

*Coping and Adaptation Processing Scale (CAPS):
Short Form (15-Item)*

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Information for Users

Description of the Instrument

The Coping and Adaptation Processing Scale (CAPS): Short Form is a 15-item instrument that represents all original concepts of the CAPS long form (47 items). The CAPS: Short Form uses a Likert scale format with response choices ranging from 4 (always) to 1 (never). Each item of the CAPS is a short statement about how an individual responds to experiencing a crisis or extremely difficult event. Three items are reversed scored. The possible range of scores is from 60 to 15 with a high score indicating a more consistent use of the identified strategies of coping. The instrument is based on a middle-range theory (MRT) of coping and adaptation processing (See Figure 1; Roy, 2009). The original pool of items for this scale came from qualitative and quantitative studies based on the major concepts of this MRT and this earlier work is explained as a significant part of the research by Roy over 25 years (Roy, 2011).

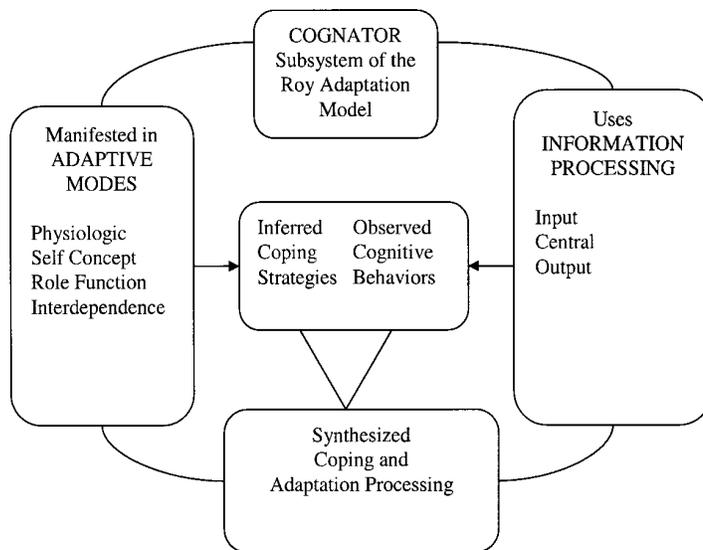


Figure 1. Middle-range theory of coping and adaptation processing

Definitions Related to Use of the CAPS Scale

Coping strategies—Behaviors whereby adaptation processing is carried out in daily situations and in critical periods; categories synthesized from behaviors in four adaptive modes, physiologic, self-concept, role function and interdependence.

Adaptation processing—Patterning of coping behaviors that take in, handle, and respond to stressors and are directed toward survival, growth, reproduction, mastery, and transcendence.

Coping and adaptation processing—the patterning of innate and acquired ways of taking in, handling, and responding to a changing environment in daily situations and in critical periods that direct behavior toward survival, growth, reproduction, mastery, and transcendence.

Capacity of coping and adaptation processing—the ability of the person based on their patterns of responding to changes in the environment that uses their coping styles and strategies to adapt effectively to challenges.

Definitions from the Roy Adaptation Model

Regulator--broad coping subsystem of the person that includes neural-chemical-endocrine-processes that are largely innate and automatic.

Cognator—a second major subsystem which includes both cognitive and emotional processing and responses of perceptual-information process, learning, judgment and emotion.

Adaptation Levels—in each of four adaptive modes, physiologic needs, self-concept, role function, interdependence

Adaptive mode processes described on three levels:

1. Integrated-Adaptation level where the structures and functions of the life processes work to meet needs
2. Compensatory-Adaptation level where the cognator and regulator are activated a challenge to the life processes
3. Compromised-Adaptation level resulting from inadequate integrated and compensatory life processes; an adaptation problem

Scoring The Coping and Adaptation Processing Scale: Short Form

Raw Scores

To score the Coping and Adaptation Processing Scale:

- 3) First, reverse score the three negative items so that higher scores mean greater coping.

In reverse scoring 1=4; 2=3; 3=2; and 4=1

The items to reverse score are: **5, 13, and 14**

- 2) Total scores are obtained by summing the numeric responses on each item.

