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Social Support, Psychological Well-being, and Health Among the Elderly

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SOCIAL SUPPORT, PSYCHOLOGICAL WELL-BEING, AND HEALTH AMONG THE ELDERLY

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This article is based on the influence that participation in the Third Age University Program has on the health and well-being of the elderly and with the mediation of social support. The data were obtained from a longitudinal study of 147 elderly students of the Third Age University of Seville (Spain). The hypothesis was that the elders who belong to the program would have, as a consequence of their participation in it, better health, well-being, and social support. The results revealed the influence that social support exercises on well-being and, as a result, upon health.

In the last decade of the 20th century, elder studies have been characterized by putting more emphasis on the positive aspects of the elderly (potential of learning, wisdom, life satisfaction, happiness...) that integrate positive, competent, or successful aging (Gibson, 1995; Palmore, 1995). According to this model, an increased level of social activity helps to predict better health, well-being, and

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happiness and, as a consequence, increased longevity. Not only that, it allows a more realistic perception of the elderly. In such a perception, the changes of age are accepted, aging proceeds in a healthier manner, and there is a better quality of life.

In this model of positive aging, learning activities and permanent training compel the individual to remain mentally agile and active, justifying the increase in interest for elder education. For this reason, UNESCO (1995) has defended the necessary democratic access to higher education by elders. In this context of interest in education and lifelong learning, Third Age University Programs emerged at the end of the 20th century, making access to education and culture easier for the elderly.

From the perspective of the life span cycle and of the positive aging model, it becomes interesting to study the late adulthood development of those people involved in university activities. These educational activities have a positive influence on developmental aspects such as memory, attention, or cognitive yield in general (Camp, 1999). Nevertheless, the benefits can go beyond the improvement of some cognitive capacities and also affect other aspects such as well-being and health. In fact, educational activities have an important role in active aging (Ardelt, 2000; Dench & Regan, 2000; Glendenning, 1997). Perhaps the key element to emerge from this participation in educational contexts is the increase in social networks which, in turn, would have a positive influence on health and well-being.

Social support includes not only the structural characteristics of the social networks (the social context of the interactions) but also the functional aspects of the interactions between its members. Social relationships are shaped in networks of support, formed by the people who supply emotional support, companionship, instrumental help, and advice (Scott & Wenger, 1996). Functioning networks of support relate back to quality of life. In this way, social well-being is directly influenced by the number of stressors and resources that a person possesses, (Lin & Ensel, 1989), and it is a consequence of the interrelationship of physical, psychological, and social factors (Cava & Musitu, 2000). For this reason, favoring certain resources, such as social support, reverberates in the elders' social well-being, in their health, and in their quality of life, especially because social support can help them to confront stressful situations and protect them from the negative consequences of stress (Hanson & Carpenter, 1994). Authors such as Saranson, Saranson, and Gurung (2001) affirm that social support promotes health and that it is a clear indicator of longevity.

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The circumstances that surround this social support determine, to a great extent, the situations of loneliness and social isolation of the elderly. The privation of social relations brings with it a decrease in life satisfaction/quality of life. In fact, as Rowe and Kahn (1997) state, isolation is a risk factor for the health, upon which social support has positive effects. In spite of the significance of social support on health and psychological well-being, and of the greater needs of support that the elderly have as they go through the process of aging, the social support networks for the elderly diminish in relation to the rest of the population. This decrease in the support networks is usually the result of retirement, the loss of friends and relatives, or of the decreasing levels of health. The changes in health (presence of diseases, etc.) determine, in turn, changes in the support networks as people age. Relatives become their principal source of support and/or their formal caregivers more than friends or companions.

Currently the research in the psychology of aging demonstrates the relevance of social support for the psychological well-being and health of the elderly, but it doesn't circumscribe it to concrete contexts. And so it could be the university students, the object of this study, in which we analyze the psychological subjective and social well-being and its relation to health and to social networks. In spite of the increase in social needs in the elderly, as stated previously, the process of aging usually entails a reduction in the support networks. For this reason, any type of formal activity realized in a group, such as educational activities, would serve to augment social networks and may have a few very positive effects on the health and well-being of the elderly. In this respect, authors such as Grams & Albee (1995) state that it's necessary to promote preventive strategies that facilitate well-being in old age. This idea is supported by the United Nations, which recognizes the psychological well-being and health in the elderly as a universal social phenomenon of our time (Antonucci, Okorodudu, & Akiyama, 2002).

