

HOPELESSNESS IN A COMMUNITY POPULATION IN JAPAN

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The Japanese version of the Beck Hopelessness Scale was administered to a total of 154 community residents. The internal consistency (KR-20) was .86. The mean BHS score was 8.6 ($SD = 3.9$), approximately one standard deviation higher than the reported mean for an Irish general population. The BHS scores were found to be significantly correlated with the age and the number of people living together. Significant negative correlations were found with subjective physical fitness, self-confidence, satisfaction with accommodation and marital state, and adjustment in the work place. The mean BHS score was significantly higher among those individuals who had experienced early maternal or paternal death than those who had not. © 1996 John Wiley & Sons, Inc.

Hopelessness is a psychological construct that underlies a variety of mental disorders (Beck, Weissman, Lester, & Trexler, 1974), and has been hypothesized to be an etiological factor in depression (Abramson, Metalsky, & Alloy, 1989). Although clinical depression often results in suicide, hopelessness may be a stronger predictive variable of suicidal behavior in schizophrenia (Drake & Cotton, 1986) and depression (Beck, Kovacs, & Weissman, 1975; Kovacs, Beck, & Weissman, 1975). Hopeless individuals believe that nothing will turn out right for them, that they will never succeed at what they attempt to do, that their important goals can never be attained, and that their worst problems will never be solved (Beck & Steer, 1988).

Although several scales measuring hopelessness or hopefulness have been developed (Gottschalk, 1974; Kazdin, French, Unis, Esveltd-Dawson, & Sherick, 1983; Snyder et al., 1991), the Beck Hopelessness Scale (BHS; Beck & Steer, 1988; Beck et al., 1974) is the most widely used. The BHS measures the extent of negative expectancy in an individuals' future life. It consists of 20 statements about oneself which are rated as true or false. The contents of 11 statements are worded negatively, reflecting hopelessness, and those of nine are worded positively, reflecting hopefulness. Each item response is assigned a score 0

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(hopeful) or 1 (hopeless). Thus, the total BHS score can range from 0 to 20; a higher score indicates greater hopelessness.

The reliability of the BHS was confirmed by Beck et al. (1974), who examined a sample of 294 adult psychiatric inpatients who had recently attempted suicide, and obtained a high internal consistency with a coefficient alpha (Kuder-Richardson, 20) of .93, and item-total correlations ranging from .39 to .76. Administering the BHS to a total of 120 elderly psychiatric outpatients seeking psychotherapy for depression, Hill, Gallagher, Thompson, and Ishida (1988) reported a level of internal consistency with a coefficient alpha of .84 and a Spearman-Brown split-half reliability of .82. The norms of BHS scores in an Irish general population were reported by Greene (1981). The mean BHS score was 4.45 ($SD = 3.09$). There was no significant sex difference. The correlation of the BHS score with age was significantly positive. Socioeconomic status was negatively correlated with the BHS. The BHS scores of divorced, widowed and separated respondents were significantly higher than those of subjects who had never married and those who were married (Greene, 1981). Johnson and McCutcheon (1981) found a significant correlation between BHS score and an emotional maladjustment scale (Johnson & Overall, 1973) in 97 adolescents. Despite expectancy that hopelessness might be related to both psychological and physical problems, self-reports concerning physical health status were unrelated to BHS score.

The concept of hopelessness is applicable to the Japanese culture. The term equivalent to hopelessness in Japanese, "zetsubokan," is a fairly common word and is often used in everyday conversation. Studying 52 Japanese psychiatric patients, Ono, Murai, Yasuda, Nakamura, & Nakajima (1994) found that hopelessness was associated with suicidal tendency as well as depression. Despite these considerations, we are not aware of any investigations which studied hopelessness among a community population in Japan. We report here the psychometric properties and demographic, psychological, and life-history correlates of the BHS used in a Japanese community population.

METHOD

We conducted an epidemiological study involving wide areas of mental health and mental illnesses using a semi-structured interview and questionnaires. Details of the method have been described elsewhere (Aoki, Fujihara, & Kitamura, 1994; Kitamura, et al., 1995).

Subjects

A total of 508 community residents aged 18 years or more of Town A in the City of Kofu, the Capital of Yamanashi Prefecture, were invited to participate in a community mental health survey. Initially, 228 residents agreed to participate. However, 21 residents could not be interviewed for various reasons, and a final total of 207 residents were successfully interviewed. Of these 207 participants, 154 (70 men and 84 women) completed both a set of questionnaires and the interview. They were aged between 18 and 91 years, with a mean age of 51.1 ($SD = 16.3$) years. No significant differences were found between those who participated and those who did not in terms of sex ratio and the mean age.

Questionnaires

A set of questionnaires including the BHS were distributed to the subjects about a week before the interview. They were requested to fill them in and return them to the interviewer on the day of the visit.

