The Reliability and Validity of the Satisfaction with Life Scale in the Samples of Turkish Elderly and Correctional Officers

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Researchers have investigated the determinants of subjective well-being in recent years.

According to Pavot and Diener (2004), subjective well-being is comprised of two constructs:

- an emotional or affective component (i.e., positive and negative affect)
  and
- a conceptual or cognitive component (i.e., satisfaction with life, marriage, work, and leisure).
Due to increased interest in subjective well-being, scholars have created several instruments to measure the construct. Likewise,

- **The Semantic Differential Scale** (SDS; Campbell, Converse, & Rodgers, 1976),
- **The Life Satisfaction Inventory: Form A** (LSI-A; Neugarten, Havinghurst, & Tobin, 1961),
- **The Satisfaction with Life Scale** (SWLS; Diener, Emmons, Larsen, & Griffin, 1985)
SATISFACTION WITH LIFE SCALE

- According to Updegraff and Suh (2007), the SWLS is widely used to measure global life satisfaction using five statements relating to quality of life.

- Pavot et al. (1991) stated that the SWLS is superior to other measures of subjective well-being measures because of its ability to elicit multiple assessments with only five statements.
The internal consistency of the SWLS was reported to be .87, and the test-retest correlation as .82 (Diener et al., 1985).

Similar to the English version of SWLS, a one-factor structure was found in the French (Blais, Vallerand, Pelletier, & Briere, 1989) and Dutch (Arrindell, Meeuwesen, & Huyse, 1991) versions following confirmatory factor analyses.
Researchers have examined the SWLS with older individuals (Elavsky et al., 2005; Minardi & Blanchard, 2003), adults (Tucker, Ozer, Lyubomirsky, & Boehm, 2006), and adolescents (Hoferi & Chasiotis, 2003).
Further, researchers have studied the role of subjective well-being on individuals experiencing stressful life events, such as

- Mothers of school-aged children with cerebral palsy (Skok, Harvey, & Reddihough, 2006),

- Caregivers of individuals with dementia (McConaghy & Caltabiano, 2005), and

- Nurses (Heyns, Venter, Esterhuyse, Bam, & Odendaal, 2003).
The purpose of the present study was to investigate the psychometric properties of the Turkish version of the SWLS using two different samples:

- Elderly adults (Study-1) and
- Correctional officers (Study-2)
STUDY-1
Participants

- The sample included 55 males (44.7%) and 68 females (55.3%) ranging in age from 60 to 85 years ($X = 68.18, SD = 5.10$).
- The majority (70.7%) of the participants was married, with the remaining participants reporting being widowed (22.8%) or divorced (6.5%).
- 56 participants (45.5%) were primary school graduates, 15 participants (12.2%) were secondary school graduates, 23 participants (18.7%) were high school graduates, and 29 participants (23.6%) were university graduates.
STUDY-1: METHOD

Measures

- Satisfaction with Life Scale (SWLS)
- Rosenberg Self-Esteem Scale (RSES)
- Geriatric Depression Scale (GDS)
- Demographic Information Form
Procedure

- Prior to data collection, two clinical psychologists who were fluent in both Turkish and English translated the SWLS into Turkish. They attempted to ensure that the translated version was consistent with the original version. Any discrepancies between the two scales were discussed and subsequently resolved by joint agreement.
STUDY-1: METHOD

Procedure

- The measures were distributed to elderly Turkish adults living in their homes or an institute after obtaining approval from the ethical committee of the institute.

- Participants were gathered using snowball sampling due to the difficulties associated with recruiting elderly individuals for psychological studies.
STUDY-1: METHOD

Procedure

- Participants living in the institute were selected with the assistance of psychologists working in there.

- After they were informed of the study’s purpose, all participants indicated their informed consent by signing a consent form. Participation in the study was voluntary. Thirty-two individuals chose not to participate in the study.
**STUDY-1: METHOD**

**Procedure**

- Participants who wanted to complete the questionnaires by the helps of administrator, they were allowed to do so.

- Scale administration to one participant took approximately 0.5 to 1.5 hours.

- If necessary, participants were permitted to take a 5 to 10 minute break during the interview.
Reliability

- Reliability was assessed using internal consistency indexes. The SWLS had high internal consistency (.86) in the sample of elderly adults.

