

## 6. Resilience in older age: a depression-related approach

**Panayotes Demakakos** *University College London*

**Gopalakrishnan Netuveli** *Imperial College*

**Noriko Cable** *University College London*

**David Blane** *Imperial College*

Among other findings the analysis presented in this chapter shows that:

- Resilience, the ability of people to resist adversity and flourish under it, existed irrespective of the way it was measured.
- Resilient older people were more satisfied with their lives and had a better quality of life than non-resilient older people.
- Resilient older people expected to live longer than their non-resilient counterparts.
- Age and socio-economic status did not seem to be much related to resilience but further exploration on this issue is needed.
- Sex, marital status and social support were related to resilience cross-sectionally but not longitudinally. Further evaluation of these factors as correlates of resilience is required.

### 6.1 Introduction

This chapter focuses on resilience: the ability of people to resist adversity and flourish under it. Its main objectives are: (a) to examine whether resilience exists among the ELSA respondents irrespective of the way it is measured; (b) to explore resilience both cross-sectionally and longitudinally; and (c) to describe the socio-demographic characteristics of resilient people.

The concept of resilience originates from psychiatric and developmental studies (Luthar, Cicchetti and Becker, 2000). It is a concept that has been used mostly in studies concerning children and young people but recently it has also been used successfully in older populations (Ryff et al., 1998; Staudinger et al., 1999). There is no consensus about what resilience is and how to define it but it is commonly understood as the ability of people to resist and effectively overcome adversity (Schoon, 2006). Thus, the existence of adversity is a necessary condition for resilience. But beyond that common understanding there are different views on: (a) whether resilience is a personality trait or a process; (b) the dimensions of resilience; (c) the validity of resilience as a concept and its consistency over time; and (d) the relationships of resilience with adaptation and whether it adds something new in developmental and life-course theories (Luthar, Cicchetti and Becker, 2000).

This chapter conceptualises resilience as a dynamic process and not as a personality trait. It explores cross-sectionally older people's ability to flourish under adversity. The term 'flourish' describes people's ability not only to avoid depression when under adversity but also to achieve happiness and well-being and have a good quality of life. The longitudinal equivalent of flourishing is effectively resisting adversity in the long run. This refers to the ability to overcome the long-term consequences of a negative change in life and to bounce back from it; to avoid, in other words, a long-term or permanent decline in one's quality of life, well-being and happiness because of the emergence of adversities such as widowhood or deterioration of mobility.

In this chapter different types of adversity are considered in order to explore resilience in older age comprehensively. The cross-sectional analysis examined the following adversities: material deprivation, self-perceived material deprivation and widowhood, while the longitudinal analysis focused on deterioration of mobility and widowhood.

The focus of this chapter on resilience is warranted both from a research standpoint and a policy-making perspective. From a research standpoint, exploring resilience in older age is warranted and needed predominantly because adversities such as loss of partner/spouse and deterioration of mobility are much more common among older people. The higher prevalence of these adversities in older people, coupled with any financial difficulties they may have, make older age the most appropriate stage of life to study resilience and its associations with well-being, health and development. Moreover, research on resilience in older age is scarce in comparison with research on resilience in younger ages (Netuveli et al., 2008) and therefore there is a need for more studies on this issue, especially longitudinal ones using national samples such as ELSA's.

From the policy maker's perspective, an exploration of resilience in older age such as the present one may provide useful insights into the factors that relate to living happily and independently at later stages of life.

## **6.2 Methods**

### **Sample**

Our analysis employed data from all three waves of ELSA. The sample consisted of core members of the study (eligible members of the study who participated in the first wave of the study and have since remained active members of it) for whom a weighting factor to correct for non-response had been estimated ( $n = 7,167$ ). Information on partners of core members of the study, who were not themselves core members, was not used because of age restrictions (i.e. some of these respondents were younger than 50 years old) and the lack of an appropriate weighting factor to correct for non-response from them. The cross-sectional refreshment sample from the third wave of the study was not used. This was because the cross-sectional analysis did not use data exclusively from wave 3 but also utilised information from previous waves, thus precluding the use of the refreshment sample for which no pre-wave 3 information was available.

## **Measures**

- (1) Age was coded in three groups. The youngest age group included respondents aged 54 to 59 years old, the intermediate age group aged 60 to 74 years old and the oldest age group all respondents aged 75 and over.
- (2) Marital status data from wave 3 were coded as: married (one time or more); widowed; and separated/divorced or single.
- (3) Education was measured as highest educational qualifications reported in ELSA wave 1 and coded as: degree or equivalent qualification; other lower than degree qualifications; and no qualifications.
- (4) Wealth was employed as quintiles of net total non-pension wealth measured at benefit unit level (benefit unit is a couple or single person with any dependent children they may have). The longitudinal analysis used wealth data from the first wave of ELSA. The cross-sectional analysis used wealth data from the second but not the third wave of ELSA as the latter were unavailable at the time of analysis. The cut-off point between the lowest (poorest) and the second lowest quintiles of net total non-pension wealth (measured at benefit unit level) in wave 2 (2004–05) was £25,000 worth of wealth. The focus on wealth and not on other widely used measures of socio-economic status such as education, occupational class or income was decided on methodological grounds. Wealth reflects command over material resources much better than any other measure of socio-economic status (Oliver and Shapiro, 1995) and is more appropriate to use in older people as, unlike the other socio-economic measures, it is an indicator that reflects in the most complete way an older person's contemporary socio-economic status (Demakakos et al., 2008).
- (5) Home ownership data from wave 3 were used. They were coded as: home owner; home buyer – mortgage holder; and renter or partial ownership.
- (6) Self-perceived financial adversity was assessed by the following question: 'Looking at this card, please say how often you find you have too little money to spend on what you feel [your] needs are?' Responses to this question ranged from never (1) to most of the time (5). For the needs of the analysis these responses were dichotomised: those who never or rarely felt they had too little money to spend on their needs vs. those who sometimes or more often felt that way. Respondents who in both wave 2 and wave 3 (in wave 1 this question had not been asked) reported that they felt they had too little money to spend on their needs were treated as cases of self-perceived financial adversity.
- (7) Social support was measured as receiving positive social support. The following three questions were put to the respondents regarding the social support they might have received from partner/spouse, children and friends: (a) How much do they really understand the way you feel about things? (b) How much can you rely on them if you have a serious problem? (c) How much can you open up to them if you need to talk about your worries? Responses for each question ranged from not at all

(coded as 0) to a lot (coded as 3). Responses to all three questions were added up and summary scores ranging from 0 (absolute lack of social support from this source – lowest possible score) to 9 (highest possible score). Social support summary scores were not calculated for cases with missing values. The cross-sectional analysis employed data exclusively from the third wave of the study, while the longitudinal analysis used data from all three waves.

- (8) Satisfaction with life was measured by the satisfaction with life scale (SWLS) (Diener et al., 1985), which consisted of five statements. Responses to these statements ranged from 7 (strongly agree) to 1 (strongly disagree) (mid-point 3: neither agree nor disagree). The life satisfaction summary score ranged from 5 to 35 with higher values reflecting greater satisfaction with life.
- (9) Quality of life was measured by CASP-19 which contained 19 questions aiming to assess quality of life in early old age (Hyde et al., 2003). The CASP-19 summary score was derived in the way its developers have indicated. The expected range of the CASP-19 summary score was from 0 (worst/lowest possible score) to 57 (best/highest possible score).
- (10) Expectancy to survive for the next ten years was assessed with the following question: What are the chances that you will live to be [the actual age of the respondent plus ten years] or more? The possible response range was from 0% (absolutely no chance) to 100% (absolutely certain). The main reason for using this self-assessment of survival expectancy was that this has been found to be predictive of actual mortality (Van Doorn and Kasl, 1998; Hurd and McGarry, 2002).
- (11) A summary score of the following ten questions on self-reported mobility limitations was used:
  - (a) Walking 100 yards
  - (b) Sitting for about two hours
  - (c) Getting up from a chair after sitting for long periods
  - (d) Climbing several flights of stairs without resting
  - (e) Climbing one flight of stairs without resting
  - (f) Stooping, kneeling or crouching
  - (g) Reaching or extending arms above shoulder level (either arm)
  - (h) Pulling or pushing large objects like a living-room chair
  - (i) Lifting or carrying weights over 10 pounds, like a heavy bag of groceries
  - (j) Picking up a 5p coin from a table

Responses in all questions were dichotomous (either the condition was present or not) and the mobility limitations score ranged from 0 (lack of any limitation) to 10 (all ten limitations were present).

- (12) Depression was measured by an abridged version of the Center for Epidemiological Studies-Depression (CES-D) scale containing eight

dichotomous questions on recent experience of depressive symptoms (Radloff, 1977; Steffick and the HRS Health Working Group, 2000). Details on how these self-reported data were used can be found in the next section where the derivation of resilience measures is described.

## **Measures of resilience and adversity**

Undoubtedly there are many different ways to measure resilience in older age. Following existing research (Netuveli et al., 2008), this study concentrated on negative affectivity that might stem from experiencing adversities, and measured resilience cross-sectionally as the lack of depressive symptoms or depression and longitudinally as the non-worsening of one's depression (CES-D) score after exposure to an adversity.

Cross-sectionally, resilience was operationalised as reporting no or just one CES-D depressive symptom when under financial adversity, and resilient older people are identified as those who, under financial adversity, manage to be affected only a little or not at all by depression and to live their lives better than expected. Two different measures of financial adversity were used: objective and self-perceived. Objective financial adversity was measured as being in the lowest (poorest) quintile of total net non-pension wealth (measured at benefit unit level) in ELSA wave 2. Self-perceived financial adversity was measured as reporting having sometimes or more often too little money to spend on needs in both wave 2 and wave 3.

