R., & Y Dartigues, J. (1997). Social relations and depressive symptomatology in a sample of community-dwelling French older adults. Psychology and Aging, 12, 189–195.

Barnes, S. L. (2003). Determinants of individual neighborhood ties and social resources in poor urban neighborhoods. Sociological Spectrum, 23(4), 463–497. doi:10.1080/02732170309218

Bélanger, E., Ahmed, T., Vafaei, A., Curcio, C. L., Phillips, S. P., & Zunzunegui, M. V. (2016). Sources of social support associated with health and quality of life: A cross-sectional study among Canadian and Latin American older adults. BMJ Open, 6(6), e011503. doi:10.1136/bmjopen-2016-011503

Bowling, A., Barber, J., Morris, R., & Ebrahim, S. (2006). Do perceptions of neighbourhood environment influence health? Baseline findings from a British survey of aging. Journal of Epidemiology and Community Health, 60(6), 476–483. doi:10.1136/jech.2005.039032

Brown, S. C., Mason, C. A., Spokane, A. R., Cruza-Guet, M. C., Lopez, B., & Szapocznik, J. (2009). The relationship of neighborhood climate to perceived social support and mental health in older Hispanic immigrants in Miami, Florida. Journal of Aging and Health, 21(3), 431–459. doi:10.1177/0898264308328976

Burholt, V., & Dobbs, C. (2014). A support network typology for application in older populations with a preponderance of multigenerational households. Ageing and Society, 34(7), 1142–1169. doi:10.1017/S0144686X12001511

Cacioppo, J. T., & Cacioppo, S. (2014). Social relationships and health: The toxic effects of perceived social isolation. Social and Personality Psychology Compass, 8(2), 58–72. doi:10.1111/spc3.12087

Cantor, M. H. (1979). Neighbors and friends: An overlooked resource in the informal support system. Research on Aging, 1, 434–463.doi:10.1177/016402757914002

Chappell, N. L., & Funk, L. M. (2011). Social support, Caregiving, and Aging. Canadian

Journal on Aging, 30, 355–370. doi:10.1017/S0714980811000316

Chen, Y. J., & Chen, C. Y. (2012). Living arrangement preferences of elderly people in Taiwan as affected by family resources and social participation. Journal of Family History, 37(4), 381–394. doi:10.1177/0363199012440948

Cheng, S. T., Lee, C. K., Chan, A. C., Leung, E. M., & Lee, J. J. (2009). Social network types and subjective well-being in Chinese older adults. The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 64B(6), 713–722. doi:10.1093/geronb/gbp075

Cloutier-Fisher, D., Kobayashi, K., & Smith, A. (2011). The subjective dimension of social isolation: A qualitative investigation of older adults' experiences in

small social support networks. Journal of Aging Studies, 25(4), 407–414. doi:10.1016/j.jaging.2011.03.012
Coll-Planes, L., Del Valle, G., Bonilla, P., Masat, T., Puig, T., & Monteserin, R. (2015). Promoting social capital to alleviate loneliness and improve health among older people in Spain. Health & Social Care in the Community, 25(1), 145–157. doi:10.1111/hsc.12284
Cox, E. O., & Dooley, A. C. (1996). Care-receivers' perception of their role in the care process. Journal of Gerontological Social Work, 26, 133–152. doi:10.1300/J083V26N01_09
Donnelly, E. A., & Hinterlong, J. E. (2010). Changes in social participation and volunteer activity among recently widowed older adults. The Gerontologist, 50(2), 158–169. doi:10.1093/geront/gnp103
Faquinello, P., & Silva, S. (2011). Friends and neighbors: An active social network for adult and elderly hypertensive individuals. Revista Da Escola De Enfermagem Da USP, 45(6), 1343–1349.
Fiori, K. L., Antonucci, T. C., & Akiyama, H. (2008). Profiles of social relations among older adults: A cross-cultural approach. Ageing and Society, 28(02), 203–231. doi:10.1017/S0144686X07006472
Fiori, K. L., Antonucci, T. C., & Cortina, K. S. (2006). Social network typologies and mental health among older adults. The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 61(1), P25–P32. doi:10.1093/geronb/61.1.P25
Fiori, K. L., Smith, J., & Antonucci, T. C. (2007). Social network types among older adults: A multidimensional approach. The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 62(6), P322–P330. doi:10.1093/geronb/62.6.P322
Gallardo-Peralta, L. (2013). Social support networks in Chilean elderly: Structural and functional aspects. Revista Trabajo Social, 89, 9–18.
Gallardo-Peralta, L., Conde-LLanes, D., & Córdova-Jorquera, I. (2016). Association between successful aging and social participation among elderly Chilean people. Gerokomos, 27(3), 104–108.
Gallardo-Peralta, L. P., Sánchez-Moreno, E., Barrón, A., & Y Arias, A. (2015). Ethnicity, social support, and depression among elderly Chilean people. The

