

Psychological status of students attending a university program for elders: an approach to anxiety and depression symptoms

Estado psicológico de los estudiantes que asisten a un programa universitario para personas mayores: enfoque en los síntomas de ansiedad y depresión

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Abstract

It is a fact that the global population is aging and Europe is the country with the largest proportion of population aged 60 years and over. Several studies have demonstrated the importance of social networks and social inclusion in the welfare of the elderly.

The aim of the current study was to assess psychological status in a group of students participating in a university-based program for retired/elderly people. The hypothesis proposed was that participation in the program would have a positive impact on anxiety and depression symptoms.

45 individuals attending a program for retired/elderly people at the University of the Basque Country in Bilbao, Spain, were assessed with the Brief Symptom Inventory (BSI). The assessment was done prior to the participation in the University-based curriculum, as well as eight months after. Socio-demographic data were also collected.

Changes from time 1 to time 2 evaluations in total and factor scores for key dimensions of the BSI were analyzed. For doing so, T tests and multifactorial analyses -particularly focused on anxiety and depression symptoms- were used.

A positive change following participation in the program was observed in most dimensions of the BSI, particularly in measures of anxiety and depression symptoms.

The provision of special university-based programs for elderly/retired people may lead to positive outcomes in psychological status.

Key words: healthy aging; psychology; anxiety; depression.

Resumen

Es cierto que la población mundial está envejeciendo. Europa es el país que tiene la mayor proporción de población de 60 años o más. En este sentido, diferentes estudios demuestran la importancia de las redes sociales y la inclusión social en el bienestar de las personas mayores.

El objetivo del estudio es evaluar el estado psicológico de un grupo de estudiantes que participan en un programa universitario para personas mayores o jubiladas. La hipótesis de trabajo fue que la participación en el programa tendría un impacto positivo en los síntomas de ansiedad y depresión de los estudiantes.

45 personas que asistían a un programa para personas mayores/jubiladas en la Universidad del País Vasco en Bilbao, España, fueron evaluadas antes y después de ocho meses de participación en el currículo universitario, con el Brief Symptom Inventory (BSI). También se recogieron datos sociodemográficos.

Se analizaron los cambios de las evaluaciones de tiempo 1 a tiempo 2 en las puntuaciones totales y factoriales para las dimensiones clave de las partidas del balance mediante pruebas T y análisis multifactoriales, con especial atención en los síntomas de ansiedad y depresión.

Se observó un cambio positivo tras la participación en el programa en la mayoría de las dimensiones, especialmente en las medidas de ansiedad y síntomas de depresión.

La provisión de programas especiales basados en la universidad para personas mayores/jubiladas puede conducir a resultados positivos en el estado psicológico de las personas mayores.

Palabras clave: envejecimiento saludable, psicología, ansiedad, depresión.

Introduction

The population of individuals above the age of 60 will double by 2050 and will experience a threefold increase by 2100. Nowadays, population aging is one of the most important and social phenomena (Wiktorowicz, 2017). Europe has the largest proportion of the world population aged 60 years and over. In the Basque Country, Spain, in 2016, 29% of the population was 60 years or older.

Although depression and anxiety are common psychological symptoms reported by elderly people, older individuals generally have lower rates of depressive and anxiety disorders than younger adults (Blazer & Hybels, 2005; Blazer, 2010; Jorm, 2000).

Depressive symptoms in older individuals may be related at least in part to the losses and challenges associated with the aging process. In clinical settings, this may lead to complacency or neglect, as such symptoms in elders may be viewed as “justifiable” or “understandable” (Burroughs et al., 2006).

While pharmacological treatments remain the first-order approach for the treatment of depression and anxiety disorders in older people, more efforts towards prevention and attenuation of such symptoms should be made. Non-pharmacological interventions have been effective for these populations. Moreover, strategies designed to improve the inclusion and participation of these elders in creative activities should be encouraged (Laidlaw et al., 2003).