In cross-sectional analysis, resilience was also measured as the ability to overcome recent widowhood. Recent widowhood was assessed as a change in marital status from being married or single in the ELSA wave 2 interview to being widowed in ELSA wave 3. The decision to focus on recent widowhood and not on widowhood in general is made on the basis that the former is expected to be a more intense adversity than the latter. Resilience in recently widowed older people was measured differently than in the case of financial adversity. The criterion used to assess resilience among recently widowed older people was their depression status (case of depression measured as reporting four or more CES-D depressive symptoms) (Steffick and the HRS Health Working Group, 2000) and not the absence (either absolute or relative) of CES-D depressive symptoms. This was decided on empirical grounds as the lack of CES-D depressive symptoms seemed an inappropriate measure to assess resilience among recently widowed older people given the severity of recent widowhood as an adversity. A preliminary analysis of the frequency distribution of recent widowhood by CES-D score showed that the number of recently widowed people who reported no or just one CES-D symptom was too small (29 out of 118) for further meaningful analysis. Thus, among recently widowed older people those who were not depressed (reporting less than four CES-D symptoms) were characterised as resilient while those who were depressed (reporting four or more CES-D symptoms) were characterised as non-resilient.

The longitudinal analysis made use of data from all three waves of ELSA and focused on adversities that emerged after wave 1 and were reported in wave 2. Two adversities were considered: deterioration of mobility and widowhood. Resilience, as in the cross-sectional analysis, was related to depressive

symptoms but this time the focus was on change in depression (CES-D) score after the experience of adversity. Respondents were characterised as resilient if their post-adversity (wave 3) depression score was equal to or better than their pre-adversity (wave 1) depression score after having experienced an adversity in wave 2 (adversity time point). Respondents whose post-adversity (wave 3) depression score was worse than their pre-adversity (wave 1) score after having experienced an adversity in wave 2 were characterised as non-resilient. The rationale behind the longitudinal analysis was to measure older people’s ability to fight adversity effectively, overcome its long-term consequences and bounce back from it.

Deterioration of mobility in wave 2 was established by comparing wave 1 and wave 2 mobility limitations scores. If the wave 2 score was higher than the wave 1 score, then mobility had worsened and people were considered to be ‘under adversity’. In order to ensure that our respondents were under real adversity and that the observed worsening of mobility was not transient, wave 2 mobility limitations score was checked against wave 3 mobility limitations score. Only if the wave 3 mobility limitations score was the same as or higher than the respective score in wave 2 were respondents finally characterised as ‘under adversity’. With respect to widowhood, people were characterised as widowed if their marital status changed between wave 1 and wave 2 from being married or single to being widowed.

**Box 6.1. A description of the resilience variables**

Adversity	Criterion to establish resilience among those under adversity
<b>Cross-sectional analysis</b>	
<i>Objective financial adversity:</i> being in the lowest quintile of total (non-pension) wealth (measured at benefit unit level) in ELSA wave 2	Reporting one or no CES-D symptom
<i>Self-perceived financial adversity:</i> reporting in ELSA wave 2 and wave 3 sometimes or more often having too little money to spend on needs	Reporting one or no CES-D symptom
<i>Widowhood:</i> change in marital status from being married or single in ELSA wave 1 to being widowed in ELSA wave 2	Reporting four or more CES-D symptoms
<b>Longitudinal analysis</b>	
<i>Deterioration of mobility:</i> deterioration of mobility in ELSA wave 2 compared to ELSA wave 1 that persisted or worsened in ELSA wave 3	Wave 3 CES-D score $\leq$ wave 1 CES-D score
<i>Widowhood:</i> change in marital status from being married or single in ELSA wave 1 to being widowed in ELSA wave 2	Wave 3 CES-D score $\leq$ wave 1 CES-D score

## **Analysis**

In the cross-sectional analysis the socio-demographic characteristics of resilient and non-resilient people are described and the differences in satisfaction with life, quality of life and expectancy to survive in the next ten years by resilience status are assessed. The longitudinal analysis employed an existing methodological framework to measure resilience (Netuveli et al., 2008). It assessed the temporal dimension of resilience (older people's ability effectively to resist adversity in the long run). Also, it assessed the long-term differences in quality of life and expectancy of survival by resilience status and described the socio-demographic characteristics of the longitudinally resilient people. All differences were statistically tested by either chi-square or ANOVA. The level of statistical significance was  $p \leq 0.05$ . Numbers used in analysis may vary because of the differing numbers of missing values. All analyses were weighted for non-response.

The cross-sectional and longitudinal exploration of differences in satisfaction with life, quality of life and expectancy to survive in the next ten years by resilience status aimed at refining the depressive symptomatology-based results by showing that resilience exists even if measured in different ways.

## **6.3 Cross-sectional results**

### **Resilience to objectively measured financial adversity**

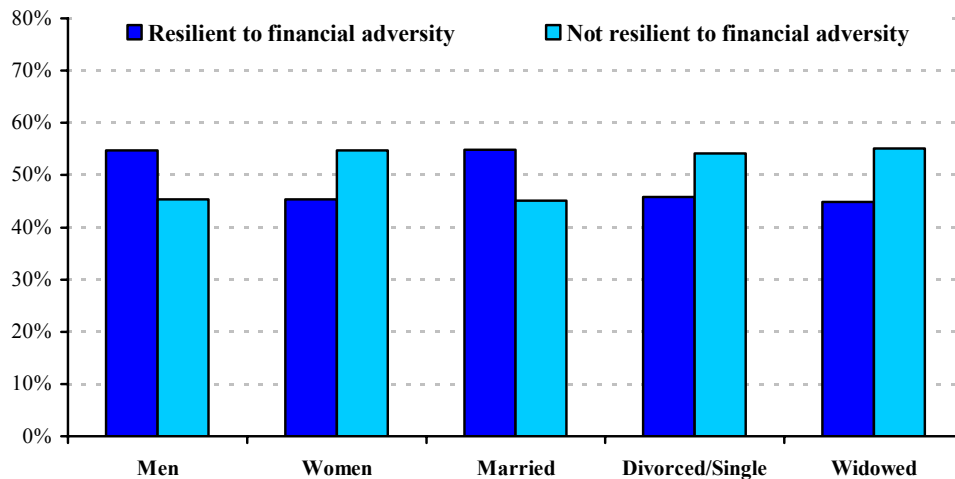
One of the adversities that the cross-sectional analysis explored in relation to older people's resilience was financial strain. This was defined as being in the lowest (poorest) quintile of wealth in ELSA wave 2. Older people who report no or just one depressive symptom while objectively being in an adverse financial position were characterised as resilient.

Table 6A.1 shows that almost 5% more older women than older men (23% and 18%, respectively) were in the lowest (poorest) quintile of wealth. It also shows that people in the oldest age group (75+) were doing worse than their younger counterparts. The lowest rates of financial adversity are observed in the youngest age group of men (16%) and the highest in the oldest age group of women (32%). With respect to depressive symptoms, more women (39%) than men (28%) reported suffering from two or more depressive symptoms. The majority of our sample (72% of men and 61% of women) have managed to avoid depression as they have reported no or just one depressive symptom. Age exerted a negative effect on older people's affective state as considerably more people in the oldest age group (34% of men and 49% of women) reported two or more depressive symptoms compared to the two younger age groups.

A combination of the two states, that of financial adversity and that of positive affective state (reporting no or just one CES-D symptom) results in a 2 x 2 table with four categories: (a) those not under financial adversity who were in positive affective state; (b) those not under financial adversity who reported two or more CES-D symptoms; (c) those under financial adversity who were in positive affective state (reported no or just one depressive symptom) and could be characterised as resilient; and (d) those under financial adversity who

reported suffering from two or more depressive symptoms and were characterised as non-resilient. Our analysis shows that men were more resilient than women (Table 6A.2 and Figure 6.1) (resilience rates were 55% and 45%, respectively, for men and women) and that this difference was statistically significant ( $p \leq 0.001$ ). But this finding should be treated with caution as the observed sex difference might be a function of the higher prevalence of depressive symptoms among the women, irrespective of financial adversity.

**Figure 6.1. Resilience to financial adversity by sex and marital status**



The examination of resilience by marital status shows that being married was related to higher rates of resilience (Table 6A.2 and Figure 6.1). Out of married older people 55% are resilient to financial adversity while the respective rates for widowed and divorced or never married older people are lower: 45% and 46%, respectively. Chi-square test shows that the differences in resilience by marital status are statistically significant ( $p \leq 0.001$ ). Differences in resilience according to age were not statistically significant ( $p = 0.96$ ). Nevertheless, it is worth highlighting that it is the oldest men (75+) who reported the highest rates of resilience (60%) among all age groups considered in this part of the analysis as well as that age influenced the association between marital status and resilience.

Another factor that was examined in relation to resilience in older ages was social support (see Table 6A.3). Different types of positive social support stemming from partner/spouse, children and friends were examined. A series of analysis of variance (ANOVA) tests shows that difference in social support received from all sources between resilient and non-resilient people was significant at the highest level of statistical significance ( $p \leq 0.001$ ). Also, our analysis indicated that there was not a single age group where non-resilient people received more social support from their partner/spouse, children or friends than their resilient counterparts. This finding indicates that social environment might be important for resilience and individual flourishing. Moreover, our analysis reveals that age influenced somewhat the association between social support and resilience as differences in the amounts of social

support received from all sources between resilient and non-resilient people were smaller in the two older age groups than in the younger age group.

An innovative part of this chapter is that it explores the differences in well-being and quality of life measures by resilience status. This is important as it provides the opportunity to explore whether resilience measured as lack of depressive symptoms relates to other outcomes and therefore to assess to what extent resilience, people’s ability to flourish under adversity, exists irrespective of the way it is measured.

