

affect and interpersonal problem are less responsive for social factors²⁸; 2) Items for somatic complaints on self-report depression scales result in higher scores, which are misinterpreted as representing more depression in the elderly population²⁹. Cronbach's alpha of depressed affect was .76 for the sample, indicating the acceptable reliability of the construct.

Performing a principal component analysis on the RSE scale, two factors were retained by the criterion of eigenvalues (greater than one). The two factors together accounted for a total of 54 % of the variance before being rotated. The subsequent rotation using an oblique promax method generated a pattern matrix (see Table 1), which indicated the emergence of two unambiguous constructs—self-confidence and self-deprecation. Self-confidence comprised all positively worded items, whereas self-deprecation comprised all negatively worded items. The inter-factor correlation was -.32, which suggested moderate and negative association between the two constructs. Cronbach's alphas were .80 and .72 for self-confidence and self-deprecation, respectively. Furthermore, the following confirmatory factor analysis indicated that this two-factor model fitted the data better than the one-factor model, in which all items were forced to load on a single construct (in the two-factor model: GFI=.97, AGFI=.96, AIC=84.49, and in the one-factor model: GFI=.82, AGFI=.72, AIC=776.66. The difference between the models was; $\Delta df=1$, $\Delta \chi^2=694.17$, $p<.0001$). All of the findings appeared to indicate the bi-dimensionality of the scale.

Finally, a principal component analysis was performed on the social support scale. Though the scale consisted of some sub-functions of social support described above, the analysis demonstrated that this scale had a uni-dimensional structure, which accounted for about 57 % of the observed variance. The Cronbach's alpha for the sample was .91.

Age and Gender Differences of the Constructs

The mean scores of the constructs were compared between the middle-aged (40-59 years) and the elderly (60-79 years), as well as between men and women (Tables 2-1 and 2-2). No constructs indicated age-related differences. On the other hand, three of four constructs indicated significant differences by gender. On social support and self-deprecation, women demonstrated significantly higher scores than did men. Self-confidence in men was higher than in women.

Bivariate analyses showed that all constructs were correlated significantly in the expected direction, regardless of age or gender (Table 3-1 and 3-2). More social support was associated with higher self-confidence, lower self-deprecation, and lower depressed affect. Moreover, higher depressed affect was associated with lower self-confidence and higher self-deprecation.

Additionally, multicollinearity between social support, self-confidence, and self-deprecation on depressed affect was examined. The SAS program²⁶ provides an option to assess the tolerance level, the strength of inter-relationships among the regressor variables in the model. The tolerance level of the constructs was in the range of .85 and above, indicating that multicollinearity was not a problem in this data set.

Examination of Causal Models

Based on the results obtained from the preliminary analyses above, a structural equation model was tested in which depressed affect was predicted directly from social support and indirectly through self-esteem. Some items were chosen from each construct and were entered into the model with the contents and factor loadings taken into account (see Table 4 for the items used in the model). Furthermore, the analysis was conducted with the effect of gender partialled out, since gender-based differences were found among some constructs.

The results are shown in Figure 1. This model produced an

Table 1. Factor analysis of the RSE.
Rotated Factor Pattern (Standardized Regression Coefficients).

Abbreviated item labels	Factor 1 (self-confidence)	Factor 2 (self-deprecation)
7. I'm of worth	.80	.02
4. I do things well	.79	-.00
3. I have good qualities	.79	.00
10. Positive attitude to myself	.71	.05
1. Satisfied with myself	.60	-.12
2. I'm not good	-.05	.76
8. I can't respect for myself	.27	.71
9. I'm a failure	-.10	.71
6. I feel useless	-.14	.68
5. I'm not proud	-.07	.60
Variance explained by the factor eliminating other factor.	2.57	2.17

Table 2-1. Means and standard deviations of the constructs by age group.

Construct	Middle-aged (n=581)		Elderly (n=535)		<i>t</i> ¹
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
social support	29.77	5.99	30.44	5.94	-1.85 n.s.
self-confidence	13.80	2.58	13.53	3.10	1.60 n.s.
self-deprecation	10.48	2.65	10.49	2.82	-0.04 n.s.
depressed affect	1.83	2.43	1.80	2.47	0.24 n.s.

¹Difference between the two groups.

Table 2-2. Means and standard deviations of the constructs by gender.

Construct	Men (n=573)		Women (n=543)		<i>t</i> ¹
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
social support	29.42	6.14	30.80	5.71	-3.91 ***
self-confidence	13.90	3.01	13.42	2.63	2.82 **
self-deprecation	10.00	2.69	10.99	2.69	-6.14 ***
depressed affect	1.75	2.34	1.89	2.56	-0.90 n.s.

¹Difference between the two groups. ** $p < .01$ *** $p < .001$

Table 3-1. Bivariate correlations between the constructs by age group¹.

Construct	1	2	3	4
1. social support	—	.25	-.22	-.19
2. self-confidence	.20	—	-.30	-.21
3. self-deprecation	-.21	-.41	—	.46
4. depressed affect	-.09*	-.22	.37	—

¹All the correlations were significant at $p < .001$ except * at $p < .05$. Values below the diagonal represent correlations in the middle-aged and values above the diagonal represent correlations in the elderly.

Table 3-2. Bivariate correlations between the constructs by gender¹.

Construct	1	2	3	4
1. social support	—	.25	-.25	-.14
2. self-confidence	.23	—	-.31	-.19
3. self-deprecation	-.23	-.37	—	.37
4. depressed affect	-.15	-.23	.46	—

¹All the correlations were significant at $p < .001$. Values below the diagonal represent correlations in men and values above the diagonal represent correlations in women.

acceptable fit to the data (GFI=.99, AGFI=.98, AIC=-.50). The model explained 25% of the variance in self-confidence and 14% in self-deprecation. Together, social support, self-confidence, and self-deprecation accounted for 19% of the variance in depressed affect. Effective indicators ranged from .34 to .89, which also suggested the appropriate fit of the model.

As predicted, more social support was related to higher self-confidence and lower self-deprecation. Higher self-deprecation was related to higher depressed affect while higher self-confi-

dence was related to lower depressed affect. The standardized estimate from self-deprecation to depressed affect (.38) was higher than that from self-confidence to depressed affect (-.14). When small and similar interactive paths between the two self-esteem constructs (-.12 and -.08) were neglected, the difference indicated the strong effect of self-deprecation on depressed affect against the inverse effect of self-confidence.

Contrary to expectations, social support had no significant direct relation to depressed affect. In this regard, social support appeared to influence depressed affect only when mediated by self-esteem.

A slight modification of the model in which the direct effect (the path from social support to depressed affect) was omitted improved the overall model fit (GFI=.99, AGFI=.98, AIC=-2.32), but the improvement was not statistically significant ($\Delta df=1$, $\Delta \chi^2=.18$, n.s.).

DISCUSSION

Preliminary factor analyses indicated the predominance of the two-factor model over the one-factor model in the RSE scale. Despite its initial conceptualization and common use as a uni-dimensional scale, the same two-factor structure of the RSE scale has been demonstrated to be appropriate^{22,30,31}. This study reconfirmed the two-factor structure of the scale with Japanese middle-aged and elderly people as in western or younger samples reported in previous studies^{22,30,31}.

However, the result that self-confidence consisted of only positively worded items, whereas self-deprecation consisted of only negatively worded items is arguable. For example, scales with both positively and negatively worded items could generate an artificial factor structure due to the subjects' "carelessness" in the form of agreeing with items with which they truly

20000175

以降のページは雑誌／図書等に掲載された論文となりますので
「研究成果の刊行に関する一覧表」をご参照ください。