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Original Research

Successful ageing in an area of deprivation: Part 1—A qualitative exploration of the role of life experiences in good health in old age

M. Gilhooly^{a,*}, P. Hanlon^b, H. Mowat^c, B. Cullen^d,
S. Macdonald^e, B. Whyte^f

^aSchool of Health Sciences and Social Care, Brunel University, Mary Seacole Building, Uxbridge UB8 3PH, UK

^bDepartment of Public Health, University of Glasgow, UK

^cMowat Research Ltd, Aberdeen, UK

^dBlood Borne Virus and Sexually Transmitted Infection Section, Health Protection Scotland, UK

^eDepartment of General Practice, University of Glasgow, UK

^fGlasgow Centre for Population Health, UK

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Summary Objectives: To determine the life histories and current circumstances of healthy and unhealthy older people who share an ecology marked by relative deprivation and generally poor health.

Study design: In-depth interview study with a qualitative analysis.

Methods: Matched pairs of healthy and unhealthy 'agers' were interviewed face-to-face. Healthy ageing was assessed in terms of hospital morbidity and self-reported health. Study participants consisted of 22 pairs (44 individuals), aged 72–89 years, matched for sex, age and deprivation category, and currently resident in the West of Scotland. All study participants were survivors of the Paisley/Renfrew (MIDSPAN) survey, a longitudinal study commenced in 1972 with continuous recording of morbidity and mortality since.

Detailed life histories were obtained which focused on family, residence, employment, leisure and health. This information was supplemented by more focused data on 'critical incidents', financial situation and position in social hierarchies.

Results: Data provided rich insights into life histories and current circumstances but no differences were found between healthy and unhealthy agers.

Conclusions: It is important to understand what differentiates individuals who have lived in circumstances characterized by relative deprivation and poor health, yet have aged healthily. This study collected rich and detailed qualitative data. Yet, no important differences were detected between healthy and unhealthy agers.

*Corresponding author. Tel.: +44 01895 268 756; fax: +44 01895 269 853.

E-mail address: mary.gilhooly@brunel.ac.uk (M. Gilhooly).

This is an important negative result as it suggests that the phenomenon of healthy ageing and the factors that promote healthy ageing over a lifetime are so complex that they will require even more detailed studies to disentangle.

Introduction

As populations live longer, the challenge of healthy ageing is becoming one of the most important issues facing post-industrial societies. Compression of morbidity¹ is the 'hoped for' scenario but current evidence suggests that, in some countries, the reverse is happening. For example, in Scotland, morbidity is extending because, while life expectancy is increasing, healthy life expectancy is static.² There is, therefore, a need to understand the factors that promote healthy ageing.

The subjects of this study were all participants in a longitudinal health study¹ in an area of Scotland characterized by high levels of deprivation and poor health status. This is reflected in the fact that, over 20 or more years of follow-up, 79% of the cohort experienced at least one acute hospital stay and an average of 4.6 episodes per cohort member.^{3,4} Regardless of this general pattern, some members of the cohort have aged healthily (experienced no morbidity requiring hospital admission even into relative old age) despite the fact that they shared the socio-economic circumstances of cohort members who were experiencing high levels of morbidity. This is part of a more generalized observation. Areas exhibiting deprivation have within them individuals who enjoy relatively good health throughout their lives^{5,6} and yet we know little about what characterizes these individuals. The existence of the MIDSPAN study, with individuals now in their late 60s to early 80s, with an accurate record of all past hospital admissions, provided an opportunity to do so. The focus on hospital admissions was in part pragmatic. The MIDSPAN survey's longitudinal data allowed accurate categorization of older people in terms of their hospital experience. At the same time, this focus can be justified on more than pragmatic grounds as levels of hospital utilization form an important part of the compression of morbidity

¹The Paisley/Renfrew (MIDSPAN) Survey is a longitudinal study of 15,411 subjects (7058 men and 8353 women) who were aged 45–64 years when first examined between 1972 and 1976. Details of medical history, health related behaviour and biological risk factors were recorded at recruitment and the cohort followed-up for morbidity and mortality since then.

debate. A study that explores this important dimension should add to our understanding.

Aims and research questions

The overall aim of this project, known as the PREVAIL (Paisley and Renfrew evaluation of vitality and ageing in later life) study, was to examine how people maintain good health and age successfully in a deprived, post-industrial environment. Phase III of the study, reported here, sought to examine the patterning of social, psychological, environmental and physical factors that distinguished cohort members with low levels of hospital admission (healthy agers) from those who had many hospital admissions (unhealthy agers).

