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ABSTRACT

This study analyzes the relationship between gender and self-perceived health status in Spanish retirees and housewives from a sample of 1,106 community-dwelling older adults. A multivariate linear regression model was used in which self-perceived health status was measured by the EQ-5D visual analogue scale and gender according to work status (retired men and women and housewives). Retired males reported a significantly better health status than housewives. Self-perceived health status was closely associated with physical, mental, and functional health and leisure activities. Finally, being a woman with complete dedication to domestic work is associated with a worse state of self-perceived health.

Introduction

Retirement can be defined as leaving the job or professional activity in which one has engaged throughout one's life or a significant part thereof, on account of one's age (Casals, 1982). At the time of this study, the statutory retirement age in Spain was 65 years, although some people retire before that. The transition from productive work to retirement leads individuals to experience changes in different areas of their lives that can be positive, defined as gains (increased availability of free time, more personal freedom, release from old values and norms, social participation, and sense of fullness) or negative—losses (reduced income, loss of working role, less social prestige, gradual physical deterioration, and inactivity) (Agulló, 1999).

Meanwhile, the influence of work on health has been widely studied. Some studies talk about how working conditions affect health and how their distribution differs by gender (Ruiz-Cantero et al., 2007). As is well known, older women are more likely than men to have disabling, nonlethal conditions, including functioning problems and depressive symptoms (Crimmins, Kim, & Solé-Auró, 2011). Differential socioeconomic experiences of men and women in labor force participation and financial independence, for example, contribute to mediate the relationship between gender and health status (Plouffe, 2003). Whereas older men's health is more strongly affected by education, older women's health is affected more by income, psychosocial, and stress-related factors (Prus & Gee, 2003). Female manual workers who were forced into early retirement due to organizational reasons were more likely to report poor self-perceived health status and poor mental health than male workers or female nonmanual workers (Artazcoz, Cortés Franch, Borrell, Escribà-Agüir, & Cascant, 2010). Likewise, a previous study showed that in the European southern welfare states,

women were more likely to report worse self-assessed health than men (Bambra et al., 2009). However, others studies revealed no sex differences in self-reported health, regardless of substantial sex differences in dimensions of physical health and depressive symptoms (Crimmins et al., 2011; Oksuzyan et al., 2010).

In addition to gender-based differences on the job market, there are also differences in social roles and activities. In the traditional family model, the productive sphere (professional, political, intellectual, and cultural fields) was reserved for men, and the reproductive sphere (domestic and family domains) was reserved for women (Sen, Östlin, & George, 2007).

Although the division of housework in industrialized countries has become more equal over time, men's contribution to housework remains lower than women's (Molarius, Granström, Lindén-Boström, & Elo, 2014). Even after retirement, women continue assuming the role of housewife in more-traditional countries in southern Europe (Hank & Jürges, 2007). This division of household labor by gender has a negative effect on older women's health. A higher prevalence of two-week illness in women has been associated with types of housework that involve almost no interpersonal interactions, such as washing clothes and cleaning house (Wen, Liang, Zhu, & Wu, 2013). Besides, perceived unfairness in the division of housework leads to lower marital happiness and increased depression in wives (Piña & Bengtson, 1995). Some authors support the fact that women devoting more time to housework might be detrimental to their quality of life (QOL) because they have less time and fewer opportunities for their personal and social development (Artazcoz, Cortés Franch, Moncada Lluís, Rolhfs, & Borrell, 1999; Rohlfs, De Andrés, Artazcoz, Ribalta, & Borrell, 1997).

Another aspect of interest in these selected population groups has to do with leisure activities. The way that people spend their free time is closely related to physical and mental well-being (Chiriboga, Pierce, & Kelly, 1993; Rojo-Pérez & Fernández-Mayoralas, 2011; Sánchez-Herrero Arbide, 2008). Taking part in leisure activities is associated with a positive outcome in adulthood, including a reduced risk of mortality (Adams, Leibbrandt, & Moon, 2011; Kaplan, Strawbridge, Cohen, & Hungerford, 1996; Lan, Chang, & Tai, 2006) and of cognitive decline and improved physical health (Silverstein & Parker, 2002).

Upon retirement, individuals receive the capital of their free time, but if they do not know how to use it, it can become a burden rather than a reward. People who are retired now were raised in a culture in which work was very relevant, both socially and in time allocated. To compensate for the loss of the worker role, Bowling suggests finding a new role through various activities (Bowling, 2005).

