

Older Adults' Education and Its Relation to Quality of Life: An Italian Example

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Abstract

Quality of Life (QoL) is a relevant topic for researchers and social policy makers developing educational programs for older adults. Such programs might be aimed at maintaining people's wellbeing: in fact, when retired, people have more time for activities that may increase their satisfaction in the moment of adaptation to old age. In this perspective, the Universities of the Third Age (UTAs) offer leisure, educational and social activities. The present study was carried out at the *Libera Università della Terza Età* (LUTE) in the town of Milazzo, Southern Italy, with the objective to evaluate the QoL for the people enrolled and the factors contributing to make such initiative successful. Participants to the study ($n = 340$) were required to fill a questionnaire asking their generalities and information about the educational initiatives followed. QoL was assessed through the administration of the WHOQoL Bref. The relationship between QoL, socio economic variables and the items of the WHOQoL Bref was tested through the estimation of an ordered logit model. Instead, the individuals' experiences at the LUTE were the focus of a correlation analysis, that considered specifically the level of satisfaction for the activities performed. The relevance of the results may be appreciated considering that the courses and educational initiatives can count on the contribution offered by volunteers. Hence, a positive outcome in terms of QoL is obtained at null or very low costs. Overall, educational initiatives directed to older adults should be actively promoted, given their implications, both from a social and economic perspective.

Keywords: Quality of Life (QoL), adult education, educational and leisure activities, social participation, Universities of the Third Age (UTAs)

Key Practitioners Message

- The opportunity to attend and to take part of educational and leisure activities may increase individual QoL especially for the older adults.
- People joining institutions such as the Universities of the Third Age (UTAs) may be involved in the activities organized by the UTAs both as learners, lecturers and volunteers helping in the course management.
- In the case study examined, a positive outcome in terms of quality of life is obtained at very low costs, since the institution relies on the contribution offered by volunteers.

In the last decades there has been a growing interest towards the concept of Quality of Life (QoL) in many areas of research, such as psychology, sociology, economics, philosophy, etc. (Barcaccia et al., 2013).

The issue of guaranteeing a high QoL must be coupled with social changes occurring in many

industrialized countries: the population is gradually aging and this circumstance has economic implications in terms of health expenditure and long term care, that is often required (Brenna & Gitto, 2017). At the end of 2015, people aged 65 or older accounted for more than 20% of the total population in three countries: Germany, Italy and

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Japan. This figure is expected to rise from three to thirteen countries by 2020, and to thirty-four countries by 2013 (Borji, 2016).

A small increase of life expectancy generates a significant higher total health expenditure per capita. Since the latter might grow faster than Gross Domestic Product (GDP) per capita, the share of health expenditures to GDP is also expected to increase (Grammenos, 2005). However, if appropriate measures are implemented in time, population ageing may not inevitably lead to significantly higher health care expenditure (Rechel, Doyle, Grundy & McKee, 2009).

In order to reduce the burden due to increasingly ageing population, the approach of active ageing, that concerns health promotion, personal commitment and social activities, should be adopted and *ad hoc* programs implemented.

A successful active aging includes three main components: first of all, there is a low probability of disease and disease-related disability; then, older adults have a high cognitive and physical functional capacity, compared with people aging in a passive way; finally, the third aspect is represented by an active engagement with life. All the three terms are related to each other and the relationship among them is, to some extent, hierarchical. While the absence of disease and the maintenance of functional capacities characterize successful aging, it is their combination with active engagement that fully represents the concept (Rowe & Khan, 1997).

Successful aging is associated to formal and informal social activities for the older adults (Huxhold, Fiori & Windsor, 2013). The analysis of social activities performed by the adult population is of interest for social policy makers developing programs aimed at maintaining people's satisfaction and happiness.

The effects of such activities on life satisfaction, as an indicator of the overall QoL, health and social integration (Wahrendorf & Siegrist 2010) are treated in those studies examining the effects of carrying out activities at all ages. In particular, during old age, the strategy that sees the adaptation to aging is associated to higher levels of in-

volvement in social and leisure activities (Adams, Leibbrandt & Moon, 2011; Janke, Payne, & Van Puymbroeck, 2008). Personal factors, such as people's health and behavioral abilities, together with the circumstance of being occupied are crucial in maintaining a good level of QoL (Levasseur, St-Cyr Tribble, & Desrosiers, 2009).

Through participation in leisure activities, people can build social relationships, feel positive emotions, acquire additional skills and knowledge (Brajša-Žganec, Merkaš & Šverko, 2010; Escuder Mollon & Cabedo, 2014, p. 10). It has been demonstrated that, at any age, isolation can cause undesirable negative consequences, such as irrational thoughts or disturbed behavior. Hence, individuals need to share activities with the other people around them (National Institute of Aging, 2015).

In particular, undertaking educational tasks and other activities is seen as a way of staying young. While learning is interpreted as something that young people did for their future, the scenario is modified in adult age. In fact, when retired, adults have more time for other activities apart from work (Nimrod, 2007), and these activities may help them in adapting to old age (Adams, Leibbrandt, & Moon, 2011; Santos, Pavarini, Brigola, Souza Orlando, & Inouye, 2014).

Older adults or retired people are willing to learn for various reasons: they may want to increase their knowledge about a given subject; to know more about the place where they live and its history; to understand modern society; to avoid exclusion; to remain active and creative. In this context, the term "adult learner", describes any adult who is involved in a systematic learning process, be it formal or informal. The adult learner is autonomous and has already accumulated a vast knowledge through his/her own experiences of life. Learners' opinions, values and beliefs are their defining characteristics, transferred to the learning situations (Kapur, 2015). The adult learners consider themselves as main actors of their own learning: they attend classes because they want to and are, therefore, the first ones to be interested in receiving high quality education.