Range of scores for 15 items is: 60 to 15

- 3) Some authors in using the longer (47 item) form have chosen to split the group in half to identify persons who have high and low capacity of coping (Gonzalez, 2008); others, notably Gloria Carvajal from La Sabana University, Chia, Colombia, used quartiles.

How to Use Scores

- One important use of the CAPS scores is for testing the same group of participants before and after an intervention. Statistical analysis for differences in related groups can then be performed. Such differences have been found (Gonzales, 2008).
- A second use of the CAPS is to compare two groups who may be expected to differ on coping and adaptation. One might be an intervention group and the other a control group. Gonzales also found these differences.
- Another use of the CAPS is to give as a pre-test to select participants who may have low coping capacity; to identify areas of weakness and to design interventions to enhance coping in these areas.
- The CAPS may also be given as a co-variant in a study of other variables of interest such as transition following discharge from the hospital in a study focused on preparation for discharge.

Table 1. Initial Psychometrics of CAPS-Short Form

Reliability	Correlations	Probability	Theoretical Explanation
Chronbach's Alpha of Internal Consistency	.82		
Validity			
Face Validity			Items based on Middle-range Theory of Coping & Adaptation Processing—all adaptive modes; all types of cognitive processes included
Concurrent Validity Quality of Life Measure (n=41)	.377	>0.05	
Divergent Validity Self-report of Cognitive Deficits of difficulty concentrating and memory (n=34)	-.391	>0.05	

Rationale and Method for Developing CAPS in Short Form

Coping has long been recognized as an important construct in studying and dealing with people and their health. The Coping and Adaptation Processing Scale (CAPS) was initially developed to address unresolved issues in understanding and measuring the complex construct of coping. For example, the widely used instrument by Lazarus and colleagues has sometimes been referred to as the standard in the field, yet a number of authors, as reported by Aldwin (2007) noted the construct validity of the instrument was not strong, given an unstable factor structure. Extensive use in nursing research had not yielded a cumulative body of knowledge. The 47-item CAPS was translated into 6 languages and used in at least 13 countries on 4 continents and found to be helpful. One concern reported by scholars globally has been the respondent burden of the length of the tool. A project was conducted that aimed at: Shortening the 47-item CAPS scale while maintaining: (i) good model fit, (ii) adequate content coverage across the various domains of the MRT of Coping and Adaptation Processing, (iii) and metric equivalence across 2 ethnic groups. When this was achieved it is hoped that the CAPS: Short Form will help reduce respondent burden, and increase the generalizability of the measure for diverse populations.

The method used to shorten and revise the 47-item CAPS scale was an item response theory (IRT) model analysis along with the MRT of Coping and Adaptation Processing. Secondary data from 2 samples were used: Sample 1—Patients with chronic neurologic deficits in the USA (n=347) and Sample 2—Patients with acute cardiac conditions in Panama (n=327). The Graded Response Model (GRM) was used to calibrate item parameters; these item parameters along with their associated Categorical Response Curves (CRCs) were used to inform item selection. Differential item function (DIF) testing was used to identify items that functioned similarly across the two samples; items without DIF were preferred for the shortened scale.

IRT procedures using the statistical models of curves and differences resulted in the following:

- 12 items were potentially most useful; 4 items showed some potential, with relevant curves and small differences
- With redundancy removed 14 items remained and all were ranked high by the theorist on a ladder of coping
- These items reflected all major concepts of the MRT
- One item from the original pool of 72 items was put back in the scale based on significant research of the concept of spirituality in coping in studies based on the Roy Adaptation Model over the past 25 years (Harvey, 2013)

After items for the shortened CAPS were selected, the reliability and validity of the scale was tested and found to be promising (See Table 1).

Implications for Research and Practice

The Coping and Adaptation Processing Scale (CAPS): Short-Form can be a practical tool to effectively and efficiently measure coping and adaptation in people dealing with both chronic and acute health conditions. Future research involves testing the tool in various clinical population and global settings. Keeping a data base on the developing work will be important in testing the promise of this tool change. From developing knowledge of how people cope, the nurse can help patients to enhance their selected strategies in a given situation and provide opportunities and support for developing new strategies and flexibility in using them.

References

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