The present research had as its principal aim to analyze the consequences derived from the participation in the Third Age University Program. Concretely, the study tries to verify if the older people who attend the university program experience an increase in psychological well-being, an improvement in the perception of their health, and an increase in the availability of social support. On the other hand, we try to verify if the increase in social support derived from the participation in the educational activities is responsible for the improvement in the perception of their health and psychological well-being.

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METHOD

Participants

The sample of this study constituted 147 persons from Seville (Spain) over 55 years of age ($M = 2.0$; $SD = .819$, range: 54–59, 60–66 and 67 or more years). All of the participants were students enrolled in the Third Age University Program Aula de la Experiencia at the University of Seville during the academic year 1999–2000.

The distribution of the sample in relation to gender reveals a majority of women (62.5%) as opposed to men (37.5%). If the level of education is considered, 37.5% had a below average ability in reading and writing and have not completed the compulsory education. In turn, 44.3% have an average level of study, which implies having completed studies up to university level. And 19% have an education beyond a university degree. Most of the elders live with a partner (55.8%), as opposed to those who live alone (21.8%), with a relative (21%), or in a residence (1.4%). As for the employment, most of the sample are retired or close to retirement (56.6%). The others are unemployed (8.8%), still working (9.6%), housewives (15%), and in other situations (10%).

Instruments

The instruments of the current study were the Scale of Well-being –EBP (Sánchez-Cánovas, 1998), the General Health Questionnaire-GHQ 28 (Goldberg & Williams, 1996) and the Social Support Questionnaire (Parmar et al., 1998) (See Table 1).

The Scale of Well-being – EBP (Sánchez Cánovas, 1998) consists of 65 items segmented in four subscales. These are subjective psychological well-being, material well-being, labor well-being, and relationship with partner. In this study, we applied the first three scales. The first scales of subjective well-being and material well-being are numbered correlatively; so, at least these two always have to be applied together to offer a global measure.

The measure in every item is from 1 to 5 in a Likert-type scale. The reliability of the questionnaire is of $\alpha = 0.89$ in time 1 and of $\alpha = 0.88$ in time 2.

The General Health Questionnaire (Goldberg & Williams, 1996) has several versions for its application, from which we have chosen GHQ-28; the brief form. From this brief version, a series of subscales are obtained and a general factor. The latter can be conceptualized as the general way in which an individual perceives his/her current stage of health. The rest of the subscales correspond to the

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Table 1. Measure of well-being, health and social support

Variables	Authors	Instruments
Well-being	Sánchez Canovas (1998)	Scale of Well-being (EBP)
Subjective psychological well-being		
Material well-being		
Labor well-being		
Health	Goldberg & Williams (1996)	General Health Questionnaire (GHQ-28)
Somatic symptoms		
Anxiety/insomnia		
Social disfunction		
Depression		
Social support	Parmar, Harkness, Hidalgo, Axia, Welles-nystrom, Kolar, Pai y Super (1998)	Social Support Questionnaire
Sources of social support (relatives, friends, ...)		
Type of help (informative, emotional and/or economic)		

following factors: A factor, somatic symptoms derivative of mental disorders; B factor, anxiety/insomnia related to dream disorders and anxiety, worry, nervousness, etc; C factor, social dysfunction, changes in social behaviour; and D factor, serious depression, basically described by objective and subjective symptoms. The reliability of the questionnaire is of $\alpha = 0.87$ in time 1 and of $\alpha = 0.77$ in time 2.

The Social Support Questionnaire designed by Parmar et al. (1998) studies the sources of social support (relatives, friends, and professionals) of the subjects, as well as the type of help obtained from these sources of support (informative, emotional and/or economic). The questionnaire consists of several open items that result in the following categories: support received from children, from the husband or wife, from brothers or sisters, from family, from friends, from doctors, from a financial adviser or attorney, from professors and from the church. Aside from these eight categories, another global measure is obtained that corresponds to the perception of the support that the participants would like to receive in general terms.

