

Validity and Reliability of the Turkish Version of the Older Adult Financial Exploitation Measure (OAFEM)

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Abstract

The aim was to translate, test, and describe aspects of reliability and validity of the Older Adult Financial Measure (OAFEM).

Ethical permission was obtained for the application of the scale, for which permission to use was obtained, and the scale was finalized after language validity and pilot application. The sample of the study consists of 750 individuals aged 60 and over who live in Turkish society and voluntarily accept to participate in the research. The data were collected by answering the form questions consisting of 25 questions sent to the elderly via smart phones. The validity of the scale was evaluated by; content validity analysis while reliability was evaluated by internal consistency and test-retest. While content validity of scale was evaluated by receiving opinions from eight experts, and test-retest results were evaluated via Cronbach alpha reliability coefficient and Pearson correlation analysis, respectively. The OAFEM content validity index was found as 0.98 and it was determined that there was a consensus among experts. Excellent internal consistency was found in the Turkish elderly group, with a Cronbach's alpha $\alpha=0.96$ and Pearson reliability coefficients obtained from both the first test (.70) and retest (.69) results are moderate.

Screening and screening tools for elder abuse are used to assist in the detection and identification of who is at risk of mistreatment or neglect. Health professionals need valid and reliable measurement tools to use to detect abuse of the elderly. OAFEM has the capacity to examine the possible multiple perpetrations of financial abuse and also to indicate the total gravity of such exploitation.

Keywords: Addiction; Addiction research; Reliability and validity; Elderly; Elder abuse

Introduction

There are many definitions for elder abuse, but a definition prepared by the International Society for the Prevention of Elderly Abuse (INPEA) is widely accepted. They define elder abuse as "a single or repeated act or situation that creates a lack of appropriate action that occurs in any relationship where there is an expectation of trust that causes harm or distress to an older person".

Elder abuse is single or repetitive inappropriate acts that harm the elderly that occur in any relationship where there is an expectation of trust. Elder abuse is a violation of human rights and consists of a combination of one or more types of abuse such as physical, sexual, psychological and emotional, financial, abandonment, neglect and serious loss of dignity and respect [1].

Elder abuse is seen as an important public health problem. As a matter of fact, within the scope of 52 studies carried out in 28 countries in 2017, it was revealed that 1 out of 6 (15.7%) people aged 60 and above experienced some form of abuse in 2016. In a systematic review, the prevalence of elder violence for all types expressed by the elderly is 15.7%, while the prevalence of financial abuse only by the elderly is 13.8% [2]. Elder abuse is one of the least recognized and least reported social issues today. About one in six people over the age of 60 reported experiencing some form of abuse in the previous year. This is probably quite a miscalculation, and a study conducted in New York found that only one of 24 elder abuse cases was actually reported [3].

Evidence shows that the prevalence of elder abuse is increasing in both society and institutions during the COVID-19 pandemic [4].

Globally, the number of cases of elder abuse is expected to increase as many countries have rapidly aging populations. Even if the proportion of victims of abuse of the elderly remains stable, the

number of global victims will increase rapidly due to the aging of the population, and as the global population of people aged 60 and over is projected to rise to 2 billion by 2050, it is estimated that approximately 320 million victims will be reached by 2050 [1].

Depending on the type of abuse, individual-level characteristics that increase the risk of being a victim include functional addiction/disability, poor physical health, cognitive impairment, poor mental health, and low income, while individual-level characteristics that increase the risk of perpetrator include mental illness, substance abuse, and the abuser's vulnerability. Dependence on the victim (mostly financial). At the relationship level, the type of relationship (eg, spouse/partner or child/parent) and marital status may be associated with a high risk of abuse, although these factors vary by country and region. Community and community-level factors linked to elder abuse may include age discrimination against older people and certain cultural norms (for example, normalization of violence). Social support and living alone reduce the likelihood of elder abuse [5].

According to The National Center of Elder Abuse (NCEA), there are seven types of abuse among older adults: physical abuse, sexual abuse, neglect, neglect, emotional or psychological abuse, abandonment, and

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Received: 06-Dec-2022, Manuscript No. jart-22-84737; **Editor assigned:** 08-Dec-2022, PreQC No. jart-22-84737 (PQ); **Reviewed:** 22-Dec-2022, QC No. jart-22-84737; **Revised:** 23-Dec-2022, Manuscript No. jart-22-84737(R); **Published:** 30-Dec-2022, DOI: 10.4172/2155-6105.100501

Citation: Uymaz P (2022) Validity and Reliability of the Turkish Version of the Older Adult Financial Exploitation Measure (OAFEM). J Addict Res Ther 13: 501.

