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Measuring core bereavement phenomena

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SYNOPSIS As part of a longitudinal study of bereavement phenomena in three groups, bereaved spouses, bereaved adult children and bereaved parents, scale development was carried out using a pool of bereavement phenomenology questions administered prospectively. The items were derived from the literature, in particular studies dealing with the measurement of grief/bereavement, as well as from clinical experience. Factor analysis of theoretically grouped items produced seven subscales, three of which tapped frequently experienced phenomena in the bereaved. These three subscales formed the basis of a single measure, labelled the Core Bereavement Items (CBI), which demonstrated high reliability and sound face and discriminant validity. Preliminary analysis suggested that the CBI will prove to be a reliable and valid instrument with respect to the measure of core bereavement phenomena in commonly bereaved groups in Western society.

INTRODUCTION

Over the last two decades multidimensional models of bereavement have emerged with various measurement instruments being trialled and developed with bereaved populations. They include the Texas Inventory of Grief (Faschingbauer *et al*. 1977), the Grief Experience Inventory (Sanders *et al*. 1979, 1985), the Expanded Texas Inventory of Grief (Zisook & DeVaul, 1984), the Widowhood Questionnaire (Zisook & Shuchter, 1985), the scale devised by Jacobs *et al*. (1987), the 42-item measure of bereavement related feelings and behaviours of Lund *et al*. (1985; Lund, 1989), the seven-item Grief Resolution Index of Remondet & Hansson (1987), and the Grief Reaction Measure of Vargas *et al*. (1989). The Bereavement Phenomenology Questionnaire, a more heuristically derived instrument, has been used prospectively in studying bereavement phenomena in recently widowed elderly men by Byrne & Raphael (1994). Examples of scales tailored for use with specific populations include the Perinatal Grief Scale (Toedter *et al*. 1988) and the Grief Experience Questionnaire (Barrett & Scott, 1989) used in bereavement following suicide.

Some of the more commonly cited scales warrant further review. Sanders *et al*. (1979) reported on the development of their Grief Experience Inventory (GEI), which was based on a pool of 180 statements to which respondents could reply on a true or false basis. Items were deleted if they correlated significantly (correlation coefficient $\geqslant 0{\cdot}30$) with a denial scale and items were assigned to scales by the authors. Sanders *et al*. (1979) found nine scales that measured despair, anger, guilt, social isolation, loss of control, rumination, depersonalization, somatization and death anxiety. In addition, there were three scales relating to denial, atypical responses and social desirability, as well as four 'research scales'. The 1985 edition of the GEI (Sanders *et al*. 1985) recorded alpha coefficients for the nine grief dimensions as ranging from poor (0·52 for the six-item guilt scale) to moderate (0·81 for the 20-item somatization scale).

In one of the few reviews of bereavement measures, Jacobs (1987) characterized the final 135 true/false items contained in the GEI as specific for bereavement. However, whether the scale actually has 135 true items is a moot point as some items are extremely similar or indeed the same item restated in a different way. For example, included within the Anger/Hostility subscale are these three items: 'I tend to be more irritable with others', 'I find I am often irritated

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with others', and, 'I am often irritable'. A further difficulty is that while the scale is designed to be used prospectively and to chart changes over time, leading items are not state items, e.g. 'It is difficult to part with the clothing and personal articles of the deceased', or, 'Immediately after the death I felt exhausted'. A further issue with this inventory is that the items are rated on a true/false dichotomy and a total score based on a number of true answers is arrived at for each of the nine scales. Consequently, there is no opportunity to rate the relative frequency of the experiences, feelings, symptoms and behaviours that the items are said to represent other than by way of inferring this by looking at the changes in totals on the nine subscales. No item on the GEI specifically mentions sadness occasioned by the loss, 'missing' the lost person or crying in response to reminders of the lost person, which are phenomena described as being typical of bereavement reactions by workers such as Parkes (1970).