- The corrected item total correlation ranged from .69 to .78.
STUDY-1: RESULTS

Factor Validity by Confirmatory Factor Analyses (CFA)

- The researchers examined the one-factor solution using AMOS 7.0 (Arbuckle, 2006).
- Upon examination of the model solution, THE MODEL ADEQUATELY FIT THE DATA ($\chi^2 (5, N=123)=5.293$, $p=n.s.$).
- In addition to the suggested $\chi^2/df$ ratio ($\chi^2/df=1.059$), the goodness of fit indexes showed that the fit was adequate ($RMSEA=.022$, $IFI=.999$, $TLI=.998$, $CFI=.999$, $RFI=.968$).
STUDY-1: RESULTS

Satisfaction With Life Scale

LifeSat 1
LifeSat 2
LifeSat 3
LifeSat 4
LifeSat 5

e1,72
,e2,85
,e3,75
,e4,85
,e5,76
STUDY-1: RESULTS

Discriminant Validity

- Using the 30-item GDS questionnaire, participants were categorized into two subgroups: a depressive and a non-depressive group. Initially, two extreme groups were generated based on the participants’ GDS scores.

- Participants with the GDS scores within the highest and the lowest 25th percentile were grouped as high depressive symptomatology and low depressive symptomatology, respectively.
**STUDY-1: RESULTS**

**Discriminant Validity**

- A 2 (gender: male and female) X 2 (depression: low depressive group and high depressive group) between-subjects analysis of variance (ANOVA) was performed on the Satisfaction With Life Scale to investigate the instrument’s discriminant validity.

- A significant main effect was found for depressive symptomatology, $F(1,54) = 9.356, p < .005$. 
Discriminant Validity

- However, a significant main effect for gender was not found,
  \[ F(1, 54) = 3.075, \text{n.s.} \] In addition, no significant interaction effect was found, \[ F(1, 54) = 2.226, \text{n.s.} \].

- As expected, the main effect of depressive symptomatology revealed that participants with low levels of depressive symptomatology reported higher life satisfaction (\( M = 28.05 \)) than those with high levels of depressive symptomatology (\( M = 22.27 \)).
Concurrent Validity

- Participants’ scores on the SWLS were positively correlated with
  - Self-esteem \((r = .28, p < .05)\),
  - Perceived health status (higher scores indicate better health) \((r = .20, p < .05)\),
  - Level of social security or insurance (higher scores demonstrate better insurance level) \((r = .23, p < .05)\), and
  - Annual income \((r = .18, p < .05)\).

- However, participants’ scores on the SWLS were negatively correlated with late-life depression \((r = -.39, p < .001)\).
**STUDY-2: METHOD**

**Participants**

- Correctional officers were selected from three different types of prisons due to the danger and stress associated with their work environment.
- The sample included 139 males and 27 females. Participants’ ages ranged from 20 to 57 years ($X = 37.19, SD = 7.97$).
- Six participants (3.6%) were secondary school graduates, 106 participants (63.9%) were high school graduates, and 54 participants (32.5%) were university graduates.
- Nineteen percent of the participants worked in maximum security prisons, 53% worked in medium security prisons, and 28% worked in minimum security prisons.
Measures

- Satisfaction with Life Scale (SWLS)
- Beck Depression Inventory (BDI)
- Work Stress Scale for Correctional Officers (WSSCO)
- Positive and Negative Affect Scale (PANAS)
- Maslach Burnout Inventory (MBI)
- Demographic Information Form
STUDY-2: METHOD

Procedure

- The measures were distributed to the correctional officers after obtaining approval from the ethical committee of the Ministry of Justice.
- Following the prison rules, the researchers informed the correctional officers about the purpose of the study at locations, such as the corridors, library, meeting hall, kitchen, hobby center, and crisis center.
- A booklet was distributed to each of them.
- All participants indicated their informed consent by signing a consent form. Participation in the study was voluntary.
STUDY-2: RESULTS

Reliability

- Reliability was assessed using internal consistency indexes. The SWLS had high internal consistency (.82) in the sample of correctional officers.