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financial or material exploitation, abuse or exploitation of material. Seniors may experience more than one type of abuse at the same time [6].

Physical abuse: The use of physical force that may or may not cause bodily harm, physical pain, or ongoing impairment. For example; hitting, beating, kicking, etc. an elderly individual.

This also includes the inappropriate use of the drug, the threat of corporal punishment, the use of force-feeding or restraints.

Sexual abuse: Non-consensual sexual contact, especially towards the elderly who cannot give consent.

Neglect: Failure to meet the basic needs of the elderly, such as food, drink, shelter, hygiene, clothing, medical care, security

Self-neglect: Behaviors that threaten the health of the elderly, such as not consuming enough food and water, not dressing appropriately, lack of hygiene or not taking their medications.

Emotional or psychological abuse: Verbal or non-verbal humiliation, threat, harm or insult

Abandonment: Leaving the elderly person in the role of providing care by the caregiver or person.

Financial Abuse: Faulty or illegal use of money, property or investments of the elderly [6].

The FBI describes the financial exploitation of the elderly as "elder fraud". In 2020, the FBI's internet crime complaint center received 105,301 complaints from seniors over the age of 60 with a financial value of more than \$966 million [7].

According to the FBI [7] report, the most common Types of Financial Fraud for the Elderly;

Romance scam: Criminals pose as interested romantic partners on social media or dating websites.

Tech support scam: Criminals pose as technology support representatives and offer to fix non-existent computer issues.

Grandparent scam: Criminals pose as a relative – usually a child or grandchild – claiming to be in immediate financial need.

Government impersonation scam: Criminals pose as government employees and threaten to arrest or prosecute victims unless they agree to pay.

Sweepstakes/charity/lottery scam: Criminals claim to work for a charitable organization to gain victims' trust, or claim victim has won a foreign lottery or sweepstake, which they can collect for a "fee."

Home repair scam: Criminals appear in person and charge homeowners in advance for home improvement services they never provide

TV/radio scam: Criminals target potential victims using advertisements about services, such as reverse mortgages or credit repair

Family/caregiver scam: Perpetrators are relatives or acquaintances of the elderly victims and take advantage of them or otherwise get their money.

Investment scam: Criminals offer unsuitable investments, fraudulent offerings, and unrecognized products which can result in the theft or misappropriation of funds.

Many strategies have been tried to prevent elder abuse, but most of them have not been effective. If we list the strategies that are thought to be appropriate, establishing money management programs for financially exploited seniors; establishing hotlines and emergency shelters, improving adult preventive services, and making changes to the criminal justice system. However, while the health sector plays an important role in attracting public attention to the abuse of the elderly in well-developed countries, little is known about elder abuse and how to prevent it, especially in developing countries [1].

It is thought that doctors and nurses have an important role in determining elder abuse because they frequently see elderly patients due to their periodic examinations and other health problems [8]. Many scales have been created to be used in hospitals, health centers or home care for health workers to screen for elder abuse. While all of these tools are geared towards identifying elder abuse, there are significant differences in focus, format, and structure of the data collected by each tool [9].

The American Medical Association recommends that all geriatric patients undergo screening for elder abuse, and multiple researchers recommend screening as a way to prevent and detect elder abuse [10, 11].

Screening and screening tools for elder abuse are used to assist in the detection and identification of who is at risk of mistreatment or neglect, so the healthcare professional needs to have a sensitive, compassionate demeanor with thorough interviewing techniques. Screening tools should be reliable and valid and are evaluated by using statistical analysis of sensitivity and specificity; the perfect tool would have a high sensitivity and specificity value. Sensitivity helps to identify those who are being abused, which is referred to as a "true positive," and specificity helps identify those who are not being abused, which is a "true negative." If the screening tool suggests potential abuse, further investigation and a more thorough interview process should be conducted with the elderly individual. It is vital to interview the elderly person alone. Some interview techniques involve active listening, guided questioning, nonverbal communication, empathetic responses, validation, and summarization. In addition to the interview techniques, setting the stage or framing direct questions about abuse is helpful in building a relationship and producing accurate information from the interviewees, which can include the victim, caregiver, and family member. Along with the screening process, healthcare providers must be able to identify cases that need to be reported to the authorities according to local law rules [6].