The initial focus of Faschingbauer *et al.* (1977) in developing the Texas Inventory of Grief (TIG), was a narrow one with an initial pool of 13 items selected as reflecting various aspects of incomplete grieving. The items of the Texas Inventory of Grief reflected the continuing of emotional distress occasioned by the loss, preoccupation with the lost person, somatic identification, an inability to accept the loss and anniversary distress. Zisook *et al.* (1982), in referencing the earlier report (Faschingbauer *et al.* 1977) stated that this study revealed two distinct factors, a seven-item factor of 'present feelings' thought to measure levels of unresolved grief and a four-item factor of 'past behaviour and feelings immediately following the object loss' which was said to measure acute mourning. Based on the literature of normal and atypical grief reactions and the clinical experiences of the researchers, the TIG was then expanded to 58 items (scored on a 5-point scale, 1 = completely false; 5 = completely true). Given the wording of some of the items, it is a little difficult to decide what they are measuring, e.g. 'An unusual numbness comes over me when I think of him/her', 'I feel just like the person who died', or, 'I feel I have the same illness as him/her'.

Faschingbauer *et al.* (1987), reported a revision of the Expanded Texas Inventory of Grief, and renamed it the Texas Revised Inventory of Grief (TRIG). The 58 items from Expanded Texas Inventory of Grief were trialled with two groups of subjects who rated each item on a 5-point scale. Using a variety of statistical approaches, the authors arrived at a scale which had two factors comprising sufficient numbers of items as to, in their opinion, constitute useful dimensions. A 13-item scale encompassed 'present emotion of grief' and an 8-item scale focused on 'past life disruption'. Discriminant validity for the inventory was assessed by evaluating whether the scale scores reflected the expected outcome when the two groups were compared. However, the 5-point scale (completely true, mostly true, true and false, mostly false and completely false) does not really allow the respondent to grade either the frequency or the severity of a particular symptom behaviour or emotion, e.g. it may remain completely true throughout that a person 'at times' still 'feels the need to cry for the person who died'.

Zisook & Schuchter (1985) described another questionnaire which focused on widowhood and included two questions on acceptance of the loss, five questions relating to the continuous relationship with the lost person, three items on anger and guilt and nine items on different affects. A number of self-rating items were included involving overall adjustment, depression and anxiety. Items were derived from clinical experience, literature review and from other questionnaires previously used in studying widowhood. More recently, Zisook & Schuchter (1991) described the items on the Widowhood Questionnaire as being derived from several sources including: (*a*) their clinical experience; (*b*) findings from a series of open ended interviews of widows and widowers carried out by Shuchter using the Revised Texas Inventory of Grief (Faschingbauer *et al.* 1987); and, (*c*) from the published reports of several major investigators who had examined bereavement phenomenology. In reading the published results, to date (Zisook *et al.* 1987; Zisook & Shuchter, 1991), it is unclear as to how the items were worded and while grief specific feeling states are reported, it is unclear for example whether 'anger' refers to anger in general or anger at the lost person or anger at some other person.

Jacobs and colleagues approached the measurement of grief from a theoretical stand-

point derived from attachment theory (Parkes, 1970, 1972; Bowlby, 1980/1981), with an emphasis on depressive symptomatology associated with bereavement. They developed a 38-item instrument of which six items concerned the assessment of 'numbness and disbelief' (Jacobs *et al.* 1987) and 12 items were developed to assess 'separation anxiety'. In assessing 'sadness and despair', the Centre for Epidemiological Studies Depression Scale (CES-D) (as used by Comstock & Helsing, 1976) was adapted after it was discovered that its items closely resembled those that had been independently developed. A principle components factor analysis was computed using a varimax rotation and resulted in 11 groups of items with factor loadings greater than 0·40. Of these, four factors emerged which the authors felt were meaningfully understood within the framework of attachment theory. These were a nine-item factor of 'sadness, loneliness and crying', a six-item factor of 'numbness and disbelief', a five-item factor as 'perceptual set and searching', and, a four-item factor of 'distressful yearning'. While the statements forming the items used by Jacobs *et al.* (1987) at times imply a loss, none of them explicitly describes it. A difficulty with structuring items in this way is that items specific to the death or the body of the dead person cannot be included. Additionally, Jacobs *et al.* (1987) reported the use of their instrument with 218 participants, of whom only 69% were actually bereaved; the rest had a spouse suffering from a life-threatening illness.