In this chapter the statistical significance of differences between resilient and non-resilient people in three measures was tested: satisfaction with life scale (SWLS) (a measure of well-being); CASP-19 (a measure of quality of life in older age); and expectancy to survive in the next ten years (a measure reflecting an overall positive assessment of life and future prospects).

**Figure 6.2. Mean SWLS and CASP-19 scores and chances of survival by resilience to financial adversity**

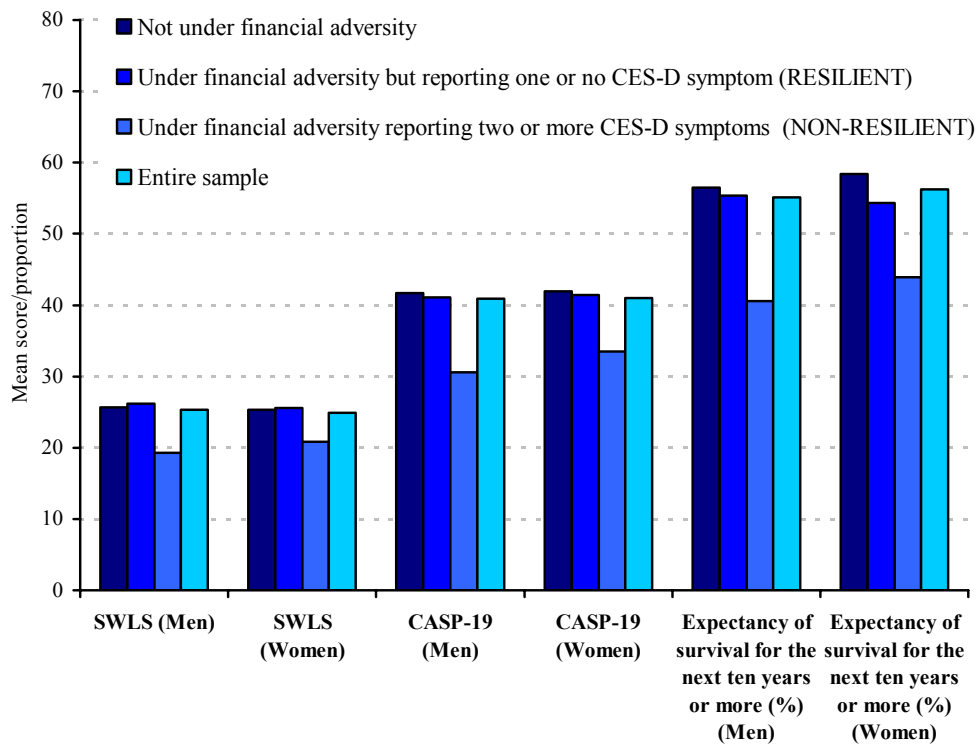


Figure 6.2 provides an overview of the differences in SWLS score, CASP-19 score and expectancy (chances) to survive in the next ten years (in %) between those who were not under financial adversity, those who were under financial adversity but were resilient and those who were under financial adversity and were not resilient. It shows that irrespective of sex it is non-resilient older people who scored lower (worse) on all three outcomes. Table 6A.4 examines the statistical significance of these differences and further analyses them by age. It shows that differences in SWLS by resilience status were significant at the highest level of statistical significance ( $p \leq 0.001$ ). The mean score of SWLS in resilient men was almost seven points higher than that of non-

resilient men, while in women the respective difference was close to five points. These differences are great given that the expected range of the SWLS measure is from 5 to 35. Further analysis of this association by age reveals two interesting findings. Firstly, it shows that the differences in SWLS between resilient and non-resilient people (in both men and women) decreased by age and secondly that this decrease was a result of a notable increase in the SWLS score of non-resilient older people by age. The highest observed score on SWLS was reported by resilient men in the oldest age group (27 points) and the lowest by non-resilient men in the youngest age group (16 points).

Table 6A.4 also shows that the association between CASP-19 and resilience shared similar characteristics with the one between SWLS and resilience. The difference in CASP-19 score between resilient and non-resilient people was also significant at the highest level of statistical significance ( $p \leq 0.001$ ). In men the difference in CASP-19 score between resilient and non-resilient was 10 points, while in women the respective difference was 8 points. This part of the analysis also suggests that, irrespective of sex, age was related to positive changes in quality of life (CASP-19 score). But it is the difference in expectancy of survival between resilient and non-resilient people ( $p \leq 0.001$ ) that shows in the most eloquent way the significance of resilience for older people's lives. On average, older resilient men reported a 15% higher chance to survive in the next ten years compared to their non-resilient counterparts. The equivalent difference for women was 9%. Also striking were the differences in expectancy of survival between resilient and non-resilient people in the youngest age group, 28% difference in men and 14% difference in women. Moreover, it should be noted that resilient men aged 75 and over reported higher chances of future survival (45%) than non-resilient men who were at least 15 years younger than them (aged 60 or younger) (38%).

### **Resilience to self-perceived financial adversity**

Our analysis expanded also on self-perceived adversities as it aimed to establish that resilience exists irrespective of the type of the considered adversity. The self-perceived adversity used in this part of the analysis was self-perceived financial adversity. This was assessed by asking respondents how often they were feeling that they had too little money to spend on their needs. Respondents who repeatedly reported that sometimes or more often they felt they had too little money to spend on their needs were classified as being under self-perceived financial adversity. An analysis of the frequency distribution of self-perceived financial adversity by quintiles of total net non-pension wealth measured at benefit unit level in wave 2 was performed to check that the distributions of these two variables were meaningfully different and, therefore, that the exploration of the association between resilience and self-perceived financial adversity would be useful and not repetitive of the analysis of resilience by wealth. The performed analysis showed that only 38% of people who reported that sometimes or more often they had too little money to spend on their needs were in the lowest (poorest) quintile of wealth. This was a clear indication that an analysis of resilience by self-perceived financial adversity would not be repetitive and redundant.

The distribution of self-perceived financial adversity by sex was somewhat different from the respective distribution of wealth-related financial adversity,

with men and women feeling equally under financial adversity (19% and 20%, respectively) (Table 6A.5). Interestingly, age was related to self-perceived financial adversity in the opposite direction from that in which it was related to wealth-related adversity; irrespective of sex the older the respondents the lower the proportion of older people feeling under financial strain. This decrease was particularly evident in women, where the rates of people reporting that they were under financial strain halved from 28% among the youngest women to 14% in women aged 75 and over.

Table 6A.6 presents the analysis of resilience to self-perceived financial adversity by age and sex. As in the case of objectively measured financial adversity presented earlier (see Table 6A.2), men reported significantly ( $p \leq 0.001$ ) higher rates of resilience (54%) than women (44%), while differences by age group were not statistically significant. Table 6A.7 presents the differences in SWLS, CASP-19 and expectancy of survival for the next ten years by resilience to self-perceived financial adversity broken down by sex and age. Differences in all three measures by resilience status were significant at the highest level of statistical significance ( $p \leq 0.001$ ). The patterns of differences in the three measures by resilience to self-perceived financial adversity across age groups were similar to the ones described earlier for resilience related to objective financial adversity. These findings constitute further evidence for the existence of resilience in the ELSA sample and, most importantly, show that adversities do not have to be 'objective' in order to impede older people's lives. Self-perceived adversities can also be harmful to older people's well-being and quality of life.

### **Resilience to recent widowhood**

Within the perspective of assessing resilience in older ages in the most complete way, this chapter also examined resilience to recent widowhood (Table 6A.8). Recent widowhood was measured as a change in marital status from being either single or married in ELSA wave 2 to being widowed in wave 3. Given the intensity of recent widowhood as a severe socio-emotional adversity and its relative rarity as an event, it was decided to assess resilience among recently widowed people as not being depressed (reporting less than four CES-D depressive symptoms) rather than as reporting no or just one CES-D depressive symptom. The prevalence of recent widowhood in our population was low, just 1.8%.

Table 6A.9 presents the rates of resilient and non-resilient people among those who have recently experienced widowhood. Although resilience to widowhood was measured differently from resilience to financial adversity, the proportion of resilient people among widowed older people was comparable to those reported earlier in Tables 6A.2 and 6A.6. Of the recently widowed people 57% did not suffer from depression. This similarity in the prevalence rates a posteriori justifies our decision to measure differently resilience among the recently widowed. When dealing with a severe and very intense adversity such as recent bereavement, appropriate measures need to be selected that will successfully distinguish resilient from non-resilient people. Difference in resilience to recent widowhood by sex and age was not statistically significant (data not shown in a table).