Older Adult Financial Exploitation Measure (OAFEM)

This is the only validated financial screening tool. Adequate cognitive capacity is required, so a Mini-Mental Status Exam score of 17 or greater is needed for competency judgment by a healthcare professional. This is a 25-item tool that focuses on theft, scams, financial entitlement, coercion, money management, and symptoms of financial exploitation.

OAFEM was developed to measure financial abuse by Conrad et al. And The OAFEM has demonstrated high internal consistency reliability (Cronbach's 0.93) at the original research article and our study The Cronbach's alpha coefficient was found $\alpha=.96$.

Possible responses to the questions on the OAFEM indicate a positive, negative, suspected or not-applicable response for the specific forms of financial abuse. Adequate cognitive capacity is required to complete the OAFEM. OAFEM has contain 25 items [12].

Conrad and his colleagues' approach to score the OAFEM, an event was recorded as "0" if it did not happen in the past 12 months, it was recorded as "1" if participants suspected its occurrence, and it was recorded as "2" if the event happened in the past 12 months. There was no designated cutoff score to define Financial Exploitation occurrence.

No or negative response to all 25 questions indicates that there is no suspicion of elder of financial exploitation.

Yes or suspected response to any of the 25 questions indicates a suspicion of elder OAFEM has the capacity to examine the possible multiple perpetrations of financial abuse and also to indicate the total gravity of such exploitation.

The use of a screening measure for financial abuse, such as the OAFEM, has the potential to raise the older person's, the perpetrator's and the professional's awareness of financial abuse and highlight cases which merit further investigation. Consequently, as the OAFEM has demonstrated advantages in terms of identifying a potential of financial abuse and its severity [12].

Language validity and translation process

The scale was translated from the original language (English) into Turkish by three translators who were proficient in English. The translators were not informed about the scale. Appropriate statements for the scale were revised, so the most comprehensible and appropriate Turkish form was created. The Turkish scale was back translated into English by other translators. The original form and translated form of the scale were compared, checked whether there were any semantic differences between the two by the researcher and the Turkish form was finalized.

Content validity

The content validity index of the scale was determined by the predetermined experts. The result of the content validity index, used to analyze the relevance of the opinions of two doctors, two nurses and four academician who were consulted at this stage (N.N., B.U., A.U., S.D., M.A., S.T.), showed the consistency between the scores. Ölçek maddelerinin uygun değil (1 puan), biraz uygun (2 puan), uygun ancak değişiklikler gerekli (3 puan), çok uygun (4 puan) şeklinde değerlendirilmesi istenmiştir. Ölçeğin kapsam geçerlik indeksi 0.98 bulunmuştur.

Preliminary application

After the evaluation by experts and language equivalence of the scale, pre-application was made with the 30 elderly community dwelling people.

Test-retest application

After the scale was administered to elderlies twice, three weeks apart, the scale's test-retest reliability coefficient was evaluated. Doing test-retest, time-dependent reliability of the scale items was tested.

Reliability

Internal consistency and reliability were measured using Cronbach's alpha. The Cronbach's alpha reliability of the 25-item OAFEM measure

was .96. Thus, the internal reliability analysis indicated excellent internal consistency of the items in the scale and the OAFEM can be considered to be a highly reliable measure [13].

Sample data

The sample group consisted of 750 elderly people who could use smart phones and agreed to fill out the form sent via mobile phone. Data were collected between August - November 22. 750 elderlies' demographic characteristics data shown that; just over half the sample was female 54% while male 46%. By age group; 48, 6% were aged 60-64, 24,6% aged 65-69 and 26.8% over aged 70 and over. Over half of the sample was married (62.9%), living on minimum income (75,6%), and income from pension (54.8%), living with someone at home (83%), secondary school graduate (75.2%), owner of the house (77.2%).

Rasch measurement model was used for statistical analysis as suggested by Conrad et al. [12]. The Rasch measurement model was chosen because of its linear, intermittent measurement current state scaling properties. It is important for the validity of the scale and the correct formation of the scale, which consists of statements that support the theory. This is also a construct validity test. Rasch analysis shows the validity of the statements, that is, the scale's power to measure what is desired (Table 1).

The Pearson value obtained as a result of the Rasch analysis is <.67 poor, .67-.80 moderate, .81-.90 good, .91-.94 very good, >.94 excellent reliability [14]. As seen in the table, the Pearson reliability coefficients obtained from both the first test (.70) and retest (.69) results are moderate.