Procedure

The application of this test battery belongs to a longitudinal study in which the first data application (T1) took place in November before the beginning of the first academic year of the university program and the second test battery (T2) was applied in May of

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the following year. The purpose of the time lag was to be able to study the changes between T1 and T2 as a consequence of the individuals' experience in the Aula de la Experiencia. We believe that the course of a complete academic year was a sufficient period of time to be able to observe some important changes in psychological and behavioral levels. A longer period of time (two or three academic years) could have the disadvantage of increasing the probability of the occurrence of diseases or important events that might have significant effects on the results. The analysis of lost cases did not reveal significant differences between the subjects that continued in T2 (147 pupils from a total of 163 matriculated persons initially) and those who only took part in the first collection of data.

RESULTS

Psychological Well-Being

The happiness or well-being of the older students enrolled in the university program was from 3.7 in Time 1. If we analyze the values of every subscale or factor, this reflects that the psychological subjective well-being ($M = 3.6$; $SD = .4$), the material well-being ($M = 3.9$; $SD = .9$) and the labor well-being ($M = 3.5$; $SD = .5$) were positive on the pretest. What is more, of the absolute values of each one of the three subscales, we obtained percentages that allowed us to establish comparisons with the general population. In this respect, the subjective psychological well-being whose value, from 107.95, corresponds to the 50th or 60th percentile depending on age; the material well-being with a value of 38.8 corresponds to the 65th percentile; and finally, the labor well-being with a value of 36.9 belongs to the 60th or 65th percentile, depending on age.

In the comparative analysis between T1 and T2, it was observed that the elder students of the university program of the University of Seville had a level of happiness or psychological general well-being that increased in Time 2 (in T1 $M = 3.8$; $SD = .5$ and in T2 $M = 4.0$; $SD = .4$), a difference that is statistically significant, $F\,(1{,}145 = 205)$, $p = .000$ (See Table 2).

Health

Data indicate that the level of health of the elder students from the university program is 3.3 in Time 1. An individual analysis of each factor provides evidence that depression was not a defining indicator

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Table 2. Descriptive statistics of EPB in time 1 and time 2

	Pretest (T1)		Postest (T2)		
	Mean	*SD*	Mean	*SD*	P
A – Subjective psychological well-being	3.6	.4	3.9	.4	.000
B – Material well-being	3.9	.7	3.9	.6	.000
C – Labour well-being	3.5	.5	4.1	.5	.000
Total	3.8	.5	4.0	.4	.000

of their level of health ($M = 3.6$; $SD = .5$). Neither were somatic symptoms ($M = 3.3$; $SD = .3$); worry or anxiety and other sleep disorders ($M = 3.3$; $SD = .5$); nor social disfunction ($M = 3.0$; $SD = .4$).

A comparative analysis between T1 and T2 of the elderly students who took part in this study indicates that they had a higher level of health and mental well-being in Time 2 (in T1 $M = 3.3$; $SD = .3$ and in T2 $M = 3.5$; $SD = .2$), a difference that is statistically significant, $F(1,145) = 162$, $p = .000$ (See Table 3).

Table 3. Descriptive statistics of health in T1 and T2

	Pretest (T1)		Postest (T2)		
	Mean	*SD*	Mean	*SD*	P
A – Somatic symptoms	3.3	.3	3.6	.2	.000
B – Anxiety/insomnia	3.2	.5	3.4	.4	.000
C – Social disfunction	3.0	.4	3.3	.2	.000
D – Depressión	3.6	.5	3.8	.2	.000
Total	3.3	.3	3.5	.2	.000

Social Support

If we compare the information from T1 and T2, it is observed that, in general, the support received by the elder students of the university program of the University of Seville increased in the Time 2 (in T1 $M = 31.1$; $SD = 2.2$; and in T2 $M = 32.7$; SD = 2.4), a statistically significant difference ($p = .000$). In fact, the sources of support that increased the most were the family, friends, professors, the doctor, and the financial adviser or attorney as opposed to the slight increase in support received from children, husband/wife, or brothers and sisters (See Table 4).

