

Manual for the Control Beliefs Inventory – CBI

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The control beliefs inventory is a 26-item multidimensional scale designed to assess four specific health-related control beliefs in adults with and without ongoing health issues. Unlike many other control belief measures it has been developed using samples with and without different chronic illnesses.

Although each of the four subscales (general control, chance control, symptom control, and mastery) can be used with illness populations it is recommended that the symptom control subscale be omitted when assessing health relevant control beliefs in adults without a current or ongoing health issue (e.g., general adult populations), and that the instructions be changed accordingly.

In prior validity studies with samples of healthy and chronically ill adults, and undergraduates, each subscale demonstrated low correlations with a short version of the Marlowe-Crowne Social Desirability scale (Strahan & Gerbasi, 1972), with correlations ranging from -.01 to .14 for the Health Control Beliefs subscale, -.01 to .04 for the Symptom Control subscale, and .14 to .16 for the Health Self-efficacy subscale. The wording of the CBI can be altered slightly to refer to symptoms for specific chronic health conditions.

The CBI is currently available in English, and French (Canadian). However, psychometric properties for the French version are still being investigated.

There are four subscales within the 26 item Control Beliefs Inventory. Scale scores are calculated by taking the mean of each subscale, after reverse keying specific items. SPSS Syntax for calculating the subscale scores appears at the end of this manual.

Subscale	# items	Item numbers	Cronbach alphas range ^a
General Control	7	2, 4, 13, 15, 17, 20, 25	.86 - .91
Chance Control	5	3, 6, 10, 18, 24	.70 - .78
Symptom Control	6	7, 9, 11, 14, 21, 22	.80 - .89
Mastery/ Health Self-efficacy	8	1, 5, 8*, 12, 16*, 19, 23, 26*	.82 - .86

* reverse scored items

^a Sample *N*'s ranged from 112 to 371 and included adults with and without chronic illness

GENERAL CONTROL: The General Control scale assesses the extent to which one believes health is controllable. Higher scores reflect a greater belief that one can control one's health. It is similar to the internal health locus of control (IHLOC) scale from the Multidimensional Health Locus of Control scale (MHLC; (Wallston, Wallston, & De Vellis, 1978) in that it assesses the belief that one's actions can influence health in general. It has demonstrated good convergent validity with the IHLOC scale in validation studies with a sample of people with inflammatory bowel disease ($r = .70$; $N = 284$). However, unlike the IHLOC, this scale does not include items related to self-blame for health. In validation studies the general control scale was found to be unrelated to self-blame coping strategies whereas the IHLOC was moderately correlated with self-blame. This scale has demonstrated good criterion related validity by predicting general adjustment to tinnitus (Sirois, Davis, & Morgan, 2006),

CHANCE CONTROL: The Chance Beliefs scale assesses the extent to which one believes that health is controlled by random or chance events. It is not, however, simply the opposite pole of the general control beliefs scale, as preliminary factor analyses found these two scales to be orthogonal. Although some items are similar to the chance health locus of control (CHLOC) scale (MHLC; Wallston et al., 1978), it does not contain items relating to predetermined forces (genetics) that are included in the CHLOC. This scale has demonstrated good criterion related validity by predicting (negatively) medical care-seeking in both a community adult sample (Sirois & Purc-Stephenson, 2008), and in chronic illness samples (Sirois, 2008).

SYMPTOM CONTROL: The Symptom Control scale is an original scale that takes into account the different meaning that control may have for someone with an ongoing health problem. It assesses the extent to which one feels that an ongoing health issue and its symptoms can be managed and controlled (rather than cured), and therefore examines situationally-based control. Unlike the General Control Beliefs scale which reflects more absolute perceptions of control over health, the Symptom Control scale focuses on what can be controlled within the limits of a health condition, i.e., symptoms, and assesses the extent to which one perceives control within these limits. In previous research with a sample of individuals with arthritis ($N = 329$) this subscale correlated $r = .36$ with the active coping subscale of the COPE (Carver, Scheier, & Weintraub, 1989). This scale has demonstrated good criterion related validity by predicting adjustment to tinnitus severity (Sirois et al., 2006), and medical care seeking in a community-dwelling adult sample (Sirois & Purc-Stephenson, 2008).