If the value obtained as a result of Cohen 2 correlation analysis is < .1, the correlation is low, <.3 correlation is medium, and >.5 is an indicator of high correlation. Conrad et al. [12] suggest that highly correlated statements be excluded from the analysis. When the first test and retest correlation tables are examined, it is seen that the correlation values between expressions are < .30. After the correlation analysis, the difficulty analysis of the expressions was made according to the differences between the expressions and the participants (Tables 2-5). After the correlation analysis, the difficulty analysis of the expressions was made according to the abilities of the participants and the expressions (Appendix 1).

According to the analysis results shared in the table, it has been determined that the expressions 6, 2, 1, 3 are difficult expressions. Wrap and scale expressions obtained as a result of the first and retest analyzes and Pearson expression maps show that 6, 2, 1, and 3-bolt expressions are difficult. In the next step, conformity analysis was performed at the expression level. In the Rasch analysis, unexpected answers are determined as a result of the concordance analyzes (Infit and Outfit values < 1.33) performed for expression difficulty levels and participant difference levels. According to the internal and external fit analyses, statements 6 and 1 did not meet the compliance standards in both the initial and retest. As these two expressions can be removed from the scale, if 25 expressions of the original scale are used, it is recommended to check the results of especially two expressions in the preliminary analyzes in the study (Figures 1-4).

Table 1: Rasch analysis shows the validity of the statements, that is, the scale's power to measure what is desired.

Pearson Value		MADaQ3		P Degeri		Cronbach Alpha	
Test	ReTest	Test	Re Test	Test	ReTest	Test	ReTest
0.702	0.694	0.0655	0.0777	< .001	< .001	.951	.962

MADaQ3= Mean of absolute values of centered Q_3 statistic with p value obtained by Holm adjustment; Ho= the data fit the Rasch model.

Table 4: Delta-tau paramaterization of the partial credit model.

	tau parameters					
	1		2		3	
	Test	reTest	Test	reTest	Test	reTest
1	1.757	1.915	-1.288	-11.759	-0.469	-0.7394
2	2.066	2.295	-1.496	-14.975	-0.570	-0.7972
3	1.470	1.287	-0.949	-0.4674	-0.521	-0.8195
4	1.187	1.230	-0.902	-0.6599	-0.285	-0.5705
5	0.712	0.838	-0.595	-0.6158	-0.117	-0.2222
6	2.548	2.738	-0.989	-10.801	-1.559	-16.582
7	1.771	1.909	-1.146	-10.936	-0.624	-0.8155
8	1.538	1.653	-0.965	-0.6942	-0.573	-0.9589
9	1.469	1.624	-0.828	-0.9072	-0.640	-0.7169
10	1.252	1.487	-0.665	-0.8052	-0.587	-0.6822
11	1.244	1.303	-0.363	-0.0336	-0.881	-12.691
12	1.200	1.232	-0.755	-0.8075	-0.445	-0.4246
13	1.208	1.301	-0.478	-0.7012	-0.729	-0.6002
14	1.284	1.465	-0.375	-0.7196	-0.909	-0.7450
15	1.045	1.116	-0.534	-0.3762	-0.512	-0.7396
16	1.401	1.468	-0.624	-10.596	-0.777	-0.4089
17	1.561	1.613	-0.534	-0.3012	-1.027	-13.121
18	1.691	1.716	-0.968	-0.8358	-0.723	-0.8800
19	1.568	1.710	-0.708	-10.118	-0.860	-0.6982
20	1.578	1.718	-1.055	-0.8103	-0.523	-0.9076
21	1.240	1.356	-1.042	-13.387	-0.198	-0.0168
22	1.222	1.510	-0.411	-0.6944	-0.811	-0.8154
23	1.478	1.639	-1.243	-14.603	-0.236	-0.1789
24	1.235	1.384	-0.439	-0.4147	-0.796	-0.9698
25	1.258	1.334	-0.553	-0.5922	-0.704	-0.7415

Table 5: Item statistics of the rating scale model.