In this perspective, in the last 30-40 years the Universities of the Third Age (UTAs) have developed in many industrialized countries (Formosa, 2014). The UTAs have been described both as an idea and a "movement", as each institution has a local foundation and relatively unique features. Whilst some UTAs are connected to traditional universities, others are autonomous and their activities depend on the volunteers' efforts.

Various studies outline how these institutions bring about direct health benefits for their members (Sonati, Modeneze, Vilarta, Maciel, Boccaletto, & da Silva, 2011). However, at present, there is no rigorous research investigating the relationship between UTAs membership, on the one hand, and improvement in physical and cognitive wellbeing, on the other hand: rather, there are many studies showing how continued mental stimulation in later life helps learners to maintain their physical and cognitive health status (Cohen, 2006).

The literature on the topic often refers to single case studies: a study of leisure and free time activities in a sample of adult population carried out in Spain (Lardies-Bosque et al., 2015) confirm the positive effects of active ageing. Other studies have been carried out within European projects (Zielinska-Wieczkowska, Kedziora-Kornatowska, & Ciemnoczowski, 2011; Escuder-Mollon & Cabedo, 2014).

In Italy the majority of informal courses and educational activities is offered to the aging population by the UTAs and, to a minor extent, by voluntary organizations. Some of the UTAs are organized on a national scale and associated with some networks, as, for example, *Federuni* (that counts about 250 senior universities in Italy) or the *Associazione per l'Autogestione dei SERVIZI e la solidarietà* (AUSER), the national older people organization. Although the UTAs are, by definition, directed specifically at senior citizens, they are open to people of all ages (Principi & Lamura, 2009).

The present paper is aimed at discussing these issues, looking at a successful case study in Southern Italy: although the identification of a causal relationship among the attendance to social and educational activities and the improvement in the re-

ported QoL is not the purpose of this paper, some considerations of the positive impact on attending UTAs on healthy ageing arise from the study and call for further deepening in this direction.

Despite their limitations, the results obtained by observing a single reality underline the positive effects of learning in adulthood, confirm some insights of the literature and emphasize the critical aspects to take into account at the organizational level.

Methods

The study was designed as a cross-sectional and was aimed at evaluating the QoL for the individuals enrolled in the *Libera Università per la Terza Età* (LUTE) in Milazzo, Sicily, Italy. The LUTE was established in 2011 and adheres to the AUSER, the Italian association for active aging. It organizes its activities exclusively on the basis of volunteers' work. In 2016, the people involved in its activities, attending the courses, being lecturers or working as volunteers in the management of the courses were about nine hundreds.

The number of courses offered is currently more than one hundred, covering different thematic areas. Together with taught classes, it is possible to join other activities (going to the theatre, attending conferences, joining guided tours, etc.). The possibility to attend the courses is free of charge for all members: it is due only an annual membership fee of € 30.00.

Participants

The analysis has been carried out in the period February-May 2016. People participating to the survey were asked to fill a questionnaire made of two parts: the first part contained individuals' general information, together with information related to the educational initiatives and to the courses attended. The second part of the questionnaire included the WHOQoL Bref (World Health Organization Quality of Life Bref) to measure QoL.

The sample considered in the present analysis was constituted by the respondents to the survey.

Overall, 340 people answered the questionnaire, although not all of them completed the whole form. They were 63 years old on average: the age in the sample ranged from 26 to 95 years, even if the majority (53%) of the people were older than 65 years.

The most of the respondents was female (71.47%); 64.12% was married and almost 89% lived with the family or with the partner; about 11% declared to live alone. Fifty seven per cent of the participants completed the high school; 17.35% had an academic education.

The majority of the participants to the survey (54.41%) stated that they had been motivated to enroll to the LUTE by their own interests (alone) or publicity campaigns; 30.59% answered that they decided to attend the LUTE because a colleague or friend had talked to them about it. The remaining 11.18% followed their relatives' advice (for descriptive results see [Table-1](#)).

Some items in the questionnaire related to the satisfaction from attending the LUTE. More than 86% of the enrolled people, were satisfied with their choice, and almost one fifth of them declared a high level of satisfaction. Only few remarks were made with reference to certain aspects inherent to the course organization: given the high number of courses, some of them overlapped; this circumstance obliged some people to renounce to attend some classes. Other courses, facing a high request, were overcrowded: as a consequence, too large classes negatively affected the quality of teaching and the learners' achievement, and this might have determined an overall lower satisfaction from their attendance.

Regarding the most appreciated aspects of the LUTE activities, there were the possibility to socialize (67.65%), the number of courses offered (almost 58%), the variety of the organized activities, that includes attendance to concerts, theatre performances, guided tours, etc. (27.94%); almost one fifth of the people in the sample appreciated the motivation by the people who voluntarily collaborate in the organization and management of the courses. In fact, although the people joining

the LUTE enroll, first of all, with the aim of attending the courses and the other activities (80.29%), 11.18% of the people who participated to the survey works as volunteer and, among them, 4.11% has the double role of learner and volunteer within the organization.

From the data collected, it was clear that people performed different activities at the LUTE. Looking at the proportion of hours spent at the LUTE only as learner or volunteer, it emerged that attendance to classes required the greatest number of hours (83.80%) comparing to the number of hours dedicated to organizational tasks as volunteer.