Design issues in scales reviewed

The scales described above demonstrate differing approaches with respect to how individual items are presented and responded to. Where statements are made and respondents are given the opportunity to mark them as 'true' or 'false' or to 'agree' or 'disagree' ambiguity in the statements frequently occurs and the dichotomous response format may be considered restrictive. Additionally, there is the associated concern as to whether some items actually provide the measure of what they purport to measure. Frequently scales have items that are virtually identical and while they add to apparent reliability and factor together, such items do not necessarily reflect a graded dimension. In many instances there is a marked overlap between items reflective of grief and items contained in scales measuring depression.

All the scales are essentially culture-bound with there being no pretension about their ability to be used in a cross-cultural setting. Normative data with respect to scale scores are either absent or are based on populations that are not representative of bereavement in community samples. No instruments have been trialled in a prospective cross-sectional fashion with representative groups of bereaved, seen within the same time frame and in comparable numbers. Hence the generalizability of these scales is more inferred than proved. In order to allow use with non-bereaved controls some scales structure items to make no reference to the loss or the lost person, thus denying the ability to include phenomena that may be very bereavement specific.

AIM

The usefulness of a bereavement scale will depend on: (*a*) how well it encompasses relevant phenomena; and (*b*) how sensitive it is to picking up changes over time or in distinguishing between groups where differing bereavement related symptomatology are hypothesized. With these issues in mind a study was undertaken to develop a scale which measures bereavement and to test its validity by comparing the bereavement phenomenology of community cohorts of bereaved spouses, adult children and parents. Therefore, the specific aims of this study were to devise a scale of core bereavement items that could be used to assess the intensities of the bereavement reaction in different community samples of bereaved subjects and to evaluate its discriminant validity. On the basis of previous research (Sanders, 1980; Owen *et al.*1982), it was predicted that the intensity of the bereavement reactions would be bereaved parents > bereaved spouses > bereaved adult children.

METHOD

Study design

A four-phase longitudinal design was used. Bereaved subjects were interviewed approximately 1 month after their loss (T1) and then again at 10 weeks (T2), 7 months (T3) and 13 months (T4) post-bereavement.

Table 1. *Bereavement phenomenology subscales*

Subscale/Item	Factor loading	Alpha
1 Images and thoughts (7 items)		
Images of events surrounding 'x's' death	0·71	
Thoughts of 'x' coming to mind	0·69	
Distress at thoughts of 'x'	0·65	
Think about 'x'	0·64	
Images of 'x' cause distress	0·59	
Preoccupation with images/memories of 'x'	0·56	
Thinking of reunion with 'x'	0·47	
		0·74
2 Sense of presence (4 items)		
Feel as if 'x' present	0·79	
Feel as if seen 'x'	0·68	
Feel as if touched by 'x'	0·66	
Feel as if heard 'x'	0·65	
		0·65
3 Dreams (3 items)		
When dreaming, feel as if 'x' alive	0·86	
Recall dreaming about 'x'	0·82	
Dreaming about 'x' helps cope with loss	0·72	
		0·73
4 Acute separation (5 items)		
Missing 'x'	0·80	
Reminded of 'x' by familiar objects	0·77	
Pining/yearning for 'x'	0·74	
Looking for 'x' in familiar places	0·74	
Distress/pain when confronted with 'x' not present/returning	0·52	
		0·77
5 Grief (5 items)		
Reminders → Longing for 'x'	0·84	
Reminders → Loneliness	0·80	
Reminders → Cry about 'x'	0·79	
Reminders → Sadness	0·73	
Reminders → Loss of enjoyment	0·66	
		0·86
6 Non-resolution/conflict (6 items)		
Reminders → Dread	0·76	
Reminders → Unreality	0·69	
Reminders → Anxiety	0·67	
Reminders → Numbness	0·63	
Reminders → Guilt	0·60	
Reminders → Anger	0·47	
		0·76
7 Personal resolution (5 items)		
Ability to assist others	0·72	
Current feelings of strength, having experienced loss	0·72	
Ability to organize life since loss	0·70	
Ability to organize life to one's satisfaction	0·68	
Current understanding of self, having experienced loss	0·62	
		0·72

