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A LONGITUDINAL STUDY OF WELLBEING IN WIDOWED WOMEN

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SUMMARY

Changes in mental and physical health, morale and social functioning were assessed in a random sample of elderly women widowed during the course of an 8-year study, compared with never-married and still-married controls. The sample as a whole showed age-related declines in mental and physical health. As a function of ageing there were increases in personal disturbance and in physical health problems and declines in both morale and social engagement. However, over and above these age-related changes the widows showed significant changes in mental health. There were decreases in morale after widowhood, followed by slight increases in morale in the longer term. Similarly, there were increases in personal disturbance following widowhood, with slight decreases later. The results confirm that, even after several years, widowhood has differential effects on wellbeing and morale.

KEY WORDS—longitudinal; widowhood; elderly women; mental health; physical health; social functioning

Widowhood among women in late life is a high-probability event and this is particularly the case for women aged 75 years or over. For example, 65% of women in this age group are widowed (OPCS, 1990). This reflects both women's greater life expectancy and their tendency to marry men older than themselves.

Of the few studies into the longitudinal effects of widowhood in late life, most examine the effects up to 2 years following bereavement (Harlow *et al*., 1991; Jacobs *et al*., 1989; Ferraro, 1989; Jones and Goldblatt, 1986; Heyman and Gianturco, 1973; Dimond *et al*., 1987; O'Bryant and Morgan, 1990). Jacobs *et al*. (1989) have shown that nearly one-third of widows suffered from depression 6 months following bereavement. Ferraro (1989) reviewed the literature and found that widowhood contributed to lower morale and declines in physical health in the short term. The literature indicates that there are higher levels of depression, lowered morale, quite short-term declines in health but stability in social functioning.

Bennett and Morgan (1992), in a case-control study, examined 4-year changes in mental and physical health during which time a sample of women became widowed. They found that there were significant declines in mental health (personal disturbance) and morale following bereavement over and above age-related changes. Their results also supported previous findings that social functioning remained stable following bereavement. However, they suggested that in addition to bereavement, single status (being either never-married or widowed) might be an important factor in social functioning, since these two groups showed significantly lower social functioning than still-married women.

However, the longer-term effects of widowhood among women in late life are relatively unknown. The present study addresses this deficit. Building on the work of Bennett and Morgan (1992), it was possible to assess the longer-term impact of widowhood in women bereaved in the course of the Nottingham Longitudinal Study of Activity and Ageing (NLSAA). To control for the confounding effects of both ageing and changed marital status, this subsample was compared with further subsamples of still-married and never-married controls.

METHOD

Procedure

The NLSAA was set up in 1983 to assess the role of lifestyle and customary physical activity (CPA) in promoting and maintaining psychological well-being in later life. The first population survey was

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conducted between May and September 1985, during which time 1042 people, both men and women, randomly sampled from Family Practitioner Committee lists, and demographically representative of the British elderly population, were interviewed in their own homes. The interview questionnaire contained a total of 318 items and covered aspects of health, lifestyle, demographic and socioeconomic status (see Morgan *et al.*, 1987; Dallosso *et al.*, 1988).

The first complete follow-up of survivors, using identical methods and materials, was conducted between May and September 1989. All respondents who had participated in 1985, and who were still living in Nottingham, were invited to participate. Six hundred and ninety follow-up interviews were conducted, representing a follow-up response rate of 88.3%. Information on respondents who had died, moved or migrated since 1985 was provided by the NHS central register, general practitioners' records and hospital case-notes.

The second 4-year follow-up commenced in May 1993 with the bulk (97%) of interviews completed by September 1993 (a small number of interviews were conducted outside the core period, simply due to difficulties in tracing and contacting those who had moved into residential or sheltered accommodation). All those surviving from the previous follow-up were invited to continue their participation and 410 were successfully interviewed (a response rate of 76%).

Participants

The subsample of women comprised those women who had been included in Bennett and Morgan's (1992) study of 4-year changes following bereavement, who were interviewed again in 1993, thus allowing measurement of 8-year changes.

Between 1989 and 1993 there was some attrition. Among the widows, 12 had died and five were not reinterviewed. Of the still-married women, nine had died and nine had become widowed themselves, so were excluded from the analyses to avoid the confounding effects of their subsequent widowhood. Three never-married women had died and seven were not reinterviewed. Reasons for attrition included respondents who refused or were untraced.

