Resilience at older ages: the importance of social relations and
implications for policy.

David Blane, Imperial College London.
Richard D Wiggins, Institute of Education.
Scott M Montgomery, Karolinska Institutet.
Zoe Hildon.University College London.
Gopalakrishnan Netuveli, Imperial College London.

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Abstract.

The paper reports quantitative and qualitative analyses of the factors and processes which allow people at older ages to maintain good quality of life despite exposure to adversities such as longstanding illness and financial deprivation. Such resilience is examined in three UK surveys. Resilience at older ages is found to be unusual; and conditional on the level of adversity. Unexpectedly, resilience is either unrelated to, or related only weakly to, a person's socio-demographic characteristics. Instead, resilience is associated most strongly with aspects of a person's inter-personal relationships. Crucially, in longitudinal analyses, such inter-personal relationships confer resilience only if they are present before and during exposure to adversity. Qualitative analyses suggest a reason. Resilience is derived from using resources, primarily inter-personal, to stabilise the life change consequent on adversity. The policy implications of these results could be important. Policies to enhance resilience need to foster good inter-personal relationships among all older people. Examples include extension of the Londoner's *Freedom Pass* and the option to continue in part-time paid employment after the State Pension Age.

Key words: Older ages; quality of life; resilience; policy.

Background.

The present paper summarises the results of a component project within an ESRC Research Network which investigated: *Development and persistence of capability and resilience in their social and geographic context* (Bartley et al 2006)*.* The presently reported component project concerned resilience and quality of life at older ages. The project contained four elements: cross-sectional analysis of English Longitudinal Study of Ageing; longitudinal analysis of British Household Panel Study; and quantitative and mixed methods analyses of Boyd Orr study. The results of each analysis have been published separately (Netuveli et al 2005; Netuveli et al 2006; Blane et al 2007; Montgomery et al 2007; Netuveli et al 2008; Blane et al 2008; Hildon et al 2009; Netuveli & Blane 2009). The present paper brings together these results, in order to integrate them into a coherent picture.

What is resilience? The study of resilience can be seen as counter-balancing the traditional concern with risk factors. Instead of asking what makes people vulnerable or diseased, the study of resilience looks at the characteristics of the people and situations that allow *flourishing despite adversity* and *bouncing back after adversity* (Schoon 2006)*.*

The concept has its origin in studies of child and adolescent development (Masten et al 1990; Luthar 1991; Rutter 1993). There are fewer studies of resilience at older ages (Baltes & Baltes 1990); and, with some exceptions (Mayer et al 1999), these few have concentrated on psychological rather than sociological factors. The presently described project helped to repair this deficit by concentrating on the social factors which can promote resilience at older ages.

Two items of information are required in order to recognising resilience: a measure of adversity; and a measure of well-being. Resilience can be recognised only in the presence of adversity. Those so exposed either maintain well-being (*resilient*) or suffer reduced quality of life (*vulnerable* or *normal*). Appropriate measures of adversity and well-being were identified in the project's three data sets. These were used to answer the research questions: What is the prevalence of resilience at older ages? Does resilience diminish with accumulating adversity? Do the resilient and not-resilient differ in their socio-economic, socio-demographic and social characteristics? What are the processes which confer resilience? How do people experience resilience?

Methods.

Data sets.
The English Longitudinal Study of Ageing (Marmot et al 2003; Banks et al 2006; Banks et al 2008) is a large (11,234 respondents), nationally representative sample of the non-institutionalised population of England aged 50 years and older. ELSA follows-up three Health Surveys for England (1998, 1999 and 2001, which together constitute ELSA Wave 0). To date: ELSA Wave 1 (2002); Wave 2 (2004); and Wave 3 (2006) are complete; with Wave 4 currently due to report. ELSA is a multipurpose survey containing excellent financial data, good socio-economic and social data and objective health measurements at Waves 0, 2 and 4. The CASP-19 measure of positive quality of life at older ages (see below) has been included in all sweeps.

British Household Panel Survey (http://www.iser.essex.ac.uk/ulsc/bhps/doc/) is an annual panel study of a representative sample of more than 5,000 UK households. BHPS started 1991 and continues to date; it will be incorporated into the new *Understanding Society* study. BHPS is a multipurpose study containing excellent financial, socio-economic and social data, GHQ-12 measure of mental health and psychiatric caseness in all 18 waves and CASP-19 in one wave only.

