

TURKISH ADAPTATION OF THE SOCIAL WITHDRAWAL SCALE (HIKIKOMORI QUESTIONNAIRE): THE STUDY ON VALIDITY AND RELIABILITY

Ayhan Bayram

*Associate Professor, Department of Logistic Management,
Görele School of Applied Sciences, Giresun University, Görele/Giresun, Turkey
ayhan_bayram1987@hotmail.com*

and

Ece Zeybek Yilmaz*

*Asistant Professor, Department of Logistic Management, Faculty of Economics,
Administrative and Social Sciences, Ýstanbul Gelipim University, Ýstanbul, Turkey
ece.zeybek@hotmail.com.tr*

Abstract

Hikikomori syndrome is a condition where individuals avoid social interaction, employment, education, and friendship. The Social Withdrawal Scale is used to measure the extent to which individuals withdraw from social life and rely on virtual worlds. The objective of this research was to examine the reliability and validity of the Social Withdrawal Scale in Turkey. This study involved the participation of 629 university students, who were asked to complete a questionnaire. The data were analyzed with the aid of statistical software programs, namely, SPSS 24 and AMOS 24, with a 95% confidence interval. In order to evaluate the effectiveness of the Social Withdrawal Scale in measuring the intended construct, (EFA) and (CFA) were both employed. Further, the Cronbach Alpha coefficient was calculated by the researchers and it yielded a value of 0.873. The scale included three subscales, specifically social support, socialization, and isolation, which accounted for 45.687% of the total variance. The validity and suitability of the scale, in assessing the intended construct, were supported by the CFA results. Thus, it can be inferred that the Turkish version of the Social Withdrawal Scale is a reliable and valid instrument for measuring social withdrawal behaviors.

Keywords: *Hikikomori Syndrome, Isolation, Socialization, Social Support, Virtual World.*

JEL Code : *C12, I23, M15*

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*** Corresponding Author**

1. Introduction

Hikikomori Syndrome was initially observed in Japan among young men who, due to the restrictive attitudes of their culture, exhibited avoidance behaviors such as not leaving their homes or rooms out of fear of not finding employment. As a result of complaints from concerned parents regarding the withdrawal symptoms exhibited by their children, the Japanese health authorities officially acknowledged the condition. "Social withdrawal" in this context refers to a situation where an individual confines himself to the home for a minimum of six months, avoids establishing close relationships with anyone beyond their immediate family members, and experiences distrust towards both social relationships and society (Hattori, 2006; Kato, Kanba & Teo, 2018). The number of individuals exhibiting a tendency to stay home all day is increasing around the world. Recent research in various countries such as Japan, China, Italy, United States, Russia, United Kingdom, Spain, Australia, Philippines, Singapore, Brazil, Korea, India, Peru, South Korea, Taiwan, France, Malaysia, Nigeria, Poland, Bangladesh, Croatia, Mexico, Nepal, Africa, Turkey, and Uganda have reported the practice of hikikomori (Teo & Gaw, 2010). According to research, extreme experiences such as being overly neglected or receiving too much attention, can lead to social withdrawal (Berman & Rizzo, 2019). Hikikomori Syndrome can be caused by various factors, including psychological, familial, cultural, and socio-economic factors. In some cases, changes in household arrangements and the enhancing women's workforce participation can lead to a lack of secure attachment in some children, while in other families, an overly protective attitude by the mother can lay the groundwork for social withdrawal. This syndrome is characterized by seemingly opposite factors, having the same

social effect on an individual (Nonaka, Shimada & Sakai, 2022). Hikikomori Syndrome can also be seen in family members with socio-economic differences. When the common characteristics of family members were examined, the researchers found that they were all emotionally neglected or abused (Sakamoto, Martin, Kumano, Kuboki & Al-Adawi, 2005).

2. Review of Literature

The widespread use of technology has made it an essential component of human life, and its effects on individuals are varied. Technology use has been associated with a distinct outcome, namely, the emergence of Hikikomori Syndrome. This condition is typified by an individual's prolonged social withdrawal. As individuals, who exhibit social withdrawal, often use the internet, this action is important to understand this concept as an addiction. Addiction is defined as a recurring and sometimes relapsing disease (Denis & Scott, 2007), and for which long-term treatment and follow-up are necessary (Ögel, Evren, Karadağ & Tamar Gürol, 2012). Addiction is also characterized by losing control over the use of a substance, alcohol, object, or behavior, used to cope with problems (Yepilay, 2022). The development of technology, particularly computers and the internet (Jena, 2015), has led to increased online communication, but this situation has also given rise to negative effects such as gaming and social media addiction. Technology addiction is now recognized as a problem that is comparable to alcohol and smoking addiction (Yam & Ýlhan, 2020). Hikikomori Syndrome is defined as a social withdrawal situation in which individuals, typically between the ages of 15 and 39, avoid their various responsibilities such as social interaction, education, employment, and friendship relationships, for at least six months (Sulla, Masi, Renati, Bonfiglio & Rollo,

2020; Kato, Kanba & Teo, 2018). This situation can result in a lower quality of life and various psychological problems, including depression, stress resulting from the individual's perception and emotional reaction (Rajagopalan & Noyaline, 2012), anxiety, and personality disorders, necessitating psychological support. It has been found that family support can have a positive impact on overcoming Hikikomori Syndrome (Nonaka, Shimada & Sakai, 2022).