The subsample of widows comprised all those women who had been married in 1985, at the first interview, but who had been bereaved by 1989, at the second interview, and who were reinterviewed in 1993 ($N = 22$). For the control groups, each widow was then randomly age-matched (± 3 years) with a women who had been married both in 1985 and 1989 and had never been widowed, but who had been reinterviewed in 1993 ($N = 17$). Women who had been included in the original study as married women but who had been widowed after 1989 were excluded to avoid the confounding effects of their widowhood. Care was taken to avoid overmatching. The second comparison group comprised all those women who had never been married ($N = 18$). This group was not age-matched. However, the mean ages for the three groups did not differ significantly in 1989 (when the matching took place) (never-married women's mean age = 74.7 (SD = 6.1); widowed women's mean age = 73.4 (SD = 4.6); still-married women's mean age = 73.5 years (SD = 5.0); $F = 0.54$, $df = 2, 105$, $p < 0.58$).

The sample of bereaved women will be referred to as the widows, the sample of married women will be referred to as the still-married and the sample of single women as the never-married.

Materials

Analyses focus on four aspects of wellbeing: personal disturbance, morale, social functioning and health. Personal disturbance and affective status was assessed using the Symptoms of Anxiety and Depression (SAD) Scale (Bedford *et al.*, 1976). Morale was measured by Wood *et al.*'s (1969) 13-item version of Neugarten *et al.*'s (1961) Life Satisfaction Index (LSIZ) modified for use with a British sample (see Morgan *et al.*, 1987). Social functioning was assessed using the Brief Assessment of Social Engagement (BASE) scale developed specifically for the NLSAA and fully described elsewhere (Morgan *et al.*, 1987). Physical health was assessed using a 14-item information and symptom checklist covering the presence or absence of: heart, stomach, eyesight or feet problems; giddiness, headaches, urinary incontinence, arthritis, insomnia and falls; long-term disabilities; and current usage of drugs, walking aids or medical services (Bassey *et al.*, 1989). For a more detailed description of the measures see Bennett and Morgan (1992).

Data analyses

The data were analysed using a 3×3 mixed repeated measures analysis of variance model. The

between-subjects factor was marital status, with three levels (widows; still-married; and never-married) and the within-subject factor was time of interviews, with three levels (1985; 1989; and 1993). Significant interaction effects were further investigated using one-way analysis of variance, followed by *t*-tests.

RESULTS

Mean levels (and standard deviation) of personal disturbance, morale, social functioning and health in 1985, 1989 and 1993 are shown in Table 1.

Personal disturbance

Analysis of variance of SAD scores revealed no significant main effect for marital status ($F = 1.58$, $df = 2, 54$, $p = 0.22$), but there was a significant main effect for time of interview ($F = 3.1$, $df = 2, 108$, $p < 0.049$). Significant increases in personal disturbance were found for the sample as a whole between 1985 and 1989 ($t = -3.55$, $df = 108$, $p < 0.001$). In contrast, significant decreases were found between 1989 and 1993 ($t = 3.45$, $df = 108$, $p < 0.001$). In addition, analysis revealed a significant marital status by time of interview interaction ($F = 2.83$, $df = 4, 108$, $p < 0.028$). However, *post hoc* tests did not reveal any significant differences for either marital status or time of interview. (see Fig. 1.)

Morale

Analysis of variance of LSIZ scores showed a significant main effect for marital status ($F = 4.71$, $df = 2, 54$, $p < 0.013$). *Post hoc* analyses showed that there were significant differences between the widows and the still-married women ($t = -3.28$, $df = 36.5$, $p < 0.002$). The widows had significantly lower morale than the still-married women. There were no significant differences between the never-married and either the still-married women or widows. There was also a significant main effect for time of interview ($F = 3.27$, $df = 2, 108$, $p < 0.045$). Significant decreases in life satisfaction were found for the sample as a whole between 1985 and 1989 ($t = 4.4$, $df = 108$, $p < 0.001$). In contrast, significant increases were found between 1989 and 1993 ($t = -3.24$, $df = 108$, $p < 0.01$). In addition, there was a significant interaction between marital status and time of interview ($F = 2.53$, $df = 4, 108$, $p < 0.045$). One-way analyses of variance revealed significant marital status differences in both 1989 and 1993 ($F = 7.67$, $df = 2, 55$, $p < 0.001$; $F = 4.43$, $df = 2, 54$, $p = 0.17$, respectively). Further analyses showed that there were significant differences between the never-married women and widows in 1993 ($t = 2.03$, $df = 36.4$, $p < 0.05$), with the widows having significantly lower levels of morale. Significant differences were also found between the widows and still-married women in 1989 ($t = -4.25$, $df = 36.4$, $p < 0.001$) and 1993 ($t = -3.05$, $df = 36.3$, $p < 0.004$). Once more, the widows had significantly lower levels of morale. Fig. 2 illustrates the longitudinal changes and interaction effect for LSIZ.

