Reliability and Validity of the Japanese Versions of Grief, Quality of Past Relationship with the Deceased, and Social Support Measures in Japanese Elderly Widowed Persons

By

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ABSTRACT

Title: Reliability and Validity of the Japanese Versions of Grief, Quality of Past Relationship with the Deceased, and Social Support Measures in Japanese Elderly Widowed Persons

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Because of changing demographics in Japan, changes in Buddhist services, and changes in family structure and informal support networks, spousal bereavement is a significant problem for elderly persons. However, Japanese studies on grief and adjustment to spousal bereavement are very limited (Kawai, 1984, 1987, 1988; Miyamoto, 1989; Okamura, 1993; Okamura & Kawai, 1987; Suzuki, 1981, 1988; Yamamoto et al., 1969). This cross-sectional, correlational study evaluated the reliability and validity of Japanese versions of selected measures developed in the United States. The convenience sample consisted of 149 Japanese elderly widowed persons, aged 65 to 86 years, who were bereaved from 2 to 24 months. The subjects completed the Japanese Widowhood Inventory and returned it anonymously.

The findings supported convergent and discriminant validity of the Texas Revised Inventory of Grief (TRIG) and Bereavement Items (BI). Hypotheses 1, widowed persons who are bereaved 1 year or less will have a greater intensity of grief than those who are bereaved more than one year, was partially supported. Hypotheses 2, widowed persons who have a better past relationship with the deceased or a happier marriage will have a greater intensity of grief than those who do not, was fully supported. Factor loadings of

the grief scales supported the major dimensions that the researchers who developed the measures identified.

Findings on Satisfaction with Social Support after the death of a spouse supported Hypothesis 3 through 6, widowed persons who have adequate social support will report better physical health, higher morale, lower depression scores, and less loneliness than those who do not. The findings on Satisfaction with Help received prior to the death supported only Hypothesis 6 (loneliness) and those on Availability of Social Support after the death did not support any of the hypotheses. There were contradictory findings on the validity of the quality of the past relationship with the deceased. Hypothesis 2 was supported, whereas Hypothesis 7, widowed persons who had a past relationship with the deceased or a happier marriage will have higher morale than those who do not, was not.

Reliability of all scales was assessed using item-total correlations and internal consistency reliability. Cronbach's alphas for all scales except the 13-item form of Marlowe-Crowne Social Desirability Scale (M-C SDS) ($a = .64$) and Health Problem Scale-Medical (.52) were greater than .70. The majority of the items in the scales except the M-C SDS had acceptable item-total correlations (.30 or more).

Major findings for key measures were compared with those in other studies conducted in the United States. Regarding the Center for Epidemiologic Studies Depression, the mean scores in the Japanese widowed sample were higher than those reported for elderly widowed persons in the United States. The mean scores in this sample were also higher on the TRIG and BI than those reported for widowed persons in the United States.

These findings are discussed in terms of cultural differences and methodological issues. Limitations for the current study and implications for future research, as well as recommendations for application of these findings to clinical nursing practice in Japan, are discussed.

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CHAPTER 1

INTRODUCTION

In Japan, in 1995, more than 660,000 Japanese elderly persons (aged 65 and older) experienced the death of their spouses. In the Japanese elderly population in 1995, about 12.4 % of men and 50.3% of women were widowed (Institute of Population Problems, 1996). Moreover, the elderly population in Japan is increasing more rapidly than that of any other industrialized country. It is projected that the overall percentage of the elderly population in Japan will continue to increase from 14.8% in 1995 to 17.0% in 2000 (Institute of Population Problems, 1996). These demographic data suggest that the proportion of elderly widowed persons to the entire population will increase rapidly also.

Spousal bereavement has been described as the most disruptive and difficult transition that an individual may confront throughout his or her life course (Clayton, 1990; Harlow, Goldberg, & Comstock, 1991a; Ohara, 1988; Zisook & Shuchter, 1991a). The impact of spousal bereavement is multidimensional; that is, it influences a widowed person physically, emotionally, socially, and economically (Kawai, 1987; Miyamoto, 1989; Okamura, 1993; Shuchter & Zisook, 1993; Suzuki, 1988). Various aspects of the widowed person's daily life are changed, and he or she must adjust to widowhood. Widowed persons need to achieve new tasks, form new identities, learn new perspectives, cope with financial problems, and form new relationships and interactions (Lund, Caserta, & Dimond, 1989; Okamura, 1993). In addition to the above outcomes of spousal bereavement, some widowed persons will have good physical and psychological health or experience no substantial changes, whereas others will have poor physical

health and/or psychological deterioration. Furthermore, spousal bereavement is a major stressor related to high mortality rates in surviving spouses (Bowling, 1987; Goldman & Hu, 1993; Kaprio, Koskenvuo, & Rita, 1987). According to Goldman and Hu, in 1980 the death rate for Japanese widowed persons was higher than for married persons: the death rate was twice as high for widowers as for married men and 1.3 times as high for widows as for married women.

Since World War II, the family structure in Japan has changed considerably, in part, because of revisions in the civil law, industrialization, and urbanism. Traditionally, Japanese elderly widowed persons have lived with their adult children. However, Japanese census data in recent decades indicate that the number of elderly widowed persons living with their children is decreasing, and the number of those living alone is gradually increasing (Health and Welfare Association, 1994). According to Okamura's (1993) study, 62% of 137 elderly widowed persons lived with their children both before and after the bereavement whereas 35% lived with only their spouse prior to his or her death. After the loss of the spouse, 81% of the elderly widowed persons who had lived with only their spouse still lived alone, and 13% were living with their children. The vulnerability of elderly persons living alone has been shown regarding loneliness (Kawai, 1988), lack of social support (Sasatani, Kishi, & Yaguchi, 1992), and poor health, which includes a higher utilization of health care services (Kishi, Eguchi, Sasatani, & Yaguchi, 1994).

Traditionally, bereavement care has been provided by a widowed person's informal support network. As part of a funeral service and a series of Buddhist services

for the deceased person (e.g., the 7th, 14th, 21st, 28th, 35th, and 49th days after the death and the first anniversary of the death), family members, relatives, friends, and neighbors visit the house of the chief mourner; they share their feelings of grief and provide comfort and support to one another. Some authors (Kashiwagi, 1978; Kono, 1978; Okonogi, 1979) have argued that these services play a significant role in facilitating the bereaved person's grief process. The chief mourner thereby also receives tangible support (e.g., daily tasks, money) from his or her family members, relatives, friends, and/or neighbors. Recently, however, the substance of Buddhist services has been changing. That is, the number of these services has decreased, the number of family members and relatives who visit the chief mourner's house has decreased, and the interactions between the chief mourner and his or her support network members have been weakened. These situations suggest that widowed persons may not be receiving sufficient support from their informal support networks.

Because of the changing demographics in Japan, effects of spousal bereavement, changes in family structure, changes in the informal support network, and changes in the Buddhist services, spousal bereavement is now a significant problem for elderly persons. How elderly widowed persons adjust to the loss of a spouse is a matter of concern for health care professionals. Japanese health care professionals are increasingly concerned that public services will be needed to supplement bereavement care for bereaved persons (Deeken, 1984; Kashiwagi, 1991; Noda, 1992). Knowledge about what influences spousal bereavement, who will adjust well to the loss, and how to assess widowed persons is very important for health professionals if they are to intervene with widowed

persons having difficulty adjusting to widowhood.

The number of Japanese studies on grief and adjustment to spousal bereavement is very limited (Kawai, 1984, 1987, 1988; Miyamoto, 1989; Okamura, 1993; Okamura & Kawai, 1987; Suzuki, 1981,1988; Yamamoto, Okonogi, Iwasaki, & Yoshimura, 1969). Some Japanese studies have focused on grief responses, whereas others have examined the relationships between adjustment to spousal bereavement and related factors. No studies have examined the relationships among grief, adjustment to spousal bereavement (i.e., physical health, morale, depression, loneliness), and specific related factors (i.e., age, gender, the quality of the past relationship with the deceased, social support, length of the deceased's illness, socioeconomic status, concurrent losses, expectedness of the death). Therefore, additional research is needed about these relationships.

Although there are Japanese versions of measures for adjustment to bereavement that are reliable and valid (e.g., the Japanese versions of the Center for Epidemiologic Studies Depression Scale, the revised UCLA Loneliness Scale, the revised Philadelphia Geriatric Center Morale Scale), reliable and valid measures of grief, social support, and the quality of relationship with the deceased have not been developed in Japan. Therefore, reliable and valid Japanese measures of grief, social support, and the quality of the past relationship with the deceased are needed to examine the relationships among grief, adjustment to bereavement, and related factors. As the first step in a program of research, this study was conducted to evaluate the reliability and validity of the Japanese versions of selected measures of grief, social support, and the quality of the past relationship with the deceased that were developed in the United States.

CHAPTER 2

REVIEW OF THE LITERATURE

In the late 1970s, in Japan, the concept of grief was introduced by some psychiatrists, physicians, and nurses. Since then there has been increasing interest across several disciplines (e.g., psychology, sociology, social work) in grief and the effects of bereavement. Most studies in this area have focused on grief in terminally ill patients or in bereaved persons who are diagnosed with a mental illness (e.g., depression) following the loss. There are a small number of studies about grief among bereaved persons who have lost their family members and their subsequent adjustment to bereavement. This review of Japanese literature was limited to studies on grief and adjustment to spousal bereavement. Literature on cultural influences that may affect grief and adjustment to spousal bereavement was also reviewed. Where appropriate, non-Japanese research on grief and adjustment to spousal bereavement has been incorporated into this review (e.g., conceptual discussion).

This review is organized into four parts: (a) theoretical perspectives and conceptualization of grief, (b) literature that has examined grief after spousal bereavement, (c) literature that has explored adjustment to spousal bereavement, and (d) literature on potential culture influences. Non-Japanese references which were published from 1989 to 1996 were identified by searching the Cumulative Index of Nursing and Allied Health Literature (CINAHL), Medline, and Social Sciences Citation Index. Japanese references were obtained using *Igaku Chuo Zasshi* (this index contains studies in medicine, nursing, dentistry, pharmacology, social work, and psychology).

Theoretical Perspectives and Conceptualizations of Grief

The Evolution of the Concept of Grief in Western Countries

This section reviews some of the major theoretical perspectives and conceptualizations of grief developed in Western countries during the twentieth century. They consist of Freud's psychoanalytic view of mourning; Lindemann's view of acute grief; Caplan's view of grief as crisis; Bowlby's attachment theory; Parkes's view of grief as a major life transition; and Worden's, Rando's, and Shuchter and Zisook's models of grief. Because the researcher was focused on theories that explicate the normal or so-called usual experience of adult grievers, this review does not discuss the literature related to childhood grief responses and abnormal or pathological grief.

Although Freud did not directly write about normal grief, his psychoanalytic views on mourning have heavily influenced views about grief. In 1917, Freud (1957) discussed mourning through case studies of persons whom he treated; he attempted to differentiate normal grief responses from mental illness, especially from melancholia. Freud described grief as a normal reaction to the loss of a loved person, or an abstraction that has taken the place of one, such as fatherland, liberty, or an ideal. Both mourning and melancholia involve profoundly painful dejections, cessation of interest in the outside world, loss of capacity to love, inhibition of activity, and delusional expectations of punishment. Although melancholia has some similarities to mourning, Freud concluded that there is a substantial difference between the two in that a melancholiac person feels a lowering of self-esteem as shown by self-reproach and self-revilement to a masochistic degree. According to Freud, in melancholia the ego itself becomes poor and

empty, but in normal mourning the world does.

Lindemann (1944) described the symptomatology of normal grief based on psychiatric interviews with 101 patients including bereaved relatives of the Coconut Grove fire disaster victims. Lindemann described acute grief as a syndrome with psychological and somatic symptomatology. Five striking features of acute grief were identified: (a) "somatic distress," (b) "preoccupation with the image of the deceased," (c) "guilt," (d) "hostile reactions," and (e) "loss of patterns of conduct" (p. 142). The duration of normal grief depends on the success of a person's "grief work" which was described as "emancipation from the bondage to the deceased, readjustment to the environment in which the deceased is missing, and formation of new relationships" (p. 143). Lindemann proposed that uncomplicated and undistorted grief reactions could be settled in 8 to 10 interviews with a psychiatrist over a period of 4 to 6 weeks. "Morbid grief" was considered grief that is delayed or distorted. Finally, Lindemann also proposed the concept of anticipatory grief.

Caplan (1961, 1964), who developed "crisis theory," built on Lindemann's work and proposed that bereavement could trigger a crisis that is generally resolved in 4 to 6 weeks. Caplan suggested that individuals who did not improve during the 4 to 6 week period be referred for psychiatric treatment. Caplan proposed that the outcome of a crisis is determined by the balance of an individual's stressors and resources. Caplan's crisis theory erroneously gave the impression that the grief response was resolved within a brief time period. In later work, however, Caplan (1974a) revised this concept of grief as a single crisis that is resolved within 6 to 8 weeks to that of a series of crises called "life

transitions" which are resolved over a much longer period of time.

Bowlby (1960, 1961, 1980) conceptualized loss and grief based on his studies about attachment. Attachment refers to the affectional bonds that are created by familiarity with and closeness to parental figures early in life because of a need to feel safe and secure. Based on observations of infants and young children separated from their mothers, Bowlby identified the "separation response syndrome," which entails three phases: protest, despair, and detachment. Separation anxiety was considered the usual response to a threat of loss of an attachment. In later works, Bowlby (1980) extended this attachment theory to incorporate the grief response of bereaved adults. Bereavement responses were categorized into four phases: numbing, yearning and searching, disorganization and despair, and reorganization.

Parkes (1971, 1972) was influenced by his associations with Bowlby. Parkes first viewed grief as an acute stress response; however, he later identified grief as a major life transition, a period of challenge and readjustment (Parkes & Weiss, 1983). Grief is viewed as a painful process of "realization" by which affectional bonds are severed, and old models of the world and the self are given up. Parkes proposed that an individual's reaction to loss of a person will be determined as much by the biological significance of the person as by the magnitude of the life change from the loss. The painful emotional, behavioral, and physical manifestations of grief were described. Parkes outlined the grief process as having four phases: numbness, searching and pining, depression, and recovery. During transitions from one phase to another, features from one phase of grief often persist into the next phase.

Worden (1991) proposed that mourning indicates the process which occurs after a loss, whereas grief refers to the personal experience of the loss. Mourning involves four tasks: (a) "to accept the reality of the loss" (p. 10), (b) "to work through to the pain of grief" (p. 13), (c) "to adjust to an environment in which the deceased is missing" (p. 14), and (d) "to emotionally relocate the deceased and move on with life" (p. 16). Individuals who are experiencing mourning must accomplish four tasks to reestablish balance and to complete the process of mourning. Worden described manifestations of normal grief and provided clues to diagnosing complicated grief responses (e.g., the person cannot speak about the deceased without experiencing intense feelings of grief, a minor event triggers an intense grief response, the person who has sustained the loss does not want to move the materials which the deceased person had).

Rando (1984) proposed a schema of the grief process that synthesized the work of many other theorists and researchers with her own ideas. Rando defined "grief" as "the process of psychological, social, and somatic reactions to the perception of loss" (p. 15). The term "mourning" has two meanings. The first meaning was derived from psychoanalytic theory; it is defined as "a wide array of intrapsychic processes, conscious and unconscious, that are prompted by loss" (p. 15). The second meaning is "the cultural response to grief" (p. 15). Rando described the reactions to normal grief rather than its stages; she pointed out that there has been much controversy about stage theories because of the fact that the word stage implies the existence of an invariant and sequential process. Reactions to normal grief fit within three broad categories: avoidance, confrontation, and re-establishment. Rando also proposed the manifestations of grief,

anticipatory grief, and unresolved grief.

Shuchter and Zisook (1993) defined grief as a natural phenomenon that occurs after the loss of a loved person. Three phases of the grief process were proposed: (a) an initial period of shock, disbelief, and denial; (b) an intermediate acute mourning period of acute somatic and emotional discomfort and social withdrawal; and (c) a culminating period of restitution. Grief is not considered a linear process but, rather, a composite of overlapping, fluid phases that vary from person-to-person. Their findings (Zisook, Shuchter, & Lyons, 1987) suggested that the duration of grief can be prolonged. That is, significant aspects of the grief process can go on for several years after the loss, even in otherwise normal widowed persons. Shuchter and Zisook proposed that the grief process can best be understood using multidimensional perspectives, including emotional and cognitive state, coping with emotional pain, the continuing relationship with the deceased, changes in functioning, changes in relationships, and changes in identity.

In summary, this review of theoretical perspectives and conceptualizations of grief demonstrates both consistent and differing views about grief. There is general agreement that manifestations of grief include psychological, social, and physiological responses, and that the responses are common during normal grief, but can vary. Grief can also be delayed and pathological. Many authors also agree that there are categories of reactions or phases in the grief process which change over time despite the nonlinearity of the grief process. The duration of normal grief has been revised over time. In the mid-1900s, grief was conceptualized as an acute, short-lived crisis. In the 1970s, theorists viewed grief as a long-term process; currently, this latter view is widely

accepted.

The Evolution of the Concept of Grief in Japan

In the discipline of psychiatry, some psychoanalysts introduced Freud's psychoanalytic views of mourning and Bowlby's separation-response syndrome. Okonogi (1979) described normal grief responses, pathologic grief responses, and mourning work based on clinical observations of his psychiatric patients. Other psychiatrists (Kato & Yamamoto, 1968) introduced Lindemann's symptomatology of normal grief and Caplan's crisis theory as useful theories for mental health professionals.

In the late 1970s, the hospice movement directed attention toward families grieving after the loss of a loved person. Nurses and physicians who studied terminal care or hospice care in the United States or England introduced some theories (e.g., Kubler-Ross's stage theory of loss, Caplan's crisis theory, Bowlby's attachment theory) as being useful for understanding grief reactions after the loss. Deeken (1984), a professor at Jochi University in Japan and a leader of a seminar on life and death, proposed 12 stages of the grief process based on his experiences of counseling bereaved persons in the United States and Japan. Deeken defined the grief process as a series of emotional responses that occurs when a person experiences or anticipates the loss of a loved person. These stages are (a) shock and numbness, (b) denial, (c) panic, (d) anger and the feeling of injustice, (e) hostility and resentment, (f) guilt feelings, (g) fantasy formation and hallucinations, (h) loneliness and depression, (i) disorientation and apathy, (j) resignation-acceptance, (k) new hope-rediscovery of humor and laughter, and (l) recovery-gaining a new identity. According to Deeken, because the stages are not a

sequential process, some bereaved persons may experience more than one stage at the same time; he also indicated that bereaved persons need about 1 year to adjust to the loss.

Grief Following the Loss of a Spouse

There is a general agreement that the type of relationship lost affects the grief process of the survivor. Because the needs, responsibilities, and expectations related to each type of relationship vary, each type of death has its own personal and social meanings (Osterweis, Solomon, & Green, 1984). Therefore, the death of a spouse is experienced differently from other types of death (e.g., death of a child, death of a parent). The loss of a spouse has been described as the most disruptive and difficult transition that individuals may confront throughout their life courses (Clayton, 1990; Harlow et al., 1991a; Zisook & Shuchter, 1991a).

Normal Grief Reactions to Spousal Bereavement in Japan

This section reviews Japanese literature which has examined grief reactions to spousal bereavement in Japan. One study (Yamamoto et al., 1969) examined the relationship between grief work and the Japanese custom of ancestor worship. Three studies (Miyamoto, 1989; Suzuki, 1981, 1988) explored grief reactions and grief process among young and middle-aged widowed persons, and one study (Kawai, 1987) focused on grief reactions among elderly widowed persons.

Grief Reactions

Yamamoto and colleagues (1969) examined the relationship between the Japanese custom of ancestor worship and the process of mourning among 20 Japanese widows. The researchers viewed grief as reactions to the loss of objects (e.g., family

members, pet, job). They selected and interviewed widows whose husbands had been killed in automobile accidents. The participants had been bereaved for 12 to 76 days and ranged in age from 24 to 52 years. The widows included 1 Shintonist, 13 Buddhists, and 6 who did not have religious affiliations. The Shintonist, Buddhists, and 4 of the 6 widows who had no religious affiliation had a "family altar" which is an altar in which a family memorial tablet is enshrined.

The researchers found that the widows experienced various grief reactions; 90% of them experienced a sense of presence of the deceased, 85% experienced depression or anxiety, 70% experienced insomnia, 60% reported difficulty accepting the loss and/or blamed others, and 55% experienced apathy and/or reported attempts to escape reminders of the deceased. None of the widows blamed herself for her spouse's death.

Yamamoto and colleagues (1969) compared the 14 religious widows with the 6 nonreligious widows. The religious widows had less difficulty accepting the loss (50%) than did the nonreligious widows (83%); the religious widows also blamed others less (57%) than did the nonreligious widows (67%). These researchers suggested that having active religious beliefs with rituals could make the loss less stressful. In the group of 6 nonreligious widows, the 4 widows who had an altar experienced less depression and anxiety (75%), less apathy (50%), less difficulty accepting the loss (75%), fewer attempts to escape reminders (0%), and less blaming of others (50%) than did the 2 widows who did not have a altar (100%, 100%, 100%, 100% respectively); these 4 widows also more often sensed the presence of the deceased (100%) than did the 2 widows (50%). The researchers suggested that the Japanese custom of ancestor worship could positively

facilitate the grief work of Japanese widows. However, the small sample limits the generalizability of these findings.

Yamamoto and colleagues (1969) also compared these Japanese widows with 72 British widows by using the data from Parkes' study (Parkes, 1965). The British widows had been bereaved for 10 to 46 months. More of the Japanese widows sensed the presence of the deceased (90%), attempted to escape reminders (55%), had difficulty accepting the loss (60%), and blamed others (60%) than did the British widows (21%, 18%, 23%, and 15% respectively). These findings could be influenced by differences in both the length of widowhood and types of spousal death. Additional important differences were that 90% of Japanese widows worked to maintain ties with the deceased, whereas only 21% of British widows worked to cultivate the idea of the presence of the deceased. The authors concluded that maintaining ties with the deceased was acceptable and is encouraged by the culture and religious rituals in Japan. Japanese widows put a photograph of the deceased, the urn of the ashes, and flowers, water, rice, and other offerings on the family altar. These widows offered incense at the altar at least once a day, when they talked to their deceased husbands about their current crises and good feelings.

In more recent years, three studies (Miyamoto, 1989; Suzuki, 1981, 1988) have examined the grief reactions of spousal bereavement. Suzuki (1981, 1988) explored the acute grief process of seven widows using a qualitative research method. Grief was identified as a series of feelings that bereaved persons experienced after the loss of a loved person (1988, p. 24). The participants ranged in age from 31 to 62 years (mean age

45.1) and their husbands had died from cancer. Suzuki interviewed the participants three times (i.e., 1, 3, and 7 weeks) after the death of the husband. She found that all widows experienced grief reactions (e.g., panic, physical symptoms, numbness, disbelief, yearning, anger, hostility, sadness, loneliness, depression) even though the intensity of grief reactions varied. Three widows whose husbands' illnesses were less than 1 year in length expressed their feelings more intensely than the other widows. Two widows who depended a great deal on their husbands also intensely expressed their feelings of grief.

Suzuki (1981, 1988) also found that the participants' grief reactions changed over time. During the first interview, the widows mostly expressed feelings of disbelief. At the second interview, they intensely reported feelings of anger, sadness, yearning, depression, and psychosomatic reactions (e.g., loss of appetite, sleep deficiency, fatigue). At the last interview, they mostly reported experiences of depression. The researcher suggested that the intensity, variety, and amount of grief reactions changes as time passes. However, this study was limited to the widow's acute grief reactions.

Using a grounded theory method, Miyamoto (1989) examined the grief reactions of 6 widowers and 14 widows who had been bereaved for 6 to 19 months. Grief was defined as complicated feelings that an individual experienced following the loss of his or her spouse. Data on acute grief reactions was obtained retrospectively. The participants ranged in age from 37 to 65 years; the mean age was 49.9. Miyamoto found that the majority of participants (65%) reported psychosomatic symptoms (e.g., loss of appetite, sleep deficiency). Four persons experienced the psychosomatic symptoms for 3 months, 7 persons for 6 months, 1 person for 10 months, and 1 person was still

experiencing these symptoms 1 year after the loss.

In Miyamoto's (1989) study, most widowed persons (95%) experienced feelings of grief (e.g., disbelief, loss of control, yearning, anger, guilty feelings, loneliness, absent-mindedness, feelings of emptiness), and the length of grief reactions ranged from 4.5 months to more than 1 year (the average was 6.6 months). The 8 participants who had cared for their spouses less than 1 year reported more feelings of grief than the other participants. The 5 participants who had small social support networks and/or did not have anyone who they felt understood them, expressed depressive feelings more than the other participants. The researcher suggested that the length of time widowed persons cared for their spouses could be negatively associated with the intensity of grief, and that the lack of social support could be positively related to the duration of grief for this population.

The Impact of Bereavement and Bereavement Reaction

Only Kawai's (1987) study focused on elderly persons. Using a survey method, Kawai studied 75 widowers and 109 widows to examine the relationship between the perception of the impact of spousal bereavement and the bereavement reactions. The researcher considered spousal bereavement as a major life stressor. Grief was viewed as a series of feelings that are related to bereavement. The subjects ranged in age from 58 to 89 years and had been bereaved for 3 to 14 months. The impact of spousal bereavement was measured using a 5-point Likert type scale (1 = very weak, to 5 = great shock). Bereavement reactions were measured using five scales: (a) grief and depression, (b) decreased activity and thinking, (c) anxiety and passive behaviors, (d) attachment,

and (e) psychosomatic reactions. These scales were developed by Kawai. Some items were derived from Yatomi's Life Stress Response Scale, and other items were added based on a review of the literature.

Over 70% of subjects in Kawai's (1987) study reported the experience of bereavement was a great shock. About half of the respondents (57%) experienced at least one of the bereavement reactions. Over 80% of the widowed persons reported at least one of the psychosomatic reactions (e.g., insomnia, exhaustion, anorexia). Perception of the impact of spousal bereavement was significantly correlated ($p < .01$) with grief and depression ($r = .28$), anxiety and passive behaviors (.21), attachment (.31), and psychosomatic reaction (.20). Kawai concluded that even though these widowed persons recognized the loss as a great shock, the relationships between the perception of impact of spousal bereavement and the bereavement reactions were low, although significant, among elderly widowed persons. Kawai suggested that this finding could be explained, in part, by the elderly persons' coping strategies that have been cultivated by various life experiences.

Social Support and Grief

Miyamoto (1989) studied the effects of social support on the grief process in 20 widowed persons (see p. 15 for more information on this study). Miyamoto found that 11 widowed persons received emotional and instrumental support from their children, mother, siblings, and friends during the grief process. Widowed persons who reported that they could adjust to widowhood were apt to have someone with whom they could express their feelings of grief; they also had social network members from whom they

could ask help. On the other hand, widowed persons who could not adjust to widowhood appeared not to express their feelings of grief, because they thought that nobody could understand these feelings. Miyamoto addressed the importance of widowed persons perceiving that they have someone who has a close relationship with them and can understand and help them.

Summary

The literature reviewed focused on Japanese studies which examined grief reactions. Three studies (Miyamoto, 1989; Suzuki, 1981, 1988) have explored grief reactions and grief process among young and middle-aged widowed persons. The findings of these studies suggest the following:

1. Most widowed persons experience feelings of grief and psychosomatic symptoms.
2. The intensity, variety, and amount of grief reactions decrease as time passes.
3. The relationship with the deceased spouse (i.e., dependence, closeness) may result in the grief being more intense.
4. Widowed persons who cared for their spouses a longer period of time may experience less intense grief.
5. Social support may be positively related to facilitating the grief work.

One study (Yamamoto et al., 1969) examined the relationship between grief work and the Japanese custom of ancestor worship; this custom may serve an important role in the grief work of Japanese widows. The other study (Kawai, 1987) examined the relationship between the perception of the impact of spousal bereavement and the bereavement reactions among elderly persons. The relationships between the perception

of impact of spousal bereavement and bereavement reactions (e.g., depression, anxiety) were low, although significant, even though the elderly persons recognized the loss as a great shock.

Normal Grief Process after Spousal Bereavement in Western Countries

This section focuses on selected non-Japanese literature which has examined the way grief normally proceeds after the loss of an elderly spouse. Several studies (Brabant, Forsyth, & Melancon, 1992; Byrne & Raphael, 1994; Grimby, 1993; Jacobs, Kasl, Ostfeld, Berkman, & Charpentier, 1986; Lund, Caserta, & Dimond, 1986; Zisook & Shuchter, 1991a) have explored (a) grief reactions and grief process and (b) normal grief reactions and depression.

Grief Reactions and Grief Process

Grimby (1993) examined grief-specific reactions among 14 widowers and 36 widows in their early seventies during the first year after the death of a spouse. Grimby used three terms--grief, bereavement, and mourning--but did not distinguish among them. Grief reactions were viewed as low mood (i.e., dysphoria, loneliness, crying, pessimism), cognitive dysfunctioning (i.e., fatigue, concentration problem, lack of interest, indecisiveness, memory problems), and self-reliance (i.e., anxiety, self-reproach, anger, lowered self-esteem). Grimby interviewed the subjects at 1, 3, and 12 months after bereavement. One month after bereavement, most widowed persons intensely expressed dysphoria, loneliness, and crying. The majority of subjects reported pessimism, fatigue, concentration problems, anxiety, lack of interest, and indecisiveness. Expressions of anger and self-reproach were less common. The intensity of these grief reactions

diminished over time. However, the number of subjects who expressed loneliness, anxiety, and self-reproach did not decrease significantly. During the first year of bereavement, high intensities of grief reactions at the 1-month interview tended to be related to high intensities at the 12-month interview.

Two studies focused on widowers' grief processes after the deaths of their wives. Brabant et al. (1992) explored feelings of grief using in-depth interviews. The informants were 20 widowers who ranged in age from 37 to 79 years (mean age 64.6) and had been bereaved for 1 to 3 years. Most of the widowers experienced feelings of shock, sadness, numbness, depression, and hurt following the deaths of their wives. Six widowers (30%) reported that the grief was still intense; 2 widowers had been bereaved less than 2 years, and 4 had been bereaved 2 or more years.

Using a three-phase longitudinal design, Byrne and Raphael (1994) examined bereavement phenomena of 78 recently widowed elderly men who ranged in age from 65 to 90 years. Byrne and Raphael viewed bereavement phenomena as a series of feelings, behaviors, and physical symptoms that occur following the loss of a loved one. The researchers interviewed the subjects at 6 weeks, 6 months, and 13 months after the deaths of their wives. At the first interview, most widowers experienced some bereavement phenomena (e.g., a sense of nostalgia, intrusive thoughts concerning the deaths of their wives, feelings of sadness, distressing thoughts about the loss, preoccupation, yearning and pining) as measured by the Raphael and Middleton's Bereavement Phenomenology Questionnaire (BPQ) at the first interview. Feelings of disorganization, guilt, anger, dreaming, and searching were reported by fewer than 25% of the widowers at 6 weeks

after the loss. Overall, there appeared to be a positive association between the frequency of bereavement phenomena reported by the widowers at the first interview and the tendency for phenomena to persist at the 13-month interview. There was also a strong trend for the bereavement phenomena to decrease with time. However, some bereavement phenomena (i.e., intrusive thoughts about the lost person, a sense of nostalgia, feelings of sadness) were reported to have been experienced by the majority of the widowers at 13 months after the loss.

The findings of these studies suggest three conclusions:

1. The intensity of grief reactions decreases over time.
2. The majority of grief-specific reactions also decrease over time, but some reactions last more than 1 year after bereavement.
3. A high intensity of grief reactions in early bereavement is related to a high intensity of grief reactions throughout the first year of bereavement.

Normal Grief Reactions and Depression

Zisook and Shuchter (1991a) examined the changes in grief-specific feelings and depression among 101 widowers and 249 widows who ranged in age from 26 to 85 years, mean age 61. Zisook and Shuchter defined grief as a natural phenomena that occurs after the loss of a loved person. The subjects were interviewed at 2 and 7 months after the death of a spouse. The majority of the subjects experienced disbelief (70% at 2 months and 61% at 7 months) and yearning (77% and 70%); however, feelings of numbness (12% and 6%), anger (11% and 10%), and guilt (4% and 5%) were less frequently reported. Overall, the changes in grief-specific feelings were very slight from 2 to 7

months. Moreover, the majority of the subjects were depressed at some time during the first 7 months after the loss; however, the depression among some widowed persons did not begin until after the first several months of bereavement.

Jacobs, Hansen, Berkman, Kasl, and Ostfeld (1989) examined the relationship between the intensity of grief and depression after the death of a spouse. These researchers viewed grief as the psychological manifestations of numbness and disbelief, separation anxiety, and sadness and despair that bereaved persons experienced. The subjects (mean age 54) consisted of 111 widowed persons: 41 who had been bereaved for 6 months and 70 who had been bereaved for 12 months. The subjects were interviewed using the Center for Epidemiological Studies Depression scale (CES-D), the major depressive disorder from the Structured Clinical Interview for the DSM-III, and the Texas Inventory of Grief (TIG). Thirteen of the 41 subjects (32%) who had been bereaved for 6 months and 19 of the 70 subjects (27%) who had been bereaved for 12 months were depressed. Widowed persons who were depressed had significantly higher mean scores on the TIG ($\underline{M} = 12.7$, $\underline{SE} = 1$) than non-depressed widowed persons ($\underline{M} = 7.9$, $\underline{SE} = 0.6$, $\underline{p} < .001$). These findings suggest that depression was positively associated with the intensity of grief reactions.

Stroebe and Stroebe (1991) examined the hypothesis that grief work is necessary for adjustment to bereavement. Their sample consisted of 30 widowers and 30 widows under age 60. The subjects were interviewed three times: 4 to 7 months, approximately 14 months, and over 2 years after the loss. Grief work was operationalized as a strategy of confrontation versus avoidance, and psychological adjustment was measured using the

German version of the Beck Depression Inventory (BDI). The relationship between grief work and the BDI was not significant for widows, whereas suppression ($r = .37$) and nondisclosure ($r = .40$) were significantly correlated with depression early in bereavement for widowers ($p < .01$). Widowers who used more suppression and nondisclosure strategies at both 4 to 7 months and 14 months after the death had significantly higher depression scores at the over 2 years interview ($p < .01$). Based on these findings, the researchers concluded that grief work, for widowers, was associated with better psychological adjustment over the 2-year period. This study suggests that extreme avoidance of grief work is deleterious to the psychological adjustment of widowers to bereavement.

Factors Affecting the Bereaved Persons' Grief Reactions

A number of non-Japanese studies have been conducted to identify factors that predict or correlate with grief resolution after spousal bereavement. There is considerable agreement that certain factors can facilitate or prolong the grief process (Sanders, 1994). According to Sanders, the factors most often mentioned are (a) biographical (age, gender, socioeconomic status), (b) individual (personality, relationship with the deceased person, health before bereavement), (c) mode of death (expected or unexpected death, stigmatized death), and (d) circumstances following the loss (social support, concurrent crises). Therefore, in this section, studies examining the relationships between grief responses and the factors mentioned by Sanders will be reviewed. This review does not include the factors of personality and stigmatized death (e.g., suicide, AIDS), which would require a separate intensive review.

Age and Grief Reactions

Some studies (Jacobs et al., 1986; Kirschling & McBride, 1989; Steele, 1992) have explored the relationships between grief reactions and age. Steele conducted a study to examine the relationship between age and the specific bereavement behaviors of the Grief Experience Inventory (GEI) subscales (Sanders, Mauger, & Strong, 1977). Specific bereavement behaviors were operationalized as manifestations of despair, anger, guilt, social isolation, loss of control, rumination, somatization, depersonalization, death anxiety, sleep disturbance, vigor, physical symptoms, and optimism and despair. The sample included 13 widowers and 47 widows who ranged in age from 25 to 85 years (mean age 62). The mean length of bereavement was 11 months. Younger (n = 7, 25 to 45 years) and elderly widowed persons (n = 27, 66 to 85 years) experienced more despair and hopelessness than the middle-aged widowed persons (n = 26, 46 to 65 years). The younger and middle-aged widowed persons experienced more intense feelings of anger and hostility and higher degrees of loss-of-meaning in life. The researcher concluded that as age increased there was more tendency for the widowed persons to deny their feelings and to respond in a socially desirable manner as a coping mechanism. The researcher interpreted these findings as follows: (a) elderly persons may be prepared for or expecting the loss of a spouse, whereas younger persons may not; and (b) as their age increases, elderly persons may act the way that others think they should act, whereas younger people may tend to act as they want rather than as others expect them to do.

Kirschling and McBride (1989) examined the effects of age on grief within the first few months following the death of a spouse. These researchers viewed grief as

stress experienced by the bereaved. The subjects were 23 widowers and 49 widows who ranged in age from 24 to 83 years (mean age 63.4) and had been bereaved for 5 to 20 weeks. Grief was measured using the GEI. The researchers found that the younger bereaved persons (24 to 64 years) experienced significantly more anger and hostility ($M = 3.6$), $F(1, 71) = 5.32$, $p < .05$, and guilt ($M = 1.7$), $F(1, 71) = 4.86$, $p < .05$, than the older bereaved persons (65 and older) ($M = 2.4$ for anger and 0.9 for guilt). In addition, the researchers found that younger widows scored higher on feelings of loss of control ($M = 5.6$) and somatization ($M = 7.2$) than older widows ($M = 4.1$ for loss of control and 5.1 for somatization) and younger widowers ($M = 4.1$ and 3.1). Moreover, younger widows ($M = 5.6$) scored higher on feelings of rumination than older widows ($M = 3.5$). The researchers suggested that younger widows may articulate feelings of grief in a more intense manner. Bereaved individuals may respond to the loss based on their socialization experiences and expectations about what is age appropriate.

Byrne and Raphael (1994) examined the effects of age on bereavement phenomena in 67 newly widowed elderly men (65 to 90 years) (see p. 20). The researchers found that age was not significantly related to the total score as measured by the BPQ at either 6 weeks or 13 months after the loss of a spouse.

The findings of Steele's (1992) study and Kirschling and McBride's (1989) study suggested that younger widowed persons may report some grief reactions (e.g., anger, hostility) more intensely than elderly widowed persons. Byrne and Raphael (1994), however, found that there were no effects of age on bereavement phenomena when only older widowers were studied. This study included only widowers who ranged in age

from 65 to 90 years whereas subjects of other studies consisted of both widowers and widows in broader ranges of age groups (25 to 85 years for Steele's study and 24 to 83 years for Kirschling and McBride's study). Therefore, the differences in range of ages and gender included in a study could, in part, influence the findings.

Gender and Grief Reactions

Some studies (Farnsworth, Pett, & Lund, 1989; Kirschling & McBride, 1989; Thompson, Gallagher-Thompson, Futterman, Gilewski, & Peterson, 1991; Van Zandt, Mou, & Abbott, 1989) have explored the relationship between gender and grief reactions. Kirschling and McBride examined effects of gender on grief responses among newly widowed persons (23 widowers and 49 widows) (see p. 24). The researchers found that there was a main effect for gender on four scales of the GEI. Widows reported significantly higher scores for somatization ($\underline{M}$ = 6.2), loss of vigor ($\underline{M}$ = 2.9), and physical symptoms ($\underline{M}$ = 3.2) than widowers ($\underline{M}$ = 3.8, 2.1, and 2.0, respectively). Widowers ($\underline{M}$ = 4.5) had higher denial scores than widows ($\underline{M}$ = 3.3). Moreover, the researchers reported that there was a statistically significant interaction effect between gender and age. Younger widows scored higher on loss of control ($\underline{M}$ = 5.6) and somatization ($\underline{M}$ = 7.2) than older widows ($\underline{M}$ = 4.1 and 3.1). Younger widows ($\underline{M}$ = 5.6) also scored higher on rumination than older widows ($\underline{M}$ = 3.5). These findings are consistent with Farnsworth et al.'s (1989) findings that widows reported more feelings of grief than did widowers.

However, Van Zandt et al. (1989) found no gender differences in the intensity of grief when measured by the Texas Inventory of Grief (TIG) among 25 elderly widowers

(mean age 71.4 years) and 25 widows (mean age 68.8 years) at least 3.5 years after bereavement. This finding is supported by Thompson et al.'s (1991) finding that the level of grief among widowers and widows at 2, 12, and 30 months after the spousal death was approximately equal.

Kirschling and McBride's (1989) study included subjects who ranged in age from 24 to 83 whereas subjects in Van Zandt et al.'s (1989) study were aged 55 years and older. Kirschling and McBride's study showed a statistically significant interaction effect between gender and age. The differences between the findings in these studies may be due, in part, to the differences in the two age groups.

Quality of the Past Relationship with the Deceased and Grief Reactions

Farnsworth et al. (1989) examined the effects of marital happiness on grief. Grief was viewed as the process that bereaved persons have experienced following the loss of a loved one. The subjects consisted of 18 widowers and 92 widows (mean age 62.5) who had been bereaved for 6 to 24 months. Grief was measured using a checklist of loss related feelings and behaviors generated from the work of Glick, Weiss, and Parkes (1974). The researchers found that marital happiness was positively related to intensity of grief ($r = .23$, $p < .001$).

Steele (1992) also explored the relationship between the quality of the past relationship with the deceased and grief reactions among 13 widowers and 47 widows, mean age 62 years (see p. 24). The quality of the past relationship with the deceased was rated as extremely close, very close, somewhat close, and not-at-all close to the deceased. The researcher found that the quality of the past relationship with the deceased was

significantly correlated (using canonical correlation procedures) with the GEI subscales (r = - .37, p< .05). Widowed persons who reported that they were "somewhat close" to the deceased scored higher on the GEI subscales of anger and hostility, social isolation, and optimism and despair. Those who reported their previous relationship as "extremely close" and "very close" to the deceased scored higher on the subscales of guilt and rumination. Those extremely close to the deceased also scored higher on the subscales of depersonalization, physical symptoms, loss of vigor, and somatization. Based on the findings that those extremely close to the deceased felt more blame for the death and experienced more somatic complaints and symptoms, Steele suggested that feelings of ambivalence toward the deceased spouse may lead to a poorer grief process.

Kirschling (1989) examined the relationship between the perception of the closeness of the previous relationship and the grief experience. The subjects consisted of 23 widowers and 49 widows who ranged in age from 24 to 83 years and had been bereaved for 5 to 20 weeks (M = 12.6). Perception of relationship was assessed by defining the relationship as central or peripheral. Grief experience was operationalized as denial, atypical response, despair, anger, guilt, loss of control, rumination, somatization, loss of appetite, loss of vigor, and physical symptoms experienced by bereaved persons. Kirschling found that widowed persons (n = 6) who perceived the relationship as central scored higher on the subscales of atypical response (M = 9.00, p< .001), anger and hostility (M = 5.17, p< .01), rumination (M = 7.33, p< .01), somatization (M = 10.17, p< .001), and loss of appetite (M = 2.33, p< .01) than those (n = 66) who perceived the previous relationship as peripheral (M = 4.95, 2.82, 4.41,

5.00, and .79 respectively).

Sable (1989) explored the relationship between previous dependence on the deceased spouse and grief reactions. The sample consisted of 81 widows who had been bereaved for 1 to 3 years and ranged in age from 26 to 82 years (mean age 63). Grief was viewed as separation anxiety, and grief-related feelings were assessed using the TIG. Relationship with spouse was assessed using the question, "What did you rely on your husband for?" Sable found that widows who reported more dependence on their husbands had more intense grief reactions than other widows ($\chi^2 = 10.90$, $p < .001$). The findings of these studies suggested that a good past relationship with the deceased spouse may result in the grief reactions being more intense.

Length of the Deceased's Illness and Grief Reactions

Byrne and Raphael (1994) examined the effects of the duration of their spouses' final illnesses on bereavement in 57 recently widowed elderly men up to 13 months after the death (see p. 20). The researchers found that the duration of the wife's final illness was not significantly correlated with the total Bereavement Phenomenology Questionnaire (BPQ) scores at 6 weeks, 6 months, and 13 months after the death of a spouse. These findings are consistent with Steele's (1992) study. The findings of these studies suggested that the length of the deceased spouse's illness may not influence grief reactions.

Socioeconomic Status and Grief Reactions

Some studies (Byrne & Raphael, 1994; Steele, 1992) have focused on the

relationship between socioeconomic status and grief reactions. Steele explored the effects of socioeconomic status on grief reactions among 13 widowers and 47 widows (see p. 24). Steele found that socioeconomic status was negatively correlated (using canonical correlation procedures) with the GEI subscales of anger and hostility, guilt, social isolation, rumination, depersonalization, somatization, loss of vigor, physical symptoms, optimism and despair, and social desirability ($r = -.68$, $p < .05$). This correlation of -.68 may be inflated because of the relatively small sample to variables ratio (6 : 1) in Steele's study.

Byrne and Raphael (1994) examined the relationship between socioeconomic status and bereavement phenomena in 57 newly widowed older men over 13 months after the spousal bereavement (see p. 20). The researchers found that both education ($r = -.36$ for 6 weeks; $r = -.32$ for 6 months, $p < .01$) and income ($r = -.24$ and $-.25$, $p < .05$) were negatively correlated with the total BPQ score at 6 weeks and 6 months after the loss. The findings of these studies suggested that low socioeconomic status may negatively influence grief reactions after spousal bereavement. However, it is important to consider that socioeconomic status may be a proxy variable. Therefore, the results need to be cautiously interpreted.

Expectation of the Death and Grief Reactions

Many deaths occur with some forewarning, and the potential survivor begins the task of mourning and begins to experience the various responses of grief prior to the actual death. Byrne and Raphael (1994) explored the relationship between the degree of expectedness of the spouse's death and the grief reactions after the spousal death in 78

recently widowed elderly men (see p. 20). These researchers found that more than 50% of the widowers reported their wife's death was expected or fairly expected. The widowers who expected their wife's death reported significantly lower BPQ scores at 6 weeks after the loss of their wife ($r = -.27$, $p < .05$), but there were no such relationships at 6 months and 13 months after the loss.

The effects of expectedness of the loss on grief responses after the spousal death are not clear. Byrne and Raphael (1994) used retrospective questions to collect data about expectedness of the loss at the first interview after the loss. However, retrospective questions, in general, have been found to be somewhat unreliable.

Adjustment to Spousal Bereavement

Adjustment to Spousal Bereavement in Japanese Literature

Four studies (Kawai, 1984, 1988; Okamura, 1993; Okamura & Kawai, 1987) have explored adjustment to widowhood. Kawai's (1984) and Okamura and Kawai's studies focused on long-term adjustment to bereavement. Kawai examined adjustment among elderly women using the Japanese versions of the Zung Depression Scale, PGC Morale Scale, and UCLA Loneliness Scale. The subjects were 130 widows who ranged in age from 65 to 69 years and had been bereaved less than 10 years. A comparison sample of 143 married women aged 65 to 69 was also studied. Kawai found that there was a significant difference between marital status and loneliness ($p < .05$); loneliness scores among widows were higher than those among married women. In addition, childless and/or unhealthy widows had much higher loneliness scores than other widows. Kawai suggested that widows who lack social support may experience loneliness. There were

no significant differences between widows and married women on morale and depression. However, Maeda, Asano, and Taniguchi (1979) found that single elderly persons had significantly lower morale scores than married elderly persons. Therefore, the relationship between marital status and morale is not clear. In addition, the subjects in Kawai's study had been bereaved for up to 10 years; therefore, the widows' levels of adjustment may have varied according to the length of time bereaved.

Okamura and Kawai (1987) explored the relationship between adjustment to bereavement and selected related factors (e.g., marital relationship, length of illness, anticipation of the death of a spouse, physical health) using a semistructured interview. The 79 widows in the study ranged in age from 55 to 77 years and had been bereaved up to 10 years. The authors measured long-term adjustment to widowhood using these measures: the match between role-expectation and behavior, whether the widow had good relationships with others, and the Japanese version PGC Morale Scale (possible score ranges from 0 to 17). Widows who had lower morale scores (from 3 to 11), behaviors and role-expectations that did not match, and poor relationships with others were considered to be maladjusted. Maladjustment was related to (a) the husband having been bedridden for over 5 years, (b) the widow's previous dependence on the deceased husband, (c) her poor health, (d) her having a highly anxious personality, (e) her loss of role in the family, (f) greater frustration with family relationships, and (g) greater anxiety about her future life.