Measures

The WHOQoL 100: This measure was developed by the WHOQoL Group with fifteen international centers, simultaneously, with the aim to obtain a QoL assessment that could be cross-culturally applicable ([Orley & Kuyken, 1994](#); [Szabo, 1996](#); [WHOQOL Group 1994a, 1994b, 1998](#)). Since the WHOQoL 100 was too long for practical use, the WHOQoL Bref was then developed: it constitutes a short form for QoL assessment that looks at domain level profiles ([Seattle Quality of Life Group, 2011](#)).

The WHOQoL Bref: This measure is composed of 24 items plus other two separate items, aimed at asking, respectively, about an individual's overall perception of QoL and the perception of his/her own health (Health Satisfaction). Instead, the other items are distributed into four domains: Physical health (7 items), Psychological health (6 items), Environmental health (8 items) and Social relationships (3 items). Each item is rated on a 5-point Likert scale and is scored from 1 to 5 on a response scale. Domain scores are scaled in a positive direction, so that higher scores denote a higher QoL. Some items from the Physical health domain (Physical pain, Medical treatment) and from the Psychological domain (Blue feelings) require an inverse scoring. The mean score of items within each domain is used to calculate the domain score, that may be standardized to make it comparable with the other domains ([WHOQoL Group, 1998](#); [Skevington, Lotfy, O'Connell & the WHOQOL Group, 2004](#)).

Table-1: Descriptive statistics of the variables

| | | M | SD | Min. | Max. |
|----------------------------|-----|--------|--|-------|--------|
| Age | | 63.55 | 10.97 | 26.00 | 95.00 |
| Years at the LUTE | | 2.82 | 1.34 | .08 | 5.00 |
| Hours per week | | 6.74 | 5.08 | 1.00 | 35.00 |
| | f | % | | f | % |
| <i>Age</i> | | | <i>Role at the LUTE*</i> | | |
| 26-64 | 160 | 47.06% | Learner | 273 | 80.29% |
| 65-95 | 180 | 52.94% | Volunteer | 38 | 11.18% |
| <i>Gender</i> | | | Teaching at the LUTE | 22 | 6.47% |
| Female | 243 | 71.47% | Learner/Volunteer | 14 | 4.12% |
| Male | 97 | 28.53% | <i>Choice to Attend the LUTE</i> | | |
| <i>Marital Status</i> | | | Individual Decision | 185 | 54.41% |
| Single | 33 | 9.71% | Friends' advice | 104 | 30.59% |
| Married | 218 | 64.12% | Relatives' advice | 38 | 11.18% |
| Divorced | 20 | 5.88% | No answer | 13 | 3.82% |
| Widowed | 54 | 15.88% | <i>Satisfaction from LUTE Activities</i> | | |
| No answer | 15 | 4.41% | Not at all | 4 | 1.18% |
| <i>Education</i> | | | Poor | 18 | 5.29% |
| Primary school | 81 | 23.82% | Enough | 176 | 51.76% |
| High school | 194 | 57.06% | Good | 55 | 16.18% |
| Academic | 59 | 17.35% | High | 64 | 18.82% |
| <i>Living Arrangements</i> | | | No answer | 23 | 6.76% |
| Alone | 38 | 11.18% | <i>Successful Aspects**</i> | | |
| Spouse | 85 | 25.00% | Possibility to socialize | 230 | 67.65% |
| Family | 217 | 63.82% | High number of courses | 197 | 57.94% |
| <i>Access to Internet</i> | | | Type of activities | 95 | 27.94% |
| Yes | 277 | 81.47% | Volunteers' motivation | 63 | 18.53% |
| No | 63 | 18.53% | | | |

Note-1: M = Mean, SD = Standard deviation, Min. = Minimum value, Max. = Maximum value

Note-2: * = Some people were both teachers and learners, ** = Multiple answers were possible

The information obtained through the administration of the WHOQoL Bref can be seen in [Table-2](#). The highest mean values have been reported for "Physical pain", "Getting around", "Activity" and "Blue feelings". Overall, people in the sample enjoy good health; they can get around alone without any physical problem that could reduce their working skills or their energy. Environmental factors such as "Money" (2.81) and "Health services" (2.67) presented, instead, lower values comparing to the other items.

Procedures

The aim of the first part of the analysis was to outline the impact of demographic variables and

the WHOQoL Bref items impact on QoL. First of all, a pair-wise correlation analysis among the WHOQoL Bref items and the domains within which they are grouped has been carried out; in this way, it has been possible to identify those items showing, at least, a moderate and significant correlation with the global QoL score (> .40) and among themselves: some of these items, namely "Health satisfaction", "Enjoy life", "Meaning", "Money", "Leisure", "Personal relationships", and the whole Physical health domain score have been included in the regression analysis analysis (see [Table-3](#)).

