

Dimensions of Social Support: A Factorial Confirmation

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The study used confirmatory factor analysis to demonstrate unequivocally that the three subscales of the Inventory of Socially Supportive Behaviors and the two subscales of the Social Support Questionnaire are distinct and separate. Future studies employing these measures can therefore utilize the five subscales Nondirective Support, Directive Guidance, Tangible Support, Network Size, and Satisfaction with Social Support, to investigate which dimensions of social support are salient in determining how different kinds of individuals cope with differing stressful events.

The role of stressful life events in the genesis of various physical and psychological disorders has become a central concern in current epidemiological research. In attempting to account for the observation that some individuals endure severe stress and suffer few ill effects, whereas others develop physical and psychological symptoms under conditions of relatively minor stress, researchers have considered several intervening variables, one of which is social support.

In a review of research on the effects of social support on psychological disorder, Leavy (1983) concluded that regardless of the research methods used, the finding that an absence of social support is associated with increased psychological distress, is consistently reported. This finding has been obtained with diverse subject groups, for example, psychiatric inpatients, first-time mothers, and diabetics (Leavy, 1983).

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These consistent findings suggest that there is a general dimension of social support that underlies the results. However while this can be supported by a summary of the findings, Leavy (1983) has argued for the necessity of conceptualizing social support as multidimensional in nature. It has been strongly suggested that further research in the area is unlikely to clarify fundamental relationships unless these dimensions are delineated.

As a beginning to this process, the authors subjected two relatively new and promising social support inventories to a factor analysis which aimed at clarifying the relationship between the conceptually distinct dimensions reportedly assessed in the inventories. The inventories used were the Inventory of Socially Supportive Behaviors (ISSB; Barrera, Sandler, & Ramsay, 1981) and the Social Support Questionnaire (SSQ; Sarason, Levine, Basham, & Sarason, 1983). They were chosen because they aim to measure apparently divergent aspects of social support. Consequently it was the aim of this study to determine if the proposed dimensions of social support which they claim to measure corresponded to clear and distinct factors. It is claimed by its authors that the ISSB measures actual supportive behavior, whereas the SSQ is believed to measure network size and satisfaction with social support. These three dimensions, network size, supportive action, and subjective satisfaction have previously been identified as distinct aspects of social support that are of prominent concern to researchers (Sandler & Barrera, 1984).

Factor analysis is a method that has often been used in an attempt to clarify the underlying dimensions within multiscale questionnaires. One particular problem with this method, however, has been to determine the most appropriate number of factors that should be rotated from any given matrix of interitem correlations. Walkey (1983) has argued that a most useful way to employ the techniques is to rotate either the number of factors that are claimed by the test constructors to be present in a questionnaire or the number derived theoretically from some other source. This approach has been shown to be consistently successful in factor-analytic studies of the Eysenck Personality Inventory (Walkey & Green, 1981), the Multidimensional Fear of Death Scale (Walkey, 1982), and the Stress Arousal Checklist (McCormick, Walkey & Taylor, 1985). In order to undertake a thorough investigation of the factor structure of the measures this strategy was used along with the traditional eigenvalues greater than unity criterion and the scree test. Both varimax and oblique rotations were used to examine the effect of possible correlations between factors.

Factor analysis has probably been used most frequently with item scores where it has been employed to classify items into conceptually distinct clusters. However, the method is equally applicable to subscales or groups of items from different questionnaires that can also be classified in terms of their con-

ceptual distinctiveness. In the present study the underlying dimensions of social support in the ISSB and the SSQ were assessed using factor analysis with small groups of items obtained from the event division of their five subscales.

METHOD

The subjects were 106 university students (46 male and 60 female)² who completed two questionnaires, the ISSB and the SSQ, as part of the practical component of a second-year psychology course at Victoria University of Wellington, New Zealand. The ISSB is a 40-item measure in which respondents are asked how often in the previous 4 weeks they have been the recipient of specific socially supportive behaviors. It has been found to contain three subscales, Nondirective Support, Directive Guidance, and Tangible Assistance (Walkey, Siegert, McCormick, & Taylor, in press). The SSQ is a 54-item measure in which subjects respond on two subscales, Network Size and Satisfaction with Social Support.