Kawai (1988) explored adjustment to bereavement in terms of depression, loneliness, and anxiety. The subjects were 75 widowers (mean age 74) and 109 widows

(mean age 69) who had been bereaved for 3 to 14 months. The researcher used a control group of 123 married men (mean age 74) and 195 married women (mean age 68). The Japanese versions of the Zung Depression Scale, UCLA Loneliness Scale, and Cattell Anxiety Scale were used. Widows ($\underline{M}$ = 31.6) had higher scores on depression than widowers ($\underline{M}$ = 30.5), but the differences were not significant. In addition, there were no significant differences in depression between widowed persons and married persons. However, widows who had been bereaved 3 to 6 months ($\underline{M}$ = 32.9) had significantly higher depression scores than married women ($\underline{M}$ = 30.4), $\underline{F}(1, 171) = 5.31$, $\underline{p} < .05$. Widowed persons (8 widowers and 3 widows) who had been bereaved 12 months ($\underline{M}$ = 34.5) also had significantly higher depression scores than married women ($\underline{M}$ = 30.4, $\underline{t}$ = 5.81, $\underline{df}$ = 159, $\underline{p} < .05$). Kawai interpreted this finding as the effect of the anniversary of a husband's death. Depression was significantly lower in subjects with good health (β = - .34, $\underline{p} < .001$) and subjects who had a job (β = - .20, $\underline{p} < .01$).

Widowers had significantly higher loneliness scores ($\underline{M}$ = 27.9) than widows ($\underline{M}$ = 25.9), $\underline{F}(1, 181) = 4.32$, $\underline{p} < .001$. Widows' loneliness scores were similar to those of married women, but the widowers' scores were significantly higher than those of the married men ($\underline{M}$ = 25.1, $\underline{t}$ = 13.4, $\underline{df}$ = 213, $\underline{p} < .001$). Kawai (1988) suggested that spousal bereavement could affect elderly widowers' loneliness, but not that of widows. Loneliness was negatively related to good health (β = -.16), socioeconomic status (β = -.18), and the number of family members (β = .-15) and friends (β = -.17). Loneliness was positively associated with the length of the deceased spouse's illness

($\beta = .18$).

Widowers had significantly lower anxiety scores ($M = 19.5$) than widows ($M = 23.6$), $F(1, 358) = 6.64$, $p < .01$, and widowed persons had significantly lower scores than married men ($M = 24.1$) and women ($M = 26.6$), $F(1, 358) = 10.78$, $p < .01$. Kawai (1988) explained these findings by suggesting that although spousal bereavement is a distressing experience, elderly persons who experience spousal bereavement could cultivate adaptability and self-controllability, and therefore, have significantly lower anxiety scores. Anxiety was negatively related to good health ($\beta = -.27$), socioeconomic status ($\beta = -.21$), satisfaction with the marriage ($\beta = -.27$), and the length of bereavement ($\beta = -.25$, $p < .01$).

Okamura (1993) studied 27 widowers (mean age 73.9) and 118 widows (mean age 69.7) who had been bereaved for 12 to 18 months. The purpose of this study was to investigate factors related to adjustment in spousal bereavement. Adjustment was measured four ways: (a) the question "Do you think that you could adjust to widowhood?"(subjective adjustment), (b) the Japanese version PGC Morale Scale, (c) the number of physical symptoms, and (d) the Japanese version Life-satisfaction Scale. About 80% of the subjects reported that they could adjust to spousal bereavement in less than one year. The widowed persons accepted bereavement as follows. Approximately one-third (35%) of the widowed persons (48% of widowers and 32% of widows) expressed, "I accepted the loss because he or she died a natural death", and 27% of them (19% of widowers and 29% of widows) expressed, "I was relieved to accomplish

my role". With respect to acceptance of bereavement, there may be gender differences. Widows may be apt to think that spousal bereavement is the wife's role, whereas widowers may have a tendency to think that spousal bereavement is the husband's fate.

Okamura (1993) also found that widowed persons reporting that they could not adjust to bereavement had lower morale scores ($\chi^2 = 16.58$, $p < .01$), lower life satisfaction ($\chi^2 = 17.15$, $p < .05$), and a larger number of physical symptoms ($\chi^2 = 17.15$, $p < .05$). In addition, the number of younger widows (ages 55 to 69) who reported that they could not adjust to bereavement was greater than that of older widows ($\chi^2 = 21.24$, $p < .01$). Widowed persons who had a good relationship (e.g., I felt relieved to be with my spouse, I want to marry my spouse again) with their spouses felt a greater shock on the death of a spouse and needed more time to adjust to bereavement. Widowed persons who had had good relationships with their deceased spouses ($F = 8.24$, $p < .001$) and had good relationships with family members ($F = 18.48$, $p < .001$) had significantly higher morale scores. On the other hand, widowed persons who had a lower socioeconomic status ($F = 18.76$, $p < .001$) and widowers who had the burden of housekeeping ($F = 7.99$, $p < .01$) had significantly lower morale scores.

In summary, the literature reviewed focused on Japanese studies which examined adjustment to widowhood. Two studies (Kawai, 1984, 1988) explored adjustment to widowhood among elderly persons using married control groups. Adjustment to spousal bereavement was measured four ways: (a) a depression scale, (b) a morale scale, (c) a loneliness scale, and (d) an anxiety scale. These two studies found that there was no

significant differences between widowed persons and married persons on the depression and morale scales. However, widows who had been bereaved for 3 to 6 months had significantly higher depression scores than married persons. Widows in early stages of bereavement experienced a greater depressed mood. Over time widows experienced depressive feelings similar to those reported by married women. In addition, widowers had significantly higher loneliness scores than widows, and the widowers' scores were significantly higher than those of married men. There was a significant difference in loneliness between widows who had been bereaved less than 10 years and married women, but not between widows who had been bereaved for 3 to 14 months and married women. Finally, widowed persons had significantly lower anxiety scores than married persons.

Two studies (Okamura & Kawai, 1988; Okamura, 1993) explored the relationship between adjustment to widowhood and related factors among elderly persons. Okamura and Kawai's study measured long-term adjustment to widowhood using the match between role-expectation and behavior, having good relationships with others, and a morale scale. Maladjustment was related to the husband having been bedridden for over 5 years, and the widow's previous dependence on the deceased husband, her poor health, having a highly anxious personality, her loss of role in the family, her frustration with family relationships, and anxiety about her future life. Okamura's study measured adjustment to widowhood four ways: by using a single question on adjustment, a morale scale, the number of physical symptoms, and a life-satisfaction scale. Widowed persons who reported that they could not adjust to bereavement had lower morale, lower life

satisfaction, and a larger number of physical symptoms. Higher morale scores were related to good relationships with the deceased spouse and other family members. Lower morale scores were related to lower socioeconomic status and the burden of housekeeping.

Adjustment to Spousal Bereavement in Non-Japanese Literature

Literature on adjustment to spousal bereavement and related factors is organized according to four commonly measured outcome variables and internal or external mediator variables. The outcome variables include physical health and psychological health (i.e., morale, depression, loneliness). The internal or external variables are age, gender, socioeconomic status, social support, concurrent losses, quality of relationship with the deceased spouse, and length of the deceased's illness. Given the extensive nature of this literature, emphasis is placed on research that has been published since 1989 (see Kitson, Babri, Roach, & Placidi, 1989; Windholz, Marmar, & Horowitz, 1985 for reviews of earlier literature).

Physical Health

Physical health has been generally accepted as a major indicator of bereavement outcomes (Kitson et al., 1989). Several studies examined the effect of spousal bereavement on physical health (Avis, Brambilla, Vass, & McKinlay, 1991; Wolinsky & Johnson, 1992; Zandt, Mou, & Abbott, 1989). Zandt et al. studied 50 widowed (mean age 71.4 for 25 widowers and 68.8 for 25 widows) and 50 married elderly persons (mean age 70.9 for 25 married men and 70.5 for 25 married women). The researchers interviewed the subjects four times: within 6 weeks to 4 months, 8 months, 20 months,

and 3.5 years after the bereavement. Physical health was measured using self-rating perceived health, the number of physical health problems experienced, and the number of visits to a physician. There were no significant differences in perceived physical health, incidence of hospitalization, and number of physician visits between widowed persons and married persons. However, the widowed persons experienced a significantly greater number of physical health problems than the married persons, $F(1, 77) = 8.77$, $p < .01$, although the changes over time were similar for both the widowed and married persons.

Wolinsky and Johnson (1992) examined the relationships between widowhood and health status and the use of health services using data from the Longitudinal Study on Aging, which was a 6-year follow-up to the 1984 Health Interview Survey. The subjects were 2,354 widowed persons aged 55 and older. The recency of widowhood was not significantly related to health services utilization (e.g., use of home health services, number of physician visits, number of hospital nights).

Avis and colleagues (1991) explored the effect of widowhood on middle-aged women's health using data from the Massachusetts Women's Health Study (MWHS), which was a 5-year follow-up to the 1981 Health Interview Survey. The sample was 76 women (mean age 61) who became widows between the base line survey and the fifth follow-up interview. The authors compared the subjects with age-matched married controls. There were no significant differences between widows and married women on physical health (i.e., self-assessed health, physical symptoms, taking over-the-counter medications).

Wolinsky and Johnson's study (1992) and Avis's study (1991) controlled for

prewidowhood health status. The findings of these studies showed that widowhood was not significantly related to poor physical health (i.e., health services utilization and self-assessed health, physical health, taking medications). Although Zandt's study (1989) did not include prewidowhood health status, the findings suggested that there were few effects of bereavement on the physical health (i.e., self-rating perceived health, incidence of hospitalization, number of physician visits) of newly widowed elderly persons. In Zandt's study, prewidowhood physical health might have explained the finding that the widowed persons experienced a significantly greater number of physical health problems than the married persons.

Psychological Health: Morale

Subjective well-being is a widely used component of adjustment to widowhood (Arbuckle & Vries, 1995; Farnsworth, Lund, & Pett, 1989; Farnsworth, Pett, & Lund, 1989; Harvey, Barnes, Greenwood, & Kabahenda-Nyakabwa, 1987; Lubben, 1989; Lund, Caserta, & Dimond, 1989; Lund, Caserta, Dimond, & Shaffer, 1989; Schuster & Butler, 1989). Subjective well-being has been assessed by various measures (e.g., Morale Scale, Life Satisfaction Index, Affect Balance Scale, Global Happiness Scale) in studies of elderly widowed persons. In this section, some studies that have examined the relationship between subjective well-being (morale, life satisfaction) and widowhood are reviewed.

Harvey and colleagues (1987) explored the relationship between morale and widowhood. The subjects consisted of 237 widowers (mean age 64.3), 1,135 widows (mean age 68), 4,539 married men (mean age 53.3), and 4020 married women (mean age

56). The Bradburn Affect Balance Scale was used to assess morale. The researchers found that widowers had lower scores on the Positive Affect subscale, indicating a less positive affect than for married men, $F(1, 3401) = 7.29$, $p = .007$. There were significant differences in both the Positive, $F(1, 3954) = 10.62$, $p = .001$, and Negative Affect subscales, $F(1, 3948) = 8.44$, $p = .004$, between widows and married women.

Lund, Caserta, and Dimond (1989) examined the relationship between the impact of spousal bereavement and life satisfaction among elderly widowed persons. The sample of 108 widowed persons (23 men and 85 women, mean age 67.6) completed a number of measures six times: at 3 to 4 weeks, 2 months, 6 months, 1 year, 18 months, and 2 years after the loss. The control group of 85 married persons (19 men and 66 women, mean age 66.3) also completed the questionnaires at the same six times. Life satisfaction was measured using the Life Satisfaction Index (LSI-A). At 3-4 weeks, married persons ($M = 15.5$, possible range 0 to 20) had a higher life satisfaction score than widowed persons ($M = 13.5$). There was borderline significance regarding the initial effect of bereavement on life satisfaction, $F(1,43) = 3.63$, $p < .06$. The interaction effect of bereavement and time was not significant. At 2 years, the differences between widowed persons and married persons were minimal ($M = 14.4$ for widowed persons and 14.8 for married persons). Scores in married persons were consistently slightly higher than those in widowed persons. The researchers concluded that life satisfaction was only slightly impacted by spousal bereavement.

Lubben (1989) explored the relationship between marital status and life satisfaction among low-income elderly widowed persons using data from the California

Senior Survey, a cross-sectional survey. The subjects were 57 widowers (mean age 78 years) and 393 widows (mean age 77). The control group included 99 married men and 78 married women. The researcher measured life satisfaction using the LSI-A. Widowed persons had lower average life satisfaction scores than their married counterparts. There were significant differences between widowers and married men, but no significant differences between widows and married women were found.

Using a control group of 237 married persons and previously widowed persons, Grimby (1993) also examined the relationship between widowhood and life satisfaction among 47 newly widowed persons (mean age 72.7). Life satisfaction was assessed using a scale measuring the dimension of satisfaction with life in the 23-item quality of life assessment scale. The average life satisfaction score ($\underline{M}$ = 68, $\underline{SD}$ = 21, possible range 0 to 100) of newly widowed persons was significantly lower than that of both married persons ($\underline{M}$ = 80, $\underline{SD}$ = 18, $\underline{p}$< .001) and previously widowed persons ($\underline{M}$ = 76, $\underline{SD}$ = 18, $\underline{p}$< .001). Based on these findings, Grimby proposed that recovery from bereavement is not excessively prolonged in relation to life satisfaction. In addition, the researcher analyzed the relationship between life satisfaction and grief reactions. Newly widowed persons who reported more loneliness, pessimism, concentration difficulties, and lack of interest had lower satisfaction scores.

The findings of Harvey et al.'s study (1987), Lund's study (1989), and Grimby's study (1993) suggested that subjective well-being (i.e., morale, life satisfaction) could be influenced by spousal bereavement. These findings were supported by Arbuckle and Vries's findings (1995). However, Lubben (1989) found that for life satisfaction there

was only a significant difference between widowers and married men. Subjects in Lubben's study were low-income elderly widowed persons; their mean age was older than other studies, and the length of bereavement was not reported. Therefore, this difference in the findings may be due, in part, to differences in demographic variables (e.g., age socioeconomic status, length of bereavement).

Psychological Health: Depression

Depression is a widely accepted component of psychological adjustment (Arbuckle & Vries, 1995; Caserta, Pelt, & Lund, 1989; Duran, Turner, & Lund, 1989; Faletti, Gibbs, Clark, Pruchno, & Berman, 1989; Farnsworth, Lund, & Pett, 1989; Gallagher, Lovett, Hanley-Dunn, & Thompson, 1989; Herth, 1990; Kitson & Roach, 1989; Lund, Caserta, & Dimond, 1989; Lund, Caserta, Diamond, & Shaffer, 1989; Murrell, Meeks, & Walker, 1991; Roach & Kitson, 1989; Siegel & Kuykendall; 1990; Stroebe & Stroebe, 1991; Stroebe, Stroebe, Abakoumkin, & Schut, 1996; Thompson, Gallagher, Cover, Gilewski, & Peterson, 1989; Thompson et al., 1991; Zandt et al., 1989; Zautra, Reich, & Guarnaccia, 1990). Normal grief reactions often include many depressive symptoms (e.g., somatic complaints, sad mood). Therefore, evaluations of mental health outcomes of spousal bereavement need to assess the natural pathways of depression during spousal bereavement and to differentiate normal grief reactions from a major depressive episode.

Depression in widowhood: Prevalence and duration. A number of studies (Clayton, 1990; Harlow et al., 1991a; Jacobs et al., 1989; Nuss & Zubenko, 1992; Siegel & Kuykendall, 1990; Zisook & Shuchter, 1991b) have examined the prevalence and

duration of depressive symptoms after the loss of a spouse. There is general agreement that the depressive episodes are more frequent in widowed persons than in married persons. For example, Zisook and Shuchter (1991b) examined the frequency of depressive symptoms during the first 13 months after bereavement. The subjects were 249 widows and 101 widowers ranging in age from 26 to 85 (mean age 61 years). A comparison group included 40 married men and 86 married women. Widowed and married persons were evaluated for depressive symptoms, using DSM-III-R criteria and the Hopkins Symptom Checklist-Depression Subscale, at 2, 7, and 13 months after bereavement. The researchers found that 24% of widowed persons had depressive symptoms at 2 months, 23% at 7 months, and 16% at 13 months whereas only 4% of married persons had depressive episodes at the time of the interviews. Approximately one-half (57%) of the subjects experienced depressive episodes at some time during the 7 months after the death of a spouse. Widowed persons who were depressed at either 2 or 7 months were more likely to be depressed at 13 months.

Harlow et al. (1991a) examined the natural history of changes in depressive symptoms over 2 years after the death of a spouse. A total of 1,144 women were selected from married women aged 65 to 75 years. The authors then interviewed the women to get a baseline. From the baseline population 136 women who had subsequently lost their husbands and 409 still-married women to use as a control group were selected. The subjects were interviewed using the Center for Epidemiologic Studies Depression Scale (CES-D), at 1, 6, 12, 18, and 24 months after bereavement. The percentage of married women with high CES-D scores ($\geq$ 16) ranged from 6.4 to 10.4% over the 5 interviews.

The percentage of widows with high CES-D scores was 15.4% at baseline, 58.3% at 1 month, 23.4% at 6 months, 17.5% at 12 months, 17.5% at 18 months, and 16.4% at 24 months after the loss.

Lund, Caserta, and Dimond (1989) explored the changes in depression among elderly widowed persons over a 2-year period. The method and sample were described earlier (see p. 40). Depression was assessed using the Zung Self-Rating Depression Scale. The researchers found that the impact of bereavement had a significant initial effect on depression, $F(1,55) = 9.37$, $p < .01$. Widowed persons had significantly higher average depression scores ($M = 39.4$, possible range 20 to 80) than married persons ($M = 33.3$) at 3 to 4 weeks after the loss. The mean scores for married persons did not change substantially over time, whereas those for widowed persons decreased constantly through the first 18 months ($M = 36.5$) and then the mean scores increased slightly ($M = 37.7$) at 2 years after the loss. However, the mean scores for widowed persons did not drop to the level of the mean scores for the married persons. With respect to the prevalence of depression, 16% of widowed persons were depressed at 3 to 4 weeks, 17% at 6 months, and 10% at 18 months after the loss; 5% of married persons were depressed at 3 to 4 weeks and 12% at 1 year. There were significant differences between widowed and married subjects at only 3 to 4 weeks ($\chi^2 = 4.93$, $df = 1$, $p < .05$).

The findings of Zisook and Shuchter's (1991b) study, Harlow et al.'s (1991a) study, and Lund, Caserta, and Dimond's (1989) study suggested two conclusions. First, during the first few months following the death of a spouse, elderly persons undergoing

spousal bereavement experience greater depression than their married counterparts. This suggestion is supported by several other studies (Clayton, 1990; Siegel & Kuykendall, 1990; Thompson et al., 1989; Zandt et al., 1989). The second conclusion is that depressive symptoms decrease substantially throughout the first year after the death of a spouse. Several other studies (Clayton, 1990; Jacobs et al., 1989; Nuss & Zubenko, 1992; Thompson et al., 1989) have supported this conclusion also. The estimated rate of complications from unremitting depression at the end of the first year is approximately 10 to 20% (Osteweis et al., 1984; National Institute of Health, 1991).

Among these studies, there were some differences in the percentages of widowed persons who had high depression scores. This finding could be explained by methodological differences. Subjects in Harlow's study (1991a) included only women whereas those in other studies included both genders, and those in Zisook's study (1991b) were somewhat younger than in the other samples. Moreover, Harlow's study examined prewidowhood mental status; 15.4% of widows had high depression scores in prewidowhood, which might influence the percentages of depression after bereavement. Finally, these studies used different depression scales.

Complicated outcomes of spousal bereavement: Major depressive episode.

According to the DSM-IV criteria (American Psychiatric Association, 1994):

> After the loss of a loved one, even if depressive symptoms are of sufficient duration and number to meet criteria for a Major Depressive Episode, they should be attributed to bereavement rather than to a Major Depressive Episode, unless they persist for more than 2 months or include marked functional impairment,

> morbid preoccupation with worthlessness, suicidal ideation, psychotic symptoms, or psychomotor retardation. (p. 326)

In short, manifestation of those symptoms (e.g., morbid preoccupation with worthlessness) suggests that the bereavement is complicated by the development of a major depressive episode.

Zisook and Shuchter (1993) examined the onset and course of major depressive episodes for a 25-month period after spousal bereavement. The subjects consisted of 70 widowers and 189 widows who ranged in age from 26 to 85 years (mean age 62) and were interviewed at 2, 13, and 25 months after the death of a spouse. Major depressive episode was assessed using DSM-III-R criteria. Fifty-nine widowed persons (24%) had major depressive episodes at 2 months, 20 of these widowed persons (8%) continued to meet the criteria at 13 months, and 6 of these widowed persons (2%) still met the criteria at 25 months after the loss. Compared with widowed persons who no longer had major depressive episodes at 13 months, the 20 widowed persons who continued to meet criteria at 13 months experienced significantly higher average depression scores based on the total Zung Self-Rating Depression Scale [67 vs. 56, $\underline{F}(1, 57) = 12.49$, $\underline{p} < .001$], more feelings of worthlessness (40% vs. 15%, $\chi^2 = 4.43$, $\underline{df} = 1$, $\underline{p} < .05$), and more thoughts of either death or dying (60% vs. 15%, $\chi^2 = 12.41$, $\underline{df} = 1$, $\underline{p} < .001$). In addition, 22 of the 200 widowed persons who were not depressed at 2 months subsequently were depressed at 13 months after spousal bereavement. In comparing these 22 widowed persons with widowed persons who did not experience a depressive episode at any point, significantly

greater depressive symptoms were found in the 22 widowed persons at 2 months [52 vs. 45, $F(1, 198) = 8.43$, $p < .005$].

These findings suggest the following:

1. Depressive symptoms associated with bereavement could often be prolonged and be associated with substantial morbidity.
2. Widowed persons who had higher depression scores at 2 months after the loss are more likely to continue to have depressive symptoms.
3. Widowed persons who did not meet the cut-off depression score at 2 months after the death might subsequently experience depressive symptoms at a later time.

Psychological Health: Loneliness

According to Weiss (1973, 1982), loneliness is an affective state associated with dissatisfaction in social relations as a result of emotional or social isolation. Weiss described emotional isolation as resulting from the loss of an attachment figure. Social isolation results from a disruption in linkages to a supportive network. The loss of a spouse often not only brings with it emotional isolation but also leads to a change in social roles which produces social isolation.

Some studies (Dugan & Kivett, 1994; Hansson, Jones, Carpenter, & Remondet, 1986; Hegge, 1991) have examined the relationship between spousal death and loneliness in elderly persons. Dugan and Kivett explored the importance of emotional isolation and social isolation to loneliness in 119 elderly rural persons (36 men and 83 women, mean age 83). The subjects consisted of 43 married, 65 widowed, 4 divorced or separated, and 7 never married elderly persons. Emotional isolation was operationalized by three

questions regarding the loss of the presence of attachment figures (e.g., marital status). Social isolation was operationalized by questions concerning social interaction (e.g., frequency of visits with children). Lack of a marital relationship was significantly related to loneliness and was a significant predictor of loneliness ($\beta = .31$, $p < .01$). Emotional isolation variables accounted for 10% of the variance in loneliness. Social isolation variables, however, did not explain a significant increase in the variance in loneliness. Therefore, Dugan and Kivett concluded that the presence or loss of a spouse, rather than contact with a confidant, was most important to loneliness.

Hansson and colleagues (1986) examined the relationship between loneliness and adjustment to widowhood in 75 widows who ranged in age from 60 to 90 and had been bereaved for 1 to 42 years. These researchers found that lonelier widows reported a greater proportion of time spent ruminating about consequences of the death of their spouse ($r = .36$, $p < .01$) and a greater degree of negative emotions (e.g., anger, helplessness, resentment) about the death ($r = .33$, $p < .05$). Moreover, lonelier widows reported fewer behaviors associated with adjustment to widowhood (e.g., developing new skills, finding new friends, finding employment if necessary, remaining self-sufficient) ($r = -.27$, $p < .05$) and less satisfaction with their relationship with children ($r = - .43$, $p < .01$), family ($r = - .27$, $p < .05$) , friends ($r = - .46$, $p < .001$), and organization affiliations ($r = - .46$, $p < .001$). Hansson and colleagues concluded that loneliness was associated with maladaptive behavior patterns.

The findings of these studies suggest that widowed persons experience emotional

isolation because of the loss of an attachment figure. Loneliness is positively related to poor adjustment and to dissatisfaction with family and social relationships.

Factors Affecting Adjustment to Spousal Bereavement

This section reviews non-Japanese literature which has examined the relationships between related factors and adjustment to spousal bereavement. The factors include age, gender, the quality of the past relationship with the deceased, social support, length of the deceased's illness, socioeconomic status, and concurrent losses.

Age and Adjustment to Spousal Bereavement

Some studies (Gove & Shin, 1989; Jacobs et al., 1989; Lowenstein & Rosen, 1989) have examined the relationship between age and adjustment to spousal bereavement. Jacobs and colleagues investigated the relationship between age and depression after spousal bereavement in 111 widowed persons (26 widowers and 85 widows) who ranged in age from 32 to 65 years with a mean age of 54 years. These researchers found that age was not associated with depression after bereavement.

Lowenstein and Rosen (1989) explored the relationship between age and physical health and depression in 246 Jewish widows. The subjects, widowed from 1 to 7 years, were assessed using the Zung Self-Rating Depression Scale and a 10-point perceived physical health scale. The researchers found that age accounted for approximately 25% of the variance in perceived physical health; that is, as age increased, widows perceived their physical health status as being poorer. Age predicted less than 1% of the variance in depression.

Gove and Shin (1989) explored the relationship between age and psychological

well-being in 153 widowers (mean age 66.2) and 149 widows (mean age 65.7). The subjects were interviewed one time, and psychological well-being was assessed using seven subscales: happiness, life satisfaction, home life satisfaction, self-esteem, psychological distress, feeling trapped, and meaninglessness. The researchers found that older widowed persons reported significantly higher levels of happiness ($\beta = .115$, $p < .1$), life satisfaction ($\beta = .112$, $p < .1$), and home life satisfaction ($\beta = .122$, $p < .1$) than younger widowed persons. Older widowed persons also experienced significantly lower levels of psychological distress ($\beta = -.17$, $p < .01$), feeling trapped ($\beta = -.132$, $p < .05$), and meaninglessness ($\beta = -.125$, $p < .1$). The researchers also reported that widowed persons who were older than 65 years were significantly less depressed than younger widowed persons ($p < .05$). These findings are consistent with Zisook and Shuchter's (1991b) findings that the mean age of depressed widowed persons (57 ± 9.95 years) was lower than that of nondepressed widowed persons (62 ± 9.61 years), $F(1, 281) = 10.62$, $p < .001$.

With respect to the effects of age on perceived physical health, Lowenstein and Rosen (1989) concluded that age was one of the main predictors of a widow's perceived physical health. This finding is consistent with our knowledge that as age increases, individuals generally have a greater number of chronic conditions (Thomas, 1992). Addressing the effects of age on psychological outcome, the findings of Jacobs et al.'s (1989) and Lowenstein and Rosen's (1989) studies suggested that there could be either no or slight effects of age on depression after spousal bereavement. However, Gove and

Shin (1989) and Zisook and Shuchter (1991b), however, reported that age affected psychological well-being. Additional research is needed to clarify the relationship between age and adjustment to spousal bereavement.

Gender and Adjustment to Spousal Bereavement

Some studies (Faletti et al., 1989; Farnsworth, Pett, & Lund, 1989; Gass, 1989; Lubben, 1989; Thompson et al., 1989; Thompson et al., 1991; Umberson, Wortman, & Kessler, 1992; Van Zandt et al., 1989) have examined the influence of gender on adjustment to spousal bereavement (i.e., physical health, life satisfaction, depression). Van Zandt et al. also explored the relationship between gender and physical health; they found that there were no gender differences on perceived physical health, number of physical problems, incidence of hospitalization, or number of physician visits.

Lubben (1989) examined the effects of gender on life satisfaction among elderly, low-income persons (57 widowers and 393 widows) after spousal bereavement (see p. 40). The researcher found that there was no significant difference in life satisfaction scores between widowers and widows. These findings are consistent with those reported by Farnsworth, Pett, and Lund (1989). However, Gove and Shin (1989) found gender differences in psychological well-being among 152 widowers and 149 widows (see p. 49). The widows had significantly higher levels of happiness ($\beta = .191$, $p < .01$), life satisfaction ($\beta = .134$, $p < .05$), and home life satisfaction ($\beta = .274$, $p < .001$) than the widowers. However, there were no significant gender differences in other subscales of psychological well-being (i.e., self-esteem, psychological distress, feeling

trapped, meaninglessness).

Thompson and colleagues (1989) explored the relationship between gender and depression after spousal bereavement in 211 elderly widowed persons over a 2.5-year period. The subjects included 98 widowers and 113 widows ranging in age from 55 to 80 years (mean age 69.76 for men and 66.4 for women). The subjects were interviewed four times: at 6-9 weeks, 6 months, 1 year, and 2.5 years after the death of a spouse. Depression was assessed using the Brief Symptom Inventory. The researchers found that although widows had higher mean depression scores than widowers, the differences were not statistically significant. These findings are consistent with those reported by Van Zandt et al. (1989), Jacobs et al. (1989), and Faletti et al. (1989).

Umberson and colleagues (1992) found some contradictory evidence. These researchers examined the effects of gender on depression using data from a national survey in 1986. The sample was 3,614 respondents including 103 widowers and 538 widows aged 25 and older. The widowers had been bereaved from less than 1 year to 57 years ($\underline{M}$ = 13) whereas the widows had been bereaved from less than 1 year to 64 years ($\underline{M}$ = 15). Depression was assessed using the CES-D. For men, having been widowed was positively associated with current levels of depression ($p < .05$). This finding did not hold true for women. The effects of widowhood on depression levels in widowers are consistently greater than those in widows. When currently widowed persons were compared with same-sex and never-widowed comparison persons, a significant interaction between gender and widowhood was found ($p < .10$). Based on this finding, the researchers indicate that men are more vulnerable than women to depression

following spousal bereavement. These findings are consistent with those reported by Stroebe and Stroebe (1983).

The findings of Van Zandt et al.'s (1989), Lubben's (1989), and Thompson et al's (1989) studies supported that there are not gender differences in adjustment to spousal bereavement (i.e., physical health, life satisfaction, depression). However, Umberson et al. (1992) and Gove and Shin (1989) found gender differences in psychological consequences after bereavement. Additional research is needed because there is not general consensus as to the effects of gender differences on adjustment to spousal bereavement.

Quality of the Past Relationship with the Deceased and Depression

Some studies (Clayton, 1990; Farnsworth, Pett, & Lund, 1989; Futterman, Gallagher, Thompson, & Lovett, 1990; Ransford & Smith, 1991; Zisook & Shuchter, 1991b) have examined the relationship between the quality of the past relationship with the deceased and adjustment to spousal bereavement. Futterman et al. explored the relationship between retrospective assessment of marital adjustment and depression during the first 30 months after spousal bereavement. The subjects included 99 widowers and 113 widows (mean age 68.2, SD = 7.84) and a control group of 84 married men and 78 married women (mean age 70.1, SD = 7.65). The subjects were interviewed three times, at 2, 12, and 30 months after the loss. Depression was measured using the Beck Depression Inventory (BDI), and marital adjustment was assessed using seven 7-point Likert-type items scale (i.e., global marital adjustment, frequency of disagreement, amount of leisure activity done together, frequency of confiding in spouse,

frequency of spouse's confiding in subject, give and take in disagreements, frequency of depending on spouse for decision making). Futterman et al. found that positive marital judgments were significantly related to higher BDI scores for widowed persons, $F(7,177) = 2.14$, $p < .05$. For married persons, however, higher BDI scores were significantly associated with more negative marital judgments, $F(7,133) = 4.46$, $p < .001$. Based on these findings, the researchers suggested that a positive bias in recall of the lost marriage is a typical response to spousal bereavement (e.g., idealization). This typical response thereby influences assessments of the quality of the past relationship with the deceased spouse.

Farnsworth and colleagues (1989) explored effects of perceived past marital happiness on psychological well-being (i.e., depression, life satisfaction). Subjective well-being was assessed using the Life Satisfaction Index-A (LSI-A) and the Zung Self-Rating Depression Scale. These researchers found that past marital happiness was positively related to life satisfaction ($r = .295$, $p < .001$), but not to depression.

Ransford and Smith (1991) examined the relationship between past marital adjustment and depression over 12 months after the death of a spouse, among 31 widowers and 40 widows who ranged in age from 30 to 86 years (mean age 61). Depression was assessed using the CES-D. The researchers found that past marital adjustment was not related to depression at 6 and 12 months after bereavement. The findings are consistent with both Clayton's (1990) findings that past relationship to the deceased and degree of closeness to the deceased do not predict depression at 13 months after the loss, and Zisook and Shuchter's (1991b) findings that quality of the marital

relationship was not significantly related to depression at 13 months after bereavement.

There is no agreement as to the effects of the quality of the past relationship with the deceased on depression. In relation to the quality of the past relationship with the deceased, these studies used several terms (i.e., marital adjustment, marital happiness, relationship to the deceased, degree of closeness to the deceased, quality of the marital relationship, quality of the relationship with the deceased). Futterman's study (1990) described operationalization of the concept of "marital adjustment", but other studies did not. Therefore, there could be differences among these studies in the underlying conceptualization of the quality of past relationship with the deceased. These differences could thereby influence the findings.

Social Support and Adjustment to Spousal Bereavement

A number of studies (Bass, Bowman, & Noelker, 1991; Dimond, Lund, & Caserta, 1987; Duran et al., 1989; Gass, 1989; Harlow, Goldberg, & Comstock, 1991b; Lubben, 1989; Schuster & Butler, 1989; Stroebe et al., 1996; Tudiver, Hilditch, & Permaul, 1991; Umberson et al., 1992; Zisook & Shuchter, 1991b, 1993) have explored the influence of social support on adjustment to spousal bereavement. Bass and colleagues explored the effects of caregiving and bereavement support on adjustment to the death of a spouse or parent. The subjects included 18 spouses (mean age 73.6) and 55 adult children (mean age 50.8) who had been bereaved for 16 to 671 days (mean 196 days). Caregiving and bereavement support were assessed using the measures of satisfaction with help, support network composition, and perceived importance of helpers. Bereavement outcomes were assessed using bereavement difficulty measures

(i.e., personal bereavement difficulties, family bereavement difficulties). Satisfaction with caregiving support ($r = -.48$, $p < .05$) was negatively correlated only with personal bereavement difficulties. However, satisfaction with bereavement support did not have a significant effect on personal and family bereavement difficulties.

In multiple regression analyses, caregiving support variables explained the variance in both personal (29%) and family bereavement difficulties (13%) whereas bereavement support variables had a limited effect on personal and family bereavement difficulties (2% and 4%, respectively). Bass et al. (1991) concluded that perceived caregiving support had a positive and more beneficial effect on subsequent bereavement adjustment than did bereavement support.

Schuster and Butler (1989) examined the long-term impact of social networks and social support on adjustment to spousal bereavement (life satisfaction, perceived health). The subjects included 723 widowed persons, mean age 75.4 years. Fifteen percent of them were under the age of 64, 29% were 65 to 74, and 56% were 75 years and older. The majority of the subjects were widows. Social networks were assessed using measures of network size, closeness, and frequency of contact. Social support was assessed in terms of affective and instrumental support both at the time of death and at the present time. The researchers found that background variables and the social network accounted for 24% of the variance in life satisfaction and 17% of the variance in perceived health. Background variables and current social support predicted 25% of the variance in life satisfaction and 18% of the variance in perceived health. Background variables and social support at the time of the death accounted for 33% of the variance in

life satisfaction and 19% of the variance in perceived health. The researchers concluded that the social support widowed persons received at the time of death had a greater influence on current life satisfaction and perceived health than did their current social support and network size, closeness, and frequency of contact.

Duran and colleagues (1989) explored the relationship between social support and depression. The subjects were 94 widowed persons who were 50 years and older (mean 67.7 years). Depression and social support were assessed using the Zung Self-Rating Depression Scale and a 3-item scale (i.e., frequency of contact, the amount of mutual help, mutual confiding) at 3 to 4 weeks, 6 months, 1 year, and 2 years after the death of a spouse. The researchers found that social support was negatively related to depression only at 2 years after the loss ($r = -.24$, $p < .05$).

Lowenstein and Rosen (1989) examined social support (size and satisfaction with the informal network) and perceived physical health and depression in 246 widows who had been bereaved for 1 to 7 years (see p. 49). The researchers found that satisfaction with, and size of, the informal network accounted for 3.5% of the variance in perceived physical health, but did not account for any variance in depression. Zisook and Shuchter (1991b) also found that social support, as measured by (a) whether the widowed person engaged in social activities in the past month, (b) the numbers of days they were socially active in past month, and (c) the number of confidants, was not related to depression.

Gass (1989) examined the effects of the helpfulness of social support on health dysfunction in widowed elderly persons. The subjects included 59 widowers and 100 widows who ranged in age from 54 to 81 years and had been bereaved for 1 to 12

months. Social support was assessed using a 3-point Likert-type scale. Health dysfunction was measured using the physical and psychosocial dimension subscales of the Sickness Impact Profile. Gass found that social support was negatively related to psychosocial dysfunction for widows ($r = -.35$, $p < .001$). However, this finding did not hold true for widowers.

Umberson and colleagues (1992) examined the relationships between social support (i.e., quality of relationships with children, relatives, and friends; frequency of contact; having a confidant), relationship strains (negative aspects of social relationships), and depression in 787 widowed persons (mean age 55.2) who had been bereaved from less than 1 year to 64 years (see p. 52). Depression was assessed using the CES-D. The researchers found that for widows social support from children was associated with lower depression scores ($p < .001$), whereas relationship strains with children were related to higher depression scores ($p < .001$). For widowers, support from children and having a confidant were related to lower depression ($p < .001$); however, strain in the relationship with children was not associated with higher depression scores.

Harlow et al. (1991b) explored the relationship between size and quality of the social network (i.e., family size, friendship size, total network size, number of confidants, closeness to children) and depression. A sample of 136 widows, aged 65 to 75 years, were interviewed at 1 and 12 months after the death of a spouse. Depression was measured using the CES-D. The researchers found that the size and quality of the social network were negatively related to depression. Larger family size at 1 month ($\beta = -.14$,

$p = .03$), larger friendship size at 1 and 12 months ($\beta = -.21$ for 1 month and -.18 for 12 months, $p = .0001$ and .002), larger network size at 1 and 12 months ($\beta = -.30$ and $-.18$, $p = .0007$ and .02), and larger number of confidants at 12 months ($\beta = -.16$, $p = .006$) were related to lower depression scores.

Tudiver and colleagues (1991) examined the relationship between social support and psycho-emotional distress among newly widowed men. The subjects were 113 widowers (mean age 62.9) who had been bereaved for 3 to 12 months. These subjects were compared with 111 matched married men. Psychological consequences (depression, psycho-emotional distress) were measured using the Goldberg General Health Questionnaire (GHQ) and the BDI, and social support was assessed by the Social Support Questionnaire. The researchers found that widowers reported significantly more social support availability ($M = 3.6$, $p < .05$) but were less satisfied with their social support availability ($M = 4.5$, $p < .05$) than were married men ($M = 2.8$ for availability and 5.0 for satisfaction). Highly distressed widowers reported lower satisfaction scores with social support ($M = 4.3$) than less distressed widowers ($M = 4.9$). GHQ scores were highly correlated with the BDI ($r = .76$). These findings suggest that satisfaction with social support could influence psychological distress, but the amount or availability of social support could not.

Stroebe and colleagues (1996) examined the relationships among marital status, social support, and adjustment to the loss (depression, loneliness, and somatic complaints) in 60 widowed persons (30 men and 30 women), with a mean age of 53.1

and in 60 married persons (30 men and 30 women), with a mean age of 53.8. The widowed subjects were interviewed three times, at 4 to 7 months, 14 months, and 26 months after the loss. The married subjects were also interviewed in the same time frames. Perceived social support was measured using a 20-item scale that reflects four different functions of social support (instrumental, appraisal, emotional, social contact). Depression was assessed by the BDI. Loneliness was assessed using a 4-item scale on emotional loneliness and social loneliness. Somatic complaints were measured by a symptoms checklist.

Stroebe and colleagues (1996) found that individuals with high social support had lower depression scores than those with low social support, $F(1, 93) = 4.33$, $p < .05$, and married persons had lower depression scores than widowed persons, $F(1, 93) = 4.95$, $p < .05$. In addition, individuals with high social support had lower somatic complaints than those with low social support, $F(2, 188) = 4.59$, $p < .05$. Widowed persons had higher emotional loneliness scores than married persons, $F(1, 109) = 81.65$, $p < .001$, but not social loneliness score. Lower social support persons had higher social loneliness scores, $F(1, 112) = 10.36$, $p < .01$, but not emotional loneliness. These findings suggested that social support may influence depression, somatic complaints, and social loneliness (but not emotional loneliness).

Schuster and Butler's (1989) findings suggested that it is most important to receive social support early in the grief process in order to prevent long-term mental health sequelae. The findings of Lowenstein and Rosen (1989) suggested social support for widows is related to perceived physical health but not to depression. However,

Stroebe et al.'s (1996) findings suggested that social support can influence depression, somatic complaints, and social loneliness. The findings of Gass's (1989) study indicated that for widows social support is related to psychosocial dysfunction but not to physical dysfunction. The findings of Umberson and colleagues (1992) study suggested that social support, especially negative relationships with children, is associated with more greater depression. Harlow et al.'s (1991b) findings indicated that the size and quality of social support are related to depression, whereas Tudiver et al's (1991) findings indicated that satisfaction with social support is related to psychological distress, however the amount or availability of social support is not.

There were some differences in the findings of these studies. For example, social support was measured using various measures. In addition, the subjects' ages and length of bereavement varied considerably. These differences may influence, in part, the findings. However, in general, it appears that social support has a positive effect on adjusting to spousal bereavement in elderly widowed persons.

Length of the Deceased's Illness and Adjustment to Spousal Bereavement

Ransford and Smith (1991) examined the effects among 71 widowed persons of the length of the deceased's illness and the bereaved person's experience of depression (see p. 54). These researchers found that length of illness was not related to depression at 6 and 12 months after the death of a spouse. These findings are consistent with Clayton's (1990) and Nolen-Hoeksema, Parker, and Larson's (1994) findings.

Herth (1990) explored the relationship between the length of the spouse's illness and the level of grief resolution in 75 elderly widowed persons. Herth found that the

length of the spouse's illness (longer than 6 months) was positively related to the level of grief resolution ($p < .05$).

Because there are contrary findings about the relationship between the length of the deceased's illness and adjustment to spousal bereavement, additional research will be needed to explain this relationship further.

Socioeconomic Status and Adjustment to Spousal Bereavement.

Income, education, and occupational status are widely used indicators of socioeconomic status. Economic difficulties often plague widowed persons, thereby complicating their already painful experiences. Several studies (Beckwith et al., 1990; Jacobs et al., 1989; Lowenstein & Rosen, 1989; Murrell et al., 1991; O'Bryant, 1991; Siegel & Kuykendall, 1990; Umberson et al., 1992) examined the relationship between socioeconomic status and adjustment to spousal bereavement. Beckwith and colleagues (1990) examined the relationship between socioeconomic status (financial status) and the widowed person's outcome during the first year of spousal bereavement. The subjects were 22 widowers and 51 widows who ranged in age from 28 to 80 years (mean age 60.3). The subjects were assessed at 1, 3, 6, and 12 months following the death. Outcomes were measured using the Bereavement Inventory developed by the authors. The subjects were divided into a high-risk group ($n = 23$) and low-risk group ($n = 50$) using the Parkes and Weiss's Risk Index. Although socioeconomic status at 1 and 6 months after the loss was not related to a poor outcome, lower socioeconomic status at 3 ($t = -2.2$, $p < .05$) and 12 months ($t = -3.45$, $p < .01$) after the bereavement was associated with poorer adjustment. These findings are consistent with Umberson and colleagues'

(1992) findings that financial strain was associated with higher depression scores.

Jacobs and colleagues (1989) examined the relationship during the first year of bereavement between occupational status and depression among 26 widowers and 85 widows who ranged in age from 32 to 65 years (mean age 54). Approximately half (47%) of the widowed persons ($n = 32$) who had higher depression scores were employed. In contrast, 72% of nondepressed widowed persons ($n = 79$) were employed. Employment was significantly associated with depression after spousal bereavement ($p < .01$). These findings are consistent with the studies by Lowenstein and Rosen (1989) and Siegel and Kuykendall (1990), which found employment was related negatively to depressed affect.

Murrell and colleagues (1991) explored the relationship between social class and adjustment to widowhood (depression and physical health) over a 2-year period. The subjects included 331 widowed persons aged 55 years and older. The researchers interviewed the respondents five times: at prewidowhood and 6, 12, 18, and 24 months after the loss. Higher social class was significantly associated with good physical health at 18 months after the death ($\beta = .188$, $p < .001$) and lower social class was related to depression at 2 years after spousal bereavement ($\beta = -.136$, $p < .001$).

O'Bryant (1991) also explored the relationship between socioeconomic status (i.e., income, education) and psychological well-being among 300 elderly widows aged 60 and older. Psychological well-being was measured using Bradburn's Affect Balance Scale, which is composed of two subscales (i.e., Positive Affect, Negative Affect), and a

life satisfaction scale that asked the widow how she felt about her life. The researcher found that income was negatively related to negative affect (r = - .25, p< .001), but not to Positive Affect and life satisfaction. Education was positively related to Positive Affect (r = .18, p< .01) and negatively related to Negative Affect (r = - .17, p< .01), but not related to life satisfaction.

Conversely, there are some contrary findings. Gove and Shin (1989) examined the relationship between income and psychological well-being among widowed persons after bereavement (see p. 49). These researchers found that income generally has a positive relationship with psychological well-being; however, the relationship was not statistically significant. Zisook and Shuchter (1991a) explored the relationship between depression at 7 months after the spousal bereavement and income and education in 350 widowed persons (see p. 21). These researchers found that income and education were not related to depression.

Most findings suggest that socioeconomic status could be positively related to adjustment to spousal bereavement. Some findings, however, suggest that socioeconomic status may not be related to spousal adjustment. It is not clear whether socioeconomic status is related to adjustment to spousal bereavement. There are some possible explanations for the inconsistent findings. First, in general, lower-class persons have to adjust to stressful events without the social resources and support available to middle-class persons (Razare, 1989). According to Lund, Caserta, Dimond, and Shaffer's (1989) study, higher competencies were found to be significantly correlated with more favorable outcomes (less depression, lower loneliness, higher life satisfaction,

better perceived health), and education was positively related to competencies. Therefore, the differences in social resources (i.e., competency, coping skills) and social support availability may, in part, influence the findings of these studies. Second, persons who have lower socioeconomic status, in general, have higher incidence and prevalence rates for mental disorders in epidemiological studies (Razare, 1989) and higher prevalence rates and severity of chronic illness (Lubkin, 1990). Therefore, the prebereavement physical and psychological situation may affect the findings. A final explanation is that subjects in these studies may not be a representative sample of lower-class widowed persons. It may be that elderly widowed persons who have low socioeconomic status are less likely to participate in these studies. Additional study is needed to overcome these limitations.

Concurrent Losses and Adjustment to Spousal Bereavement

Herth (1990) examined the relationship between concurrent losses and level of grief resolution in 75 widowed elderly persons. The subjects consisted of 28 widowers and 47 widows who had been bereaved for 12 to 18 months and ranged in age from 65 to 94 years (mean age 79). Grief resolution was defined as the physiological, psychological, and sociological state of reconciliation to loss. It was measured using the Grief Resolution Index. Concurrent losses were measured using the number of losses experienced during the period of grief. Herth found that widowed persons who experienced none or one concurrent loss had a higher level of grief resolution than those who had two or more concurrent losses.

Gass (1989) explored the relationship between concurrent losses and physical and psychological health in 59 widowers and 100 widows (see p. 57) after the loss of a spouse. This researcher did not mention how concurrent losses were measured. For widows, Gass found that having no concurrent losses was negatively related to physical dysfunction ($r = -.35$, $p < .01$) and psychological dysfunction ($r = -.51$, $p < .001$) for widows. These findings did not hold true for widowers.

The findings of these studies suggest that concurrent losses may negatively influence adjustment to spousal bereavement. Additional study is needed to further explain the relationship between concurrent losses and grief after the loss of a spouse.

Potential Cultural Influences

This section focuses on cultural influences that may affect the grief process in Japanese elderly persons. These Japanese cultural influences include family structure in Japan, a central value in the society, Japanese human relationships, expression of negative feelings, funeral services, the view of life and death, and the divorce rate.