The research questions investigated were:

1. In what ways do the life experiences of healthy agers differ from those who have not aged so successfully?
2. What is the role of social networks and perceptions of social integration in healthy ageing?
3. How much of the 'healthy ageing' in the cohort sample can be explained in terms of upward social mobility, housing, deprivation category and perceptions of position in the social hierarchy?
4. Do retirement and post-retirement experiences affect healthy ageing?

Methods

Sample

The sample for the PREVAIL study comprised 100 pairs of 'healthy' and 'unhealthy' older adults living in the west of Scotland who were matched by age, sex, and Carstairs deprivation category. There were 53 male matched pairs and 47 female matched pairs, ranging in age from 70 to 90 years of age with the majority ($n = 165$) falling into the 71–80 age group and the remaining 35 in the 81–90 age group. Twenty-two matched pairs were required for the qualitative analysis which is presented in this paper. The mean age for this

subsample was 77 years, with a range of 72–89 years. There were equal numbers of male and female pairs.

Sampling

The sample of 100 matched pairs was drawn from the original Paisley–Renfrew epidemiological study; this study is known as the MIDSPAN study because all of the participants were originally studied when they were middle-aged. The core task of Phase III of the PREVAIL study was to identify and compare matched pairs of healthy and unhealthy people of advanced age. Each pair was made up of a MIDSPAN cohort member characterized by low morbidity (none or very few hospital bed days over the 20 or more years of follow-up since the original MIDSPAN survey) matched on age, sex and deprivation category⁷ with one displaying high morbidity (high levels of hospital utilization). The rationale for pairing healthy and unhealthy individuals was integral to the study. By matching on sex, age and deprivation category these confounding variables were eliminated.

PREVAIL phases and the definitions of health

In Phase I of the PREVAIL study, definitions of healthy and unhealthy individuals were developed.⁸ These definitions were used for categorization of the volunteers involved in the present phase, Phase III. In Phase I of the study the personal details of the MIDSPAN cohort members were linked, using established principles of computerized linkage of medical records to the following data sets: all acute hospital discharge (SMR1) in Scotland between 1972 and 1995; all mental health hospital discharges (SMR4); all cancer registrations (SMR6), all Registrar General death records and the 1995 Community Health Index for the local Health Board area. This created a linked data set containing the complete Scottish NHS hospital-based morbidity history of every MIDSPAN cohort member over a 23-year period and the death record where appropriate.

Morbidity histories of all cohort survivors in the area were examined in great detail, using several approaches, after which the following definitions of healthy and unhealthy were adopted: a 'healthy' individual was defined as having: either (a) no admissions to hospital whatsoever or (b) no SMR4 or SMR6 record, and with the number of SMR1 bed days being less than or equal to the 25th percentile value for the whole group (of resident survivors). An 'unhealthy' individual was defined by any of the

following: (a) presence of an SMR4 record; (b) presence of an SMR6 record; (c) number of SMR1 episodes is greater than or equal to the value of the 75th percentile for the whole group (of resident survivors); (d) number of SMR1 bed days is greater than or equal to the value of the 75th percentile for the whole group (of resident survivors).

In Phase II of the PREVAIL study, three random sample groups, each with 200 subjects, were created, one healthy, one unhealthy and a third middle group in order to assess the appropriateness of these definitions. This sample's assigned health status was then verified by detailed examination of their GP records. A postal questionnaire was also sent to the patients. There was a correspondence rate of 70%, indicating that it would be possible to draw future samples from the MIDSPAN cohort linked data set on the basis of health status.

Procedures

To obtain an overall target number of 100 matched pairs for Phase III of the project a total of 505 individuals were drawn from the two extremes of the survivors of the MIDSPAN cohort and 214 interviewed (42% acceptance). Because the linked data set used for this study was held by the Health Board, the authors could not directly approach potential study participants. Each potential participant was sent a letter from the Director of Public Health asking if he or she would be willing to take part in the study. Thus, participants had to 'opt in'. Ethical approval precluded follow-up letters to non-respondents. Furthermore, information about the characteristics of the non-responders could not be provided to the authors. However, as the study was using a quota sample design, with controls for age, gender, social class and health status, detailed information about the non-responders was not deemed to be crucial to the study.

Statistical tests (ANOVA) of the self-ratings of health (physical health compared to other of same age, how much health problems stand in way of doing things, mental health/psychological well-being, mental health compared to others of same age, ability take care of oneself and on health overall) indicated significant differences between the healthy and unhealthy agers. To further check the health status of the sample and ensure that they had correctly been classified as healthy and unhealthy agers, a discriminant function analysis was performed, using self-ratings of physical health. The 22 matched pairs analysed for the

qualitative component of the study were drawn from 46 pairs with the greatest certainty of correct classification. Finally, during the qualitative analysis the qualitative data were examined to ensure accurate classification.