For reasons of economy of space in presenting results and in view of the doubts expressed by various authors about the stability of structures based on individual item analyses (e.g., Cattell, 1974; Comrey & Duffy, 1968), it was considered unwise to factor analyze the 94 individual items. Instead, each subscale was randomly divided into three evenly sized clusters of items. Variation in cluster size did not affect the results. The 15 item clusters were then subjected to a principal components analysis and a five-factor varimax rotation was used in order to assess the degree to which the three social support subscales from the ISSB and the two from the SSQ would be represented by clear orthogonal factors.

RESULTS

The principal components analysis revealed that uniformly large loadings were present on the first factor, indicating that all scales were measuring the overall construct, Social Support.

The results of the five-factor varimax rotation are presented in Table I. In each case, the three item clusters from each subscale had their highest loadings on the same factor, clearly indicating that the five subscales from which they were derived are distinct and independent. The critical loadings

²Subjects were volunteers from a class taught by the two junior authors. The results were described to the class as an integral part of the course.

Table I. Factor Loadings from the Five Factor Rotation of the Subscale Item Clusters

Item clusters	Factors				
	1	2	3	4	5
1. Nondirective support (ISSB)	<u>.72</u>	.41	.11	.16	.23
2. Nondirective support (ISSB)	<u>.79</u>	.43	.12	.17	.17
3. Nondirective support (ISSB)	<u>.83</u>	.17	.28	.19	.17
1. Directive guidance (ISSB)	.22	<u>.85</u>	.03	.10	.14
2. Directive guidance (ISSB)	.30	<u>.72</u>	.35	.05	.11
3. Directive guidance (ISSB)	.24	<u>.77</u>	.15	.13	.17
1. Tangible assistance (ISSB)	.23	.40	<u>.48</u>	.01	.18
2. Tangible assistance (ISSB)	.19	.02	<u>.88</u>	.01	.13
3. Tangible assistance (ISSB)	.06	.43	<u>.63</u>	.19	.03
1. Network size (SSQ)	.08	.16	<u>.06</u>	<u>.89</u>	.18
2. Network size (SSQ)	.15	.08	.05	<u>.91</u>	.15
3. Network size (SSQ)	.15	.02	.04	<u>.92</u>	.11
1. Satisfaction (SSQ)	.15	.14	.12	.17	<u>.91</u>
2. Satisfaction (SSQ)	.15	.20	.13	.15	<u>.91</u>
3. Satisfaction (SSQ)	.17	.09	.06	.16	<u>.92</u>

are high, ranging from .48 to .92, whereas the off-diagonal loadings are low to moderate, ranging from .01 to a maximum of .43. The analysis presented in Table I therefore provides five high clusters of loadings, which perfectly replicate the claimed factor structure of the two questionnaires. Analyses using the eigenvalue greater than unity criterion resulted in underfactoring and the scree test produced unclear results. Oblique rotations produced almost identical results to those of the varimax procedure.

DISCUSSION

While social support appears to be an important variable in reducing the negative consequences of stressful life events, further advances in the area are unlikely until the dimensions underlying the general construct have been clearly established. Factor analysis is a well-established method of assessing the underlying dimensions of such variables as temperament and distress. In the present study it has been very useful in clearly differentiating between five previously established dimensions of social support across two questionnaires.

The findings of the present study indicate that the three subscales of the ISSB and the two subscales of the SSQ are all distinct from each other. This finding should substantially improve the usefulness of the subscales, particularly if the findings can be replicated across independent populations. The socially supportive behavior subscales of the ISSB were Nondirective Support, Directive Guidance, and Tangible Assistance. This finding is also

further confirmation of the factor structure advocated by Walkey et al. (in press). The SSQ subscales, Network Size and the Satisfaction with Social Support, were also clearly identified in the present study.

We do not suggest that there are only 5 dimensions of social support; we do suggest that future research in the area may utilize these five subscales to investigate which dimensions of social support are helpful to which types of individual under which circumstances.

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