3. Statement of the Problem

Hikikomori has gained increasing recognition as a phenomenon that can have significant adverse effects on mental health. However, the absence of a well-validated measurement tool in Turkish, limits researchers' and clinicians' ability to accurately assess and diagnose social withdrawal in Turkish populations. Therefore, having a measurement tool with Turkish validity, would overcome this limitation and enable researchers and clinicians to accurately evaluate and diagnose social withdrawal among Turkish populations.

4. Need of the Study

Hikikomori is now acknowledged as a phenomenon that can cause significant negative effects on mental health, and it has been receiving increasing attention in recent years. Nevertheless, the inadequate availability of a validated measurement tool in Turkish, restricts the ability of researchers and clinicians to accurately evaluate and diagnose social withdrawal among Turkish populations. Thus, the development of a measurement tool with Turkish validity, would eliminate this limitation and enable researchers and clinicians to assess and diagnose social withdrawal accurately among Turkish populations.

5. Objective of the Study

Hikikomori Syndrome is characterized by individuals' avoidance of social responsibilities,

including social interaction, employment, education, and friendships, leading to social withdrawal. The Social Withdrawal Scale is a useful instrument to measure the extent to which individuals withdraw from social life and instead rely on virtual interactions. This research seeks to assess the validity, and reliability of the Social Withdrawal Scale in Turkey.

6. Hypothesis of the Study

The hypothesis of the study:

H₁: The analysis of validity and reliability of the Social Withdrawal Scale in Turkey, did yield statistically significant results.

7. Research Methodology

7.1. Sample Selection

A study was conducted to adapt the Social Withdrawal Scale to Turkish culture, using a sample of 629 university students from various institutions. While determining the sample, the non-probabilistic convenience sampling method was used. To assess the scale's factor structure's compatibility with Turkish culture, a survey was distributed to 647 individuals. After eliminating surveys that were filled out incorrectly or incompletely, 629 surveys were subjected to the analysis.

7.2. Sources of Data

The study relied mainly on primary data, obtained by conducting interviews with university students from various institutions in Turkey.

7.3. Period of the Study

The data were collected during the period between January 10, 2022 and May 31, 2022.

7.4 Tools used in the Study

For data analysis in this study, the researchers utilized the statistical software programs like SPSS 24 and AMOS 24. Descriptive Statistics was applied to summarize the sample's characteristics and behavior, as

classified in the predefined categories. To examine the research hypothesis (H1), the researchers conducted EFA with Varimax Rotation, CFA, and correlation analysis. Additionally, the researchers employed Cronbach Alpha to assess the validity and reliability of the scale.

8. Data Analysis and Interpretation

8.1. Descriptive Statistics

Table-1 shows 629 participants's demographic information. The sample comprised 55.2% female and 44.8% male participants. Regarding the age distribution, 6.4% were 18 years old, 9.5% were 19 years old, 20.3% were 20 years old, 18.9% were 21 years old, 20.8% were 22 years old, 10% were 23 years old, 4.9% were 24 years old, and 9.2% were 25 years old. With respect to daily internet use, 11.1% of the participants spent 2 hours, 11.3% spent 3 hours, 15.6% spent 4 hours, 22.8% spent 5 hours, 12.6% spent 6 hours, 5.1% spent 7 hours, 7.8% spent 8 hours, and 13.7% spent 9 hours or more.

8.2. Exploratory Factor Analysis (EFA)

Table-2 shows the results of Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, to assess the appropriateness of the scale for EFA. The KMO score was 0.925, which was above the recommended threshold of 0.60 ($\chi^2=231$, $df=231$, $p<0.000$) (Zorlu & Ünübol, 2018). Items 4, 12, and 15 were excluded from evaluation due to their similar factor loadings (Barnes, Cote, Cudeck & Malthouse, 2001). The Social Withdrawal Scale accounted for 45.687% of the total variance, with reliability coefficient of 0.873. The scale was found to have three dimensions: Socialization (13 items, factor loadings 0.499-0.755, explaining 27.225% of total variance, and reliability coefficient of 0.896), Isolation (4 items, factor loadings 0.406-0.636, accounting for 6.758% of total variance, and reliability coefficient of 0.728), and Emotional

Support (5 items, factor loadings 0.543-0.752, accounting for 11.704% of total variance, and an eigenvalue of 2.575). Its reliability coefficient was acceptable, with a value of 0.657. **Figure-1** displays the scree plot graph of the study. The screen plot analysis confirmed the three-factor structure obtained from the research, as demonstrated in **Figure-1**.