All the four WHOQoL Bref domains are significant and show a correlation coefficient high-

Table-2: Descriptive statistics of WHOQoL Bref

| Variable | M | SD | Min. | Max. |
|-----------------------------|-------|------|-------|-------|
| QoL | 3.68 | .68 | 2.00 | 5.00 |
| Health satisfaction | 3.42 | .97 | 1.00 | 5.00 |
| Physical pain* | 4.33 | .68 | 2.00 | 5.00 |
| Medical treatment* | 3.75 | .91 | 1.00 | 5.00 |
| Energy | 3.45 | .76 | 1.00 | 5.00 |
| Getting around | 3.96 | .97 | 1.00 | 5.00 |
| Sleep | 3.42 | 1.06 | 1.00 | 5.00 |
| Activity | 3.86 | .74 | 1.00 | 5.00 |
| Working skills | 3.84 | .68 | 1.00 | 5.00 |
| Physical health domain | 26.68 | 3.80 | 14.00 | 35.00 |
| Enjoy life | 2.70 | .85 | 1.00 | 5.00 |
| Meaning | 3.33 | .95 | 1.00 | 5.00 |
| Concentration | 3.16 | .81 | 1.00 | 5.00 |
| Body aspect | 3.36 | .80 | 1.00 | 5.00 |
| Self-satisfaction | 3.86 | .79 | 1.00 | 5.00 |
| Blue feelings* | 3.90 | .77 | 2.00 | 5.00 |
| Psychological health domain | 20.39 | 3.51 | 11.00 | 29.00 |
| Daily life safety | 3.21 | .75 | 1.00 | 5.00 |
| Environment safety | 3.24 | .78 | 1.00 | 5.00 |
| Money | 2.81 | .68 | 1.00 | 5.00 |
| Information | 3.36 | .83 | 1.00 | 5.00 |
| Leisure | 3.06 | .85 | 1.00 | 5.00 |
| Place | 3.56 | 1.02 | 1.00 | 5.00 |
| Health services | 2.67 | .92 | 1.00 | 5.00 |
| Transports | 3.72 | .65 | 2.00 | 5.00 |
| Environmental domain | 25.62 | 4.23 | 11.00 | 37.00 |
| Personal relationship | 3.84 | .88 | 1.00 | 5.00 |
| Sexual life | 3.36 | .94 | 1.00 | 5.00 |
| Friendship | 3.62 | .91 | 1.00 | 5.00 |
| Social domain | 10.83 | 2.04 | 4.00 | 15.00 |

Note 1: M = Mean, SD = Standard deviation, Min. = Minimum value, Max. = Maximum Value, QoL = Quality of Life

Note 2: * = The items "Physical pain", "Medical treatment" and "Blue feelings" have to be interpreted with a reverse scoring.

er than .40, with the highest value for Physical health domain (.60). The latter, employed as regressor, includes the items related to "Physical pain", "Medical treatment", "Energy", "Getting around", "Sleep", "Activity", "Working skills"; each of them shows, indeed, a significant correlation with the QoL score. Among the other items considered for the regression analysis, "Enjoy life" and "Meaning" have been considered for the Psychological domain; the items "Money" and "Leisure" represent the Environmental dimension, while "Personal relationships" is related to the Social dimension. Other control variables were age, gender, graduate education and living arrangements with family.

The econometric and correlation analyses

The econometric estimation has been run by means of an ordered logit model, which is applied when the outcome variable is categorical but not binary. In this case, the dependent variable is the score attributed to the QoL item in the WHOQoL Bref ("How would you rate your quality of life?"), that can get values from 1 (= poor) to 5 (= excellent).

In the ordered logit model, there is an observed ordinal variable, Y , that is a linear function of another latent variable, Y^* , continuous and not measured. The latent variable Y^* has different threshold points: the probability of observing a given outcome corresponds to the probability that the estimated linear function, plus random error, is

within the range of the cut-points estimated for the outcome.

The continuous latent variable is equal to:

$$Y^*_i = \sum_{k=1}^K \beta_k X_{ki} + \varepsilon_i$$

The β s are the coefficients to be estimated, x_{1i} , x_{2i} , ..., are the regressors employed and ε_i is the error term, that is assumed to be logistically distributed. There is no intercept term. The coefficients β s are estimated together with the cut-points that, as it has been said, allow to calculating the probability that Y will take on a particular value.

Finally, the last part of the analysis looked specifically at the experience of the LUTE in Sicily and was aimed at identifying the factors that can be associated with a very high satisfaction from attending these activities.

A correlation analysis was performed, employing as explained variable a dummy assuming value = 1 if a high level of satisfaction for the LUTE activities was declared and = 0 otherwise. Other variables were the WHOQoL Bref dimensions already employed in the econometric analysis, the respondents' role within the institution (volunteer or learner), the number of hours spent weekly at the LUTE and the judgment about its likely successful aspects.

Results

Pearson's correlation coefficients were used to determine the relationship between the score attributed to QoL and the other dimensions of the WHOQoL Bref. All the WHOQoL Bref items are significantly correlated with the QoL score. The items with the highest correlations have been included as regressors in the econometric analysis (see Table-3). Other items presented lower, although significant correlations, such as "Health services" (.19), that concerns the easiness to access health services: probably other dimensions as "Money" (.46), or "Transports" (.49), that

showed, instead, higher correlations, are thought to be more important in determining a higher QoL.

The low correlation with "Health services" indirectly signals how people joining the LUTE do not really need health assistance provided by public structures; rather, a high QoL is associated with the availability of money for sustaining current expenses and with accessible transports. Among the other items from the WHOQoL Bref, "Energy" shows the highest correlation (.57).

The variables included in the ordered logit estimation are listed in Table-4. The underlying hypothesis is that the QoL reported by people joining educational activities depends on physical, psychological, environmental and social factors, that are likely to be increased by the participation to educational programs.

The estimation results can be seen in Table-5. The usual interpretation of the ordered logit coefficient is that, for a one unit increase in the explanatory variable, the response variable is expected to change by its regression coefficient in the ordered log-odds scale, being constant the other variables in the model (Wooldridge, 2015).

