

The Wellness Behaviours Inventory (WBI) – Manual for Scoring and Psychometric Properties

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The *Wellness Behaviors Inventory* (WBI) is a 12-item measure that assesses how often common health-promoting behaviors (e.g., healthy eating, exercising) are performed. Vickers, Conway, and Hervig (1990) propose that health behaviours form replicable dimensions that can be classified into two broad domains – preventive health behaviours and risk taking behaviours. Preventive health behaviours include those that should help prevent the risk of illness onset, and those that could improve health as well. Excluding behaviours related to medical and dental check-ups, the items in the WBI were designed to capture the frequency of this subset of preventive health behaviours.

Items in the WBI are scored on a 5-point scale with responses ranging from 1 (*less than once a week or never*) to 5 (*every day of the week*). Two items (3 and 10) are reverse scored before calculating the mean. The WBI general wellness behaviours mean is based on 10 of the 12 items, and excludes two items related to vitamin and supplement use (items 9 and 12) which form a separate index of these behaviours. The time frame for the WBI (3 months) can also be altered to suit the application although it is not recommended that this exceed 6 months.

Please note that in undergraduate samples the two reverse scored items (items 3 and 10) tend to lower the internal consistency of the scale, as they may reflect the constraints and pressures of University life rather than the general practice of overall wellness related behaviours. This has been noted in two unpublished data sets from undergraduate samples of 208 and 395. Removal of these two items and recalculation of the WBI as an 8-item scale remedies these issues and results in a Cronbach's alpha that is more in line with that obtained among community dwelling adult samples (e.g., alpha = .73 to .75). However, as noted by Dunne and colleagues (Dunne, Sheffield, & Chilcot, 2018), results with criterion variables remain essentially unchanged, and therefore it is recommended that the scale is used in tact.

Previous studies indicate that scores on the WBI negatively correlate with perceived stress and negative affect, and positively correlate with other preventive health behaviors, health behavior intentions, positive affect, future time orientation, physical health, and perceived control over health (Dunne et al., 2018; Sirois, 2007, 2015b, 2015c; Sirois, Melia-Gordon, & Pychyl, 2003).

The WBI is also associated with personality traits. In a sample of students, the WBI was positively associated with the Big Five traits Conscientiousness and Agreeableness, and negatively related to Neuroticism at two separate time points (Sirois & Hirsch, 2015). The WBI is also negatively associated with perfectionistic concerns (Sirois, 2015b), and trait procrastination (Sirois, 2015a). A recent meta-analysis also found that the WBI was positively correlated with self-compassion across 14 different data sets, with Cronbach alphas ranging from .64 to .73 (Sirois, Kitner, & Hirsch, 2015), and was found to positively relate to self-compassion in a community sample of adults (Dunne et al., 2018).

There are two English versions of the WBI – one for administration with UK samples and one for administration with North American samples. The differences are due to culture specific terms for some of the health behaviours. The WBI is also available in French (Canadian), German, and Chinese. However, the psychosomatic properties of the translated versions are yet to be fully established.

Please note that we are in the process of writing up a manuscript for possible publication on the psychometric properties of the WBI. This paper is expected to be published sometime in late 2023 and will include population norms for the WBI across over 60 student, adult, and chronic illness samples, along with validity data with markers of health such as BMI, stress, and other health-related behaviours.

Until that time, please cite the WBI as follows:

Sirois, F. M. (2001; 2023). *The Wellness Behaviors Inventory*. Unpublished manual. Psychology. University of Sheffield, UK.

References

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WBI (UK English version)

Please indicate approximately how often you currently perform the behaviours listed below by checking the appropriate box for each item. Think about how often you do these things in general, that is over the **past 3 months**.

	less than once a week or never	one day a week	2 –3 days a week	4-5 days a week	every day of the week
1. I eat breakfast.					
2. I get a good night's sleep, for example, uninterrupted, restful sleep.					
3. I drink 3 or more caffeinated beverages, such as coffee, tea or colas.					
4. I exercise for 20 continuous minutes or more, to the point of perspiration.					
5. I eat at least 3 meals a day.					
6. I take time to relax.					
7. I eat fresh fruits and/or vegetables.					
8. I walk as much as possible, for example, I take the stairs not the lift, etc.					
9. I take vitamins.					
10. I eat junk foods, such as crisps, chips, sweets, French fries, etc.					
11. I eat healthy, well-balanced meals.					
12. I take natural supplements, such as garlic pills, Echinacea, herbals, etc.					

WBI (US/Canadian English version)

Please indicate approximately how often you currently perform the behaviours listed below by checking the appropriate box for each item. Think about how often you do these things in general, that is over the **past 3 months**.

	less than once a week or never	one day a week	2 –3 days a week	4-5 days a week	every day of the week
1. I eat breakfast.					
2. I get a good night's sleep, for example, uninterrupted, restful sleep.					
3. I drink 3 or more caffeinated beverages, such as coffee, tea or colas.					
4. I exercise for 20 continuous minutes or more, to the point of perspiration.					
5. I eat at least 3 meals a day.					
6. I take time to relax.					
7. I eat fresh fruits and/or vegetables.					
8. I walk as much as possible, for example, I take the stairs not the elevator, etc.					
9. I take vitamins.					
10. I eat junk foods, such as chips, candy bars, French fries, etc.					
11. I eat healthy, well-balanced meals.					
12. I take natural supplements, such as garlic pills, Echinacea, herbals, etc.					

SPSS scoring syntax is on the following page.

Scoring key for 10 item Wellness Behaviours Inventory:

(2 items on vitamins and natural supplements are fillers and are not included):

Reverse key items: 3, 10

MEAN(wbi1,wbi2,wbi3r,wbi4,wbi5,wbi6,wbi7,wbi8,wbi10r,wbi11)

SPSS Syntax:

recode

wbi3 wbi10

(1=5) (2=4) (3=3) (4=2) (5=1) (ELSE = SYSMIS) INTO wbi3r wbi10r.

execute.

compute WBImean = MEAN(wbi1,wbi2,wbi3r,wbi4,wbi5,wbi6,wbi7,wbi8,wbi10r,wbi11).

variable labels WBImean 'WBI mean'.

execute.

RELIABILITY

/VARIABLES=wbi3r wbi10r wbi1 wbi2 wbi4 wbi5 wbi6 wbi7 wbi8 wbi11

/SCALE('WBI 10') ALL

/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE CORR ANOVA

/SUMMARY=TOTAL MEANS.