**Figure 6.3. Mean SWLS and CASP-19 scores and chances of survival by recent widowhood and resilience to it**

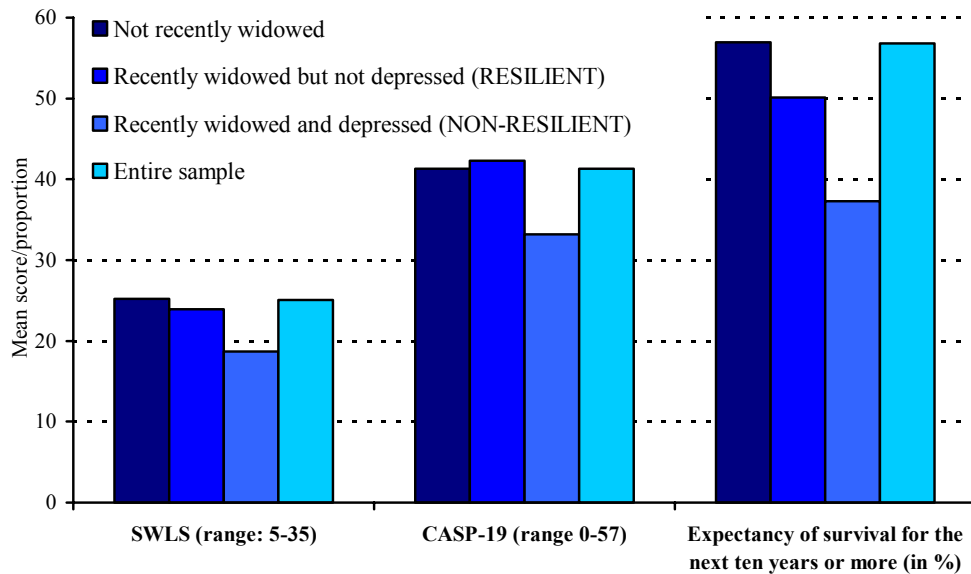


Table 6A.10 shows that the differences in social support received from children and friends between resilient and non-resilient people were not statistically significant ( $p=0.19$ ). This finding is in contrast with earlier findings showing that social support was related to resilience to financial adversity. Figure 6.3 presents the differences in SWLS and CASP-19 between not recently widowed older people, recently widowed but resilient older people and recently widowed non-resilient older people. It suggests that non-resilient older people reported the lowest scores on SWLS and CASP-19 scales and the lowest expectancy to survive in the future. Table 6A.10 complements Figure 6.3 by analysing the differences in SWLS, CASP-19 and survival expectancy by resilience to recent widowhood. In accordance with Tables 6A.3 and 6A.7, it shows that recently widowed resilient people scored significantly better (higher) on all three measures than non-resilient people. The statistical significance of the differences in SWLS and CASP-19 was at the highest level,  $p \leq 0.001$ , while that in expectancy of survival was still significant but at a lower level,  $p \leq 0.05$ .

## 6.4 Discussion of cross-sectional results

It was found that approximately half the respondents who had suffered different types of adversity were able to live a better-than-expected life and managed not only to avoid depressive symptoms but also to enjoy their lives and to remain optimistic for the future. Although this finding is not major as a definite account of prevalence of resilience in older age (as any estimation of prevalence of resilience is conditional upon the way this is measured), it is a major indication that resilience exists in older age and that a fair number of older people can potentially resist adversity.

A second interesting finding of the cross-sectional analysis is that resilience was related to SWLS, CASP-19 and future expectations irrespective of the adversity considered (objective financial adversity, self-perceived financial adversity or recent widowhood). This finding is also major as it contributes to the establishment of the concept of resilience and shows the significance of resilience for well-being, quality of life and human development.

A further intriguing finding is that age was not, at least directly, related to resilience. This was rather surprising as one would expect younger respondents to be more resilient as they may have more resources at their disposal. But clearly this is not the case. Thus, our analysis provides preliminary evidence that resilience is not a property of specific age groups, but further research on this issue is needed. Sex, social support and marital status were related to resilience but only in analysis involving financial adversity (marital status could not be used in analysis involving widowhood). Thus, no safe conclusion can be drawn on their associations with resilience and, as with the association between age and resilience, further research is needed on these.

## **6.5 Longitudinal results**

This chapter examined resilience among older people not only cross-sectionally but also longitudinally. Longitudinally, resilience was conceptualised as bouncing back after having experienced an adversity. It was measured as the ability to keep the post-adversity (wave 3) levels of depression (CES-D) scores as low as (or even lower than) they were in the pre-adversity time point (wave 1) after the establishment of an adversity in wave 2. The adversities considered in longitudinal analysis were deterioration of mobility and widowhood. The necessary conditions for them to be considered in the longitudinal analysis were that (a) they should have emerged since wave 1 and (b) that they should have been reported in wave 2. Deterioration of mobility was measured as a self-reported worsening of mobility that occurred in wave 2 and persisted or worsened in wave 3. Widowhood was measured as a change in marital status from being single or married in wave 1 to being widowed in wave 2.

### **Resilience to deterioration of mobility**

Deterioration of mobility was one of the adversities examined longitudinally. Our analysis shows that this was common in our sample, with more women than men reporting that their mobility had deteriorated between wave 1 and wave 2 (16% and 12%, respectively) (Table 6A.11). With respect to age, as expected our analysis shows that deterioration of mobility was positively related to age. The older our respondents were the more they reported that their functional ability became worse between wave 1 and wave 2. An examination of age and sex in parallel reveals that age influenced the observed sex differences in recent deterioration of mobility. In the youngest age group (54 to 59 years old), the proportion of women reporting that their mobility had recently deteriorated was almost double that of men (13% and 7%, respectively). This difference became smaller in the middle age group (60 to

74 years old) (16% and 11% for men and women, respectively), while in the oldest age group there was no sex difference, with 18% of both men and women reporting a recent deterioration of their mobility.

Table 6A.12 presents the socio-demographic characteristics of resilient and non-resilient respondents by age and sex. There are two main findings from this table. The first is that 60% of respondents who reported a deterioration in their mobility were found to be resilient as their post-adversity depression (CES-D) score was not worse than their respective pre-adversity score. This is an interesting finding, indicating that many older people were able to cope with the fact that their mobility worsened as their age progressed. The second main finding of Table 6A.12 is that the differences between resilient and non-resilient older people by any of the employed socio-demographic variables (age, sex and marital status) were not statistically significant. This is a major finding, suggesting that it might not be socio-demographic factors that drive older people's ability to bounce back after experiencing an adversity.

Another interesting finding from Table 6A.12 is the lack of a clear socio-economic gradient in resilience. This is rather unexpected given the potential contribution of education and material resources to resisting adversities effectively. A more detailed analysis of the associations between education and resilience shows that there is a statistically significant educational gradient in resilience ( $p \leq 0.05$ ) but only among the oldest respondents (75+). This is quite paradoxical given that chronologically this group is the most distant one from the time point of the end of full-time education. If not a statistical artefact this finding is an indication of the importance of education as a resource to fight problems in life for the generation of those currently 75+. An examination of the association between wealth and resilience by age group is also informative. It shows that the association between wealth and resilience has more of the characteristics of a gradient in the middle age group (60 to 74 years old) but not in the other two age groups where its shape suggests the existence of clear thresholds. This is particularly evident among the oldest respondents (75+), where there was a remarkable difference in the resilience rates between people in the highest (wealthiest) quintile of wealth and the rest of 75+ people.

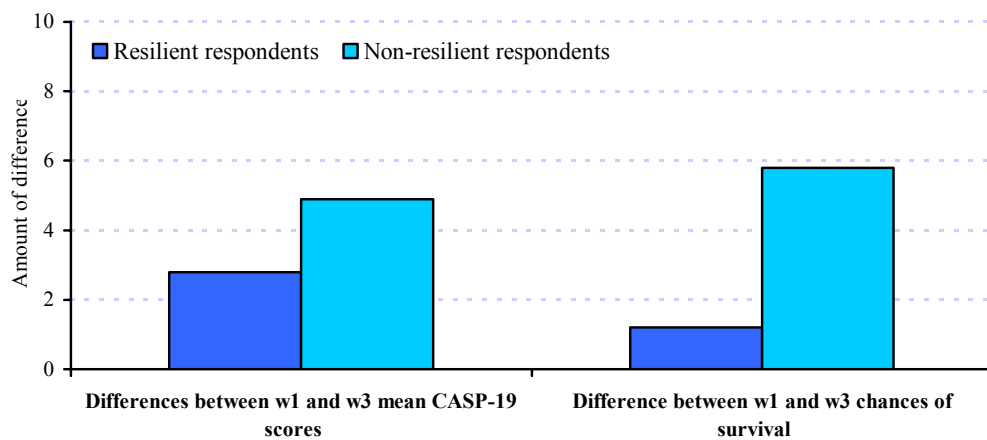
In Table 6A.13, the quality of life (CASP-19) of older people is longitudinally analysed by resilience to recent deterioration of mobility. At all three points of time, pre-adversity, adversity and post-adversity, the mean CASP-19 scores were larger for the resilient group and the differences in the mean between the two groups were statistically significant. The major finding here is that in wave 3 the resilient people managed to minimise somewhat the impact of deterioration of their mobility on their quality of life as the difference between their wave 1 (pre-adversity) and wave 3 (post-adversity) CASP-19 scores is almost three points, while the respective difference among the non-resilient people is five points (Figure 6.4).

The same patterns can be observed even more clearly in the association between expectancy of survival and resilience. In all three successive measurements (three waves of the study) a greater proportion of resilient than non-resilient respondents expected to survive for the next ten years but differences were significant only in wave 3 (post-adversity). In wave 3 (post-

adversity) the non-resilient respondents reported 6% less chance to survive for the next ten years and beyond than in wave 1 (pre-adversity baseline), while the respective difference among the resilient people was just 1% (see Figure 6.4).

Table 6A.14, in accordance with Table 6A.10, shows that social support, irrespective of where it came from, was not associated with resilience in this analysis. Except for a few comparisons, resilient respondents reported a lower level of social support than the non-resilient but these differences were small and not significant.