Table-4: Variables employed in the ordered logit regression.

| Variable | Characteristics of Variables |
|------------------------------|--|
| Age | Numerical variable |
| Gender | 1 = male; 0 = female |
| Education: academic | 1 = graduate; 0 = no graduate |
| Living with family | 1 = lives with family; 0 = no |
| Access to internet | 1 = can access internet; 0 = no |
| QoL score | Categorical variable; WHOQoL Bref item; values from 1 to 5 |
| Health satisfaction score | Categorical variable; WHOQoL Bref item; values from 1 to 5 |
| Physical health domain score | Sum of the physical health domain items score |
| Enjoy life score | Variable related to psychological health domain |
| Meaning score | Categorical variable; psychological health domain |
| Money score | Variable related to environmental domain |
| Leisure score | Variable related to environmental domain |
| Personal relationship score | Variable related to social domain |

Table-3: Pairwise correlations among WHOQoL Bref items

| | QoL | HS | PP | MT | En. | GA | Sleep | Act. | WS | PD | EL | Mean. | Conc. | BA | SS | BF | PD | DS | ES | Mny. | Inf. | Leis. | Place | HS | Trans. | ED | PR | SL | Frnd. | | | | | | | | |
|----------------------------------|------|------|------|-------|------|------|-------|------|------|------|------|-------|-------|------|------|------|------|------|------|------|------|-------|-------|------|--------|------|------|------|-------|--|--|--|--|--|--|--|--|
| Health satisfaction (HS) | .46* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Physical pain (PP) | .39* | .35* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Medical treatment (MT) | .24* | .26* | .40* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Energy (En.) | .57* | .41* | .45* | .36* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Getting around (GA) | .38* | .25* | .36* | .27* | .43* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sleep | .44* | .35* | .30* | .23* | .42* | .32* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Activity (Act.) | .41* | .30* | .43* | .35* | .47* | .30* | .27* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Working skills (WS) | .36* | .33* | .30* | .29* | .42* | .36* | .17* | .52* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Physical health domain (PD) | .59* | .48* | .66* | .62* | .75* | .67* | .63* | .69* | .62* | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Enjoy life (EL) | .59* | .30* | .30* | .13* | .54* | .36* | .35* | .29* | .26* | .47* | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Meaning (Mean.) | .51* | .28* | .27* | .18* | .48* | .27* | .29* | .30* | .29* | .43* | .56* | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Concentration (Conc.) | .39* | .24* | .23* | .18* | .41* | .34* | .23* | .31* | .32* | .43* | .44* | .44* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Body aspect (BA) | .39* | .34* | .21* | .21* | .48* | .24* | .25* | .43* | .38* | .47* | .35* | .42* | .36* | | | | | | | | | | | | | | | | | | | | | | | | |
| Self-satisfaction (SS) | .39* | .33* | .23* | .26* | .45* | .23* | .23* | .44* | .49* | .49* | .32* | .48* | .37* | .53* | | | | | | | | | | | | | | | | | | | | | | | |
| Blue feelings (BF) | .25* | .26* | .27* | .13* | .27* | .17* | .34* | .30* | .30* | .38* | .30* | .34* | .33* | .27* | .39* | | | | | | | | | | | | | | | | | | | | | | |
| Psychological health domain (PD) | .61* | .42* | .37* | .27* | .63* | .39* | .41* | .52* | .50* | .66* | .72* | .79* | .68* | .71* | .75* | .61* | | | | | | | | | | | | | | | | | | | | | |
| Daily life safety (DLS) | .43* | .26* | .22* | .18* | .51* | .31* | .26* | .28* | .35* | .43* | .43* | .36* | .39* | .32* | .32* | .27* | .50* | | | | | | | | | | | | | | | | | | | | |
| Environment safety (ES) | .38* | .19* | .23* | .15* | .32* | .25* | .20* | .23* | .19* | .32* | .34* | .30* | .25* | .15* | .18* | .21* | .37* | .55* | | | | | | | | | | | | | | | | | | | |
| Money (Mny.) | .46* | .26* | .15* | .04* | .34* | .27* | .23* | .21* | .29* | .31* | .35* | .32* | .35* | .37* | .31* | .27* | .45* | .38* | .33* | | | | | | | | | | | | | | | | | | |
| Information (Inf.) | .38* | .26* | .26* | .17* | .45* | .30* | .19* | .35* | .31* | .41* | .32* | .37* | .37* | .29* | .27* | .21* | .41* | .42* | .38* | .42* | | | | | | | | | | | | | | | | | |
| Leisure (Leis.) | .45* | .16* | .22* | .09* | .34* | .26* | .24* | .34* | .32* | .37* | .43* | .28* | .31* | .23* | .27* | .24* | .45* | .40* | .32* | .32* | .40* | | | | | | | | | | | | | | | | |
| Place | .23* | .21* | .02* | -.01* | .18* | .10* | .18* | .13* | .15* | .15* | .31* | .24* | .07* | .13* | .21* | .21* | .21* | .28* | .18* | .20* | .20* | .15* | | | | | | | | | | | | | | | |
| Health services (HS) | .19* | .27* | .24* | .09* | .18* | .03* | .10* | .21* | .12* | .18* | .22* | .19* | .08* | .19* | .11* | .11* | .22* | .20* | .19* | .28* | .27* | .24* | .26* | | | | | | | | | | | | | | |
| Transports (Trans.) | .49* | .32* | .26* | .17* | .49* | .31* | .28* | .37* | .40* | .46* | .49* | .41* | .36* | .32* | .39* | .31* | .55* | .61* | .57* | .54* | .64* | .61* | .45* | .46* | | | | | | | | | | | | | |
| Environmental domain (ED) | .55* | .36* | .30* | .16* | .51* | .33* | .31* | .40* | .39* | .49* | .54* | .45* | .37* | .37* | .38* | .34* | .60* | .60* | .67* | .62* | .70* | .64* | .54* | .56* | .91* | | | | | | | | | | | | |
| Personal relationship (PR) | .42* | .27* | .12* | .03* | .30* | .20* | .16* | .37* | .36* | .32* | .36* | .40* | .16* | .38* | .40* | .26* | .46* | .46* | .27* | .25* | .35* | .28* | .15* | .39* | .42* | | | | | | | | | | | | |
| Sexual life (SL) | .25* | .13* | .02* | .14* | .22* | .12* | .19* | .13* | .27* | .23* | .27* | .20* | .25* | .20* | .35* | .19* | .33* | .33* | .16* | .24* | .10* | .19* | .10* | .02* | .25* | .22* | .39 | | | | | | | | | | |
| Friendship (Frnd.) | .21* | .09* | .06* | .023* | .23* | .16* | .16* | .23* | .13* | .20* | .33* | .30* | .11* | .21* | .21* | .12* | .30* | .30* | .27* | .13* | .38* | .25* | .33* | .14* | .35* | .39* | .49 | .24* | | | | | | | | | |
| Social domain (SD) | .40* | .23* | .12* | .13* | .36* | .24* | .25* | .30* | .37* | .44* | .41* | .26* | .35* | .47* | .31* | .51* | .51* | .51* | .32* | .33* | .38* | .38* | .30* | .13* | .48* | .48* | .80* | .73* | .75* | | | | | | | | |