	Measure		S.E.Measure		Infit		Outfit	
	Test	reTest	Test	reTest	Test	reTest	Test	reTest
1	1.031	1.122	0.0422	0.0624	1.406	1.458	1.576	1.546
2	1.226	1.189	0.0436	0.0633	1.262	1.223	1.335	1.289
3	0.878	0.922	0.0416	0.0606	1.293	1.311	1.257	1.386
4	1.620	1.535	0.0486	0.0699	1.097	0.904	1.110	0.698
5	1.440	1.395	0.0458	0.0667	0.953	0.880	0.839	0.683
6	0.254	0.197	0.0414	0.0594	1.583	1.379	1.869	1.295
7	1.927	1.782	0.0554	0.0776	0.998	0.905	0.782	0.541
8	1.498	1.445	0.0466	0.0678	0.882	0.903	0.593	0.600
9	1.567	1.449	0.0477	0.0679	1.038	1.064	0.776	0.773
10	1.496	1.468	0.0466	0.0683	0.911	0.943	0.523	0.570
11	1.914	2.004	0.0551	0.0872	1.082	0.897	0.750	0.551
12	1.592	1.605	0.0481	0.0718	0.917	0.855	0.865	0.757
13	1.896	1.870	0.0546	0.0810	0.957	0.921	0.603	0.643
14	2.000	1.974	0.0576	0.0857	0.941	0.866	0.743	1.035
15	1.620	1.636	0.0486	0.0727	0.917	0.887	0.675	0.646
16	1.977	2.004	0.0569	0.0872	0.949	0.827	0.623	0.662
17	1.844	1.813	0.0533	0.0787	0.967	1.053	0.618	0.781
18	1.690	1.652	0.0499	0.0732	1.005	1.012	0.904	0.991
19	1.786	1.794	0.0519	0.0780	1.093	1.160	1.096	1.121
20	1.549	1.440	0.0474	0.0677	1.140	1.246	1.074	1.188
21	2.030	2.051	0.0586	0.0897	0.924	0.851	0.793	0.574
22	1.668	1.626	0.0494	0.0724	1.139	1.239	1.394	1.850
23	1.980	1.924	0.0570	0.0834	0.927	1.045	0.663	0.842
24	1.911	2.035	0.0550	0.0888	0.902	1.017	0.580	0.545
25	1.948	1.960	0.0560	0.0850	0.919	0.898	0.588	0.557

Note: Infit= Information-weighted mean square statistic; Outfit= Outlier-sensitive means square statistic.

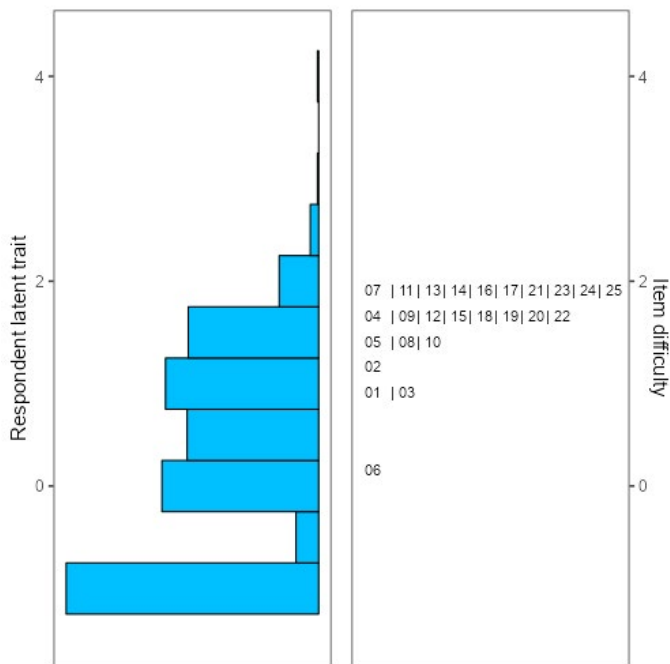


Figure 1: Test Wrap map.

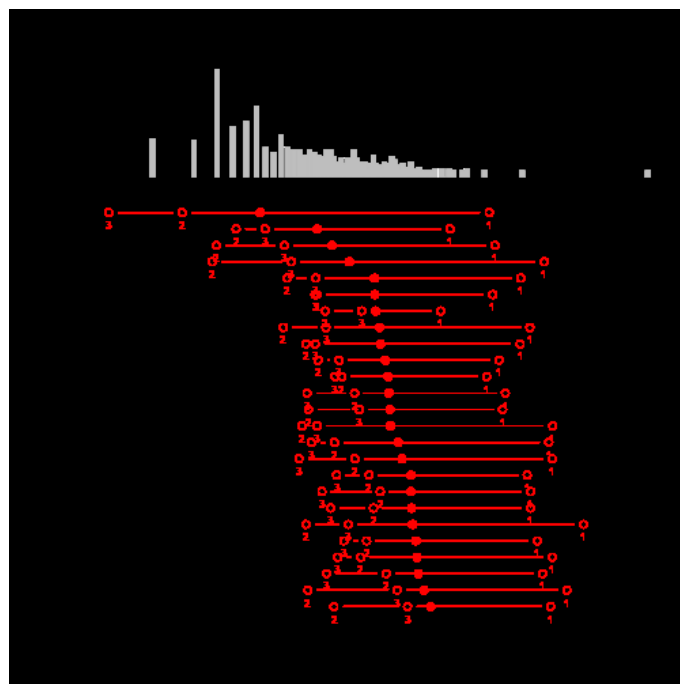


Figure 3: Test Person-Item map.