Boyd Orr study is a reconstituted longitudinal study. The presently reported project used a sub-study of Boyd Orr (Blane 2005). There have been four waves of data collection in this sub-study. First, in 1937-39, a study of nutrition and health in a sample of families selected to represent the range of social circumstances in Britain; 1,352 families were surveyed, containing 3,762 children aged 5-14 years. Second, in 1997-98, a follow-up survey of a sample of surviving children, stratified by childhood socio-economic circumstances, with random sampling within each stratum (one hundred respondents within each of three strata). Retrospective data, collected by lifegrid, were used to estimate lifetime exposure to a range of health hazards (atmospheric pollution, residential damp, occupational fumes & dusts, work stress, tobacco smoking, inadequate nutrition). Also, subjective and objective measures of health were collected. Third, in 2000, a postal questionnaire collected information on labour market exit, social and socio-economic circumstances, self-reported health and quality of life (CASP-19). Fourth, in 2005, a further follow-up survey to up-date lifegrids, collect information on resilience via questionnaire items (including CASP-19), time diaries and qualitative interview; plus subjective and objective measures of health.

Measures.
In the presently described project, the adversities examined varied by data set. The adversities selected for secondary analysis from the English Longitudinal Study of Ageing were limiting long-standing illness and disability. In the British Household Panel Study they were functional limitation, bereavement and poverty. And in the Boyd Orr study they were recent worsening in health, stress and general living circumstance, limiting long-standing illness and negative life events.

The measures of well-being also varied by data set. In ELSA and Boyd Orr, CASP-19 was available; with the eight-item Center for Epidemiological Studies' Depression Scale also available in ELSA. In BHPS, only the GHQ measure was collected at all sweeps; and hence was used in the longitudinal analyses. The GHQ measure is well-known. The CASP-19 measure is more recent (Higgs et al 2003; Hyde et al 2003; Blane et al 2004; Wiggins et al 2004). It is a social theory-based measure of positive quality of life at older ages (*Third Age*). CASP is an acronym of Control, Autonomy, Self-realisation, Pleasure. The measure sums the scores on 19 Likert-scaled items. It has a range 0-57, with high scores meaning good quality of life. Shorter versions have been developed: CASP-12, for use in the Study of Health, Ageing and Retirement in Europe and, more recently, CASP-12v.2 (Wiggins et al 2008).

Results.

(1) Prevalence of resilience and relationship to number of adversities.
Resilience is unusual at older ages and conditional on the number of adversities. In ELSA, the prevalence of resilience, measured as being in the top quarter of the CASP-19 distribution despite the presence of a functionally limiting condition,

was 5.4 per cent (Netuveli: unpublished result). In BHPS, the prevalence of resilience, measured as a GHQ score one year after exposure to adversity which was at the same or a higher level as their GHQ score one year pre-adversity, was 14.5 per cent (Netuveli et al 2008). In Boyd Orr, CASP-19 scores were graded inversely with number of adversities experienced, with the non-resilient at higher risk of exposure to multiple adversities (Hildon 2009). In BHPS the likelihood of resilience reduced as the number of adversities increased (Netuveli et al 2008). It seems reasonable to conclude that resilience should not be a normative expectation of people at older ages.

(2) Cross-sectional analyses, defining resilience as *flourishing despite adversity*. The socio-economically advantaged in Boyd Orr, whether measured in terms of social class, education, economic activity or housing tenure, were not more likely to be resilient (Hildon 2009), while in ELSA they were only marginally over-represented among the resilient (Netuveli: unpublished result). This modest or negligible association between resilience and material circumstances extended to the life course, where in Boyd Orr neither childhood social circumstances nor life course cumulative disadvantage were associated with resilience at older ages (Hildon 2009). Similar modest or negligible associations were found with socio-demographic characteristics: in both Boyd Orr and ELSA there were no gender differences between the resilient and non-resilient, although the resilient tended to be younger - aged less than 75 years.