Subjects

Recently bereaved subjects living in Brisbane were recruited into three groups (bereaved spouses under the age of 70, adult children who had lost a parent, and, parents who had lost a child aged between 1 and 18) and followed up during the same time period; 1989–1992. Subjects were recruited via specific hospital notifying officers or via the State Registrar-General, which registers all deaths. Letters were sent to relatives of the bereaved inviting them to participate in the study. While not strictly randomized, the selection process continued intermittently with approximately equal numbers of subjects in the three groups entering the study. While cancer and heart disease were responsible for the great majority of losses suffered by spouses or adult children, accidents and other illnesses were responsible for most of the children's deaths. The number of bereaved spouses was 53 (mean age 53 years; 74% female), adult children numbered 52 (mean age 40 years; 67% female) and there were 53 bereaved parents (mean age 40 years; 57% female), corresponding to participation rates of 57, 57 and 48% respectively.

Measures

The central measure was a 76-item bereavement phenomenology questionnaire (BQ). The items were derived from reviews of the bereavement literature (Raphael, 1983; Middleton & Raphael, 1987; Raphael & Middleton, 1987) and from clinical experience. The initial version of the BQ was trialled with three groups of 20 bereaved spouses each seen cross-sectionally at 1 month, 3 months and 13 months post-bereavement and modified slightly in the light of the pilot experience. Aside from forming a basis by which the intensity of bereavement responses could be compared across groups, items were intended to provide a basis for the detailed description of the evolution of the overall bereavement response. In devising the BQ, unless the nature of the item dictated otherwise, a 4-point nominal scale was used which allowed respondents to nominate how frequently they were currently experiencing a particular phenomena. A 5-point scale was used with the 9 questions relating to parameters of resolution where it was important to have a middle option

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equating with a situation of 'no change'. The 4-point scale was chosen for most of the items because it had the advantage of denying a middle option, thereby ensuring that respondents indicated whether they were experiencing a phenomena frequently or not. The questionnaire attempted to describe each phenomena in simple English and as unambiguously as possible.

For the 67 questions based on 4-point scales, respondents had the option of rating the highest frequency of the particular experience as being either 'continuously' or 'always' present, or alternatively occurring 'a lot of the time'. In descending order of frequency the three other alternatives were 'Quite a bit of the time', 'A little bit of the time', and 'Never'. Nine items, particularly those associated with resolution factors like life style, health or attitude required a 5-point scale with a middle option representing 'No change'. The 4- and 5-points response scale were used to get a broader spread of responses and greater discriminatory power in preference to the dichotomous response format used in some of the previous research (Sanders *et al.* 1979).

The 76 items included five groups: 22 items related to thoughts, images, memories and dreams of the lost person, seven items associated with attachment behaviours, 21 items associated with specific emotions and specific behaviours invoked by reminders of the lost person, 13 items covering ongoing behaviours associated with the lost person, and 13 items associated with parameters of resolution.

SUBSCALE DEVELOPMENT

Subscale development was based on the complete T1 data set comprising a total of 158 subjects (spouses $N = 53$, adult children $N = 52$, parents $N = 53$). The five groupings based on the 76 items relating to a particular phenomenology as delineated above were the starting point for item reduction and subscale formation. A principal components – varimax rotation factoring methodology was used to reduce the bereavement phenomenology items within each theoretical grouping. The number of factors with eigenvalues greater than 1 were noted and those items with factor loadings of 0·4 or greater (Stevens, 1992) were retained. Subscales of three or more items were retained and Cronbach's alpha coefficients (Cronbach, 1951) calculated. It should be noted that because alpha coefficients are related to the number of items in the scale it is difficult to get high reliability coefficients for scales constituted by a small number of items.