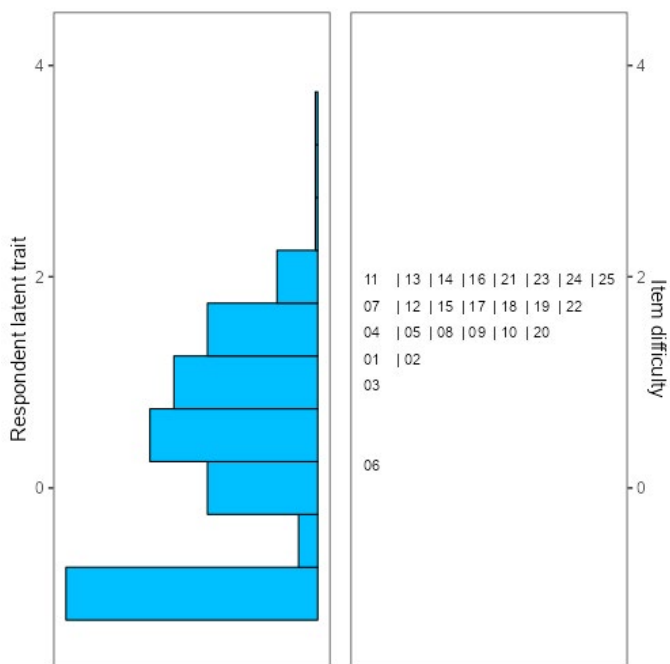


Figure 2: Retest Wrap Map.

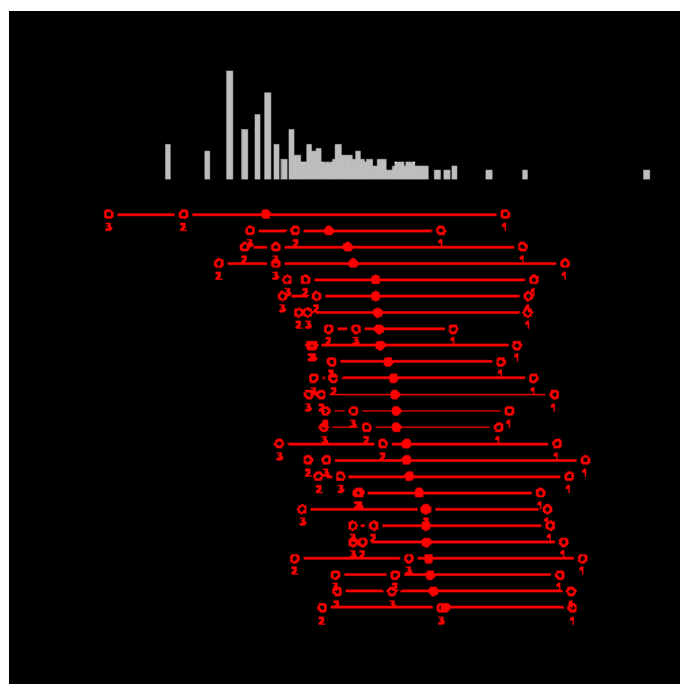


Figure 4: Test Person-Item map.

Use of the scale

Scale statements were determined as “No (0)”, “I don't know (1)”, “doubtful/maybe (2)” and “yes (3)”. For the evaluation threshold of the arithmetic mean ($4-1=3$), the choice intervals were arranged according to the interval coefficient calculated ($3/4=.75$) [15,16]. When the analysis results of the first test participants were examined, it was determined that 550 participants were not exposed to financial abuse, 71 participants were subjected to financial abuse, and 129 participants had a high probability of financial abuse.

Ethical Consideration

Ethical approval for the study was obtained from the Medical Sciences Research Ethics Committee of one of the Government University with the number 23-2 with the date on 18.09.2020.

Conflict of Interest

There is no conflict of interest for this study.

Financial Disclosure

No financial support was taken from any institution or entity for this study.

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