Table 1. Mean levels (and standard deviation) of psychological and physical health and social functioning

	Widows $N = 22$	Married $N = 17$	Single $N = 18$
SAD			
1985	3.4 (5.4)	3.9 (5.5)	2.2 (3.6)
1989	7.2 (7.7)	2.7 (3.6)	3.6 (5.0)
1993	4.5 (6.3)	2.1 (2.5)	2.7 (3.5)
LSIZ			
1985	16.5 (6.7)	18.6 (6.0)	17.6 (5.6)
1989	11.9 (7.3)	19.5 (4.2)	15.9 (6.3)
1993	14.3 (6.0)	19.1 (3.9)	18.1 (6.0)
BASE			
1985	13.5 (2.5)	14.3 (2.1)	13.5 (3.0)
1989	12.1 (2.5)	14.1 (1.9)	12.4 (3.0)
1993	8.6 (2.4)	9.9 (3.2)	9.7 (2.7)
Health index			
1985	5.0 (2.8)	4.8 (2.9)	4.6 (3.3)
1989	6.3 (2.3)	5.0 (1.8)	5.5 (2.6)
1993	7.0 (2.4)	6.1 (2.2)	6.6 (2.3)

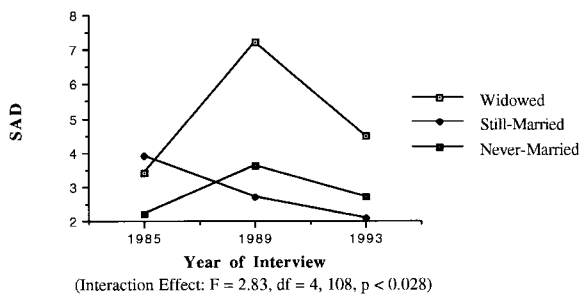


Fig. 1. Changes in SAD: year of interview by marital status

Social engagement

No main effect for marital status was found ($F = 1.64$, d$f = 2$, 50, $p = 0.21$) for BASE. However, there was a significant main effect for time of interview ($F = 97.18$, d$f = 2$, 100, $p < 0.001$). *Post hoc* analyses revealed significant declines in social engagement between 1985 and 1989 ($t = 3.2$, d$f = 100$, $p < 0.01$), between 1989 and 1993 ($t = 10.8$, d$f = 100$, $p < 0.001$) and between 1985 and 1993 ($t = 14.1$, d$f = 100$, $p < 0.001$). However, there was not a significant marital status by time of interview interaction ($F = 1.31$, d$f = 4$, 100, $p = 0.27$). Fig. 3 illustrates the longitudinal changes in social engagement.

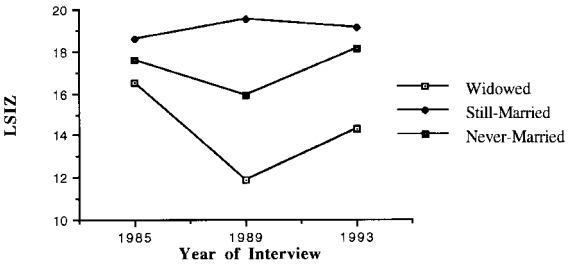
Physical health

No main effect for marital status was found ($F = 0.71$, d$f = 2$, 54, $p = 0.50$). However, there was a significant main effect for time of interview ($F = 5.88$ d$f = 2$, 108, $p < 0.001$). *Post hoc* analyses revealed significant increases in the number of health symptoms between 1985 and 1989 ($t = -2.6$, d$f = 100$, $p < 0.05$), between 1989 and 1993 ($t = -3.5$, d$f = 108$, $p < 0.01$) and between 1985 and 1993 ($t = -5.93$, d$f = 108$, $p < 0.001$). The interaction was not significant ($F = 0.54$, d$f = 4$, 108, $p = 0.71$). Fig. 4 illustrates the longitudinal changes in health.