The process described above yielded nine subscales, two of which were not retained because of a lower than acceptable ($< 0{\cdot}65$) alpha reliability coefficient, leaving seven subscales of between three and seven items (see Table 1). (The two subscales deleted were a five-item subscale ($\alpha = 0{\cdot}58$) and a three-item subscale ($\alpha = 0{\cdot}58$), both derived from the 13 items dealing with behaviours associated with the lost person. Such items included talking about the lost person as if they were alive, spontaneously mentioning the lost person to others or keeping an area or place for the lost person, etc.)

In order to assess the discriminant validity of the subscales formed, comparisons across groups and across the four time periods were computed. The results are presented in Table 2. The discriminant validity of the subscales would be demonstrated in the groups were in the order; bereaved parents > bereaved spouses > bereaved adult children. This progression is congruent with the studies of Sanders (1980) and Owen *et al.* (1982) already quoted and with the work of Videka-Scherman (1982). Additionally, it was predicted that the frequency of such phenomena focused on here would reduce over time. Such a pattern shown with subscales would further demonstrate discriminant validity.

The first of seven retained subscales dealt with images and thoughts relating to the lost person, their death and thoughts of possible reunion. These intrusive or preoccupying phenomena reflect a central grief construct. There was a significant time and group effect, with the group means at all time periods being in the order; bereaved parents > bereaved spouses > bereaved adult children. The second subscale consists of the infrequently reported phenomena of a sense of presence and some hallucinatory phenomena. While such experience tended to decrease overall for all groups producing a significant time effect, group differences were not significant. Likewise subscale 3 which had three items dealing with dreams produced low item means. This was the only subscale in which there was no significant group or time effect.

Table 2. *Bereavement phenomenology subscales*
(Mean scores of total group ($N = 120$) at four time points)

Subscale	Time 1 (1 mth)	Time 2 (10 wks)	Time 3 (7 mths)	Time 4 (13 mths)	Group effect *P*	Time effect *P*
1	8·92	7·39	6·63	6·17	< 0·001*	< 0·001*
2	1·54	1·09	0·99	0·97	NS	0·000*
3	1·27	1·37	1·38	1·40	NS	NS
4	8·16	6·92	6·28	5·29	< 0·001*	< 0·001*
5	8·89	8·41	7·96	7·36	< 0·001*	< 0·001*
6	2·55	1·84	1·64	1·27	NS	< 0·001*
7	8·92	7·39	6·63	6·17	NS	< 0·001*

Group × Time effect for each subscale – NS.
* Significance at the $P = 0·05$ level.

Subscale 4 comprised five items representing acute separation phenomena. All were items endorsed as occurring quite frequently at the initial follow-up. There was a significant group and time effect, closely paralleling the first subscale. Subscale 5 was another that tapped core bereavement phenomena, sadness, tearfulness, longing etc. and these phenomena seemed to be best described simply as 'Grief' given their closeness to the popular conception of the syndrome. Again the performance of subscale items with each group paralleled that of the two other subscales dealing with core, commonly reported phenomena. The items comprising subscale 6 were not endorsed as frequent experiences even at Time 1. The items reflected the continuing of phenomena reported in the very acute stages of loss, plus items particularly reflecting non-resolution of the relationship terminated by the loss. They encompassed feelings of dread, unreality, numbness, guilt, anxiety and anger occasioned by reminders of the lost person. The items of subscale 7 reflected an underlying construct of perceiving oneself somehow strengthened, aware and able to organize one's own life, as well as assist others. Although group differences were not significant, there was a significant time effect with positive or self-organizing items becoming more frequent for all groups over time.

SCALE DEVELOPMENT – CORE BEREAVEMENT ITEMS

Of the seven subscales, three (subscales 2, 3 and 6), focused on phenomena which, while part of some subject's grief experience, were by and large not frequently experienced. Subscale 7 rather than being a collection of particularly grief specific items, represents parameters of a more universal nature for someone recovering from the effects of a major life event. For example, included in the items were ones dealing with the ability to assist others, current feelings of strength or self-understanding as well as those focused on the ability to organize one's life.

The remaining subscales (1, 4 and 5), which start from a baseline of relatively high mean scores, are based on items that collectively have high face validity as representing key components of the bereavement reaction in the longer term, they discriminate significantly between groups in a manner consistent with theory and clinical experience, and they all change significantly over time in a manner that would be consistent with the significant changes in parameters of resolution represented by subscale 7.