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Table 4. Descriptives statistics in T1 y T2 of social support

	Pretest (T1)		Postest (T2)	
Social support	**Mean**	***SD***	**Mean**	***SD***
Son/daughter	4.0	.9	4.0	1.1
Husband/wife	3.8	1.0	3.8	.9
Brothers and sisters	3.4	.7	3.4	.9
Relatives	3.3	.7	4.0	.7
Friends	4.0	.8	4.2	.7
Doctor	3.2	.5	3.4	.6
Financial adviser or attorney	3.0	.2	3.2	.6
Professors	3.0	.2	3.3	.6
Priest	3.0	.3	3.0	.3
General social support	31.1	2.2	32.7	2.4
Social support received in the last months (No. of cases)	3.2	1.33	6.0	2.25

In conclusion, it is necessary to emphasize the widespread improvements that took place in the support the aged students received in T2. The improvement was statistically significant in the majority of the cases, F (1,145 = 133, $p = .000$).

Not only during old age, but rather throughout the whole lifecycle, social relations fulfil very important function. Such functions include providing instrumental and emotional support in the hope that they contribute to individual psychological well-being. In turn, social isolation seems to be one of the principal factors of risk in the physical and psychological health of the elderly. The significant correlation existing between the score in social support and in the scale of psychological well-being in T1, $-r$ (146) = .26; $p < .01$ and in T2, $-r$ (146) = .18; $p < .05$ seem to support this idea. Nevertheless, having worked with correlations, we cannot extract conclusions related to causality. It is necessary to think that the influence might well be to the contrary. That is, those individuals with a higher psychological well-being would be more motivated and qualified to establish social relations. For this reason, they would demonstrate a larger system of social support. Having longitudinal information has allowed the verification of which of the two hypotheses—according to the sense of causality—is more correct.

A design of correlations of crossed delays offers decisive information on the matter. In this design we have two variables that are interrelated, x and y, which have been measured in two different moments (T1 and T2). The fundamental aspect of this technique consists of the comparison of the correlations of the variable x1 and y2 with the correlation between y1 and x2. The inference of causality

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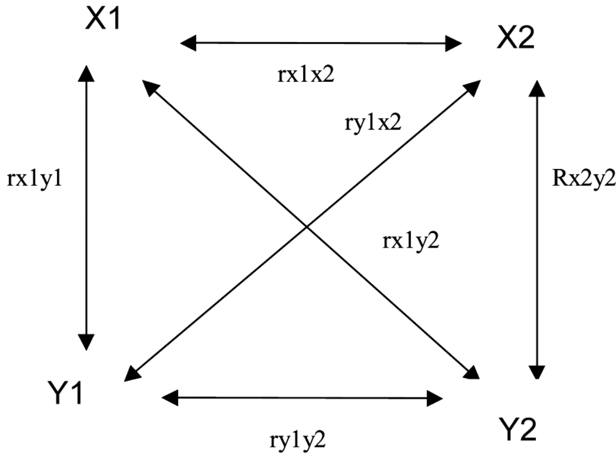

Figure 1. Correlations of crossed delays between X and Y.

among x and y is based on the sign +ó that takes the difference of correlations of crossed delays. That is to say, the sign of the difference among rx1, y2 and ry1, x2. If the difference is positive, there is reasonable indication that x is affecting y (see Figure 1).

In Table 5 and in Figure 2, we observe the correlations corresponding to the variables of social support and psychological well-being in both occasions in which they were measured. The information indicates that whereas a significant enough correlation exists between social support in T1 and psychological well-being in T2, r (146) = .25, $p < .01$, the correlation among psychological well-being in T1 and social support in T2 is low and does not turn out to be

Table 5. Correlation between social support, well-being and health

		1	2	3	4	5	6
Rho de Spearman	1. Psychological well-being in T1	1.000					
	2. Psychological well-being in T2	.896**	1.000				
	3. Health in T1	.179*	.171*	1.000			
	4. Health in T2	.204*	.233**	.767**	1.000		
	5. Social Support in T1	.257**	.241**	.089	.092	1.000	
	6. Social Support in t2	.159	.177*	.128	.120	.700**	1.000