Journal of Psychology: Interdisciplinary and Applied, 149(6), 601–629. doi:10.1080/00223980.2014.946462
Gallegos-Carrillo, K., Mudgal, J., Sánchez-García, S., Wagner, F. A., Gallo, J. J., Salmerón, J., & García-Peña, C. (2009). Social networks and health-related quality of life: A population based study among older adults. Salud Pública De México, 51(1), 06–13. doi:10.1590/S0036-36342009000100004
García, E. L., Banegas, J. R., Perez-Regadera, A. G., Cabrera, R. H., & Rodriguez-Artalejo, F.(2005). Social network and health-related quality of life in older adults: A population-based study in Spain. Quality of Life Research, 14(2), 511–520.
Gardiner, C., Geldenhuys, G., & Gott, M. (2018). Interventions to reduce social isolation and loneliness among older people: An integrative review. Health & Social Care in the Community, 26(2), 147–157. doi:10.1111/hsc.12367
Gracia, E., & Herrero, J. (2004). Personal and situational determinants of relationshipsspecific perceptions of social support. Social Behavior and Personality, 32, 459–476. doi:10.2224/sbp.2004.32.5.459
Gracia, E., Herrero, J., & Musitu, G. (2002). Evaluación de recursos y estresores psicosociales en la comunidad [Evaluation of psychosocial resources and stress in the community]. Madrid, Spain: Síntesis.
Gray, A. (2009). The social capital of older people. Ageing and Society, 29(01), 5–31.doi:10.1017/S0144686X08007617
Grundy, E., & Read, S. (2012). Social contacts and receipt of help among older people in England: Are there benefits of having more children? The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 67(6), 742–754. doi:10.1093/geronb/gbs082
Grundy, E. M., Albala, C., Allen, E., Dangour, A. D., Elbourne, D., & Uauy, R. (2012). Grandparenting and psychosocial health among older Chileans: A longitudinal analysis.
Aging & Mental Health, 16, 1047–1057. doi:10.1080/13607863.2012.692766
Hand, C., Law, M., Hanna, S., Elliott, S., & McColl, M. A. (2012).Neighbourhood influences on participation in activities among older adults with chronic health conditions. Health & Place, 18, 869–876. doi:10.1016/j.healthplace.2012.03.004
Heinze, J. E., Kruger, D. J., Reischl, T. M., Cupal, S., & Zimmerman, M. A. (2015). Relationships among disease, social support, and perceived health: A

lifespan approach. American Journal of Community Psychology, 56(3–4), 268–279. doi:10.1007/s10464-015-9758-3
Herrero, J., & Gracia, E. (2007). Measuring perceived community support: Factorial structure, longitudinal invariance, and predictive validity of the PCSQ (Perceived Community Support Questionnaire). Journal of Community Psychology, 35(2), 197–217. doi:10.1002/(ISSN)1520-6629
Huenchuan, S., & Sosa, Z. (2003). Redes de apoyo y calidad de vida de personas mayores en Chile [Networks of support and quality of life among elderly chilean people]. Notas De Población, 77, 103–138.
Jensen, A. C., & Nielson, M. (2016). Lending a helping hand: Supporting siblings and well-being in mid to later life. The Gerontologist, 56(3), 495. doi:10.1093/geront/gnw162.1992
Jopp, D., & Rott, C. (2006). Adaptation in very old age: Exploring the role of resources, beliefs, and attitudes for centenarians' happiness. Psychology and Aging, 21(2), 266. doi:10.1037/0882-7974.21.2.266
Kahn, R. L., & Antonucci, T. C. (1980). Convoys over the life course: Attachment, roles, and social support. In P. B. Baltes & O. Brim (Eds.), Life-span development and behavior (Vol.3, pp. 254–283). New York, NY: Academic Press.
Lang, F. R., & Carstensen, L. L. (1994). Close emotional relationships in late life: Further support for proactive aging in the social domain. Psychology and Aging, 9, 315–324.
LaRocca, M. A., & Scogin, F. R. (2015). The effect of social support on quality of life in older adults receiving cognitive behavioral therapy. Clinical Gerontologist, 38(2), 131–148.
Li,H., Ji, Y., & Chen, T. (2014). The roles of different sources of social support on emotional wellbeing among Chinese elderly. PLoS ONE, 9(3), 90051. doi:10.1371/journal.pone.0090051
Li, T., & Zhang, Y. (2015). Social network types and the health of older adults: Exploring reciprocal associations. Social Science & Medicine, 130, 59–68. doi:10.1016/j.socscimed.2015.02.007
Lin, N. (1986). Conceptualizing Social Support. In N. Lin, A. Dean & W. M. Ensel (Eds.), Social Support, Life Events, and Depression (pp. 17-30). New York, NY: Academic Press.