- The corrected item total correlation ranged from .55 to .69.
STUDY-2: RESULTS

Factor Validity by Confirmatory Factor Analyses (CFA)

- The researchers examined the one-factor solution using AMOS 7.0 (Arbuckle, 2006)

- Upon examination of the model solution, THE MODEL ADEQUATELY FIT THE DATA ($\chi^2 (5, N=166)=5.862, p=n.s.$)

- In addition to the suggested $\chi^2/df$ ratio ($\chi^2/df=1.172$), the goodness of fit indexes showed that the fit was adequate

  \( \text{RMSEA} = .032, \text{IFI} = .997, \text{TLI} = .993, \text{CFI} = .997, \text{RFI} = .955 \).
STUDY-2: RESULTS

LifeSat 1
\[
\text{Score} = e1 \times 0.70
\]

LifeSat 2
\[
\text{Score} = e2 \times 0.67
\]

LifeSat 3
\[
\text{Score} = e3 \times 0.65
\]

LifeSat 4
\[
\text{Score} = e4 \times 0.79
\]

LifeSat 5
\[
\text{Score} = e5 \times 0.63
\]

Satisfaction With Life Scale
STUDY-2: RESULTS

Discriminant Validity

- Based on their scores on the 21-item BDI questionnaire, participants were categorized into two subgroups: a depressed group and a non-depressed group.

- The participants with BDI scores within the highest and the lowest 25th percentile were categorized high depressive symptomatology and low depressive symptomatology categories, respectively.
STUDY-2: RESULTS

Discriminant Validity

- A 2 (marital status: single and married) X 2 (depression: low depressive group and high depressive group) between-subjects analysis of variance (ANOVA) was performed on the SWLS to investigate the instrument’s discriminant validity.

- A significant main effect was found for depressive symptomatology, $F(1, 83) = 6.704, p < .05$.

- However, no significant main effect was found for marital status, $F(1, 83) = .003, n.s.$
STUDY-2: RESULTS

Discriminant Validity

- Further, no significant interaction effect was found, $F(1, 83) = .206$, n.s.
- As expected, the significant main effect for depressive symptomatology revealed that participants with low levels of depressive symptomatology reported higher life satisfaction ($M = 18.11$) than those with high levels of depressive symptomatology ($M = 12.31$).
Concurrent Validity

- The SWLS was positively correlated with positive affect ($r = .26, p < .001$) and annual income ($r = .23, p < .005$).

- However, it was negatively related with negative affect ($r = -.29, p < .001$), work stress ($r = -.34, p < .001$), job burnout ($r = -.39, p < .001$), and depression ($r = -.30, p < .001$).
DISCUSSION
Results suggest that the psychometric properties of the SWLS are satisfactory.

The results of the internal consistency analysis clearly demonstrated that the SWLS is appropriate for use with elderly adults and correctional officers. The results of this study are similar to those reported in the Diener et al. (1985) and Paolini et al. (2006).
The results of the CFA demonstrate that the fundamental factor structure of the SWLS is one-dimensional in the sampling of both elderly adults and correctional officers according to model fit.

This is particularly true with regard to the several indexes (RMSEA, IFI, TLI, RFI, and CFI).

This result supports the previous findings obtained from factor analyses (Pavot et al., 1991) and confirmatory factor analyses (Arrindell et al., 1991; Blais et al., 1989).
In addition to factorial structure, there is evidence that the scale has good discriminant and concurrent validity.

The discriminant analysis confirmed that the SWLS factors can differentiate subjects with depression in the non-clinical samples of elderly adults and correctional officers.

Consistent with other findings (Pavot et al., 1998), the findings of the present study confirm that the concept of life satisfaction is related to positive affect, negative affect, job burnout, work stress, perceived health status, and annual income in correctional officers.
DISCUSSION

- The generalization of the results may have certain methodological limitations. Selecting elderly adults and correctional officers as the sample of the present study is very reasonable because numerous studies demonstrated that life satisfaction was related with aging (e.g. Tucker et al., 2006) and work stress (e.g. Heyns et al., 2003).

- Health problems and many restrictions in social life in late life are extensively related with life satisfaction of elderly.
DISCUSSION

- Also, working in a correctional setting is very stressful and risky due to night shifts, work overload, insufficient division of labor, ambiguous instructions, manager’s attitudes, feelings of worthlessness, economical problems, being threatened etc (e.g., Şenol-Durak et al., 2006).

- Nevertheless, gathering the data from different samples is needed in order to see the generalizability of the results such as, other workers who work in highly stressful condition (e.g., nurses).
Similarly, the sample size is questionable for two samples.

Not testing test-retest reliability is another limitation of the present study.
DISCUSSION

- In conclusion, the results reveal that the psychometric properties of the SWLS are satisfactory.

- Further research using demographically diverse populations is necessary to strengthen the support for the psychometric properties of the SWLS.
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THANK YOU...