Before the interviews were conducted on the matched pairs, autobiographical focus groups were conducted using other healthy and unhealthy survivors. This methodology⁹ allows participants to share views and experiences on a selected topic. Four groups, involving 21 participants, were set up, every group meeting three times. Themes emerging from the 12 piloting sessions informed the subsequent qualitative interviews.

Qualitative data and analysis

Matched pairs were interviewed individually, their responses recorded and transcribed. The Life Grid Technique¹⁰ was modified for this study. The researchers systematically entered the events chosen for discussion by the study participant onto a graph in chronological order, thereby aiding the recall process. A 'life line' represented each research topic of interest and, in this study, five 'life lines' were employed—family, residence, education/employment, leisure and health. For each of these five topics data were collected for the whole life span. This technique facilitated the gathering of 'facts' and acted as a vehicle for unearthing richer qualitative data. The life grid approach was supplemented by information of a more focused nature on 'critical incidents', financial situation and position in social hierarchies.

The analytic approach was based on Robson's view of qualitative data as a document.¹¹ In the analysis we described each pair and the data relating to them derived from the interviews as a case; the data derived from the case then became a document. The documents were then subjected to textual analysis in the form of content analysis and constant comparison. We were thus able to consider them both vertically, between cases, and horizontally, within cases.

The process of analysis went through a number of stages. Once fieldwork had been completed, interviews, which had been recorded, were transcribed to form documents. The two research assistants responsible for conducting the interviews took part in debriefing sessions where intuitive emergent themes were identified. Textual analysis then proceeded. Initial analysis and comparison of transcripts for each case was undertaken using the research questions as a template, resulting in one summary document for each pair. Content

analysis was performed on each of the summary documents by research question. The data were then sorted into categories that reflected the research. Each research question document ($n = 7$) constructed in this way was then coded according to subthemes emerging from the data. These were then further coded to build up greater density and richness. A commentary on each of the research questions was then prepared by identifying both the research question and supplementary questions, which allowed discussion of the codes. The commentary related to both the vertical and horizontal analysis of healthy/unhealthy respondents. Further details of the methods used to generate healthy and unhealthy groups, the pilot study, and the method used to analyse the data can be found by writing to the first author, in the Chief Scientist's Office final reports and in published papers.^{12,13}

Results

In what ways do the life experiences of healthy agers differ from those who have not aged so successfully?

There were no major differences in life experiences between the healthy and unhealthy agers across the very wide range of qualitative data collected. Unhealthy individuals tended to volunteer fewer life events than their healthy counterparts. This might be due to an underplaying of the significance of some events by the unhealthy group. For example, an unhealthy respondent declared that a serious and disabling accident to his hand at the age of 15 was *not* a life event. The perception of events as being of significance and requiring personal adjustment may indicate a more inquisitive and analytical frame of mind over the life course. This seems to be more the case in the healthy agers. Although the events reported are similar, the fact that more events are reported, and in greater detail, by the healthy group may have some bearing on the way in which life review may support them in their adjustments. This would certainly fit with the Baltes and Baltes theory of successful ageing,¹⁴ McKee et al.'s work on the impact of reminiscence on the quality of life of older people,¹⁵ and Birren's work on life review where individuals with the ability and will to review and change in the light of new data (compensation, selection and optimization) tend to be more successful in their ageing.¹⁶

Some differences between men and women emerged. For men, the 'life experience' that

appeared to differentiate the healthy and unhealthy in the study was career or job progression. The men in the healthy group were somewhat more likely to have experienced career progression and modest success in their field of work. Progression through their work careers had rarely been so dramatic as to lead to extensive upward mobility, but modest advancement was reported on favourably in the interviews and was clearly of importance to those who had experienced it.

What is the role of social networks and perceptions of social integration in healthy and successful ageing?

Overwhelming importance was given to family in the way the respondents located themselves in their current setting. If they were married they professed strong and close spousal relationships which were central to their well-being. There was little room for strong friendships and the presence of friendship tended to be as a result of membership of social clubs or church. The confiding relationship which is a cornerstone of well-being dominated and defined the social circle of these respondents who were still married.¹⁷ The data offer us a picture of close family units rather than open social networks and friendships. Grandchildren and children offered a source of interest, which did not seem to rely on physical presence. Thus, children and grandchildren who lived far away were still central to the conversation and the notion of family. The presence of a 'close' family circle was a matter of some pride. The respondents without children also reported the importance and primacy of family. Phillipson's research, which repeats the Bethnal Green studies of the 1950s,¹⁸ and the more recent study by Godfrey et al.,¹⁹ support the findings here that the family persists as the main social lubricant, despite its changing form. Friendships, in this data set, seemed far less important and were certainly less frequently reported.