Family Structure in Japan

Traditionally, family structure in Japan has been influenced by Confucianism and morals (Kawai, 1980). Japanese culture has emphasized the importance of the household (***ie***) over the individual (Nakane, 1967). The structure of the *ie* is hierarchical, and the authority of the father as a head of the family was tremendous before World War II. This traditional value changed after World War II, and the *ie* system also weakened, in part, due to revision in civil law. Currently, the structure of Japanese families is more nuclear. The power of the father (men) has weakened; however, Japanese nuclear families still

inherit, in part, the *ie* aspect of Japanese culture. Elderly persons are more likely to keep the traditional value of the *ie* system.

For elderly widows, spousal death may mean not only the loss of their husband but also a change of relationships with family members. The head of the household may change from their deceased husband to the first son or son in-law. Elderly widows may lose the role of a mistress of a house and become their son's dependent.

A Central Value in Japanese Society

Some writers on Japanese culture stress that Japanese society is classified as a collectivistic culture. Collectivistic cultures require that individuals fit into the group, and group goals predominate over individual goals. Japanese people define themselves by referring to their relations to others. In Japanese society ***wa***, which means harmony, is a central value. *Wa* is not mechanical cooperation of equal individuals independent of each other, but the grand harmony which maintains its integrity by proper statuses of individuals within the group through acts in accordance with these statuses (Kawashima, 1967). That is, individuals value the rules in the group to which they belong; they control themselves and fit their acts into the group.

After the spousal death, widowed persons may act according to values, expectations, and beliefs in the family and groups to which they belong after the spousal death. In particular, elderly widowed persons may be influenced by the expectations and ideas of their sons (sons-in-law) or daughters (daughters-in-law). These relationships with their children can be supportive or restrict the grief process in widowed persons.

Relationships in Japanese Society

Japanese Human Relationships

Japanese persons distinguish Japanese human relationships between ***uchi*** (inner) and ***soto*** (outer). *Uchi* pertains to family blood kin relations. *Soto* refers to others who have nothing to do with the person. In the middle is the ***giri*** (mutual obligation) relationship that refers to a bond of moral and social obligation with a feeling of debt (Doi, 1971,1985). *Giri* relationships are found between friends, between colleagues, between neighbors, and between teachers and students (see Figure 1).

The gauge in distinguishing among *uchi*, *giri*, and *soto* depends on the presence or absence of ***enryo***. *Enryo* refers to the restraint which a person imposes on oneself in interactions with others when the person is offered something such as help, a treat, or a gift (Doi, 1971,1985). That is, if a person accepts something from his or her colleague, the person is obligated to return something to the colleague. When the person thinks that he or she cannot return something to the colleague soon, the person will hesitate to accept the offer (e.g., help, treat, gift). *Enryo* is the feelings of restraint which are experienced in *giri* relationships. *Enryo* is not found in *uchi* or *soto* relationships. In *uchi* relationships, the absence of *enryo* is due to ***amae***, which means "to depend and presume upon another's benevolence" (Doi, 1971, p. 22), and is the mutual interdependency of family members. *Amae* involves a trustful dependence that nothing bad will happen if a person is dependent upon another person who has good feelings for him or her. In *soto* relationships, persons do not need to have *enryo* because they are not concerned about interactions with strangers (Doi, 1971,1985).

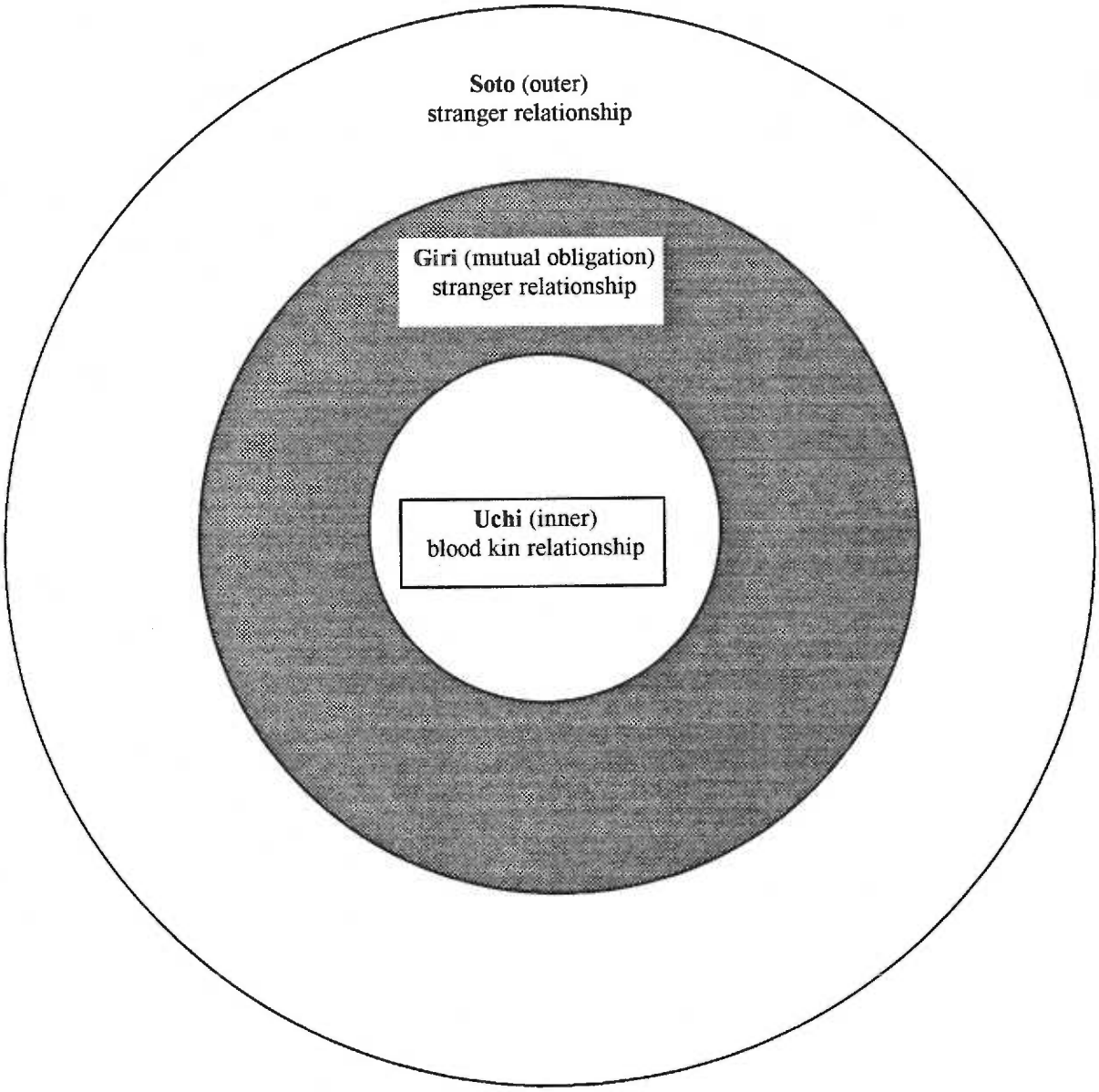

Figure 1. Human relationships in Japan.

Enryo (Consideration)

No **Enryo**

(Data from Doi, 1971)

The emotional distance from and dependency on someone depends upon whether the person is a part of *uchi*, *giri*, or *soto*. A person can ask only someone in a group of the *uchi* relations to do something without *enryo*. A person thinks that everything should be managed in the *uchi* relations and that he or she should not trouble persons outside of *uchi* relations. It is said that Japanese people take very little interest in others (Hayasaka, 1979). Therefore, the presence of *uchi* relations may be a source of great comfort for widowed persons. On the other hand, the absence of *uchi* relations may mean a lack of social support, because it is difficult for widowed persons to get support from outside of *uchi* relationships. However, the presence of *uchi* relations also may be a source of great friction and unhappiness.

Marital Relationship

Traditionally, the marital relationship in Japan has been based on the life-style of the wife following the lead set by her husband. The marital relationship has been influenced by the custom of predominance of men over women and by the social value of a domestic type of a woman. The traditional marital relationship has also been influenced by the old customs to keep the Japanese *ie* system.

A wife serves her husband in the family. She considers her husband's feelings and needs and takes care of him. A husband supports his family and has the role of decision maker for important matters. Although there is an image that a wife follows her husband, the marital relationship is an expression of cooperation, solidarity, and feeling of ***ittaikan*** (refers to feeling oneness) in the couple. Essentially, the marital relationship is mostly based on an *amae* relationship (mutual interdependency) (Okonogi, 1986).

Spousal death means the loss of the most fundamental *amae* relation for widowed persons. The level of interdependency in a couple can influence the grief process in a widowed person after the death of a spouse.

Expression of Negative Feelings

In general, Japanese persons hesitate to express their negative feelings. The situations may, in part, be influenced by social value and expectations. In Japanese society, patience is a virtue. Many Japanese persons have the idea that it is a shame to express their feelings of sadness and anger. They try to accept the sorrowful event that happened to them as a fate and to take the event as it is (Hirayama & Deeken, 1986). Japanese persons express their feelings of sadness and anger to someone with whom they can share their feelings. However, if this is not the case, the persons try to suppress their feelings and behave like they have already accepted the event (Doi, 1987). This behavioral pattern (habit) is second nature.

Therefore, the expression of grief feelings could be influenced by this value and behavioral pattern. If widowed persons do not have someone to whom they can express their feelings, their grief reactions may be suppressed. This may prolong their grief process.

Funeral Service and Following Services after a Person's Death

In Japan, families who experience the death of a family member have a funeral service. In addition, Buddhist families have a series of Buddhist services for the deceased person (e.g., the 7th, 14th, 21st, 28th, 35th, and 49th days after the death, the first anniversary of the death, the second anniversary of the death). Some authors

(Kashiwagi, 1978; Kono, 1978; Okonogi, 1979) argued that these services play a significant role in that they facilitate the bereaved person's grief process. For example, (a) the services let bereaved persons know that the death of the person is real; (b) Buddhist services, which occur over time, allow the bereaved to deal with the impact of the death, if it is so intense that they cannot confront it initially; and (c) family members, relatives, friends, and neighbors visit the house of the chief mourner, share their feelings of grief, and comfort and support each other. Therefore, these services may influence the grief process.

The View of Life and Death

Based on a study of the grief process in Japanese widows (Yamamoto et al., 1969), Okonogi (1979) proposed that Japanese widows appear to have a less intense sense of separation from the deceased person than do American widows. Japanese widows have experienced the sense of separation ambiguously. The custom of ancestor worship at the family altar at least once a day, when the widows talk to their deceased husband about current crises and good feelings, is based on the view of life and death. Okonogi suggests that the sense of life and death in Japanese persons may prolong the grief process.

The Divorce Rate

The divorce rate in Japan is lower than in other Western countries. For example, the divorce rate was 4.60 per 1,000 in the United States in 1993, 2.94 in Canada in 1990, 2.96 in England in 1990, 1.89 in France in 1992, and 1.60 in Japan in 1995 (Institute of Population Problems, 1996). It is not that Japanese individuals are more stable and that

Japanese couples are doing better than couples in Western countries. However, Japanese couples might have a traditional value that the *ie* system should be kept and that the couple should cooperate. Therefore, many couples may keep their marital relationships intact in some way. The quality of these marital relationships may influence the grief process after the spousal death.

In addition, the remarriage rate in Japanese elderly widowed persons is low (Kawai, 1987). For example, the remarriage rates of Japanese elderly persons who ranged in age from 65 to 69 years was 4.0% for men and 0.2% for women in 1990 (Institute of Population Problems, 1996). The low divorce rate and low remarriage rate in Japanese elderly persons means that the length of marriage is longer than it is in Western countries. The longer the length of marriage, the stronger the identity the widowed person has as the spouse. When an elderly person's spouse dies, it might be difficult for him or her to construct a new identity as a widowed person. The length of the marriage may influence the grief reaction after the loss of a spouse.

Summary

The first part of this literature review consisted of theoretical perspectives and conceptualizations of grief and a review of Japanese and non-Japanese studies on (a) normal grief following spousal bereavement, (b) the relationship between grief and depression, and (c) the relationship between grief and related factors (i.e., age, gender, quality of past relationship with the deceased, social support, socioeconomic status, expectedness of the death). In the second part of this review, Japanese and non-Japanese studies on outcome variables (i.e., physical health, morale, life satisfaction, depression,

loneliness) were reviewed as components of adjustment to spousal bereavement. Studies on the relationship between outcome variables and related factors (age, gender, quality of the past relationship with the deceased, social support, length of deceased's illness, socioeconomic status, concurrent losses) were also reviewed. The third part reviewed literature on cultural influences that can affect the grief process and adjustment to spousal bereavement in Japanese elderly persons. These Japanese cultural influences include the family structure, the central value in Japanese society, Japanese human relationships including marital relationships, expression of negative feelings, funeral services, the view of life and death, and the divorce rate.

In the United States, a number of studies on grief and adjustment to spousal bereavement among elderly persons have been conducted. However, there are unresolved questions which need to be considered in future studies. Findings on the effects of gender, age, quality of the past relationship with deceased, social support, length of deceased's illness, socioeconomic status, concurrent losses, and expectation of the death on grief and adjustment to spousal bereavement among elderly persons have not been consistent or have not been clear.

In Japan, limited studies on grief and adjustment to spousal bereavement have been conducted. Some studies have examined grief reactions and the relationship between grief and related factors whereas other studies have explored adjustment to spousal bereavement and related factors. However, no study has examined the relationship between grief and adjustment to spousal bereavement. Additional research is needed on the relationships among grief, adjustment to bereavement (i.e., physical

health, morale, depression, loneliness), and related factors (i.e., age, gender, quality of the past relationship with the deceased, social support, length of deceased's illness, socioeconomic status, concurrent losses, expectation of the death).

In order to examine the relationships among these variables, reliable and valid measures of grief, adjustment to bereavement, and related factors are needed. In relation to measures of adjustment to bereavement, there are Japanese versions of a physical health scale, a depression scale, a morale scale, and a loneliness scale which have evidence of reliability and validity for older adults. However, reliable and valid measures of grief, social support (note: there are two Japanese versions of social support scales; however, they have not been used in elderly widowed persons), and quality of the past relationship with the deceased have not been developed in Japan for use with elderly widowed persons.

Therefore, the purpose of this study was to evaluate the psychometric properties of the Japanese versions of measures of grief, social support, and quality of the past relationship with the deceased that were developed in the United States. In addition, some items to examine potential cultural influences on grief and adjustment to spousal bereavement were added in this study for purposes of psychometric evaluation.

Conceptual Framework

Based on Bowlby's (1980) attachment model of grief and the review of the empirical research, this researcher proposed a conceptual model to guide understanding of the interaction of multiple variables and their influence on the grief process and related outcomes. The model (see Figure 2) depicts the relationships among the grief

process, outcomes, and internal and external mediator variables. When individuals experience the loss of a relationship of attachment (i.e., husband-wife pair bond), the individuals' grief responses usually move through a succession of phases of grief. According to Bowlby, the grief process has four phases: numbing, yearning and searching, disorganization, and reorganization. Initially, the bereaved person feels stunned and unable to accept the information of the loss. As reality impinges, however, numbing gives way to the second phase. In the second phase, intense separation anxiety triggers the desire to search for and to recover the deceased person. Failure to recover the deceased person brings repeated frustrations and disappointments until the bereaved person reaches the next phase. In the third and fourth phases, the bereaved person reviews the loss and his or her life with the deceased person. During this period, the bereaved person gradually comes to realize and to accept that the deceased person is gone forever and the life with the lost person will never return. The bereaved person then recognizes that an attempt is needed to fill unaccustomed roles and to acquire new skills.

As suggested by this conceptual framework (see Figure 2), external and internal mediators have some impact on the bereaved person's perception of the death of a spouse and have some influence on the grief process. The interactions between mediator variables and the grief process will have significant effects on the outcome variables. The mediator variables also will have direct effects on the outcome variables. The outcomes can include improved psychological and physical health, no substantial change, or psychological deterioration and poor physical health. External mediators include social support, the length of the deceased's illness, socioeconomic status, concurrent

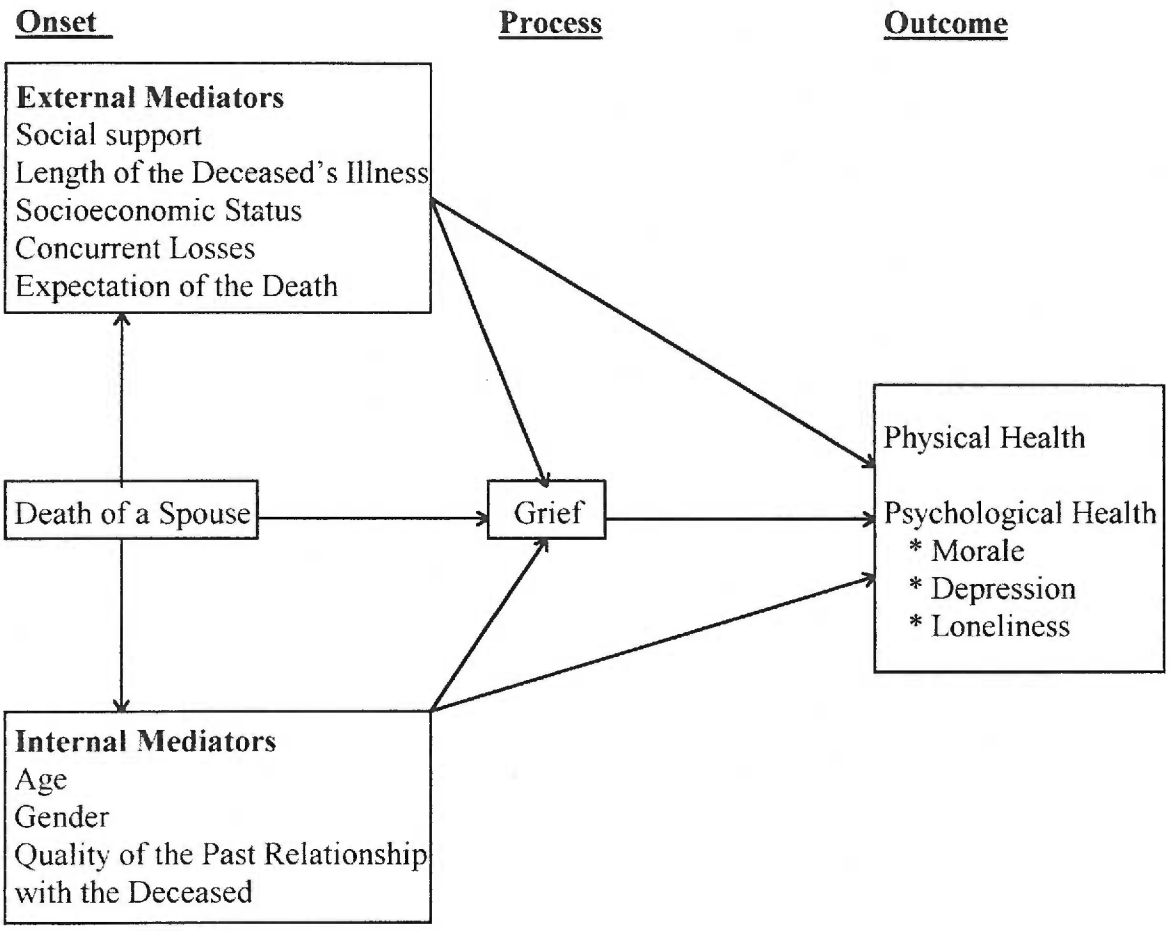

Figure 2. Conceptual framework of this study.

losses, and expectation of the death. Internal mediators include age, gender, and the quality of the past relationship with the deceased. The outcome variables include physical health and psychological health (i.e., morale, depression, loneliness).

The purpose of this study was to evaluate the validity and reliability of the Japanese versions of selected measures on grief, social support, and quality of the past relationship with the deceased. Conceptual and operational definitions of the variables used in this study are presented in Table 1. In order to evaluate the validity of the Japanese versions, the following hypotheses were tested (see Figures 3, 4, 5).

1. Widowed persons who are bereaved 1 year or less will have a greater intensity of grief than those who are bereaved more than 1 year.
2. Widowed persons who had a better past relationship with the deceased or happier marriage will have a greater intensity of grief than those who did not.
3. Widowed persons who have adequate social support will report better physical health than those who do not.
4. Widowed persons who have adequate social support will have higher morale than those who do not.
5. Widowed persons who have adequate social support will have lower depression scores than those who do not.
6. Widowed persons who have adequate social support will report less loneliness than those who do not.
7. Widowed persons who had a better past relationship with the deceased or a happier marriage will have higher morale than those who did not.

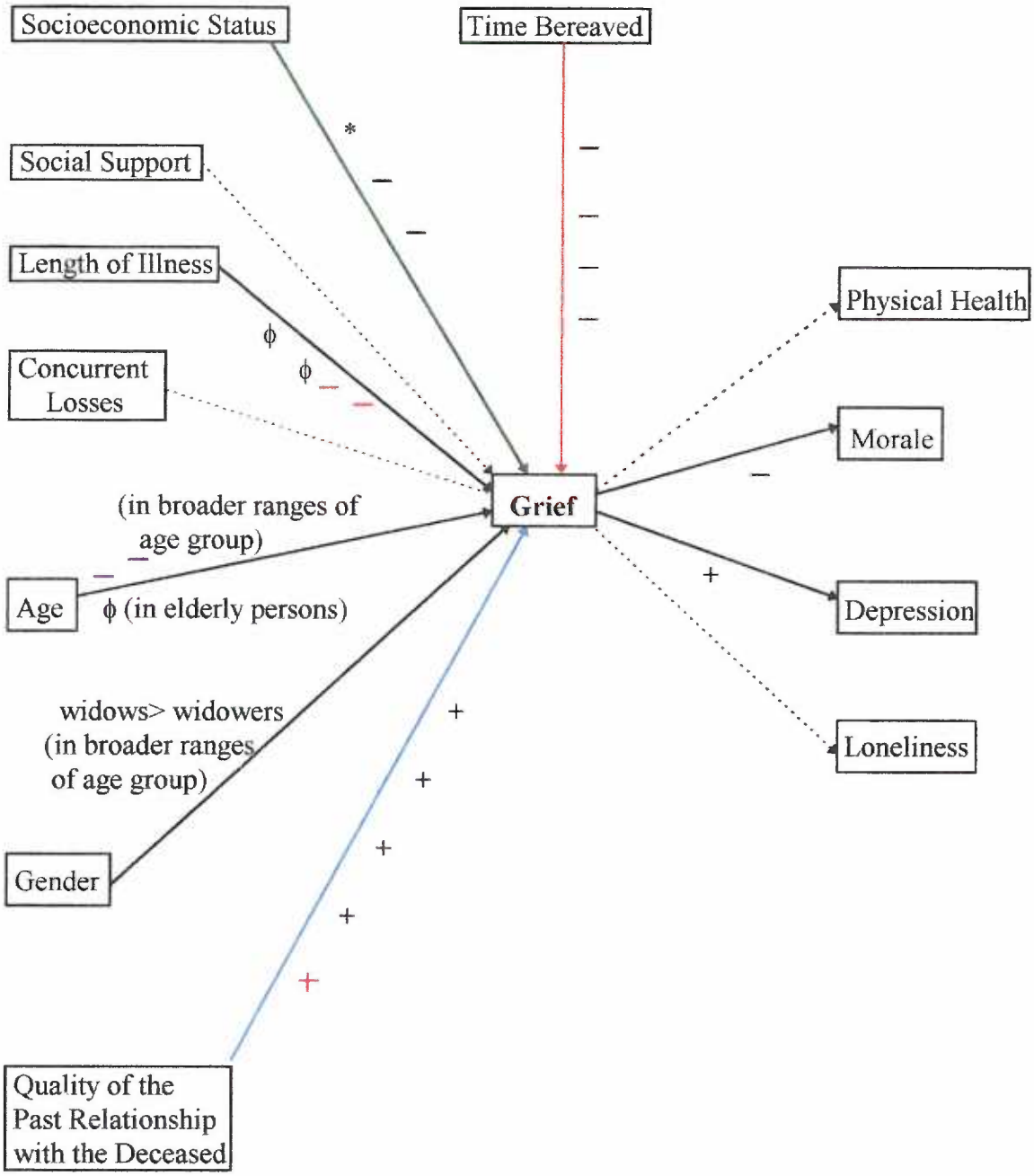

Figure 3. The relationships between grief and other variables.

→	Hypothesis 1	+	Positive effect
→	Hypothesis 2	-	Negative effect
		ϕ	No effect
*	Proxy variable	Black symbol: Non-Japanese findings	
····	No data	Red symbol: Japanese findings	

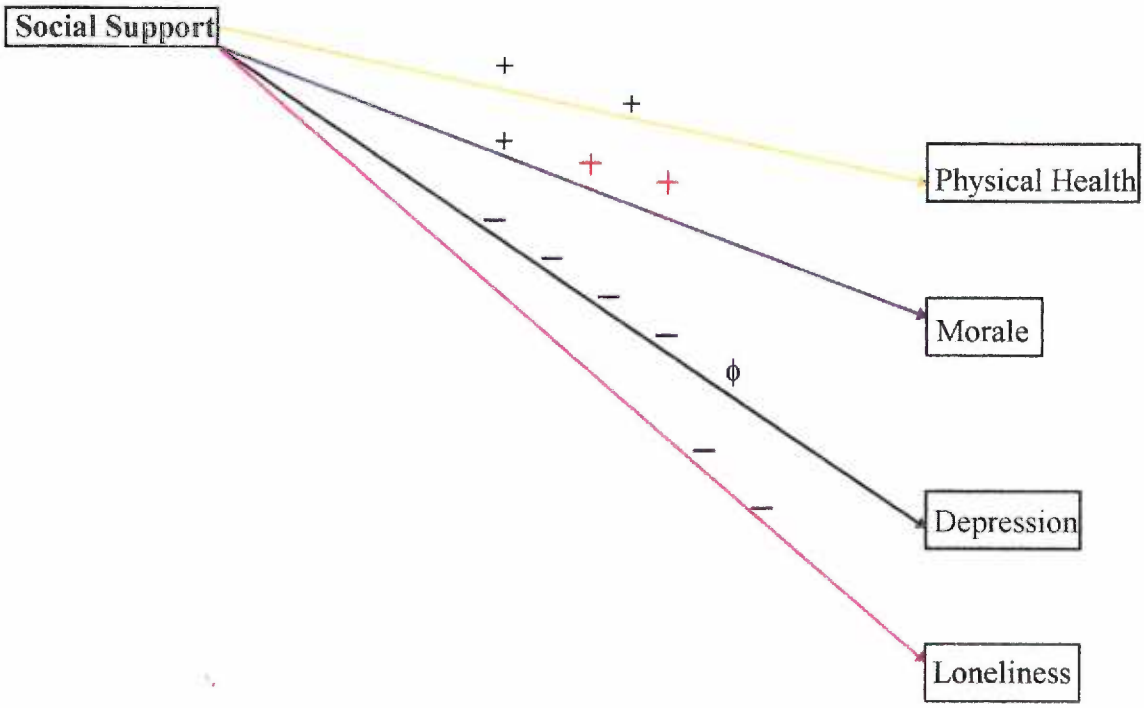

Figure 4. The relationships between social support and other variables.

Hypothesis 3	+ Positive effect
Hypothesis 4	- Negative effect
Hypothesis 5	ϕ No effect
Hypothesis 6	Black symbol: Non-Japanese findings
	Red symbol: Japanese findings

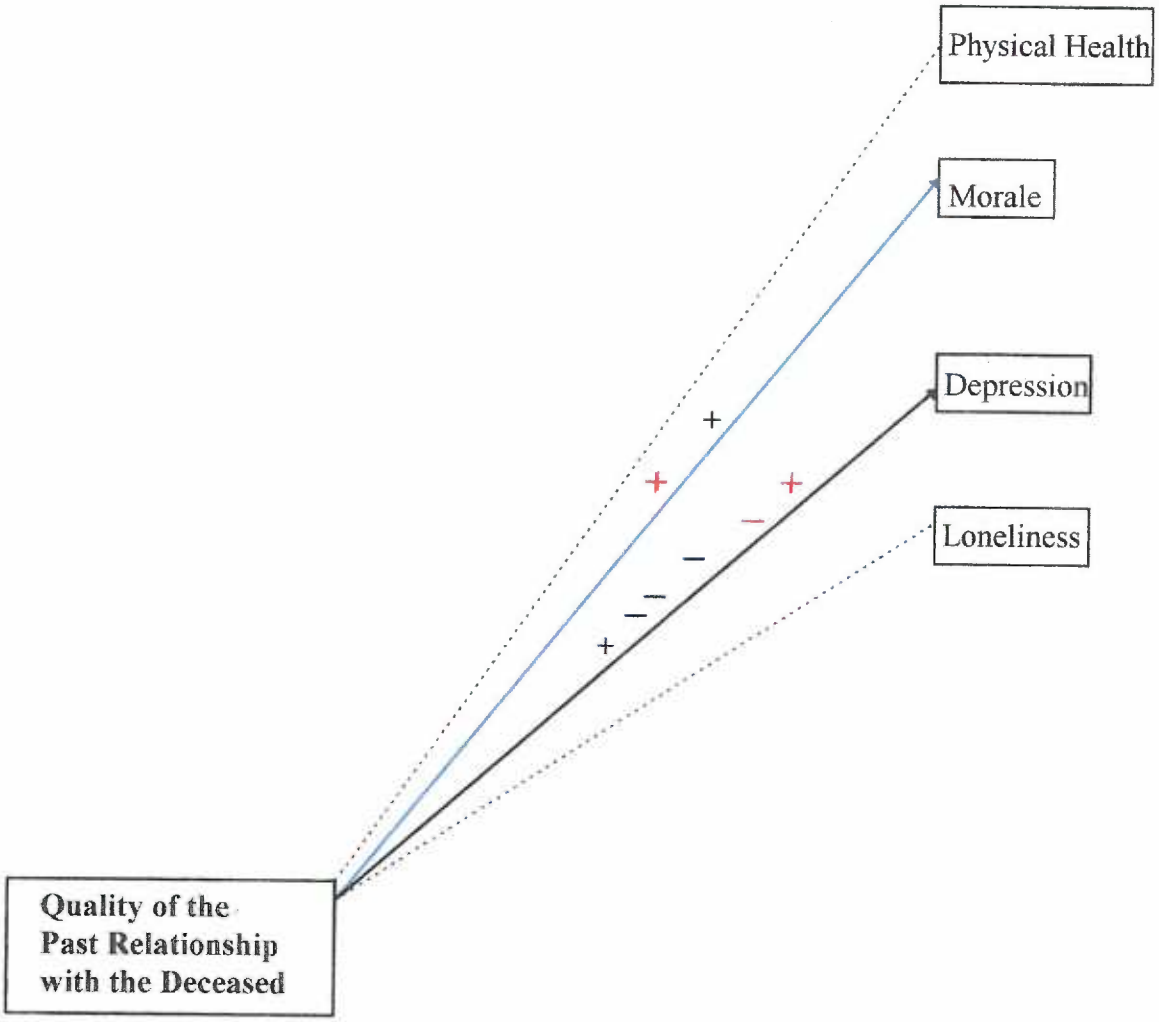

Figure 5. The relationships between quality of the past relationship with the deceased and other variables.

→ Hypothesis 7 ···· No data	+ Positive effect - Negative effect ϕ No effect Black symbol: Non-Japanese findings Red symbol: Japanese findings

Table 1
Conceptual and Operational Definitions

Variable	Conceptual Definition	Operational Definition
Grief	A series of feelings, behaviors, and physical symptoms that bereaved persons have experienced after the loss of a loved person (Byrne & Raphael, 1994).	The Texas Revised Inventory of Grief (TRIG--Faschingbauer, Zisook, & DeVaul, 1987).* The Bereavement Items (BI--Jacobs et al., 1987).*
Depression	Presence of symptoms indicative of depression. These symptoms are not of equal seriousness, and they may or may not reach criterion level to merit a formal diagnosis of depression (Schwartz & Schwartz, 1993).	The Center for Epidemiologic Studies Depression Scale (CES-D--Radloff, 1977).
Morale	Subjective evaluations of a person's present and past life, his/her satisfaction, or his/her happiness (George, 1981).	The Revised Philadelphia Geriatric Center Morale Scale (Revised PGC Morale Scale--Lawton, 1975).
Loneliness	An affective state associated with dissatisfaction in social relations as a result of emotional or social isolation. Emotional isolation includes the experienced lack of intimacy or lack of someone with whom one is emotionally committed. Social isolation is a person's perception of isolation from those around him or her including inadequate interactions with others (Weiss, 1973, 1982).	The Revised UCLA Loneliness Scale (Russell, Peplau, & Cutrona, 1980).
Physical Health	The full spectrum of physical health states ranging from disease to well-being. Physical health is defined in terms of absence or presence of physical disorders, limitations in the performance of or ability to perform physical activities, and personal evaluation of physical well-being (Ware, 1987).	Ten-item physical functioning, four-item energy/fatigue, five-item general health, and one-item health change scales from the RAND 36-Item Health Survey 1.0 (R. H. Brook, personal communication, November 10, 1992). Twenty-nine-item health problem scale (Archbold & Stewart, 1986). Three of 29 items were revised by Inoue (1996).

Table 1
Conceptual and Operational Definitions (cont.)

Social Support	Received and/or perceived support from an individual's network members. The functions of support include emotional and instrumental support (Caplan, 1974b). Support involves caregiving support (support provided prior to the death of a spouse) and bereavement support (support given to a widowed person) (Bass et al., 1991).	Six items about availability of and satisfaction with two types of support (i.e., emotional and instrumental support) (Seeman & Berkman, 1988; Krause & Markides, 1990).* Two items measuring satisfaction with emotional and instrumental support provided prior to the death of a spouse.*
Length of the Deceased's Illness	The length of illness that the deceased spouse had.	One item reflecting the length of illness.
Socioeconomic Status	Social status that is estimated based on income level and employment status (Steele, 1992).	One item about income level and one item about employment status.
Concurrent Losses	Simultaneous losses that a bereaved person experiences in addition to the loss of a loved person (Dimond, 1981). Loss includes death of close family members, major illness of family members, job retirement, death of close friends, move, and/or serious money problems.	The number of losses that a widowed person experienced during the period of grief associated with the death of a spouse (Herth, 1990).
Quality of the Past Relationship with the Deceased	Qualitative dimensions of past interaction with the deceased spouse and satisfaction with the relationship (Futterman et al., 1990).	Seven Likert-type items to assess marital adjustment (Futterman et al., 1990).* Six Likert-type items to assess marriage quality (Norton, 1983).*
Expectation of the Death	Degree to which impending death was expected (Hill, Thompson, & Gallagher, 1988).	A single item regarding the degree of expectation of the death of a spouse (Byrne & Raphael, 1994).

* Three measures/items were translated into Japanese using a double translation technique.

CHAPTER 3

METHODS

This chapter is organized into five parts: (a) research design, (b) instruments, (c) procedures for the development of the Japanese Widowhood Inventory, (d) subjects, and (e) data collection procedures. The section on procedures for the development of the Japanese Widowhood Inventory describes the translation procedures for the selected measures and their results, the development of the actual questionnaire, pretesting and its results, and content validity procedures and their results.

Design

The research design for this study was a correlational design utilizing cross-sectional survey methodology. The purpose of this study was to evaluate the reliability and validity of the Japanese versions of measures developed in the United States on grief, social support, and quality of the past relationship with the deceased.

Rationale for the Selected Approach

An alternative approach, which would have been to develop new conceptualizations of grief, social support, and the quality of the past relationship with the deceased in Japan which are relevant to Japanese elderly widowed persons, was considered and ruled out. This approach would have clarified these definitions of the concepts of grief, social support, and the quality of relationship with the deceased and would have led to the development of measures of these concepts.

The selected approach had four possible advantages. The first possible advantage was to be able to select measures which had evidence of reliability and validity in elderly

persons in the United States. If the Japanese versions of selected measures are reliable and valid in Japanese elderly persons, it will be possible to conduct studies in Japan to validate the findings of studies on spousal bereavement in the United States. It will also be possible to see if the findings from the United Sates can be reconfirmed in Japan. The second possible advantage was that by using the same measures in Japan it will be possible to compare the findings with those in the United States. This comparison can clarify the extent to which Japanese culture influences the grief process in elderly widowed persons. The third possible advantage was that by using the same conceptualizations across cultures the universal validity of the conceptualizations can be examined. This examination could generate universal theories that will be valid for a broader range of cultures. The final possible advantage was to save money and time: To develop new conceptualizations and measures would require more time and cost more.

Instruments

Instruments which were developed in the United States were used in this study. Some instruments had already been translated into Japanese (the Center for Epidemiologic Studies Depression Scale, the revised Philadelphia Geriatric Center Morale Scale, the revised UCLA Loneliness Scale, the Health Problem Scale, RAND-scales, the 13-item form of Marlowe-Crowne Social Desirability Scale), but others had not (the Texas Revised Inventory of Grief, the Bereavement Items, the Marital Adjustment, the Quality Marriage Index). Instruments which did not have Japanese versions were translated into Japanese for this study. In addition, some new items were written and some existing items were adapted for this study.

Grief

Grief was measured using two measures, the Texas Revised Inventory of Grief (TRIG) (Faschingbauer et al., 1987) and the Bereavement Items (BI) (Jacobs et al., 1987). The reason for using two measures of grief was to assess construct validity of the Japanese versions by correlating them with each other.

The TRIG was selected because it has been widely used in elderly widowed persons (Caserta & Lund, 1993; Gallagher et al., 1989; Hill et al., 1988; Lund, Caserta, Dimond, & Shaffer, 1989; Prigerson et al., 1995; Thompson et al., 1991) and has documented sound psychometric properties. In addition, the TRIG is designed to quantify the intensity of grief reactions.

The TRIG is a two-scale Likert-type self-report measure of the grief following a death. The two scales include Past Behavior (8 items) and Present Feelings (13 items) (see Appendix A). Each item is scored from 1 to 5 and produces a score ranging from 8 to 40 for Past Behavior, and 13 to 65 for Present Feelings (higher scores indicate greater degree of grief). Although the TRIG contains demographic questions, five true-false questions on related facts, and an unstructured question about any additional thoughts and feelings surrounding bereavement, only the two scales of Past Behavior and Present Feelings were used in this study. Psychometric properties of the TRIG that have been reported by Faschingbauer and colleagues (1987) and Caserta and Lund (1993) are provided in Table 2.

The Bereavement Items (BI) (Jacobs et al., 1987) was chosen because it has adequate psychometric properties. In addition, the BI is meant to assess aspects of grief

Table 2
Reliability and Validity of the Texas Revised Inventory of Grief (TRIG)

Measure	Reference	Sample	Reliability	Validity
TRIG	Faschingbauer, Zisook, & DeVaul, 1987	1) Initial sample of 164 bereaved women and 96 bereaved men (mean age 38), 64% Caucasian, 30% Black, and 6% other. 2) A replication sample of 236 bereaved women and 92 bereaved men (mean age 33), 69% Caucasian, 3% Black, and 27% other.	Split-half reliability in past behavior ranged from .74 to .79 and in present feelings .82 to .88 for part I. Internal consistency reliability for past behavior ranged from .77 to .87 and for present feelings .86 to .89 for part II.	Construct validity was evaluated using hypothesis-testing procedures. Women had significantly higher scores on part I and part II than men ($p < .05$). Close family (spouses) had significantly higher scores on part II than non-blood relatives ($p < .05$).
TRIG	Caserta & Lund, 1993	208 widows and 87 widowers who ranged in age from 50 to 91 (mean age 67.2) and have been bereaved 2 to 3 months.	Internal consistency reliability for present feelings .88.	Not reported.

within a particular theoretical framework (i.e., attachment theory); thereby, it was suitable to use the BI given the conceptual framework for this study. The BI is a 38-item self-report scale which assesses numbness and disbelief (6 items), separation anxiety (12 items), and depression (20 items). Although this measure includes 18 items on grief and the 20-item Center for Epidemiologic Studies Depression Scale (CES-D) (Radloff, 1977), only the 18 items on grief were analyzed for purposes of evaluating the construct validity of grief (see Appendix A). Each item on grief is scored from 0 to 3 in terms of frequency of occurrence in the past week (0 = never or rarely, to 3 = very often). Possible scores range from 0 to 18 for the numbness and disbelief subscale and 0 to 36 for the separation anxiety subscale. Higher scores indicate higher psychological or emotional distress of grief. Psychometric properties of the BI in terms of internal consistency reliability and construct validity are presented in Table 3.

Depression

Depression was measured by the CES-D (Radloff, 1977). The CES-D was chosen because it has been used widely in various populations including elderly widowed persons (Jacobs et al., 1986; Harlow et al., 1991a, 1991b; Levy & Derby, 1992; Levy, Derby, & Martinkowski, 1993; Ransford & Smith, 1991; Siegel & Kuykendall, 1990); it has adequate psychometric properties, and it has an established cutoff score. The CES-D is a 20-item self-report symptom-rating scale, and each item is scored from 0 to 3 in terms of frequency of occurrence during the past week (see Appendix A). The possible scores range from 0 to 60, and a score of 16 or higher score indicates depression that needs further evaluation.

Table 3
Reliability and Validity of the Bereavement Items (BI)

Measure	Reference	Sample	Reliability	Validity
BI	Jacobs, Kasl, Ostfeld, Berkman, Kosten, & Charpentier, 1987	115 early bereaved, 35 late bereaved, and 68 nonbereaved persons who ranged in age from 46 to 80 (mean age 61.9).	Internal consistency reliability for numbness and disbelief .73 at one month and .90 at six months, and for separation anxiety .84 at one month and .86 six months.	Construct validity was reported using a contrasted groups procedure. Among early bereaved, recently bereaved, and nonbereaved groups, the mean scores of separation anxiety ($p = .0001$) and depression ($p = .003$) for the recently bereaved group were significantly higher than those for the early bereaved group. The mean scores of separation anxiety ($p = .0001$) and depression ($p = .003$), for recently bereaved and early bereaved groups were significantly higher than those for the nonbereaved group. The mean scores of numbness and disbelief for recently bereaved and early bereaved groups were significantly higher than that for non-bereaved group ($p = .01$).

Psychometric properties of the CES-D reported by Radloff (1977), Weissman, Sholomskas, Pottenger, Prusoff, and Locke (1977), and Ransford and Smith (1991) are provided in Table 4. The CES-D was previously translated into Japanese by Shima, Shikano, Kitamura, and Asai (1985), and adequate psychometric properties have been reported (see Table 4).

Morale

Morale was measured using the revised Philadelphia Geriatric Center Morale Scale (revised PGC Morale Scale) (Lawton, 1975). The revised PGC Morale Scale was selected because it has been widely used as a measure of psychological well-being in various elderly populations and has adequate psychometric properties. The revised PGC is a self-report scale that assesses three components (i.e., agitation, attitude toward own aging, lonely dissatisfaction) in elderly persons. The scale consists of 17 dichotomous items (i.e., yes/no), with total scores ranging from 0 to 17 (higher scores indicate higher morale) (see Appendix A). Psychometric properties of the revised PGC reported by Lawton are provided in Table 5. The scale was previously translated into Japanese by Sugiyama, Takekawa, Nakamura, and Sato (1981), and sound psychometric properties of the Japanese version of the revised PGC have been reported (see Table 5).

Loneliness

Loneliness was measured using the revised UCLA Loneliness Scale (Russell et al., 1980). This scale was chosen because it has been used widely in various populations including elderly widowed persons (Gfellner & Finlayson, 1988) and has adequate

Table 4
Reliability and Validity of the Center for Epidemiologic Studies Depression Scale (CES-D) and the Japanese Version Center for Epidemiologic Studies Depression Scale

Measure	Reference	Sample	Reliability	Validity
CES-D	Radloff, 1977	2,238 community individuals (aged 18 and older) in Q1 survey. 817 community individuals (aged 18 and older) in Q2 survey. 1,552 community individuals (aged 18 and older) in Q3 survey. 70 psychiatric patients in Q1 survey.	Test-retest reliability ranged from .51 to .67 for 2 to 8 weeks intervals. Test-retest reliability ranged from .32 to .54 for 3 to 12 month intervals. Internal consistency reliability ranged from .84 to .90.	Construct validity: the correlation between the CES-D and ratings of severity of depression by nurse-clinicians was .56. The correlations of the CES-D with Hamilton Rating scale and with the Raskin Rating scale ranged from .69 to .75. Discriminant validity: the correlations of the CES-D with other scales (e.g., .26 for Aggression, .19 for Social Functioning) were lower than the correlations of the CES-D with scales designed to measure symptoms of depression (e.g., .60 for Bradburn Negative Affect, .61 for Bradburn Balance). Construct validity: average CES-D score for psychiatric patients group is significantly higher than that for the general population samples.

Table 4
Reliability and Validity of the Center for Epidemiologic Studies Depression Scale (CES-D) and the Japanese Version Center for Epidemiologic Studies Depression Scale (cont.)

Measure	Reference	Sample	Reliability	Validity
CES-D	Weissman, Sholomskas, Pottenger, Prusoff, & Locke, 1977	3,845 community adults (aged 18 and over) and 406 psychiatric patients (aged 18 to 65).	Not reported.	Content validity: representative items from widely used and previously validated scales assessing depression were selected. Concurrent validity: (a) differentiated psychiatric patients from community adults; (b) acutely depressed patients had higher scores than other psychiatric patients, not depressed patients, and recovered depression patients; and (c) correlations between the CES-D and other depression scales were high. Discriminant validity: low correlation of the CES-D with variables as age, sex, and social class (ranged from -.00 to -.32) and high correlation with depression factor of the SCL-90 (ranged from .32 to .89).
CES-D	Ransford & Smith, 1991	40 widows and 31 widowers who ranged in age from 30 to 86 (mean age 61) and have been bereaved 6 to 12 months.	Internal consistency reliability .89.	Not reported.

Table 4
Reliability and Validity of the Japanese Version Center for Epidemiologic Studies Depression Scale (cont.)

Measure	Reference	Sample	Reliability	Validity
Japanese Version CES-D	Shima, Shikano, Kitamura, & Asai, 1985	110 men (mean age 33) and 114 women (mean age 31.6) from the community and psychiatric patients (aged from 16 to 73).	Test-retest reliability was .84 for 5-day interval. Split-half reliability was .66.	Construct validity: correlated with the Japanese version Zung Self-rating Depression Scale (.73) and the Japanese version Carroll Rating Scale for Depression (.69).

Table 5
Reliability and Validity of the Revised Philadelphia Geriatric Center Morale Scale (Revised PGC Morale Scale) and the Japanese Version Revised Philadelphia Geriatric Center Morale Scale

Measure	Reference	Sample	Reliability	Validity
Revised PGC Morale Scale	Lawton, 1975	A sample of 828 (132 males and 596 females) community-residing elderly persons (mean age 72.6). 32% married, 76% Caucasian, the great majority are functionally independent persons.	Internal consistency reliability: .85 for components of agitation, .81 for attitude toward own aging, and .85 for lonely dissatisfaction.	Construct validity was reported using a factor analysis approach. The revised PGC has been demonstrated to contain three stable and replicable factors: agitation, attitude toward own aging, and lonely dissatisfaction.
Japanese Version Revised PGC Morale Scale	Sugiyama, Takekawa, Nakamura, & Sato, 1981	A sample of 153 elderly men and 172 women (mean age 68.5) who are living in a rural community.	Test-retest reliability was .62 for 1 year interval.	Not reported.
Japanese Version Revised PGC Morale Scale	Koyano, 1981	A sample of 1,113 community-residing elderly persons (mean age 70.0) and a sample of 624 elderly workers (mean age 69.3).	Internal consistency reliability ranged from .85 to .86.	Construct validity was reported using a factor analysis approach. The Japanese version included three factors: agitation, attitude toward own aging, and sense of usefulness. The component of lonely dissatisfaction was not supported.

psychometric properties. The revised UCLA Loneliness Scale is a 20-item self-report measure; one-half of the items reflect satisfaction with social relationships and one-half reflect dissatisfaction. Respondents indicate their responses on a 4-point Likert-type scale, ranging from 1 (never) to 4 (often) (see Appendix A). The possible scores range from 20 to 80. Higher scores indicate greater loneliness. Psychometric properties of the revised UCLA Loneliness Scale provided by Russell et al. are provided in Table 6. The revised UCLA Loneliness Scale was previously translated into Japanese by Kudo and Nishikawa (1983), and the authors reported sound psychometric properties for the Japanese version (see Table 6).