The collection of 17 items derived from subscales 1, 4 and 5 thus offered the promise of being a reliable distillation of items measuring core bereavement phenomena that were common to different groups of bereaved subjects. The Cronbach's alpha reliability coefficient for the 17 items Core Bereavement Items Scale (CBI) thus formed was calculated as being 0·91, based on Time 1 data from 158 subjects. The full individual items of this scale are shown in the appendix. The pattern of bereavement phenomenology measured by the CBI in the three primary comparison groups is shown in Fig. 1. It should be noted that there were no significant differences on the CBI by sex or when age was grouped into six categories.

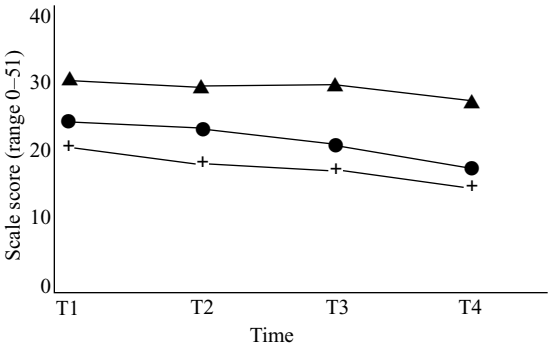

FIG. 1. Core bereavement items (CBI) for three groups: Group 1, spouses (●) $N = 40$; Group 2, adult children (+) $N = 36$; and Group 3, parents (▲) $N = 40$. Significant group effect ($P < 0{\cdot}001$) and significant time effect ($P < 0{\cdot}001$).

DISCUSSION

The 76 bereavement specific items measured were essentially state measures, worded in such a way as to reflect relatively acute changes in the frequency of experiencing specific phenomena. In the literature pertaining to the design of rating scales a number of different approaches have been taken with respect to the initial development of items thought to measure a particular construct and the reduction of that item pool to a short questionnaire, either used in a structured interview format or self-administered. There is inevitably a balance between creating large and unwieldy scales that may be sensitive to minor changes in the construct being measured, but which may also include examples of item redundancy, and between creating scales that are too limited to appropriately reflect the various dimensions of a construct. Scales almost inevitably reflect some overlap of constructs (e.g. between 'depression' and 'grief'), while some are principally for use only with clinical populations. In this scale, contrary to the approach of others, care was taken to make items as bereavement specific as possible, though this does not mean for example that responses will not be in some way influenced by a co-existing depression.

Essentially two approaches can be taken with item reduction: factor analysis of the complete pool of items (assuming there are sufficient subjects to sustain this approach) or the prior formation of subgroups of items grouped on theoretical grounds, which are then factor analysed. The success of such an approach as was used here depends on the care taken with the original grouping of items. However, in viewing the items that showed significant time and group effects yet were not included in the formation of the seven subscales, it is difficult to identify a dimension not already covered by the subscales with the only exception being an item on nostalgia. Given that nostalgia is qualitatively different from the affects measured by other items, it is perhaps not unexpected that the item involving it did not factor into a subscale, despite it representing an important affect associated with loss in the longer term (Burnett *et al*. 1994).

While two subscales (2 and 7) also demonstrated significant changes in overall scores over time, they were not included as part of a scale of Core Bereavement Items. In subscale 2 the scores, even in the relatively acute group, were on average low indicating that such experiences were more a province of a subgroup of the bereaved rather than a universal phenomenon that was just experienced with differing frequencies, while subscale 7 seemed to be measuring a dimension of the bereavement process that had a different pattern and whose items did not fit comfortably in the description, Core Bereavement Items. They reflected the more general social and interpersonal dimensions of resolving a traumatic life event.

Cronbach's alpha (0·91) for the CBI compares favourably with the eight-item subscale ('past life disruption') and the 13-item subscale ('present emotion of grief') of the Texas Revised Inventory of Grief where reported alphas were 0·77 and 0·86 respectively (Faschingbauer *et al*. 1987).