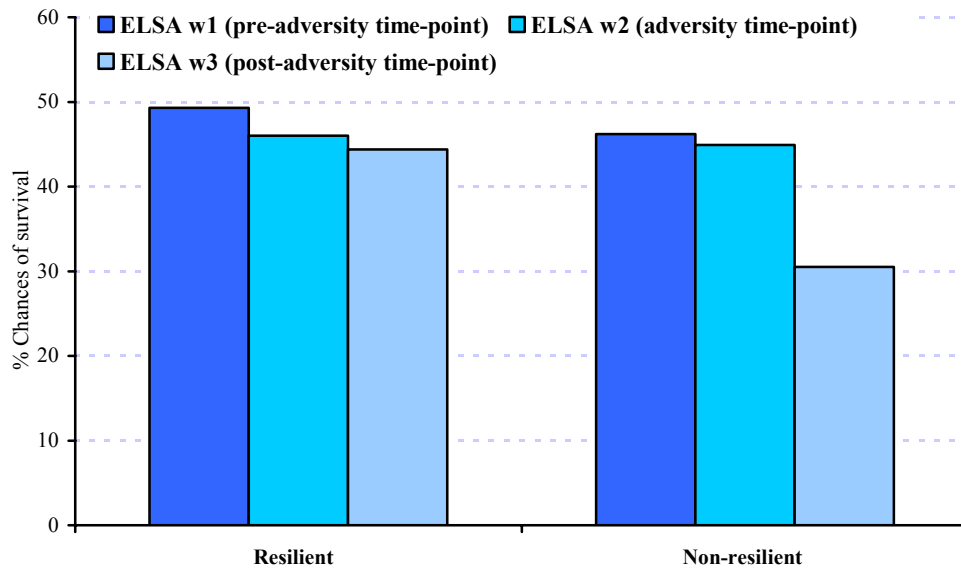
**Figure 6.4. The differences between resilient and non-resilient respondents in mean CASP-19 score and expectancy of survival (in %) in the pre-adversity (wave 1) and post-adversity (wave 3) time points**



### **Resilience to widowhood**

Table 6A.15 presents the rates of recent widowhood in wave 2 by age and sex. There were 134 new cases of widowhood between wave 1 and wave 2 and the proportion of recently widowed people among our respondents was small, 1.6% and 2.4% for men and women, respectively. As resilience is a phenomenon related to adversity, the respective count of people resilient to widowhood was similarly low. From the 134 cases of recently widowed respondents, 69 could be characterised as non-resilient and 65 as resilient (unweighted counts). The proportion of resilient people among those recently bereaved (49% – weighted estimate) resembles that of resilient people among those who reported a recent deterioration of mobility (presented in Table 6A.11), though it is somewhat smaller. The longitudinal analysis of the differences in quality of life score (CASP-19) and chances of expectancy to survive in the future by resilience to widowhood is presented in Table 6A.16. Differences were not significant in the pre-adversity (wave 1) and adversity time points (wave 2). In contrast, in the post-adversity time point (wave 3), where resilience has exerted its beneficial effect, differences in both CASP-19 score and expectancy to survive in the future were statistically significant. Table 6A.16 and Figure 6.5 show that resilient people manage to minimise the

**Figure 6.5. The expectancy of survival (in %) in three ELSA waves by resilience to recent widowhood**



damage inflicted on them by widowhood. This is evident both in the stability of their CASP-19 scores throughout the three waves and in the lesser decrease in their chances of survival in comparison with those of their non-resilient counterparts.

## 6.6 Discussion of longitudinal findings

In the longitudinal analysis, the working definition of resilience was bouncing back from adversity. Our findings suggest that many resilient people were able to minimise the losses to their quality of life and expectancy of survival that adversities such as widowhood and worsening of mobility might have brought about. Nevertheless, a full ‘bouncing back’, where our resilient respondents would manage fully to make up for all the losses originating from the adversity they experienced, was not observed. Thus, our findings suggest that a complete recovery from all consequences of intense adversities might not be easily attainable. This is a conclusion with implications for research on resilience as it shows that bouncing back in older age might be conceptualised in relative terms as a minimisation of the long-term consequences of adversities rather than in absolute terms as a complete alleviation of all negative changes caused by exposure to adversities.

At this point a major dimension of the present work should be discussed. This chapter found that depression-related resilience is not rare among older people. This is seemingly at odds with previous reports on resilience in older age (Netuveli et al., 2008) suggesting that resilience in older age is relatively rare. The difference between this work and other studies is a result of the way resilience was conceptualised and measured. The present study has focused on the lack of depression and depressive symptomatology. Although the lack of depression or depressive symptoms when under adversity is a necessary

condition to achieve flourishing in older age, it is unlikely on its own to be a comprehensive measure of such achievement. Our findings describe the lower layer – the basis of resilience but not resilience in its entirety – and they should be used in conjunction with more refined accounts of resilience (Netuveli et al., 2008).

Another finding that couples some of the findings of the cross-sectional analysis is that demographic factors such as age, sex and marital status appeared not to exert any long-term influence on resilience. Although more research is needed on this issue, it can be argued tentatively that it is not demographic factors that drive the formation of resilience. The truly surprising finding in this analysis is the lack of influence of social support on resilience. Social support has been shown elsewhere (Netuveli et al., 2008) to be a significant determinant of resilience. The difference between Netuveli et al.'s finding and that of the present study may be due to methodological differences such as use of the different outcomes and adversities and different analytical strategies. But further research on the role of social support for resilience is required in order to draw any safe conclusions. The lack of clear associations between resilience and socio-economic factors such as education, wealth and home ownership is a finding that has been reported by other studies (Netuveli et al., 2008). It is also a very intriguing finding given that socio-economic resources and status could be used to enhance the individual's ability to resist adversities. Nevertheless, the lack of socio-economic gradients in resilience does not necessarily entail a complete lack of association between socio-economic status and resilience. There is a possibility (and our data provide some indication for this) that the association between socio-economic status and resilience may not be linear and graded and, most importantly, that socio-economic resources may not equally influence resilience in all age groups.

## **6.7 Concluding remarks**

This chapter suggests that resilience exists in older ages. It measured depression-related resilience in different ways and found that those who were identified as resilient to depression reported better quality of life, more satisfaction with life and higher expectancy of survival. A surprising finding of this chapter is the lack of clear (if any) associations between social (i.e. social support) and socio-demographic factors (i.e. age, sex, marital status, education, wealth and home ownership) and resilience. This is something that future research needs to explore in detail.

Studying resilience has some particularities that the reader should bear in mind. The first is that it is very difficult for any study of resilience to account for the heterogeneity of the events (adversities). Even obviously negative events may mean different things to different people. The second is related to the distribution of events. Adversities are not distributed randomly. They have specific causes and this is something that any research on resilience should try to address. We have included in our analysis several socio-demographic factors to account for this, but our study is far from being an all-inclusive account of the causes of adversities. A third related issue is that of multiple events. Adversities do not necessarily come one at a time as examined in this chapter. Although this does not diminish the value of our work as an

exploration of resilience in older age, it is surely an issue that future research needs to explore.

Moreover, studying resilience is not an easy task as resilience is not a well-defined concept. This chapter, following existing evidence (Netuveli et al., 2008), has conceptualised and operationalised resilience in relation to negative affectivity. Undoubtedly there are many more ways to use and measure resilience. Efforts have been made to ensure that our findings would be valid even if resilience was measured differently.

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## Appendix 6A

### Tables on resilience in older age

**Table 6A.1. Objective financial adversity, depression and resilience status by age and sex in ELSA wave 3**

*Respondents 54+ who have participated in the study since its first wave (core members of the study)*

		54–59	60–74	75+	All
		%	%	%	%
<b>Men</b>					
Financial adversity	Not in financial adversity	84.3	82.4	77.2	81.7
	In financial adversity	15.7	17.6	22.8	18.3
Depressive symptoms	No or just one CES-D symptom	75.4	73.3	66.2	72.2
	Two or more CES-D symptoms	24.6	26.7	33.8	27.8
Resilience status (entire sample)	No financial adversity, no or just one CES-D symptom	66.4	64.5	52.5	62.2
	No financial adversity, two or more CES-D symptoms	17.9	17.9	24.7	19.5
	Financial adversity, no or just one CES-D symptom (RESILIENT)	9.0	8.8	13.7	10.0
	Financial adversity, two or more CES-D symptoms (NON-RESILIENT)	6.7	8.7	9.1	8.3
<b>Women</b>					
Financial adversity	Not in financial adversity	80.8	82.0	67.7	77.4
	In financial adversity	19.2	18.0	32.3	22.6
Depressive symptoms	No or just one CES-D symptom	64.6	65.4	50.9	60.8
	Two or more CES-D symptoms	35.4	34.6	49.1	39.2
Resilience status (entire sample)	No financial adversity, no or just one CES-D symptom	56.6	56.6	36.6	50.6
	No financial adversity, two or more CES-D symptoms	24.1	25.4	31.1	26.8
	Financial adversity, no or just one CES-D symptom (RESILIENT)	8.0	8.8	14.3	10.2
	Financial adversity, two or more CES-D symptoms (NON-RESILIENT)	11.2	9.2	18.0	12.4

Table 6A.1 continued

	54–59	60–74	75+	All
<b>Weighted N</b>				
Men	848	1,550	723	3,121
Women	918	1,675	1,115	3,709
<b>Unweighted N</b>				
Men	736	1,589	730	3,055
Women	903	1,844	1,054	3,801

Table 6A.2. Resilience to financial adversity by age, sex and marital status in ELSA wave 3

Core members of the study who were in the lowest quintile of wealth in wave 2

	54–59	60–74	75+	All
	%	%	%	%
<b>Men</b>				
NOT resilient	42.8	49.7	40.0	45.3
Resilient	57.2	50.3	60.0	54.7
<b>Women</b>				
NOT resilient	58.5	51.1	55.8	54.7
Resilient	41.5	48.9	44.2	45.3
<b>Married</b>				
NOT resilient	44.8	48.6	38.2	45.1
Resilient	55.2	51.4	61.8	54.9
<b>Divorced/Single</b>				
NOT resilient	53.7	51.3	63.0	54.2
Resilient	46.3	48.7	37.0	45.8
<b>Widowed</b>				
NOT resilient	–	54.8	53.0	55.1
Resilient	–	45.2	47.0	44.9
<b>Weighted N</b>				
Men	133	272	165	570
Women	176	302	360	838
Married	145	277	133	556
Divorced/Single	140	200	76	416
Widowed	24	96	314	434
<b>Unweighted N</b>				
Men	99	236	144	479
Women	158	300	311	769
Married	118	249	108	475
Divorced/Single	119	188	71	378
Widowed	20	98	275	393

Notes: Statistical significance of the differences in resilience by age group:  $p=0.938$ . Statistical significance of the differences in resilience by sex and marital status:  $p\leq 0.01$ .

