Preliminary validation of the Satisfaction with Work Scale

Francesco Marcatto, Lisa Di Blas, Donatella Ferrante

Department of Life Sciences, University of Trieste, Trieste, Italy

fmarcatto@units.it

❧ ABSTRACT. Il presente studio descrive i risultati della validazione preliminare della *Satisfaction with Work Scale* (*SWWS*), una nuova misura sviluppata per misurare la valutazione generale della propria soddisfazione lavorativa, modellata sulla base della popolare *Satisfaction with Life Scale* (*SWLS*). I due studi condotti hanno dimostrato che la nuova scala possiede caratteristiche psicometriche più che adeguate, in termini di affidabilità, validità di costrutto, validità concorrente e convergente. Nel complesso, i risultati indicano che la SWWS è uno strumento valido e affidabile per misurare la soddisfazione lavorativa.

❧ SUMMARY. *The present study describes the results of a preliminary validation of the Satisfaction with Work Scale (SWWS), a new measure designed to assess an individual's general evaluation of job satisfaction, modelled after the popular Satisfaction with Life Scale (SWLS). Two studies were conducted to test the psychometric properties of this new scale in terms of reliability, as well as construct, concurrent and convergent validity. In the first study (N = 194), the exploratory factor analysis suggested a single-factor structure of the scale, consistent with its development, and showed a high level of reliability (α = .91), as well as a moderate to strong correlation with concurrent and convergent measures. The confirmatory factor analysis conducted in the second study (N = 221) clearly supported the single-factor structure. Overall, the results of this preliminary validation indicate that the newly developed SWWS is a valid and reliable instrument to evaluate global job satisfaction.*

Keywords: *Job satisfaction, Satisfaction with Work Scale, Satisfaction with Life Scale, Perceived occupational stress, Turnover intention*

INTRODUCTION

The *Satisfaction with Life Scale* (*SWLS*; Diener, Emmons, Larsen & Griffin, 1985) is possibly the most widely used scale to measure global life satisfaction. The SWLS focuses on the cognitive appraisal of individual well-being, that is, a conscious evaluative judgment of one's life using own personal criteria (Diener et al., 1985). More specifically, the SWLS is composed of five items, with a single factor explaining 66% of the variance, and it has been validated in numerous studies in different languages and has exhibited strong evidence of acceptability, reliability and validity (Checa, Perales & Espejo, 2018).

In the present article, we report the results of a preliminary validation of the *Satisfaction with Work Scale* (*SWWS*), which is a new measure modelled after the SWLS designed to assess an individual's global evaluation of job satisfaction, a particularly meaningful construct due to its association with other important outcomes including job performance (Judge, Thoresen, Bono & Patton, 2001), physical and mental wellbeing (Faragher, Cass & Cooper, 2005), absenteeism (Farrell & Stamm, 1988), and turnover (Griffeth, Hom & Gaertner, 2000). Although many different measures of job satisfaction exist, from single-item measures to long and complex multi-dimensional scales, to our knowledge there's a lack of multi-item scales specifically focused on measuring the cognitive appraisal of workers' global job satisfaction. Similar to life satisfaction, the cognitive appraisal of global job satisfaction can be defined as a conscious cognitive judgment of one's job, which depends on a comparison of actual job conditions and one's own standards and expectations (Bowling & Zelazny, 2021).

To fill this gap in the literature and to provide scholars and practitioners with a short and reliable instrument for assessing a global judgment evaluation of workers' personal job satisfaction, we developed the SWWS as a modified version of the SWLS in which the word "life" is replaced by the word "job" in each of the five original items (with the exception of item 5, which has been slightly reworded; see Table 1). As in the SWLS, the items of the SWWS are global in nature rather than specific, allowing workers to weigh aspects of their job according to their own values and experiences.

The SWWS consists of five items answered on a 7-point Likert-type scale (from 1 = strongly disagree to 7 = strongly agree), making the possible range of global job satisfaction from 5 (lowest satisfaction) to 35 (highest satisfaction).

Two studies were conducted to test the psychometric properties of the SWWS. The first study aimed at evaluating the scale's construct validity (using exploratory factor analysis), reliability, as well as concurrent and convergent validity. We hypothesised that the SWWS would be composed of a single factor and that it should display high reliability (Cronbach's alpha $\geq$.80) and at least moderate correlations with the concurrent and convergent measures ($r \geq$.40).

STUDY 1

Study 1: Methods

Data collection took place between spring and summer 2021, therefore we employed a convenience sampling procedure to reach workers under COVID-19 containment measures. Participants were recruited through the personal contacts, mailing lists and social networks of the authors, with the survey link sent to potential participants by email. Informed consent was achieved on the first page of the questionnaire, on which the project was summarized and the anonymity of the collected data and the right of the participant to withdraw from the study at any time were emphasized.