In short, once people pass retirement age, inequalities and role differences between men and women persist (Kunkel & Atchley, 1996). Most studies on gender inequalities in health have been conducted among the working population, while retiree studies have focused on the male population, due to the late inclusion of women in the workforce. Meanwhile, fewer studies have compared retired women and housewives at older ages, so it seems useful to have a sample of women who were housewives as a comparison to women with some history of employment. This study aims to determine the relationship between gender and self-perceived health status in Spanish retirees and housewives and to analyze the factors associated with self-perceived health status at retirement age.

Methods

Data source

The data source used was a semistructured QOL survey of a nationwide representative sample of 1,106 people in Spain aged 60 years or over. The sample was obtained by a geodemographically based proportional multistage stratified sampling. Retired people and housewives ($n = 919$) were selected, while working people and people receiving a pension for reasons other than retirement were excluded. This study was approved by the ethics committee of the Carlos III Health Institute,

and all participants gave their signed informed consent. Detailed information about the sampling process and study protocol may be found elsewhere (Fernández-Mayoralas et al., 2012).

Measures

Information was gathered about their sociodemographic characteristics, family and social networks, leisure and social participation, and health indicators. The following sociodemographic variables were selected: gender and work status (retired men, retired women, and housewives), age, retirement age, marital status (with and without a partner), educational level (less than primary, primary, and secondary or higher), and monthly income (≤600 euros, 601–900 euros, >900 euros). Both retired men and women included people who were receiving a pension, while the housewives group was formed by the women who devoted their whole life only to unpaid domestic work.

Social and emotional loneliness was measured with the six-item Loneliness Scale (De Jong-Gierveld & Van Tilburg, 2006). The initial six items (scored from 0–2) are dichotomized ("more" or "less" loneliness). Higher total sum scores indicate a greater sense of loneliness (0–6 range). The following variables were used as an approach to the domestic workload: number of people in the household and looking after grandchildren (Fernández, Schiaffino, & Martí, 2000).

Leisure and social participation measures (categories "yes" and "no") included involvement in different leisure activities in free time: active leisure (sports, shopping other than supermarket, do-it-yourself activities), cultural leisure (reading, cinema, playing a musical instrument), and social leisure (going to church, participation in NGOs, meeting friends or relatives).

Depression was assessed using the depression subscale of the Hospital Anxiety and Depression Scale (HADS-D) (Zigmond & Snaith, 1983); higher total sum scores indicated more depression (0–21 range). Dependence was measured with the Functional Independence Scale (FIS) (Martínez-Martín et al., 2009); the total sum score ranged from 0 to 100, and higher values revealed more independence. Morbidity was assessed by considering the number of self-reported chronic medical conditions of each individual, collected through the adapted Cumulative Illness Rating Scale for Geriatrics (Miller et al., 1992). The self-perceived health status was measured using the visual analog scale EQ-VAS, where individuals rate their current health status on a scale of 0–100 (the worst and best imaginable health status respectively) (EuroQol Group, 1990).

Data analysis

Sociodemographic characteristics, family and social network variables, leisure and social participation variables, and health indicators by gender and work status (retired men, retired women, and housewives) were compared through parametric and nonparametric hypothesis testing. The chi-square test was applied for categorical variables, and the analysis of variance test (ANOVA) was performed for the EQ-VAS. Initially, the Kruskal-Wallis test was used to analyze the other continuous nonnormal distribution variables, and whenever there was any statistically significant association, the groups were compared two by two using the Mann-Whitney U test. The Bonferroni correction was used for pairwise multiple comparisons.

In order to determine the relationship between gender and self-perceived health status (EQ-VAS) in Spanish retirees and housewives, and the factor associated with this outcome, a multivariate linear regression model using a simultaneous method was built, first with the entire sample and then for each of the following groups: retired men, retired women, and housewives. The initial regression models included all the variables: sociodemographic characteristics, family and social networks, leisure and social participation, and health indicators. Tests were conducted to ensure that the basic assumptions of linearity, normality, homoscedasticity, and independence of the multiple linear regression model were fulfilled. Also collinearity was checked, and the time elapsed since retirement was not included in the models because it showed a high correlation with age ($r = 0.88$). Finally, in

order to compare among models the coefficients of independent variables significantly associated to EQ-VAS, the Chow test was used.