**Table 6A.3. Resilience to financial adversity by social support and age in ELSA wave 3**

*Core members of the study who were in the lowest quintile of wealth in wave2*

	54–59		60–74		75+		All	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
<b>Social support from partner (range: 0–9)</b>								
NOT resilient	6.9	2.5	7.5	1.7	[7.7]	[1.9]	7.3	2.0
Resilient	7.9	1.5	8.0	1.5	8.4	1.1	8.1	1.4
<b>Social support from children (range: 0–9)</b>								
NOT resilient	6.3	2.7	6.8	2.4	7.7	1.9	7.0	2.4
Resilient	7.1	2.1	7.5	1.8	8.1	1.5	7.7	1.8
<b>Social support from friends (range: 0–9)</b>								
NOT resilient	6.0	2.4	6.4	2.4	6.6	2.3	6.4	2.3
Resilient	6.9	1.8	6.8	2.2	6.8	2.1	6.8	2.1
<b>Social support from partner, children and friends (range: 0–27)</b>								
NOT resilient	18.8	5.2	20.7	4.1	–	–	20.2	4.5
Resilient	21.6	3.5	22.0	3.7	[22.5]	[3.3]	22.0	3.5
<i>Weighted N</i>								
<b>Social support from partner</b>								
NOT resilient	63		115		37		214	
Resilient	76		127		64		267	
<b>Social support from children</b>								
NOT resilient	108		204		155		467	
Resilient	98		207		168		473	
<b>Social support from friends</b>								
NOT resilient	108		208		170		487	
Resilient	116		224		179		520	
<b>Social support from partner, children and friends</b>								
NOT resilient	52		90		21		164	
Resilient	63		108		47		217	
<i>Unweighted N</i>								
<b>Social support from partner</b>								
NOT resilient	52		101		28		181	
Resilient	62		119		54		235	
<b>Social support from children</b>								
NOT resilient	92		192		138		422	
Resilient	86		199		146		431	

*Continues*

Table 6A.3 continued

	54-59	60-74	75+	All
<i>Unweighted N</i>				
<b>Social support from friends</b>				
<i>NOT resilient</i>	92	194	147	433
<i>Resilient</i>	100	211	157	468
<b>Social support from partner, children and friends</b>				
<i>NOT resilient</i>	43	80	18	141
<i>Resilient</i>	51	102	40	193

Note: Differences in resilience by social support (all four types) are statistically significant:  $p \leq 0.001$ .

**Table 6A.4. Satisfaction with life (SWLS), quality of life (CASP-19) and expectancy of survival (chances to survive for the next ten years or more) by resilience to financial adversity and age in ELSA wave 3**

*Core members of the study who were in the lowest quintile of wealth in wave 2*

	Age group	NOT resilient		Resilient		All	
		Mean	SD	Mean	SD	Mean	SD
<b>SWLS score (range: 5–35)</b>							
Men	54–59	[15.6]	[7.3]	25.5	5.9	21.6	8.1
	60–74	19.7	7.3	25.9	5.7	22.9	7.2
	75+	[22.0]	[6.9]	27.3	4.4	25.3	6.0
	All	19.3	7.5	26.2	5.4	23.2	7.2
Women	54–59	17.7	7.5	22.9	6.9	20.0	7.7
	60–74	20.1	6.9	26.0	5.1	23.2	6.7
	75+	23.3	7.0	26.6	5.4	24.8	6.5
	All	20.8	7.4	25.6	5.8	23.1	7.1
<b>CASP-19 score (range: 0–57)</b>							
Men	54–59	[26.8]	[9.9]	41.6	7.7	35.6	11.3
	60–74	31.8	8.9	40.7	6.9	36.4	9.1
	75+	[31.6]	[10.2]	41.3	6.7	37.6	9.5
	All	30.6	9.6	41.1	7.0	36.6	9.8
Women	54–59	32.0	9.5	40.0	9.5	35.5	10.3
	60–74	33.0	9.0	42.8	6.1	37.9	9.1
	75+	34.7	8.9	40.6	6.6	37.3	8.4
	All	33.5	9.1	41.4	7.2	37.2	9.2
<b>Expectancy of survival (%)</b>							
Men	54–59	38.3	28.1	66.6	24.1	54.5	29.4
	60–74	49.4	29.3	56.1	27.5	52.8	28.6
	75+	24.5	31.5	45.2	31.3	36.8	32.9
	All	40.6	31.3	55.4	29.0	48.7	30.9
Women	54–59	54.3	26.2	68.6	21.8	60.3	25.4
	60–74	50.4	28.4	60.1	27.6	55.1	28.4
	75+	33.3	30.0	42.0	33.8	37.1	32.0
	All	43.9	29.6	54.3	34.2	48.6	32.0
<b>Weighted N</b>							
<b>SWLS score</b>							
Men	54–59	42		64		106	
	60–74	98		107		205	
	75+	47		75		122	
	All	187		246		433	
Women	54–59	76		58		134	
	60–74	119		128		247	
	75+	131		102		233	
	All	326		288		614	

*Continues*

Table 6A.4 continued

	Age group	NOT resilient	Resilient	All
<b>Weighted N</b>				
<b>CASP-19 score</b>				
<i>Men</i>	54-59	41	61	102
	60-74	96	104	201
	75+	44	72	116
	<i>All</i>	182	238	420
<i>Women</i>	54-59	77	58	135
	60-74	119	119	238
	75+	123	99	221
	<i>All</i>	318	276	594
<b>Expectancy of survival</b>				
<i>Men</i>	54-59	57	76	133
	60-74	131	131	262
	75+	63	93	156
	<i>All</i>	251	300	551
<i>Women</i>	54-59	103	73	176
	60-74	152	145	297
	75+	195	153	349
	<i>All</i>	450	372	822
<b>Unweighted N</b>				
<b>SWLS score</b>				
<i>Men</i>	54-59	31	50	81
	60-74	85	93	178
	75+	38	68	106
	<i>All</i>	154	211	365
<i>Women</i>	54-59	68	54	122
	60-74	118	128	246
	75+	117	88	205
	<i>All</i>	303	270	573
<b>CASP-19 score</b>				
<i>Men</i>	54-59	30	48	78
	60-74	85	92	177
	75+	37	66	103
	<i>All</i>	152	206	358
<i>Women</i>	54-59	69	55	124
	60-74	117	120	237
	75+	109	87	196
	<i>All</i>	295	262	557
<b>Expectancy of survival</b>				
<i>Men</i>	54-59	41	58	99
	60-74	115	115	230
	75+	53	84	137
	<i>All</i>	209	257	466
<i>Women</i>	54-59	90	68	158
	60-74	149	146	295
	75+	171	131	302
	<i>All</i>	410	345	755

Note: Differences in all three outcome measures (SWLS, CASP-19 and expectancy of survival) by resilience are statistically significant:  $p \leq 0.001$ .

**Table 6A.5. Self-perceived financial adversity, depression and resilience status by age and sex in ELSA wave 3**

*Respondents 54+ who have participated in the study since its first wave (core members of the study)*

		54–59	60–74	75+	All
		%	%	%	%
<b>Men</b>					
Self-perceived financial adversity (sometimes or more often having TOO LITTLE money to spend on needs)	No	78.8	80.0	85.1	80.8
	Yes	21.2	20.0	14.9	19.2
Resilience status (entire sample)	No self-perceived financial adversity, no or just one CES-D symptom	63.6	62.6	58.3	61.9
	No self-perceived financial adversity, two or more CES-D symptoms	15.2	17.3	26.7	18.9
	Self-perceived financial adversity, no or just one CES-D symptom (RESILIENT)	11.3	10.8	8.4	10.4
	Self-perceived financial adversity, two or more CES-D symptoms (NON-RESILIENT)	9.9	9.3	6.5	8.8
<b>Women</b>					
Self-perceived financial adversity (sometimes or more often having TOO LITTLE money to spend on needs)	No	72.3	80.3	85.9	79.9
	Yes	27.7	19.7	14.1	20.1
Resilience status (entire sample)	No self-perceived financial adversity, no or just one CES-D symptom	53.0	56.1	45.7	52.2
	No self-perceived financial adversity, two or more CES-D symptoms	19.3	24.2	40.2	27.7
	Self-perceived financial adversity, no or just one CES-D symptom (RESILIENT)	12.1	9.5	5.1	8.9
	Self-perceived financial adversity, two or more CES-D symptoms (NON-RESILIENT)	15.6	10.1	9.0	11.2
<b>Weighted N</b>					
<i>Men</i>		856	1,558	721	3,135
<i>Women</i>		940	1,696	1,100	3,736
<b>Unweighted N</b>					
<i>Men</i>		743	1,600	730	3,073
<i>Women</i>		923	1,867	1,044	3,834

**Table 6A.6. Resilience to self-perceived financial adversity by age and sex in ELSA wave 3**

*Core members of the study who in waves 2 and 3 reported that sometimes or more often they had too little money to spend on needs*

	<b>54–59</b>	<b>60–74</b>	<b>75+</b>	<b>All</b>
	%	%	%	%
<b>Men</b>				
NOT resilient	46.7	46.3	43.8	46.0
Resilient	53.3	53.7	56.2	54.0
<b>Women</b>				
NOT resilient	56.2	51.5	63.8	55.7
Resilient	43.8	48.5	36.2	44.3
<b>Weighted N</b>				
<i>Men</i>	182	312	108	602
<i>Women</i>	260	334	155	749
<b>Unweighted N</b>				
<i>Men</i>	146	294	103	543
<i>Women</i>	248	349	145	742

Notes: Differences in resilience by sex are statistically significant:  $p \leq 0.001$ . Differences in resilience by age groups are not statistically significant:  $p = 0.182$ .