Interview

We developed a semi-structured comprehensive interview (Time Ordered Stress and Health Interview) which covered demographic variables, life events and difficulties, attributional styles, types of coping behaviour, social support, leisure activities, early life expe-

riences, self-esteem, psychological well-being, psychiatric present state and history, and family history of psychiatric disorders. In this study, demographic variables, subjective physical fitness, self-confidence, life satisfaction, adjustment level in different daily life situations, and early parental loss were used.

We rated subjective physical fitness, self-confidence, and satisfaction with daily life and accommodation on a 5-point scale each; satisfaction with marital life was rated on a 7-point scale. Higher scores were considered to indicate favorable conditions.

The subjects' adjustment levels in daily life were measured by the four global scales of the Social Adjustment Scale-II (SAS-II) (Weissman, Paykel, & Prusoff, 1978). The areas examined were family, work, social leisure, and general. The last area included performance in all three roles. In the original scales, higher scores indicated more maladjustment. However, we reversed the scores so that each level could be rated on a scale from 1 (extremely poor) to 7 (excellent). This is because the SAS-II is a measure of adjustment rather than maladjustment.

Early parental loss included separation from a parent for one month or longer or death of a parent before the subject was aged 16.

The interview was conducted by a trained interviewer, either at the subject's home or at the Yamanashi Prefectural Mental Health and Welfare Center.

RESULTS

Reliability

The internal consistency of the BHS calculated by Kuder-Richardson 20 was .86. The item-total correlation coefficients ranged from $-.08$ to $.48$ (Table 1). Except for items 3 and 17, all coefficients were significant ($r_s(152) > .27, p_s < .01$).

Good-poor analyses of the BHS scores were conducted. The upper quartile (score of 11 or above, $n = 42$) and lowest quartile (score of 6 or below, $n = 43$) of the BHS scores

Table 1
Item Analysis of the Beck Hopelessness Scale

Item	Keying	Pct	SD	Item-Total Correlation
1	F	.57	.50	.467
2	T	.31	.46	.378
3	F	.06	.24	.045
4	T	.75	.44	.278
5	F	.61	.49	.298
6	F	.77	.42	.483
7	T	.18	.38	.399
8	F	.73	.44	.299
9	T	.25	.43	.480
10	F	.17	.38	.348
11	T	.11	.31	.459
12	T	.60	.49	.477
13	F	.43	.50	.466
14	T	.78	.42	.417
15	F	.53	.50	.482
16	T	.10	.31	.438
17	T	.62	.49	-.077
18	T	.60	.49	.385
19	F	.25	.44	.397
20	T	.16	.37	.374

Note.—Pct: Percentage that endorsed item in keyed direction. For detail, see Beck et al. (1974). $N = 154$.

formed high- and low-BHS groups, respectively. Except for items 3 and 17, all the BHS items were found to discriminate significantly between the two groups at the .001 level ($t(83) \geq 4.06, p < .001$).

Demographic variables

The mean BHS score (SD) was 8.6 (3.9); this value fell within the mildly to moderately hopeless range according to Beck and Steer (1988). The distribution of the BHS score was skewed to the right (Figure 1). There was no significant sex difference in the BHS scores (male: $M = 8.0, SD = 3.6$; female: $M = 9.0, SD = 4.1$; $t(152) = 1.50, ns$). However, the BHS scores differed between the age groups (Table 2; $F(4, 149) = 5.4, p < .001$). Scheffe's post hoc range comparison showed that the BHS scores among those aged between 55 and 64 years and 65 years and above were significantly higher than those among subjects aged between 35 and 44 years. Of the 154 participants, 25 had never been married, 16 had been divorced or widowed, 105 were married without previous marital break-up, and 8 had been divorced or widowed but had since remarried. There were no significant differences between the four marital status groups with regard to BHS score ($F(3, 150) = .92, ns$). In this sample, 83 subjects earned their own income, 36 were supported by their spouses, 20 were obtaining benefits, and nine were supported by parents or others. No one received social welfare. The main source of income was unknown for six individuals. There were no significant differences in the BHS scores between these four groups ($F(3, 144) = 2.0, ns$), nor were there significant differences in the BHS scores between the five levels of annual income ($F(4, 141) = .84, ns$). The BHS score was significantly and negatively correlated with the number of people living with the subject ($r(152) = -.24, p < .01$).

Psychological well-being

The BHS score was significantly and negatively correlated with subjective physical fitness ($r(152) = -.17, p < .05$), self-confidence ($r(151) = -.21, p < .01$), satisfaction with the accommodation ($r(150) = -.27, p < .001$), and marital life ($r(115) = -.23, p < .05$). However, hopelessness was not significantly correlated with daily life satisfaction ($r(151) = -.13, p > .1$). Hopelessness was significantly correlated only with adjustment level in the work place ($r(135) = -.26, p < .01$), but not with the other adjustment levels.