There were few differences between the healthy and unhealthy agers in terms of their perceptions of the primacy of the family circle as described. The healthy agers seemed to have a somewhat wider variety of types of contact within their social circle. Their circles more obviously included friends and they had a broader social friendship history. There was also a tendency for the successful agers to define family circle relationships in terms of reciprocal and positive relationships, rather than as inevitable relationships whatever the quality.

How much of the 'healthy ageing' in the cohort sample can be explained in terms of upward social mobility, housing, deprivation category and perceptions of position in the social hierarchy?

Respondents did not see class as a particularly significant factor in their own lives. Interestingly, they had no problem understanding the concept. The discussion about class prompted the idea of self-motivation and movement *upwards*. Movement upwards was a distinct goal and outcome of hard work for this group. Participants came from a traditional working class environment and they shared a similar pattern of education. Only a few respondents had a higher education, most leaving school at 14/15 years. They were influenced by the war and conscription, which on occasions gave unforeseen opportunities for travel and education and in other cases prevented them following a particular route.

None of the older people interviewed claimed to be poor but a number of them described financial difficulties during their lives. The common language was that money was 'tight' at times in their lives and that they worked hard for the money they earned. Very few claimed continuous financial comfort throughout their lives. This applied to both groups so the idea that continuing financial difficulties affect health cannot be argued. Some respondents reported real hardship as children. The respondents tended to be accepting of their situation and took pride in making their financial situation work. The idea that they had any money problems was roundly dismissed by most who talked about being comfortable and secure and happy in their environments. The researchers found the questions about money rather difficult to pose and certainly a defensive and guarded response seemed to be the norm.

Given that there was little difference between the healthy and unhealthy group regarding their self-perceptions of class, it would be expected that the respondents did not perceive any differences between themselves in terms of housing. They reported, when recorded, happiness in their present homes. There were no obvious differences between the healthy and unhealthy respondents in terms of their living circumstances, income or social class aspirations.

Pairs were matched for deprivation category but this is an ecological not a personal measure of deprivation. Therefore, the council tax band of the study participants' homes was studied. There was a significant correlation between deprivation

category and tax band (Spearman's $\rho = -.328$), though the correlation was not very high. Statistical analysis revealed an association between tax band coding of respondents and health status; those in the higher tax bands were more likely to be healthy. However, there was considerable overlap in tax bands for those in the healthy and unhealthy categories.

Participants were asked to indicate their social class of origin, during working life and in retirement. There was no evidence that health was associated with upward social mobility.

How did retirement and post-retirement experiences affect current functioning and health?

Retirement was seen as a mixed blessing and busyness post-retirement was seen as an important adjustment process. Participants spoke about the importance of keeping busy and occupied. Given the cultural background of the sample, it would not be unreasonable to suggest that the Protestant ethic of hard work and limited recreation lurks in the shadows of the idea of busyness. The manifestation of busyness depended on the type of retirement experience. Phased retirement seemed to be the most fulfilling experience and was linked to satisfaction with the retired state. Those who retired reluctantly tended to be those who were retiring through ill health or because of the statutory requirements.

The healthy agers certainly offered a view of work as enjoyable and retirement as a time of busyness either because of part-time working or increased social and domestic activities. In this sense they had control over their movement between busyness and leisure. The unhealthy agers had tended to retire more on health grounds and reported a reluctance to retire. This suggests that they had no real choice or control over their retirement process.

Discussion

The main finding from this study is that healthy and unhealthy agers who shared a similarly 'deprived' ecology seemed remarkably similar in their life histories and current circumstances. There is some suggestion that the healthy males were more likely to have made modest career progression, compared to unhealthy males, but the study did not really point to particular life experiences that would help to explain differences in health. Like many other studies, this one revealed the

centrality of family and friends to well-being and successful ageing. Also, the employment experiences of the healthy and unhealthy participants appeared to be different, or at least were reported somewhat differently, but it is hard to know what is cause and what is effect.

These results are disappointing given the rare nature of the MIDSPAN cohort that has been followed for over 20 years, the efforts made to accurately define healthy and unhealthy survivors, and the detailed investigation of each subject. We successfully identified 'healthy' survivors of the original MIDSPAN study. These were individuals with little or no hospital morbidity. In contrast, the unhealthy survivors were drawn from the opposite end of the spectrum of morbidity experience. We then collected highly detailed data on a wide range of factors that we believed might be important in healthy ageing. Yet, despite careful analysis, no important differences were detected between the patterns of life history or current circumstances.

This is an important finding as it helps to confirm the conclusion that ageing is a highly complex and dynamic phenomenon. It is vital from a policy perspective that we understand its determinants and learn how to intervene over the life course to promote healthy ageing. It is disappointing that the approach adopted in the current study was not more fruitful, but it is important that investigation of the determinants of good health in old age continues. Future studies exploring the diversity and difference across the spectrum of successful 'agers' are clearly needed.

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