**Table 6A.7. Satisfaction with life (SWLS), quality of life (CASP-19) and expectancy of survival (chances to survive for the next ten years or more) by resilience to self-perceived financial adversity, sex and age in ELSA wave 3**

*Core members of the study who in waves 2 and 3 reported that sometimes or more often they had too little money to spend on needs*

		Age group		NOT resilient		Resilient		All	
		Mean	SD	Mean	SD	Mean	SD		
<b>SWLS score (range 5–35)</b>									
Men	54–59	16.2	7.5	25.2	6.1	21.2	8.1		
	60–74	19.7	7.3	24.2	5.9	22.2	6.9		
	75+	[19.9]	[6.8]	[26.7]	[4.8]	23.7	6.7		
	All	18.7	7.4	24.9	5.9	22.1	7.3		
Women	54–59	16.6	7.6	22.3	5.9	19.2	7.5		
	60–74	19.6	7.6	24.1	5.6	21.8	7.1		
	75+	20.0	7.8	[26.1]	[4.9]	22.3	7.5		
	All	18.6	7.8	23.8	5.7	21.0	7.4		
<b>CASP-19 score (range: 0–57)</b>									
Men	54–59	29.2	9.6	41.3	7.7	35.9	10.5		
	60–74	31.4	8.0	39.0	6.5	35.6	8.1		
	75+	–	–	[40.0]	[5.9]	36.6	8.6		
	All	30.7	8.8	39.8	6.9	35.9	9.0		
Women	54–59	32.8	8.8	40.1	7.3	36.1	8.9		
	60–74	32.3	8.7	41.0	6.4	36.5	8.8		
	75+	30.0	8.8	[40.2]	[7.4]	33.9	9.7		
	All	32.0	8.8	40.6	6.9	35.9	9.1		
<b>Expectancy of survival (%)</b>									
Men	54–59	47.3	27.1	68.5	20.9	58.6	26.2		
	60–74	48.5	27.9	58.1	26.6	53.7	27.6		
	75+	[26.6]	[30.7]	45.7	29.7	37.1	31.4		
	All	44.4	29.2	59.0	26.7	52.2	28.8		
Women	54–59	58.2	25.5	70.2	18.1	63.4	23.3		
	60–74	52.4	26.1	60.2	25.5	56.2	26.1		
	75+	36.8	30.7	44.9	29.8	39.8	30.5		
	All	50.8	28.2	61.1	25.5	55.4	27.5		
<b>Weighted N</b>									
<b>SWLS score</b>									
Men	54–59	67		84		151			
	60–74	114		142		256			
	75+	36		46		82			
	All	216		272		489			
Women	54–59	111		92		203			
	60–74	139		133		272			
	75+	72		43		115			
	All	322		268		590			

*Continues*

Table 6A.7 continued

	Age group	NOT resilient	Resilient	All
<b>Weighted N</b>				
<b>CASP-19 score</b>				
<i>Men</i>	54–59	66	82	148
	60–74	112	145	256
	75+	29	44	73
	All	207	270	477
<i>Women</i>	54–59	111	93	204
	60–74	134	126	260
	75+	68	42	110
	All	313	261	573
<b>Expectancy of survival</b>				
<i>Men</i>	54–59	85	97	182
	60–74	143	168	310
	75+	47	58	105
	All	275	323	598
<i>Women</i>	54–59	146	113	260
	60–74	169	159	328
	75+	95	56	151
	All	410	328	739
<b>Unweighted N</b>				
<b>SWLS score</b>				
<i>Men</i>	54–59	56	71	127
	60–74	106	140	246
	75+	33	46	79
	All	195	257	452
<i>Women</i>	54–59	105	93	198
	60–74	148	140	288
	75+	66	43	109
	All	319	276	595
<b>CASP-19 score</b>				
<i>Men</i>	54–59	55	69	124
	60–74	105	142	247
	75+	27	44	71
	All	187	255	442
<i>Women</i>	54–59	106	94	200
	60–74	142	135	277
	75+	61	42	103
	All	309	271	580
<b>Expectancy of survival</b>				
<i>Men</i>	54–59	67	79	146
	60–74	130	163	293
	75+	43	58	101
	All	240	300	540
<i>Women</i>	54–59	134	113	247
	60–74	176	167	343
	75+	86	55	141
	All	396	335	731

Note: Differences in all three outcome measures (SWLS, CASP-19 and expectancy of survival) by resilience are statistically significant:  $p \leq 0.001$ .

**Table 6A.8. Recent widowhood (after ELSA wave 2 interview) and resilience status by age in ELSA wave 3**

*Respondents 54+ who have participated in the study since its first wave (core members of the study)*

	<b>54–59</b>	<b>60–74</b>	<b>75+</b>	<b>All</b>
	%	%	%	%
<b>Recent widowhood (after ELSA wave 2 interview)</b>				
Not recently widowed	99.5	98.6	96.2	98.2
Recently widowed	0.5	1.4	3.8	1.8
<b>Resilience status (entire sample)</b>				
Not recently widowed, not depressed	85.0	85.9	79.3	83.9
Not recently widowed, depressed	14.4	12.7	17.0	14.3
Recently widowed, not depressed (RESILIENT)	0.3	0.9	2.0	1.0
Recently widowed, depressed (NON-RESILIENT)	[0.2]	0.5	1.8	0.8
<i>Weighted N</i>	<i>1,807</i>	<i>3,274</i>	<i>1,854</i>	<i>6,935</i>
<i>Unweighted N</i>	<i>1,676</i>	<i>3,485</i>	<i>1,801</i>	<i>6,962</i>

**Table 6A.9. Resilience to recent widowhood by age in ELSA wave 3**

*Core members of the study who recently (after wave 2) became widowed*

	<b>54–59</b>	<b>60–74</b>	<b>75+</b>	<b>All</b>
	%	%	%	%
<b>Resilience to recent widowhood</b>				
NOT resilient	–	[37.6]	47.6	43.2
Resilient	–	[62.4]	52.4	56.8
<i>Weighted N</i>	<i>10</i>	<i>45</i>	<i>70</i>	<i>125</i>
<i>Unweighted N</i>	<i>8</i>	<i>46</i>	<i>61</i>	<i>115</i>

Note: Differences in resilience by age group are not statistically significant:  $p \leq 0.556$ .

**Table 6A.10. Satisfaction with life (SWLS), quality of life (CASP-19), expectancy of survival (chances to survive for the next ten years or more) and social support from children and friends by resilience to recent widowhood in ELSA wave 3***Core members of the study who recently (after wave 2) became widowed*

	NOT resilient		Resilient		All	
	Mean	SD	Mean	SD	Mean	SD
<b>SWLS score (range: 5–35)</b>	[18.8]	7.8	24.3	6.2	22.0	7.4
<b>CASP-19 score (range: 0–57)</b>	[32.5]	9.0	42.1	7.0	38.3	9.1
<b>Expectancy of survival (%)</b>	34.4	30.2	47.7	31.3	41.8	31.4
<b>Social support from children and friends (range 0–18)</b>	[13.7]	3.8	14.7	3.9	14.3	3.9
<b>Weighted N</b>						
<i>SWLS score</i>	42		61		103	
<i>CASP-19 score</i>	37		55		92	
<i>Expectancy of survival</i>	54		67		121	
<i>Social support</i>	37		54		91	
<b>Unweighted N</b>						
<i>SWLS score</i>	39		57		96	
<i>CASP-19 score</i>	34		53		87	
<i>Expectancy of survival</i>	49		64		113	
<i>Social support</i>	34		54		87	

Notes: Differences in SWLS and CASP-19 by resilience are statistically significant:  $p \leq 0.001$ . Differences in expectancy of survival by resilience are statistically significant:  $p = 0.020$ . Differences in social support by resilience are not statistically significant:  $p = 0.229$ .

**Table 6A.11. Recent deterioration of mobility in wave 2 that persisted in wave 3 by age and sex**

*Respondents 54+ who have participated in the study since its first wave (core members of the study)*

		<b>Deterioration of mobility in ELSA wave 2 that persisted in ELSA wave 3</b>	<b>54–59</b>	<b>60–74</b>	<b>75+</b>	<b>All</b>
			%	%	%	%
<b>Men</b>	No		92.7	88.9	81.9	88.3
	Yes		7.3	11.1	18.1	11.7
<b>Women</b>	No		87.5	84.0	82.2	84.4
	Yes		12.5	16.0	17.8	15.6
<b><i>Weighted N</i></b>						
<i>Men</i>			842	1,524	711	3,077
<i>Women</i>			732	1,569	718	3,019
<b><i>Unweighted N</i></b>						
<i>Men</i>			921	1,658	1,078	3,657
<i>Women</i>			905	1,826	1,023	3,754

**Table 6A.12. Resilience to deterioration of mobility by age and sex, marital status, education, wealth and home ownership***Core members of the study whose self-reported mobility deteriorated between wave 1 and wave 2 and remained so or deteriorated even more in wave 3*