Physical Health

Physical health was assessed using RAND-scales (Ware, 1987; Ware & Sherbourne, 1992; Wu et al., 1991) and the Health Problem Scale (Archbold & Stewart, 1986) in this study. RAND-scales (i.e., Physical Functioning, Energy/Fatigue, General Health, Health Change) (see Appendix A) were selected because they have been widely used in various populations and provide adequate psychometric properties (see Table 7).

RAND-Physical Functioning is a 10-item Likert-type self-administered measure that assesses the effect of health on physical activities. Each item is scored from 0 to 100 in terms of limitations of physical activities (0 = limited a lot, to 100 = not limited at all). The scale score is the average for all items in the scale that the participant answers; therefore, possible scores range from 0 to 100. Higher scores indicate better physical functioning. RAND-Energy/Fatigue is a 4-item Likert-type self-administered measure

Table 6
Reliability and Validity of the Revised UCLA Loneliness Scale and the Japanese Version Revised UCLA Loneliness Scale

Measure	Reference	Sample	Reliability	Validity
Revised UCLA Loneliness Scale	Russell, Peplau, & Cutrona, 1980	A sample of 162 university students (64 males and 98 females) in the first study. A sample of 237 students (107 males and 130 females) in the second study.	Internal consistency reliability .94 for both samples.	Construct validity: the revised scale was more highly correlated with the self-labeling loneliness index (.71) than with other measures (e.g., .51 for depression scale and .36 for anxiety scale).
Japanese Version Revised UCLA Loneliness Scale	Kudo & Nishikawa, 1983	107 high school students (44 males and 63 females), 468 university students (240 males and 228 females), 159 female nursing students, 191 community adults (185 males and 6 females), and 50 alcoholic patients.	Internal consistency reliability was .87. Test-retest reliability was .55 for a 6-month interval in 65 university students.	*Construct validity: higher loneliness scores were significantly correlated with a smaller number of friends and fewer social activities ($p < .01$).

* Labeled "construct validity" although Kudo and Nishikawa reported it as "concurrent validity".

that assesses energy and fatigue levels. Each item is scored from 0 to 100 in terms of frequency of occurrence during the past 4 weeks (0 = all the time, to 100 = none of the time, or 0 = none of the time, to 100 = all the time), and the possible score (average score of all items) ranges from 0 to 100. Higher scores indicate more energy and less fatigue.

RAND-General Health is a 5-item Likert-type self-report measure to assess health perceptions. Each item is scored from 0 to 100 based on how true or false the statement is (0 = definitely true, to 100 = definitely false, or 0 = definitely false, to 100 = definitely true). The possible score ranges from 0 to 100 (a higher score indicates better subjective health). RAND-Health Change is a single Likert-type item to assess perceived change in health. This item is scored from 0 to 100 (0 = much worse now than one year ago, to 100 = much better now than one year ago).

The 29-item Health Problem Scale which was developed by Archbold and Stewart (1986) and adapted by Inoue (1996) was used in this study to assess physical health problems (see Appendix A). The scale includes 10 items about where the subjects were having problems during the past 4 weeks (e.g., back or hip), 10 items regarding health problems that the subjects have had during the past 4 weeks (e.g., dizziness), 6 items on chronic diseases that the subjects could have (e.g., arthritis or neuralgia), and 3 items about other health problems that the subjects have had (e.g., a recent fracture or injury). This scale has two response options (yes/no), and each item also has a 4-point Likert-type response option about how much the problem bothers the respondent if the answer is yes.

Table 7
Reliability and Validity of RAND-scales and Japanese Version RAND-scales

Measure	Reference	Sample	Reliability	Validity
RAND-scales (i.e., Physical Functioning, Energy/Fatigue, General Health, Health Change)	Ware, 1987; Ware & Sherbourne, 1992; Wu et al., 1991	2,471 patients (e.g., hypertension, coronary artery disease patients) aged 14 and older.	Internal consistency reliability was .93 for Physical Functioning, .86 for Energy/Fatigue, and .78 for General Health.	Content validity: representative health concepts were chosen from the most widely used concepts in health surveys. Discriminant validity: each multi-item scale's internal consistency reliability coefficient substantially exceeded its correlations with other scales. Construct validity: the correlation between RAND-General Health and the 22-item General Health Rating Index was .96.
Japanese Version RAND-scales	Inoue (1996)	31 male and 193 female family caregivers (mean age 63.4).	Internal consistence reliability was .87 for Physical Functioning, .72 for Energy/Fatigue, .81 for General Health.	Content validity: 20 content specialists determined that the items satisfied the domain specifications.

Psychometric properties of the Health Problem Scale is presented in Table 8. This scale was previously translated into Japanese by Inoue (1996).

Social Support

Six items were used to measure the availability of and satisfaction with two types of social support (i.e., instrumental and emotional support) given to a widowed person, and two items were used to assess satisfaction/dissatisfaction with the instrumental and emotional support provided prior to the death of his or her spouse (see Appendix A). The rationale for examining only two types of social support included: (a) finding that Japanese widowed persons received emotional and instrumental support (Miyamoto, 1989), (b) suggestion that the dimensions of received support are highly intercorrelated and that emotional support may form the core of this conceptual domain (Krause & Borawski-Clark, 1994), (c) that instrumental support can be most helpful in coping with spousal bereavement for older adults (Lund, Caserta, Dimond, & Shaffer, 1989; Lund, 1989), and (d) that emotional and instrumental support were equally important (Schuster & Butler, 1989).

The reasons for measuring availability of and satisfaction with social support included previous findings that: (a) satisfaction with social support may influence adjustment to spousal bereavement (Bass et al., 1991; Tudiver et al., 1991); (b) the availability of social support has been associated with network size, number of direct face-to-face contacts, and the presence of a confidant (Seeman & Berkman, 1988); and (c) the size of the social network and number of confidants were related to adjustment to spousal bereavement (Harlow et al., 1991b). The reason for choosing two items on

Table 8
Reliability and Validity of the Health Problem Scale and Japanese Version Health Problem Scale

Measure	Reference	Sample	Reliability	Validity
Health Problem Scale	Archbold & Stewart (1986)	50 caregivers of frail older persons	Internal consistency reliability ranged from .54 to .61 for Health Problem-Medical and from .56 to .70 for Health Problem-System.	Higher strain from direct care was associated with higher levels of health problems (7 of 10 rs ranged from .30 to .49, $p < .05$)
Japanese Version Health Problem Scale	Inoue, 1996	31 male and 193 female family caregivers (mean age 63.4).	Internal consistency reliability ranged from .63 to .75.	Content validity: 20 content specialists determined that the items satisfied the domain specifications.

satisfaction with the social support provided prior to the death of the spouse was based on the finding that the widowed person's perception of the social support given prior to the death, as well as after the death can influence adjustment (Bass et al.).

The first six items used involved availability of instrumental support and emotional support, identification of one or two persons who have been most helpful with daily tasks and emotional support after the death of a spouse, and satisfaction with instrumental support and emotional support. Four of these six items were taken from Seeman and Berkman's (1988) network-support items, and two items were taken from Krause and Markides's (1990) satisfaction-with-support items.

Two items--"Thinking back prior to the death of your spouse, did you have help (daily tasks, care for the deceased spouse, and/or emotional support) from others? If yes, did you feel satisfied with help that you received?" and "Is there a person you thought would help you more when you had taken care of your spouse, but who had not done so? If yes, how upsetting has it been for you that this person did not help as you had expected?"--were used to assess satisfaction or dissatisfaction with the instrumental and emotional support provided prior to the death of the spouse. The first question was written by this researcher, and the second one was adapted from the scale developed by Stewart and Archbold (1994).

Length of the Deceased's Illness

The length of the deceased's illness was assessed by two items: "Was your spouse ill prior to his or her death?" and "If yes, how many months?" In addition, for widowed persons whose spouses were ill prior to the death, three items were asked: "What was

husband's/wife's illness?", "Did this illness contribute to his/her death?", and "If no, what caused your husband's/wife's death?"

Provision of Care for the Deceased Spouse during His or Her Illness

Provision of care for the deceased spouse during his or her illness was measured using a categorical question: "Who provided the majority of care for the deceased spouse during his or her illness?" The response categories included spouse, daughter, son, friend, relative, and others. These questions were written by the researcher for this study.

Concurrent Losses

Concurrent losses were measured by the numbers of losses that a widowed person experienced during the period of grief (Herth, 1990). Two items--"Did you experience other losses during the period from the time of the death of your spouse to the time you could adjust to the death?" and "If yes, check which losses you have faced: death of close family member, major illness of family members, job retirement, death of close friend, move, serious money problems"--were used to assess the number of concurrent losses. An open-ended question about "other losses" was added for this study.

Quality of the Past Relationship with the Deceased

The quality of the past relationship with the deceased was assessed using two measures: six 7-point Likert-type items on the Marital Adjustment developed by Futterman and colleagues (1990) and five 7-point Likert-type items and one 10-point Likert-type item on the Quality Marriage Index developed by Norton (1983). Despite low internal consistency reliability (.52), and a negative correlation between global marital adjustment and depending on spouse (-.31) (Futterman et al.), the first scale was

chosen because it was developed to measure dimensions of marital interaction and marital satisfaction in widowed persons (mean age 68.2). This researcher expected that the internal consistency reliability with Japanese widowed persons would improve given that Japanese culture accepts dependence between spouses. The seven items, rated on a 7-point scale, measure degree of happiness in the marital relationship prior to the death, frequency of disagreements, amount of leisure activity done together, frequency of the deceased spouse confiding in the surviving spouse, frequency of the surviving spouse confiding in the deceased spouse, give-and-take in disagreements, and frequency of depending on the deceased spouse for decision making prior to the death. Higher scores indicate a more positive judgment of the marital relationship (see Appendix A).

The second scale was chosen because it has been used to evaluate marriage quality in elderly persons (B. J. Stewart, personal communication, October 18, 1995) and has sound psychometric properties (Norton, 1983). The items of this scale include goodness of the marriage, stability of the marital relationship, strength of the marriage, the degree to which the marital relationship made him or her happy, the degree to which the subject felt like part of a team with his or her spouse, and the degree of marriage happiness. Each item, except for marriage happiness, is scored from 1 (very strong disagreement) to 7 (very strong agreement). The degree of marriage happiness is scored from 1 (very unhappy) to 10 (perfectly happy). A higher score indicates a better marriage (see Appendix A).

Both Futterman's and Norton's scales include an item about degree of marriage happiness; however, the scoring procedures are different (i.e., 7-point scale, 10-point

scale, respectively). The 10-point scale of degree of marriage happiness in the Quality Marriage Index was used in this study. Psychometric properties reported by Futterman et al. (1990) and Norton (1983) are provided in Table 9.

Expectation of the Death

Degree of expectation of the death of a spouse was measured by a single item, "How much did you expect your spouse's death?" The response options include expected, fairly expected, fairly unexpected, and unexpected. This question was written by the researcher for this study.

Subjective Adjustment to the Death

Subjective adjustment to the death of a spouse was assessed using two items: "Could you adjust to your husband's/wife's death?" and "If yes, how many months did it take you to adjust to your husband's/wife's death?" These questions also were written by the researcher for this study.

Social Desirability

Reynolds' (1982) 13-item form of the Marlowe-Crowne Social Desirability Scale (M-C SDS) (Crowne & Marlowe, 1960) was used to examine the influence of response bias related to social desirability on the scales used for this study (see Appendix A). The 13-item form of M-C SDS was chosen because it has fewer items than the original version and has provided adequate psychometric properties (Reynolds). The scale is a self-report scale and consists of 13 dichotomous items (true/false). The total score has a potential range from 0 to 13 (a higher score indicates a more socially desirable response). The Japanese version of the 13-item form was constructed from Nojima's Japanese

Table 9
Reliability and Validity of the Marital Adjustment Scale and the Quality Marriage Index

Measure	Reference	Sample	Reliability	Validity
Marital Adjustment	Futterman, Gallagher, Thompson, & Lovett, 1990	212 bereaved elderly person who had been bereaved 2 months (113 women and 99 men, mean age 68.2) and 162 nonbereaved elderly persons (78 women and 84 men, mean age 70.1).	Internal consistency reliability was .52. Correlations between global marital adjustment item at 2, 12, 30 months ranged from .62 to .67. Single item correlations between the global marital adjustment item and other items ranged from -.31 (depending on spouse) to .62 (confiding in spouse).	Content validity: representative items were adapted from the Marital Adjustment Test that has been widely used as a measure of marital adjustment.
Quality Marriage Index	Norton, 1983	430 married persons	Correlation coefficients of six items ranged from .68 to .85.	Using a factor analysis procedure, six items were chosen from 20 items as the most cohesive variable set.

translated the M-C SDS (1982) by Inoue (1996). Psychometric properties of the 13-item form of M-C SDS and the Japanese version are presented in Table 10.

Potential Cultural Influences on Grief and Adjustment to Spousal Bereavement

Potential cultural influences on grief and adjustment to the loss were assessed using eight items written by this researcher (see Appendix A). The items included two items about changes in relationships with family members, two items regarding past *amae* relationship with the deceased spouse, two items regarding negative interactions, and two items about the funeral service and following services.

Widowed Persons' Thoughts based on Their Experiences of Spousal Bereavement

Widowed persons' thoughts were explored using three open-ended questions: "In thinking over all of your experiences since you have become widowed person, what do you think are the most important problems of widowhood for you?", "Each widowed person has his or her own way of adjusting to widowhood. You may have some additional thoughts about the way you have coped with your widowhood. Please tell me about any additional thoughts or behaviors you have found helpful?", and "What is the most important piece of advice you could offer a recently widowed person?" These questions were written by this researcher for this study.

Demographic Data

The general information form was developed by the researcher to elicit demographic data (see Appendix A). This form included the following categories: (a) age of the deceased person, (b) age of the widowed person, (c) years married, (d) length of bereavement, (e) number of family members subject currently lives with, (f) number

Table 10
Reliability and Validity of the 13-item Form of Marlowe-Crowne Social Desirability Scale (M-C SDS) and the Japanese Version 13-item Form of Marlowe-Crowne Social Desirability Scale

Measure	Reference	Sample	Reliability	Validity
13-item Form of M-C SDS	Reynolds, 1982	239 male and 369 female undergraduate students who ranged in age from 17 to 54 (mean age 20.5).	Internal consistency reliability (KR-20) was .76. Item to total score correlations ranged from .32 to .47.	Concurrent validity: the correlations between the 13-item short form and the original version and the Edwards Social Desirability Scale were .93 and .41.
13-item Form of M-C SDS	Zook & Sipps, 1985	45 undergraduate students (mean age 25.3).	KR-20 coefficients ranged from .63 to .82. Test-retest reliability was .74 for 6-week interval.	Not reported.
Japanese Version 13-item Form of M-C SDS	Inoue, 1996	31 male and 193 female family caregivers (mean age 63.4).	Internal consistency reliability was .71.	Not reported.

of family members with whom the subject does not live, (g) income, (f) employment status, and (g) education.

Procedures for Development of the Japanese Widowhood Inventory

The proper adaptation of measures for cross-cultural use requires two phases of work. The first phase is a double-checking procedure of the accuracy of translations and content validity of the Japanese versions of the selected measures. The second phase involves the development of the actual questionnaires for the widowed persons and for pretesting. Figure 6 describes procedures for developments of the Japanese Widowhood Inventory.

Translation of Measures

Selected measures (i.e., grief, availability of and satisfaction with social support, quality of the past relationship with the deceased) that were developed in the United States were translated into Japanese to create the Japanese versions. The process of double translations, which is a way of double-checking the accuracy of translations, was used (Kitamura, Sugawara, Aoki, & Shima, 1989). This section describes the translators, the translation procedure, and the results of the double translations.

Translators

A total of five translators were used in this study. The measures were translated directly into Japanese by three Japanese persons (A, B, and C). The first draft of the Japanese version of the selected measures was retranslated into English by one Japanese person (D). The modified items in the second draft of the Japanese version were retranslated into English by one Japanese person (E). These translators were selected

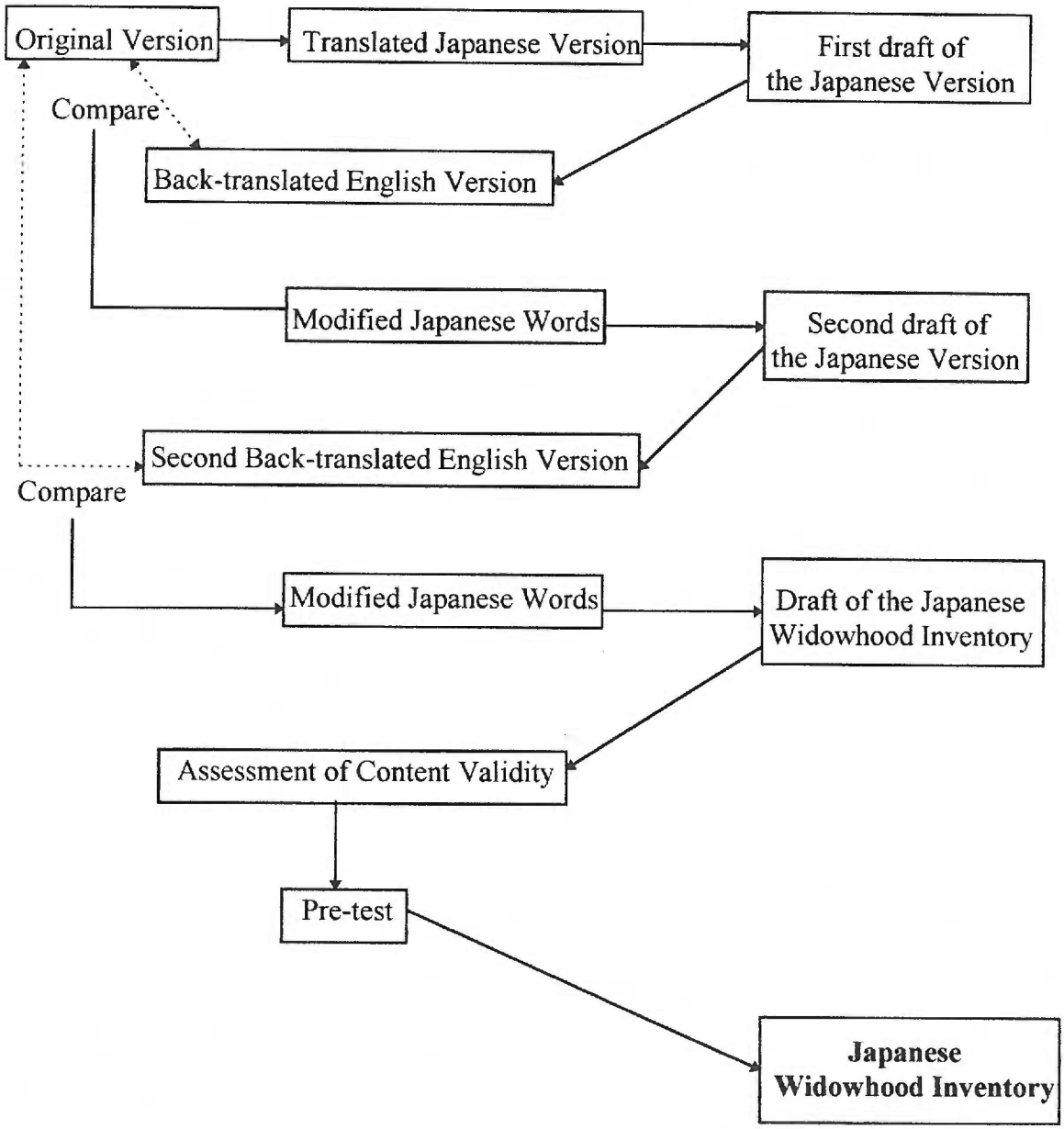

Figure 6. Procedures for development for the Japanese Widowhood Inventory.

using the following criteria: They were fluent in both Japanese and English and they were conversant with both cultures.

Of the first three translators, person A was a doctoral student in Psychology and has lived in the United States for 21 years, person B received a master's and a doctoral degree in nursing in the United States and has lived in this country for 7 years, and person C received a master's degree in nursing in the United States and has lived in this country for 8 years. Person D is a professional Japanese-English translator and has a translation business in Portland, Oregon; she was blind to the original English versions of the selected measures. Person E received a master's and a doctoral degree in nursing and lived in the United States for 10 years; she also was blind to the original English versions of the selected measures.

Translation Procedure and the Results

Every item (total number of items was 61) in the selected measures was translated directly into Japanese by the first three translators (A, B, and C). The three Japanese translations of all items in the measures were examined by this researcher for the degree of consistency in wording. The three translations of 50 items (82%) were mostly the same; however, those of 11 items (18%) were different (see Tables 11 and 12). Regarding the discrepancies of the translations, when two of the three translations were the same (3 items, 5%), the researcher selected the translation (note: Although two translations of the item "How much did you confide in your spouse" were the same, the other translation was chosen based on the researcher's judgment). When all three translations were different (8 items, 13%), the researcher discussed the discrepancy with

Table 11

Discrepancies among the Three Translations of the Texas Revised Inventory of Grief (TRIG) and the Bereavement Items (BI)

Scale Name Original Item #	Translation A	Translation B	Translation C
TRIG #3 of Past Behavior: After my spouse's death I lost interest in my family, friends, and outside activities.	After my spouse died, I lost interest in my family, friends, and going out.	After my spouse died, I lost interest in my family, friends, and other activities.	**After my spouse died, I lost interest in my family, friends, and outdoor activities.**
TRIG #5 of Past Behavior: I was usually irritable after my spouse died.	After my spouse died, I was often irritated.	**After my spouse died, I was irritated more than usual.**	After my spouse died, I was usually irritated.
TRIG #6 of Past Behavior: I couldn't keep up with my normal activities for the first 3 months after my spouse died.	**For the first 3 months after the death of my spouse, I couldn't do my normal activities as usual.**	For the first 3 months after my spouse died, I couldn't keep up with my normal activities.	It was hard for me to do my normal activities for the first 3 months after my spouse died.
TRIG #8 of Past Behavior: I found it hard to sleep after my spouse died.	After my spouse died, it was hard to get sleep.	**After my spouse died, I could not sleep well.**	After my spouse died, it was difficult to sleep.
TRIG #2 of Present Feelings: I still get upset when I think my spouse died.	**When I think about my deceased spouse, I still get upset.**	When I think about my deceased spouse, my heart beats frantically.	When I think about my deceased spouse, I am still utterly confronted.
TRIG #6 of Present Feelings: I am preoccupied with thoughts (often think) about my spouse who died.	**My mind has been caught up in thoughts about my deceased spouse.**	My mind was filled with the thoughts about my deceased spouse.	I have been thinking about my deceased spouse before I know it.
BI #5 of Numbness and Disbelief: Feel as if you were going to burst emotionally?	Did you feel as if your heart was going to break?	**Did you feel as if you were going to explode emotionally?**	**Did you feel as if you were going to explode emotionally?**
BI #4 of Separation Anxiety: Was your mind preoccupied with thoughts of your (husband/wife)?	**Has your mind been caught up in thoughts about your husband/wife?**	Was your mind filled with thoughts of your husband /wife?	Have you been thinking about your husband/wife before you know it?
BI #11 of Separation Anxiety: Sigh a lot?	**Sigh frequently?**	Give a big sigh?	**Sigh frequently?**

Note: Bold text is the agreed upon translation for the item. The three Japanese translations were translated into English by the researcher.

Table 12

Discrepancies among the Three Translations of Availability of and Satisfaction with Social Support and the Quality of the Past Relationship with the Deceased

Scale Name Original Item #	Translation A	Translation B	Translation C
Availability of and Satisfaction with Social Support #2a: If YES, how upsetting has it been for you that this person did not help?	**If YES, how much were you displeased that this person did not help?**	If YES, how much did you feel anger with this person who did not help as you expected.	If YES, how confusing has it been for you that this person did not help as you expected?
The Quality of the Past Relationship with the Deceased #1: How much did you confide in your spouse?	**How much did you confide a secret to your spouse?**	How much did you have confidence in your spouse?	How much did you have confidence in your spouse?

Note: Bold text is the agreed upon translation for the item. The three Japanese translations were translated into English by the researcher.

two of the translators of the items and chose the agreed-upon translation. In this way, the first draft of the Japanese version of the selected measures was obtained.

The first draft of the Japanese version was then back-translated into English by the professional translator (D). Next, an American person who had a doctoral degree in nursing and was expert with the original English version of selected measures was asked to compare the original English version and back-translated English version in order to confirm the content of the Japanese version. This procedures showed discrepancies in 23 items (38%) between the original English version and back-translated English version (see Tables 13-19). Therefore, the researcher discussed these discrepancies with the expert and another Japanese person who was a master's student in nursing in the United States. Based on these discussions, the researcher modified the Japanese words in the first draft of the Japanese version. In this way, the second draft of the Japanese version was obtained.

The researcher then asked the Japanese person (E) to back-translate the modified items in the second draft of the Japanese version into English to check the accuracy of Japanese translations of the modified items (see Table 20). This expert compared the second back-translated English version with the original English version. There were still discrepancies in three items between the second back-translated English version and the original English version. The researcher discussed the discrepancies with this expert and revised the second draft of the Japanese version based on the discussion.

In addition, the researcher reported the summary of double translations of the TRIG (Faschingbauer et al., 1987) to Dr. Faschingbauer, the developer of this measure

Table 13

Comparison between the Original English Version and the Back-Translated English Version: First Draft of Japanese Version of the Texas Revised Inventory of Grief (TRIG)

Original English Version (TRIG--Faschingbauer, Zisook, & DeVaul, 1987)	Back-Translated English Version
FEELINGS AND ACTIONS AT THE TIME YOUR HUSBAND/WIFE DIED	**ABOUT YOUR FEELINGS AND ACTIONS WHEN YOUR SPOUSE PASSED AWAY**
Now I would like to ask you about the feelings and actions that you experienced around the time your husband/wife died. Think back to the time your husband/wife died and answer all of these items about your feelings and actions at that time by indicating whether each item is Completely True, Mostly True, Both True and False, Mostly False, or Completely False. **CIRCLE** the number of the best answer.	I would like to hear about your feelings and actions when your spouse passed away. Please try to remember the time when your spouse died, and try to answer the following questions. Please see how much each of the following descriptions represent your feelings and questions and circle the number, choosing: exactly, almost, can't say either way, almost different, or completely different:
1. After my husband/wife died I found it hard to get along with certain people.	1. When I lost my spouse, it was hard to get along with certain people.
2. I found it hard to work well after my husband/wife died.	**2. When I lost my spouse, it was difficult to perform well on the job.**
3. After my husband's/wife's death I lost interest in my family, friends, and outside activities.	**3. When I lost my spouse, I became disinterested in my family, friends, and outdoor activities.**
4. I felt a need to do things that the deceased had wanted to do.	**4. I thought I needed to do what the deceased wanted to do.**
5. I was unusually irritable after my husband/wife died.	**5. When I lost my spouse, I was often irritated.**
6. I couldn't keep up with my normal activities for the first 3 months after my husband/wife died.	6. For three months after I lost my spouse, I couldn't perform tasks as normally as I used to.
7. I was angry that my husband/wife who died left me.	**7. I was angry that my spouse was gone, and had left me alone.**
8. I found it hard to sleep after my husband/wife died.	8. I couldn't sleep well after my spouse was gone.

Note: Bold text is the items that have discrepancies between the original English version and the back-translated version. The back-translated English version was translated by translator (D).

Table 14
Comparison between the Original English Version and the Back-Translated English Version: First Draft of Japanese Version of the Bereavement Items (BI)

Original English Version (BI--Jacobs, Kasl, Ostfeld, Kosten, & Charpentier, 1987)	Back-Translated English Version
FEELINGS DURING THE PAST WEEK Using the scale below, CIRCLE the number which best describes how often you felt or behaved this way. DURING THE PAST WEEK. 0 = Never or rarely (less than 1 day) 1 = Occasionally (1-2 days) 2 = Moderately often (3-4 days) 3 = Very often (5-7 days)	**ABOUT YOUR FEELINGS DURING THE LAST WEEK** For each context how often did you feel that way and act that way? During the last week, if you did not feel or act that way at all, or felt or acted that way not even one day, please circle "0", if it was 1 to 2 days during the week circle "1", if there were three to four days during the week circle "2", and if there were more than five days during the week circle "3".
During the past week, did you...	During the last week...
1. Feel stunned or dazed?	**1. Did you feel absent minded or stunned?**
2. Feel numb?	**2. Did you feel your heart does not respond to what is happening?**
3. Experience disbelief of what happened?	3. Did you experience feelings that you couldn't believe what had happened?
4. Lose control of your feelings?	**4. Did you become not able to control your feelings?**
5. Feel as if you were going to burst emotionally?	**5. Did you feel your emotions being explosive?**
6. Experience a dread of impending trouble?	6. Did you experience fears that something bad might happen?
7. Feel upset when your thinking turned to your (husband/wife)?	**7. Did you get upset realizing that you are shifting your thought to your husband or wife?**
8. Long (yearn) to have your (husband/wife) back as (he/she) was before the last illness?	8. Did you sincerely wish that your husband or wife would return to the state he or she was at before his or her illness?
9. Feel tense, nervous or fidgety?	9. Did you become tense, irritated, or restless?
10. (Was) your mind preoccupied with thoughts of your (husband/wife)?	**10. Was your mind occupied by your feelings toward your spouse?**

Table 14
Comparison between the Original English Version and the Back-Translated English Version: First Draft of Japanese Version of Bereavement Items (BI) (cont.)

Original English Version (BI-- Jacobs, Kasl Ostfeld, Kosten, & Charpentier, 1987)	**Back-Translated English Version**
11. Feel a need to call your (husband's/wife's) name?	11. Did you feel like calling your husband's name or wife's name?
12. Feel drawn to places and things associated with your (husband/wife)?	**12. Did you feel that your mind was always where your husband or wife was, or with things related to him or her?**
13. Sometimes experience mental images so vivid that for a moment it was as if your (husband/wife) were there (when (he/she) was absent)?	13. Since the image of your husband or wife is sometimes very clear, did you experience the feelings that your husband or wife was with you, although he or she was not?
14. Sometimes hear things associated with your (husband/wife), e.g., hear (his/her) footsteps on the stairs (when (he/she) was absent)?	14. Did you sometimes feel that you heard a noise related to your husband or wife? (for example, did you feel footsteps of your husband or wife on the stairs, although your husband or wife was not there?)
15. Sometimes feel as if your (husband/wife) were with you and touched you (when (he/she) was absent)?	15. Did you feel like your husband or wife was there and touching you, although he or she was not there?
16. Dream of your (husband/wife)?	16. Did you have a dream about your husband or wife?
17. Sigh a lot?	17. Did you sigh many times?
18. Feel as if you were about to cry?	18. Did you feel like crying?

Note: Bold text is the items that have discrepancies between the original English version and the back-translated English version. The back-translated English version was translated by translator (D).

Table 15

Comparison between the Original English Version and the Back-Translated English Version: First Draft of Japanese Version of the Texas Revised Inventory of Grief (TRIG)

Original English Version (TRIG--Faschingbauer, Zisook, & DeVaul, 1987)	Back-Translated English Version
PRESENT FEELINGS ABOUT YOUR SPOUSE'S DEATH	**ABOUT YOUR FEELINGS ON YOUR SPOUSE'S DEATH**
For all of the following questions, **CIRCLE** the answer that best describes how you **presently** feel about your spouse's death.	For the following questions, please circle the number which most properly fits your present feelings about your spouse's death.
1. I still cry when I think of my husband/wife who died.	1. I still start crying when I start thinking about my deceased spouse.
2. I still get upset when I think about my husband/wife who died.	**2. I am still confused when I start thinking about my deceased spouse.**
3. I cannot accept my husband's/wife's death.	**3. I cannot accept my spouse's death.***
4. Sometimes I very much miss my husband/wife who died.	4. I sometimes miss my deceased spouse very much.
5. Even now it's painful to recall memories of my husband/wife who died.	**5. It is still painful to remember my deceased spouse.**
6. I am preoccupied with thoughts (often think) about my husband/wife who died.	**6. My heart is still filled with feelings toward my deceased spouse.**
7. I hide my tears when I think about my husband/wife who died.	7. I try not to show my tears, when I think about my deceased spouse.
8. No one will ever take the place in my life of my husband/wife who died.	8. I think there is nobody who can replace my deceased spouse in my life.
9. I cannot avoid thinking about my husband/wife who died.	9. I cannot help but think about my deceased spouse.
10. I feel it's unfair that my husband/wife died.	10. I feel it is unfair that my spouse passed away.
11. Things and people around me still remind me of my spouse who died.	11. The things or people around me still remind me of my deceased spouse.
12. I am unable to accept the death of my husband/wife who died.	**12. I cannot accept death of a person.***
13. At times I still feel the need to cry for my spouse who died.	**13. Sometimes I still feel like crying, thinking about my deceased spouse.**

Note: Bold text is the items that have discrepancies between the original English version and the back-translated English version. The back-translated English-version was translated by translator (D).
* Item #3 and #12 in the back-translated English version are bolted because of the similarity in wording.

Table 16
Comparison between the Original English Version and the Back-Translated English Version: First Draft of Japanese Version of Social Support Scales

Original English Version (#2-2a--Stewart & Archbold, 1994)	**Back-Translated English Version**
HELP FROM OTHERS FOR YOUR SPOUSE AND YOU	**OTHER PEOPLE'S ASSISTANCE FOR YOUR SPOUSE AND YOURSELF**
Now I would like you to answer some questions about the help you and your husband/wife received prior to his or her death. "Help" refers to care for your spouse before the death, daily tasks like grocery shopping, house cleaning, and cooking, and emotional support like talking over problems and helping you make a difficult decision. Please tell me whether you had help from others prior to the death.	Next please answer these questions about the assistance you and your spouse received before your spouse passed away. Assistance may be for grocery shopping, house cleaning, cooking, the care your spouse received before he or she died, and mental support.
1. Thinking back prior to the death of your husband/wife, did you have help from others? No Yes	1. Did you receive assistance from other people before your spouse passed away? No Yes
1a. If **YES**, how satisfied were you with help that you received? Very satisfied Pretty Some A little Not at all	1a. To those who answered **YES** to the above question. To what extent were you satisfied with the assistance you received from other people? Very satisfied Quite satisfied Satisfied somewhat A little satisfied Not satisfied
2. Is there a person you thought would help you more in caring for your husband/wife, but who did not do so? No Yes	2. Do you feel that a person you expected to help more didn't actually help at all with the care for your spouse? No Yes
2a. If **YES**, how upsetting has it been for you that this person did not help as you expected. Not at all upsetting A little upsetting Somewhat upsetting Quite upsetting Extremely upsetting	2a. To those who answered **YES** to the above question. To what extent did you feel bad, and dissatisfied, because the person didn't assist you? Didn't feel bad at all Felt a little bit bad Felt somewhat bad Felt quite bad Felt very bad
3. Currently, when you need some extra help, can you count on anyone to help with **daily tasks** like grocery shopping, house cleaning, cooking, telephoning, or giving you a ride? Yes No I don't need help	3. At the present time when you need assistance, do you have somebody who could help you in doing **household chores**, such as grocery shopping, house cleaning, cooking, telephone, and driving around? Yes No I don't need assistance

Note: Bolded text is the items that have discrepancies between the original English version and the back-translated version. The back-translated English version was translated by translator (D)

Table 17

Comparison between the Original English Version and the Back-Translated English Version: First Draft of Japanese Version of Social Support Scales

Original English Version (#3a, 4-4a--Seeman & Berkman, 1988; #3b, 4b--Krause & Markides, 1990)	**Back-Translated English Version**
HELP FROM OTHERS FOR YOU	**OTHER PEOPLE'S ASSISTANCE FOR YOU**
3a. Since your husband's/wife's death who has been most helpful with daily tasks? Please identify one or two people by circling the number next to the person. Daughter Son Daughter-in-law Son-in-law Sibling Other relative Your neighbors Coworkers Members of a group for elderly persons Professionals Any friends not included in these categories Others (Specify)	3a. Who helps you most with your household chores after your spouse passed away? Choose one to two people and circle the number. Daughter Son Daughter-in-law Son-in-law Sibling Other relative Your neighbors Coworkers Members of a group for elderly persons Professionals Any friends who are not included above categories Others (Specify)
3b. Would you say you feel satisfied with help for daily tasks or do you wish it was provided more often or less often? More often Satisfied Less often	3b. Are you satisfied with the **household chore** assistance you received? Or do you want more or less assistance? More assistance Satisfied Less assistance would be okay
4. Can you count on anyone to provide you with emotional support? (talk over problems and help you make a difficult decision) Yes No I don't need support	**4. Do you have anyone who can give you emotional support (who you can talk about problems with or who can help you make difficult decisions)?** Yes No I don't need support
4a. Since your husband's/wife's death, who has been most helpful in providing you with emotional support? Please identify one or two people by circling the number next to the person.	4a. Who has been most supportive emotionally after your spouse's death? Please choose one to two people and circle the number.
4b. Would you say you feel satisfied with the amount of emotional support that you have received from others, or do you wish that others would have given you this type of help more often or less often? More often Satisfied Less often	4b. Are you satisfied with emotional support you received? Or do you want more or less support? More support Satisfied Less support would be okay

Note: Bold text is the items that have discrepancies between the original English version and the back-translated English version. The back-translated English-version was translated by translator (D).

Table 18

Comparison between the Original English Version and the Back-Translated English Version: First Draft of Japanese Version of the Quality Marriage Index

Original English Version (Quality Marriage Index--Norton, 1983)	**Back-Translated English Version**
YOUR MARRIAGE BEFORE YOUR SPOUSE DIED	**ABOUT YOUR MARRIAGE BEFORE YOUR SPOUSE PASSED AWAY**
Think back to the time before your spouse died. These questions ask about past marital attitudes and behaviors. Try to answer all questions as honestly as possible. Do not take too much time on any one question. Give each question a moment's thought and then answer it. **Circle** one number for each.	I would like to ask questions about the marriage between you and your spouse in the past. Please try to remember the time before your spouse passed away, and answer all questions as honestly as possible. Do not ponder a long time on each question, but answer spontaneously as you think.
1. We had a good marriage.	1. It was a **wonderful** marriage for us.
2. My relationship with my spouse was very stable.	2. The relationship between me and my spouse was very stable.
3. Our marriage was strong.	3. The bond of our marriage was strong.
4. My relationship with my spouse made me happy.	4. The relationship with my spouse made me happy.
5. I really felt like part of a team with my spouse.	5. I felt I was truly a member of a team, with my spouse.
6. On the scale below, indicate the point which best describes the degree of happiness, everything considered, in your past marriage life. The middle point, "happy," represents the degree of happiness which most people get from marriage. The scale gradually increases on the right side for those few who experience extreme joy in marriage and decreases on the left side for those who are extremely unhappy.	6. Please mark on the line below, indicating to what extent you were happy, considering your past marriage life with your deceased spouse. The middle point is being happy, and indicate the happiness which average people obtain from marriage. **From this middle point toward the right end the degree of happiness becomes higher, and toward the left end the degree of unhappiness becomes higher.**
1 2 3 4 5 6 7 8 9 10 Very Unhappy — Happy — Perfectly Happy	1 2 3 4 5 6 7 8 9 10 Extremely Unhappy — Happy — Totally Happy

Note: Bold text is the items that have discrepancies between the original English version and the back-translated English version. The back-translated English version was translated by translator (D).

Table 19
Comparison between the Original English Version and the Back-Translated English Version: First Draft of Japanese Version of the Marital Adjustment

Original English Version (Marital Adjustment Scale--Futterman, Gallagher, Thompson, Lovett, & Gilewski, 1990)	Back-Translated English Version
RELATIONSHIP WITH YOUR SPOUSE BEFORE THE DEATH	**RELATIONSHIP BETWEEN YOU AND YOUR SPOUSE BEFORE HIS/HER DEATH**
1. How much did you confide in your spouse? Not at all A little Some Quite a bit A great deal	1. How much did you open your heart to talk with your spouse? Not at all A little To some extent Pretty much Very much
2. How much did your spouse confide in you? Not at all A little Some Quite a bit A great deal	2. How much did your spouse open his/her heart to talk with you? Not at all A little To some extent Pretty much Very much
3. How often did you have disagreements or conflicts with your spouse? Never Rarely Sometimes Usually Always	3. How often did you disagree with your spouse or quarrel with him/her? Never Rarely Sometimes Often Always
4. When disagreements arose, generally they resulted in... my giving in my spouse giving in neither of us giving in agreement by mutual give-and-take	4. What followed after you and your spouse disagreed? I compromised My spouse compromised Neither of us compromised Both of us compromised and reached agreement
5. How frequently did you and your spouse generally talk things over together? Never Rarely Sometimes Usually Always	5. How often did you and your spouse consult each other over matters? Never Rarely Sometimes Often Always
6. How often did you depend on your spouse for decision making? Never Rarely Sometimes Usually Always	6. How often did you rely on your spouse when you had to make your decisions? Never Rarely Sometimes Often Always

Table 20
Comparison between the Original English Version and the Back-Translated English Version: Modified Japanese Items

Original English Items	Back-translated English Items
Items from the TRIG	
2. I found it hard to work well after my husband/wife died.	2. After my spouse died, it was difficult to manage everyday work.
4. I felt a need to do things that the deceased had wanted to do.	4. I felt that I need to do what the deceased wanted to do.
5. I was unusually irritable after my husband/wife died.	**5. After my spouse died, I was irritated more than usual.**
7. I was angry that my husband/wife who died left me.	7. I was angry that my spouse died and left me.
Items from the BI	
1. Feel stunned or dazed?	1. Were you stunned or dumbfounded?
2. Feel numb?	2. Did you feel that you were numb (like in shock)?
4. Lose control of your feelings?	4. Did you lose control of your feelings?
5. Feel as if you were going to burst emotionally?	**5. Did you feel that you were ready to explode emotionally?**
7. Feel upset when your thinking turned to your (husband/wife)?	7. Did you get upset when your thoughts shifted to your husband/wife?
10. (Was) your mind preoccupied with thoughts of your (husband/wife)?	10. Did you have your mind (attention) caught by your thoughts about your spouse?
12. Feel drawn to places and things associated with your (husband/wife)?	12. Did you feel that you were drawn by places and things related to your spouse?

Table 20
Comparison between the Original English Version and the Back-Translated English Version: Modified Japanese Items (cont.)

Original English Items	Back-Translated English Items
Items from the TRIG	
2. I still get upset when I think about my husband/wife who died.	2. I still get upset when I start thinking about my deceased spouse.
3. I cannot accept my husband's/wife's death.	3. I cannot accept the death of my spouse.
5. Even now it's painful to recall memories of my husband/wife who died.	5. It is still painful to remember the memories of my lost spouse.
6. I am preoccupied with thoughts (often think) about my husband/wife who died.	6. Did you have your mind caught by thoughts about your deceased spouse?
12. I am unable to accept the death of my husband/wife who died.	**12. I cannot accept my spouse's death.**
13. At times I still feel the need to cry for my spouse who died.	13. Sometimes, I feel that I still need to cry for my lost spouse.
Items on availability of social support	
4. Can you count on anyone to provide you with emotional support? (talk over problems and help you make a difficult decision) Yes No I don't need support	4. Do you have anyone who can give you emotional support (who you can talk about problems with or who can help you make difficult decisions)? Yes No I don't need support
Items from the Quality Marriage Index	
1. We had a good marriage.	1. We had a good marriage.
6. On the scale below, indicate the point which best describes the degree of happiness, everything considered, in your past marriage life. The middle point, "happy," represents the degree of happiness which most people get from marriage. The scale gradually increases on the right side for those few who experience extreme joy in marriage and decreases on the left side for those who are extremely unhappy.	6. Please mark on the line below, indicating to what extent you were happy, considering your past marriage life with your deceased spouse. The middle point is being happy, and indicate the happiness which average people obtain from marriage. From this middle point toward the right end the degree of happiness approaches extreme joy, and toward the left end the degree of unhappiness approaches extremely unhappy.

Note: Bold text is the items that have discrepancies between the original English items and the back-translated English items. The back-translated English items were translated by translator (E).

The researcher asked him about the nuance of some items; he then provided some suggestions regarding items in the TRIG (personal communication, February 2, 1996). The suggestions included: (a) the intent of "work" in item #2 of Past Behavior in TRIG involves not only daily tasks or activities of daily living but also work at the office or the factory; (b) "outside activities" of item #3 of Past Behavior means outside of one's domestic interests rather than any physical placement; (c) the intent of item #5 of Past Behavior is to measure ease of irritation (or sensitivity) rather than actual irritation; (d) the intent of item #6 of Past Behavior is to globally or generally assess the first 3 months of bereavement rather than whether the widow was disrupted for the entire 3 months; therefore, would "during" be equivalent instead of "for" in the Japanese version; and (e) whether putting the information about ability versus willingness in parentheses after items #3 and #12 of Present Feelings would be equivalent. The researcher modified the Japanese words in the second draft of the Japanese version based on these suggestions (see Table 21). Finally, the researcher obtained the third draft of the Japanese version, which is named the Japanese Widowhood Inventory.

Content Validity

The content validity of the Japanese Widowhood Inventory was examined by Japanese professional experts for this study. This section describes the professional expert review including the expert panel, procedures, and results of content validity.

Expert Panel

Ten professional experts reviewed all items in the draft of the Japanese Widowhood Inventory. The number of experts needed to determine content validity was

Table 21
Translated English of the First Draft of Japanese Version and the Translated English of the Modified Items

Item #	Translated English of the First Draft	Translated English of Modified Items
#2 of Past Behavior	After my spouse died, it was difficult to work well.	After my spouse died, it was difficult to work well (i.e., daily tasks, work at the work place).
#3 of Past Behavior	After my spouse died, I became disinterested in my family, friends, and outdoor activities.	After my spouse died, I became disinterested in my family, friends, and other activities.
#5 of Past Behavior	After my spouse died, I was irritated more than usual.	After my spouse died, I was more easily irritated than usual.
#3 of Present Feelings	I don't want to accept my spouse's death.	I cannot accept my spouse's death (I don't want to accept....).
#12 of Present Feelings	I cannot accept the death of my spouse.	I cannot accept my spouse's death (I do not have the ability to accept...)

selected based on guidelines suggested by Lynn (1986). These experts were identified through the researcher's network. The criteria for selection of these reviewers included experience in caring for elderly persons and terminally ill patients and working with their family members and/or experience in instrument development and testing of new measures. The reviewers were research experts who had experience in instrument development and testing of new measures, gerontological nursing, and/or family nursing. Of the 10 reviewers, 3 were doctorally prepared, 1 was a doctoral student, and 6 had a master's degree in nursing or health science.

Procedure

Content validity depends upon how well and how adequately items represent the meaning of the conceptual domain and how well they avoid redundancy (Imle & Atwood, 1988). The reviewers were given 17 sets of items and a content validity questionnaire, and were asked to answer the questionnaire, which included three to five questions suggested by Imle and Atwood (see Appendix B). This questionnaire included two groups: Group A, which included measures that were translated into Japanese for this study, contained seven concepts (i.e., grief, social support, the quality of the past relationship with the deceased, expectation of the death, length of deceased's illness, concurrent losses, negative interactions with network members) and Group B, which included previously translated measures and the new items written by the researcher, contained nine concepts (i.e., depression, morale, loneliness, subjective adjustment to the death, provision of care for the deceased spouse during his or her illness, effect of the funeral service and following services, changes in relationships with family members,

satisfaction with relationships with family members) and demographic information.

Regarding Group A, the reviewers were instructed to read one set of items at a time and to answer the following five questions: (a) Does the label and definition fit the whole set of items? (b) Does each item belong to the label and definition? (c) Is there any item that does not fit Japanese elderly widowed persons? (d) Is the wording of any item unclear? and (e) Is there anything left off the list of items that you think should be included? In relation to Group B, the reviewers were asked to answer the following three questions: (a) if any item did not fit for Japanese elderly widowed persons, (b) if the wording of any item was unclear, and (c) if anything was left off the list of items. Moreover, the reviewers were asked to give their comments and suggestions regarding the concept labels, definitions, and additional items.

Results of Content Validity and Revision of the Questions

The following section describes the results on the five questions for group A and the three questions for group B. On the whole, several changes were made based on these findings of content validity.