While formal research projects examining the validity of the CBI have not as yet been undertaken, a number of indicators suggest that it is a valid measure. The most obvious evidence for the discriminant validity of the scale is the fact that those who on theoretical grounds were expected to score highly, did so, and those who were expected to produce lower scores did so. Construct validity was also demonstrated using factor analysis. In examining the face validity of the CBI, there do not appear to be any items that are not central to the construct of grief in the way it is generally conceptualized in Western culture. The CBI, derived in the way it was, appears to have good face validity with respect

to the grief related dimensions of the bereavement process. Further validation of the CBI could be achieved through a study in which detailed assessment of bereaved subjects was carried out at defined time points by clinicians experienced with bereavement. They could calculate the severity of the different dimensions of the bereavement response, with such assessments compared with the scores obtained sequentially by a trained research assistant (blind to the assessment results) administering the CBI at similar time points post-bereavement. Subscale 7 appears to measure a separate facet of the bereavement response and used in this way may prove a useful short measure of 'Resolution'. Mindful of this it may represent a useful additional scale that could be administered with the CBI. Overall the CBI shows potential as a valid and reliable measure that potentially could be used prospectively with a range of bereaved subjects.

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APPENDIX: CORE BEREAVEMENT ITEMS (CBI) (based on a summation of subscales 1, 4 and 5, totalling 17 items)

A Images and thoughts

1 Do you experience images of the events surrounding 'x's' death?

2 Do thoughts of 'x' come into your mind whether you wish it or not?

3 Do thoughts of 'x' make you feel distressed?

4 Do you think about 'x'?

5 Do images of 'x' make you feel distressed?

6 Do you find yourself preoccupied with images or memories of 'x'?

7 Do you find yourself thinking of reunion with 'x'?

B Acute separation

8 Do you find yourself missing 'x'?

9 Are you reminded by familiar objects (photos, possessions, rooms etc.) of 'x'?

10 Do you find yourself pining for/yearning for 'x'?

11 Do you find yourself looking for 'x' in familiar places?

12 Do you feel distress/pain if for any reason you are confronted with the reality that 'x' is not present/not coming back?

C Grief

13 Do reminders of 'x' such as photos, situations, music, places etc. cause you to feel longing for 'x'?

14 Do reminders of 'x' such as photos, situations, music, places etc. cause you to feel loneliness?

15 Do reminders of 'x' such as photos, situations, music, places etc. cause you to cry about 'x'?

16 Do reminders of 'x' such as photos, situations, music, places etc. cause you to feel sadness?

17 Do reminders of 'x' such as photos, situations, music, places etc. cause you to feel loss of enjoyment?

Analysis based on Time 1 subjects ($N = 158$), $\alpha = 0{\cdot}91$.

Questions B8–12 and C13–17 were rated on a four-point scale where the options were, 'A lot of the time □, Quite a bit of the time □, A little bit of the time □, Never □'. For Questions A1, A2, A4 and A6, the first option was 'Continuously □'. For questions A3, A5, and A7 the first option was 'Always □'. The latter three options were the same for all questions.

REFERENCES

Barrett, T. W. & Scott, T. B. (1989). Development of the grief experience questionnaire. *Suicide and Life-Threatening Behaviour* **19**, 201–215.

Bowlby, J. (1980/1981). *Attachment and Loss* (*Vol. 3*)*: Sadness and Depression*. Hogarth: New York and Basic Books/Harmondsworth Penguin Books: London.

Burnett, P. C., Middleton, W., Raphael, B., Dunne, M., Moylan, A. & Martinek, N. (1994). Concepts of normal bereavement. *Journal of Traumatic Stress* **7**, 123–128.

Byrne, G. J. A. & Raphael, B. (1994). A longitudinal study of bereavement phenomena in recently widowed elderly men. *Psychological Medicine* **24**, 411–421.

Comstock, G. W. & Helsing, K. J. (1976). Symptoms of depression in two communities. *Psychological Medicine* **6**, 551–563.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika* **16**, 297–334.

Faschingbauer, T. R., DeVaul, R. A. & Zisook, S. (1977). Development of the Texas Inventory of Grief. *American Journal of Psychiatry* **134**, 696–698.