8.3. Confirmatory Factor Analysis (CFA)

Table-3 shows the results, indicating it to be an acceptable fit, as evidenced by the X^2/sd (3.250), GFI (0.905), AGFI (0.884), RMR (0.069), CFI (0.900), and RMSEA (0.060) indices. The most accurate model was selected, based on CAIC ($1019.460 < 4577.759$), ECVI ($1.216 < 7.099$), and AIC ($763.586 < 4457.988$) criteria.

8.4. Correlation Analysis between the Mean Scores of the Social Withdrawal Scale and its Subscales

Table-4 shows the results of the correlation analysis, conducted to explore the relationship between the mean scores of the Social Withdrawal Scale and its subscales. The results indicated that there were significant correlations between the mean score and the subscales of socialization, emotional support, and isolation. Additionally, the analysis revealed that there were significant correlations between the subscales of socialization and emotional support, and isolation. The significant correlation coefficient between the emotional support and isolation subscales was confirmed by the results of both EFA and CFA, providing further evidence for the appropriateness of the three-factor structure of the Social Withdrawal Scale in the Turkish context. These results support the research hypothesis (H_1).

9. Findings of the Study

- The three-factor structure of the scale was confirmed through factor results of analysis.

- Three items were removed from the original scale structure during analysis as their factor loadings were too similar to be included.
- The results of the CFA showed that the fit indices of the scale were appropriate.
- The Cronbach Alpha coefficient of the scale was quite high.
- Significant correlations were found among the sub-dimensions, that make up the scale according to the correlation analysis. This result was similar to the findings of other researchers (Teo, Chen, Kubo, Katsuki, Sato-Kasai, Shimokawa, Hayakawa, Umene-Nakano, Aikens, Kanba & Kato, 2018; Gündoğmuş, Ünsal, Alma, Tapdelen Kul, Aydın, Bolu & Öznur 2021).

10. Suggestions

- Governments should develop programs aimed at reducing social withdrawal rates.
- Non-governmental organizations should organize activities to mitigate social withdrawal tendencies and raise awareness about them, promoting participation among the public.

11. Conclusion

The results revealed that the instrument demonstrated high internal consistency and reliability, and its construct validity was supported by confirming its three-factor structure through factor analysis. Moreover, the correlation analysis, among the sub-dimensions of the scale, revealed significant relationships, indicating that the researchers measured related constructs. Therefore, the Turkish adaptation of the Social Withdrawal Scale is a dependable and valid instrument for assessing social withdrawal behaviors.

12. Limitations of the Study

This study has some limitations that require further exploration. A key limitation is that the

sample used in the research was restricted to 629 university students in Turkey, thus limiting the applicability of the findings to other populations, including those with nomophobia or netophobia. Additionally, the surveys were collected from participants who were easily accessible via convenience sampling.

13. Scope for Further Study

This objective of the study was to adapt the Social Withdrawal Scale for use with university students. However, it is crucial for future investigations to evaluate the scale's validity and reliability among employees from diverse industries. Additionally, conducting studies on different groups, such as those with smartphone or internet addiction, would enhance the scope of the scale on diverse populations.

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Table-1: Results of Analysis of Demographic Informations of Respondents.

Demographic Informations	Frekans	Yüzde (%)	Demographic Informations	Frekans	Yüzde (%)
Gender			Time spend on the internet (Daily)		
Female	347	55.2	2 Hours	70	11.1
Male	282	44.8	3 Hours	71	11.3
Age (Years old)			4 Hours	98	15.6
18 Age	40	6.4	5 Hours	144	22.8
19 Age	60	9.5	6 Hours	79	12.6
20 Age	128	20.3	7 Hours	32	5.1
21 Age	119	18.9	8 Hours	49	7.8
22 Age	131	20.8	9 Hours or more	86	13.7
23 Age	63	10			
24 Age	31	4.9			
25 Age	57	9.2			

Source: Primary Data Computed using SPSS

Table-2: Results of Factor Loadings of Items (Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy)