After three weeks, a total of 198 questionnaires were collected. Four participants failed to fill out significant parts of the questionnaire, so their data were discarded from the analysis. The final sample therefore consisted of 194 participants (135 females, 70%), aged between 21 and 67 (M = 43.10, SD = 11.55). In total, 175 (90%) were employees, 12 (6%) were self-employed, and 4 (2%) were both employees and self-employed (missing cases = 2%). Most participants worked full-time (N = 165, 85%) rather than part-time (N = 29, 15%).

Other than the SWWS, the online questionnaire contained the following measures to test its concurrent and convergent validity:
– *Satisfaction with Job – General* (*SJ-G*; Dubinsky & Hartley, 1986), a unidimensional measure of job satisfaction composed of five items (Cronbach's alpha = .79);
– *Job Satisfaction Questionnaire* (*JSQ*; Faraci & Valenti, 2016), a 27-item questionnaire which measures six dimensions of job satisfaction (professional development and skills use, economic earnings, working conditions, job usefulness, relations with colleagues, recognition of results). It also produces a composite score of job satisfaction (Cronbach's alpha values ranged from .81, in

the economic earnings subscale, to .91, in the professional development and skills use subscale);

– *Perceived Occupational Stress* (*POS*; Marcatto, Di Blas, Luis, Festa & Ferrante, 2021), a four-item scale of perceived job stressfulness (Cronbach's alpha = .90);

– *Employees Turnover Intention* (*ETI*; Yin-Fah, Foon, Chee-Leong & Osman, 2010), a measure of the intention of leaving the current job, composed of three items (Cronbach's alpha = .92).

Statistical analyses included a principal axis factor analysis with a parallel analysis applied to define the optimal number of factors to extract, Cronbach's alpha to estimate the reliability of the scale, Pearson correlation coefficients to examine the association with the external correlates, and standard inferential tests (*t*-test and ANOVA) to analyze whether the SWWS scores differed across the participants' age groups, genders, and workgroups. Statistical analyses were conducted using IBM SPSS Statistics 23 (IBM Corporation, USA).

Study 1: Results

An exploratory factor analysis was conducted to assess the underlying structure of the five items of the SWWS. The Kaiser-Meyer-Olkin (KMO) value was .86, higher than the conventional threshold of .70, indicating that the sample was adequate, and Bartlett's test of sphericity ($\chi^2_{(10)} = 737.90, p < .001$) indicated that the inter-item correlations were large enough and, therefore, data were suitable for factor analysis. The parallel analysis supported a single-factor solution, coherent with the development of the scale, which accounted for 75 per cent of the total variance. The observed eigenvalues and those generated by the parallel analysis, item-factor loadings, and item-total correlations are reported in Table 1. Cronbach's alpha coefficient of the SWWS was .91, and the mean score was 22.26, with a standard deviation of 7.61. Skewness and kurtosis were −.53 and −52, respectively.

No significant differences emerged across the participants when they were compared in terms of age, gender, type of

Table 1 – Factor analysis eigenvalues, parallel analysis eigenvalues (average and 95th percentile), and factor loadings of the Satisfaction with Work Scale

SWWS items	Actual eigenvalues	Average eigenvalues	95th percentile eigenvalues	Factor loadings
1. In most ways my job is close to my ideal. (*Per molti versi il mio lavoro è vicino al mio ideale.*)	3.76	1.20	1.29	.84
2. My job conditions are excellent. (*Le mie condizioni di lavoro sono eccellenti.*)	.56	1.08	1.15	.77
3. I am satisfied with my job. (*Sono soddisfatto/a del mio lavoro.*)	.31	1.00	1.05	.94
4. So far I have gotten the important things I want in my job. (*Finora ho ottenuto le cose importanti che desidero nel mio lavoro.*)	.22	.91	.96	.89
5. If I could choose another job, I wouldn't change what I do now. (*Se potessi scegliere un altro lavoro, non cambierei quello che svolgo ora.*)	.14	.82	.88	.70

Note. The original Italian language items are reported in italics.

work (employees *vs* self-employed) and working time (full-time *vs* part-time) (all values of *p*>.05).

Correlations between the SWWS and the other measures are shown in Table 2. As for the concurrent validity, the SWWS was strongly correlated with the SJ-G, the other unidimensional measure of job satisfaction (*r* = .78, *p*<.001), and moderately with the composite score of the JSQ (*r* = .63, p<.001). Correlations with the subscales of the JSQ ranged from weak (with recognition of results, *r* = .30, *p*<.001) to moderate (with professional development and skills use, *r* = .64, *p*<.001). Regarding the convergent validity, the SWWS displayed moderate correlations with both POS (*r* = −.42, *p*<.001) and ETI (*r* = −.62, *p*<.001).

STUDY 2

A second study was conducted to further test the internal structure of the SWWS through confirmatory factor analysis (CFA).