Social relationships appeared to be more important to resilience than material circumstances. The resilient in Boyd Orr were more likely than the non-resilient to have good quality relationships among family and friends, judged in terms of whether these relationships were confiding and involved recent contact; and to feel integrated into their local community (Hildon 2009). In ELSA, with its larger sample size, a more stringent test was possible; namely, whether the social relationship acted as an effect modifier, as indicated by the level of statistical significance of the relevant interaction term. In analyses using functional limitation as the adversity and social relationships as the potential resilience-conferring factor, the impact of functional limitation on quality of life was mitigated by frequency of contact with friends (p=0.033 for interaction term), social participation (p<0.001), membership of social organisations (p<0.001) and engagement in leisure activities (p=0.001) (Netuveli: unpublished results).

(3) Cross-sectional analyses: elimination of health-benefits by financial disadvantage.
Early life advantages are associated with better growth and taller adult stature. Thus, taller stature is a marker of accumulated advantage, including in education and the labour market, such that taller stature is associated with better overall health in later life. This includes reduced risk of cardiovascular disease and psychiatric morbidity. Analysis of ELSA data found that, rather than promoting resilience against financial adversity, the protection against depression associated with taller stature was eliminated by financial disadvantage. Those

with lower levels of earlier advantage were less affected by financial adversity, so financial disadvantage may have the greatest and unexpected health impact among a group who tend to have better health (Montgomery et al 2007).

(4) Longitudinal analyses, defining resilience as *bouncing back after adversity*.
The resilient in BHPS did not differ from the non-resilient in terms of education, social position or material circumstances. Instead, they were characterised by good social relationships before the occurrence of adversity, as indicated by liking their neighbourhood, not planning to move home and having high social support; and good social relations, specifically high social support, at the time of the adversity. The chances of resilience were not affected by social relationships after adversity (Netuveli et al 2008).

(5) Mixed methods analyses.
The experience of resilience in Boyd Orr involved minimising the impact of adversity and stabilising life change by, for example, re-interpreting past in light of present adversity, continuing in roles that give pleasure or a sense of mastery or relying on tried and tested coping mechanisms and social support systems. In such ways, the resilient provide a continuity to their lives, despite the occurrence of adversity; as indicated by their frequent use of the phrase "*I always ..*" to preface contingent responses. To illustrate, a respondent who had come to terms with retiring early due to ill health said simply of the way he got through tough times: *It's always been my family, and it's always been my friends. I think really I'm the type of person that doesn't let problems get on top of me.* (Hildon et al 2009).

Discussion.
In summary: social relationships, rather than socio-economic circumstances, are at the heart of resilience at older ages. Good social relationships enhance resilience when they pre-date adversity and are contemporaneous with it. Such relationships work by enabling continuity of self and perhaps by preventing or minimising stigmatisation – rather than being seen as 'disabled', 'poor', 'invalid' or whatever, the person remains 'my friend who has fallen on hard times' or 'my neighbour who has suffered a stroke'.

It is notable that some benefits of earlier life advantage can be eliminated by financial disadvantage at older ages. This may apply to other diseases, such as cardiovascular disease (Osika et al 2008), as well as mental health. Adequate financial provision is required to maximise the health potential imparted by beneficial conditions in earlier life.

Policy should start by recognising that resilience at older ages is unusual. In other words, it should not become a normative expectation on older people. Policies to enhance resilience at older ages useful might consider two further findings of the present project. First, the quality of a person's social relationships appears to be as least as important for their resilience as material circumstances.

In other words, policy making should include a concern with social relationships. Second, it is social relationships at the time of adversity and, even more so, *before* the onset of adversity which confer resilience. In other words, policy should address the conditions of life of older people pre-adversity, which means all older people - targeting is ineffective because post-adversity is too late. Transporting a stroke victim to a day centre, for example, may improve their diet and access to physiotherapy, but on the present evidence at least it will not enhance their resilience.

Policies designed to enhance resilience at older ages should aim to help maintain their enjoyed and valued social relations and activities. Two examples can be mentioned, both of which are consistent with other policy concerns. A statutory option could be introduced of allowing those who so wish to continue in part-time paid employment after the State Pension Age, thereby maintaining contact with colleagues and skills acquired during the years of working life. Second, the recent extension of the London Freedom Pass to all older people in England will allow older people to maintain contact with geographically dispersed friends and kin. Such policies are advantageous for many reasons; it should be recognised that probably these include enhancing resilience to the inevitable adversities of life at older ages.

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