Anxiety symptoms are quite common among the elderly (Bryant, Jackson, & Ames, 2008) and often coexist with depression symptoms. For that reason, it may be difficult to disentangle them from one another. Anxiety in older people can have negative consequences on physical and emotional health, but this population rarely seek help for such symptoms and practitioners tend to pay little attention to them (Scott, Mackenzie, Chipperfield, & Sareen, 2010; Wetherell, Lenze, & Stanley, 2005). Anxiety symptoms can also complicate physical illness. So, addressing and attenuating these symptoms may bring significant benefits (Laidlaw et al., 2003).

Several studies have demonstrated the importance of social networks and social inclusion for the mental well-being of the elderly. For this reason, there is an urgent need to create more resources for people in order to improve healthy aging as well as active and inclusive participation in society.

With the increase in the number of elderly people in our society, more and more retirees seek new opportunities and options to spend free time. Even if they get to this life stage in good physical and mental health, it is important to make efforts to keep them well. Working and developing creative activities can be an integral part in the lives of many elderly people. This kind of activities are a key source for their identity and the foundation of social networks, as retirement can be a difficult time of transition which brings significant stress (Buendía, 1994).

During retirement, the person is usually less active and enters the “old age” threshold (Pérez, 2006). There could be also a breakdown of social networks. So, there may be a tendency for isolation (Téllez & Jubilación, 2004). All these elements can affect the elders’ mental health. Hence, it is important to create new opportunities for social engagement.

Specific Interventions to Help Retired People: During the last two decades, a very wide range of programs have been developed in order to prepare people for retirement. These programs address issues such as free time, family relationships and the degree of satisfaction in this new stage of life. These programs are positively valued by participants who feel more prepared to deal with retirement and have high levels of satisfaction related to these interventions (Midanik, Soghikian, Ransom, & Tekawa, 1995). A recent research on the problems linked to aging puts emphasis on preventive approaches (Eum, Yim, & Choi, 2014).

“The Classrooms of Experience”: in the Basque Country, located in northern Spain, the state university (University of the Basque Country) has created a free program for elderly/retired people called “the classrooms of experience.” The only entry requirements are being older than 55 years and being retired, regardless of previous level of education. This yields a very heterogeneous population of elders and retirees. The 4-year curriculum includes subjects in the humanities such as history, psychology, arts and politics, among others. The college degree awarded to these individuals is a degree in “Human Sciences.” Participants achieve expertise in various academic subjects. Moreover, the program puts emphasis on enhanced socialization, personal enrichment and improvement of mental health status. The purpose is to enhance their sense of cultural identity, make them feel active, creative, and innovative, as well as improving their quality of life and meeting new people (Rodríguez, Hernandis, & Chuliá, 2007). A previous study- also developed in Spain- reported that participation in these activities makes retirees feel better and more useful. Besides, it establishes these programs bring a sense of pride that enhances their self-esteem (Sancho, Blasco, Martínez-Mir, & Palmero, 2002).

For the United Nations (2002), learning and aging go hand in hand and are priority aspects to be taken care of during this stage. In other studies, it has been observed that universities for older people significantly improved their self-perception of aging as well as their emotional balance. Besides, it has been established these programs significantly reduce negative affection (Fernández-Ballesteros et al., 2013). Studies by Ordóñez, Tavares, & Cachioni (2011) also showed that college programs for seniors help them to protect against depressive symptoms. For this reason, a study was carried out at the University program for retired/elderly people of the University of the Basque Country. This study intended to check to whether the psychological symptoms were improved, as previously demonstrated by other research (Fernández-Ballesteros et al., 2013).

The aim of this study was to assess psychological status before and after being exposed to the university program, particularly focusing on assessment and change in depression and anxiety symptoms. The hypothesis proposed was that participating in the classroom experience will have a positive impact on depression and anxiety symptoms.

Methods

Participants

95 students entering the first course in the university were given information on the study and explained the procedure the first day they attended their class. 45 students agreed to participate, a response rate just below 50%. The inclusion criteria were that the participants were over 18 years of age and had no difficulties in reading and writing. The exclusion criterion was that people with severe mental illness could not participate. Participation in the study was voluntary and students signed an informed consent before participating in the study. Therefore, the procedure followed is in compliance with the recommendations of the World Medical Association, Declaration of Helsinki.