In general, do the label and definition fit the whole set of items? Of the seven scales in group A, there was agreement that the label and definition of each concept fit the items as a whole by all of the 10 reviewers for five scales (i.e., grief, availability of and satisfaction with social support, quality of past relationship with the deceased spouse, expectation of the death, concurrent losses). Regarding one scale (negative interactions), eight reviewers (80%) answered that the label and definition of each concept fit the items as a whole. On one remaining scale (length of deceased's illness), seven reviewers

(70%) agreed that the label and definition of each concept fit the items as a whole. Because a Content Validity Index (CVI) of 80% or higher was determined as acceptable (Imle & Atwood, 1988; Lynn, 1986) for this study, the definition of the concept "length of deceased's illness" was modified from "the length of illness that led to the deceased spouse's death" into "the length of illness that the deceased spouse had" based on the reviewers' comments.

Does each item belong to the label and definition? Regarding the 72 items in the seven scales in group A, 46 items (64%) were judged to belong to the level and definition by all reviewers, 17 items (24%) by nine reviewers, 5 items (7%) by eight reviewers, and 4 items (5%) by only seven of the reviewers. The four items that there was disagreement on were Item #15 of Grief (Feel upset when your thinking turned to your husband/wife), Item #39 of Grief (At times I still feel the need to cry for my spouse who died), Item #5 of the Quality of the Past Relationship with the Deceased (I really felt like part of a team with my spouse), and Item #1 of Length of Deceased's Illness (Was your spouse ill prior to his or her death?).

These four items were discussed with two of the reviewers, the dissertation committee, and Dr. Faschingbauer (regarding Item #39). Based on these discussions, the Japanese wording for Item # 15 of Grief, Item #39 of Grief, and Item #5 of the Quality of the Past Relationship with the Deceased were revised without changing the original meanings. That is, Item #15 was changed to "Did you get upset when you noticed that your thinking turned to your husband/wife without knowing it?", Item #39 was changed to "Sometimes, I still cannot help crying for my husband/wife who died", and Item #5

was changed to "I really felt that my husband and I were partners (mates) and worked together". Item #1 of Length of Deceased's Illness was not modified because the definition of the concept "Length of Deceased's Illness" was revised; two reviewers and the dissertation committee agreed the item belonged to the label and the new definition.

Is there any item that does not fit Japanese elderly widowed persons? All reviewers agreed that 144 items (92%) of the 156 items in the 17 scales fit Japanese elderly widowed persons. One or two reviewers indicated that 12 items in eight scales (i.e., grief, social support and satisfaction with social support, expectation of the death, negative interactions with network members, morale, loneliness, subjective adjustment to the death, demographic information) did not fit Japanese elderly widowed persons.

In the scale of Grief, Item #29 (I cannot accept my spouse's death), Item #30 (Sometimes I very much miss my spouse who died), and Item #38 (I am unable to accept the death of my spouse who died) were indicated as not fitting. Regarding Item #29 and Item #38, two reviewers commented that it was difficult for Japanese elderly widowed persons to understand the differences between the two items. The researcher discussed this concern with two of the reviewers, the dissertation committee, and Dr. Faschingbauer. Based on these discussions, the Japanese wording for Item #29 and Item #38 of Grief were revised without a major change from the original meanings. That is, the Japanese wording of Item #29 and Item #38 were revised to "I do not accept my husband's/wife's death" and "I am unable to accept the death my husband/wife who died", respectively. About Item #30, one reviewer suggested that the Japanese word for "miss" was not familiar to Japanese elderly persons. This item was discussed with the

two reviewers, and then the Japanese word for "miss" was changed without changing the original meaning.

In the scales of Availability of Social Support and Satisfaction with Social Support, Item #3a (Since your spouse's death who has been most helpful with daily tasks?) and Item #4 (Can you count on anyone to provide you with emotional support? e.g., talk over problems, help you make a difficult decision) were identified as not fitting for Japanese elderly widowed persons. With respect to the Item #3a, two reviewers commented that the category of "club members" was not appropriate for Japanese culture. The researcher discussed this concern with two reviewers, and then this category was changed into "members of a group for elderly persons or members of a group for women". For Item #4, one reviewer suggested that examples like talking over problems or helping you make a difficult decision did not fit Japanese culture. This item was discussed with two reviewers, and they agreed that these examples do fit Japanese culture. Therefore, the researcher decided to leave the examples in for Item #4.

With respect to the Item #1 (How much did you expect your spouse's death?) of the scale of Expectation of the Death, two reviewers suggested that the Japanese word for "expect" was difficult for Japanese elderly persons. Based on this discussion, the researcher decided to use the Japanese word for "expect" that was most commonly used. Regarding Item #1 (Has anyone told you to suppress your feelings of grief? e.g., telling you to adjust as soon as possible, don't talk about your feelings of grief, and not willing to listen your feelings) of the scale of Negative Interactions with Network Members, one reviewer commented that "telling a widowed person not to talk about your feelings of

grief" was natural for Japanese culture; therefore, this example was not a negative interaction. The researcher discussed this comment with two reviewers, and they agreed that this example was a negative interaction. Therefore, the researcher decided to leave this example in Item #1.

In the scale of Morale, one reviewer indicated that Item #7 (Things keep getting worse as I get older) was not suitable for Japanese elderly persons because this item might hurt elderly persons' feelings. The researcher, however, decided to leave this item in because other Japanese researchers have used this item for Japanese elderly persons in their studies. About the scale of Loneliness, one reviewer suggested that Item #8 (My interests and ideas are not shared by those around me) and Item #17 (I am unhappy being so withdrawn) were difficult for Japanese elderly persons to understand. However, these items were used for Japanese elderly persons in other studies; therefore the researcher decided to use these items without modification.

In the scale of Subjective Adjustment to the Death, one reviewer suggested that the Japanese word for "adjust" in Item #1 (Could you adjust to your spouse's death?) was difficult for Japanese elderly persons. Based on a discussion with two reviewers, the Japanese word for "adjust" was simplified without changing the meaning. As to Sociodemographic Information, one reviewer commented that Item #6 (How many years did you go to school in all?) was difficult for Japanese elderly persons to answer. Another researcher, however, has used this item for Japanese elderly persons. Therefore, the researcher decided to use this item in this study.

Is the wording of any item unclear? All reviewers agreed that the wording of

133 (85%) of the 156 items was clear. In two scales of Grief (i.e., TRIG, BI), seven items were identified as unclear: Item #1 (After my spouse died I found it hard to get along with certain people), Item #4 (I felt a need to do things that the deceased wanted to do), Item #9 (Feel stunned?), Item #10 (Feel numb?), Item #12 (Lose control of your feelings?), Item #15 (Feel upset when your thinking turned to your husband/wife?), and Item #21 (Sometimes experience mental images so vivid that for a moment it was as if your husband/wife were there when he/she was absent?). The researcher discussed the meanings of these items with two reviewers and modified the Japanese wordings of these items without changing the meaning.

Regarding the scale of Availability of Social Support and Satisfaction with Social Support, the Japanese wordings of Item #1 (Thinking back prior to the death of your spouse, did you have help from others?) and Item #2a (If yes, how upsetting has it been for you that this person did not help as you expected?) were identified as unclear. About Item #1, one reviewer suggested that it was better to describe "how long prior to the death is". The researcher decided not to change this item, because the time the subject had help from others prior to the death of his or her spouse varied, and therefore, the researcher could not provide a standard length-of-time prior to the death. As to the Item #2a, one reviewer suggested that the Japanese wording for "upset" was unclear. However, this Japanese wording was used with elderly persons by another researcher, therefore, the investigator decided not to modify the Japanese wording of this item.

On the scale of Negative Interactions with Network Members, one reviewer commented that it was better to change the Japanese wording of Item #2a from a

causative verb (how much do these interactions bother you) to an intransitive verb (how much do you worry about these interactions). The investigator did not change the Japanese wording of the item, because the meaning of the item would change if an intransitive verb was used.

Addressing the scale of Depression, one reviewer indicated that the Japanese wording of Item #4 (I felt that I was just as good as other people) was unclear, and suggested changing the Japanese wording of the item to "I felt that I was able to manage as well as other people". However, it was decided not to change the Japanese wording of the item, because the nuance in the meaning of the item would change.

With respect to the scale of Morale, one reviewer suggested that the Japanese wording of Item #5 (I take things hard), Item #7 (Things keep getting worse as I get older), and Item #8 (I have as much as I had last year) was unclear. However, the researcher decided not to modify the Japanese wording of these items, because these wordings were used by another researcher with a sample of Japanese elderly persons.

Regarding the scale of Loneliness, the Japanese wording of Item #6 (I have a lot in common with the people around me) and Item #17 (I am unhappy being so withdrawn) were identified as unclear by two reviewers. Item #1 (I feel in tune with the people around me), Item #5 (I feel part of a group of friends), Item #12 (My social relationships are superficial), and Item #18 (People are around me but not with me) were identified by one reviewer as being unclear. However, the researcher decided to leave the Japanese wordings of these items, because these items were used with elderly persons in other studies.

In the scale of Changes in Relationship with Family Members, one reviewer suggested specifying what relationships with family members were being evaluated. The researcher did not want to prescribe what relationships are with family members because she wanted the subjects to judge this item based on their own ideas and/or their own experiences with relationships with family members.

About Item #9 (Who else lives in your household? Son, Daughter, Daughter-in-law, Son-in-law, Grandchildren, Sibling(s), Other relatives, Others) of Sociodemographic Information, one reviewer posed the question, "When a widowed person lives with two daughters, how should the person answer?". The researcher then changed the response options from the singular form (e.g., Daughter) to the plural form (e.g., Daughters).

Is there anything left off the list of items that you think should be included?

Two reviewers suggested that some items were left off the list of grief. One reviewer commented that items on physical symptoms and guilty feelings should be included. The other reviewer commented that an item about the widowed person living the same as when his/her spouse were alive (e.g., a widowed person continued to prepare dinner for the deceased spouse) should be included.

The investigator added five items based on the reviewers' suggestions. The new items were as follows:

1. After my husband/wife died, I had regrets for the death of my husband/wife.
2. After my husband/wife died, I had guilty feelings for the death of my husband/wife.
3. Sometimes I behave as if my husband/wife were alive (e.g., prepare meals for my husband/wife who died).

4. I still have regrets about the death of my husband/wife.

5. I still have guilty feelings about my husband/wife.

Items #1 and #2 were added to examine the feelings and actions at the time a widowed person's spouse died. Items #3 was added to survey the subject's feelings during the past week. Item #4 and #5 were included to investigate present feelings about the spouse's death.

Revision of the items. The questions were revised based on the content validity and suggestions made by the professional reviewers mentioned above. Of the original definitions of seven concepts, one definition was modified. Of the 156 original items in 17 scales, the Japanese wording of 15 items were modified, and 5 items related to grief were added.

Questionnaire Construction for Widowed Subjects

In order to minimize response bias (i.e., systematic errors), the first draft of the questionnaire (i.e., the Japanese Widowhood Inventory) was carefully constructed. A major source of response bias can be carelessness based on fatigue or lack of motivation (Topf, 1986). In addition, the questionnaire included some items that could be sensitive. Japanese elderly subjects may suppress their feelings and give the most socially acceptable answers to these sensitive questions. Therefore, some strategies were used to reduce the risk of response bias. The researcher attempted to make the questions clear and to word questions in a way that facilitated a correct interpretation following the expert review process. Also, to keep respondents engaged, the less interesting items (e.g., sociodemographic information) were put at the end.

In addition, the questions (scales), instructions, and sets of possible responses were formatted to be clear, easy to read, and easy to understand. Moreover, the researcher provided anonymity for subjects in order to minimize the possibility of socially desirable responses. This study included a measure for social desirability in order to use it as a covariate for future analyses (Waltz, Strickland, & Lenz, 1991). The findings on social desirability in relation to evidence of validity are discussed in Chapter 5.

After completing content validity procedures, the first draft of the questionnaire (the Japanese Widowhood Inventory) was revised. Thereby the second draft of the Japanese Widowhood Inventory was obtained and subsequently was used for pretesting.

Pretest

A pretest of the Japanese Widowhood Inventory was conducted with a sample of 5 widowed persons. The purposes of the pretest were: (a) to assess whether the questionnaire was clear, (b) to assess if it was adequate for the research to be conducted, (c) to assess whether it was free from problems and bias, and (d) to determine how long it took for subjects to complete the questionnaire. The following section describes the pretest sample, procedure, and results.

Sample

The widowed persons were found through the investigator's personal network. The sample included 1 middle-aged woman (52 years), 3 elderly men ranging in age from 66 to 72 years), and 1 elderly woman (73 years); 5 were widowed from 3 to 50 months.

Procedure

The widowed persons' names and their telephone numbers were obtained through the researcher's personal network. They were contacted by phone and asked to complete the questionnaire and then to answer three review questions. All of them agreed to participate in the pretest. The researcher mailed them the questionnaire, the review questions, and a self-addressed envelope. The review questions included: (a) "Were the questions on the questionnaire clear or confusing?" and "If the questions were confusing, what questions were confusing?", (b) "Did you understand the instructions?" and "If no, which instruction?", and (c) "Was the size of characters and format suitable for you?" and "If no, please make suggestions for modifying them."

Results of Pretest

Results of the questionnaire. Four of the respondents answered all items on the Japanese Widowhood Inventory. One respondent did not complete three scales (i.e., TRIG -Past Behavior, the BI, the CES-D) of the inventory and did not state the reason. Respondents needed 40 to 130 minutes ($\underline{M} = 89$) to complete the inventory. The summary of the main results of the pretesting are presented in Table 22.

Results of review questions and revision of the questionnaire. Regarding the review questions, 3 subjects answered that most questions were clear and only a few were confusing whereas 1 respondent answered some questions were clear and some were confusing. Only 1 respondent answered regarding which questions were confusing; he suggested that the item, "I felt that I was just as good as other people," in the CES-D was difficult to understand. The researcher decided to use this item without changing the

Table 22
Summary of the Results of the Pretest

Length of Widowhood	3 months	4 years and 2 months	1 year and 9 months	9 months	4 years and 1 month
Expectation of the Death	Unexpected	Unexpected	Unexpected	Fairly Unexpected	Expected
Length of the Deceased's Illness	1 month	Deceased was not ill	1 month and 5 days	2.7 months	10 months
TRIG-Past Behavior (possible range: 8 to 40)	20	Insufficient data	32	30	24
TRIG-Present Feelings (possible range: 13 to 65)	52	51	63	43	43
B I (possible range: 0 to 54)	26	5 (2 items were not answered)	34	2	2
CES-D (possible range: 0 to 60)	13	Insufficient data	38	8	7
Revised UCLA Loneliness Scale (possible range: 20 to 80)	47	39	49	30	41
Revised PGC Morale Scale (possible range: 0 to 17)	11	14	11	9	15
Quality Marriage Index (possible range: 6 to 45)	45	42	44	44	36
Marital Adjustment Scale (possible range: 1 to 24)	15	18	18	19	16
13-item form of M-C SDS (possible range: 0 to 13)	9	13	3	10	7

wording because the Japanese wording had been used in previous studies. This respondent also commented that one of the double negative questions on the UCLA Loneliness Scale was confusing. For example, when he answered the question "I do not feel alone" using the four choices--Never, Rarely, Sometimes, or Often--it was difficult for him to choose. Based on this comment, the researcher changed the item "I do not feel alone" into the affirmative "I feel alone." Moreover, he commented that it was difficult to understand the differences between the item "I do not accept my husband's/wife's death" and the item "I am unable to accept the death of my husband/wife who died". However, all the subjects answered the two questions differently. Therefore, the researcher decided to use these items without modification.

Four subjects answered that they could understand all of the questionnaire's instructions. Regarding the size of characters and format, these 4 subjects reported that they did not have any problem reading and answering the questions. Based on the results of pretesting and the suggestions by the widowed persons, the second and final draft of the Japanese Widowhood Inventory was developed.

Subjects

Sample Selection

The criteria for sample selection included: (a) having been bereaved from 2 months to 2 years, (b) being a Japanese elderly person who was 65 years or older, (c) being able to read and write Japanese, and (d) not having remarried. The time span, between 2 months and 2 years, was selected based on previous research findings. In the period of 2 months after the loss, the percentage of older widowed persons who have

depressive symptoms may start decreasing (Harlow et al., 1991a; Zisook & Shuchter, 1991b). Prior to 2 months, the researcher was concerned about the potential vulnerability of the widowed person. In addition, according to Suzuki's (1988) study, Japanese widows started to consider their new lives without their spouses around the 49th day after the loss (one of a series of Buddhist services). Stroebe and Stroebe (1993) suggested that the psychological and physical health of widowed persons (mean age 54) showed significant improvement over the 2 years and were finally no longer significantly different from that of married persons.

The number of subjects was determined based on the plans for analysis. The desired minimum number of subjects for this study was 100.

Sample Characteristics

The final sample included 149 elderly widowed persons. Of the 149 subjects, 122 (81.9 %) were female and 27 (18.1 %) were male. The subjects' ages ranged from 65 to 86 with a mean of 71.21 years (SD = 4.74); the number of years married ranged from 20 to 65 (M = 46.56 years, SD = 7.03); years of education ranged from 6 to 18 years (M = 9.97 years, SD =2.05); and 84 widowed subjects (56%) had been living alone since the death of their spouses. The summary of the demographic characteristics of the sample is presented in Table 23.

Data Collection

Settings

Possible subjects were identified through two routes: (a) lists of deceased

Table 23
Demographic Characteristics of Sample (N = 149)

Variable	Frequency (%)	Mean	SD	Range
Gender				
Male	27 (18.1)			
Female	122 (81.9)			
Age in Years				
65-69	61 (40.9)			
70-74	55 (37.0)	71.21	4.74	65-86
75-79	22 (14.7)			
80-86	11 (7.4)			
Length of Widowhood in Months				
2.0 - 6.0	43 (28.9)			
6.5 - 12.0	45 (30.2)	10.88	6.22	2-24
12.5 - 18.0	41 (27.5)			
18.5 - 24.0	20 (13.4)			
Education in Years				
6	11 (7.4)			
7-9	43 (28.8)			
10-12	77 (70.5)	9.97	2.05	6-18
13-14	13 (8.7)			
15-16	0 (.0)			
≥17	1 (.7)			
Missing	4 (.7)			
Employment Status				
Retired	55 (36.9)			
Never employed	18 (12.1)			
Quit job	27 (18.1)			
Have a part-time job	5 (3.4)			
Have a full-time job	39 (26.2)			
Missing	5 (3.4)			
Years Married		46.56	7.03	20-65
Living Situation				
Living alone	84 (56.4)			
Living with family	63 (42.3)			
Missing	2 (1.3)			
Income Adequacy				
I can't make ends meet	5 (3.4)			
I have just enough, no more	65 (43.6)			
I have enough, with a little extra sometimes	72 (48.3)			
I always have money left over	5 (3.4)			
Missing	2 (1.3)			

persons obtained from three public hospitals, two private hospitals, and five public health/community agencies throughout Kochi prefecture, in southwestern Japan and (b) obituary notices in a local newspaper in the prefecture. One of the public hospitals and two private hospitals are located in a metropolis of the prefecture, and the other two public hospitals are situated in the outskirts of the metropolis. One of the public health/community agencies is located in the metropolis, and others are situated in various areas in the prefecture.

Data Collection Procedures

The researcher contacted six nurse administrators, seven public health nurses, and one visiting nurse by letter to introduce the researcher and briefly explain this study (see Appendix C). Overall, five nurse administrators of three public hospitals and two private hospitals, seven public health nurses, and one visiting nurse agreed to give the researcher lists of possible subjects including their names and addresses. A total of 105 possible subjects were identified through this strategy.

In addition, the researcher searched for possible subjects through obituary notices in a local newspaper between May 15, 1994 to April 30, 1996. Names and addresses of spouses of deceased persons aged 65 years and older were extracted. Because widowed persons' ages were not provided, possible subjects were identified based on the deceased persons' ages. This strategy yielded 207 potential subjects.

The questionnaire packet included the cover letter (see Appendix D), the Japanese Widowhood Inventory, a postcard which a subject returned if he or she wanted a summary of the results in this study, and a stamped, self-addressed envelope. The

researcher mailed the packet to 312 possible subjects and asked them to complete the inventory anonymously and to return it in the enclosed stamped, self-addressed envelope.

Based on the following reasons, mailed questionnaires were selected for the data collection method rather than face-to-face interviews and telephone interviews. Mailed questionnaires can obtain a greater amount of data from a large sample in less time than face-to-face interviews and telephone interviews. Mailed questionnaires can also save the costs associated with face-to-face interviews. Furthermore, the respondents may be more willing to write their feelings of grief and depression on an anonymous questionnaire than to express their feelings to an interviewer during a face-to-face or telephone interviews. The respondents can also complete this questionnaire during their free time without the pressure for an immediate response (Woods & Catanzaro, 1988).

The possible subjects were informed that completion of the inventory implied consent to participate in this study (see Appendix D) . Having subjects sign a consent form was ruled out for the following reasons: (a) in the Japanese culture the use of consent forms is not recognized as "standard" practice with research or health care and consent form would have required an additional mailing and resulted in added costs and fewer subjects.

In order to maximize the response to this mail survey, some strategies were used in this study. Each cover letter was addressed individually to the possible subjects. The cover letter gave verbal appreciation and viewed the subjects' responses as being consultative to the researcher. A follow-up procedure was used to increase the participation rate. Within 10 to 14 days after the initial mailing, a reminder postcard was

sent to every widowed persons (see Appendix D). This postcard served as a thank you for widowed persons who have responded and a courteous reminder for those who had not (Dillman, 1978). Because anonymity was provided to minimize the possibility of socially desirable responses, the investigator did not know who responded and who did not. Therefore, additional follow-up procedures were not used for this study.

Response Rate

Of the total of 312 questionnaires were mailed, 176 were returned (59.3% of potentially eligible subjects). Of these 176 respondents, 12 were missing more than 25% of all items and 15 were younger than 65 years; these 27 were dropped from the analysis. Therefore, the final sample was comprised of 149 subjects. This represents half (50.2%) of the potentially eligible sample. Of 136 non-respondents, 48 (35.3%) or their family members provided a reason why they did not participate in this study. The reasons included: (a) 23 persons were ill, (b) 8 were busy, (c) 5 did not want to remember the death of their spouse, (d) 4 were upset, (e) 3 were weak in sight, (f) 3 died, and (g) 2 were diagnosed with dementia.

Missing Data

In this study, respondents were dropped from the analysis if they did not answer more than 25% of all items in the questionnaire. Of the 176 respondents who returned the questionnaire, 12 left more than 25% of all items unanswered. Therefore, 12 respondents were dropped from all data analysis. Of the remaining subjects, if a subject had missing data greater than 25% of all items on a specific scale, this subject was dropped from the data analysis of that scale.

For subjects missing less than 25% of the items on a scale, the missing values were replaced with the subject's mean item score for the scale for validity assessments of the scales. In only the Quality Marriage Index, the missing values were replaced with the group mean because the scale included a 7-point scale and a10-point scale. Subjects who had missing data were dropped from the reliability analysis of scales.

Protection of Rights of Human Subjects

Approval was obtained for this study from the Institutional Review Board (IRB), Oregon Health Sciences University (see Appendix E). Several strategies were utilized to protect the rights of human subjects. Possible subjects were informed that participation was voluntary and that they had the right to refuse to participate or to withdraw at any time. Anonymity of the subjects was assured at all times. Respondents who wanted results of this study were instructed to put their name and address on a postcard that was included in the mailout package and to return the postcard separately when they returned their inventory. Eighty-three subjects (56%) requested a summary of the results of this study. All data were stored in a locked file cabinet in Japan, separate from complete postcards, and were only accessible to the researcher.

CHAPTER 4

RESULTS

An initial psychometric evaluation of the Japanese version of selected measures was performed. Internal consistency reliability estimates and item analysis were computed for scales on the Japanese Widowhood Inventory using responses from 149 Japanese elderly widowed persons. Initial evidence for construct validity was also provided by using a variety of methods.

Descriptive Statistics

The SPSS-program (Statistical Program for the Social Sciences) was used for the analysis of data obtained in this study. Descriptive statistics were computed for the data on grief (the TRIG and the BI), physical health (RAND-scales, the Health Problem Scales), morale (the revised PGC Morale Scale), depression (the CES-D), loneliness (the revised UCLA Loneliness Scale), social support (Satisfaction with Help received prior to the death of a spouse, Availability of Social Support, Satisfaction with Social Support), length of the deceased's illness, number of concurrent losses, expectation of the death, the quality of the past relationship with the deceased (the Quality Marriage Index, the Marital Adjustment Scale), social desirability (the 13-item form of M-C SDS) and other items in the Japanese Widowhood Inventory.

The following section includes descriptive statistics for the main items (i.e., expectation of the death, number of concurrent losses, satisfaction with help received prior to the death of a spouse, availability of help with daily tasks, availability of emotional support, satisfaction with help for daily tasks, satisfaction with emotional

support, RAND-Health Change) and for each of the scales (i.e., the TRIG, the BI, RAND-scales, the Health Problem Scales, the revised PGC Morale Scale, the CES-D, the revised UCLA Loneliness Scale, the Quality Marriage Index, the Marital Adjustment Scale, the 13-item form of M-C SDS).

Descriptive Statistics for Main Items

Table 24 lists the number and percent for each item (i.e., expectation of the death, number of concurrent losses, satisfaction with help received prior to the death of a spouse, availability of help with daily tasks, availability of emotional support, satisfaction with help for daily tasks, satisfaction with emotional support, RAND-Health Change), the mean, standard deviation, range for the item on "length of the deceased's illness," and the number and percent of missing values. Most of the deceased spouses (93%) were ill prior to the death, and the length of the illness ranged from less than 1 month to 480 months with a mean of 66.9 (SD = 84.1). Some deceased spouses experienced a sudden death from an acute illness (e.g., myocardial infarction, pneumonia), whereas some deceased spouses had a long history of chronic illness prior to death. The illnesses of highest frequency were cancer (42%), cerebral infarction (7%), diabetes mellitus (5%), myocardial infarction (5%), liver cirrhosis (3%), cerebral hemorrhage (2%), and pneumonia (2%). The majority of the subjects (64%) answered that the deceased spouse died from the major illness identified. The remaining deceased spouses died from a secondary illness (e.g., cancer, pneumonia, accidents like suffocation, myocardial infarction, cerebral hemorrhage, cerebral thrombosis).

More than half of the subjects (53%) answered that the death of their spouse was

Table 24
Summary of Descriptive Statistics of Main Items in the Japanese Widowhood Inventory

Variable	Frequency (%)
Expectation of the Death	
Expected	48 (32.2)
Fairly Expected	31 (20.8)
Fairly Unexpected	33 (22.1)
Unexpected	35 (23.5)
Missing	2 (1.3)
Number of Concurrent Losses	
None	101 (67.8)
One	21 (14.1)
Two	4 (2.7)
Three	3 (2.0)
Four	1 (.7)
Missing	19 (12.8)
Satisfaction with Help received prior to the death of a spouse	
Not at all	0 (.0)
A little	1 (.7)
Some	17 (11.4)
Pretty	34 (22.8)
Very Satisfied	57 (38.3)
Missing	40 (26.8)
Availability of Help with Daily Tasks after the death of a spouse	
Yes	111 (74.5)
No	13 (8.7)
Don't need help	25 (16.8)
Availability of Emotional Support after the death of a spouse	
Yes	143 (96.0)
No	3 (2.0)
Don't need help	3 (2.0)
Satisfaction with Help for Daily Tasks after the death of a spouse	
More often	9 (6.0)
Satisfied	123 (82.6)
Less often	2 (1.3)
Missing	15 (10.1)
Satisfaction with Emotional Support after the death of a spouse	
More often	12 (8.1)
Satisfied	132 (88.6)
Less often	0 (.0)
Missing	5 (3.3)
RAND-Health Change	
Much better than 1 year ago	10 (6.7)
Somewhat better now than 1 year ago	20 (13.4)
About the same	75 (50.3)
Somewhat worse now than 1 year ago	32 (21.5)
Much worse now than 1 year ago	10 (6.7)
Missing	2 (1.3)

Note: Total percentages do not always add to 100% because of rounding error.

expected or fairly expected, and the remaining subjects (46%) reported the death was unexpected or fairly unexpected. The majority of the subjects (68%) had not experienced concurrent losses, 21% have experienced another loss, 4% have experienced two other losses, 3% have experienced three other losses, and only 1% have experienced four other losses since the death of their spouse. The concurrent losses of highest frequency were death of close family members (45%), death of close friends (10%), children's family problems (7%), and major illness of their family members other than the deceased (3%). Nineteen subjects (12.8%) did not answer the question regarding concurrent losses.

The majority of the subjects (73.2%) received help from others prior to the death of their spouse. Of these subjects, 52% were very satisfied with the help they received, 31% were pretty satisfied, 16% were somewhat satisfied, and only 1% were a little satisfied. Most subjects answered that social support was available after the death of their spouse (75% for help with daily tasks, 96% for emotional support). More than 80% of the subjects reported that they were satisfied with the social support they received (83% for help with daily tasks, 89% for emotional support). Approximately one-quarter (26.8%) of the subjects did not answer the question on satisfaction with help received prior to the death of a spouse because they did not receive help prior to the death of their spouse. Fifteen subjects (10.2%) did not answer the question on satisfaction with help for daily tasks after the death of a spouse.

One-fifth (20%) of the subjects answered that their health was much better or somewhat better now than it was 1 year ago, although, 28% of the subjects reported their health was somewhat worse or much worse now than it was 1 year ago.

Descriptive Statistics for the Scales

Table 25 lists the scales (i.e., the TRIG, the BI, the CES-D, the revised UCLA Loneliness Scale, the revised PGC Morale Scale, the Quality Marriage Index, the Marital Adjustment Scale, the 13-item form of M-C SDS, RAND- scales) with the mean, standard deviation, skewness, kurtosis, and possible and observed range. As can be seen in the table, scores on most scales fell across the broad range of possible scores. This indicates variability in the sample and subjects' use of the full range of responses.

Distributions of 6 scales or subscales (i.e., BI-Numbness and Disbelief, BI-Separation Anxiety, the CES-D, the revised UCLA Loneliness Scale, Health Problem-Medical, Health Problem-System) were significantly and positively skewed, and distributions of 4 scales (i.e., the Quality Marriage Index, the Marital Adjustment Scale, the 13-item form of M-C SDS, RAND-Physical Functioning) were significantly and negatively skewed (see Table 25). Also, distributions of 3 scales or subscales (i.e., TRIG-Past Behavior, TRIG-Present Feelings, BI-Separation Anxiety) were significantly platykurtic and 1 scale (RAND-Physical Functioning) was significantly leptokurtic (see Table 25). Of these scales, especially, BI-Numbness and Disbelief had severe skewness (1.22), and RAND-Physical Functioning had severe skewness (-1.52) and kurtosis (2.23). That is, responses on BI-Numbness and Disbelief were concentrated toward the low end and fewer were toward the higher end. The majority of responses on RAND-Physical Functioning were toward the higher end and fewer responses were toward the lower end. The responses on RAND-Physical Functioning were also concentrated in a narrower range.

Table 25
Summary of Descriptive Statistics of the Scales in the Japanese Widowhood Inventory

Scale Name	Possible Range	Observed Range	Mean	SD	Skew	Kurtosis	Missing # (%)
TRIG-Past Behavior	8-40	8-40	21.95	7.89	.03	-.96 *	5 (3.3)
TRIG-Present Feelings	13-65	16-65	44.95	11.46	-.30	-.80 *	5 (3.3)
BI-Numbness and Disbelief	0-18	0-18	3.85	5.13	1.22 **	.35	9 (6.0)
BI-Separation Anxiety	0-36	0-36	12.95	9.68	.47 *	-.82 *	10 (6.7)
CES-D	0-60	1-51	21.80	13.50	.62 **	-.74	12 (8.1)
Revised UCLA Loneliness Scale	20-80	20-65.3	35.02	9.67	.52 *	-.31	12 (8.1)
Revised PGC Morale Scale	0-17	0-17	9.50	3.79	-.29	-.53	5 (3.3)
Quality Marriage Index	6-45	6-45	34.58	10.55	-.86 **	-.40	3 (2.0)
Marital Adjustment Scale	6-24	6-24	17.23	3.69	-.44 *	-.21	1 (0.7)
M-C SDS	0-13	0-13	8.85	2.50	-.42 *	.12	2 (1.3)
Health Problem-Medical	0-12	0-8	2.05	1.72	.77 **	.12	3 (2.0)
Health Problem-System	0-11	0-10	3.16	2.52	.62 *	-.42	2 (1.3)
RAND-Physical Functioning	0-100	15-100	80.55	18.73	-1.52 **	2.23 **	17 (11.4)
RAND-Energy/Fatigue	0-100	15-100	56.97	20.01	-.11	-.71	21 (14.1)
RAND-General Health	0-100	0-95	52.26	20.01	-.23	-.31	16 (10.7)

*$p < .05$. **$p < .01$

All scales or subscales had missing values ranging from .7 to 14.1%, especially BI-Numbness and Disbelief (n =9, 6.0%), BI-Separation Anxiety (n = 10, 6.7%), the CES-D (n = 12, 8.1%), the revised UCLA Loneliness Scale (n = 12, 8.1%), RAND-Physical Functioning (n = 17, 11.4%), RAND-Energy/Fatigue (n = 21, 14.1%), and RAND-General Health (n = 16, 10.7%) (see Table 25). The high rate of missing data for the BI, the CES-D, the revised UCLA Loneliness Scale, and RAND-scales is discussed in Chapter 5.

Reliability Assessments

Item-total Correlation Assessment for Scales

As a first step, the negative items were reverse coded, then item-total correlations between each individual item of each scale or subscale (i.e., TRIG-Past Behavior, TRIG-Present Feelings, BI-Numbness and Disbelief, BI-Separation Anxiety, Availability of Social Support, Satisfaction with Social Support, the Marital Adjustment Scale, the Quality Marriage Index) and the remaining items in each scale or subscale were calculated.

Item-total correlations ranged from .50 to .78 for TRIG-Past Behavior, .35 to .77 for TRIG-Present Feelings, .48 to .79 for BI-Numbness and Disbelief, and .30 to .76 for BI-Separation Anxiety. All items in these grief scales or subscales had high values (.30 or more) for item-total correlations (ranged from .30 to .79), which was desirable (Devellis, 1991) (see Tables 26 and 27).

Also, item-total correlations ranged from -.19 to .86 for the CES-D (see Table 28), .16 to .76 for the UCLA Loneliness Scale, and .25 to .59 for the revised PGC Morale

Table 26
Summary of the Item-Total Correlations of the Texas Revised Inventory of Grief (TRIG)

Scale Name	Items	Item-Total Correlations
TRIG-Past Behavior	1. After my husband/wife died I found it hard to get along with certain people.	.50
	2. I found it hard to work well after my husband/wife died.	.78
	3. After my husband's/wife's death, I lost interest in my family, friends, and outside activities.	.66
	4. I felt a need to do things that the deceased had wanted to do.	.46
	5. I was unusually irritable after my husband/wife died.	.70
	6. I couldn't keep up with my normal activities for the first 3 months after my husband/wife died.	.72
	7. I was angry that my husband/wife who died left me.	.50
	8. I found it hard to sleep after my husband/wife died.	.57
TRIG-Present Feelings	1. I still cry when I think of my husband/wife who died.	.56
	2. I still get upset when I think about my husband/wife who died.	.76
	3. I cannot accept my husband's/wife's death.	.65
	4. Sometimes I very much miss my husband/wife who died.	.69
	5. Even now it's painful to recall memories of my husband/wife who died.	.63
	6. I am preoccupied with thoughts (often think) about my husband/wife who died.	.77
	7. I hide my tears when I think about my husband/wife who died.	.38
	8. No one will ever take the place in my life of my husband/wife who died.	.35
	9. I cannot avoid thinking about my husband/wife who died.	.65
	10. I feel it's unfair that my husband/wife died.	.68
	11. Things and people around me still remind me of my spouse who died.	.53
	12. I am unable to accept the death of my husband/wife who died.	.69
	13. At times I still feel the need to cry for my spouse who died.	.59

Table 27
Summary of the Item-Total Correlations of the Bereavement Items (BI)

Scale Name	Items	Item-Total Correlations
BI-Numbness and Disbelief	1. Feel stunned or dazed?	.79
	2. Feel numb?	.79
	3. Experience disbelief of what happened?	.76
	4. Lose control of your feelings?	.75
	5. Feel as if you were going to burst emotionally?	.72
	6. Experience a dread of impending trouble?	.48
BI-Separation Anxiety	1. Feel upset when your thinking turned to your (husband/wife)?	.65
	2. Long (yearn) to have your (husband/wife) back as (he/she) was before the last illness?	.69
	3. Feel tense, nervous or fidgety?	.76
	4. (Was) your mind preoccupied with thoughts of your (husband/wife)?	.76
	5. Feel a need to call your (husband's/wife's) name?	.65
	6. Feel drawn to places and things associated with your (husband/wife)?	.64
	7. Sometimes experience mental images so vivid that for a moment it was as if your (husband/wife) were there (when (he/she) was absent)?	.74
	8. Sometimes hear things associated with your (husband/wife), e.g., hear (his/her) footsteps on the stairs (when (he/she) was absent)?	.68
	9. Sometimes feel as if your (husband/wife) were with you and touched you (when (he/she) was absent)?	.60
	10. Dream of your (husband/wife)?	.30
	11. Sigh a lot?	.66
	12. Feel as if you were about to cry?	.74

Table 28
Summary of the Item-Total Correlations of the Center for Epidemiologic Studies Depression (CES-D)

Scale Name	Items	Item-Total Correlations
CES-D	1. I was bothered by things that usually don't bother me.	.70
	2. I did not feel like eating; my appetite was poor.	.74
	3. I felt that I could not shake off the blues even with help from my family or friends.	.75
	4. I felt that I was just as good as other people.	**-.01**
	5. I had trouble keeping my mind on what I was doing.	.78
	6. I felt depressed.	.86
	7. I felt that everything I did was an effort.	.84
	8. I felt hopeful about the future.	**.01**
	9. I thought my life had been a failure.	.57
	10. I felt fearful.	.62
	11. My sleep was restful.	.72
	12. I was happy.	**-.20**
	13. It seemed that I talked less than usual.	.82
	14. I felt lonely.	.77
	15. People were unfriendly.	.49
	16. I enjoyed life.	**.29**
	17. I had crying spells.	.59
	18. I felt sad.	.75
	19. I felt that people disliked me.	**.18**
	20. I could not "get going".	.78

* Note: Items in bold type had negative and/or low (less than $\underline{r} = .30$) item-total correlations.

Scale. Five items in the CES-D, six items in the UCLA Loneliness Scale, and three items in the revised PGC Morale Scale had negative and/or low (less than .30) correlations (see Tables 28, 29, and 30). The items in these three scales did not work well with this sample.

In addition, the range of the item-total correlations for availability of social support and satisfaction with social support were .60 to .93 and .81 to .88 (see Table 31). These items had acceptable values for total-item correlation. However, in general, values in the .90s may reflect redundant items. One item on "availability of help with daily tasks" had a value of .93. For the Marital Adjustment Scale and the Quality Marriage Index, the ranges of the item-total correlations were .36 to .62 and .83 to .92, respectively. Two items in the Quality Marriage Index had values in the .90s (see Table 32)

The item-total correlations for Health Problem-Medical and the Health Problem-System ranged from -.02 to 40 and .26 to .50, respectively (see Table 33). Although nine items in Health Problem-Medical and one item in Health Problem-System had negative and/or low values for item-total correlation, high values were not expected for the item-total correlation because each widowed person may have different health problems. The item-total correlations for RAND-Physical Functioning, RAND-General Health, and RAND-Energy/Fatigue ranged from .29 to 77, .49 to 59, and .32 to .64, respectively (see Tables 34). Given that RAND-scales measure physical function and general condition, in contrast to the Health Problem Scales which measure diseases and symptoms, it was expected that the item-total correlations would be greater. For the 13-item form of M-C

Table 29
Summary of the Item-Total Correlations of the UCLA Loneliness Scale

Scale Name	Items	Item-Total Correlations
Revised UCLA Loneliness Scale	1. I feel in tune with the people around me.	.51
	2. I lack companionship	.34
	3. There is no one I can turn to.	**.16**
	4. I feel alone.	**.25**
	5. I feel part of a group of friends.	.61
	6. I have a lot in common with the people around me.	.46
	7. I am no longer close to anyone.	.30
	8. My interests and ideas are not shared by those around me.	**.23**
	9. I am an outgoing person.	.32
	10. There are people I feel close to.	.70
	11. I feel left out.	**.18**
	12. My social relationships are superficial.	.33
	13. No one really knows me well.	.45
	14. I feel isolated from others.	.39
	15. I can find companionship when I want it.	.42
	16. There are people who really understand me.	.76
	17. I am unhappy being so withdrawn.	**.21**
	18. People are around me but not with me.	**.29**
	19. There are people I can talk to.	.72
	20. There are people I can turn to.	.62

* Note: Items in bold text had negative and/or low (less than $\underline{r} = .30$) item-total correlations.

Table 30
Summary of the Item-Total Correlations of the Revised Philadelphia Geriatric Center Morale Scale (PGC Morale Scale)

Scale Name	Items	Item-Total Correlations
Revised PGC Morale Scale	1. Little things bother me more this year.	.51
	2. I sometimes worry so much that I can't sleep.	.41
	3. I am afraid of a lot of things.	.54
	4. I get mad more than I used to.	.41
	5. I take things hard.	.41
	6. I get upset easily.	.32
	7. Things keep getting worse as I get older.	.59
	8. I have as much pep as I had last year.	.50
	9. As I get older, things are better or worse than I thought they would be.	**.25**
	10. As you get older you are less useful.	.43
	11. I am as happy now as when I was younger.	.43
	12. How much do you feel lonely?	.38
	13. I see enough of my friends and relatives.	**.29**
	14. I sometimes feel that life isn't worth living.	**.29**
	15. Life is hard for me much of the time.	.38
	16. How satisfied are you with your life today?	.34
	17. I have a lot to be sad about.	.54

* Note: Items in bold text had negative and/or low (less than $\underline{r} = .30$) item-total correlations.

Table 31
Summary of the Item-Total Correlations of Availability of Social Support and Satisfaction with Social Support

Scale Name	Items	Item-Total Correlations
Availability of Social Support	3. Currently, when you need some extra help, can you count on anyone to help with daily tasks like grocery shopping, housecleaning, cooking, telephoning, or give you a ride?	.93
	4. Can you count on anyone to provide you with emotional support (talk over problems and help you make a difficult decision)?	.60
Satisfaction with Social Support	3b. Would you say you feel satisfied with help for daily tasks or do you wish it was provided more often or less often?	.81
	4b. Would you say you feel satisfied with the amount of emotional support that you have received from others, or do you wish that others would have given you this type of help more often or less often?	.88

Table 32
Summary of the Item-Total Correlations of the Quality Marriage Index and the Marital Adjustment Scale

Scale Name	Items	Item-Total Correlations
Quality Marriage Index	1. We had a good marriage.	.89
	2. My relationship with my spouse was very stable.	.88
	3. Our marriage was strong.	.92
	4. My relationship with my spouse made me happy.	.92
	5. I really felt like part of a team with my spouse.	.89
	6. On the scale below, indicate the point which best describes the degree of happiness, everything considered, in your past marriage life. The middle point, "happy," represents the degree of happiness which most people get from marriage. The scale gradually increases on the right side for those few who experience extreme joy in marriage and decreases on the left side for those who are extremely unhappy.	.83
Marital Adjustment	1. How much did you confide in your spouse?	.63
	2. How much did your spouse confide in you?	.55
	3. How often did you have disagreements or conflicts with your spouse?	.40
	4. When disagreements arose, generally they resulted in...	.36
	5. How frequently did you and your spouse generally talk things over together?	.51
	6. How often did you depend on your spouse for decision making?	.38

Table 33
Summary of the Item-Total Correlations of the Health Problem Scale

Scale Name	Items	Item-Total Correlations
Health Problem-Medical	**11. Dizziness?**	**.21**
	13. A cold or flu?	**.19**
	14. Headaches?	.30
	16. Pain?	**.24**
	21. Arthritis or neuralgia?	.40
	22. Cancer?	**-.02**
	23. Arteriosclerosis or circulatory problems?	**.27**
	24. Diabetes?	**.16**
	25. High blood pressure?	**.26**
	27. A recent fracture or injury?	**.18**
	28. A stroke?	**-.05**
Health Problem-System	1. Back or hip?	.47
	2. Eyes?	.51
	3. Feet or legs?	.46
	4. Hands or arms?	.48
	6. Hearing or ears?	.31
	7. Heart?	.36
	8. Lung or breathing	.34
	9. Memory?	.41
	17. Skin disorders (ulcers, severe itching)?	.31
	18. Stomach or bowel problems?	.40
	19. Urinary problems	**.26**

* Note: Items in bold text had negative and/or low (less than $\underline{r} = .30$) item-total correlations.

Table 34
Summary of the Item-Total Correlations of RAND-Scales

Scale Name	Items	Item-Total Correlations
RAND-Physical Functioning	1. Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports.	.42
	2. Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf.	.59
	3. Lifting or carrying groceries.	.70
	4. Climbing several flights of stairs.	.75
	5. Climbing one flight of stairs.	.71
	6. Bending, kneeling, or stooping.	.64
	7. Walking more than a mile.	.77
	8. Walking several blocks.	.69
	9. Walking one block.	.57
	10. Bathing or dressing yourself.	**.29**
RAND-Energy/Fatigue	11. Did you feel full of pep?	.64
	12. Did you have a lot of energy?	.58
	13. Did you feel worn out?	.32
	14. Did you feel tired?	.52
RAND-General Health	1. In general, would you say your health is: excellent, very good, good, fair, or poor?	.55
	15. I seem to get sick a little easier than other people.	.55
	16. I am as healthy as anybody I know.	.49
	17. I expect my health to get worse.	.56
	18. My health is excellent.	.59

* Note: Items in bold text had negative and/or low (less than $\underline{r} = .30$) item-total correlations.

SDS, the item-total correlations ranged from .08 to .40. Seven items had values less than .30 (see Table 35).

Internal Consistency Reliability of Scales

Internal consistency reliability for each scale or subscale expected to have homogeneous items was computed using Cronbach's alpha. The alphas of grief scales were as follows (see Table 36): TRIG-Past Behavior (α = .86), TRIG-Present Feelings (.90), BI-Numbness and Disbelief (.92), BI-Separation Anxiety (.91), and the BI (.95). In addition, the alpha values were: the CES-D (.91), the revised UCLA Loneliness Scale (.84), the revised PGC Morale Scale (.82), the Quality Marriage Index (.96), the Marital Adjustment Scale (.73) (see p. 103 for additional discussion of the Marital Adjustment Scale), Health Problem-System Scale (.75), RAND-General Health (.77), RAND-Physical Functioning (.88), and RAND-Energy/Fatigue (.72). These alpha values were greater than .70 and reached an acceptable level (Nunnally, 1978). Cronbach's alpha values of the 13 item-form of M-C SDS and Health Problem-Medical Scale, however, were .64 and .52 (see Table 36).

Validity Assessments

In order to establish the validity of any psychological or psychosocial measure, it is essential to rule out the explanation that the subject's answers reflect socially desirable responses rather than honest self-reports (Norbeck, Lindsey, & Carrieri, 1981). For this reason, the 13-item form of M-C SDS was administered in this study. The correlations between the items of the Japanese versions of selected measures and the social

Table 35
Summary of the Item-Total Correlations of the 13-item Form of Marlowe-Crowne Social Desirability Scale (M-C SDS)

Scale Name	Items	Item-Total Correlations
M-C SDS	**1. It is sometimes hard for me to go on with my work if I am not encouraged.**	**.15**
	2. I sometimes feel resentful when I don't get my way.	.39
	3. On a few occasions, I have given up doing something because I thought too little of my ability.	**.29**
	4. There have been times when I felt like rebelling against people in authority even though I knew they were right.	**.18**
	5. No matter who I am talking to, I'm always a good listener.	.40
	6. There have been occasions when I took advantage of someone.	**.08**
	7. I'm always willing to admit it when I make a mistake.	.32
	8. I sometimes try to get even rather than forgive and forget.	**.18**
	9. I am always courteous, even to people who are disagreeable.	.35
	10. I have never been irked when people expressed ideas very different from my own.	**.28**
	11. There have been times when I was quite jealous of the good fortune of others.	.33
	12. I am sometimes irritated by people who ask favors of me.	.42
	13. I have never deliberately said something that hurt someone's feelings.	**.21**

* Note: Items in bold text had negative and/or low (less than $\underline{r}$ = .30) item-total correlations.