Note-1. * = p ≤ .05

Here, the dependent variable is the QoL score. All the estimated coefficients are significant but for the variable "gender", that assumes value = 1 if the respondent is male and = 0 otherwise. The sign for "gender" is positive: this means that, although they are not the majority of the people in the sample, men declare a higher QoL comparing to women. Age shows a positive correlation, indicating how the probability to report a higher value for QoL increases with aging.

The coefficients for the WHOQoL Bref scores are significant as well, and the highest has been estimated for the item related to "Enjoy life". The variable "living with family" is inversely and significantly correlated with the dependent variable.

Table-5: Ordered logit regression results

| Variable | Coefficient | Standard Error |
|------------------------------|-------------|----------------|
| Age | .03** | .01 |
| Gender | .04 | .30 |
| Education: Academic | .76** | .37 |
| Living with family | -.89*** | .32 |
| Access to internet | 1.31*** | .38 |
| Health satisfaction score | .48*** | .18 |
| Physical health domain score | .27*** | .06 |
| Enjoy life score | 1.36*** | .26 |
| Meaning score | .44** | .20 |
| Money score | .67*** | .25 |
| Leisure score | .36** | .19 |
| Personal relationships score | .31* | .18 |
| Cut 1 | 15.02 | 2.18 |
| Cut 2 | 19.34 | 2.41 |
| Cut 3 | 26.09 | 2.86 |

Note-1: Wald $\chi^2(13) = 114.63$, Prob > $\chi^2 = 0.0000$; Log Pseudo Likelihood = -161.49076, Pseudo $R^2 = 0.4530$

Note-2: * = $p \leq .10$, ** = $p \leq .05$, *** = $p \leq .01$

"Access to internet" is positively correlated, as expected. In fact, internet makes it easier to communicate and to retrieve information, and allows keeping pace with times: many people who answered the questionnaire were attending ICT courses and became familiar with these technologies because of such courses.

Having obtained the degree is positively and significantly correlated with the dependent variable and signals the value of education as a factor that can improve QoL and that it is likely to make

educational activities appreciable. However, the greatest impact in determining a higher QoL is attributable to the capacity of enjoying life, which is even higher than the score obtained for the whole Physical health domain.

Since the survey was aimed at outlining the most successful aspects of the LUTE organization and the factors that may impact on a high level of satisfaction, the second part of the analysis has considered specifically the circumstance to declare a very high satisfaction due to the attendance to the courses and other activities.

The correlations among the level of satisfaction and the variables related to the personal experiences at the LUTE, as the roles played within the organization (learner or volunteer, and the hours spent in both roles over the total hours spent at the LUTE), the years since the enrollment, the weekly hours dedicated to the activities and the likely reasons for the success of the initiative have been calculated. The results can be seen in [Table-6](#).

The most of the respondents (almost 52%) are enough satisfied with the courses and the activities followed; less than 10% of the participants to the survey are not satisfied, whereas 6.74% are uncertain or prefer not to answer. A very high level of satisfaction has been declared by the 18.82% of the respondents, who judge irrelevant eventual faults in the organization and management of courses; indeed they ask for more activities.

The correlations with the WHOQoL Bref items are positive and significant: The highest correlations have been found for "Physical health domain" (.31) and, among the single items, "Leisure" (.26) and "Personal relationship" (.27).

