# Research Summary – Sense of Well-Being Inventory (SWBI) – Quality of Life

| **Author Year Research Design**  **Setting (country)** | **Demographics and Injury Characteristics of Sample** | **Validity** | **Reliability** | **Responsiveness Interpretability** |
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| [Catalano et al.](https://www.cambridge.org/core/journals/australian-journal-of-rehabilitation-counselling/article/abs/sense-of-wellbeing-inventory-as-a-quality-of-life-measure-for-people-with-spinal-cord-injury/D2628C4C3B90D548161AA45867FC6A81) 2010  Quantitative descriptive research design – Cross-sectional  Recruited from Canadian Paraplegic Association | N = 413 with paraplegic SCI  Mean (SD) age = 46.41 years (14.09)  71% were men  Mean (SD) duration since injury = 29.30 months (14.45); range=1 to 77 months  86% were white (6% of aboriginal, 5% of non-white, and 3% of others) 44 % were either engaged or married  80% had completed high school, including 48% with some post- secondary education or training  At the time of the survey, 30% were employed full-time. | **Exploratory Factor Analysis:**  The Kaiser-Meyer-Olkin (KMO) resulted in a measure of sampling adequacy of .91 (greater than .50) and the Bartlett’s test of sphericity, c2(630, *N* = 202) = 3893.01, *p* < .001, indicated that it was appropriate to proceed with exploratory factor analysis. A four-factor solution was chosen using The Kaiser-Guttman rule (eigenvalue greater than one) and Cattell’s scree test. Exploratory factor analysis resulted in minor relocation and elimination of some items, reducing the instrument to 20 items.  **Confirmatory Factor Analysis:**  The results indicated that the data did not fit the single factor model. The model fit for the four-factor intercorrelated and the four-factor hierarchical factor models were excellent. The four-factor intercorrelated model represents a significantly better explanation of the data than the single factor model.  **Convergent Validity:**  Acceptance of Disability Scale (ADS)  Rosenberg Self-Esteem Scale (RSES)  Subjective Happiness Scale (SHS)  Bivariate Correlations between SWBI subscales and other scales  See table 1. | **Internal Consistency:** Cronbach’s alpha:  Psychological Well-Being = 0.82  Financial Well-Being = 0.81  Family and Social Well-Being = 0.85  Physical Well-Being = 0.81 | **Interpretability:** Mean (SD) well-being rating for each subscale:  Psychological Well-Being = 2.75 (0.61)  Financial Well-Being = 2.93 (0.70)  Family and Social Well-Being = 3.22 (0.60)  Physical Well-Being = 2.82 (0.63) |
|  | Table 1.   |  |  |  |  | | --- | --- | --- | --- | |  | SHS | ADS | RSES | | Financial WB | .45\* | .37\* | .42\* | | Psychological WB | .72\* | .59\* | .76\* | | Family and social WB | .58\* | .44\* | .49\* | | Physical WB | .46\* | .50\* | .49\* |   \*P<.01 | | | |
| [deRoon-Cassini et al.](https://pubmed.ncbi.nlm.nih.gov/19702429/) 2009  Cross-sectional  Clement J. Zablocki VA Medical Center Milwaukee, WI | N= 79 veterans with SCI  76 men  Mean age = 55.9 years (SD = 11.0)  Mean (SD) duration of injury = 17.5 (14.7) months  21 incomplete paraplegia, 20 complete paraplegia, 34 partial tetraplegia, 4 complete tetraplegia  80% Caucasian, 11% African American, 4% Native American, and 5% other  10% were employed (*n* = 13)  Mean number of years of education = 13.9 (SD = 2.3)  Mean income = $34,000 (*SD* = 26,000)  44% lived alone  33% were divorced, 30% were married, 26% were single, 8% in a committed relationship or dating, 3% other | Perceived loss of physical functioning: items from the Conservation of Resources—Evaluation (COR-E) and SF-36 Health Survey  Global meaning making: Purpose in Life (PIL) scale  Psychological well-being: Psychological well-being SWBI subscale  Bivariate correlations between:  Psychological well-being and Perceived loss of physical functioning = -.30 (P<.01)  Psychological well-being and Global meaning making = .71 (P<.01) |  |  |
| [Chapin et al.](https://pubmed.ncbi.nlm.nih.gov/15371026/) 2004  Cross-sectional  Recruited from Alberta, Saskatchewan, Nova Scotia, and Manitoba chapters of the Canadian Paraplegic Association | N = 132 with paraplegic SCI  Mean (SD) Age = 45.82 (15.67) years  77% men  Mean (SD) duration since injury = 15.21 (11.63) months; Range = 1.08 to 50.92 months  51% engaged or married  83% in middle class  61% completed high school, 42% with postsecondary education or training  At time of injury: 67% employed  At time of survey: 19% were employed full-time, with 6% employed part-time, 9% in training, and 67% not employed. | **Principal Axis Factor Analysis:**  The Kaiser-Meyer-Olkin (KMO) resulted in a measure of sampling adequacy of 0.84 (greater than 0.50) and the Bartlett’s test of sphericity (**χ**2 = 2203.96, df = 630, p < 0.001) allowed researchers to proceed with factor analysis. Eight factors were indicated using The Kaiser-Guttman rule (eigenvalue greater than one), resulting in trivial factors. Cattell’s scree test was then used as an alternative to determine the number of factors to be retained. Four factors were indicated using this method: Psychological Well-Being, Financial Well-Being, Family and Social Well-Being, and Physical Well-Being.  **Convergent Validity:**  Correlations between SWBI subscales and World Health Organization Quality of Life-Brief Version (WHOQOL-BREF) subscales:  SWBI psychological well-being subscale and WHOQOL-BREF psychological subscale: r = 0.75, P<0.01  SWBI physical well-being subscale and WHOQOL-BREF physical health subscale: r = 0.63, p<0.01  SWBI family and social well-being subscale and WHOQOL-BREF social relationships scale: r = 0.45, p<0.01  SWBI financial well-being subscale and WHOQOL-BREF environment subscale: r = 0.59, p<0.0001 | **Internal Consistency:** Cronbach’s alpha:  Psychological Well-Being = 0.87  Financial Well-Being = 0.88  Family and Social Well-Being = 0.84  Physical Well-Being = 0.79 | **Interpretability:** Mean (SD) well-being rating for each subscale:  Psychological Well-Being = 2.68 (0.62)  Financial Well-Being = 2.73 (0.66)  Family and Social Well-Being = 3.14 (0.57)  Physical Well-Being = 2.70 (0.60) |