Table 36
Summary of the Psychometric Properties of the Scales on the Japanese Widowhood Inventory

Scale Name	# of Items	Response Options	Missing Data (%)	Internal Consistency Reliability (α)
TRIG-Past Behavior	8	1 = Completely True 2 = Mostly True 3 = True & False 4 = Mostly False 5 = Completely False	8.7	.86 (n = 136)
TRIG-Present Feelings	13	1 = Completely True 2 = Mostly True 3 = True & False 4 = Mostly False	12.1	.90 (n = 131)
BI-Numbness and Disbelief	6	0 = Never or Rarely 1 = Occasionally 2 = Moderately Often 3 = Very Often	10.1	.92 (n = 134)
BI-Separation Anxiety	12	0 = Never or Rarely 1 = Occasionally 2 = Moderately Often 3 = Very Often	17.4	.91 (n = 123)
BI-Total	18	0 = Never or Rarely 1 = Occasionally 2 = Moderately Often 3 = Very Often	18.8	.95 (n = 121)
CES-D	20	0 = Never or Rarely 1 = Occasionally 2 = Moderately Often 3 = Very Often	26.8	.91 (n = 109)
Revised UCLA Loneliness Scale	20	1 = Never 2 = Rarely 3 = Sometimes 4 = Often	21.5	.84 (n = 117)
Revised PGC Morale Scale	17	2 options (e.g., Yes or No, Better or Worse)	18.1	.82 (n = 122)
Quality Marriage Index	6	1 = very strong disagreement to 7 = very strong agreement	7.4	.96 (n = 138)
Marital Adjustment Scale	6	0 = Not at all 1 = A little 2 = Some 3 = Quite a bit 4 = A great deal	5.4	.73 (n = 141)
M-C SDS	13	2 options (True or False)	8.1	.64 (n = 137)
Health Problem-Medical Health Problem-System	12 11	0 = No, 1 = Yes 0 = No, 1 = Yes	2.0 1.3	.52 (n = 146) .75 (n = 147)

Table 36
Summary of the Psychometric Properties of the Scales on the Japanese Widowhood Inventory (cont.)

Scale Name	# of Items	Response Options	Missing Data (%)*	Internal Consistency Reliability (α)
RAND-General Health	5	1 = Definitely True 2 = Mostly True 3 = Don't Know 4 = Mostly False 5 = Definitely False	14.8	.77 (n = 127)
RAND-Physical Functioning	10	1 = Yes, Limited a Lot 2 = Yes, Limited a Little 3 = No, Limited at All	24.8	.88 (n = 112)
RAND-Energy/Fatigue	4	1 = All of the Time 2 = Most of the Time 3 = A Good Bit of the Time 4 = Some of the Time 5 = A Little of the Time 6 = None of the Time	16.1	.72 (n = 125)

* % of cases missing 1 or more items who were dropped from the internal consistency analysis. The % of missing data for the internal consistency analysis differs from the % of missing data in other analysis (e.g., descriptive statistics)

desirability measure were computed to assess the influence of social desirability response bias. The level of probability of r was set at $p<.05$. The results must be interpreted with caution because of Cronbach's alpha for the 13-item form of M-C SDS ($\alpha = .64$) falls somewhat below the recommended cutoff.

Correlations between the 13-item form of M-C SDS and TRIG-Past Behavior ($r = -.20$, $p = .02$), TRIG-Present Feelings ($r = -.17$, $p = .05$), BI-Numbness and Disbelief ($r = -.19$, $p = .03$), the revised PGC Morale Scale ($r = .18$, $p = .03$), and the Marital Adjustment Scale ($r = .20$, $p = .01$) were statistically significant; however, they were low correlations indicative of relatively weak associations between social desirability responses and responses on the other scales. That is, subjects who have provided more socially desirable responses reported a lower intensity of grief, greater morale, and higher quality of the past relationship with the deceased. However, there were no significant correlations between the 13-item form of M-C SDS and the CES-D ($r = -.10$, $p = .24$), the revised UCLA Loneliness Scale ($r = -.08$, $p = .33$), and the Quality Marriage Index ($r = .15$, $p = .08$).

Construct Validity Assessments

Evidence for initial construct validity of the Japanese versions of selected measures was gathered using several methods. Construct validity of grief (i.e., the TRIG and the BI) was evaluated using convergent and discriminant validity, hypothesis-testing, and factor analysis. Construct validity of social support scales (i.e., Satisfaction with Help received prior to the death of a spouse, Satisfaction with Social Support,

Availability of Social Support) was assessed using hypothesis-testing procedures. In addition, construct validity of the quality of the past relationship with the deceased (i.e., the Marital Adjustment Scale, the Quality Marriage Index) also was evaluated using hypothesis-testing procedures.

Convergent and Discriminant Validity of the TRIG and the BI

Research findings (e.g., Grimby, 1993; Jacobs et al., 1989) suggested that the measures of grief are correlated with psychological health variables (i.e., depression, morale). It is important to establish that the Japanese versions of the grief measures are measuring grief rather than psychological health variables. Convergent and discriminant validity of the Japanese versions of TRIG and BI were assessed using two questions: (a) whether or not there was a statistically significant correlation between TRIG-Past Behavior or TRIG-Present Feelings and BI-Numbness and Disbelief or BI-Separation Anxiety and (b) whether or not the correlations between the TRIG (Past behavior, Present Feelings) and the BI (Numbness and Disbelief, Separation Anxiety) were higher than correlations between both the TRIG and the BI and other measures (i.e., the revised PGC, the revised UCLA Loneliness scale, the CES-D) (Waltz et al., 1991).

Question 1. Pearson product moment correlation coefficients among the TRIG (Past Behavior, Present Feelings) and the BI (Numbness and Disbelief, Separation Anxiety) were computed. The level of probability of r was set at $p < .05$. Correlations between TRIG-Past Behavior and BI-subscales were .59 for BI-Numbness and Disbelief and .60 for BI-Separation Anxiety. Correlations between TRIG-Present Feelings and BI-subscales were .55 for BI-Numbness and Disbelief and .65 for BI-Separation Anxiety

(see Table 37). The two grief scales were significantly correlated at a moderately high level.

Question 2. Pearson product moment correlation coefficients among TRIG (Past behavior, Present feelings) or BI (Numbness and Disbelief, Separation Anxiety) and other scales (i.e., the CES-D, the revised UCLA Loneliness scale, and the revised PGC Morale Scale) were computed (see Table 37). These correlations between the TRIG or the BI and other scales were compared with correlations between the TRIG and the BI. The correlations between the TRIG and the BI (ranging from .55 to .65) were greater than the correlations between the TRIG or the BI and the revised UCLA Loneliness Scale and the revised PGC Morale Scale (.18 to -.56). The correlations between different measures of the same construct (grief) were greater than the correlations between measures of different constructs thereby providing evidence for convergent and discriminant validity of the TRIG and the BI. However, the correlations between the TRIG and the BI (.55 to .56) were similar to the correlations between the TRIG or the BI and the CES-D (.58 to .69).

In order to further explore the correlations between the CES-D and the TRIG or the BI, the sample was also divided into two subsamples (i.e., subjects who had been bereaved from 2 to 12 months and subjects who had been bereaved more than 12 months) according to the length of widowhood. In the subjects who had been bereaved from 2 to 12 months, the correlations between the CES-D and the TRIG or the BI (.67 to .79) were greater than the correlations between the TRIG and the BI (.59 to .69) (see Table 37). On the other hand, in the subjects who had been bereaved more than 12 months, the

Table 37

Correlations among the Texas Revised Inventory of Grief (TRIG) and the Bereavement Items (BI) and the Center for Epidemiologic Studies Depression (CES-D), the UCLA Loneliness Scale, and the Revised Philadelphia Geriatric Center Morale Scale (Revised PGC Morale Scale)

Scale Name	BI-Numbness and Disbelief	BI-Separation Anxiety	CES-D	Revised UCLA Loneliness	Revised PGC Morale Scale
TRIG-Past Behavior					
Total Sample (n = 144)	.59** (n = 138)	.60** (n = 135)	.64** (n = 134)	.27** (n = 134)	-.54** (n = 139)
2 to 12 months (n = 86)	.69** (n = 83)	.66** (n = 80)	.74** (n = 82)	.35** (n = 79)	-.62** (n = 84)
More than 12 months (n = 58)	.41* (n = 55)	.51** (n = 55)	.48** (n = 52)	.11 (n = 55)	-.46** (n = 55)
TRIG-Present Feelings					
Total Sample (n = 144)	.55** (n = 137)	.65** (n = 138)	.58** (n = 134)	.19* (n = 135)	-.42** (n = 139)
2 to 12 months (n = 84)	.59** (n = 81)	.67** (n = 80)	.67** (n = 80)	.20 (n = 80)	-.51** (n = 82)
More than 12 months (n = 60)	.48** (n = 56)	.61** (n = 58)	.42* (n = 54)	.16 (n = 55)	-.31* (n = 57)
BI-Numbness and Disbelief					
Total Sample (n = 140)			.62** (n = 134)	.24* (n = 130)	-.36** (n = 136)
2 to 12 months (n = 84)			.78** (n = 82)	.23* (n = 77)	-.42** (n = 82)
More than 12 months (n = 56)			.34* (n = 52)	.25 (n = 53)	-.25 (n = 54)
BI-Separation Anxiety					
Total Sample (n = 139)			.69** (n = 134)	.18* (n = 129)	-.37** (n = 134)
2 to 12 months (n = 81)			.79** (n = 80)	.12 (n = 76)	-.43** (n = 79)
More than 12 months (n = 58)			.54** (n = 54)	.29* (n = 55)	-.29* (n = 55)

* $p < .05$, ** $p < .001$

correlations between the TRIG and the BI (.41 to .61) were greater than most of the correlations between the CES-D and the TRIG or the BI (.33 to .54) (see Table 37). The correlations between different measures of the same construct were greater than the correlations between measures of different constructs, which provides evidence for convergent and discriminant validity.

Most findings confirmed convergent validity and discriminant validity of the TRIG and the BI. However, the findings on correlations between the CES-D and the TRIG or the BI in the subjects who had been bereaved between 2 and 12 months did not support convergent and discriminant validity.

Hypothesis-Testing Procedures on the TRIG and the BI

A hypothesis-testing procedure was performed to assess construct validity of the Japanese versions of the TRIG and the BI. Hypotheses based on the conceptual framework and literature review for this study included:

1. Widowed persons who are bereaved 1 year or less will have a greater intensity of grief than those who are bereaved more than 1 year (Hypothesis 1).

2. Widowed persons who had a better past relationship with the deceased or a happier marriage will have a greater intensity of grief than those who did not (Hypothesis 2).

Pearson product moment correlation coefficients were used to examine these hypotheses. The level of probability was set at $p < .05$.

Hypothesis 1. Correlations between grief (the TRIG, the BI) and the length of widowhood were computed. Of all correlations, only TRIG-Present Feelings was significantly correlated with the length of widowhood ($r = -.18$, $p = .03$). Student's t-test

was used to determine differences in TRIG-Present Feelings between widowed persons who had been bereaved 2 to 12 months ($\underline{M}$ = 46.33, $\underline{SD}$ = 12.11) and those who had been bereaved more than 12 months ($\underline{M}$ = 43.54, $\underline{SD}$ = 10.49). However, there were no significant differences between the means of the two groups ($\underline{t}$ = -1.44, $\underline{p}$ = .15).

The sample was divided into four groups according to the length of widowhood to further examine the hypothesis. That is, Group 1 ($\underline{n}$ = 41, 29.9%) included subjects who had been bereaved from 3.5 to 6.5 months, and Group 2 ($\underline{n}$ = 30, 21.9%) comprised subjects who had been bereaved from 7 to 10.5 months. Group 3 (n = 23, 16.8%) and Group 4 ($\underline{n}$ = 43, 31.4%) included subjects who had been bereaved from 11 to 13 months and those who had been bereaved from 13.5 to 24 months, respectively. These time frames were determined based on previous research findings: a) Kawai (1987) found the majority (65%) of 184 Japanese elderly widowed persons reported they could adjust to widowhood in about 6 months after the death of their spouse and b) Kawamura reported that widowed persons who had been bereaved about 12 months (around the first anniversary of a person's death) expressed more depressive feelings than those who had been bereaved from 7 to 11 months and who had been bereaved from 13 to 14 months. Subjects who had been bereaved from 2 to 3 months in the current study were dropped from this analysis; this decision was based on the participation rate for persons widowed less than 3 months (17% versus 52% for persons widowed more than 3 months) as well as their scores on the grief measures being lower (the subjects widowed less than 3 months may have experienced grief differently than the persons widowed less than 3 months who elected not to participate).

One-way analysis of variance (ANOVA) was used to examine differences in the mean scores on the TRIG-Present Feelings among the four groups. Widowed persons in Group 1 experienced significantly higher scores in TRIG-Present Feelings ($M = 49.44$), $F(3, 133) = 2.86$, $p<.05$ than those in Group 2 ($M = 43.26$) and Group 4 ($M = 43.08$) (see Figure 7). These findings indicate that widowed persons who had been bereaved less than 7 months have significantly higher grief scores than those who had been bereaved 7 to 10.5 months and those bereaved 13.5 to 24 months. These findings partially supported Hypothesis 1.

Hypothesis 2. The correlations between the Marital Adjustment Scale and grief scales were .20 ($p = .016$) for TRIG-Past Behavior, .25 ($p = .003$) for TRIG-Present Feelings, .19 ($p = .026$) for BI-Numbness and Disbelief, .25 ($p = .003$) for BI-Separation Anxiety, and .24 ($p = .005$) for BI-Total. Also, the correlations between the Quality Marriage Index and grief scales were .19 ($p = .027$) for TRIG-Past Behavior, .38 ($p < .001$) for TRIG-Present Feelings, .16 ($p = .058$) for BI-Numbness and Disbelief, .27 ($p < .001$) for BI-Separation Anxiety, and .25 ($p = .004$) for BI-Total. Therefore, the Marital Adjustment had small but significant positive correlations with the grief-subscales. The Quality Marriage Index also had small but significant positive correlations with TRIG-subscales and BI-Separation Anxiety, but not with BI-Numbness and Disbelief. The findings for 9 of 10 correlations supported Hypothesis 2.

Factor Analysis of the TRIG and the BI

Factor analysis procedures were used to assess construct validity of the Japanese

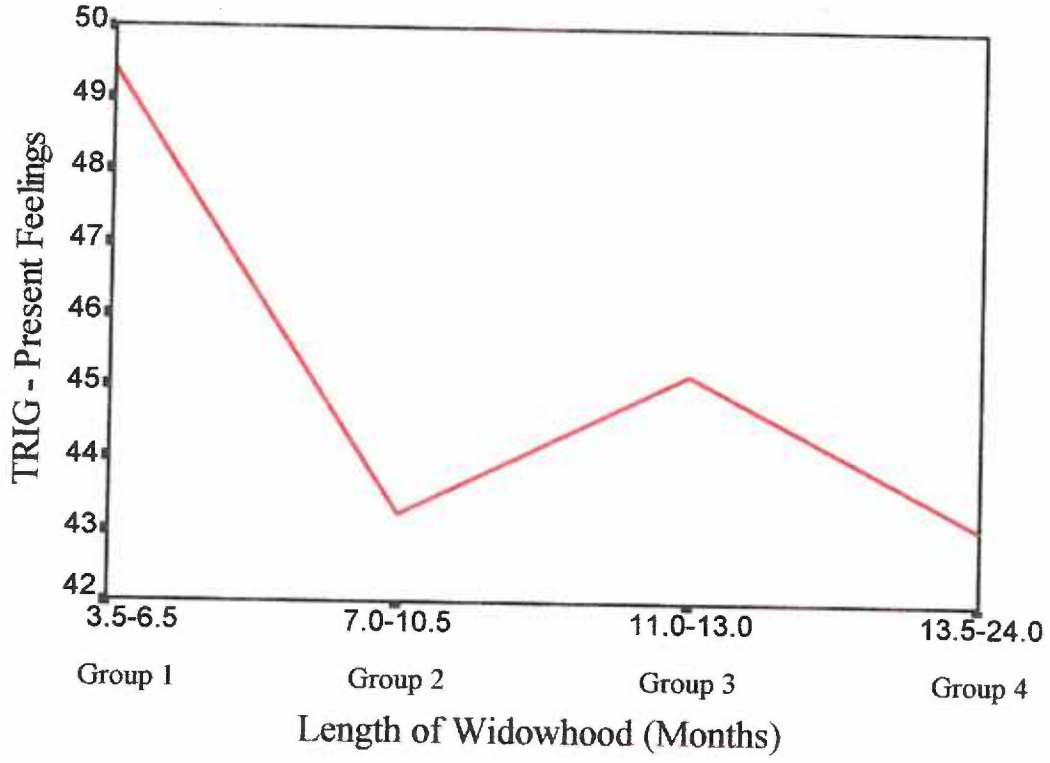

Figure 7. Mean scores on TRIG-Present Feelings for four groups according to length of widowhood.

versions because the TRIG and the BI measure various dimensions or subcomponents of grief. Factor analysis procedures were employed to confirm these dimensions or factors empirically (Waltz et al., 1991). A minimally acceptable factor loading of .40 was established for this study based on Waltz and colleagues recommendation that .30 is low and .50 is high. Construct validity of the Japanese versions (i.e., the TRIG, the BI) would be supported if the number of factors extracted in the factor analysis equaled the number of dimensions or subcomponents assessed by the measures, and the items with the highest factor loadings on each factor corresponded with the items designed to measure each of the dimensions of the measures.

The TRIG. Factors in the TRIG were explored using a Varimax-rotated principal components analysis of the 21 items on the TRIG. Because Faschingbauer et al. (1987) selected the first two factors (i.e., past behavior, present feelings) to constitute scales, two factors were extracted. Table 38 lists factor loadings for the TRIG-Past Behavior and TRIG-Present Feelings in this sample as well as Faschingbauer's factors.

For the TRIG, Factor 1 included 12 items (items #1, 2, 3, 4, 5, 6, 7, and 8 from TRIG-Past Behavior and items #2, 3, 10, and 12 from TRIG-Present Feelings), and Factor 2 included 9 items (items #1, 4, 5, 6, 7, 8, 9, 11, and 13 from TRIG-Present Feelings). However, item #7 had a factor loading of .28, which was too low to be an acceptable factor loading (see Table 38). The size of the factor loadings for Factor 1 ranged from .41 to .80 and .47 to .71 for Factor 2. Factor 1 was labeled "difficulty in acceptance of the loss and change in normal activities/relationships," and Factor 2 was labeled "continuing sadness and yearning for the deceased spouse."

Table 38

Factor Loadings for the Texas Revised Inventory of Grief (TRIG) Using a Varimax Rotation and a Two Factor Model

Items	Suzuki's Factor Loadings (n = 143)		Faschingbauer's Factors * (n = 260)**
Past Behaviors	1	2	
1. After my spouse died I found it hard to get along with certain people.	**.56**	.06	I
2. I found it hard to work well after my spouse died.	**.80**	.27	I
3. After my spouse's death I lost interest in my family, friends, and outside activities.	**.65**	.17	I
4. I felt a need to do things that the deceased had wanted to do.	**.41**	.31	I
5. I was usually irritable after my spouse died.	**.67**	.29	I
6. I couldn't keep up with my normal activities for the first 3 months after my spouse died.	**.60**	**.47**	I
7. I was angry that my spouse who died left me.	**.61**	.14	I
8. I found it hard to sleep after my spouse died.	**.50**	.32	I
Present Feelings			
1. I still cry when I think of my spouse who died.	.22	**.71**	II
2. I still get upset when I think about my spouse who died.	**.62**	**.52**	II
3. I cannot accept my spouse's death.	**.62**	.35	II
4. Sometimes I very much miss my spouse who died.	.32	**.67**	II
5. Even now it's painful to recall memories of my spouse who died.	.25	**.62**	II
6. I am preoccupied with thoughts (often think) about my spouse who died.	**.52**	**.61**	II
7. I hide my tears when I think about my spouse who died.	.21	.28	II
8. No one will ever take the place in my life of my spouse who died.	.11	**.48**	II
9. I cannot avoid thinking about my spouse who died.	.17	**.77**	II
10. I feel it's unfair that my spouse died.	**.59**	**.41**	II
11. Things and people around me still remind me of my spouse who died.	.21	**.56**	II
12. I am unable to accept the death of my spouse who died.	**.66**	.34	II
13. At times I still feel the need to cry for my spouse who died.	.30	**.73**	II
Eigenvalue	9.22	1.86	Not available

* Actual loadings of Faschingbauer's factors are not available.

** Faschingbauer used a sample of 260 bereaved persons, but did not indicate if all 260 were used in the factor analysis. Factor loadings $\geq .40$ are in bold type.

Note. Bold type is used to distinguish the factor that an item loaded highest on for Suzuki's sample.

The four items from TRIG-Present Feelings included on Suzuki's Factor 1 (items #2, 3, 10, and 12) were different from Faschingbauer et al.'s factors (1987) (see Table 38). TRIG-Present Feelings items #2 and 10 had factor loadings that exceeded .40 for both factors. These differences will be discussed in Chapter 5.

The BI. Factors in the BI with the CES-D included, and factors in the BI with the CES-D excluded, were explored using a Varimax-rotated principal component analysis. The criteria for the number of factors to be rotated were the number of factors with eigenvalues greater than 1.00 and visual inspection of a scree plot. Table 39 lists factor loadings for the BI and the CES-D items in Jacobs's sample (Jacobs et al., 1987) and factor loadings for the BI and the CES-D items in the current sample (Suzuki A). Table 40 lists factor loadings for the BI without the CES-D items (Suzuki B) in the current sample.

For the BI and the CES-D items (38-item Bereavement Items), 8 factors were extracted from this sample (see Table 39). Factor 1 included 14 items from the CES-D (items #1, 2, 3, 5, 6, 7, 9, 10, 11, 13, 14, 17, 18, and 20). Factor 2 included five items from BI-Numbness and Disbelief (items #1, 2, 3, 4, and 5) and three items from BI-Separation Anxiety (items #1, 3, and 12; #12 loaded greater than .40 for Factor 5). Factor 3 included four items from BI-Separation Anxiety (items #2, 4, 5, 6). Factor 4 included four items from BI-Separation Anxiety (items #7, 8, 9, and 10; item #10 loaded lower than .30; item #7 loading exceeded .40 for Factor 2). Factor 5 included only one item (item #11) from BI-Separation Anxiety. Factor 6 included one item from BI-Numbness and Disbelief (item #6) and two items from the CES-D (items #15 and 19). Factor 7

Table 39

Factor Loadings for the Bereavement Items Including CES-D Using a Varimax Rotation: Comparison between Jacobs et al.'s and Suzuki A Factors

Items	Jacobs et al.'s Factors (included CES-D) (n = 218) *											Suzuki's A Factors (included CES-D) (n = 138)							
BI-Numbness and Disbelief	1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8
1. Feel stunned or dazed?		**.83**											**.69**						
2. Feel numb?		**.87**											**.80**						
3. Experience disbelief of what happened?		**.54**											**.77**						
4. Lose control of your feelings?		**.46**											**.68**						
5. Feel as if you were going to burst emotionally?		**.48**											**.69**						
6. Experience a dread of impending trouble?		**.57**															**.60**		.36
BI-Separation Anxiety																			
1. Feel upset when your thinking turned to your (husband/wife)?					**.64**								**.47**						
2. Long (yearn) to have your (husband/wife) back as (he/she) was before the last illness?					**.45**									**.58**					
3. Feel tense, nervous or fidgety?	**.50**												**.64**						
4. (was) your mind preoccupied with thoughts of your (husband/wife)?					**.51**									**.63**					
5. Feel a need to call your (husband's/wife's) name?			**.46**											**.72**					
6. Feel drawn to places and things associated with your (husband/wife)?			**.56**											**.69**					
7. Sometimes experience mental images so vivid that for a moment it was as if your (husband/ wife) were there (when (he/she)was absent)?			**.75**										**.44**		**.53**				
8. Sometimes hear things associated with your (husband/wife), e.g., hear (his/her) footsteps on the stairs (when (he/she) was absent)?			**.80**												**.68**				
9. Sometimes feel as if your (husband/wife) were with you and touched you (when (he/she) was absent)?			**.66**												**.65**				
10. Dream of your (husband/wife)?															.28				
11. Sigh a lot?																**.59**			
12. Feel as if you were about to cry?	**.71**				**.42**								**.49**			**.47**			
continued																			

continued

continued

Table 39

Factor Loadings for Bereavement Items Including CES-D Using a Varimax Rotation: Comparison between Jacobs et al's and Suzuki A Factors(Cont.)

Items	Jacobs's Factors (included CES-D)											Suzuki's A Factors (included CES-D)							
CES-D	1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8
1. I was bothered by things that usually don't bother me.												**.51**							
2. I did not feel like eating; my appetite was poor.									**.62**			**.66**							
3. I felt that I could not shake off the blues even with help from my family or friends.	**.45**										**.46**	**.65**	**.45**						
4. I felt that I was just as good as other people.																		**.62**	
5. I had trouble keeping my mind on what I was doing.				**.47**								**.77**							
6. I felt depressed.	**.56**											**.77**							
7. I felt that everything I did was an effort.				**.67**								**.83**							
8. I felt hopeful about the future.							**.59**											.29	
9. I thought my life had been a failure.								**.50**				**.57**							
10. I felt fearful.										**.57**		**.48**							
11. My sleep was restless.												**.61**							
12. I was happy.	**.56**						**.43**											.24	
13. It seemed that I talked less than usual.								**.52**				**.71**							
14. I felt lonely.	**.72**											**.67**				**.41**			
15. People were unfriendly.						**.72**											**.63**		
16. I enjoyed life.	**.40**						**.64**											**.66**	
17. I had crying spells.	**.65**											**.51**				**.44**			
18. I felt sad.	**.77**											**.59**				**.54**			
19. I felt that people dislike me.						**.79**											**.52**		
20. I could not "get going."				**.60**								**.61**							
Eigenvalue	Not available											16.3	2.38	2.02	1.61	1.36	1.28	1.24	1.02

* Jacobs et al.'s (1987) sample included 218 persons (151 bereaved and 67 nonbereaved persons), did not indicate if all 218 were used in the factor analysis.

Note. Factor loadings ≥ .40 are in bold type. Jacobs' eigenvalues are not available.

included four positively worded items from the CES-D (items #4, 8, 12, and 16); however, items #8 and 12 had factor loadings below .30. Although Factor 8 had an eigenvalue greater than 1.00, none of the item met the criteria for highest factor loading.

Suzuki A factors (Factors 1 to 7) were compared with Jacobs's factors (Factors 1 to 11) (see Table 39). Suzuki A Factor 1 was somewhat different from Jacobs's Factor 1. That is, Suzuki A Factor 1 included 14 of 20 items on the CES-D, whereas Jacobs' Factor 1 included 7 items on the CES-D. Suzuki A Factor 2 was moderately similar to Jacobs's Factor 2. Suzuki A Factor 3 and Factor 4 were moderately different from Jacobs's factors. That is, Suzuki A Factor 3 contained two items from Jacobs's Factor 3 and two items from Jacobs's Factor 5, and Suzuki A Factor 4 included three items from Jacobs's Factor 3. Suzuki A Factor 6 and Factor 7 were comparatively similar to Jacobs' factors. These differences will be discussed in Chapter 5.

In relation to Suzuki A factors (included CES-D), Factor 1 was labeled "depressive affect, somatic symptoms, and retarded activities;" Factor 2 was labeled "protective responses, overwhelmed feelings, and restless;" Factor 3 was labeled "emotional yearning for the deceased spouse;" and Factor 4 was labeled "sensing the presence of the deceased spouse." Factor 6 was labeled "negative perception of others" and Factor 7 was labeled "lack of positive affect." Factor 5 and Factor 8 were not labeled because they had only one or no item.

Next, for the BI without the CES-D items, 3 factors (Suzuki B factors) were extracted (see Table 40). Factor 1 included all six items from BI-Numbness and Disbelief and three items from BI-Separation Anxiety (items #1, 3, and 12; #1, 2, and 3 from

Table 40

Factor Loadings for the Bereavement Items Excluding CES-D Using a Varimax Rotation: Comparison between Suzuki A Factors (included CES-D) and Suzuki B Factors (excluded CES-D)

Items	Suzuki's A Factors (included CES-D) (n = 138)								Suzuki's B Factors (Excluded CES-D) (n = 138)		
BI-Numbness and Disbelief	1	2	3	4	5	6	7	8	1	2	3
1. Feel stunned or dazed?		**.69**							**.61**		
2. Feel numb?		**.80**							**.66**		
3. Experience disbelief of what happened?		**.77**							**.63**		
4. Lose control of your feelings?		**.68**							**.79**		
5. Feel as if you were going to burst emotionally?		**.69**							**.82**		
6. Experience a dread of impending trouble?						**.60**		.36	**.56**		
BI-Separation Anxiety											
1. Feel upset when your thinking turned to your (husband/wife)?		**.47**							**.63**		
2. Long (yearn) to have your (husband/wife) back as (he/she) was before the last illness?			**.58**							**.70**	
3. Feel tense, nervous or fidgety?		**.64**							**.69**		
4. (was) your mind preoccupied with thoughts of your (husband/wife)?			**.63**							**.73**	
5. Feel a need to call your (husband's/wife's) name?			**.72**							**.77**	
6. Feel drawn to places and things associated with your (husband/wife)?			**.69**							**.69**	
7. Sometimes experience mental images so vivid that for a moment it was as if your (husband/wife) were there (when (he/she)was absent)?		**.44**		**.53**							**.57**
8. Sometimes hear things associated with your (husband/wife), e.g., hear (his/her) footsteps on the stairs (when (he/she) was absent)?				**.68**							**.75**
9. Sometimes feel as if your (husband/wife) were with you and touched you (when (he/she) was absent)?				**.65**							**.77**
10. Dream of your (husband/wife)?				**.28**							.35
11. Sigh a lot?					**.59**					**.50**	
12. Feel as if you were about to cry?		**.49**			**.47**				**.55**		
Eigenvalue	Not available for only the Bereavement Items								9.69	1.45	1.16

Note. Factor loadings ≥ .40 are in bold type.

BI-Numbness and Disbelief had factor loadings exceeding .40 for Factor 3). Factor 2 included five items from BI-Separation Anxiety (items #2, 4, 5, 6, and 11; #11 had factor loading greater than .40 for Factor 1). Factor 3 included four items from BI-Separation Anxiety (items #7, 8, 9, and 10; #7 had factor loadings that exceeded .40 for Factor 1).

Suzuki B factors (Factors 1, 2, and 3) were compared with Suzuki A factors (Factors 2, 3, and 4) regarding the 18 items on BI-Numbness and Disbelief and BI-Separation Anxiety (see Table 40). Suzuki B Factor 1 was identical with Suzuki A Factor 2 except for one item (item #6 from BI-Numbness and Disbelief). Suzuki B Factor 2 was identical with Suzuki A Factor 3 except for one item (item #11 from BI-Separation Anxiety). Suzuki B Factor 3 was identical with Suzuki A Factor 4.

Because Suzuki B factors were mostly similar to Suzuki A factors, the same labels were used. That is, Factor 1 was labeled "protective responses, overwhelmed feelings, and restless," Factor 2 was labeled "emotional yearning for the deceased spouse," and Factor 3 was labeled "sensing the presence of the deceased spouse."

Hypothesis-Testing Procedures on Social Support Scales

Construct validity of social support scales (i.e., Satisfaction with Help received prior to the death of a spouse, Satisfaction with Social support, Availability of Social Support) was assessed using hypothesis-testing procedures. The hypotheses were:

1. Widowed persons who have adequate social support (i.e., availability, satisfaction) will report better physical health than those who do not (Hypothesis 3).
2. Widowed persons who have adequate social support will have higher morale than those who do not (Hypothesis 4).

3. Widowed persons who have adequate social support will have lower depression scores than those who do not (Hypothesis 5).

4. Widowed persons who have adequate social support will report less loneliness than those who do not (Hypothesis 6).

Pearson product correlation coefficients were used to explore these hypotheses. The level of probability was set at $p < .05$. Table 39 presents the summary of correlations between social support and physical health, morale, depression, and loneliness.

Hypothesis 3. Only 2 of 10 correlation coefficients supported Hypothesis 3. Satisfaction with Social Support after the death of a spouse was significantly correlated with Health Problem-Medical ($r = -.22$, $p = .007$) and RAND-Energy/Fatigue ($r = .17$, $p = .05$). However, Satisfaction with Help received prior to the death of a spouse and Availability of Social Support after the death of a spouse were not significantly correlated with physical health (see Table 41).

Hypothesis 4. One of three correlation coefficients supported Hypothesis 4. Satisfaction with Social Support after the death of a spouse was significantly correlated with morale ($r = .21$, $p = .01$) although Satisfaction with Help received prior to the death of a spouse was not. Availability of Social Support was not significantly correlated with morale (see Table 41).

Hypothesis 5. Only 1 of 9 correlation coefficients supported Hypothesis 5. In the entire sample, there were no significant relationships between social support and depression (see Table 41). The sample was divided into two groups based on the length of widowhood to further examine Hypothesis 5. Group 1 included subjects who had been

Table 41
Correlations between Social Support and the Physical Health Scales, the Revised Philadelphia Geriatric Center Morale Scale (Revised PGC Morale Scale), the Center for Epidemiologic Studies Depression (CES-D), and the UCLA Loneliness Scale

Scale Name	Satisfaction with Pre-death Help	Satisfaction with Social Support	Availability of Social Support
Physical Health			
Health Problem-Medical	-.02	-.22 *	.03
Health Problem-System	-.02	-.08	.04
RAND-Physical	.03	.08	-.13
RAND-Energy/Fatigue	.16	.17 *	.05
RAND-General Health	.03	.13	-.11
Revised PGC Morale Scale	.11	.21*	.02
CES-D			
Total sample (n = 137)	-.09 (n = 98)	-.12 (n = 137)	-.05 (n = 137)
Group 1 (n = 98)	-.20 (n = 70)	-.04 (n = 98)	-.05 (n = 98)
Group 2 (n = 39)	-.21 (n = 28)	-.35* (n = 39)	-.06 (n = 39)
UCLA Loneliness Scale	-.28*	-.26*	-.14

* $p \leq .05$

bereaved from 2 to 13 months and Group 2 included subjects who had been bereaved 13.5 to 24 months. These time frames were determined based on the cultural idea that in Japan, elderly widowed persons usually receive abundant support from their adult children, relatives, and friends until 1 year after the death of their spouse. Satisfaction with Social Support after the death of a spouse was negatively correlated with depression (r = -.35, p = .028) for widowed persons in Group 2 (see Table 41).

Hypothesis 6. Two of the three correlation coefficients supported Hypothesis 6. Satisfaction with Help received prior to the death of a spouse and Satisfaction with Social Support after the death of a spouse were significantly correlated with loneliness (r = -.28, p = .004 for Satisfaction with Help received prior to the death of a spouse and r = -.26, p = .002 for Satisfaction with Social Support after the death of a spouse). However, Availability of Social Support after the death of a spouse was not significantly associated with loneliness (see Table 41).

Hypothesis-Testing Procedures of the Scales on the Quality of the Past Relationship with the Deceased

Construct validity of the quality of the past relationship with the deceased (i.e., the Marital Adjustment Scale, the Quality Marriage Index) was evaluated using hypothesis-testing procedures. The hypotheses were:

1. Widowed persons who had a better past relationship with the deceased or a happier marriage will have a greater intensity of grief than those who did not (Hypothesis 2).
2. Widowed persons who had a better past relationship with the deceased or a happier marriage will have higher morale than those who did not (Hypothesis 7).

Hypothesis 7. There were no significant correlations between the revised PGC Morale Scale and Quality Marriage Index (r = .04) or Marital Adjustment Scale (-.02). These findings did not support Hypothesis 7.

CHAPTER 5

DISCUSSION AND CONCLUSION

This chapter is organized into five sections. In the first section, the validity of the newly translated measures (i.e., the Texas Revised Inventory of Grief (TRIG), the Bereavement Items (BI), Availability of Social Support, Satisfaction with Social Support, the Quality Marriage Index, the Marital Adjustment Scale) is discussed in their unique context. In the next section, selected measures used with Japanese elderly widowed persons are assessed in terms of internal consistency reliability and item-total correlations. In the third section, the findings on descriptive statistics for the key measures (i.e., the Center for Epidemiologic Studies Depression Scale (CES-D), the TRIG, the BI) are discussed in relation to findings from previous research in the United States. In the fourth section, the findings for selected measures are discussed from a methodological standpoint. In the fifth section, the limitations of this study are described. Moreover, the implications of the study for the development of nursing theory, nursing practice, and future research are discussed. Finally, conclusions are drawn and a brief summary of this research is provided.

Validity of Newly Translated Measures

The validity of the newly translated measures (i.e., the TRIG, the BI, Availability of Social Support, Satisfaction with Social Support, the Quality Marriage Index, the Marital Adjustment Scale) was evaluated using hypothesis-testing procedures, convergent and discriminant validity, and factor analysis.

The TRIG and the BI

Convergent and Discriminant Validity

The majority of findings supported the convergent and discriminant validity of the BI and the TRIG. However, correlations between the CES-D and the BI or the TRIG in the subjects who had been bereaved from 2 to 12 months did not fully support convergent and discriminant validity. These findings may be due, in part, to grief being a complex, evolving process with multiple dimensions, and not a simple emotional state that diminishes over time (Jacobs et al., 1987). According to attachment theory (Bowlby, 1980), grief has multiple dimensions that are characterized as numbness and disbelief, separation anxiety, and despair and depression. These dimensions do not constitute clear cut stages or experiences; that is, many widowed persons who had been bereaved from 2 to 12 months reported experiencing numbness and disbelief, manifestations of separation anxiety, and/or episodes of depressive symptoms, even though the intensity for the three dimensions varied. The correlations (.58 to .69) between the CES-D and the BI or the TRIG were similar to or greater than the correlations between the BI and the TRIG (.55 to .65). Therefore, these findings may not necessarily be in disagreement with the convergent and discriminant validity of the BI and the TRIG because of the overlap between the symptoms experienced in grief and depression. The CES-D may not be the best measure of depression to use for convergent and discriminant validity since it was developed for research in community samples. An instrument that is used for clinical screening (such as the Beck Depression Inventory) may show greater discrimination.

Hypothesis-Testing Procedures

Hypotheses 1, widowed persons who are bereaved 1 year or less will have a greater intensity of grief than those who are bereaved more than 1 year, and Hypothesis 2, widowed persons who had a better past relationship with the deceased or a happier marriage will have a greater intensity of grief than those who did not, were developed based on the findings from eight studies conducted in the United States and one Japanese study. The grief scales, including TRIG-Past Behavior, TRIG-Present Feelings, BI-Numbness and Disbelief, BI-Separation Anxiety, and BI-Depression (CES-D), were used for a cross-sectional sample. Hypothesis 2 was supported by the findings in this study, but Hypothesis 1 was not fully supported. However, the pattern of grief scores over time for Japanese widowed persons in this cross-sectional study looks similar to that for widowed persons in longitudinal studies in the United States (see Table 42). For example, when comparing the BI-Separation Anxiety scores over time in Jacobs et al.'s (1986) sample and those in the current sample, mean scores in the current sample are higher than those in Jacobs et al.'s sample, but the scores decrease over time in a similar pattern. An additional finding for the Japanese sample was that the mean scores on BI-depression and TRIG-Past Behavior were higher and the change scores over time were smaller when compared with samples from the United States. However, the patterns over time are similar.

Regarding TRIG-Present Feelings, Japanese widowed persons who had been bereaved for 11 to 13 months had higher mean scores than those who were widowed 7 to 10.5 months (see Figure 7, p. 174). This finding indicates that the intensity of grief for

Table 42
Comparison of the Texas Revised Inventory of Grief (TRIG) Scores in This Study with Studies Done in the United States

Study	Sample	Length of Widowhood	TRIG-past behavior Mean	TRIG-present feelings Mean
Suzuki, 1997	149 widowed persons (27 men and 122 women) who ranged in age from 65 to 86, with a mean age of 71.2.	Between 3.5 and 6.5 months (n = 40)	24.0	49.44
		Between 7 and 10.5 months (n = 31)	21.9	43.26
		Between 11 and 13 moths (n = 22)	21.2	45.20
		Between 13.5 and 24 months (n = 44)	21.0	43.08
Faschingbauer, Zisook, & DeVaul, 1987	260 persons (96 men and 164 women with a mean age of 38) and 328 persons (92 men and 236 women with a mean age of 33) who lost a loved person (e.g., friends, family members).	1 year and less (n = 62)	15.7	34.2
		More than 1 year and less than 5 years (n = 152)	17.8	37.1
Thompson, Gallagher-Thompson, Futterman, Gilewski, & Peterson, 1991	123 widowed persons (42 men and 81 women) aged from 55 to 83, with a mean age of 68.2.	2 months after the death	19.33	44.4
		12 months after the death	19.17	38.8
		30 months after the death	17.65	36.0
Caserta & Lund, 1993	339 widowed persons (100 men and 239 women) aged 50 to 91, with a mean age of 67.2	Between 2 and 3 months	no data	43.5
Prigerson, Frank, Kasl, Reynolds, Anderson, & Zubenko, 1995	56 recently widowed elderly persons (18 men and 38 women) aged 60 to 85 years	between 3 and 6 months	no data	45.6
		18 months after the death	no data	37.7
Zandt, Mou, & Abbott, 1989	50 elderly widowed persons (25 men and 25 women) aged 55 to 92	between 6 weeks and 4 months	no data	42.8
		between 9.5 and 12 months	no data	39.2
		between 21.5 and 24 months	no data	36.0
		3.5 years after the death	no data	35.7

Japanese elderly widowed persons may diminish over time; however, it may increase temporarily around 11 to 13 months. This may be due to the influences of the anniversary of his or her spouse's death. In Japan, the anniversary of a person's death is one of the most important memorial services for the bereaved persons to remember the deceased person. The first year anniversary may have greatly influenced the widowed persons' feelings of grief. Longitudinal studies are needed to gain additional information about how the intensity of grief changes over time for Japanese widowed persons.

Factor Analysis

The findings of factor analysis of the TRIG and the BI showed two similarities and some differences between the current study and the original studies (Faschingbauer et al., 1987; Jacobs et al., 1987) of the TRIG and the BI. One similarity is that from the factor loadings of the TRIG in the current study and the original study yielded two factors which indicated two dimensions (i.e., life disruption behavior at the time his or her spouse died, present feelings) even though there are some differences in items included in each factor between both studies. Another similarity is that factor loadings of the BI in both the current study and Jacobs et al.'s study included four factors which are understood meaningfully within the framework of attachment theory (Bowlby, 1980). The differences in the findings of factor analysis of the TRIG and the BI are discussed below.

Regarding factor loadings of the TRIG, four items (item #2, 3, 10, and 12) from TRIG-present feelings included in Suzuki's Factor 1 were different from Faschingbauer et al.'s (1987) Factor 1 (see Table 38, p. 176). These differences may be due, in part, to

differences in sampling between the current study and Faschingbauer's study (1987) and to cultural differences between the United States and Japan. The current sample included 149 Japanese elderly widowed persons (mean age 71.2) who had been bereaved for 2 to 24 months, whereas Faschingbauer's sample included 260 bereaved persons (mean age 38) who had lost a loved person (e.g., spouses, children, siblings, friends) and had been bereaved from less than 1 year to more than 10 years. These differences in sampling may have produced the differences in the factor loadings between the current study and Faschingbauer's study.

In Japan, widowed persons hold a funeral following the death and then subsequent memorial services (e.g., 7th, 14th, 21st, 28th, 35th, and 49th day after the death, the first year anniversary) are held for the deceased. These services keep widowed persons busy, which provides them a period of time during which they can postpone facing the death of the deceased. One possible explanation of the four items (e.g., "I am unable to accept the death of my spouse", "I still get upset when I think about my spouse who died") from TRIG-present feelings included in Suzuki's Factor 1 is that widowed persons who had reported greater disruption in their behaviors at the time their spouses died (higher scores on TRIG-Past Behavior) may have continued experiencing higher levels of disruption and have avoided confronting the death of their spouses. Therefore, Japanese cultural influences may have produced the differences in the factor loadings between the current study and Faschingbauer's study (1987).

Regarding factor loadings of the BI with the CES-D included, there were differences between Suzuki's A factors and Jacobs et al.'s (1987) factors (see Table 37,

p. 170). For example, the number of items that loaded on Suzuki's A Factor 1 was 14 (.48 to .83) in contrast to 7 items (.40 to .77) on Jacobs et al.'s Factor 1. These differences in Suzuki's A factors and Jacobs et al.'s factors may be due, in part, to differences in sampling and differences in culture (including differences in expression of feelings). Jacobs et al.'s sample included 150 widowed persons who had been bereaved for 21 to 232 days and 68 nonbereaved spouses of persons with life-threatening illnesses (mean age 61.9), whereas the current sample included only 149 elderly widowed persons (mean age 71.2) who had been bereaved 2 to 24 months (i.e., approximately 60 to 720 days). These differences in sampling also may have produced the differences in factor loadings on the BI between Jacobs et al.'s study and this study.

As discussed previously, Japanese culture may influence the grief process (i.e., the intensity of grief, the duration of the grief process) for Japanese widowed persons. Cultural differences also may have influenced the factor loadings on the BI with the CES-D for the current study. For example, the differences between Suzuki's A Factor 1 and Jacobs et al.'s (1987) Factor 1 reflect that Japanese widowed persons experience more depressive symptoms when compared with widowed persons who have been bereaved for a similar length of time in the United States. Japanese society may expect that widowed persons go into mourning without showing an interest in joyful events, and widowed persons usually accede to societal ideas. These circumstances may influence the experience of depressive symptoms and expression of feelings for Japanese widowed persons (i.e., "give permission" to experience the symptoms).

Overall, factor loadings of the TRIG and the BI in this study support the major

dimensions that the researchers who developed the measures identified. However, there were some differences in items included in each factor between the current study and original studies. Based on factor analysis data with Japanese elderly widowed persons, additional work is needed to explore the validity of the TRIG and the BI.

Summary

The validity of the two grief scales (i.e., the TRIG, the BI) was assessed using convergent and discriminant validity, hypothesis-testing procedures, and factor analysis. The findings of these procedures suggest that the two scales can be used to measure grief for Japanese widowed persons. However, additional psychometric testing should be undertaken to further develop our understanding of the measures within the Japanese culture.

Social Support Scales

Hypotheses 3, widowed persons who have adequate social support will have better physical health than those who do not, Hypothesis 4, widowed persons who have adequate social support will have higher morale than those who do not, Hypothesis 5, widowed persons who have adequate social support will have lower depression scores than those who do not, and Hypothesis 6, widowed persons who have adequate social support will less loneliness than those who do not, were developed based on the findings from 10 studies conducted in the United States and 2 studies conducted in Japan. The social support scales, including Satisfaction with Social Support after the death of a spouse, Satisfaction with Help received prior to the death of a spouse, and Availability of Social Support after the death of a spouse, were used to measure adequate social support.

The widowed person's perception of the availability of social support after the death of a spouse was not correlated with any outcome variables (i.e., physical health, morale, depression, loneliness) in the current study. Although this is consistent with work of Tudiver et al. (1991), the remaining nine studies from the United States found that availability of social support was predictive of selected outcome variables. These differences may be due, in part, to differences in interpersonal relationships within the United States and Japan.

Since the marital relationship in Japan is mostly based on an *amae* relation (mutual interdependency); spousal bereavement means the loss of the most fundamental *amae* relation. That is, a widowed person has lost the most important person whom he or she can depend on and ask for help from without *enryo* (the expectation that when support is received it must be given back even though it is not necessarily expected). After the loss of a spouse, widowed persons need to receive support through their other relationships. Some widowed persons may have family members who could provide them with support if they asked for it; however, they decide not to because they are concerned about the additional burden this would place on the individual (irrespective of whether the relationship with the family member is *uchi* or *giri*). Therefore, the perception of availability of social support after the death of a spouse may have influenced the Japanese widowed persons adjusting to spousal bereavement in a different way than found in previous studies conducted in the United States.

For the entire sample in this study, Satisfaction with Social Support after the death of a spouse was significantly related to all outcome variables except depression.

This scale was correlated with depression for only widowed persons who had been bereaved 13.5 to 24 months ($n = 39$). In Japan, elderly widowed persons usually receive abundant support from their adult children, relatives, friends, and neighbors until 1 year after the death of their spouse. After that period, some widowed persons may lose their social support, and therefore, be less satisfied with it. This interpretation is supported by the finding that widowed persons had been had been bereaved for 2 to 13 months had significantly greater Satisfaction with Social Support after the death of a spouse ($t = -2.12$, $p < .05$) than those who had been bereaved for 13.5 to 24 months.

