

Supplementary Information for:

A rank ordering and analysis of four cognitive-behavioral stress-management competencies suggests that proactive stress management is especially valuable

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Supplementary Text S1

Calculation of Internal Consistency Score (ICS).

The formula for Cohen's kappa coefficient is:

$$k = \frac{p_o - p_e}{1 - p_e}$$

where

p_o = "the proportion of units in which the judges agreed"

p_e = "the proportion of units for which agreement is expected by chance" $k =$
"the proportion of chance-expected disagreements which do not occur"

The formula for the ICS is:

$$\frac{V - \sum |x_a - x_b|}{V}$$

where

V = the total possible difference in scores (e.g. a test with a Likert scale of 1-5 with four dummy pairs would have a V of 16, and a test with a Likert scale of 1-5 with ten dummy pairs would have a V of 40)

x_a = scored test items

x_b = dummy scored items

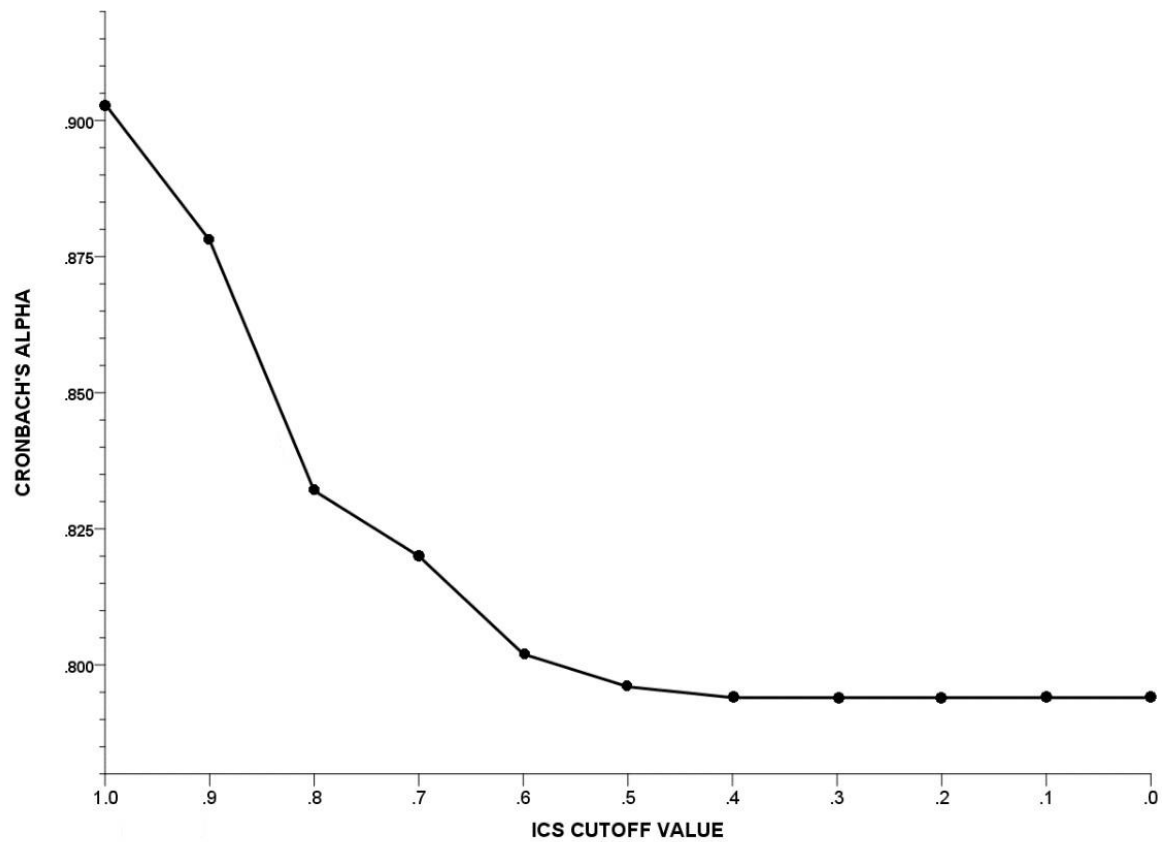
Reference: Cohen, J. A coefficient of agreement for nominal scales. *Educ. Psychol. Meas.* **20**, 37–46. <https://doi.org/10.1177/001316446002000104> (1960).