In spite of the relevance of the item "Personal relationship", the possibility to socialize, that was indicated among the most likely reasons for the good performance of the LUTE, has not found significant. Instead, more years spent at the LUTE are associated with higher levels of satisfaction. The role of volunteer is significantly correlated with a high level of satisfaction, and the coefficient (.19) is higher comparing to the coefficient associated

Table-6: Pairwise correlations among variables related to experience at the LUTE

| | Hgs | Age | Grndr. | GE | LF | AI | LUTE | Hrs. | QoL | HS | PD | EL | Mean | Mny. | Leis. | PR | Vol. | Learn | Hrs.V | Hrs.L | NC | OS | VA | |
|----------------------------------|------|-------|--------|------|-------|------|-------|------|------|------|------|------|------|------|-------|------|-------|-------|-------|-------|-------|------|------|--|
| Age | | | | | | | | | | | | | | | | | | | | | | | | |
| Gender (Gndr.) | -.09 | | | | | | | | | | | | | | | | | | | | | | | |
| Graduate education (GE) | -.04 | .18* | | | | | | | | | | | | | | | | | | | | | | |
| Living with family (LF) | .10 | -.09 | -.05 | | | | | | | | | | | | | | | | | | | | | |
| Access to internet (AI) | -.03 | -.18* | -.02 | .05 | | | | | | | | | | | | | | | | | | | | |
| Years at LUTE (LUTE) | .13* | -.17* | .03 | .08 | .00 | | | | | | | | | | | | | | | | | | | |
| Hours per week (Hrs.) | .23* | .23* | -.06 | .17* | -.03 | .08 | | | | | | | | | | | | | | | | | | |
| QoL | .16* | .15* | -.07 | -.07 | -.16* | .05 | .27* | | | | | | | | | | | | | | | | | |
| Health satisfaction (HS) | .20* | -.03 | .01 | .16* | -.14* | .22* | .05 | .13* | | | | | | | | | | | | | | | | |
| Physical health domain (PD) | .18* | .05 | -.01 | .08 | -.07 | .07 | -.01 | .12* | .46* | | | | | | | | | | | | | | | |
| Enjoy life (EL) | .31* | -.25* | -.01 | .06 | -.10 | .15* | .00 | .04 | .59* | .48* | | | | | | | | | | | | | | |
| Meaning (Mean) | .15* | -.15* | .06 | .10 | .09 | .13* | -.01 | -.00 | .59* | .30* | .47* | | | | | | | | | | | | | |
| Money (Mny) | .14* | -.12* | -.04 | .06 | -.00 | .18* | -.011 | .04 | .51* | .28* | .43* | .56* | | | | | | | | | | | | |
| Leisure (Leis.) | .21* | .18* | -.02 | .19* | -.04 | .11* | .14* | .01 | .46* | .26* | .31* | .32* | .32* | | | | | | | | | | | |
| Personal relationship (PR) | .26* | -.04 | .03 | .08 | -.05 | .18* | .15* | .10 | .45* | .16* | .37* | .43* | .28* | .32* | | | | | | | | | | |
| Volunteer (Vol.) | .27* | .06 | .05 | .01 | -.03 | .12* | .09 | .19* | .42* | .27* | .32* | .36* | .40* | .25* | .35* | | | | | | | | | |
| Learnr (Learn) | .19* | -.03 | .11* | -.04 | -.18* | .05 | .29* | .40* | .13* | .08 | .08 | .08 | .00 | .10 | .17* | .22* | | | | | | | | |
| Hours as volunteer/total (Hrs.V) | .01 | -.02 | -.01 | .07 | .07 | .20* | -.17* | .17* | -.02 | .03 | .08 | -.09 | -.02 | .03 | .00 | -.03 | -.39* | | | | | | | |
| Hours as learner/total (Hrs.L) | .20* | .01 | .13* | .00 | -.13* | .06 | .32* | .64* | .16* | .07 | .06 | .12* | .10 | .12* | .20* | .23* | .81* | -.38* | | | | | | |
| Number of course (NC) | .04 | .16* | .01 | -.08 | -.12* | .13* | .07 | .58* | .09 | .12* | .09 | -.07 | -.01 | .03 | .06 | .09 | -.07 | .51* | .01 | | | | | |
| Opportunity to socialize (OS) | .20* | -.07 | -.00 | .15* | .09 | .20* | .07 | .15* | .08 | .01 | .12* | .14* | .17* | .13* | .18* | .17* | .09 | .18* | .14* | .10 | | | | |
| Variety of activities (VA) | -.04 | .10 | -.06 | -.01 | -.02 | .04 | -.06 | .04 | .03 | .05 | -.08 | .06 | .07 | .09 | -.02 | .12* | .10 | .02 | .09 | -.03 | -.12* | | | |
| Volunteers' motivation | .20* | .06 | -.02 | .23* | .02 | .09 | .20* | .15* | .19* | .04 | .12* | .12* | .09 | .13* | .28* | .22* | .13* | .08 | .13* | .10 | .13 | .11* | | |
| | .18* | .01 | .08 | .14* | .075 | .07 | .08 | .20* | .10 | .04 | .04 | .14* | .18* | .18* | .18* | .21* | .27* | -.03 | .31* | .05 | .25* | .17* | .26* | |

Note-1: Hgs = High satisfaction

Note-2: * = p ≤ .05

to the role of learner (.11, that, indeed, is not significant). Moreover, the larger the fraction of hours spent as volunteer rather than as learner only, the higher the satisfaction.

Hence, a higher QoL is associated to an active role within the institution; this conclusion is in line with the objectives of social inclusion and participation that are at the basis of the UTAs. In this light it can be interpreted the positive and significant correlation between the hours spent every week at the LUTE and a high level of satisfaction: spending time in such activities has overall, a positive effect on QoL.

Discussion

Although preliminary, the analysis has shown interesting insights, which may be examined more in depth in further analyses. It was observed a positive effect on QoL, coming from attending educational and recreational activities, given the observed sample's characteristics and people's personal interests.

Almost all the regressors employed in the econometric analysis presented a good level of significance. Variables as age, graduate education and the possibility to access internet, employed as controls, were positively and significantly correlated with higher QoL levels.