Litwin, H., & Shiovitz-Ezra, S. (2011). Social network type and subjective well-being in a national sample of older Americans. The Gerontologist, 51(3), 379–388. doi:10.1093/geront/gnq094
MacKean, R., & Abbott-Chapman, J. (2012). Older people's perceived health and wellbeing: The contribution of peer-run community-based organisations. Health Sociology Review, 21(1), 47–57. doi:10.5172/hesr.2012.21.1.47
McDonough, K. E., & Davitt, J. K. (2011). It takes a Village: Community practice, social work, and aging-in-place. Journal of Gerontological Social Work, 54(5), 528–541. doi:10.1080/01634372.2011.581744
Melchiorre, M. G., Chiatti, C., Lamura, G., Torres-Gonzales, F., Stankunas, M., Lindert, J., Soares, J. F. (2013). Social support, socio-economic status, health and abuse among older people in seven European countries. PloS One, 8(1), e54856. doi:10.1371/journal.pone.0054856
Ministry of Social Development. (2015). Encuesta Nacional de Caracterización socioeconómica, CASEN [National Socioeconomic Characterization Survey]. Santiago of Chile: Ministry of Social Development.
Moorman, S. M., & Stokes, J. E. (2016). Solidarity in the grandparent–Adult grandchild relationship and trajectories of depressive symptoms. The Gerontologist, 56(3), 408–420.doi:10.1093/geront/gnu056
Mui, A. C. (1996). Depression among elderly Chinese immigrants: An exploratory study. Social Work, 41(6), 633–645.
Nguyen, A. W. (2017). Variations in social network type membership among older African Americans, Caribbean Blacks, and non-Hispanic Whites. Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 72(4), 716–726. doi:10.1093/geronb/gbx016
Pahl, R., & Pevalin, D. J. (2005). Between family and friends: A longitudinal study of friendship choice. The British Journal of Sociology, 56(3), 433–450. doi:10.1111/j.1468-4446.2005.00076.x
Palloni, A., McEniry, M., Wong, R., & Pelaez, M. (2006). The tide to come – Elderly health in Latin America and the Caribbean. Journal of Aging and Health, 18, 180–206. doi:10.1177/0898264305285664
Penninx, B. W., Van Tilburg, T., Kriegsman, D. M., Boeke, A. J. P., Deeg, D. J.,& Van Eijk, J. T. M. (1999). Social network, social support, and loneliness in