Supplementary Table S1*Cronbach's Alphas for Groups of Participants with Progressively Larger ICSs.*

n	ICS	Cronbach's Alpha
1	0.0-0.1	N/A
1	0.1-0.2	N/A
7	0.2-0.3	N/A
31	0.3-0.4	N/A
325	0.4-0.5	0.714
1,792	0.5-0.6	0.727
4,403	0.6-0.7	0.729
3,392	0.7-0.8	0.779
6,608	0.8-0.9	0.803
2,335	0.9-1.0	0.877

Supplementary Figure S3

Plot Showing How Cronbach's Alpha Changes When We Remove People From the Study Using Different ICSs as Cutoffs



Supplementary Figure S4

Screenshot of the Demographic Questions

Group code (if applicable):

*First name and last initial:

*Age:

*Highest Degree:	*Race/Ethnicity:	*Gender:	*Sexual Orientation:
☒ None	☒ White	☒ Male	☒ Straight
☐ High School	☐ Black	☐ Female	☐ Gay or lesbian
☐ Associates	☐ Hispanic	☐ Other	☐ Bisexual
☐ College	☐ Asian		☐ Other
☐ Masters	☐ American Indian		
☐ Doctorate	☐ Other		

*How fluent are you in English?
 Not fluent ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☒ 10 Very fluent

*How happy and fulfilled are you?
 Low ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☒ 9 ☐ 10 High

*How much success have you had in your personal life?
 Low ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☒ 9 ☐ 10 High

*How much success have you had in your professional life?
 Low ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☒ 9 ☐ 10 High

*How stressed do you generally feel?
 Low ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☒ 9 ☐ 10 High

*Have you ever been married?
☐ No ☐ Yes

*Have you ever been divorced?
☐ No ☐ Yes

*Have you had any training in stress management?
☐ No ☐ Yes

*If so, approximately how many hours of training have you had?

OPTIONAL: If a therapist, physician or other professional suggested that you take this test, please identify him or her, as well as his or her institutional affiliation.

Supplementary Figure S3

Page 1 of Questionnaire Items

For each of the following questions, select the answer that best applies to you.

*1. I frequently use special breathing techniques to help me relax.

Agree ☐ ☐ ☐ ☐ ☐ Disagree

*2. I'm comfortable seeking help from other people.

Agree ☐ ☐ ☐ ☐ ☐ Disagree

*3. I frequently visualize soothing scenes in order to relax.

Agree ☐ ☐ ☐ ☐ ☐ Disagree

*4. I have trouble keeping my work area organized.

Agree ☐ ☐ ☐ ☐ ☐ Disagree

*5. I often reinterpret events in order to lower my stress.

Agree ☐ ☐ ☐ ☐ ☐ Disagree

*6. I have trouble prioritizing.

Agree ☐ ☐ ☐ ☐ ☐ Disagree

*7. I keep an up-to-date list of things I'm supposed to do.

Agree ☐ ☐ ☐ ☐ ☐ Disagree

*8. I ignore hostile people.

Agree ☐ ☐ ☐ ☐ ☐ Disagree

*9. Negative events can always be reinterpreted so that they seem more positive.

Agree ☐ ☐ ☐ ☐ ☐ Disagree

*10. I regularly examine and try to correct any irrational beliefs I might have.

Agree ☐ ☐ ☐ ☐ ☐ Disagree

*11. My thinking is as clear and as rational as it can possibly be.

Agree ☐ ☐ ☐ ☐ ☐ Disagree

*12. I consistently put important tasks ahead of unimportant tasks.

Agree ☐ ☐ ☐ ☐ ☐ Disagree

*13. I regularly tense and relax my muscles as a way of fighting stress.

Agree ☐ ☐ ☐ ☐ ☐ Disagree

*14. I sit and stand in special ways to help me stay relaxed.

