

## The Self-Regulation Questionnaire (SRQ)

Self-regulation is the ability to develop, implement, and flexibly maintain planned behavior in order to achieve one's goals. Building on the foundational work of Frederick Kanfer (Kanfer, 1970a, 1970b), Miller and Brown formulated a seven-step model of self-regulation (Brown, 1998) (Miller & Brown, 1991). In this model, behavioral self-regulation may falter because of failure or deficits at any of these seven steps:

1. Receiving relevant information
2. Evaluating the information and comparing it to norms
3. Triggering change
4. Searching for options
5. Formulating a plan
6. Implementing the plan
7. Assessing the plan's effectiveness (which recycles to steps 1 and 2)

Although this model was developed specifically to study addictive behaviors, the self-regulatory processes it describes are meant to be general principles of behavioral self-control.

The Self-Regulation Questionnaire (SRQ; (Brown, Miller, & Lawendowski, 1999) was developed as a first attempt to assess these self-regulatory processes through self-report. We did not know whether people could reliably and accurately report their own self-regulatory capabilities. Items were developed to mark each of the seven sub-processes of the Miller and Brown (1991) model, forming seven rationally-derived subscales of the SRQ. Subsequent analyses of the instrument have suggested that the scale contains one principal component, rather than specific factors corresponding to the rational subscales. If this is confirmed in further studies, the SRQ could be reduced to a short form that would reliably measure the underlying principal component (e.g., Pichardo et al., 2014).

### Reliability

Reliability of the SRQ appears to be excellent. In a community sample of 83 people with varying levels of alcohol problem severity, the SRQ was administered twice, separated by 48 hours, to test stability of scores it provides (Aubrey, Brown, & Miller, 1994). Test-retest reliability for the total SRQ score was high ( $r = .94$ ,  $p < .0001$ ). Internal consistency of the scale was also quite high ( $\alpha = .91$ ), consistent with the idea that its items contain much redundancy, so that reliable shorter forms could be developed.

### Content Validity

The SRQ also has shown strong convergent validity with concomitant measures. In our community sample (Aubrey et al., 1994), SRQ score was significantly and inversely correlated with volume of alcohol consumption per occasion ( $r = -.23$ ,  $p = .04$ ) and with negative consequences of drinking ( $r = -.46$ ,  $p < .0001$ ). That is, people with lower scores on the SRQ were more likely to be heavy and problem drinkers. The SRQ also significantly discriminated individuals meeting diagnostic criteria for alcohol dependence ( $N = 32$ ; lowest scores) from heavy drinkers not seeking treatment ( $N = 29$ ; intermediate scores) and people without alcohol problems ( $N = 22$ ; highest SRQ scores). In a clinical study with alcohol-dependent inpatients

(Brown, 1994), individuals with lower SRQ scores showed more evidence of frontal impairment on neuropsychological measures, more alcohol-related consequences, fewer abstinent days, and a higher percentage of heavy drinking days. SRQ scores have also been found to be related to impulsivity (Patock Peckham, Cheong, Balhorn, & Nagoshi, 2001). In a sample of 300 college students (Brown, Baumann, Smith, & Etheridge, 1997), lower SRQ scores were associated with binge drinking, more alcohol-related consequences, and more frequent marijuana use. In a subsequent study of 303 college students, SRQ scores were inversely related to risk-taking ( $r = -.244$ ,  $p < .001$ ) and impulsivity ( $r = -.469$ ,  $p < .001$ ) as well as binge drinking, driving after drinking, marijuana use and tobacco smoking. Again with college students ( $N=251$ ), the parenting style of the same-sex parent predicted students' self-regulation scores, which in turn predicted alcohol use and problems (PatockPeckham, Cheong, Balhorn, & Nagoshi, 2001).

### Factor Structure

With a sample of 391 college students (Carey, Neal & Collins, 2004), a single-factor solution emerged containing 31 items that as the same for men and women. A subsequent college sample ( $N = 237$ ) yielded a two-factor solution termed Impulse Control and Goal Setting (Neal & Carey, 2005).

### Recommended Use

We do not recommend using the SRQ for clinical decision-making. There is good support for interpreting the total SRQ score as a reflection of self-regulatory functioning. Based on our clinical and college samples, we tentatively recommend the following ranges for interpreting SRQ total scores with the 63-item scale:

$\geq 239$	High (intact) self-regulation capacity (top quartile)
214-238	Intermediate (moderate) self-regulation capacity (middle quartiles)
$\leq 213$	Low (impaired) self-regulation capacity (bottom quartile)

The seven subscales are for research purposes only. We do not recommend separate interpretation of the subscale scores at this stage of instrument development.

### Scoring

All 63 items are answered on a 5-point Likert scale with the following scale points:

- 1 Strongly disagree
- 2 Disagree
- 3 Uncertain or Unsure
- 4 Agree
- 5 Strongly Agree

Table 1 presents the 63 items, the subscales to which they were logically assigned, and the items that are to be reverse-scaled (R). *Be careful in scoring to reverse the scale for R items.* For reverse-scaled items, 1=5, 2=4, 3=3, 4=2, and 5=1.

## References

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