MASTERY/HEALTH SELF-EFFICACY: The Mastery Beliefs scale assesses the extent to which one feels confident and capable of doing what is necessary to control one's health. Some items are similar to self-efficacy items from the General Perceived Self-Efficacy Scale (Schwarzer & Jerusalem, 1995), but reworded to reflect a health-specific focus. As a domain specific scale, the Health Self-efficacy scale has demonstrated good convergent validity with the GPSE in validity studies with a community sample of adults ($r = .45$; $N = 396$). This scale compliments the Control Beliefs scale in that control perceptions

alone may not be sufficient to lead to the successful performance of health behaviours – a sense of mastery or self-efficacy in performing those behaviours may also be needed. In line with the Theory of Planned Behaviour, this scale has demonstrated good criterion related validity in several studies by predicting both health-related behaviours (Wilson & Sirois, 2010), and intentions to perform health behaviours (Sirois, 2004; Sirois, 2015).

References

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CBI

The following statements concern the different ideas that people have about their health. Some of these statements refer to your general state of health and others refer to specific times when you are experiencing illness symptoms.

Please read each statement carefully and answer according to how much you agree with each statement by circling a number from 1 to 6. Please answer according to the following scale:

1	2	3	4	5	6
STRONGLY DISAGREE	DISAGREE	MILDLY DISAGREE	MILDLY AGREE	AGREE	STRONGLY AGREE

1. I know that I can do what is necessary to improve my health.	1	2	3	4	5	6
2. It is my own actions that determine how healthy I am.	1	2	3	4	5	6
3. If I am lucky I will stay healthy.	1	2	3	4	5	6
4. If I set my mind to it I can improve my health.	1	2	3	4	5	6
5. I am confident that I can successfully look after my health.	1	2	3	4	5	6
6. My health depends on forces beyond my control.	1	2	3	4	5	6
7. I can take control of my health by managing my day-to-day symptoms.	1	2	3	4	5	6
8. Even though there are things I can do to improve my health, I don't feel that I can do them.	1	2	3	4	5	6
9. If I make the effort, I can manage my illness.	1	2	3	4	5	6
10. How soon I recover from an illness depends on how lucky I am.	1	2	3	4	5	6
11. There are things that I can do to make my health problem easier to deal with.	1	2	3	4	5	6
12. I am able to meet the challenge of following a healthy routine.	1	2	3	4	5	6
13. My health depends on how I take care of myself.	1	2	3	4	5	6
14. I believe that I can do more to control my symptoms.	1	2	3	4	5	6
15. People who take care of themselves stay healthy.	1	2	3	4	5	6
16. When facing a health problem, I often feel overwhelmed about what to do.	1	2	3	4	5	6
17. How soon I recover from an illness depends on how I look after myself.	1	2	3	4	5	6
18. If I am fortunate my health will improve.	1	2	3	4	5	6
19. I am confident that I could deal with any unexpected health problems.	1	2	3	4	5	6
20. My current state of health is a reflection of how I look after myself.	1	2	3	4	5	6
21. If I do the right things, I can make my symptoms more manageable.	1	2	3	4	5	6
22. Regardless of circumstances, there are things I can do to improve my health.	1	2	3	4	5	6
23. I am confident in my ability to make the right decisions about my health.	1	2	3	4	5	6
24. My health is determined by circumstances beyond my control.	1	2	3	4	5	6
25. I am certain that with effort I can improve my health.	1	2	3	4	5	6
26. When it comes to my health, I often feel unable to do what I know should be done.	1	2	3	4	5	6

SPSS Syntax for the CBI 4 subscales

```
RECODE  
  cbi8 cbi16 cbi26  
  (1=6) (2=5) (3=4) (4=3) (5=2) (6=1) INTO rcbi8 rcbi16 rcbi26.  
EXECUTE.
```

```
COMPUTE CBI mastery =  
MEAN(cbi1,cbi5,rcbi8,cbi12,rcbi16,cbi19,cbi23,rcbi26).  
EXECUTE.
```

```
COMPUTE CBI ce =  
MEAN(cbi2,cbi4,cbi13,cbi15,cbi17,cbi20,cbi25).  
EXECUTE.
```

```
COMPUTE CBI ch =  
MEAN(cbi3,cbi6,cbi10,cbi18,cbi24).  
EXECUTE.
```

```
COMPUTE CBI actcon =  
MEAN(cbi7,cbi9,cbi11,cbi14,cbi21,cbi22).  
EXECUTE.
```