Instruments

The BSI (Brief Symptom Inventory) (Derogatis & Melisaratos, 1983) was used. This is a quick measure of psychological status. It is derived from the SCL-90-R (Derogatis & Savitz, 2000) and taps nine symptom-dimensions (somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation and psychoticism). The BSI has been used both in clinical and non-clinical populations and it is considered a good measure of psychological distress.

The reason why this instrument was chosen was that it measured psychological symptomatology in general and within this, two symptoms of interest to our study: depression and anxiety. On the one hand, it measures the depressive symptomatology, taking into account the depressive situation that the person may have at the time the test is completed. On the other hand, it measures the anxiety state of the person. That is to say, the anxiety that the person has at the time he or she fills in the instrument. Therefore, the BSI is an instrument capable of perceiving the psychological situation the individual is experiencing at a given moment, and in turn, it has the sensitivity to perceive symptomatic changes in time.

Sociodemographic data -gender, age, marital status, number of children, type of household and level of education- were also collected.

Evaluation

The BSI was self-administered. A clinician provided brief instructions and was available in case there were questions or doubts about the items or the process.

The methodology used was test-retest. The first test was administered on the first day of the first course, and the second test was given about eight months later, as they ended their first course. There was an eight-month period between the first and the second evaluation because it was the period of time that the first year of the university for older people lasted.

For the evaluation of the participants, the same self-report test was used in two moments. Even so, this aspect does not involve learning to respond, as time contributes to reducing learning bias. As mentioned above, it took eight months from the first test to the second test, so it was difficult for people to remember the answers from the first test in the second test. In addition, the test was anonymous and self-administered, so that the people who answered the tests would not be identified by the evaluators, and this would make them feel free to answer the test without any response bias. The way to relate the test with the retest of each person was through an anonymous code that each person introduced in his own questionnaire.

Statistical analyses

Descriptive statistics of the BSI dimensions were carried out. The T test was also performed to observe significant changes between the test and the retest. Correlations were made between the improvements in BSI symptoms.

Results

We collected sociodemographic and BSI data on 45 students participating in the “classrooms of the experience” (Table 1). The average age was of 63.4 years. The majority were females (68, 9%). About half (46, 7%) were married and level of education was relatively high.

Table 1. Sociodemographic variables of 45 students

Age mean		63,4 years	
Gender	Women	N= 31	68,9%
	Men	N= 14	31,1%
Type of family life	Alone	N= 16	35,5%
	With partner	N= 20	44,5%
	With relatives	N= 9	20%
Marital status	Single	N= 10	22,2%
	Married	N= 21	46,7%
	Separated/divorced	N= 6	13,3%
	Widow	N= 8	17,8%
Number of sons and daughters	None	N= 12	26,7%
	One	N= 12	26,7%
	Two	N= 19	42,2%
Level of education	More than two	N= 2	4,4%
	Primary education	N= 8	17,7%
	High school	N= 12	26,7%
	Job training	N= 9	20%
	College	N=16	35,6%

Table 2 shows the descriptive statistics of the sample before beginning the first course of the “classrooms of the experience” (pre) and after finishing the first course (post). These results show that scores were lower on all BSI scales at the end of the first year of college.

Table 2. Descriptive statistics of the results of the BSI scale

Scale	Minimum Pre-Post		Maximum Pre-Post		Mean Pre-Post		Standard deviation Pre-Post		Variance Pre-Post	
Somatization	0	0	17	12	2,93	2,53	3,17	2,77	10,06	7,66
Obsession-compulsion	0	0	22	20	5,16	4,64	4,08	3,80	16,68	14,42
Interpersonal sensitivity	0	0	9	9	2,04	1,56	2,23	1,82	4,95	3,30
Depression	0	0	11	10	2,93	2,09	2,92	2,13	8,52	4,54
Anxiety	0	0	20	10	3,84	2,29	4,10	1,98	16,77	3,94
Hostility	0	0	14	7	2,42	1,58	2,52	1,66	6,34	2,75
Phobic anxiety	0	0	6	5	0,89	0,60	1,48	1,30	2,19	1,70
Paranoid ideation	0	0	12	7	2,82	1,87	2,83	1,88	8,01	3,53
Psychoticism	0	0	10	6	1,96	1,47	1,98	1,60	3,91	2,57