Results

Sociodemographic, social, and health characteristics according to gender and work status

Table 1 presents the data for the total sample and for each group by gender and work status. Retired women had a significantly higher age ($p = .005$) than the housewives group. A higher proportion of retired males had a partner compared to retired women ($p < .001$) and housewives ($p = .012$), while most retired women had no partner ($p < .001$). Housewives had the lowest educational level, and retired men showed a better financial position than the retired women ($p = .001$) and the housewives ($p = .015$).

Housewives most often took responsibility for caring for grandchildren compared with retired men ($p = .001$). Retired men reported enjoying greater cultural leisure than both groups of women ($p = .003$ for retired women; $p < .001$ for housewives). For all health-related variables, differences were found between retired men and the housewives except the EQ-VAS. Moreover, retired men showed higher dependency (FIS) and lower number of chronic medical conditions than the retired women ($p < .001$ and $p = .002$, respectively).

Gender and self-perceived health status (EQ-VAS) in Spanish retirees and housewives

Gender and work status variables showed a statistically significant association with the EQ-VAS: It hinted at a trend in the sense that retired men reported better health status and housewives declared the worst ($p = .05$); however, there were no differences between retired men and women according to health status ($p = .39$) (Table 2). Likewise, the number of members in the household, cultural and social leisure, depression, dependence, and the number of chronic medical conditions were factors independently associated with self-perceived health status. This model explained 30.7% of the variance. Table 2 presents the linear regression models of EQ-5D, with standardized betas.

In the group of retired men, active leisure and cultural leisure were associated with higher scores on the EQ-VAS and therefore a better health status. In contrast, depressive symptoms and suffering from chronic medical conditions had a negative effect on self-perceived health status. The variance explained by this model was 28.4%.

In the retired women model, only the health variables were associated with self-perceived health status. Depressive symptoms and a higher number of chronic medical conditions were associated with worse results in the assessment of health status. In contrast, less dependence was associated with a better health status. This model explained 44.5% of the variance.

Also in the housewives group, depression and suffering from chronic medical conditions had a negative impact on the health status score. A negative association was also observed with the number of household members . In contrast, engaging in social leisure and less dependence had a positive effect on the EQ-VAS. This model explained 29.6% of the variance.

When comparing the beta coefficients among the three group models, only two variables reached statistical significance. In the group of housewives, there was a higher association between EQ-VAS and number of people living in the household and social leisure than the groups of retired men and women.

The beta coefficients for almost all variables were not statistically significant when comparing the three group models. However, the beta coefficients for two variables (number of people living in the household and social leisure) in the housewives model were statistically different than the other models (Table 3).

Table 1. Differences between retired men, retired women, and housewives according to sociodemographic characteristics, family and social networks, leisure and social participation measures, and health variables.

Variables	Total (n = 919) n (%) M ± SD	Retired men (n = 416) n (%) M ± SD	Retired women (n = 169) n (%) M ± SD	Housewives (n = 334) n (%) M ± SD	p
Sociodemographic variables					
Sex					N/A
Men	416 (45.27)	416 (100)	0 (0)	0 (0)	
Women	503 (54.73)	0 (0)	169 (100)	334 (100)	
Age (years)	72.93 ± 7.42	72.96 ± 6.96	74.22 ± 7.31	72.25 ± 7.96	0.014 (KW)
Retirement age	62.99 ± 3.42	62.88 ± 3.58	63.24 ± 2.97		0.320 (UMW)
Time since retirement	10.38 ± 7.06	10.19 ± 6.92	10.88 ± 7.04		0.352 (UMW)
Marital status					< 0.001 (χ2)
Without a partner	354 (38.52)	119 (28.60)	110 (65.09)	125 (37.42)	
With a partner	565 (61.48)	297 (71.39)	59 (34.91)	209 (62.57)	
Educational level					< 0.001 (χ2)
< Primary	289 (31.45)	103 (24.76)	62 (36.69)	124 (37.12)	
Primary	371 (40.37)	173 (41.58)	53 (31.36)	145 (43.41)	
Secondary/higher	259 (28.18)	140 (33.65)	54 (31.95)	65 (19.46)	
Monthly income					< 0.001 (χ2)
≤ 600 euros	232 (25.24)	85 (20.43)	60 (35.50)	87 (26.05)	
601–900 euros	314 (34.17)	140 (33.65)	46 (27.22)	128 (38.32)	
> 900 euros	373 (40.59)	191 (45.91)	63 (37.28)	119 (35.63)	
Family and social networks measures					
Nº of people living in the household (range: 1–8)	2.26 ± 1.17	2.33 ± 1.15	2.07 ± 1.24	2.27 ± 1.14	0.002 (KW)
Looking after grandchildren					0.004 (χ2)
Yes	204 (22.22)	74 (17.79)	37 (22.02)	93 (27.84)	
No	714 (77.78)	342 (82.21)	131 (77.98)	241 (72.16)	
Loneliness scale (range: 0–6)	1.93 ± 1.83	1.83 ± 1.78	1.94 ± 1.93	2.04 ± 1.84	0.279 (KW)
Leisure and social participation measures					
Active leisure					0.040 (χ2)
Yes	862 (93.90)	397 (95.43)	151 (89.88)	314 (94.01)	
No	56 (6.10)	19 (4.57)	17 (10.12)	20 (5.99)	
Cultural leisure					< 0.001 (χ2)
Yes	734 (79.96)	361 (86.78)	128 (76.19)	245 (73.35)	
No	184 (20.04)	55 (13.22)	40 (23.81)	89 (26.65)	
Social leisure					0.064 (χ2)
Yes	825 (90.07)	363 (87.68)	152 (90.48)	310 (92.81)	
No	91 (9.93)	51 (12.32)	16 (9.52)	24 (7.19)	
Health variables					
Depression: HADS-D (range: 0–21)	5.04 ± 4.30	4.60 ± 4.18	5.36 ± 4.56	5.43 ± 4.29	0.006 (KW)
Dependency: FIS (range: 21–69)	64.24 ± 7.77	61.49 ± 8.45	65.94 ± 7.38	66.81 ± 5.70	< 0.001 (KW)
Number of chronic medical conditions (range: 0–15)	3.32 ± 2.43	2.88 ± 2.29	3.41 ± 2.22	3.82 ± 2.61	< 0.001 (KW)
EQ-VAS (range: 0–100)	66.16 ± 20.40	67.95 ± 20.50	65.84 ± 20.15	64.06 ± 25	0.032 (A)