Agree ☐ ☐ ☐ ☐ ☐ Disagree

Supplementary Figure S4

Page 2 of Questionnaire Items

*15. I have a clear picture of how I'd like my life to proceed. Agree ☐ ☐ ☐ ☐ ☐ Disagree
*16. I find it hard to make time to relax. Agree ☐ ☐ ☐ ☐ ☐ Disagree
*17. I try to fight stress before it starts. Agree ☐ ☐ ☐ ☐ ☐ Disagree
*18. I try to avoid destructive ways of dealing with stress. Agree ☐ ☐ ☐ ☐ ☐ Disagree
*19. I often try to use humor to diffuse tension. Agree ☐ ☐ ☐ ☐ ☐ Disagree
*20. Breathing is a very hard thing to control. Agree ☐ ☐ ☐ ☐ ☐ Disagree
*21. I have adequate shelf, file, and drawer space to serve my needs. Agree ☐ ☐ ☐ ☐ ☐ Disagree
*22. I spend a few moments each morning planning my day. Agree ☐ ☐ ☐ ☐ ☐ Disagree
*23. I'm very vulnerable to stress when it hits. Agree ☐ ☐ ☐ ☐ ☐ Disagree
*24. I have trouble delegating. Agree ☐ ☐ ☐ ☐ ☐ Disagree
*25. I try to schedule appointments and meetings so that they won't overlap. Agree ☐ ☐ ☐ ☐ ☐ Disagree
*26. Reinterpreting events is hard to do. Agree ☐ ☐ ☐ ☐ ☐ Disagree
*27. I schedule relaxation time every day. Agree ☐ ☐ ☐ ☐ ☐ Disagree
*28. Some of the ways I deal with stress are quite destructive. Agree ☐ ☐ ☐ ☐ ☐ Disagree
Submit

Supplementary Figure S5

Screenshot of Example Results Page

Results for INITIALS HERE
August 3, 2022

Thanks for completing this questionnaire! Your scores, which are listed below, are an indication of the level of competency you currently have in four different areas of stress management. Your Total Score reflects your overall skill level. While it's not necessary that you be adept in all of these areas, the more skillful you are, the less vulnerable you'll be to stress in your life. The good news is that all of these competencies are trainable; that is, there are books you can read, counselors you can see, and videos you can view that will improve your abilities in each and every area.

The highest possible score in each area is 100, and so is the highest possible Total Score. Wherever your score is under 100, some improvement is possible. If your score is below 85, you probably should be concerned. If your score is below 65, it's especially important that you work on your skills in this area. Poor stress-management skills are likely to have an ill effect on your mood, health, performance, and relationships.

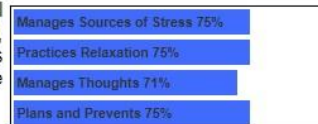
Here is your profile!

Your Total Stress-Management Competency Score is 74%

Your scores in each of the 4 different skill areas are as follows:

Manages or Reduces Sources of Stress: 75%

Good stress managers routinely manage or reduce *sources* of stress, both real and possible, in their lives. This can mean doing things like changing one's job, rearranging one's space, or moving to a new city. Sometimes very small changes can have large effects: getting a more reliable coffee maker, cleaning out the garage, or replacing that throw rug you always trip over, for example.

**Practices Relaxation Techniques: 75%**

Good stress managers regularly practice a variety of relaxation techniques to prevent or relieve stress. It's easy to learn, master, and practice imagery techniques, meditation, muscle relaxation techniques, and other powerful relaxation methods.

Manages Thoughts: 71%

Skillful stress managers practice thought-management techniques in order to reduce the likelihood that they will perceive events as threatening. All events can be interpreted negatively, neutrally, or positively. If your partner is overdue for dinner, you can interpret that negatively ("He's cheating"), neutrally ("Maybe the car broke down again"), or positively ("He must be out shopping for my birthday"). Therapists teach techniques like "reframing" that allow you to interpret virtually all events so that they don't hurt you.

Plans and Prevents: 75%

Skillful stress managers plan their day and plan for the future. They also don't wait for stress to overwhelm them; instead, they take a proactive approach to stress management. They also know how to manage their own behavior and avoid destructive methods of dealing with stress, such as drinking, overeating, and drug abuse.