The literature on the topic supports the hypothesis that, on average, the frequency of informal social activities decreases with advancing age, which is probably a consequence of age-related decline of functional status (Huxhold, Fiori, & Windsor, 2013). Other contributions have shown how age, gender, education and other variables attaining family composition are closely related to older adults' QoL (Pinquart, 2001) and are predictors of leisure activity and satisfaction patterns.

The results for the case study examined confirm other main findings from the literature. For example, in the regression analysis, living with the family has been found to have a negative impact on QoL. There are many issues to consider to assess whether a multigenerational living is a pos-

itive experience for all or not. Living together offers the opportunity to learn from each other and to share daily experiences. Especially the elderly may enjoy living with their own family: they could have the opportunity to be useful to other family members and, at the same time, to be well cared (Gerstein, 2007). However, these advantages may be associated with some disadvantages, such as a lower autonomy and independence: the older adults may feel unhappy about the transition from self care to dependency and may be concerned about being a burden and conditioning the family's lifestyle. Moreover, there might be a higher workload, especially for women living with their families. In fact, many older women care for grandchildren and play an essential role within the family, that sometimes involves a greater risk of psychological and physical pressure (Hughes, Waite, LaPierre & Luo, 2007).

In the regression analysis, the "Personal relationship" score was positively and significantly correlated with QoL; a positive and significant relationship with a high level of satisfaction for the social activities was also observed in the second part of the analysis. However, since "Personal relationship" includes both family and friend relationships, an open issue is clarifying the extent to which family ties and friendship relations impact on QoL. Some scholars (Krause & Rook, 2003) believe that family relations are more difficult to cease than voluntary friendship relations; therefore, it is plausible to predict that informal social activities performed with friends, but not with family, may be more frequently associated with individual wellbeing (Dupertuis, Aldwin, & Bosse, 2001; Rook & Ituarte, 1999). Other studies outlined how the social support provided by friends, wellbeing and positive feelings increase with increasing age (Li, Fok, & Fung, 2011).

About the type of support provided by family and friends, the instrumental support is more prominent in family relations, whereas social integration and reaffirmation of self-worth are more characteristic of friendship relations (Messeri, Silverstein, & Litwak, 1993). Hence, although both family and

friends may provide instrumental and affective support, friends are more likely to increase the positive mood and to lower negative affective feelings, augmenting life satisfaction (Merz & Huxhold, 2010; Huxhold, Miche & Schüz, 2013). This conclusion reinforces the importance of establishing sound relationships and of sharing common objectives, being them social or educational.

To sum up, all the WHOQoL Bref items included in the analysis showed the expected signs and were significant. The highest coefficient for "Enjoy life" confirms how this is the factor that more consistently impacts on QoL. The concept of enjoying life means the extent to which a person experiences positive feelings of contentment, balance, happiness, hopefulness, joy and appreciates the good things in life. Certainly, social and educational activities may strengthen this aspect.

Conclusions

The present study can be framed within the literature aimed at investigating the effects of adult education and the participation at social and/or leisure activities on individual QoL. The study was aimed at discussing some critical issues in defining and analyzing the implementation of an active aging model at the UTA located in a Southern Italian town.

The learners' experiences have clearly shown that education had a very positive influence on their lives. In the case study examined, the enrollment in social and educational programs like the LUTE, involves more than simply attending classes; overall, the institution allows people to preserve their own physical and psychological traits from aging, to share experiences with other people and to see the world from another perspective.

The econometric analysis, based on the estimation of an ordered logit model, has outlined the impact on QoL of some factors, among which there are some WHOQoL Bref items as "Enjoy life" and "Meaning". These items are significantly correlated with a high level of satisfaction for the activities followed.

Overall, the LUTE reached the objectives of favoring socialization and improving the reported QoL for people who are involved in its various activities. Its positive performance can also be appreciated from an economic point of view, considering that this institution can count on the contribution offered by the participants. They are often professionals still in the workforce, or retired academics, who find in their work a reason to remain active. Hence, the positive outcome consisting in the improvement of QoL can be obtained at null or very low costs.

From a public perspective, positive consequences might be possibly represented by a reduction in expenses for health assistance due to a positive impact on the older adults' physical and mental health, which is also the objective of healthy ageing policies. According to the main features of healthy aging, above mentioned, that consist in a low probability of disease and disease-related disability, a high cognitive and physical functional capacity and an active engagement with life, all these aspects were observed in the case examined: the majority of people in the sample were autonomous, satisfied with their lives and the activities performed, and declared they did not need any personal or home assistance.

The analysis might be replicated in other contexts, for example in other Italian areas or other European countries, where similar institutions have been developed. The main weakness of the analysis lies in the fact that it considers just the people joining this institution and attending its initiatives. The comparison with a control group of people with similar demographic characteristics, who are not involved in any activity, might allow to quantify the impact on individual QoL and, overall, on the social wellbeing, and would allow to estimate the incremental benefit of developing educational programs.

Another crucial aspect to analyze more in depth is the role played by individuals within the institution. Sometimes the participants' involvement goes beyond the walls of the classrooms (Escuder-Mollon, 2012). The learners' active participation may be

achieved by letting them to be responsible of organizational tasks, for example taking part at the decision-making board or collaborating in organizing extra-academic activities, or disseminating their work through web tools (websites and blogs).

It has been seen how a higher satisfaction is associated with the hours spent as volunteer, although the attendance to classes requires a longer time. Investigating this aspect might allow a more accurate analysis on individuals' preferences towards alternative ways to allocate their free time. The positive effects of the participation to educational and leisure activities have to be taken into account by policy makers, who should be aware to what extent they are beneficial to the older population.

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