Student’s T test was applied to see if changes in BSI scores before and after the first university course changed significantly. The p values of table 3 show a significant improvement in various symptoms: interpersonal sensibility, depression, anxiety, hostility, phobic anxiety and paranoid ideation.

Table 3. Improvement in symptoms BSI

BSI dimension	The Student T statistic analysis
Interpersonal sensitivity	t=2.0264, p=0.0488
Depression	t=2.3865, p=0.0214
Anxiety	t=3.7811, p=0.0005
Hostility	t=3.1323, p=0.0031
Phobic anxiety	t=2.1653, p=0.0358
Paranoid ideation	t=3.4727, p=0.0012

Table 4 shows the correlations between anxiety improvement and other BSI dimensions. As it can be observed, there is a significant correlation between the improvement of the dimension of anxiety and somatization, obsession-compulsion, interpersonal sensitivity, depression, hostility and paranoid ideation dimensions.

Table 4. Pearson Correlations between the improvement of anxiety and other symptoms of BSI

BSI dimension	Anxiety
Somatization	r=0.3090 p=0.0389
Obsession-compulsion	r=0.4515 p=0.0019
Interpersonal sensitivity	r=0.5446 p=0.0001
Depression	r=0.5582 p=0.0001
Hostility	r=0.5186 p= 0.0003
Paranoid ideation	r=0.0411 p=0.0050

As can be seen in table 5 there was a significant correlation between the improvement of the dimension of depression and psychoticism, hostility, anxiety, somatization, obsession-compulsion and interpersonal sensitivity.

Table 5. *Pearson Correlations between the improvement of depression and other symptoms of BSI*

BSI dimension	Depression
Psychoticism	$r=0.4554, p=0.0017$
Hostility	$r=0.6613, p=0.0000$
Anxiety	$r=0.5582, p=0.0001$
Somatization	$r=0.6072, p=0.0000$
Obsession-compulsion	$r=0.5888, p=0.0000$
Interpersonal sensitivity	$r=0.6118, p=0.0000$

Discussion

There was a follow-up of the first-year students of the “classrooms of the experience” program at the University of the Basque Country for about eight months, and significant changes were observed in their BSI items measuring psychological distress. There was a general decrease of the symptomatology measured by the BSI. This confirms what has been observed in other studies: University for Older People reduces the psychological symptoms (Fernández-Ballesteros et al., 2013).

In addition, there were significant changes in most of the symptoms. Results demonstrate statistically significant improvement in interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety and paranoid ideation symptoms. These results confirm the importance of non-pharmacological intervention and the efficacy of other types of activities in improving psychological symptoms (Laidlaw et al., 2003).

Since anxiety and depression are the most prevalent psychological symptoms in elderly people (Blazer & Hybels, 2005; Blazer, 2010; Jorm, 2000), correlations of these symptoms with others were made to see if improvement in anxiety and depression led to improvement in other psychological symptoms.

The results of this study showed that, effectively, changes in the various symptom dimensions appeared to be closely related to changes in anxiety and depressive symptoms. To be more precise, improvement in the symptoms of anxiety was closely linked to improvement in the symptoms' somatization, obsession-compulsion, interpersonal sensitivity, depression, hostility and paranoid ideation. Also, depressive symptoms were significantly correlated with the symptoms of psychoticism, hostility, anxiety, somatization, obsession-compulsion and interpersonal sensitivity. This demonstrates that paying attention to the improvement of anxiety and depression symptoms is linked to the improvement of other physical and psychological symptoms (Scott, Mackenzie, Chipperfield & Sareen, 2010; Wetherell, Lenze & Stanley, 2005).