DISCUSSION

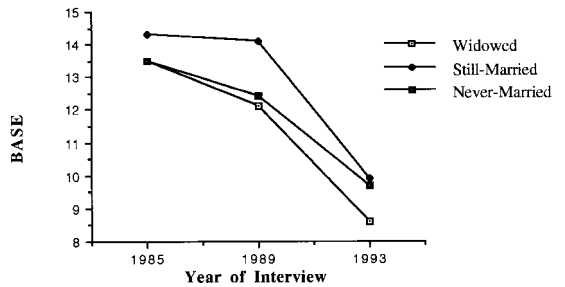
The results support earlier studies which report age-related declines in health, morale, anxiety and depression (Nowlin, 1974; Larson, 1978; Bennett and Morgan, 1992). The study also confirms previous findings that there are significant effects on mental health following bereavement (Ferraro, 1989; Bennett and Morgan, 1992). However, the longer-term effects of bereavement illustrate a pattern more complex than simple decline.

These findings indicate that there is a significant long-term effect on personal disturbance following bereavement. The widows were most depressed in 1989, shortly after their bereavement. This is to be expected. By 1993 they were less depressed. What does this mean, and what will happen over time? There are at least two possibilities. The first is that their levels of personal disturbance are returning to prewidowhood, or baseline levels. The second is that their levels are merely falling from their post bereavement peak and will plateau but remain



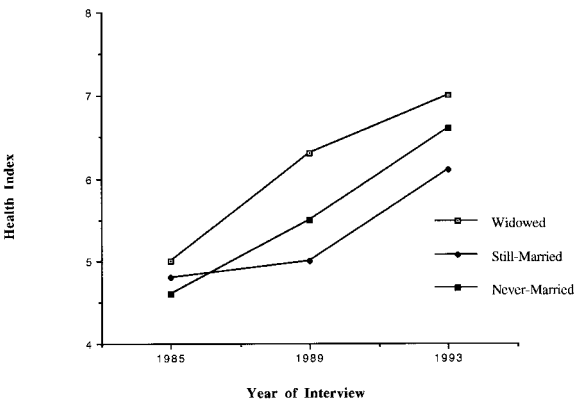
(Interaction Effect: F = 2.53, df = 4, 108, p < 0.045)

Fig. 2. Changes in LSIZ: year of interview by marital status



(Main Effect: F = 97.18, df = 2, 100, p < 0.001)

Fig. 3. Main effect for social engagement: year of interview



(Main Effect: F = 5.88, df = 2, 108, p < 0.001)

Fig. 4. Main effect for health: year of interview

elevated. Only time or more detailed interview would elucidate this. It would appear that the more dramatic effects on personal disturbance of bereavement are shorter term, while levels of morale, as will be shown, are more resistant to change.

There is a significant long-term effect on morale following bereavement. The widows show lower levels of morale than either the still-married or the never-married women and furthermore these

differences in morale remain some time after bereavement. They demonstrate the enormous impact of widowhood on women even in the longer term. As with SAD, the widows have their lowest morale in 1989 postbereavement and levels appear to be improving. Again, there are at least two possible explanations. The first is that their levels of morale are returning to prewidowhood, or baseline levels. The second is that their levels are merely rising from their postbereavement nadir and will plateau but remain suppressed. In addition to this, unlike SAD, there remain significant differences between the widows and both control groups in 1993. So there is still a marked effect on morale several years after the loss of their spouses. It may be that morale is a more robust measure than SAD. The effects of bereavement may have a much longer-term impact on morale, rather than more acute measures of mental health. This seems intuitively plausible: women may no longer be in the depths of depression, rather they are much less happy than they were and their lives are not as fulfilled as they were when they were still married.

Levels of social engagement do not reveal any effects for widowhood, supporting the earlier findings of Bennett and Morgan (1992). However, contrary to their findings (and those of others: Heyman and Gianturco, 1973; Ferraro, 1989), significant declines in social engagement are shown for ageing. It may be that it is the 8-year changes and increased age which are the important factor here. Ninety-eight per cent of the sample are now 75 years old or over, falling into the 'very old' category commonly used in the gerontological literature (eg Morgan *et al*., 1987). This may provide some support for the disengagement theory (Havighurst *et al*., 1968). Again, more detailed analysis would be required to investigate this.

To summarize the effects of widowhood (where it occurred during the first 4 years) in the course of an 8-year study, it is possible to see effects of widowhood *per se* and effects of ageing. For the effects of ageing, personal disturbance and physical health problems increase while morale and social engagement decrease. For the effects of widowhood, personal disturbance increases and morale decreases.

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