**$p < .05$ (two-tailed).
*$p < .01$ (two tailed).

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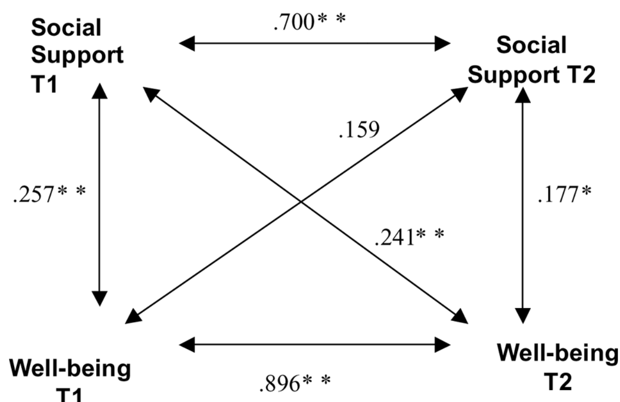

Figure 2. Correlations of crossed delays between social support and psychological well-being.

significant (r [146] = .6, $p < .05$). We are able, therefore, to conclude that it is most probable that it is the social support that is exercising its influence on psychological well-being.

Once we analyzed the relationship between social support and psychological well-being, we analyzed the relationship between the latter and the level of perceived health. To analyze the relation between both variables more thoroughly, we conducted an analysis of crossed delays. The significant correlation among psychological well-being and health in T1, $r\ (146) = .21, p < .05$; and in T2, $r\ (146) = .18; p < .05$ indicates that both variables are related. The correlations are of similar magnitude. Though psychological well-being is exercising a greater influence on health, we are not able to discard the hypothesis that health, in turn, influences psychological well-being. The importance of the interrelationship of psychological well-being and health emerges with this analysis, influencing one another and providing the elders the benefit of increased quality of life. In Figure 3 we are able to observe the correlations between psychological well-being and health (see Figure 3).

DISCUSSION

The present study explored the influence that participation in the university program Aula de la Experiencia has on the health and well-being of the elderly, and with the mediation of social support. The analysis of the results indicates that the psychological well-being of

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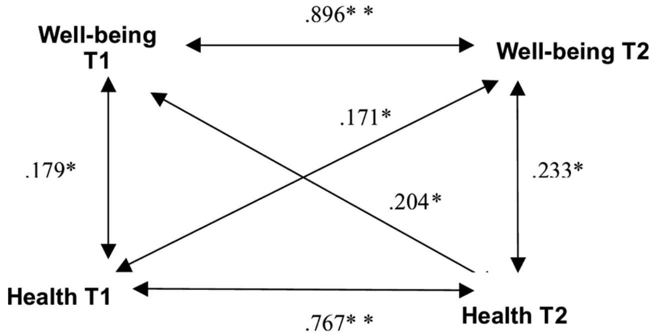

Figure 3. Correlations of crossed delays between health and psychological well-being.

the elders in the sample increased in Time 2; they feel happier. Not only that, the psychological health of the elder students also increased, despite the lack of somatic symptoms (dream disorders or anxiety, social dysfunction or depressive factors) presented at the beginning of Time 1. And finally, the level of social support of the students in the sample indicates that the social networks they had before entering the program increase in the Time 2.

Psychological Well-being

Psychological and social well-being are related to the quality of life in the elderly (Cava & Musitu, 2000). These conditions provide a good state of physical and psychological health (Lawton, 1991), which implies—with the help of resources such as social support—better adaptation and quality of life (Gracia, Herrero, & Musitu, 1995; Gracia, 1997). In this respect, individual factors, such as education, are strongly associated with the quality of life in/during old age. Data from the present study indicates that participation in a university program produces an increase in the psychological, material, and labor well being of the aged students which in Time 2 moves from the 50th or 65th percentile (in Time 1), to the 60th or 70th percentile.

So, as Grams and Albee (1995) affirm, it is necessary to promote preventive strategies that facilitate well-being in old age that favor greater longevity (Levy, Slade, Kunkel, & Kasl, 2002). In this respect, the effects of the university program Aula de la Experiencia are twofold: They are proactive or preventive in those subjects whose subjective well-being was normal or high the first time, and they

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are reactive, or interventionist, because of the improvement that is produced in those subjects whose well-being is seen to increase in the posttest. What is more, our information supports the idea of Fernandez-Ballesteros (2001) who indicates that among the factors that influence quality of life and subjective well-being, culture and educational opportunities are emphasized. Other authors such as Lawton, Winter, Kleban, and Ruckdeschel (1999), also state that one of the indicators of quality of life is psychological well-being, which is manifested in the contacts with friends and in the participation in different activities related to these positive relationships. These are circumstances that are found in the university programs for the elderly.