Note. M = mean. SD = standard deviation. χ^2 = chi-square test. KW = Kruskal-Wallis H test. U M-W = Mann–Whitney U test. A = ANOVA. N/A = Pearson's chi-square test not applicable. HADS-D = Hospital Anxiety and Depression Scale-Depression subscale. FIS = Functional independence.

Discussion

This study supports, at least partially, the relationship between gender and self-perceived health status in Spanish retirees and housewives: Retired men reported better health status, and housewives declared the worst. No differences were observed between retired men and retired women. This occurred even after adjusting for sociodemographic characteristics, family and social networks, leisure and social participation measures, and health variables. Low participation in cultural leisure of housewives, and higher depression and comorbidity compared to men, could contribute toward a worse self-perceived health status in housewives. Although in this study, as in a previous one, caring for grandchildren was not an

Table 2. Linear regression models of self-perceived health status (EQ-VAS) for retired men, retired women, housewives and total sample (standardized beta, p values).

	Total sample	Retired men	Retired women	Housewives
Sociodemographic characteristics				
Gender and work status (retired men)				
Retired women	−0.028	–	–	–
Housewives	−0.066*	–	–	–
Age	−0.031	−0.045	−0.104	0.010
Marital status (with a partner)	−0.039	−0.015	−0.032	−0.069
Educational level (< primary)				
Primary	0.039	0.068	0.050	0.023
Secondary/higher	0.006	−0.053	0.128	0.056
Monthly income (≤600 euros)				
601–900 euros	0.033	0.079	−0.037	0.070
>900 euros	−0.030	−0.016	−0.108	0.057
Family and social networks measures				
Nº of people living in the household	−0.063*	−0.046	0.099	−0.150*
Helping to look after grandchildren	0.007	−0.011	0.028	0.021
Loneliness scale	−0.051	−0.022	−0.059	−0.052
Leisure and social participation measures				
Active leisure	0.058	0.101*	0.060	0.014
Cultural leisure	0.080*	0.132*	−0.031	0.056
Social leisure	0.092*	0.043	−0.021	0.187*
Health variables				
Depression: HADS-D (range: 0–21)	−0.272*	−0.291*	−0.250*	−0.266*
Dependence: FIS (range: 21–69)	0.103*	0.057	0.243*	0.124*
Total number of chronic medical conditions (range: 0–15)	−0.209*	−0.199*	−0.244*	−0.206*
Adjusted R-squared	0.307	0.280	0.445	0.296

Note. HADS-D = Hospital Anxiety and Depression Scale-Depression subscale. FIS = Functional Independence Scale.
  The table displays the standardized regression coefficients (β) and significance levels: *p < .05.

