

**Appraisal of Caregiving Scale
(ACS – Revised)
Marilyn T. Oberst
Wayne State University
College of Nursing**

Theoretical background/definition

Development of the Appraisal of Caregiving Scale was grounded in cognitive-transactional theories of stress and coping (primarily that of Lazarus & Folkman) in which appraisal is defined as the evaluation of a potentially stressful person-environment encounter in terms of its personal meaning or significance to well-being. Although the language of primary appraisal has been used to label subscales during instrument development, some items focus on evaluation of resources (secondary appraisal) and perception of coping effectiveness. The instrument, thus, is a measure of reappraisal (covering elements of primary, secondary, and initial reappraisal) and is most appropriately used after the initial stressful encounter has occurred and coping has begun.

Description

The current working version of the ACS consists of 27 items reflecting possible appraisals in response to five broadly defined situational foci associated with caring for an ill family member: 1) caregiving tasks and responsibilities; 2) relationships and interpersonal support; 3) lifestyle; 4) emotional and physical health; and 5) overall personal impact. The ACS measures two types of stressful appraisals, threat and general stressfulness, and one type of positive (non-stressful) appraisal, benefit.

Instrument and subscale development

A large pool of items (N=72) was generated from the literature on stresses associated with family caregiving, with the intent of reducing this large number of items by at least half on the basis of item performance. To the extent possible, matched sets of appraisals reflecting the three possible stressful appraisals (harm/loss, threat, and challenge), benefit appraisals, and benign appraisals was used for each type of stressor (situational focus). The items were content validated by family caregivers, a panel of clinical experts, and a panel of experts familiar with the theory. Data were aggregated across several small studies involving family caregivers (primarily for persons with cancer); data reported here are based on responses of 240 caregivers.

Score distribution on individual items was assessed against the pre-set criteria of: missing values <25%, and skewness, <50% at either end of distribution (1-2 or 4-5 combined), with $SD \geq 1.2$. Based on these criteria, 25 items were dropped. The remaining 47 items were factor analyzed, resulting in a 5 factor solution: threat-harm, benign, benefit, challenge, and finance. Criteria for item retention were: factor loading $\geq .40$; no secondary loadings $\leq 50\%$ of primary loading; conceptual fit; and minimal redundancy. Regarding the latter, it should be noted that collinearity of harm items with threat items was anticipated, based on earlier work with the ACS (see Oberst, Thomas, Gass, & Ward, 1989, and Carey, Oberst, McCubbin, & Hughes, 1991). Application of these criteria resulted in the elimination of an additional 16 items.

Factor analysis (principle components, with Varimax rotation) yielded four interpretable factors: Threat (13 items), General stress (8 benign items), Benefit (6 items), and Challenge (3 items); one challenge item did not load clearly. The Challenge subscale was found to have an unacceptable level of reliability ($\alpha = .58$) and was eliminated on this basis. Statistics for the subscales are shown in Tables 1, 2 and 3.

Table 1
Eigenvalues and Total ACS Variance Explained

Factor	Eigenvalue	Variance
Threat	7.34	27.2%
General stress	2.58	9.5%
Benefit	1.92	7.1%

Table 2
Subscale (factor) Intercorrelations

Subscale	General stress	Benefit
Threat	.50***	-.16**
General stress		-.12*

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 3
Mean, Standard Deviation, Interitem Correlation, and Alpha Coefficient for ACS Subscales (N=240)

Subscale	No. items	Mean	SD	Mean interitem correlation	Alpha coefficient
Threat	13	2.24	.86	.42	.90
General stress	8	2.86	.83	.25	.73
Benefit	6	3.58	.81	.33	.74

Construct validity

A number of theoretically generated hypotheses were tested to assess construct validity of the ACS subscales (using the aggregated sample, N=240). We hypothesized that a number of caregiver and/or family antecedents would be negatively related to perceptions of threat and general stressfulness: family hardiness, economic status, and the caregivers' health. As shown in Table 4, threat appraisals were significantly correlated in the expected direction with these three variables. General stress appraisals were correlated in the expected direction with family hardiness, but were uncorrelated with either economic status or caregiver health. A second group of antecedent factors hypothesized to be related to threat and general stress appraisals were those arising from the illness/caregiving situation itself: caregiving demands and difficulty, the perceived seriousness of the patient's illness, and the patient's level of dependency. Significant correlations in the expected direction were found between both the threat and general stress subscales and these four antecedents (see Table 4). Since little work has been done in relation to the benefits of caregiving, no specific hypotheses about the relation of this subscale to any of the antecedents were advanced; benefits were positively correlated with family hardiness ($r = .25$), and unrelated to the other antecedents. Appraisal is theorized to lead to specific emotional outcomes. We hypothesized that threat and general stress appraisals would be positively related and benign appraisals negatively related to mood dysfunction (as measured by the Profile of Mood States); these hypotheses were supported (see Table 4). The benefits subscale was negatively related to mood dysfunction. A final test of construct validity dealt with the theorized role of appraisal as a mediator of the effects of situational factors on outcomes; the combined harm/threat items (original version, pre item reduction) was shown to mediate the effects of caregiving burden on mood dysfunction (Carey, Oberst, McCubbin, & Hughes, 1991). Further theoretical modeling with the revised ACS presently is underway with the aggregated sample.

Table 4
Correlations of ACS subscales with antecedent and outcome measures

Variable	Subscale		
	Threat	General stress	Benefit
Family hardiness	-.36	-.36	.25
Economic status	-.20		
Caregiver health	-.29		
Caregiving demands	.39	.20	
Caregiving difficulty	.58	.35	
Seriousness of illness	.13	.28	
Patient dependency	.18	.21	
Mood dysfunction	.60	.48	-.13

Note: all correlations $p \leq .05$

Scoring and response format

Threat: items 3, 4, 6, 7, 10, 12, 15, 17, 18, 21, 22, 24, 26

General stress: items 2, 5, 8, 9, 13, 14, 19, 27

Benefit: items 1, 11, 16, 20, 23, 25

The intensity of each item is measured on a 5-point Likert-type scale, with response choices ranging from “very false” (1) to “very true” (5). The eight items in the General Stressfulness subscale are reverse scored. Mean scores for each subscale are calculated (sum divided by items in subscale); higher scores indicate greater threat, general stressfulness, or benefit appraisals. The three subscale scores should be used separately in any subsequent analyses; there is no “total” appraisal score.

References

Oberst, M.T., Thomas, S., Gass, K., & Ward, S. (1989). Caregiving demands and appraisal of stress among family caregivers. Cancer Nursing, 12, 209-215.

Carey, P., Oberst, M.T., McCubbin, M., & Hughes, S. (1991). Appraisal and caregiving burden in family members caring for patients receiving chemotherapy. Oncology Nursing Forum, 18(8), 1341-1348.

Authorization for use

Permission to use the ACS will be granted on receipt of written agreement to make raw data available to the copyright holder for purposes of continued psychometric testing, and a small fee to cover reproduction and mailing expenses. Authorized users will receive periodic updates.

MTO 9/91 ACS description