Health

A significant increase was observed in the psychological health of the elderly students in Time 2, which we interpret as being due to the positive effect the educational program had on the pupils. The average values obtained in each of the subscales reaffirms what was previously indicated. Depression, somatic symptoms, anxiety and/or insomnia, and social dysfunction are not factors of the psychological health of the elderly in the sample, and they clearly diminish after the educational experience.

Authors such as Castellón and Romero (2004) affirm that health is one of the principal conditions that determine the self-perception of the concept of quality of life. Likewise, the acquisition of personal resources to preserve one's health and to anticipate possible future problems (Montorio & Izal, 1998) can be positively influenced by intervention and/or educational programs. This idea that participation in educational activities is related to one's health, is supported by the research of Ferrer, Ribera, and Reig (1998). They conclude that the elders who are most interested in their investigation are those who evaluate his/her health most positively, they suffer from a fewer number of diseases, and they have a better perception of their current life.

On the other hand, changes in health determine, in turn, changes in social networks as the elder persons age. This way, in view of the results, we can conclude that the elderly students, having had good health, have networks of support that are maintained by their social-affective relationships. For what, in principal, we are able to suppose is that they do not need to be taken care of and do not need primary care. Nevertheless, this doesn't imply that they do not receive any informal help when it is needed. Actually, in the majority of the

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cases it is provided by the family (Escudero, Salan, Perez, Gonzalez, Sanchez, Fernandez, Lopez, & Lopez, 1999).

Social Support

The main results indicate that the family is the source of fundamental support in the elderly. Nevertheless, an increase is observed in other sources of support such as in friends, teachers, doctors and attorneys, or advisers. The level of social support of the older students in the sample from the pretest indicates that they already had different social networks upon having entered the university program.

Authors such as Rowe and Kahn (1997) affirm that social isolation is a health risk factor. Nevertheless, the elder students received more support in Time 2. Because of this finding, we can affirm that the students were not isolated socially, and that the educational program helped to generate new relationships in the elderly that were immersed in the program. In old age, social contact increases the level of satisfaction which, in turn, causes loneliness to diminish (Rubio & Aleixandre, 1997). These authors also promote the need to favour the social networks by way of associations, day centers, university programs, etc. that promote the acquisition of social skills. In accordance with this train of thought, the Third Age University programs provide unquestionable benefits to the elderly.

On the other hand, social support promotes a good state of health (Sarason et al., 2001) and it aides in adaptation. In this manner, social networks contribute to the positive perception of the health of the elderly, which contributes to a change in attitude towards old age that should be promoted more by way of educational programs (Klein, Council, & McGuire, 2005; McGuire, Klein, & Couper, 2005). In our study, we state this hypothesis since it reflects how social support exercises its influence on psychological well-being which, in turn, affects physical and mental health. In this way, our analysis of the correlations of crossed delays contributes to the understanding of the influence of certain variables over others. And so, we want to highlight the importance of the discovery garnered by our research having related social support causally to well-being and the latter to health. That is to say, the social contacts of the elder students of the educational program benefit their state of psychological welfare, which makes them more satisfied with themselves and with others—and this reverberates, in turn, in their perception of health. Therefore, we can affirm that the university program Aula de la Experiencia facilitates social support, which helps the elders to enjoy better psychological well-being and greater health. This finding of

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our study is very interesting since it supports the idea proposed by different authors (Lin & Ensel, 1989; Bazo, 1990; Scott & Wenger, 1996).

Through all that has been previously stated, we can conclude by affirming the influence that the participation in the university program Aula de la Experiencia has on the health and well-being of the elder students, with the mediation of social support. In this respect, the elderly persons who participate in the program improve, by way of the program, their subjective well-being, health, and social support. Not only that, it is the social support that promotes the psychological well-being of the elders that take part in university programs. In turn, the psychological well being has positive effects on their health. Our data will have to be contrasted with those of future investigations to see if the effects are confirmed or are due to other individual and/or social factors.

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