Study 2: Methods

Using the same sampling procedure of the previous study, a sample of 221 workers was collected (142 females, 64%, mean age = 38.60, *SD* = 12.01). In total, 180 (81%) were employees, 24 (11%) were self-employed, and 12 (5%) were

Table 2 – Correlations between the SWWS and other measures

	SWWS *r* (95% CI)
SJ-G	.78 (.72, .83)
JSQ CS	.63 (.54, .71)
JSQ PDSU	.64 (.59, .70)
JSQ EE	.43 (.37, .56)
JSQ WC	.41 (.59, .70)
JSQ JU	.32 (.17, .45)
JSQ RC	.33 (.17, .47)
JSQ RR	.30 (.17, .43)
POS	−.42 (−.54, −.29)
ETI	−.62 (−.72, −.52)

Note. 95% Confidence intervals in brackets. All correlations are statistically significant with *p*<.01.

Legenda. SWWS = *Satisfaction with Work Scale*; SJ-G = *Satisfaction with Job – General;* JSQ CS = *Job Satisfaction Questionnaire Composite Score*; JSQ PDSU = *Job Satisfaction Questionnaire Professional Development and Skills Use*; JSQ EE = *Job Satisfaction Questionnaire Economic Earnings*; JSQ WC = *Job Satisfaction Questionnaire Working Conditions*; JSQ JU = *Job Satisfaction Questionnaire Job Usefulness*; JSQ RC = *Job Satisfaction Questionnaire Relations with Colleagues*; JSQ RR = *Job Satisfaction Questionnaire Recognition of Results*; POS = *Perceived Occupational Stress*; ETI = *Employees Turnover Intention*.

both employees and self-employed (missing cases = 2%). Most participants worked full-time (N = 189, 81%) rather than part-time (N = 29, 13%; missing cases = 1%).

Participants were asked to fill out the SWWS and demographic items. CFA was conducted using IBM Amos 23 (IBM Corporation, USA), and the following criteria for goodness-of-fit indices were adopted: Tucker-Lewis Index (TLI) ≥.95, Comparative Fit Index (CFI) ≥.95, Root Mean Square Error of Approximation (RMSEA) ≤.06, and Standardized Root Mean Square Residual (SRMR) ≤.08 (Hu & Bentler, 1999).

Study 2: Results

Similarly to Study 1, the Cronbach's alpha coefficient of the SWWS was .89, with a mean score of 21.80 (SD = 7.96). Skewness and kurtosis were −.38 and −.98. Again, no significant differences emerged across the participants when they were compared in terms of age, gender, type of work, and working time (all values of p>.05).

The single-factor solution model was tested, and the fit indices clearly suggested a good fit: TLI = .99, CFI = .99, RMSEA = .06 (LO90 = .01, HI90 = .12), SRMR = .02.

CONCLUSIONS

Overall, the results of this preliminary validation indicate that the SWWS possesses more than adequate psychometric properties, in terms of internal consistency, and construct, concurrent and convergent validity. Specifically, the hypothesized single-factor solution was clearly supported by both exploratory and confirmatory factor analyses and turned out to be highly reliable. The SWWS also displayed a strong correlation with another measure of job satisfaction, the SJ-G. Since the internal structure and reliability of the SJ-G scale are currently up for debate, at least for the Italian version (Barbaranelli, Bortone & Di Matteo, 2010), it could be more advantageous to use the SWWS when a brief, unidimensional measure of the cognitive appraisal of job satisfaction is required. The SWWS was also substantially correlated with the composite score of the JSQ. Inspection of the correlations with subscales showed that although the SWWS was significantly associated with all the JSQ subscales, the strongest correlations were with the "professional development and skills use", "economic earnings", and "working conditions" dimensions. It is therefore conceivable that workers weigh these specific aspects of work as more important when evaluating their global job satisfaction. Lastly, the SWWS was moderately correlated with perceived occupational stress, one of the main antecedents of job satisfaction (Marcatto & Ferrante, 2021), and with turnover intention, which is known to be strongly influenced by job satisfaction (Griffeth et al., 2000).

Limitations of the current study include the sample size, which should be increased and balanced by gender and type of work in future studies to obtain a normative sample. Moreover, the adopted sampling procedure produced a convenience sample, therefore we cannot exclude the possibility of selection bias. Future research should further consolidate the psychometric properties of the SWWS, test its measurement invariance by relevant variables such as gender, age, and type of work, and conduct longitudinal studies to explore the effectiveness of the SWWS in predicting organisational and/or individual outcomes, such as physical/mental wellbeing and actual turnover rates.

In summary, the evidence presented in this study suggests that the newly developed SWWS is a valid and reliable instrument to briefly evaluate global job satisfaction, similarly to its well-known "big sister", the *Satisfaction with Life Scale*, from which it is derived.

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