Although Bass et al. (1991) found that satisfaction with caregiving support had a positive and a more beneficial effect on widowed persons' subsequent bereavement adjustment than did their satisfaction with bereavement support, Satisfaction with Help received prior to the death of a spouse was correlated with only one outcome variable (i.e., loneliness) in this study. Overall, Satisfaction with Social Support after the death of a spouse may have a positive effect on adjusting to spousal bereavement. This scale appears to be the best indicator of social support of the three used in the current study to predict outcomes for Japanese widowed persons. Of the two previous studies conducted in Japan, one study used a qualitative research method and the other study used a different conceptualization (i.e., social support network). The conceptualization of support as ones social support network and confidant network may be useful to predict outcomes for Japanese widowed persons because of a previous finding in Japan that the number of child was negatively correlated with loneliness (Kawai, 1984). Because the scale for Satisfaction with Social Support after the death of a spouse currently is only a

2-item measure, additional instrument development should be undertaken.

Quality of the Past Relationship with the Deceased

Hypotheses 2 (see p. 185) and Hypothesis 7, widowed persons who had a better past relationship with the deceased or happier marriage will have higher morale than those who did not, were developed based on the findings from five studies conducted in the United States and two studies conducted in Japan. Two scales on the quality of the past relationship with the deceased, including the Quality Marriage Index and the Marital Adjustment Scale, were used for this study. Hypothesis 2 was supported by the findings of this study. This finding may mean that the relationship between the quality of the past relationship with the deceased and the intensity of grief for Japanese widowed persons is comparable to that for elderly widowed persons in the United States.

On the other hand, Hypothesis 7 was not supported by the findings in this study. This finding is not consistent with previous studies in the United States (Farnsworth et al., 1989) and in Japan (Okamura, 1993). These differences between the findings in the current study and those in previous studies may be due, in part, to response bias in the current sample. The mean scores on the Quality Marriage Index and the Marital Adjustment Scale were significantly and negatively skewed ($r = -.86$, $p < .01$ for the Quality Marriage Index, -.44, $p < .05$ for the Marital Adjustment Scale). This means that there was a restricted range within which the subjects rated the quality of the past relationship with the deceased as being positive. One possible interpretation of this finding is that social desirability and/or a positive bias in recall about the quality of the marriage may have influenced the results.

Addressing validity assessment of the scales on the quality of the past relationship with the deceased, inconsistent results were found. Therefore, additional research is needed to explore how to measure the quality of the past relationship with the deceased for Japanese widowed persons.

Reliability of Selected Measures

All measures used in this study were assessed in terms of internal consistency reliability and item-total correlation. Measures that worked well or relatively well with the current sample are discussed first, followed by one measure that did not work well with this sample.

Acceptable Levels of Reliability

Regarding internal consistency reliability, Cronbach's alphas for all scales except the 13-item form of Marlowe-Crowne Social Desirability Scale (M-C SDS) and the Health Problem-Medical were greater than .70 thereby reaching an acceptable level for research purposes (Nunnally, 1978). The low alpha of .52 which was predictable for the Health Problem-Medical, may have resulted from the widowed elderly subjects reporting a variety of health problems. The alpha value of .64 for the 13-item form of M-C SDS, although lower than reported previously with samples in the United States, was not unexpected given other findings with 10-item versions of the M-C SDS. Strahan and Gerbasi (1972) reported K-R 20 reliability coefficients between .49 and .75 with university students and British males.

Regarding the item-total correlations for the scales, all items of the TRIG, the BI, Availability of Social Support, Satisfaction with Social Support, the Quality Marriage

Index, the Marital Adjustment Scale, RAND-Energy/Fatigue, and RAND-General Health had high values (.30 or more) which is desirable (Devellis, 1991). Approximately 20% or greater of the items from these scales had item-total correlations below .30; these scales included: the CES-D (6 of 20 items, 30%), and the revised UCLA Loneliness Scale (6 of 20 items, 30%), the revised Philadelphia Geriatric Center Morale Scale (revised PGC Morale Scale) (3 of 17 items, 18.8%).

Overall, all selected measures worked well or relatively well with the current sample in terms of internal consistency reliability and item-total correlations. The three scales having lower item-total correlations will be discussed in the section on methodological issues.

Measure that Requires Additional Development/Psychometric Testing

The internal consistency reliability of the 13-item form of M-C SDS was lower than desired ($\alpha = .64$) and seven item-total correlations were lower than .30 (see Table 43). Item-total correlations and the percentage of subjects who responded to the individual items in a socially desirable direction were compared with Reynolds' (1982) findings for 608 undergraduate students in the United States (see Table 43).

These differences between the findings in this study and Reynolds' findings may be due, in part, to cultural differences. For example, regarding item #1, 77% of the subjects in this study responded to the item in a socially desirable direction compared with 36% in Reynolds' sample. For Japanese elderly persons who were educated before World War II when education on moral training held an important position, "to be patient", "to work hard", and "to perform one's duty" are presumably their values, creed,

or both. Therefore, "to go on with my work if I am not encouraged" also may be a value, a creed, or both rather than a socially desirable response in the current sample.

Regarding item #4, 79% of the subjects responded to this item in a socially desirable direction compared with 37% in Reynolds' sample. Japanese persons, especially elderly persons, are more likely to defer to people in authority. Therefore, the answer of "false" to the item, "There have been times when I felt like rebelling against people in authority even though I knew they were right," may not be necessarily their socially desirable response.

With regard to item #6, "There have been occasions when I took advantage of someone," the item-total correlation of this item was .08. Fifty-three percent of the subjects responded to the item in a socially desirable direction compared with 43% for Reynolds' sample. Japanese persons have *amae* (mutual interdependency) relations with persons in *uchi* relationships (see p. 70 for more information). In *uchi* relationships, it is not uncommon for a Japanese person to take advantage of his or her family members; that is, nothing bad will happen if the person takes advantage of a family member if this family member has good feelings for him or her. However, this experience is not true of relationships in *giri* and *soto*. Some subjects may have thought of the situation in relation to *uchi* relationships, whereas others may have thought of the situation in relation to *giri* relationships and responded accordingly; this difference may have produced the lower item-total correlation for this item.

With regard to item #8, "I sometimes try to get even rather than forgive and forget," 79% of the subjects responded to this item in a socially desirable direction

compared with 47% for Reynolds' sample. Most Japanese persons may be angry with and complain about bad treatment from another person. Some people may try to teach this person manners, whereas other people may let the matter drop. However, only a few Japanese elders may try to get even. Therefore, this item "try to get even" may reflect an extreme response to measure with this population.

With respect to item #13, "I have never deliberately said something that hurt someone's feelings," 85% of the subjects responded to the item in a socially desirable direction compared with 38% for Reynolds' sample. These responses are presumably related to the Japanese value of "*wa*." In order to keep harmony in the group, Japanese persons may not deliberately say something that hurts someone's feelings. Therefore, most subjects presumably responded "true" to the item.

Item-total correlations for 12 of the 13 items in the current sample were lower than were those in Reynolds' sample. In addition, Japanese subjects responded to 12 of the 13 items in a more socially desirable direction than did in Reynolds' subjects. The average difference in the percentage who responded in a socially desirable direction was 24.4% (see Table 43). In Japanese society, *wa* (harmony) is a central value. Japanese persons value the rules in the group to which they belong, and they control themselves and fit their acts into this group. Japanese individuals are sensitive about other persons' expectations for them in the group, and therefore, they are more likely to respond in a socially desirable manner than are people in the United States. "Social desirability" responses are grounded within one's culture.

Table 43

Comparisons on Item-total Correlations and Percent of Subjects Who Responded to the Item in a Socially Desirable Direction between the Current Sample and Reynolds' Sample (1982)

Item	Current Sample		Reynolds' Sample		Differences	
	r	%	r	%	r	%
1. It is sometimes hard for me to go on with my work if I am not encouraged.	**.15**	77%	.36	36%	-.21	41%
2. I sometimes feel resentful when I don't get my way.	.39	26%	.49	30%	-.10	-4%
3. On a few occasions, I have given up doing something because I thought too little of my ability.	**.29**	59%	.35	44%	-.06	15%
4. There have been times when I felt like rebelling against people in authority even though I knew they were right.	**.18**	79%	.35	42%	-.17	37%
5. No matter who I am talking to, I'm always a good listener.	.40	79%	.36	59%	.04	20%
6. There have been occasions when I took advantage of someone.	**.08**	53%	.43	34%	-.35	19%
7. I'm always willing to admit it when I make a mistake.	.32	80%	.41	61%	-.09	19%
8. I sometimes try to get even rather than forgive and forget.	**.18**	79%	.43	47%	-.25	32%
9. I am always courteous, even to people who are disagreeable.	.35	78%	.40	55%	-.05	23%
10. I have never been irked when people expressed ideas very different from my own.	**.28**	54%	.48	30%	-.20	24%
11. There have been times when I was quite jealous of the good fortune of others.	.33	69%	.48	30%	-.15	39%
12. I am sometimes irritated by people who ask favors of me.	.42	55%	.45	50%	-.03	5%
13. I have never deliberately said something that hurt someone's feelings.	**.21**	85%	.38	38%	-.17	47%

Note: Bold text is items which had low values (less than $\underline{r}$ = .30) for item-total correlation.
r = item-total correlation, % = percent of subjects who responded to the item in the keyed (social desirable) direction, Differences = current sample's data minus Reynolds's sample's data.

In addition to the differences in item-total correlations, the correlation between the 13-item form of M-C SDS and the revised PGC Morale Scale ($r = .18$) in this study was lower than previously reported by Kozma and Stones (1987) in the United States. These researchers, who studied 75 persons between age 51 and 82, reported a significant correlation of .42 for the M-C SDS and the revised PGC Morale Scale. Carstensen and Cone (1983) reported a .70 correlation coefficient between PGC and Edward's Social Desirability Scale (a different measure) for 60 persons between ages of 66 to 86 years. Additional studies are needed to understand how best to measure socially desirable responses for Japanese elderly widowed persons and the relationships between social desirability and other variables of interest (e.g., morale, grief).

Meaning of the Findings for the Key Measures

This section includes the major findings for the key measures in this study. The findings in this study are compared with those from studies done in the United States. Finally, the potential meaning of the findings is discussed. Given that the current study used a cross-sectional design, the results on the CES-D and the grief scales (i.e., the TRIG, the BI) need to be interpreted with caution in relation to changes over time.

Descriptive Statistics of the CES-D

The mean score on the CES-D for widowed persons who had been bereaved for less than 6 months was 23.3, the mean score in those who had been bereaved between 6 and 12 months was 22.6, and the mean score in those who had been bereaved more than 12 months was 20.2. These mean scores were higher than were those in studies of elderly widowed persons in the United States (see Table 44). In addition, the change

score between the mean scores in this study (interval was 3.1) was smaller than was that in Mendes de Leon's (1994) study with widowed persons in the United States (interval was 12.2) (see Table 44). These particular findings indicate that (a) Japanese elderly widowed persons probably have higher CES-D scores reflecting expression of depressive symptoms than did widowed persons in the United States and (b) the degree of change in these reported symptoms in Japanese widowed persons potentially varies less over time than did that in the widowed persons in the United States.

Descriptive Statistics of the TRIG and the BI.

The mean score on the TRIG-Past Behavior was 24.0 for widowed persons who had been bereaved between 3.5 and 6.5 months, 21.9 for those who had been bereaved between 7 and 10.5 months, 21.2 for those who had been bereaved between 11 and 13 months, and 21.0 for those who had been bereaved between 13.5 and 24 months. These findings from this study were compared with those from studies done in the United States (see Table 42, p. 190). These means in this study were higher than Faschingbauer et al.'s (1987) findings (15.7 for persons who had been bereaved for 1 year and less, and 17.8 for persons who had been bereaved for 1 to 5 years) and Thompson et al.'s (1991) findings (19.33 for widowed persons at 2 months after the death, 19.17 for those at 12 months after the death, and 17.65 for those at 30 months after the death).

The means on the TRIG-Present Feelings were 49.44 for widowed persons who had been bereaved from 3.5 to 6.5 months, 43.26 for those who had been bereaved from 7 to 10.5 months, 45.20 for those who had been bereaved from 11 to 13 months, and 43.08 for those who had been bereaved from 13.5 to 24 months. The means for widowed

Table 44
Comparison of the Center for Epidemiologic Studies Depression (CES-D) Scores from the Current Study and Those from Studies Done in the United States

Study	Sample	Length of Widowhood	CES-D Mean Score	Change Score *
Suzuki, 1997	149 Japanese widowed persons (27 men and 122 women) ranged in age from 65 to 86.	Less than 6 months (n = 33) 6 to 12 months (n = 50) 12.5 to 24 months (n = 54)	23.3 22.6 20.2	3.1
Jacobs et al., 1986	150 widowed persons in the US (58 men and 92 women) who aged 61 and older.	1 month (n = 115) 1 to 4 months (n = 35) 6 months (n = 115)	16.1 13.6 9.4	6.5
Harlow et al., 1991b	136 widows in the US aged between 65 and 75.	1 month 12 months	14.3 4.7	9.6
Mendes de Leon, Kasl, & Jacobs, 1994	139 widowed persons in the US (57 men and 82 women) aged 65 and older, with a mean age 75.8.	Less than 6 months (n = 16) 6 to 12 months (n = 16) 12 to 24 months (n = 66)	21.7 14.4 9.5	12.2

* Note: Change score was calculated with last data point minus first data point

persons who had been bereaved from 3.5 to 6.5 months and for those who had been bereaved from 11 to 13 months were higher than the mean for widowed persons who had been bereaved between 2 and 3 months ($\underline{M}$ = 43.5) in Caserta and Lund's study (1993) and the mean for widowed persons who had been bereaved 2 months ($\underline{M}$ = 44.4) in Thompson et al.'s study (1991) (see Table 42, p. 190).

The mean score on the BI-Numbness and Disbelief for 34 widowed persons who had been bereaved less than 6 months was 5.25; the mean score for 50 widowed persons who had been bereaved between 6 and 12 months was 3.84; and the mean score for 56 widowed persons who had been bereaved between 12.5 and 24 months was 3.01. The mean score for widowed persons who had been bereaved between 2 and 12 months was higher than Jacobs et al.'s (1986) mean score ($\underline{M}$ = 3.1) for 68 widowed persons (aged 61 and older) who had been bereaved for 1 month.

The mean score on the BI-Separation Anxiety for widowed persons who had been bereaved less than 6 months was 13.87; the mean score for widowed persons who had been bereaved between 6 and 12 months was 13.21; and the mean score for widowed persons who had been bereaved between 12.5 and 24 months was 12.22. These mean scores for the current sample also were moderately higher than were both the mean for Jacobs et al.'s sample ($\underline{M}$ = 13.1) who had been bereaved for 1 month and the mean ($\underline{M}$ = 9.3) for those who had been bereaved for 6 months.

Overall, these mean scores for the TRIG and the BI in the current study were higher than those from studies done in the United States. These findings suggest that (a) the duration of the grief process may be more prolonged in Japanese widows and

widowers in contrast to that of samples from the United States and/or (b) the intensity of their grief may be greater than was that of samples from the United States. One possible explanation for the higher mean scores in this study's sample is Japanese cultural influences on the grief process. In Japan, ancestor worship is a very important role of widowed persons. Most widowed persons go into mourning for the deceased spouse for a period of 7 weeks. In this study, 83% of the subjects sat down at the family altar and talked to the deceased spouse at least once a day. This finding is in agreement with Okonogi's (1979) suggestion that Japanese widowed persons experience the sense of separation ambiguously and work to maintain ties with the deceased spouse. This is acceptable and encouraged both by the culture and by religious rituals in Japan (Yamamoto et al., 1969). Ancestor worship may have prolonged the duration of the grief process for the current sample thereby influencing the widowed person's scores on the BI and the TRIG.

Methodological Issues

This section describes methodological issues that should be considered in future studies in Japan. They include issues related to (a) the positively worded items on the CES-D, (b) the UCLA Loneliness Scale, (c) the revised PGC Morale Scale, (d) RAND-scales, and (e) the Japanese Widowhood Inventory.

Positively Worded Items on the CES-D

Item-total correlations of the CES-D ranged from -.01 to .86. The item-total correlations of five items were lower than .30, and two items were negatively correlated (see Table 28, p. 155). Of the five items, four items were positively worded items.

These positively worded items did not work well for measuring depressive symptoms in the current sample. A previous Japanese study (Yatomi, Liang, Krause, & Akiyama, 1993), which included two samples (i.e., a Japanese adult sample and a sample of adults from the United States) reported similar findings on the positively worded items. Yatomi et al. found that the "positive affect" subscale, which included positively worded items (these items were not computed in the reverse code), was positively correlated (r = .11) with the other subscales (depressed affect, somatic and retarded activities, interpersonal relations) in the Japanese sample. The "positive affect" subscale, however, was negatively correlated (r = -. 87) with the other subscales in the United States sample.

These differences between Japanese samples and the sample from the United States may be due to cultural differences. In the current study, some widowed persons who answered "very often" to the positively worded items wrote an explanatory note to the side (e.g., even though I felt I was happy, this does not mean that I forgot my deceased husband). Japanese widowed persons may have a tendency to suppress their positive feelings such as "I was happy" and "I enjoyed." As for other Japanese cultural influences, Yatomi et al. (1993) found that the subjects reported positive feelings as the result of good experiences (e.g., I made a trip, my grandchild was good to me), and therefore, they only occasionally reported positive feelings that were not specific to having good experiences. Widowhood may overshadow the person's willingness to identify positive feelings. On the other hand, Americans may be more likely to express positive feelings, such as happiness and hopefulness while they are grieving, because the society accepts the expression of a range of emotional states (Iwata, Roberts, &

Kawakami, 1993; Yatomi et al., 1993). American culture may also expect persons to "cope with" and "get over" their grief and therefore expect the expression of positive feelings during grief.

Therefore, these differences in responses to positively worded items on the CES-D may result from differences in the expression of positive feelings and differences in cultural values between Japanese persons and Americans. That is, the responses to positively worded items on the CES-D may vary across cultures. Additional work is needed to (a) examine whether a researcher should eliminate the positively worded items from the CES-D for Japanese samples or (b) explore whether the positively worded items can be written as negatively worded items. If the items are used as currently written, the researcher should interpret the positively worded items carefully. Researchers may also want to consider using a different measure of depression with Japanese widowed persons or developing more culturally relevant measures of depression to use with Japanese elderly subjects.

The Revised UCLA Loneliness Scale

Twenty-four subjects (16%) reported that the questions on the revised UCLA Loneliness Scale were confusing. Three subjects pointed out that item #8, "My interests and ideas are not shared by those around me," was difficult to understand. Also, negative sentences with multiple-response options may be confusing. Item-total correlations of item #3, "There is no one I can turn to," and item #20, "There are people I can turn to," were .16 and .62, respectively. Although these two items are conversely written sentences, the item-total correlation of item #3 (a negative sentence) was considerably

lower than was that of item #20. Additional work is needed to investigate how the revised UCLA Loneliness Scale works in Japanese widowed persons and to interpret these items more carefully.

The Revised PGC Morale Scale

Item-total correlations for three items were slightly lower than .30 (see Table 30, p. 158). Regarding item #9, "As I get older, things are better, the same, or worse than I thought they would be," the item-total correlation was .25; this item did not work well in the current sample. This finding is similar to Koyano's (1981) finding that item #9 did not work to measure morale in 1,043 Japanese elderly persons. Koyano suggested that the item is not suitable for Japanese elderly persons who experienced the drastic turnaround of the social and economical structure and values after World War II. From this standpoint, for example, an elderly person who has kept the traditional value of family structure (*ie* system) may think that things are worse than he or she thought they would be because the family structure has been changed.

Elderly persons are more likely to maintain traditional values (e.g., family structure). Consequently, they may have responded that, "things are worse than he or she thought they would be," as they reflected back to the pre-World War II era when the traditional values were universally accepted. Additional work is needed to investigate how the revised PGC Morale Scale works in Japanese widowed persons.

RAND-Scales

RAND-scales worked moderately well in this sample; however, these scales had the highest rate for missing data (ranged from 10.7 to 14.1%). The Japanese Widowhood

Inventory included 49 items on physical health (20 items for RAND-scales and 29 items for the Health Problem Scales). RAND-scales followed the Health Problem Scales in the inventory; therefore, the subjects' tiredness and lowered motivation may have influenced their response rates on the RAND-scales. Additional work is needed to examine how the RAND-scales work in Japanese widowed persons and whether placement of this measure earlier in the inventory would have resulted in more complete data.

The Japanese Widowhood Inventory

This inventory had 225 items, and the subjects needed from 30 minutes to 5 hours to complete it; therefore, the subjects' tiredness and lowered motivation may have influenced their responses. For example, regarding responses to items on the CES-D, 6 subjects (4%) selected the same response option (never or rarely) for both negatively and positively worded items, reflecting a pattern of response set bias. When the 6 subjects were dropped from the analysis, the total-item correlations (.02 for item #4, .04 for item #8, -.16 for item #12, and .29 for item #16) of the positively worded items became slightly greater than were the original correlations (-.01, .01, -.20, and .29, respectively).

Limitations of the Current Study

Three potential limitations have been identified for the current methodological study. They include (a) potential selection bias, (b) potential for respondents to have answered socially desirable ways, and (c) concern about generalizability of the findings to all older widowed persons in Japan.

Because all variables were measured as they exist naturally, without manipulation, selection could have influenced the accuracy of the relationships among

the study variables. It is possible that the recruitment of subjects for this study systematically excluded widowed persons with certain characteristics. For example, widowed persons who did not agree to participate in the current study may have experienced more depressive feelings, more intense feelings of grief, or less functional independence than widowed persons who participated in this study.

Subjects in this study may have expressed socially desirable responses and experienced transitory factors (e.g., variation of mood and state of health), possibly influencing the validity of the findings. For example, although the researcher asked the subjects to complete and return the inventory anonymously, some subjects may have been too embarrassed to reveal emotions related to grief, depression, and the quality of the past relationship with the deceased. The subjects' responses also may have been influenced by whether they were having a good or bad day. Therefore, the findings may not reflect their "normal" levels of the study variables despite the researcher's asking subjects to respond to the questions according to how they have felt typically during the past week. In addition, as previously discussed, the measure of social desirability used in the current study was not reliable.

External validity refers to generalizability of findings to the target population, in this case to all older widowed persons in Japan. Threats to external validity can be mitigated by using a probability sample that ensures each older person who is recently widowed has an equal change of being selected to participate. However, in this study, a convenience sample was used. Therefore, demographic variables in this sample were compared with those of the Japanese elderly widowed population (aged 65 and older) in

general to determine similarities and differences between the target population and the sample.

The subjects of this study ranged in age from 65 to 86 years ($\underline{M}$ = 71.21, $\underline{SD}$ = 4.74). Forty-one percent of the subjects were between ages 65 and 69, 37% were between ages 70 and 74, and 22% were 75 years and older. This age distribution is moderately different from the age distribution in the Japanese elderly widowed population (19% of the population are 65 to 69, 22% are 70 to 74, and 59% are 75 or older) (Health and Welfare Statistics Association, 1994). The age distribution in this sample is younger than is that of the Japanese elderly widowed population. Therefore, it is necessary to be careful in generalizing the findings to Japanese widowed persons aged 75 years and older.

Of the current sample, 56.4% were living alone and 42.3% were living with family members. This percent of widowed persons who were living alone in the current sample is higher than was that of the Japanese elderly widowed population in 1990 (28.8% of the population were living alone and 72.2% were living with their children, other relatives, or others) (Health and Welfare Statistics Association, 1994). In generalizing the findings in this study, it is necessary to note that the current sample included a higher percent of widowed persons living alone when compared with the overall percentage for the elderly widowed population in Japan. The higher percentage of widowed persons living alone may have influenced the findings on depression and grief. This may explain, in part, why the current sample had higher depression and grief scores in contrast to samples from the United States where living alone after widowhood

is more common. Finally, the widowed persons who participated (50.2%) were compared to those who elected not to participate in relation to the time since the death of the spouse. Widows and widowers entire in their grief experience (from 2 to 3 months) at a lower rate (17%) than persons widowed larger than 3.5 months (52%).

Implications for Research, Practice, and Theory

Of the newly translated measures (i.e., the TRIG, the BI, Satisfaction with Help prior to the death of a spouse, Satisfaction with Social Support after the death of a spouse, Availability of Social Support after the death of a spouse, the Quality Marriage Index, the Marital Adjustment Scale), the reliability and validity data for the TRIG, the BI, and Satisfaction with Social Support after the death of a spouse support the use of these measures with Japanese widowed persons. Of the remaining measures (the CES-D, the revised PGC Morale Scale, the revised UCLA Loneliness Scale, RAND-scales, the Health Problems Scale, the 13-item form of M-C SDS) used in the current study, all measures except the 13-item form of M-C SDS were reliable. In order to confirm the findings for the current study, further research is needed with Japanese widowed persons. Also, additional research is required (a) to explore methodological issues on the positively worded items of the CES-D, the revised PGC Morale scale, the revised UCLA Loneliness Scale, and RAND-scales and (b) to further instrumental development on social support, the quality of the past relationship with the deceased, and social desirability.

Correlational studies are needed to examine the relationship between selected variables (grief, mediating variables, adjustment to spousal bereavement) using valid and

reliable measures with Japanese widowed persons. Moreover, a longitudinal study with widowed persons should be conducted to describe grief in the Japanese culture. This design would be stronger than a cross-sectional study in exploring the relationships between grief and other selected variables over time.

Although methodological studies like the current study are limited in their direct application to clinical nursing practice, it is hoped that the results of the finding do offer preliminary recommendations. The four hypotheses on social support were partially supported by the findings in the current study. That is, Satisfaction with Social Support after the death of a spouse was an important mediating variable of adjustment to spousal bereavement (i.e., physical health, depression, morale, loneliness). Therefore, nursing interventions to improve adjusting to spousal bereavement in hospice or palliative care units could be developed for family members to provide more effective support for widowed persons. When family members, relatives, or friends either are not available or are unwilling to provide support, nurses or other informal helpers could provide support to widowed persons. Also, bereavement care programs, which have not been developed in Japan, could be established to support persons in hospice or palliative care units following the death of their family members.

In addition, another important finding in the current study was that Japanese widowed persons experienced higher mean scores on the TRIG, the BI, and the CES-D than did samples from the United States. These findings provide support for the importance of bereavement care in hospice or palliative care units. Future studies on the relationships between selected variables will generate recommendations for changing

nursing practice.

The findings of this study do not have direct implications for the development of theory. However, as previously discussed, the findings of this study do have implications for future research that can guide the development and refinement of grief theory in Japanese culture.

Summary

The purpose of this cross-sectional, correlational study was to evaluate with Japanese widowed persons the reliability and validity of the Japanese versions of selected measures that were developed in the United States. A framework was derived from Bowlby's (1980) attachment model of grief and a review of previous Japanese and non-Japanese research. The measures used in this study were selected because they had been used in elderly (widowed) persons and had documented sound psychometric properties. Six measures (the TRIG, the BI, Satisfaction with Social Support, Availability of Social Support, the Quality Marriage Index, the Marital Adjustment Scale), which had not been translated into Japanese versions, were translated for this study through a process of double translations.

A convenience sample of 176 Japanese elderly widowed persons who had been bereaved for 2 to 24 months was identified through two routes: (a) lists of deceased persons obtained from three public hospitals, two private hospitals, and five public health centers throughout Kochi prefecture, in Southwestern Japan and (b) obituary notices in a local newspaper in the prefecture. These widowed persons were asked to complete and return the Japanese Widowhood Inventory anonymously. Of all these subjects, 149

widowed persons (122 women and 27 men) were included in the data analysis.

The validity of the grief scales (i.e., the TRIG and the BI) was assessed using convergent and discriminant validity, hypothesis-testing procedures, and factor analysis. The findings of these procedures were as follows: (a) the majority of the findings supported convergent and discriminant validity; (b) although Hypothesis 1, widowed persons who are bereaved 1 year or less will have a greater intensity of grief than those who are bereaved more than 1 year, was not fully supported by the data, the pattern of grief scores over time for Japanese widowed persons in this cross-sectional study looks similar to that for widowed persons in longitudinal studies in the United States; (c) Hypothesis 2, widowed persons who have a better past relationship with the deceased or a happier marriage will have a greater intensity of grief than those who do not, was supported by the data; and (d) factor loadings of the TRIG and the BI in this study supported the major dimensions that the researchers who developed the measures identified. The findings suggest that the TRIG and the BI can be used to measure grief in Japanese widowed persons

The validity of the social support scales (i.e., Satisfaction with Social Support after the death of a spouse, Satisfaction with Help received prior to the death, Availability of Social Support after the death of a spouse) was evaluated using hypothesis-testing procedures. The findings on Satisfaction with Social Support after the death of a spouse supported Hypothesis 3, widowed persons who have adequate social support will report better physical health than those who do not, Hypothesis 4, widowed persons who have adequate social support will have higher morale than those who do not,

Hypothesis 5, widowed persons who have adequate social support will have lower depression scores than those who do not, and Hypothesis 6, widowed persons who have adequate social support will report less loneliness than those who do not, whereas those on Satisfaction with Help received prior to the death of a spouse supported only Hypothesis 6. The findings on Availability of Social Support after the death of a spouse did not support any of the hypotheses. These findings suggest that of the three social support scales used in the current study, Satisfaction with Social Support after the death of a spouse appears to be the best indicator of social support to predict outcomes for Japanese widowed persons.

Validity of the quality of the past relationship with the deceased (i.e., the Quality Marriage Index, the Marital Adjustment Scale) was assessed using hypothesis-testing procedures. There were contradictory findings; that is, Hypothesis 2 was supported by the data, whereas Hypothesis 7, widowed persons who had a better past relationship with the deceased or a happier marriage will have higher morale than those who do not, was not. Although the reliability indices for the Quality Marriage Index and the Marital Adjustment were satisfactory, additional psychometric work is needed to develop a valid measure of quality of the past relationship with the deceased.

Reliability of all measures used in this study was assessed using item-total correlations and internal consistency reliability (Cronbach's alpha). Cronbach's alphas for all scales except the 13-item form of M-C SDS and Health Problem Scale-Medical were greater than .70 thereby reaching an acceptable level. All items of the TRIG, the BI, Availability of Social Support, Satisfaction with Social Support, the Quality Marriage

Index, the Marital Adjustment Scale, RAND-Energy/Fatigue, and RAND-General Health had acceptable item-total correlations (.30 or more). For the CES-D, the revised UCLA Loneliness Scale, and the revised PGC Morale Scale, approximately 20% of the items or more had item-total correlations below .30. These findings suggest that all selected measures except the 13-item form of M-C SDS worked well or relatively well with the current sample in terms of internal consistency reliability and item-total correlations.

Regarding the 13-item form of M-C SDS, item-total correlations for 12 of the 13 items in the current sample were lower than were those in Reynolds' (1982) sample. The current sample responded to 12 of the 13 items in a more socially desirable direction than did those in Reynolds' sample. The average difference in the percentage who responded in a socially desirable direction was 24.4%.

Major findings for key measures in this study were compared with those in other studies done in the United States. Regarding the CES-D, the mean scores in the current study were higher than were those from studies of elderly widowed persons in the United States. The change score between the mean scores in this study was smaller than was that in Mendes de Leon's (1994) study of widowed persons in the United States. With regard to the TRIG and the BI, the mean scores in the current study were higher than were those from studies in the United States. These findings suggest that (a) Japanese elderly widowed persons probably have higher CES-D scores than did widowed persons in the United States; (b) potentially, the degree of change in Japanese widowed persons varies less over time than it did in widowed persons in the United States; (c) the duration of the grief process may be more prolonged in Japanese widows and widowers than it

was in samples from the United States; and/or (d) the intensity of grief may be greater in Japanese widowed persons than it was in samples from the United States.

There were three limitations for the current study. First, selection bias may have occurred, that is, the recruitment of subjects for this study systematically may have excluded widowed persons with certain characteristics (e.g., persons experiencing greater depression). Second, the subjects may have answered in socially desirable ways due, in part, to cultural expectations. Finally, generalizability of the findings to all older widowed persons in Japan is limited because of use of a convenience sample.

Implications for future research include a series of studies aimed at describing grief in Japanese culture. These studies include the following: (a) research for confirming the psychometric findings for the current study; (b) research for exploring methodological issues on the positively worded items of the CES-D, the revised PGC Morale Scale, the revised UCLA Loneliness Scale, and RAND-scales; (c) research for further instrumental development on social support, the quality of the past relationship with the deceased, and social desirability; (d) correlational studies for examining the relationship between selected variables; and (e) a longitudinal study for describing grief in the Japanese culture.

Preliminary recommendations for application of these findings to clinical nursing practice were made about providing support to widowed persons after the death of a spouse, establishing bereavement programs, and expanding understanding of the importance of bereavement care hospice or palliative care units. Although the findings in this study do not have direct implications for the development of theory, future research

findings will guide the development and refinement of grief theory in the Japanese culture.

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TABLE OF APPENDIXES

APPENDIX A

Japanese Widowhood Inventory

Japanese Widowhood Inventory

Purpose: These questions are designed for persons who are bereaved after the death of their spouse. Your answers will be help me to understand the bereavement experience of people like you who have experienced the death of their spouse. This information will be helpful to nurses, doctors, and other people who work with dying patients and their families.

Directions: It should take about ( ) to complete this questionnaire. Answer the questions as honestly as you can; there are no correct answers. Please do not consult with your family members before answering the questions. It is **your** opinion that is needed. If you have any comments about specific questions or this questionnaire, feel free to write in the blank space around the questions, on the back cover, or on other sheets of paper. In addition, you can contact me directly. My address and telephone number are listed at the bottom of this page.

When you are finished with the questionnaire, please return it in the enclosed self addressed, stamped envelop. Some of the questions will not apply to you, but try to answer all the questions that you can. If there are some questions you choose not to answer, please still return the questionnaire with the other questions answered. I would appreciate whatever information you can provide.

Although I have estimated completion time to be about ( ), it would be helpful for me to know how long it takes you to complete these questions. Please make a note of what time you begin. **Start time:** _____

If you have questions about this questionnaire, please contact me.

Shizue Suzuki,

YOUR DECEASED HUSBAND/WIFE

Please tell me about your spouse who died. (Fill in the blank or **Circle** the answer that describes your deceased spouse.)

1. Was your husband/wife ill prior to his or her death?

No..... 0 (**Go to Q 3**)
Yes..... 1

1a. If **YES**, what was your husband's/wife's illness?

_____

1b. How many months?
_____ months

1c. Did this illness contribute to his/her death?

No..... 0 (**Go to Q 2**)
Yes..... 1

1d. If **NO**, what caused your husband's/wife's death?

_____

2. Who provided the majority of care for the deceased spouse during his/her illness?

Yourself.....	1	Son-in-law.....	5
Daughter.....	2	Other relatives.....	6
Son.....	3	Friends.....	7
Daughter-in-law.....	4	Other.....	8 Specify

3. What is the date of your spouse's death _____
_____ year _____ month _____ day

4. How old was your husband/wife when he/she died?
_____ years

5. How many years were you married to your spouse?
_____ years

5. How much did you expect your spouse's death?

Expected..... 1
Fairly expected..... 2
Fairly unexpected..... 3
Unexpected..... 4

FEELINGS AND ACTIONS AT THE TIME YOUR HUSBAND/WIFE DIED

Now I would like to ask you about the feelings and actions that you experienced **around the time your husband/wife died**. Think back to the time your husband/wife died and answer all of these items about your feelings and actions at that time by indicating whether each item is Completely True, Mostly True, Both True and False, Mostly False, or Completely False. **CIRCLE** the number of the best answer.

	Completely True	Mostly True	True & False	Mostly False	Completely False
1. After my husband/wife died I found it hard to get along with certain people	1	2	3	4	5
2. I found it hard to work well after my husband/wife died	1	2	3	4	5
3. After my husband's/wife's death I lost interest in my family, friends, and outside activities	1	2	3	4	5
4. I felt a need to do things that the deceased had wanted to do	1	2	3	4	5
5. I was unusually irritable after my husband/wife died	1	2	3	4	5
6. I couldn't keep up with my normal activities for the first 3 months after my husband/wife died	1	2	3	4	5
7. I was angry that my husband/wife who died left me	1	2	3	4	5
8. I found it hard to sleep after my husband/wife died	1	2	3	4	5
9. After my husband/wife died, I had regrets for the death of my husband/wife	1	2	3	4	5
10. After my husband/wife died, I had guilty feelings for the death of my husband/wife	1	2	3	4	5

Faschingbauer, Zisook, & DeVaul (1987)

FEELINGS DURING THE PAST WEEK

Using the scale below, **CIRCLE** the number which best describes how often you felt or behaved this way. **DURING THE PAST WEEK**.

0 = Never or rarely (less than 1 day)
1 = Occasionally (1-2 days)
2 = Moderately often (3-4 days)
3 = Very often (5-7 days)

During the past week, did you....	Never or Rarely	Occasionally	Moderately Often	Very Often
1. Feel stunned or dazed?	0	1	2	3
2. Feel numb?	0	1	2	3
3. Experience disbelief of what happened?	0	1	2	3
4. Lose control of your feelings?	0	1	2	3
5. Feel as if you were going to burst emotionally?	0	1	2	3
6. Experience a dread of impending trouble?	0	1	2	3
7. Feel upset when your thinking turned to your (husband/wife)?	0	1	2	3
8. Long (yearn) to have your (husband/wife) back as (he/she) was before the last illness?	0	1	2	3
9. Feel tense, nervous or fidgety?	0	1	2	3
10. (Was) your mind preoccupied with thoughts of your (husband/wife)?	0	1	2	3
11. Feel a need to call your (husband's/wife's) name?	0	1	2	3
12. Feel drawn to places and things associated with your (husband/wife)?	0	1	2	3

Jacobs, Kasl, Ostfeld, Berkman, Kosten, & Charpentier (1987)

FEELINGS DURING THE PAST WEEK (cont.)

During the past week, did you....	Never or Rarely	Occasionally	Moderately Often	Very Often
13. Sometimes experience mental images so vivid that for a moment it was as if your (husband/wife) were there (when (he/she) was absent)?	0	1	2	3
14. Sometimes hear things associated with your (husband/wife), e.g., hear (his/her) footsteps on the stairs (when (he/she) was absent)?	0	1	2	3
15. Sometimes feel as if your (husband/wife) were with you and touched you (when (he/she) was absent)?	0	1	2	3
16. Sometimes I behave as if my husband/wife were alive, e.g., prepare meals for my husband/wife who died?	0	1	2	3
17. Dream of your (husband/wife)?	0	1	2	3
18. Sigh a lot?	0	1	2	3
19. Feel as if you were about to cry?	0	1	2	3
20. I was bothered by things that usually don't bother me	0	1	2	3
21. I did not feel like eating; my appetite was poor	0	1	2	3
22. I felt that I could not shake off the blues even with help from my family or friends	0	1	2	3
23. I felt that I was just as good as other people	0	1	2	3
24. I had trouble keeping my mind on what I was doing	0	1	2	3

Jacobs, Kasl, Ostfeld, et al, 13- 15, 17-19 (1987)
Suzuki, 16 (1996)
Radloff, 20-25 (1977)

FEELINGS DURING THE PAST WEEK (cont.)

0 = Never or rarely (less than 1 day)
1 = Occasionally (1-2 days)
2 = Moderately often (3-4 days)
3 = Very often (5-7 days)

	Never or Rarely	Occasionally	Moderately Often	Very Often
During the past week, did you....				
25. I felt depressed.....	0	1	2	3
26. I felt that everything I did was an effort.....	0	1	2	3
27. I felt hopeful about the future.....	0	1	2	3
28. I thought my life had been a failure.....	0	1	2	3
29. I felt fearful.....	0	1	2	3
30. My sleep was restful.....	0	1	2	3
31. I was happy.....	0	1	2	3
32. It seemed that I talked less than usual.....	0	1	2	3
33. I felt lonely.....	0	1	2	3
34. People were unfriendly.....	0	1	2	3
35. I enjoyed life.....	0	1	2	3
36. I had crying spells.....	0	1	2	3
37. I felt sad.....	0	1	2	3
38. I felt that people disliked me.....	0	1	2	3
39. I could not "get going."	0	1	2	3

Radloff (1977)

PRESENT FEELINGS ABOUT YOUR SPOUSE'S DEATH

For all of the following questions, **CIRCLE** the answer that best describes how you **presently** feel about your spouse's death.

	Completely True	Mostly True	True & False	Mostly False	Completely False
1. I still cry when I think of my husband/wife who died	1	2	3	4	5
2. I still get upset when I think about my husband/wife who died	1	2	3	4	5
3. I cannot accept my husband's/wife's death	1	2	3	4	5
4. Sometimes I very much miss my husband/wife who died	1	2	3	4	5
5. Even now it's painful to recall memories of my husband/wife who died	1	2	3	4	5
6. I am preoccupied with thoughts (often think) about my husband/wife who died	1	2	3	4	5
7. I hide my tears when I think about my husband/wife who died	1	2	3	4	5
8. No one will ever take the place in my life of my husband/wife who died	1	2	3	4	5
9. I cannot avoid thinking about my husband/wife who died	1	2	3	4	5
10. I feel it's unfair that my husband/wife died	1	2	3	4	5
11. Things and people around me still remind me of my spouse who died	1	2	3	4	5
12. I am unable to accept the death of my husband/wife who died	1	2	3	4	5
13. At times I still feel the need to cry for my spouse who died	1	2	3	4	5
14. I still have regrets about the death of my husband/wife	1	2	3	4	5
15. I still have guilty feelings about my husband/wife	1	2	3	4	5

Faschingbauer, Zisook, & DeVaul, 1-13 (1987)
Suzuki, 14-15 (1996)

EFFECT OF FUNERAL SERVICE AND FOLLOWING SERVICES

For the following questions, **Circle** the number that best describes your opinion.

1. Do you think that the funeral service and memorial services (e.g., 7th day after the death, 35th day after the death, 49th day after the death, the first anniversary day after the death, the second anniversary day after the death) have been useful for you to adjust to the death of your spouse?

No..... 0 (**Go to Q. 2**)
Yes..... 1

1a. If **YES**, how much have these services been useful for you?

A little..... 1
Some..... 2
A quite bit..... 3
A lot..... 4

2. Do you have a family altar at home?

No..... 0 (**Go to next page**)
Yes..... 1

2a. If **YES**, during the past 2 weeks, did you talk to your deceased spouse in front of family altar?

No..... 0 (**Go to next page**)
Yes..... 1

2b. If **YES**, how often did you talk to your deceased spouse during the past 2 weeks?

More than once a day..... 5
Every day..... 4
2-3 times a week..... 3
Once a week..... 2
Less frequently.....1

HELP FROM OTHERS FOR YOUR SPOUSE AND YOU

Now I would like you to answer some questions about the help you and your husband/wife received prior to his or her death. **"Help" refers to care for your spouse before the death, daily tasks like grocery shopping, house cleaning, and cooking, and emotional support like talking over problems and helping you make a difficult decision.** Please tell me whether you had help from others prior to the death.

1. Thinking back prior to the death of your husband/wife, did you have help from others?

   No..... 0 **(Go to Q. 2)**
   Yes..... 1

1a. If **YES**, how satisfied were you with help that you received?

   Very satisfied..... 4
   Pretty..... 3
   Some..... 2
   A little..... 1
   Not at all..... 0

2. Is there a person you thought would help you more in caring for your husband/wife, but who did **not** do so?

   No..... 0 **(Go to Q. 3)**
   Yes..... 1

2a. If **YES,** how upsetting has it been for you that this person did not help as you expected

   Not at all upsetting..... 0
   A little upsetting..... 1
   Somewhat upsetting..... 2
   Quite upsetting..... 3
   Extremely upsetting..... 4

3. Currently, when you need some extra help, can you count on anyone to help with **daily tasks** like grocery shopping, house cleaning, cooking, telephoning, or give you a ride?

   Yes..... 1
   No..... 2 **(Go to Q. 4)**
   I don't need help..... 3 **(Go to Q. 4)**

Suzuki, 1-1a (1996)
Adapted from Stewart & Archbold, 2-2a (1993)
Seeman & Berkman, 3 (1988)

HELP FROM OTHERS FOR YOU

3a. Since your husband's/wife's death who has been most helpful with **daily tasks**? Please identfy one or two people by circling the number next to the person.

Daughter..... 1
Son..... 2
Daughter-in-law..... 3
Son-in-law..... 4
Sibling..... 5
Other relative..... 6
Your neighbors..... 7
Co-workers..... 8
Members of a group for elderly persons (women)..... 9
Professionals..... 10
Any friends not included in these categories..... 11
Others (Specify _____)

3b. Would you say you feel satisfied with help for **daily tasks** or do you wish it was provided more often or less often?

More often..... 1
Satisfied..... 2
Less often..... 3

4. Can you count on anyone to provide you with **emotional** support? (talk over problems and help you make a difficult decision)

Yes..... 1
No..... 2 (**Go to next page**)
I don't need support.. 3 (**Go to next page**)

4a. Since your husband's/wife's death who has been most helpful in providing you with **emotional** support? Please identify one or two people by circling the number next to the person.

Daughter..... 1
Son..... 2
Daughter-in-law..... 3
Son-in-law..... 4
Sibling..... 5
Other relative..... 6
Your neighbors..... 7
Co-workers..... 8
Members of a group for elderly persons (women)..... 9
Professionals..... 10
Any friends not included in these categories..... 11
Others (Specify_____)

4b. Would you say you feel satisfied with the amount of **emotional** support that you have received from others, or do you wish that others woule have given you this type of help more often or less often?

More often..... 1
Satisfied..... 2
Less often..... 3

Adapted from Seeman & Berkman, 3a,4-4a (1988)
Adapted from Krause & Markides,3b,4b (1990)

YOUR RELATIONSHIPS WITH PEOPLE AROUND YOU

Now I would like to know about your relationships with people around you.

1. After your husband's/wife's death how much have you experienced changes in the relationships with your family members?
   - Not at all..... 0 **(Go to Q. 2)**
   - A little..... 1
   - Some..... 2
   - A quite bit..... 3
   - A lot..... 4

1a. What is the biggest change in the relationships with your family members?

_____

_____

2. How satisfied are you with the relationships with your family members?
   - Very satisfied..... 4
   - Pretty..... 3
   - Somewhat..... 2
   - A little..... 1
   - Not at all satisfied..... 0

3. Has anyone told you to suppress your feelings of grief?
   (For example, telling you to adjust as soon as possible, don't talk about your feelings of grief, and not willing to listen your feelings)
   - No..... 0 (**Go to Q. 4**)
   - Yes..... 1

3a. If **YES**, how did this make you feel?

_____

_____

4. Do you have family members or relatives who are critical of you?
   - No..... 0 (**Go to next page**)
   - Yes..... 1

4a If **YES**, how much do these interactions bother you?
   - Not at all..... 0
   - A little..... 1
   - Some..... 2
   - A lot..... 3

YOUR RELATIONSHIPS WITH PEOPLE AROUND YOU (cont.)

Using four choices - Never, Rarely, Sometimes, or Often - please read the statements below and circle the response which best describes how often you feel this way. **Circle** one number for each.

	Never	Rarely	Sometimes	Often
1. I feel in tune with the people around me	1	2	3	4
2. I lack companionship	1	2	3	4
3. There is no one I can turn to	1	2	3	4
4. I feel alone	1	2	3	4
5. I feel part of a group of friends	1	2	3	4
6. I have a lot in common with the people around me	1	2	3	4
7. I am no longer close to anyone	1	2	3	4
8. My interests and ideas are not shared by those around me	1	2	3	4
9. I am an outgoing person	1	2	3	4
10. There are people I feel close to	1	2	3	4
11. I feel left out	1	2	3	4
12. My social relationships are superficial	1	2	3	4
13. No one really knows me well	1	2	3	4
14. I feel isolated from others	1	2	3	4
15. I can find companionship when I want it	1	2	3	4
16. There are people who really understand me	1	2	3	4
17. I am unhappy being so withdrawn	1	2	3	4
18. People are around me but not with me	1	2	3	4
19. There are people I can talk to	1	2	3	4
20. There are people I can turn to	1	2	3	4

Russell, Peplau, & Cutrona (1980)

YOUR HEALTH

Some persons have the following health problems. If you DO NOT have the problem, CIRCLE **NO.** If you have the health problem, CIRCLE **YES** and then indicate how much the problem bothers you by circling 1 = **Not at all**, 2 = **A little**, 3 = **Some**, or 4 = **A lot**.