Thus, it seems that being part of a group, having a daily activity to engage in and the intellectual effort that supposes being part of a university experience are factors that may influence positively the student's mental health status. In this study, a close correlation of anxiety and depression symptoms with other psychological symptoms was shown, which supports previous observations (Blazer & Hybels, 2005; Blazer, 2010; Jorm, 2000). Consequently, it can be established that intervening primarily on depression/anxiety may lead to overall improvement in other dimensions (somatization, obsessive-compulsive, interpersonal sensitivity, hostility, paranoid ideation and psychoticism).

The “classrooms of the experience” program is not a psychotherapeutic intervention per se, but it seems to have a positive impact on many psychological and functional dimensions through

which participants acquire a sense of empowerment, self-confidence and self-esteem and are able to confront previously avoided activities and tasks. Attending university can be a key to older people's identity, as well as the basis for forming social networks and coping with the difficulties linked to this stage of life (Buendía, 1994).

Conclusions

The current study has shown that in just eight months the psychological status of elderly/retired people can be improved through participation in a college-based special curriculum. It supports the creation of new educational resources for older/retired people as an important intervention that will benefit mental health. University activities are recommended because the cognitive, emotional, and social work done at universities significantly improves mental health (Fernandez-Ballesteros et al., 2013). In fact, mental and physical health are closely related. So, as recommended by the United Nations (2002), aging and learning new knowledge must go hand in hand.

At the University of the Basque Country, there are long waiting lists each year to enroll in these programs. It demonstrates the need to create more university resources. In addition, considering that the population is aging (Wiktorowicz, 2017), the need for these resources is going to grow even more.

In order to promote the creation of more university programs for retired /elderly people, it is necessary to carry out more research on this subject. Although our research may contribute to the arguments in favor of these programs, it has certain limitations that will have to be addressed in future studies.

One of the limitations of the study is the lack of information about the participants. Although none of the individuals reported a history of mental illness, more than 15% of the participants had relatively high scores on balance items at the baseline. Therefore, it may be that there were people with undeclared psychological problems in the study, and we were not working only with a non-clinical population.

On the other hand, it would also be interesting to have more information on the bio-psycho-social situation of the participants, since it cannot be concluded that the symptomatic improvement is due solely to the fact of attending university for the elderly.

Therefore, for future studies it is recommended to extend the battery of tests, including more information such as physical and psychological diseases, social activities, family situation and attribution of symptomatic improvement to the university by the participants. It's also recommended to make an annual follow-up to observe if the symptoms are maintained, improved or worsen, taking into account the variables already mentioned.

Conflict of interest

The authors declare that they have no conflict of interest.

References

- Blazer, D. G. (2010). Protection from late life depression. *International Psychogeriatrics*, 22(2), 171-173. doi:10.1017/S1041610209 990895
- Blazer, D. G., & Hybels, C. F. (2005). Origins of depression in later life. *Psychological Medicine*, 35(9), 1241-1252. doi:10.1017/S 0033291705004411
- Bryant, C., Jackson, H., & Ames, D. (2008). The prevalence of anxiety in older adults: Methodological issues and a review of the literature. *Journal of Affective Disorders*, 109(3), 233-250. doi:10.1016/j.jad.2007.11. 008
- Buendía, J. (1994). *Envejecimiento y psicología de la salud*. España: Siglo XXI.