Items	X±SS	1 st Socialization	2 nd Isolation	3 rd Emotional Support	Cronbach Alpha		
Item 20	1.62±1.25	0.755			0.896	0.873	
Item 9	1.41±1.22	0.746					
Item 2	1.86±1.27	0.700					
Item 1	1.35±1.17	0.696					
Item 8	1.09±1.02	0.686					
Item 24	1.34±1.07	0.664					
Item 18	0.98±1.02	0.649					
Item 6	1.30±1.14	0.639					
Item 5	1.17±1.19	0.604					
Item 23	1.12±1.10	0.604					
Item 13	1.30±1.16	0.598					
Item 11	1.03±1.05	0.561					
Item 25*	1.85±1.07	0.499					
Item 16	1.53±1.20		0.636		0.728		
Item 17	0.93±1.15		0.613				
Item 22	2.04±1.17		-0.456				
Item 19	2.31±1.21		0.406				
Item 21*	0.99±1.09			0.752	0.657		
Item 14	2.96±0.98			-0.673			
Item 7*	1.50±1.03			0.640			
Item 10*	1.15±1.04			0.632			
Item 3	0.86±1.09			0.543			
Coefficient		5.989	1.487	2.575			
Explain % of Variance		27.225	6.758	11.704			
Cumulative % of Variance		27.225	33.984	45.687			
KMO=0.925; X ² =4356.58; df=231; p=0.000							

Source: Primary Data Computed using SPSS

Table-3: Results of Confirmatory Factor Analysis of Turkish Adaptation of the Social Withdrawal Scale (Hikikomori Questionnaire)

Compliance Index	Good Compliance	Accepted Compliance	Model	Compliance
X^2/sd (669,586/206)	$0 = X^2/sd = 3$	$3 = X^2/sd = 5$	3.250	Acceptable
RMSEA	$0 = RMSEA = 0.05$	$0.05 = RMSEA = 0.08$	0.060	Acceptable
GFI	$0.95 = GFI = 1.00$	$0.90 = GFI = 0.95$	0.905	Acceptable
AGFI	$0.90 = AGFI = 1.00$	$0.85 = AGFI = 0.90$	0.884	Acceptable
RMR	$RMR = .05$	$0.05 = RMR = 0.08$	0.069	Acceptable
CFI	$0.95 = CFI = 1.00$	$0.90 = CFI = 0.95$	0.900	Acceptable
CAIC	Comparison smaller than CAIC		$1019.460 < 4577.759$	Acceptable
ECVI	Comparison smaller than ECVI		$1.216 < 7.099$	Acceptable
AIC	Comparison smaller than AIC		$763.586 < 4457.988$	Acceptable

Source: Primary Data Computed using SPSS

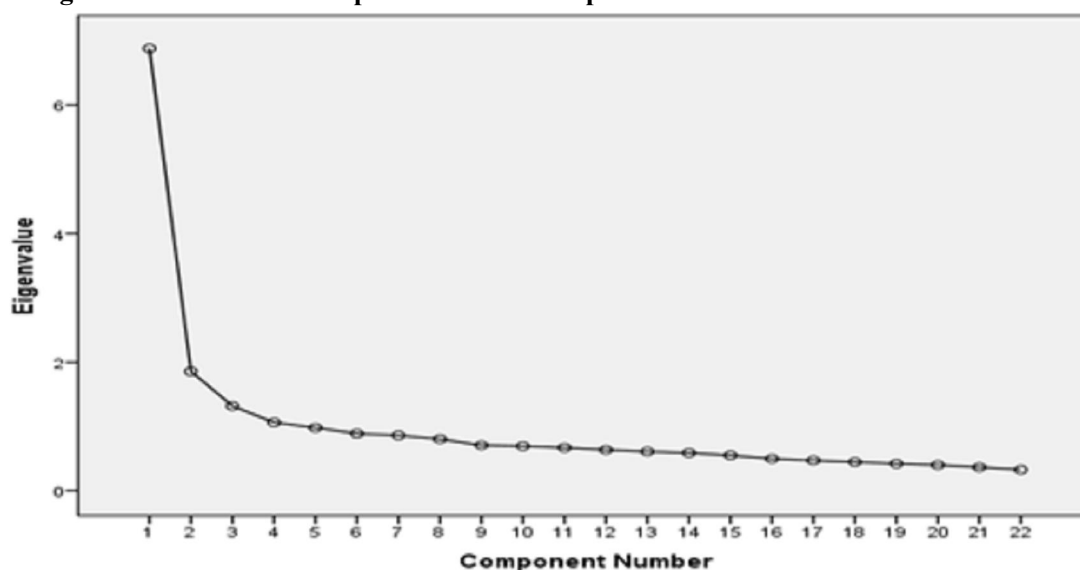
Table-4: Results of Correlation Analysis between the Mean Scores of the Social Withdrawal Scale and its Subscales

	(1)	(2)	(3)	(4)
(1) Social Withdrawal	1			
(2) Socialization	0.960*	1		
(3) Emotional Support	0.643*	0.477*	1	
4) Isolation	0.602*	0.437*	0.278*	1

* $p < 0.05$.

Source: Primary Data Computed using SPSS

Figure-1: Screen Plot Graph of Turkish Adaptation of the Social Withdrawal Scale



Source : Primary Data Computed using SPSS