During the past 4 weeks, have you had a problem with your:	**NO**	**YES**	**If YES, CIRCLE how much the problem bothers you. Not at all**	**A little**	**Some**	**A lot**
1. Back or hip?	No	Yes	1	2	3	4
2. Eyes?	No	Yes	1	2	3	4
3. Feet or legs?	No	Yes	1	2	3	4
4. Hands or arms?	No	Yes	1	2	3	4
5. Shoulder or neck?	No	Yes	1	2	3	4
6. Hearing or ears?	No	Yes	1	2	3	4
7. Heart?	No	Yes	1	2	3	4
8. Lung or breathing	No	Yes	1	2	3	4
9. Memory?	No	Yes	1	2	3	4
10. Teeth or dentures?	No	Yes	1	2	3	4
During the past 4 weeks, have you had:						
11. Dizziness?	No	Yes	1	2	3	4
12. Fainting spells?	No	Yes	1	2	3	4
13. A cold or flu?	No	Yes	1	2	3	4
14. Headaches?	No	Yes	1	2	3	4
15. Minor infections?	No	Yes	1	2	3	4
16. Pain?	No	Yes	1	2	3	4
17. Skin disorders (ulcers, severe itching)?	No	Yes	1	2	3	4
18. Stomach or Bowel problems?	No	Yes	1	2	3	4
19. Urinary problems?	No	Yes	1	2	3	4
20. A fall?	No	Yes	1	2	3	4

Adapted from Montgomery & Bogatta, 1-4,6-10 (undated)
Inoue, 5 (1995)
Stewart & Archbold (1986,1991)

YOUR HEALTH (cont.)

Some persons have the following health problems. If you DO NOT have the problem, CIRCLE **NO.** If you have the health problem, CIRCLE **YES** and then indicate how much the problem bothers you by circling 1 = **Not at all,** 2 = **A little**, 3 = **Some**, or 4 = **A lot**.

During the past 4 weeks, have you had a problem with your:	**NO**	**YES**	**If YES, CIRCLE how much the problem bothers you. Not at all**	**A little**	**Some**	**A lot**
Do you have:						
21. Arthritis or neuralgia?	No	Yes	1	2	3	4
22. Cancer?	No	Yes	1	2	3	4
23. Arteriosclerosis or circulatory problems?	No	Yes	1	2	3	4
24. Diabetes?	No	Yes	1	2	3	4
25. High blood pressure?	No	Yes	1	2	3	4
26. A Psychiatric disorder?	No	Yes	1	2	3	4
Have you had:						
27. A recent fracture or injury?	No	Yes	1	2	3	4
28. A stroke?	No	Yes	1	2	3	4
29. Any other health problems? (Please specify) _____	No	Yes	1	2	3	4

1. In general, would you say your health is **(Circle One Number):**
   - Excellent 1
   - Very good 2
   - Good 3
   - Fair 4
   - Poor 5

2. **Compared to one year ago,** how would you rate your health in general **now?** **(Circle One Number)**
   - Much better than one year ago 1
   - Somewhat better now than one year ago 2
   - About the same 3
   - Somewhat worse now than one year ago 4
   - Much worse now than one year ago 5

Adapted from Montgomery & Borgatta, 21 (undated)
Stewart & Archbold, 22-29 (1986, 1991)
RAND , 1-2 (1986, 1992)

YOUR HEALTH (cont.)

The following items are about activities you might do during a typical day. Does **your health now limit you** in these activities? If so, how much?

(Circle One Number on Each Line)

	Yes, Limited a Lot	Yes, Limited a Little	No, Not Limited at All
1. **Vigorous activities,** such as running, lifting heavy objects, participating in strenuous sports	1	2	3
2. **Moderate activities,** such as moving a table, pushing a vacuum cleaner, bowling, or playing golf	1	2	3
3. Lifting or carrying groceries	1	2	3
4. Climbing **several** flights of stairs	1	2	3
5. Climbing **one** flight of stairs	1	2	3
6. Bending, kneeling, or stooping	1	2	3
7. Walking **more than a mile**	1	2	3
8. Walking **several blocks**	1	2	3
9. Walking **one block**	1	2	3
10. Bathing or dressing yourself	1	2	3

These questions are about how you feel and how things have been for you **during the past 4 weeks**. For each questions, please give the one answer that comes closest to the way you have been feeling. How much of the time during the **past 4 weeks**. . .

(Circle One Number on Each Line)

	All of the Time	Most of the Time	A Good Bit of the Time	Some of the Time	A Little of the Time	None of the Time
11. Did you feel full of pep?	1	2	3	4	5	6
12. Did you have a lot of energy?	1	2	3	4	5	6
13. Did you feel worn out?	1	2	3	4	5	6
14. Did you feel tired?	1	2	3	4	5	6

YOUR HEALTH (cont.)

How **TRUE** or **FALSE** is <u>each</u> of the following statements for you?

(Circle One Number on Each Line)

	Definitely True	Mostly True	Don't Know	Mostly False	Definitely False
15. I seem to get sick a little easier than other people	1	2	3	4	5
16. I am as healthy as anybody I know	1	2	3	4	5
17. I expect my health to get worse	1	2	3	4	5
18. My health is excellent	1	2	3	4	5

VIEW OF LIFE

Now I would like to know your view of life. For each question, **Circle** the answer that best describes your ideas and behaviors.

1. Little things bother me more this year	Yes	No
2. I sometimes worry so much that I can't sleep	Yes	No
3. I am afraid of a lot of things	Yes	No
4. I get mad more than I used to	Yes	No
5. I take things hard	Yes	No
6. I get upset easily	Yes	No
7. Things keep getting worse as I get older	Yes	No
8. I have as much pep as I had last year	Yes	No
9. As I get older, things are better/worse than I thought they would be	Better	Worse
10. As you get older you are less useful	Yes	No
11. I am as happy now as when I was younger	Yes	No
12. How much do you feel lonely?	Much	Not much
13. I see enough of my friends and relatives	Yes	No
14. I sometimes feel that life isn't worth living	Yes	No
15. Life is hard for me much of the time	Yes	No
16. How satisfied are you with your life today?	Satisfied	Not satisfied
17. I have a lot to be sad about	Yes	No

RAND, 15-18 (1986, 1992)
Lawton, 1-17 (1975)

YOUR MARRIAGE BEFORE YOUR SPOUSE DIED

Think back to the time before your spouse died. These questions ask about past marital attitudes and behaviors. Try to answer all questions as honestly as possible. Do not take too much time on any one question. Give each question a moment's thought and then answer it. **Circle** one number for each.

	Very strong disagreement						Very strong agreement
1. We had a good marriage.....	1	2	3	4	5	6	7
2. My relationship with my spouse was very stable.....	1	2	3	4	5	6	7
3. Our marriage was strong.....	1	2	3	4	5	6	7
4. My relationship with my spouse made me happy.....	1	2	3	4	5	6	7
5. I really felt like part of a team with my spouse.....	1	2	3	4	5	6	7

6. On the scale below, indicate the point which best describes **the degree of happiness, every thing considered, in your past marriage life.** The middle point, "happy," represents the degree of happiness which most people get from marriage. The scale gradually increases on the right side for those few who experience extreme joy in marriage and decrease on the left side for those who are extremely unhappy.

1	2	3	4	5	6	7	8	9	10
Very Unhappy				Happy					Perfectly Happy

RELATIONSHIP WITH YOUR SPOUSE BEFORE THE DEATH

1. How much did you confide in your spouse?
   - Not at all..... 0
   - A little..... 1
   - Some..... 2
   - Quite a bit..... 3
   - A great deal..... 4

Norton, 1-6 (1983)
Adapted from Futterman, Gallagher, Thomson, Lovett, & Gilewski, 1-2 (1990)

RELATIONSHIP WITH YOUR SPOUSE BEFORE THE DEATH (cont.)

2. How much did your spouse confide in you?
   - Not at all..... 0
   - A little..... 1
   - Some..... 2
   - Quite a bit..... 3
   - A great deal..... 4

3. How often did you have disagreements or conflicts with your spouse?
   - Never..... 0
   - Rarely..... 1
   - Sometimes..... 2
   - Usually..... 3
   - Always..... 4

4. When disagreements arose, generally this resulted in...
   - my giving in..... 1
   - my spouse giving in..... 2
   - neither of us giving in..... 3
   - agreement by mutual give and take..... 4

5. How frequently did you and your spouse generally talk things over together?
   - Never..... 0
   - Rarely..... 1
   - Sometimes..... 2
   - Usually..... 3
   - Always..... 4

6. How often did you depend on your spouse for decision making?
   - Never..... 0
   - Rarely..... 1
   - Sometimes..... 2
   - Usually..... 3
   - Always..... 4

7. How much did you depend and presum upon your spouse's benevolence?
   - Not at all..... 0
   - A little..... 1
   - Some..... 2
   - Quite a bit..... 3
   - A great deal..... 4

8. How much did your spouse depended and presumed upon your benevolence?
   - Not at all..... 0
   - A little..... 1
   - Some..... 2
   - Quite a bit..... 3
   - A great deal..... 4

Adapted from Futterman, Gallagher, Thompson et al., 3-6 (1990)

PERSONAL REACTION INVENTORY

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it pertains to you personally. There are no "right" or "wrong" answer.

	True	False
1. It is sometimes hard for me to go on with my work if I am not encouraged	T	F
2. I sometimes feel resentful when I don't get my way	T	F
3. On a few occasions, I have given up doing something because I thought too little of my ability	T	F
4. There have been times when I felt like rebelling against people in authority even though I knew they were right	T	F
5. No matter who I am talking to, I'm always a good listener	T	F
6. There have been occasions when I took advantage of someone	T	F
7. I'm always willing to admit it when I make a mistake	T	F
8. I sometimes try to get even rather than forgive and forget	T	F
9. I am always courteous, even to people who are disagreeable	T	F
10. I have never been irked when people expressed ideas very different from my own	T	F
11. There have been times when I was quite jealous of the good fortune of others	T	F
12. I am sometimes irritated by people who ask favors of me	T	F
13. I have never deliberately said something that hurt someone's feelings	T	F

Crowne & Marlowe (1960)

TELL ME ABOUT YOU

For all questions fill in the blank or **Circle** the answer that best describe you.

1. In what year you born?
   19_____

2. How many years did you go to school in all?
   _____ years

3. Do you currently have occupation?
   No, I am retired..... 1
   No, I never have been employed.. 2
   No, I quit job because my spouse was ill..... 3
   Yes, I have part-time job..... 4
   Yes, I have full-time job..... 5

3a. What kind of work do (did) you do?

_____

4. Counting yourself, how many people live in your household?

_____ persons

5. Who else lives in your household? **Circle** all that apply.

   Son..... 1
   Daughter..... 2
   Daughter-in-law..... 3
   Son-in-low..... 4
   Grand-children..... 5
   Sibling(s)..... 6
   Other relatives..... 7
   Others..... 8

6. Do you have the following family members who do not live in your household? **Circle** all that apply and how many ?

   Son..... 1 ( ) persons
   Daughter..... 2 ( ) persons
   Daughter-in-law.... 3 ( ) persons
   Son-in-low..... 4 ( ) persons
   Grand-children..... 5 ( ) persons
   Sibling(s)..... 6 ( ) persons

7. Could you adjust to your spouse's death?
   No..... 0 (**Go to Q.8**)
   Yes..... 1

7a. If **YES**, how many months did it take you adjust to your spouse's death?

_____ months

8. Did you experience other losses during the period from the time of the death of your spouse to the time you could adjust to the death?
   No..... 0 (**Go to next page**)
   Yes..... 1

8a. If **YES**, which losses have you faced? **Circle** all that apply.
   Death of close family members... 1
   Major illness of family members.. 2
   Job retirement..... 3
   Children's family problems..... 4
   Death of close friends..... 5
   Move..... 6
   Serious money problems..... 7
   Other (specify)

_____

Stewart & Archbold, 1-3, 5 (1986, 1993)
Adapted from Stewart & Archbold (1986, 1993)
SSR Retirement History Survey (1969)

TELL ME ABOUT YOU (cont.)

8. Which of the following four statements describes your ability to get along on your income?

I can't make ends meet..... 1
I have just enough, no more..... 2
I have enough, with a little extra sometimes. 3
I always have money left over..... 4

9. In thinking over all of your experiences since you have become widowed person, what do you think are the most important problems of widowhood?

10. Each widowed person has his or her own way of adjusting to widowhood. You may have some additional thoughts about the way you have coped with your widowhood. Please tell me about any additional thoughts or behaviors you have found helpful?

11. What is the most important piece of advice you could offer a recently widowed person?

Stewart & Archbold , 11 (1986, 1993)

Thank you very much for sharing your experiences and opinions with me. I believe your answers will increase our knowledge about spousal bereavement. Would you take a few more minutes to share your frank opinions to this questionnaire? (Please **circle** the number associated with your answer.)

1. Were the questions relevant to your experience?

Very relevant	1
Pretty relevant	2
Somewhat relevant and somewhat irrelevant	3
Pretty irrelevant	4
Very irrelevant	5

2. Were the questions on the questionnaire clear or confusing?

Everything was clear	1
Most questions were clear; only a few were confusing	2
Some questions were clear and some were confusing	3
Only few question were clear; most were confusing	4
Nearly all the questions were confusing	5

What question or page of questions was most confusing?

_____

3. Were the questions in general emotionally upsetting to you?

Not at all	1
A little	2
Some	3
A lot	4

What questions or page of questions was most emotionally upsetting to you?

_____

4. Please indicate the time completed. **Completion time:** _____
   If you took breaks, just substract that time out.
   About how long did it take you to complete this questionnaire?

_____

Your contribution to this effort is greatly appreciated. If you would like a summary of results, please print your name and address on the enclosed self-addressed postcard (**Not on this questionnaire**) and mail it back **separately**.

Thank you again for your participation!

APPENDIX B

Content Validity Questionnaire

CONTENT VALIDITY

Instructions:

This questionnaire aims to measure grief, concepts of adjustment to spousal bereavement, and related concepts among elderly widowed persons. You are being asked to look at the questionnaire items and tell whether they seem to measure grief, concepts of adjustment to spousal bereavement, and related concepts in Japanese elderly widowed persons.

The questionnaire was divided into two groups: Group A and Group B. Group A includes a set of items for each concept: grief, availability of social support, satisfaction with social support, the quality of past relationship with the deceased spouse, expectations of the death, length of the deceased's illness, concurrent losses, and negative interactions with network members.

For each concept, you will be given a set of items and response sheet with a concept label and definition. Five questions will be asked for each label, definition, and set of items. The five questions that you are asked are:

1. In general, do the label and definition fit the whole set of items?
2. For each item, does it belong to the label and definition?
3. Is there any item that does not fit Japanese elderly widowed persons? (e.g., not appropriate culturally or for elderly persons)
4. Is the wording of any item unclear?
5. Is there anything left off the list of items that you think should be included?

Group B includes items on depression, morale, loneliness, subjective adjustment to the death, provision of care for the deceased spouse during his and her illness, effect of funeral service and following services, changes in relationships with family members, satisfaction with relationships with family members, and demographic information.

You will be asked three questions for each set of items. The three questions include:

1. Is there any item that does not fit Japanese elderly widowed persons?
2. Is the wording of any item unclear?
3. Is there anything left off the list of items that you think should be included?

LIST OF ITEMS FOR GROUP A

SET 1 : Grief

Now I would like to ask you about the feelings and actions that you experienced **around the time your spouse died**. Think back to the time your spouse died and answer all of these items about your feelings and actions at that time by indicating whether each item is Completely True, Mostly True, Both True and False, Mostly False, or Completely False. **CIRCLE** the number of the best answer.

1. After my spouse died I found it hard to get along with certain people.
2. I found it hard to work well after my spouse died.
3. After my spouse's death I lost interest in my family, friends, and outside activities.
4. I felt a need to do things that the deceased had wanted to do.
5. I was unusually irritable after my spouse died.
6. I couldn't keep up with my normal activities for the first 3 months after my spouse died.
7. I was angry that my spouse who died left me.
8. I found it hard to sleep after my spouse died.

Using the scale below, **CIRCLE** the number which best describes how often you felt or behaved this way. **DURING THE PAST WEEK.**

0 = Never or rarely (less than 1 day)
1 = Occasionally (1-2 days)
2 = Moderately often (3-4 days)
3 = Very often (5-7 days)

During the past week, did you....

9. Feel stunned or dazed?
10. Feel numb?
11. Experience disbelief of what happened?
12. Lose control of your feelings?
13. Feel as if you were going to burst emotionally?
14. Experience a dread of impending trouble?
15. Feel upset when your thinking turned to your (husband/wife)?

16. Long (yearn) to have your (husband/wife) back as (he/she) was before the last illness?
17. Feel tense, nervous or fidgety?
18. (Was) your mind preoccupied with thoughts of your (husband/wife)?
19. Feel a need to call your (husband's/wife's) name?
20. Feel drawn to places and things associated with your (husband/wife)?
21. Sometimes experience mental images so vivid that for a moment it was as if your (husband/wife) were there (when (he/she) was absent)?
22. Sometimes hear things associated with your (husband/wife), e.g., hear (his/her) footsteps on the stairs (when (he/she) was absent)?
23. Sometimes feel as if your (husband/wife) were with you and touched you (when (he/she) was absent)?
24. Dream of your (husband/wife)?
25. Sigh a lot?
26. Feel as if you were about to cry?

For all of the following questions, **CIRCLE** the answer that best describes how you **presently** feel about your spouse's death.

27. I still cry when I think of my spouse who died.
28. I still get upset when I think about my spouse who died.
29. I cannot accept my spouse's death.
30. Sometimes I very much miss my spouse who died.
31. Even now it's painful to recall memories of my spouse who died.
32. I am preoccupied with thoughts (often think) about my spouse who died.
33. I hide my tears when I think about my spouse who died.
34. No one will ever take the place in my life of my spouse who died.
35. I cannot avoid thinking about my spouse who died.
36. I feel it's unfair that my spouse died.
37. Things and people around me still remind me of my spouse who died.
38. I am unable to accept the death of my spouse who died.
39. At times I still feel the need to cry for my spouse who died.

LIST OF ITEMS FOR GROUP A

SET 2 : Social Support and Satisfaction with Social Support

Now I would like you to answer some questions about the help you and your spouse received prior to his or her death. **"Help" refers to help with daily tasks like grocery shopping, house cleaning, cooking, and/or care for your spouse before the death, and emotional support like talking over problems and/or helping you make a difficult decision.** Please tell me whether you had help from others prior to the death.

1. Thinking back prior to the death of your spouse, did you have help from others?
   No.....0 **(Go to Q. 2)**
   Yes..... 1

1a. If **YES**, how satisfied were you with help that you received?
   Very satisfied..... 4
   Pretty..... 3
   Some..... 2
   A little.....1
   Not at all.....0

2. Is there a person you thought would help you more in caring for your spouse, but who did **not** do so?
   No.....0 **(Go to Q. 3)**
   Yes..... 1

2a. If **YES,** how upsetting has it been for you that this person did not help as you expected
   Not at all upsetting.....0
   A little upsetting..... 1
   Somewhat upsetting..... 2
   Quite upsetting.....3
   Extremely upsetting..... 4

3. Currently, when you need some extra help, can you count on anyone to help with **daily tasks** like grocery shopping, house cleaning, cooking, telephoning, or give you a ride?
   Yes..... 1
   No.....2
   I don't need help..... 3 **(Go to Q. 4)**

3a. Since your spouse's death who has been most helpful with **daily tasks**? Please identify one or two people by circling the number next to the person.

Daughter..... 1
Son..... 2
Daughter-in-law..... 3
Son-in-law..... 4
Sibling..... 5
Other relative..... 6
Your neighbors..... 7
Co-workers..... 8
Club members..... 9
Professionals..... 10
Any friends not included in these categories..... 11
No one..... 12

3b. Would you say you feel satisfied with help for **daily tasks** or do you wish it was provided more often or less often?

More often..... 1
Satisfied..... 2
Less often..... 3

4. Can you count on anyone to provide you with **emotional** support? (talk over problems, help you make a difficult decision, or make you feel loved and cared for)

Yes..... 1
No..... 2
I don't need support... 3 (**Go to next page**)

4a. Since your spouse's death who has been most helpful in providing you with **emotional** support? Please identify one or two people by circling the number next to the person.

Daughter..... 1
Son..... 2
Daughter-in-law..... 3
Son-in-law..... 4
Sibling..... 5
Other relative..... 6
Your neighbors..... 7
Co-workers..... 8
Club members..... 9
Professionals..... 10
Any friends not included in these categories..... 11
No one..... 12

4b. Would you say you feel satisfied with the amount of **emotional** support that you have received from others, or do you wish that others would have given you this type of help more often or less often?

More often..... 1
Satisfied..... 2
Less often..... 3

LIST OF ITEMS FOR GROUP A

SET 3 : Quality of the Past Relationship with the Deceased

Think back to the time before your spouse died. These questions ask about past marital attitudes and behaviors. Try to answer all questions as honestly as possible. Do not take too much time on any one question. Give each question a moment's thought and then answer it. (1 = very strong disagreement to 7 = very strong agreement)

1. We had a good marriage.
2. My relationship with my spouse was very stable.
3. Our marriage was strong.
4. My relationship with my spouse made me happy.
5. I really felt like part of a team with my spouse.
6. On the scale below, indicate the point which best describes **the degree of happiness, every thing considered, in your past marriage life.** The middle point, "happy," represents the degree of happiness which most people get from marriage. The scale gradually increases on the right side for those few who experience extreme joy in marriage and decrease on the left side for those who are extremely unhappy.

1	2	3	4	5	6	7	8	9	10
Very Unhappy				**Happy**					**Perfectly Happy**

7. How much did you confide in your spouse?
   - Not at all..... 0
   - A little..... 1
   - Some..... 2
   - Quite a bit..... 3
   - A great deal..... 4
8. How much did your spouse confide in you?
   (Using the same response options as **Question** 7)
9. How often did you have disagreements or conflicts with your spouse?
   - Never..... 0
   - Rarely..... 1
   - Sometimes..... 2
   - Usually..... 3
   - Always..... 4

10. When disagreements arose, generally they resulted in...
    my giving in..... 1
    my spouse giving in..... 2
    neither of us giving in..... 3
    agreement by mutual give and take. 4

11. How frequently did you and your spouse generally talk things over together?
    (Using the same response options as **Question 9**)

12. How often did you depend on your spouse for decision making?
    (Using the same response options as **Question 9**)

13. How much did you depend and presume upon your spouse's benevolence?
    (Using the same response options as **Question 7**)

14. How much did your spouse depend and presume upon your benevolence?
    (Using the same response options as **Question 7**)

LIST OF ITEMS FOR GROUP A

SET 4 : Expectation of the Death

1. How much did you expect your spouse's death?
   - Expected.....1
   - Fairly expected.....2
   - Fairly unexpected.....3
   - Unexpected..... 4

SET 5 : Length of the Deceased's Illness

1. Was your spouse ill prior to his or her death?
   - No.....0
   - Yes.....1

1a. If **YES**, how many month?

_____ months

SET 6 : Concurrent Losses

1. Did you experience other losses during the period from around the time of the death of your spouse to the time you could adjust to the death?
   - No..... 0
   - Yes..... 1

1a. If **YES**, which losses you have faced?
   - Death of close family members.....1
   - Major illness of family members.....2
   - Job retirement.....3
   - Death of close friend.....4
   - Move.....5
   - Serious money problem.....6
   - Others _____

LIST OF ITEMS FOR GROUP A

SET 7 : Negative Interactions with Network Members

1. Has anyone told you to suppress your feelings of grief?
   (For example, telling you to adjust as soon as possible, don't talk about your feelings o grief, and not willing to listen your feelings)
   No..... 0
   Yes..... 1

1a. If **YES**, how did this make you feel?

2. Do you have family members or relatives who are critical of you?
   No..... 0
   Yes..... 1

2a. If **YES**, how much do these interactions bother you?
   Not at all.....0
   A little..... 1
   Some..... 2
   A lot.....3

LIST OF ITEMS FOR GROUP B

Set 8 : Depression

Using the scale below, **CIRCLE** the number which best describes how often you felt or behaved this way. **DURING THE PAST WEEK**.

0 = Never or rarely (less than 1 day)
1 = Occasionally (1-2 days)
2 = Moderately often (3-4 days)
3 = Very often (5-7 days)

1. I was bothered by things that usually don't bother me.
2. I did not feel like eating; my appetite was poor.
3. I felt that I could not shake off the blues even with help from my family or friends.
4. I felt that I was just as good as other people.
5. I had trouble keeping my mind on what I was doing.
6. I felt depressed.
7. I felt that everything I did was an effort.
8. I felt hopeful about the future.
9. I thought my life had been a failure.
10. I felt fearful.
11. My sleep was restful.
12. I was happy.
13. It seemed that I talked less than usual.
14. I felt lonely.
15. People were unfriendly.
16. I enjoyed life.
17. I had crying spells.
18. I felt sad.
19. I felt that people disliked me.
20. I could not "get going."

LIST OF ITEMS FOR GROUP B

SET 9 : Morale

Now I would like to know your view of life. For each question, **Circle** the answer that best describes your ideas and behaviors.

1. Little things bother me more this year.....	Yes	No
2. I sometimes worry so much that I can't sleep.....	Yes	No
3. I am afraid of a lot of things.....	Yes	No
4. I get mad more than I used to.....	Yes	No
5. I take things hard.....	Yes	No
6. I get upset easily.....	Yes	No
7. Things keep getting worse as I get older.....	Yes	No
8. I have as much pep as I had last year.....	Yes	No
9. As I get older, things are better/worse than I thought they would be.....	Better	Worse
10. As you get older you are less useful.....	Yes	No
11. I am as happy now as when I was younger.....	Yes	No
12. How much do you feel lonely?.....	Much	Not much
13. I see enough of my friends and relatives.....	Yes	No
14. I sometimes feel that life isn't worth living.....	Yes	No
15. Life is hard for me much of the time.....	Yes	No
16. How satisfied are you with your life today?.....	Satisfied	Not satisfied
17. I have a lot to be sad about.....	Yes	No

LIST OF ITEMS FOR GROUP B

SET 10 : Loneliness

Using four choices - Never, Rarely, Sometimes, or Often - please read the statements below and circle the response which best describes how often you feel this way. **Circle** one number for each.

1. I feel in tune with the people around me.
2. I lack companionship.
3. There is no one I can turn to.
4. I do not feel alone.
5. I feel part of a group of friends.
6. I have a lot in common with the people around me.
7. I am no longer close to anyone.
8. My interests and ideas are not shared by those around me.
9. I am an outgoing person.
10. There are people I feel close to.
11. I feel left out.
12. My social relationships are superficial.
13. No one really knows me well.
14. I feel isolated from others.
15. I can find companionship when I want it.
16. There are people who really understand me.
17. I am unhappy being so withdrawn.
18. People are around me but not with me.
19. There are people I can talk to.
20. There are people I can turn to.

LIST OF ITEMS FOR GROUP B

SET 11 : Subjective Adjustment to the Death

1. Could you adjust to your spouse's death?
   No..... 0
   Yes..... 1

1a. If **YES**, how many months did it take you to adjust to your spouse's death?
   _____ months

SET 12 : Provision of Care for the Deceased Spouse during His or Her Illness

1. Did you provide the majority care for the deceased spouse during his or her illness?
   No.....0
   Yes..... 1

1a. If **No**, who provide the majority care for the deceased spouse during his or her illness?
   Daughter.....1
   Son..... 2
   Daughter-in-law.....3
   Son-in-law.....4
   Other relatives.....5
   Friends.....6
   Other.....7 Specify _____

LIST OF ITEMS FOR GROUP B

SET 13 : Effect of Funeral Service and Following Services

1. Do you think that the funeral service and memorial services (e.g., 7th day after the death, 35th day after the death, 49th day after the death, the first anniversary day after the death, the second anniversary day after the death) have been useful for you to adjust to the death of your spouse?
   - No..... 0
   - Yes..... 1

1a. If **YES**, how much have these services been useful for you?
   - A little.....1
   - Some.....2
   - A quite bit.....3
   - A lot.....4

2. Do you have a family altar at home?
   - No..... 0
   - Yes.....1

2a. If **YES**, during the past 2 weeks, did you talk to your deceased spouse in front of family altar?
   - No.....0
   - Yes.....1

2b. If **YES**, how often did you talk to your deceased spouse during the past 2 weeks?
   - More than once a day.....5
   - Every day..... 4
   - 2-3 times a week..... 3
   - Once a week.....2
   - Less frequently..... 1

SET 14 : Changes in Relationship with Family Members

1. After your spouse's death how much have you experienced changes in the relationships with your family members?
   - Not at all..... 0
   - A little..... 1
   - Some..... 2
   - A quite bit..... 3
   - A lot..... 4

1a. What is the biggest change in the relationships with your family members?

LIST OF ITEMS FOR GROUP B

SET 15 : Satisfaction with Relationships with Family Members

1. How satisfied are you with the relationships with your family members?
   - Very satisfied..... 4
   - Pretty..... 3
   - Somewhat..... 2
   - A little..... 1
   - Not at all satisfied..... 0

SET 16 : Widowed Persons' Thoughts based on Their Experiences of Spousal Bereavement

1. In thinking over all of your experiences since you have become widowed person, what do you think are the most important problems of widowhood?
2. Each widowed person has his or her own way of adjusting to widowhood. You may have some additional thoughts about the way you have coped with your widowhood. Please tell me about any additional thoughts or behaviors you have found helpful?
3. What is the most important piece of advice you could offer a recently widowed person?

SET 17 : Demographic Information

1. Was your spouse female or male?
   - Female.....0
   - Male.....1
2. What is the date of your spouse's death
   year month day
3. How many years were you married to your spouse?
   years
4. In what year were you born?
   19___
5. Are you female or male?
   - Female.....0
   - Male.....1
6. How many years did you go to school in all?
   _____ years

7. Do you currently have occupation?
   - No, I am retired..... 1
   - No, I never have been employed.....2
   - No, I quit job because my spouse was ill. 3
   - Yes, I have part-time job.....4
   - Yes, I have full-time job.....5

7a. What kind of work do(did) you do?

_____

8. Counting yourself, how many people live in
_____ persons

9. Who else lives in your household?
   - Son..... 1
   - Daughter.....2
   - Daughter-in-law.....3
   - Son-in-law.....4
   - Grand-children..... 5
   - Sibling(s).....6
   - Other relatives.....7
   - Others.....8

10. Which of the following four statements describes your ability to get along on your income?
   - I can't make ends meet..... 1
   - I have just enough, no more.....2
   - I have enough, with a little extra sometimes. 3
   - I always have money left over.....4

11. What is the total amount of your yearly **household** income? Please include money jobs, net income from a business or farm, dividends, interest, net income from rent, social security, and any other money income.
   - Under $10,000..... 1
   - $10,000-$19,999..... 2
   - $20,000-$29,999..... 3
   - $30,000-$39,999..... 4
   - $40,000-$49,999..... 5
   - $50,000-$59,999..... 6
   - $60,000-$69,999..... 7
   - $70,000-$99,999..... 8
   - $100,000 or more..... 9

RESPONSE SHEET FOR GROUP A SCALES

Name _____

SET 1
Label: Grief

Definition: A series of feelings, behaviors, and physical symptoms that bereaved persons have experienced after the loss of a loved person.

Question 1: Read the label and definition above. Then read all items in the set. In **general**, does the label and definition fit the whole set of items? Answer once for the entire set of items by circling the number which best reflects your level of agreement.

Very relevant.....4
Quite relevant.....3
Somewhat relevant.....2
Not at all.....1

Question 2: For each item, does it belong to the label and definition? Respond by circling **Yes** or **No** next to each item number.

Item #	Does this item fit label and definition?		Comments
1	Yes	No	_____
2	Yes	No	_____
⋮	⋮	⋮	⋮
39	Yes	No	_____

Question 3: Is there any item that does not fit Japanese elderly widowed persons? (e.g., not appropriate culturally or for elderly persons)

All items fit Japanese elderly widowed persons..... 1
Some items do not fit..... 0

If items do not fit, which items and how?

Question 4: Is the wording of any item unclear?

All items are clear..... 1
Some items are unclear.....0

If items are unclear, which items and how?

Question 5: Is there anything left off the list of items that you think should be included?

RESPONSE SHEET FOR GROUP A SCALES

SET 2

Label: Social Support and Satisfaction with Social Support

Definition: Emotional and instrumental support that a widowed person received and/or perceived from his or her networks. Support involves caregiving support (support provided prior to the death of a spouse) and bereavement support (support given to a widowed person). Satisfaction with support that a widowed person received from his or her networks prior to the death of a spouse and after the death.

Question 1: Read the label and definition above. Then read all items on availability of and satisfaction with social support. Does the label and definition fit the whole set of items? Answer once for the entire set of items by circling the number which best reflects your level of agreement.

Very relevant.....4
Quite relevant.....3
Somewhat relevant.....2
Not at all.....1

Question 2: For each item, does it belong to the label and definition? Respond by circling **Yes** or **No** next to each item number.

Item #	Does this item fit label and definition?		Comments
1	Yes	No	_____
1a	Yes	No	_____
:	:	:	:
4b	Yes	No	_____

Question 3: Is there any item that does not fit Japanese elderly widowed persons? (e.g., not appropriate culturally or for elderly persons)

All items fit Japanese elderly widowed persons.....1
Some items do not fit.....0

If items do not fit, which items and how?

Question 4: Is the wording of any item unclear?

All items are clear.....1
Some items are unclear.....0

If items are unclear, which items and how?

Question 5: Is there anything left off the list of items that you think should be included?

RESPONSE SHEET FOR GROUP A SCALES

SET 3
Label: The Quality of Past Relationship with the Deceased

Definition: Quality of the past relationship with the deceased spouse in terms of marital interaction (e.g., frequency of disagreements, frequency of confiding in spouse, frequency of depending on spouse) and quality of marriage (e.g., goodness of marriage, stable relationship, degree of happiness).

Question 1: Read the label and definition above. Then read all items on the quality of the past relationship with the deceased. Does the label and definition fit the whole set of items? Answer once for the entire set of items by circling the number which best reflects your level of agreement.

Very relevant.....4
Quite relevant.....3
Somewhat relevant.....2
Not at all.....1

Question 2: For each item, does it belong to the label and definition? Respond by circling **Yes** or **No** next to each item number.

Item #	Does this item fit label and definition?		Comments
1	Yes	No	_____
2	Yes	No	_____
⋮	⋮	⋮	⋮
14	Yes	No	_____

Question 3: Is there any item that does not fit Japanese elderly widowed persons? (e.g., not appropriate culturally or for elderly persons)

All items fit Japanese elderly widowed persons..... 1
Some items do not fit..... 0

If items do not fit, which items and how?

Question 4: Is the wording of any item unclear?

All items are clear..... 1
Some items are unclear..... 0

If items are unclear, which items and how?

Question 5: Is there anything left off the list of items that you think should be included?

RESPONSE SHEET FOR GROUP A SCALES

SET 4
Label: Expectations of the Death

Definition: Degree to which impending death was expected.

Question 1: Read the label and definition above. Then read the item on expectations of the death. Does the label and definition fit the whole set of items? Answer once for the entire set of items by circling the number which best reflects your level of agreement.

Very relevant.....4
Quite relevant.....3
Somewhat relevant.....2
Not at all.....1

Question 2: For this item, does it belong to the label and definition? Respond by circling **Yes** or **No** next to the item number.

Item #	Does this item fit label and definition?		Comments
1	Yes	No	

Question 3: Does this item fit Japanese elderly widowed persons? (e.g., not appropriate culturally or for elderly persons)

Yes..... 1
No..... 0

If **NO**, how?

Question 4: Is the wording of this item clear?

Yes.....1
No.....0

If **NO**, how?

Question 5: Is there anything left off the list of items that you think should be included?

RESPONSE SHEET FOR GROUP A SCALES

SET 5

Label: Length of the Deceased's Illness

Definition: The length of illness that led to the deceased spouse death.

Question 1: Read the label and definition above. Then read the item on length of the deceased's illness. Does the label and definition fit the whole set of items? Answer once for the entire set of items by circling the number which best reflects your level of agreement.

Very relevant.....4
Quite relevant.....3
Somewhat relevant.....2
Not at all.....1

Question 2: For each item, does it belong to the label and definition? Respond by circling **Yes** or **No** next to the item number.

Item #	Does this item fit label and definition?		Comments
1	Yes	No	_____
1a	Yes	No	_____

Question 3: Do these items fit Japanese elderly widowed persons?

Yes.....1
No..... 0

If **NO**, how? _____

Question 4: Are these items clear?

Yes.....1
No.....0

If **NO**, how?

Question 5: Is there anything left off the list of items that you think should be included?

RESPONSE SHEET FOR GROUP A SCALES

SET 6
Label: Concurrent Losses

Definition: Simultaneous losses that a widowed person experiences in addition to the loss of a spouse.

Question 1: Read the label and definition above. Then read the item on concurrent losses. Does the label and definition fit the whole set of items? Answer once for the entire set of items by circling the number which best reflects your level of agreement.

Very relevant.....4
Quite relevant.....3
Somewhat relevant.....2
Not at all.....1

Question 2: For each item, does it belong to the label and definition? Respond by circling **Yes** or **No** next to the item number.

Item #	Does this item fit label and definition?		Comments
1	Yes	No	_____
1a	Yes	No	_____

Question 3: Do these items fit Japanese elderly widowed persons?

Yes.....1
No..... 0

If **NO**, how? _____

Question 4: Are these items clear?

Yes.....1
No.....0

If **NO**, how?

Question 5: Is there anything left off the list of items that you think should be included?

RESPONSE SHEET FOR GROUP A SCALES

SET 7
Label: Negative Interactions with Network Members

Definition: Negative effects resulted from the relationships between the widowed person and his or her network members (e.g., family members, relatives, friends, neighbors) .

Question 1: Read the label and definition above. Then read the item on negative interactions with network members. Does the label and definition fit the whole set of items? Answer once for the entire set of items by circling the number which best reflects your level of agreement.

Very relevant.....4
Quite relevant.....3
Somewhat relevant.....2
Not at all.....1

Question 2: For this item, does it belong to the label and definition? Respond by circling **Yes** or **No** next to the item number.

Item #	Does this item fit label and definition?		Comments
1	Yes	No	_____
:	:	:	:
2a	Yes	No	_____

Question 3: Is there any item that does not fit Japanese elderly widowed persons? (e.g., not appropriate culturally or for elderly persons)

All items fit Japanese elderly widowed persons.....1
Some items do not fit.....0

If items do not fit, which items and how?

Question 4: Is the wording of any item unclear?

All items are clear.....1
Some items are unclear.....0

If items are unclear, which items?

Question 5: Is there anything left off the list of items that you think should be included?

RESPONSE SHEET FOR GROUP B SCALES

SET 8
Label : Depression

Question 1 : Is there any item that does not fit Japanese elderly widowed persons? (e.g., not appropriate culturally or for elderly persons)

All items fit Japanese elderly widowed persons..... 1
Some items do not fit.....0

It items do not fit, which items and how?

Question 2 : Is the wording of any item unclear?

All items are clear..... 1
Some items are not clearly stated..... 0

If items are unclear, which items and how?

Questions 3 : Is there anything left off the list of items that you think should be included?

RESPONSE SHEET FOR GROUP B SCALES

SET 9
Label : Morale

Question 1 : Is there any item that does not fit Japanese elderly widowed persons? (e.g., not appropriate culturally or for elderly persons)

All items fit Japanese elderly widowed persons..... 1
Some items do not fit.....0

It items do not fit, which items and how?

Question 2 : Is the wording of any item unclear?

All items are clear..... 1
Some items are not clearly stated..... 0

If items are unclear, which items and how?

Questions 3 : Is there anything left off the list of items that you think should be included?

RESPONSE SHEET FOR GROUP B SCALES

SET 10
Label : Loneliness

Question 1 : Is there any item that does not fit Japanese elderly widowed persons? (e.g., not appropriate culturally or for elderly persons)

All items fit Japanese elderly widowed persons..... 1
Some items do not fit.....0

It items do not fit, which items and how?

Question 2 : Is the wording of any item unclear?

All items are clear..... 1
Some items are not clearly stated..... 0

If items are unclear, which items and how?

Questions 3 : Is there anything left off the list of items that you think should be included?

RESPONSE SHEET FOR GROUP B SCALES

SET 11

Label : Subjective Adjustment to the Death

Question 1 : Is there any item that does not fit Japanese elderly widowed persons? (e.g., not appropriate culturally or for elderly persons)

All items fit Japanese elderly widowed persons..... 1
Some items do not fit.....0

It items do not fit, which items and how?

Question 2 : Is the wording of any item unclear?

All items are clear..... 1
Some items are not clearly stated..... 0

If items are unclear, which items and how?

Questions 3 : Is there anything left off the list of items that you think should be included?

RESPONSE SHEET FOR GROUP B SCALES

SET 12
Label : Provision of Care for the Deceased Spouse during His or Her Illness

Question 1 : Is there any item that does not fit Japanese elderly widowed persons? (e.g., not appropriate culturally or for elderly persons)

All items fit Japanese elderly widowed persons..... 1
Some items do not fit.....0

It items do not fit, which items and how?

Question 2 : Is the wording of any item unclear?

All items are clear..... 1
Some items are not clearly stated..... 0

If items are unclear, which items and how?

Questions 3 : Is there anything left off the list of items that you think should be included?

RESPONSE SHEET FOR GROUP B SCALES

SET 13
Label : Effect of Funeral Service and Following Services

Question 1 : Is there any item that does not fit Japanese elderly widowed persons? (e.g., not appropriate culturally or for elderly persons)

All items fit Japanese elderly widowed persons..... 1
Some items do not fit.....0

It items do not fit, which items and how?

Question 2 : Is the wording of any item unclear?

All items are clear..... 1
Some items are not clearly stated..... 0

If items are unclear, which items and how?

Questions 3 : Is there anything left off the list of items that you think should be included?

RESPONSE SHEET FOR GROUP B SCALES

SET 14
Label : Changes in Relationships with Family Members

Question 1 : Is there any item that does not fit Japanese elderly widowed persons? (e.g., not appropriate culturally or for elderly persons)

All items fit Japanese elderly widowed persons..... 1
Some items do not fit.....0

It items do not fit, which items and how?

Question 2 : Is the wording of any item unclear?

All items are clear..... 1
Some items are not clearly stated..... 0

If items are unclear, which items and how?

Questions 3 : Is there anything left off the list of items that you think should be included?

RESPONSE SHEET FOR GROUP B SCALES

SET 15
Label : Satisfaction with Relationships with Family Members

Question 1 : Does this item fit Japanese elderly widowed persons? (e.g., not appropriate culturally or for elderly persons)

This item fit Japanese elderly widowed persons..... 1
This item does not fit.....0

If **NOT**, how?

Question 2 : Is the wording of this item clear?

This item is clear..... 1
This item is not clear..... 0

If **NOT**, how?

Questions 3 : Is there anything left off the list of items that you think should be included?

RESPONSE SHEET FOR GROUP B SCALES

SET 16

Label : Widowed Persons' Thoughts based on Their Experiences of Spousal Bereavement

Question 1 : Is there any item that does not fit Japanese elderly widowed persons? (e.g., not appropriate culturally or for elderly persons)

All items fit Japanese elderly widowed persons..... 1
Some items do not fit.....0

It items do not fit, which items and how?

Question 2 : Is the wording of any item unclear?

All items are clear..... 1
Some items are not clearly stated..... 0

If items are unclear, which items and how?

Questions 3 : Is there anything left off the list of items that you think should be included?

RESPONSE SHEET FOR GROUP B SCALES

SET 17
Label : Sociodemographic Information

Question 1 : Is there any item that does not fit Japanese elderly widowed persons? (e.g., not appropriate culturally or for elderly persons)

All items fit Japanese elderly widowed persons.....1
Some items do not fit.....0

It items do not fit, which items and how?

Question 2 : Is the wording of any item unclear?

All items are clear..... 1
Some items are not clearly stated..... 0

If items are unclear, which items and how?

Questions 3 : Is there anything left off the list of items that you think should be included?

APPENDIX C

Letter to nurse administrators and public nurses requesting list of possible subjects

Date

Name
Address

Dear Mr. or Mrs.

I am writing this letter to ask you to give me a list of possible subjects in this study.

I would like to introduce myself and to explain this study briefly. I had graduated from my undergraduate nursing program, after then, I worked with advanced or terminal cancer patients and their families for 7 years and completed my master's degree with a focus on oncology nursing. Based on these experiences, I became very interested in grief care. I am currently a doctoral student in the United States at the Oregon Health Sciences University and am conducting a study to learn more about grief and adjustment to spousal bereavement.

The purposes of this study are to evaluate the reliability and validity of the Japanese versions of grief, social support, and the quality of the past relationship with the deceased with Japanese elderly widowed persons.

The method of this study is a mail survey using a self-administered questionnaire. The possible subjects will be asked to complete the questionnaire in anonymously and to return it in the enclosed stamped, self-addressed envelope. The possible subjects will be informed that participation in the study is completely voluntary, and they have the right to refuse to participate.

If you have any questions about this study, could you please feel free to contact me. My address and phone number are listed below.

Thank you very much for your time and thoughtful consideration.

Sincerely,

Address
Telephone number

Shizue Suzuki, RN., MS.

APPENDIX D

Letter to possible subjects for participation in this study and
Reminder postcard

Date

Name
Address

Dear Mr. or Mrs.

Many people experience grief after the death of their spouse. Very little is known about how widowed persons experience grief and how widowed persons manage various difficulties and adjust to spousal bereavement. I am a nurse who has cared for terminally ill patients and their families. I am currently a doctoral student in the United States at the Oregon Health Sciences University and am conducting a study to learn more about grief and adjustment to spousal bereavement.

I received your name and address from ___ Hospital (or ____ Public Health Center). Since your spouse died, you may have experienced various feelings of grief and have managed various difficulties. I would like to ask you to share your bereavement experiences with me as a part of my research. The information which you provide for this study will be helpful to nurses, doctors, social workers, and other health professionals to gain a better understanding of grief and how widowed persons manage the loss of their spouse. It may also help nurses in providing appropriate support to widowed persons.

If you are willing to participate in this study, you will be asked to complete the enclosed questionnaire and return the questionnaire in the enclosed, stamped envelope. The questionnaire should take approximately 1 hour and 20 minutes to complete. Participation in the study is completely voluntary, and you have the right to refuse to participate.

You are assured of complete anonymity. If you would like a summary of the results from my research, please print your name and address on the enclosed, self-addressed postcard and return it separately.

If you have any questions about this study, please feel free to contact me. My address and phone number are listed below.

Sincerely,

Address
Telephone number

Shizue Suzuki, RN., MS.

Mr. or Mrs.

A couple weeks ago, a questionnaire seeking your opinion about your experiences of spousal bereavement was mailed to you. If you have already completed and returned the questionnaire to me, please accept my sincere thanks. If not, please complete it and return it to me as soon as possible. Your answers are very important to understand the bereavement experience of people who have experienced the death of their spouse. If by some chance you did not receive the questionnaire, or it got misplaced, please call me, and I will get another copy in the mail to you today.

Sincerely,

Address
Telephone number

Shizue Suzuki, RN, MS

APPENDIX E

Approval from the Institutional Review Board (IRB),
Oregon Health Sciences University

OREGON
HEALTH SCIENCES UNIVERSITY
3181 S.W. Sam Jackson Park Road, Portland, OR 97201-3098
Mail Code L106, (503) 494-7887 Fax (503) 494-7787
Institutional Review Board/Committee on Human Research

DATE: February 20, 1996

TO: Shizue Suzuki SN-ADM
c/o Jane Kirschling

FROM: Committee on Human Research
L106

RE: Project Title: Reliability and validity of the Japanese versions of grief, quality of past relationship with the deseaced spouse, and social support measures in Japanese elderly widowed persons

This confirms receipt of the letter dated February 15, 1996. It answers questions, assurances, etc., for the above referenced study. It satisfies the requirements of the Committee on Human Research

Research involving the use of educational tests, (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that subjects can be identified, directly or through identifiers linked to the subjects; and any disclosure of the human subjects responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation

It therefore falls under category #2 of the federal regulations (45 CFR Part 46.101 (b)) and is considered to be exempt from review by the Committee on Human Research.

This study has been put into our exempt files, and you will receive no further communication from the Committee concerning this study. However, if the involvement of human subjects in this study changes, you must contact the Committee on Human Research to find out whether or not those changes should be reviewed. If possible, please notify the Committee when this project has been completed.

Thank you for your cooperation.