- Burroughs, H., Lovell, K., Morley, M., Baldwin, R., Burns, A., & Chew-Graham, C. (2006). 'Justifiable depression': How primary care professionals and patients view late-life depression? A qualitative study. *Family Practice, 23*(3), 369-377. doi: 10.1093/fampra/cmi115
- Derogatis, L. R., & Savitz, K. L. (2000). The SCL-90-R and Brief Symptom Inventory (BSI) in primary care. In M. E. Maruish (Ed.), *Handbook of psychological assessment in primary care settings* (p. 297-334). Lawrence Erlbaum Associates Publishers.
- Eum, Y., Yim, J., & Choi, W. (2014). Elderly health and literature therapy: A theoretical review. *The Tohoku Journal of Experimental Medicine, 232*(2), 79-83. doi:10.1620/tjem. 232.79
- Fernández-Ballesteros Rocio, Mariagovanna Caprara, Schettini Rocio, Antonio Bustillos, Mendoza-Núñez Víctor, Teresa Orosa, Rosita Kornfeld (2013). Effects of University Programs for Older Adults: Changes in Cultural and Group Stereotypes, self-Perception of Aging, and Emotional Balance. *Educational Gerontology, 39* (2), 119-19.
- Fernández-Ballesteros, R., Caprara, M., Schettini, R., Bustillos, A., Mendoza-Nunez, V., Orosa, T., Kornfeld., R. ... Zamarrón. M. D. (2013) Effects of University Programs for Older Adults: Changes in Cultural and Group Stereotype, Self-Perception of Aging, and Emotional Balance. *Educational Gerontology, 39* (2), 119-131. doi: 10.1080/036012 77. 2012.699817
- Jorm, A. F. (2000). Does old age reduce the risk of anxiety and depression? A review of epidemiological studies across the adult life span. *Psychological Medicine, 30*(1), 11-22. doi: 10.1017/s0033291799001452
- Laidlaw, K., Thompson, L. W., Gallagher-Thompson, D., & Dick-Siskin, L. (2003). *Cognitive behaviour therapy with older people*. doi:10.1002/9780470713402
- Midanik, L. T., Soghikian, K., Ransom, L. J., & Tekawa, I. S. (1995). The effect of retirement on mental health and health behaviors: The Kaiser Permanente retirement study. *The Journals of Gerontology Series B: Psycho-logical Sciences and Social Sciences, 50*(1), S59-S61.
- Ordoñez, T. N., Tavares, S. S., & Cachioni, M. (2011). Síntomas depresivos en adultos mayores participantes de una universidad abierta de la tercera edad. *Revista Española de Geriatría y Gerontología, 46*(5), 250-255.
- Ortiz, L. P. (2006). Jubilación, género y envejecimiento. Giró, J.: Envejecimiento Activo, Envejecimiento En Positivo. Logroño: Universidad De La Rioja. Servicio De Publicaciones, 89-112.
- Pérez., L. (2006). Jubilación, género y envejecimiento. Logroño: Universidad de La Rioja.
- Rodríguez, J. M., Hernandis, S. P., & Chuliá, M. Á T. (2007). Motivaciones y expectativas de los estudiantes mayores de 55 años en los programas universitarios. *Revista Española De Geriatría y Gerontología, 42*(3), 158-166.
- Sancho, C., Blasco, M., Martínez-Mir, R., & Palmero, F. (2002). Análisis de la motivación para el estudio en adultos mayores. REME-*Revista Electrónica De Motivación Y Emoción, Castellón De La Plana, España, 5*(10). Recuperado de <http://reme.uji.es/articulos/apalmf8342905102/texto.html>
- Scott, T., Mackenzie, C. S., Chipperfield, J. G., & Sareen, J. (2010). Mental health service use among Canadian older adults with anxiety disorders and clinically significant anxiety symptoms. *Aging & Mental Health, 14*(7), 790-800.
- Téllez, V., & Jubilación, R. D. (2004). Envejecimiento y espacios alternativos de participación social. Santiago, 104, 102-105.
- United Nations. (2002). *II international plan of action on ageing*. New York, NY: Author.
- Wetherell, J. L., Lenze, E. J., & Stanley, M. A. (2005). Evidence-based treatment of geriatric anxiety disorders. *The Psychiatric Clinics of North America, 28*(4), 871-96, ix. doi: S0193-953X(05)00077-8 [pii]
- Wiktorowicz, J. (2017) Extending Working Life: Which Competencies are Crucial in Near-Retirement Age? *Journal of Adult Development*. Retrieved from <https://doi.org/10.1007/s10804-017-9274-9>