older persons with different chronic diseases. Journal of Aging and Health, 11(2), 151–168. doi:10.1177/089826439901100202
Peters, G. R., Hoyt, D. R., Babchuk, N., Kaiser, M., & Iijima, Y. (1987). Primary-group support systems of the aged. Research on Aging, 9, 392–416. doi:10.1177/0164027587093004
Pierce, G. R., Sarason, B. R., & Sarason, I. G. (1990). Integrating social support perspectives: Working models, personal relationships and situational factors. In S. Duck (Ed.), Personal relationships and social support. London, UK: Sage Publications.
Prieto-Flores, M. E., Fernández-Mayoralas, G., Forjaz, M. J., & Martinez-Martin, P. (2011). Residential satisfaction, sense of belonging and loneliness among older adults living in the community and in care facilities. Health & Place, 17(6), 1183–1190. doi:10.1016/j.healthplace.2011.08.012
Sánchez-Moreno, E. (2004). Collectivize social support? Elements for reconsidering the social dimension in the study of social support. The Spanish Journal of Psychology, 7(2), 124–134.
Seeman, T. E. (2000). Health promoting effects of friends and family on health outcomes in older adults. American Journal of Health Promotion, 14(6), 362–370. doi:10.4278/0890-1171-14.6.362
Serap, U., Erol, O., & Sut, N. (2016). Social support and quality of life among older adults. International Journal of Caring Sciences, 9(1), 249.
Silverstein, M., & Parker, M. G. (2002). Leisure activities and quality of life among the oldest old in Sweden. Research on Aging, 24(5), 528–547. doi:10.1177/0164027502245003
Taylor, R. J., & Chatters, L. M. (1991). Extended family networks of older black adults. Journal of Gerontology, 46(4), 210–217. doi:10.1093/geronj/46.4.S210
Thoits, P. A. (2011). Mechanisms linking social ties and support to physical and mental health. Journal of Health and Social Behavior, 52, 145–161. doi:10.1177/0022146510395592
Thomas, P. A. (2010). Is it better to give or to receive? Social support and the well-being of older adults. The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 65B(3), 351–357. doi:10.1093/geronb/gbp113
Van Bilsen, P. M. A., Hamers, J. P. H., Groot, W., & Spreeuwenberg, C. (2008). The use of community-based social services by elderly people at risk of

institutionalization: An evaluation. Health Policy, 87(3), 285–295. doi:10.1016/j.healthpol.2007.12.015
WHO (1998). The World Health Organization Quality of Life Assessment (WHOQOL): Development and General Psychometric Properties, Social Science & Medicine, 46, 1569–85.

Table 1. Participants' characteristics.

Variable	Categories	n (%)
Gender	Women	488 (63%)
	Men	289 (37%)
Age groups	60–69 years 430 (55%)	430 (55%)
	70–79 years	260 (34%)
	80 + years	87 (11%)
Marital status	Married or cohabiting	370 (48%)
	Single and/or divorced	228 (29%)
	Widow	179 (23%)
Residence	Urban (City of Arica)	677 (87%)
	Rural: Highlands	58 (8%)
	Rural: Highland Valleys	42 (5%)
Education	Primary School incomplete	70 (9%)
	Primary School	319 (41%)
	High School or vocational education	319 (41%)
	Higher education	69 (9%)
Employment status	Retired but still working	350 (45%)
	Retired	427 (55%)
Ethnicity	Indigenous	232 (30%)
	Nonindigenous	545 (70%)

Table 2. Pearson correlation coefficients for study variables.

	1	2	3	4	5	6	7	8	9	10	11	12	13	Mean	SD
1. Quality of life														35.87	3.50
2. Size of network	.172**													2.11	1.61
3. Income (monthly)	.197**	.176**												283.911	239490.94
4. Social support partner	.268**	-.114*	.094*											6.99	.910
5. Social support children	.171**	.522**	.178**	.087										9.17	3.44
6. Social support grandchildren	.070	.342**	.025	.094	.489**									8.10	2.98

7. Social support sibling	.131	.036	.104**	.200	-.036	.212								6.19	1.20
8. Social support family	.201*	.421**	.092*	.234	.373**	.033	.047							8.05	3.01
9. Social support friends	.226*	-.002	.069	.112	.345**	.042	.441	.456*						6.28	1.04
10.Community integration	.312**	.067	.125**	.159**	.070	.175	.124	.131	-.054					17.92	3.58
11. Community participation	.040	.059	.003	.049	.044	.059	.012	-.049	.136	.187**				17.48	2.35
12.Support from informal systems	.265**	-.005	.004	.169*	-.015	-.057	.209	.073	.074	.153**	.026			42.63	5.64
13.Support from formal systems	.121**	.053	.048	.006	.039	.096	.143	-.057	.085	.223**	.048	.217**		14.05	3.46

*p < .05, **p < .01

Note: Total monthly income (including pensions, family assistance, etc.). The income ranges between 68.000 CLP (112, 88 USD minimum value) and 2.000.000 CLP (3.320, 00 USD maximum value), and de mean is 471,29 USD (283.911 CLP).