Validity and Reliability of the Sensation Seeking Personality Type Scale

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Abstract

Previous research on sensation seeking indicates that the measurement of this construct is mired in controversy. Researchers have questioned the psychometric properties of common sensation seeking scales, including the Sensation Seeking Scale version 5 (SSS-V). The SSS-V has been deemed psychometrically inadequate in peer-reviewed research because it uses outdated and biased language and a poor response format, as well as measures the behavior it predicts and has unstable factor structures. The aim of this study was to address concerns by constructing a psychometrically sound measure of sensation seeking, the Sensation Seeking Personality Type Scale (SSPT). The SSPT separates intent from experience, uses a Likert-type response format, and does not contain idiomatic or biased language. The SSPT consists of 2 subscales, Experience Seeking and Risk Seeking. Additionally, the SSPT was a significant predictor of outcomes commonly associated with being a high sensation seeker. These results, taken in conjunction with improvements made to the format and content indicate that the SSPT is a more psychometrically sound measure of the sensation seeking personality type than the SSS-V. Ongoing studies to further validate the SSPT scale are needed; however, the results to date suggest that the SSPT is a reliable and valid measure of sensation seeking.

Introduction

- Since 1964 researchers have been developing and revising Sensation Seeking Scales, however, the measurement of this construct is mired in controversy.

- Researchers have questioned the psychometric properties of common sensation seeking scales, including the most commonly used scale, the Sensation Seeking Scale version 5 (SSS-V).

- The SSS-V has been deemed psychometrically inadequate in peer-reviewed research because it uses outdated and biased language and a poor (forced-choice) response format, as well as measures the behavior it predicts, and has unstable factor structures.

- The aim of this study was to address these concerns by constructing a psychometrically sound measure of sensation seeking, the Sensation Seeking Personality Type Scale (SSPT).

The Sensation Seeking Personality Type Scale

- This current version of the SSPT consists of 12 items loading onto 2 subscales: Experience Seeking and Risk Seeking.

- The items are scored on 5 point Likert-type scales ranging from Strongly Disagree to Strongly Agree allowing for individual variability within and between specific items and measurement of degree of sensation seeking.

- The SSPT does not use idiomatic or biased language meaning it should not offend those completing it, and it should be more durable over time.

- The SSPT separates intent from experience using items measuring personality not actual experience, thus avoiding criterion contamination, which is present in many of the commonly used sensation seeking scales.

SSPT Item Data

Subscale Item	M(SD)	EFA Factor Loading	CFA Factor Loading
Experience Seeking			
I don't enjoy trying new things.	3.9(0.8)	0.30	0.38
I think variety is what makes life interesting.	4.1(0.8)	0.73	0.67
I think it is important to try as many new things as I can.	3.9(0.8)	0.86	0.80
I love challenging myself with new and interesting tasks.	4.0(1.0)	0.70	0.68
I like to experience anything and everything I can.	3.6(0.9)	0.67	0.68
Risk Seeking			
I like to do things that other people think are dangerous.	2.6(1.0)	0.72	0.76
I enjoy participating in unsafe activities.	2.5(1.0)	0.79	0.82
I avoid activities if there is a chance that I could get hurt.	3.1(1.1)	0.57	0.56
I would describe myself as careful and cautious.	2.7(1.0)	0.64	0.58
I do things even if I know that doing them is bad for me.	2.9(1.0)	0.51	0.49
I do things even if I know doing them will get me in trouble.	2.7(1.0)	0.56	0.51
I think that excitement is more important than safety.	2.6(0.9)	0.59	0.61
I have the most fun when I am doing risky or dangerous things.	2.5(1.0)	0.65	0.65
I rarely do things that seem risky.	3.0(1.0)	0.65	0.64

- Items were reversed when necessary so that high scores represent higher sensation seeking
- All factor loadings in the CFA were significant at p < 0.001

Method

- Participants in this analysis were 1800 undergraduates from Temple University. Participants completed the study for participation credit. Participants were between 18 and 56 years of age (M=21.1, SD=3.7). The sample was 67.7% female. Additionally, the sample was racially diverse (57.6% European American, 21.1% African American, 11.8% Asian/Asian American, 4% Other, 5.6% Chose not to respond).

- The test battery used in this study consisted of the SSPT and an inventory of risky behaviors that participants have engaged in also created by the researchers of this study called the Risky Behavior Inventory.

- Data were subjected to both Exploratory (EFA) and Confirmatory (CFA) Factor Analyses by randomly dividing the participants into 2 separate samples.

- Reliability analyses were conducted using Cronbach's α and test retest.

- Validity analyses were also conducted. Pearson correlations were computed between the SSPT and risky, alcohol, and drug use behaviors.

Results

- Starting with an item pool of 59 items in this iteration, the EFA revealed 2 factors, Experience Seeking and Risk Seeking . These factors explained a substantial amount of the variance.
  - In the EFA sample, the two factors accounted for 43% of the variance.
  - In the CFA sample, the two factors accounted for 42% of the variance.

- The 2 factors were significantly correlated in both the EFA and CFA analyses, so oblique rotations were used to determine the final factor loadings.
  - In the EFA the subscale correlations were: Experience Seeking and Risk Seeking r = 0.41.
  - In the CFA the subscale correlations were: Experience Seeking and Risk Seeking r = 0.38.

- The Cronbach's α's for each subscale ranged from good to excellent:
  - In the EFA Experience Seeking α = 0.,76 Risk Seeking α = 085.
  - In the CFA Experience Seeking α = 0.77, Risk Seeking α = 0.85.

- The SSPT had good test-retest reliability (r = 0.83)

- The SSPT total score significantly and positively correlated with the number of risky activities (not including alcohol and drug use): r = 0.42, p < 0.001.

- The SSPT total score also significantly and positively correlated with a measure of alcohol abuse: r = 0.32, p < 0.001, and the number of drugs a person has tried: r = 0.31, p < 0.001.

Discussion

- The EFA identified and the CFA confirmed 2 subscales in the data: Experience Seeking and Risk Seeking. These subscales are similar to subscales found on other measures of sensation seeking, for example the SSS-V has 4 subscales: Experience Seeking, Thrill and Adventure Seeking, Disinhibition, and Boredom Susceptibility. After years of research there was no evidence of a Boredom Susceptibility or Disinhibition scale, though items were constructed that were designed to tape these constructs.

- The results of the analyses on this version of the SSPT indicate that it is a reliable measure of sensation seeking.

- The results also indicated that the SSPT had good internal consistency and test-retest reliability.

- Additionally, the SSPT significantly correlated with measures of risky behavior. This indicates that the SSPT has good validity as well.

- These results, in conjunction with improvements made to scale format and content, indicate that the SSPT is a more psychometrically sound measure of sensation seeking than the SSS-V.

- Research is being conducted on the CFA data now looking more closely at predictive relations between these two subfactors of sensation seeking and a host of risky behavior.

- Ongoing studies to further validate the SSPT scale are needed, including expanding the population to include early adolescents and clinical samples.