	54–59	60–74	75+	All
	%	%	%	%
<b>Men</b>				
NOT resilient	39.6	36.5	44.3	39.8
Resilient	60.4	63.5	55.7	60.2
<b>Women</b>				
NOT resilient	45.0	39.7	38.9	40.5
Resilient	55.0	60.3	61.1	59.5
<b>Married</b>				
NOT resilient	43.8	36.3	42.1	39.2
Resilient	56.2	63.7	57.9	60.8
<b>Divorced/Single</b>				
NOT resilient	[38.0]	45.7	[31.8]	40.3
Resilient	[62.0]	54.3	[68.2]	59.7
<b>Widowed</b>				
NOT resilient	–	39.3	42.2	42.2
Resilient	–	60.7	57.8	57.8
<b>Degree or equivalent</b>				
NOT resilient	–	[36.0]	–	33.4
Resilient	–	[64.0]	–	66.6
<b>Other qualifications</b>				
NOT resilient	39.8	39.7	36.1	38.6
Resilient	60.2	60.3	63.9	61.4
<b>No qualifications</b>				
NOT resilient	47.4	37.8	47.3	42.9
Resilient	52.6	62.2	52.7	57.1
<b>Poorest quintile</b>				
NOT resilient	[47.1]	49.5	41.5	45.6
Resilient	[52.9]	50.5	58.5	54.4
<b>2<sup>nd</sup> quintile</b>				
NOT resilient	[39.1]	43.1	42.3	42.1
Resilient	[60.9]	56.9	57.7	57.9
<b>3<sup>rd</sup> quintile</b>				
NOT resilient	[42.0]	36.2	43.7	40.0
Resilient	[58.0]	63.8	56.3	60.0
<b>4<sup>th</sup> quintile</b>				
NOT resilient	[42.9]	33.4	41.4	37.6
Resilient	[57.1]	66.6	58.6	62.4
<b>Wealthiest quintile</b>				
NOT resilient	–	31.7	[30.5]	33.3
Resilient	–	68.3	[69.5]	66.7

Table 6A.12 continued

	54–59	60–74	75+	All
	%	%	%	%
<b>Homeowner</b>				
NOT resilient	42.6	36.5	44.3	40.1
Resilient	57.4	63.5	55.7	59.9
<b>Home buyers – mortgage holders</b>				
NOT resilient	43.2	31.4	–	36.5
Resilient	56.8	68.6	–	63.5
<b>Renters or partial owners</b>				
NOT resilient	[42.2]	50.0	38.3	43.3
Resilient	[57.8]	50.0	61.7	56.7
<b>Weighted N</b>				
<i>Men</i>	62	168	129	359
<i>Women</i>	115	265	192	572
<i>Married</i>	114	296	125	535
<i>Divorced/Single</i>	48	74	34	156
<i>Widowed</i>	14	63	162	239
<i>Degree or equivalent</i>	10	40	24	74
<i>Other qualifications</i>	103	191	125	420
<i>No qualifications</i>	63	202	172	437
<i>Poorest quintile</i>	49	71	84	205
<i>2<sup>nd</sup> quintile</i>	37	92	62	191
<i>3<sup>rd</sup> quintile</i>	35	84	69	188
<i>4<sup>th</sup> quintile</i>	32	99	63	194
<i>Wealthiest quintile</i>	20	83	40	143
<i>Homeowner</i>	66	291	206	564
<i>Home buyer – mortgage holders</i>	62	60	14	136
<i>Renters or partial ownership</i>	47	75	92	214
<b>Unweighted N</b>				
<i>Men</i>	50	171	127	348
<i>Women</i>	113	288	182	583
<i>Married</i>	105	308	117	530
<i>Divorced/Single</i>	45	77	35	157
<i>Widowed</i>	13	73	157	243
<i>Degree or equivalent</i>	10	51	27	88
<i>Other qualifications</i>	102	215	128	445
<i>No qualifications</i>	51	193	154	398
<i>Poorest quintile</i>	40	66	75	181
<i>2<sup>nd</sup> quintile</i>	34	93	61	188
<i>3<sup>rd</sup> quintile</i>	34	89	67	190
<i>4<sup>th</sup> quintile</i>	32	109	62	203
<i>Wealthiest quintile</i>	20	98	41	159
<i>Homeowner</i>	65	318	205	588
<i>Home buyer – mortgage holders</i>	59	63	14	136
<i>Renters or partial ownership</i>	38	70	82	190

Note: No difference in resilience by age, sex, marital status, home ownership, baseline wealth and education is statistically significant.

**Table 6A.13. Quality of life (CASP-19) and expectancy of survival (chances to survive for the next ten years or more) by resilience to deterioration of mobility in three successive waves of ELSA (pre-adversity, adversity and post-adversity time points)**

*Core members of the study whose self-reported mobility deteriorated between wave 1 and wave 2 and remained so or deteriorated even more in wave 3*

	NOT resilient		Resilient		All	
	Mean	SD	Mean	SD	Mean	SD
<b>CASP-19 score</b>						
<b>(possible range: 0–57)</b>						
ELSA w1 (pre-adversity)*	40.6	9.0	42.3	7.9	41.7	8.4
ELSA w2 (adversity)**	38.1	9.6	41.4	8.4	40.1	9.0
ELSA w3 (post-adversity)**	35.7	8.8	39.5	8.1	38.1	8.6
<b>Expectancy of survival (%)</b>						
ELSA w1 (pre-adversity)‡	51.9	29.2	54.6	28.0	53.6	28.5
ELSA w2 (adversity)‡	51.0	30.1	53.9	27.6	52.7	28.6
ELSA w3 (post-adversity)**	46.1	29.9	53.4	29.0	50.5	29.5
<b>Weighted N</b>						
CASP-19	214		343		557	
Expectancy of survival	348		538		886	
<b>Unweighted N</b>						
CASP-19	218		358		576	
Expectancy of survival	347		541		888	

Notes: \*Differences by resilience are statistically significant:  $p \leq 0.05$ . \*\*Differences by resilience are statistically significant:  $p \leq 0.001$ . ‡Differences by resilience are not statistically significant.

**Table 6A.14. Resilience to deterioration of mobility and social support from partner, children and friends in three successive waves of ELSA (pre-adversity, adversity and post-adversity time points)**

*Core members of the study whose self-reported mobility deteriorated between wave 1 and wave 2 and remained so or deteriorated even more in wave 3*

	NOT resilient		Resilient		All	
	Mean	SD	Mean	SD	Mean	SD
<b>Social support from partner (range: 0–9)</b>						
ELSA w1 (pre-adversity)	8.07	1.36	7.81	1.64	7.91	1.55
ELSA w2 (adversity)	8.00	1.46	7.75	1.78	7.84	1.67
ELSA w3 (post-adversity)	8.08	1.35	7.82	1.88	7.92	1.70
<b>Social support from children (range: 0–9)</b>						
ELSA w1 (pre-adversity)	7.09	2.08	6.97	2.07	7.01	2.07
ELSA w2 (adversity)	6.89	2.10	7.13	1.94	7.04	2.00
ELSA w3 (post-adversity)	7.18	2.04	7.45	1.79	7.34	1.89
<b>Social support from friends (range: 0–9)</b>						
ELSA w1 (pre-adversity)	6.74	2.15	6.57	2.09	6.64	2.11
ELSA w2 (adversity)	6.80	2.39	6.71	2.02	6.74	2.17
ELSA w3 (post-adversity)	6.70	2.24	6.78	2.04	6.75	2.12
<b>Weighted N</b>						
Social support from partner	165		278		443	
Social support from children	225		359		584	
Social support from friends	228		374		601	
<b>Unweighted N</b>						
Social support from partner	165		282		447	
Social support from children	229		371		600	
Social support from friends	232		388		620	

Note: No difference in resilience by social support is statistically significant.

**Table 6A.15. Widowhood in wave 2 by age and sex**

*Respondents aged 54+ who have participated in the study since its first wave (core members of the study)*

		Recent widowhood in wave 2	54–59	60–74	75+	All
			%	%	%	%
<b>Men</b>	No		99.4	99.0	96.0	98.4
	Yes		[0.5]	1.0	4.0	1.6
<b>Women</b>	No		99.5	97.8	95.6	97.6
	Yes		[0.4]	2.2	4.4	2.4
<b>Weighted N</b>						
<i>Men</i>			841	1,524	711	3,076
<i>Women</i>			921	1,656	1,079	3,657
<b>Unweighted N</b>						
<i>Men</i>			731	1,569	718	3,018
<i>Women</i>			905	1,826	1,024	3,755

**Table 6A.16. Quality of life (CASP-19) and expectancy of survival (chances to survive for the next ten years or more) by resilience to widowhood in three successive waves of ELSA (pre-adversity, adversity and post-adversity time points)**

*Core members of the study who became widowed in wave 2*

	NOT resilient		Resilient		All	
	Mean	SD	Mean	SD	Mean	SD
<b>CASP-19 score</b>						
<b>(possible range: 0–57)</b>						
ELSA w1 (pre-adversity) <sup>‡</sup>	[41.4]	[9.6]	[43.0]	[8.6]	42.2	9.1
ELSA w2 (adversity) <sup>‡</sup>	[40.9]	[9.8]	[43.3]	[7.1]	42.1	8.6
ELSA w3 (post-adversity) <sup>*</sup>	[38.7]	[10.2]	[42.8]	[7.4]	40.8	9.1
<b>Expectancy of survival (%)</b>						
ELSA w1 (pre-adversity) <sup>‡</sup>	46.2	35.4	49.3	27.9	47.7	31.8
ELSA w2 (adversity) <sup>‡</sup>	44.9	32.3	46.0	31.0	45.4	31.5
ELSA w3 (post-adversity) <sup>**</sup>	30.5	29.9	44.4	29.2	37.4	30.3
<b>Weighted N</b>						
<i>CASP-19</i>	38		38		76	
<i>Expectancy of survival</i>	67		66		133	
<b>Unweighted N</b>						
<i>CASP-19</i>	38		38		76	
<i>Expectancy of survival</i>	66		64		130	

Notes: <sup>‡</sup>Differences by resilience are not statistically significant. <sup>\*</sup>Differences by resilience are statistically significant:  $p \leq 0.05$ . <sup>\*\*</sup>Differences by resilience are statistically significant:  $p \leq 0.01$ .