Table 3. Chow Test comparing coefficients of the linear regressions models.

	Retired men vs. retired women	Retired men vs. housewives	Retired women vs. housewives
	F statistic (p value)	F statistic (p value)	F statistic (p value)
Family and social networks measures			
Nº of people living in the household	1.22 (0.295)	3.15 (0.043)	4.97 (0.007)
Leisure and social participation measures			
Active leisure	0.25 (0.776)	0.87 (0.351)	0.11 (0.898)
Cultural leisure	1.98 (0.139)	0.57 (0.450)	1.27 (0.281)
Social leisure	0.45 (0.638)	4.68 (0.031)	3.60 (0.028)
Health variables			
Depression: HADS-D (range: 0–21)	0.08 (0.919)	0.19 (0.665)	0.11 (0.898)
Dependence: FIS (range: 21–69)	1.61 (0.205)	0.53 (0.468)	0.11 (0.897)
Total number of chronic medical conditions (range: 0–15)	1.02 (0.313)	1.37 (0.255)	0.79 (0.457)

independent factor of poor health status, other housework traditionally reserved to women could have influenced the self-perceived health status of these women (Wen et al., 2013).

For all groups, the more symptoms of depression and number of chronic diseases, the worse the self-perceived health status was. Likewise lower functional independence was associated with the worse self-perceived health status in retired women and housewives. However, health variables had the same impact on the different models. In contrast, both active and cultural leisure were associated with a better self-perceived health status among retired men. These results are consistent with the association between increased leisure time with the improved health after retirement found in other studies (Dave, Rashad, & Spasojevic, 2006; Mojon-Azzi, Sousa-Poza, & Widmer, 2007). The explanation for this could be bidirectional: People with better

health tend to be more active, and an active lifestyle has a beneficial effect on health (World Health Organization, 2002).

In the housewives group, two new variables were significant: the number of people living together in the home as a risk factor and social leisure as a self-perceived health protection factor. In addition, the number of people in the household and social leisure seem to have different impacts on retired women and housewives groups. This might be due to an increased domestic workload that adversely affects the health of women with paid work, compared to housewives (Artazcoz et al., 1999; Fernández et al., 2000). However, it could be that at older ages, and comparing retired women and housewives, it is for the latter that the larger domestic workload has worse effects on their health. Meanwhile, knowing how leisure benefits the improvement of physical and mental health (Sánchez-Herrero Arbide, 2008) and how free time is dedicated and distributed differently in terms of gender, family role, and occupation (Ferrer Pérez, Bosch Fiol, & Gili Planas, 1997) in housewives, social leisure seems to condition the self-perceived health status. While this group does not have the social contacts that paid work can provide, women who devote their lives to domestic work usually, when older, devote part of their free time to volunteer activities (Agulló, Agulló, & Rodríguez, 2002).

Limitations and lessons learned

One of the main limitations of this research is its cross-sectional design, meaning that the direction of the causal relationship of the analyzed factors cannot be established. Furthermore, as it is a data source not designed a priori to fulfill the proposed objectives, we did not have available more complete information to control for potential differences between retired men and women (such as job held or job satisfaction). Nor did we have information about the presence or absence of external help in assessing the domestic workload, which probably has prevented us from finding more differences between the two groups of women.

However, this study offers several lessons. First, the relationship of all the factors that were taken into account (self-perceived health, gender and work status, and leisure time) is complex; further studies are needed with comprehensive data so as to shed light on certain issues and pave the way for future research. Second, the fact that the self-perceived health status is strongly associated with morbidity and mortality (Segovia, Bartlett, & Edwards, 1989) underscores the need to continue finding out more about them from a gender perspective and taking into account factors such as work status or retirement. This is particularly true at a time when the population is increasingly more long-lived and resources are scarce. Only a multidisciplinary approach (health, psychological, and social) in decision making and allocation of resources will allow more efficient planning in all areas, with the purpose of improving the health of older people comprehensively.

Conclusions

(1) There is a cross-sectional gender difference in self-perceived health between Spanish retired men and housewives, regardless of others factors.
(2) Women were more likely to report worse self-assessed health than men, but only women with complete dedication to domestic work had a significantly worse state of health.
(3) Self-perceived health status in older adults is closely associated with physical, mental, and functional health and leisure activities.
(4) Factors associated with self-perceived health vary between groups. Leisure is only a factor associated with a better self-perceived health status in retired men and housewives.
(5) Health characteristics consistently influence the self-perceived health status, with a similar impact for the three studied groups.

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