Early parental loss experience

In this sample, 15 subjects had experienced early maternal death and 20 had experienced early maternal separation; 12 experienced early paternal death and 33 early paternal

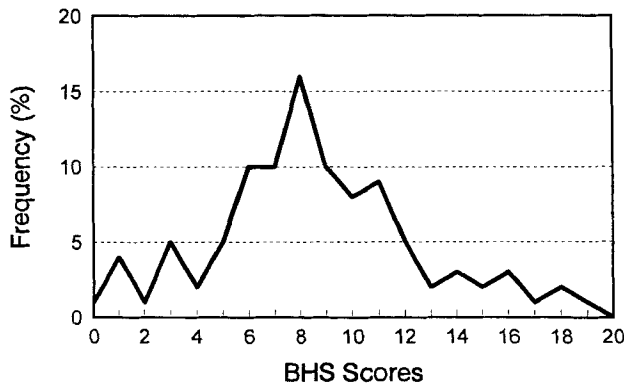


Fig. 1. Distribution of the BHS score.

Table 2
Beck Hopelessness Scale Scores by Age Groups

Age	<i>n</i>	<i>M</i>	<i>SD</i>
18-34	27	7.9	4.4
35-44	32	6.3	3.8
45-54	26	9.0	3.1
55-64	36	10.3	4.0
65+	33	9.2	3.0

separation. The BHS score was significantly higher among those who had experienced maternal or paternal death (maternal death: $M = 11.13$, $SD = 3.66$; no maternal death: $M = 8.30$, $SD = 3.86$; $t(152) = -2.72$, $p < .01$; paternal death: $M = 10.75$, $SD = 4.37$; no paternal death: $M = 8.39$, $SD = 3.84$; $t(152) = -2.03$, $p < .05$). However, there were no significant differences in the BHS scores in terms of maternal or paternal separation ($t(152) = -.77$, ns ; $t(152) = -.46$, ns).

DISCUSSION

The Japanese translation of the BHS maintained moderate internal consistency. Thus, the KR-20 coefficient (.86) fell within the range presented by Beck and Steer (1988) for adult clinical populations (.82 - .93), and was equal to that of Steer, Kumar, and Beck (1993) for adolescent inpatients. The results of item-total correlations and good-poor analyses showed that items 3 and 17 reduced the internal consistency. Nevertheless, we included these two items throughout the analyses in order to preserve compatibility with previous studies using the original scale. For practical use, however, it may be necessary to omit these two items from the Japanese version of the BHS.

In this sample, the mean score of 8.6 ($SD = 3.9$) was approximately one standard deviation higher than the reported mean score of 4.45 ($SD = 3.09$) for an Irish general population (Greene, 1981), and comparable to a mean score of 8.9 ($SD = 6.1$) for American suicide attempters (Beck & Steer, 1988). This may mean that Japanese subjects feel more hopeless than individuals in Western countries. However, a more plausible explanation may be that Japanese have a tendency to respond more negatively to the BHS items than they really feel. It is known that the optimal cut-off point of the General Health Questionnaire (Goldberg, 1972), a measure to detect psychopathology among General Practitioner attendants and a general population, is a few points higher (towards the direction of "caseness") in Japan than in the UK (Kitamura, Sugawara, Aoki, & Shima, 1989; Sato & Takeichi, 1993); Japanese respond more negatively to the GHQ items. This issue will require further study.

We found no sex difference in the BHS; this is consistent with Greene's (1981) study and supports the suggestion of Beck and Steer (1988) that sex adjustment of the BHS is not necessary.

In this sample, subjects aged 55 years and above had higher BHS scores than those aged between 35 and 44 years. High hopelessness ($M = 11.9$; $SD = 4.47$) among elderly people was also reported by Hill, et al. (1988). The number of people with whom a person lived was negatively correlated with the BHS score. Older people may have fewer people, such as children and grandchildren, living with them. Thus the number of people living together differed among the age groups ($F(4,149) = 14.3$, $p < .0001$). Scheffe's post hoc range comparison showed that those aged between 35 and 44 years had significantly more people living with them than those aged less than 34 years and those aged 45 years or more. Therefore, the elderly may receive less social support, which may make them feel more hopeless.

Although Greene (1981) reported that divorced, widowed and separated people had significantly higher BHS scores than the single and the married ($F = 10.07, p < .001$), the differences in terms of marital status in this study did not reach a significant level. Greene (1981) reported a linear increase in the BHS scores as one descended the socioeconomic ladder, although in the present study there were no significant differences between the main source of income and the level of the income and the BHS scores. This may have been due to the fact that only a few of our subjects were divorced and widowed.

Unlike Johnson and McCutcheon (1981), we found that hopelessness was negatively correlated with various measures of psychological well-being, such as subjective physical fitness, self-confidence, and marital adjustment. These results may lend partial support for the validity of the Japanese version of the BHS, although more studies are warranted to confirm this.

Hopelessness was highly associated with early maternal or paternal death, while early parental separation showed no such association. To our knowledge, the relationship between hopelessness and early parental loss has been little studied. While past investigations have focused on the effects hopelessness may have on mental health and self-destructive behaviour, the present findings suggest a need to study the effects hopelessness may receive from psychological and social antecedents.

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