Faschingbauer, T. R., Zisook, S. & DeVaul, R. (1987). The Texas Revised Inventory of Grief. In *Biopsychosocial Aspects of Bereavement* (ed. S. Zisook), pp. 11–124. American Psychiatric Press: Washington, DC.

Jacobs, S. C. (1987). Measures of the psychological distress of bereavement. In *Biopsychosocial Aspects of Bereavement* (ed. S. Zisook), pp. 125–138. American Psychiatric Press: Washington, DC.

Jacobs, S. C., Kosten, T. R., Kasl, S. V., Ostfeld, A. M., Berkman, L. & Charpentier, P. (1987). Attachment theory and multiple dimensions of grief. *Omega* **18**, 41–52.

Lund, D. A. (1989). *Older Bereaved Spouses: Research with Practical Applications*. Taylor & Francis/Hemisphere: New York.

Lund, D. A., Dimond, M. F., Caserta, M. S., Johnson, R. J., Poulton, J. L. & Connelly, J. R. (1985). Identifying elderly with coping difficulties after two years of bereavement. *Omega* **16**, 213–224.

Middleton, W. & Raphael, B. (1987). Bereavement: state of the art

and state of the science. *Psychiatric Clinics of North America* **10**, 329–343.
Owen, G., Fulton, R. & Markusen, E. (1982). Death at a distance: a study of family survivors. *Omega* **13**, 191–225.
Parkes, C. M. (1970). The first year of bereavement. *Psychiatry* **33**, 444–467.
Parkes, C. M. (1972). *Bereavement: Studies of Grief in Adult Life*. International Universities Press: New York.
Raphael, B. (1983). *The Anatomy of Bereavement*. Basic Books: New York.
Raphael, B. & Middleton, W. (1987). Current state of research in the field of bereavement. *Israel Journal of Psychiatry and Related Sciences* **24**, 5–32.
Remondet, J. H. & Hansson, R. O. (1987). Assessing a widow's grief: a short index. *Journal of Gerontological Nursing* **13**, 31–34.
Sanders, C. M. (1980). A comparison of adult bereavement in the death of a spouse, child and parent. *Omega* **10**, 303–322.
Sanders, C. M., Mauger, P. A. & Strong, P. N. (1979). *A Manual for the Grief Experience Inventory*. Loss and Bereavement Resource Centre, University of Florida: Tampa, FL.
Sanders, C. M., Mauger, P. A. & Strong, P. N. (1985). *A Manual for the Grief Experience Inventory*. Consulting Psychologists Press: Palo Alto, CA.
Stevens, J. (1992). *Applied Multivariate Statistics for the Social Sciences*. Lawrence Erlbaum: Hillsdale, NJ.
Toedter, L. J., Lasker, J. N. & Alhadeft, J. M. (1988). The perinatal grief scale: development and initial validation. *American Journal of Orthopsychiatry* **58**, 435–449.
Vargas, L. A., Loya, F. & Hodde-Vargas, J. (1989). Exploring the multidimensional aspects of grief reactions. *American Journal of Psychiatry* **146**, 1484–1488.
Videka-Scherman, L. (1982). Coping with the death of a child: a study over time. *American Journal of Orthopsychiatry* **52**, 688–699.
Zisook, S. & DeVaul, R. A. (1984). Measuring acute grief. *Psychiatric Medicine* **2**, 169–176.
Zisook, S. & Shuchter, S. R. (1985). Time course of spousal bereavement. *General Hospital Psychiatry* **7**, 95–100.
Zisook, S. & Shuchter, S. R. (1991). Early psychological reaction to the stress of widowhood. *Psychiatry* **54**, 320–333.
Zisook, S. DeVaul, R. A. & Clide, M. A. (1982). Measuring symptoms of grief and bereavement. *American Journal of Psychiatry* **139**, 1590–1593.
Zisook, S., Shuchter, S. R. & Lyons, L. E. (1987). Adjustment to widowhood. In *Biopsychosocial Aspects of Bereavement* (ed. S. Zisook), pp. 49–74. American Psychiatric Press, Washington, DC.