

DEVELOPMENT AND INITIAL VALIDATION OF THE ARABIC ADULTS PERSONAL IDENTITY SCALE (APIS)

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ABSTRACT

Background: A clear sense of identity contributes to the development of a psychologically and socially well-rounded personality, as well as to life satisfaction and adaptability. Despite its crucial importance, there is a lack of scales that assess identity, highlighting the urgent need for the development of a valid and reliable identity scale.

Objective: The purpose of this study is to examine the personal identity of adults with good psychometric properties.

Methods: A methodological study design is used to measure the psychometric properties of personal identity scale. The study is conducted on a convenience sample of 155 individuals from Iraq. Participants data were gathered after the ethical consideration taken into consideration. the personal identity scale includes 17 items divided into three domains. Content validity, confirmatory factor analysis, and reliability analysis were used to measure the psychometric properties.

Results: The reliability analysis of the personal identity scale shows satisfactory internal consistency score ($\alpha = 0.81$). Content validity index for the total scale items was satisfactory (CVI = 93).

Conclusion: The developed identity scale is a valid and reliable tool for assessing personal identity of adults. It can be used in research, clinical assessment, and educational contexts.

KEYWORDS: Validity, personal identity, Arabic, scale, APIS

1. INTRODUCTION

When Erikson predicted more than sixty years ago, he opened the door to the importance of identity building as a crucial task during the transition to adulthood; those who know themselves and their paths in life are best able to seize opportunities (Schwartz et al., 2011). Many attempts have been made to apply Ericsson's concept of identity in research (Kroger & Marcia, 2021).

Based on the specific concepts of classical psychological theories, personal identity is defined as the permanent, unique, and distinctive continuity of the self that remains constant even over time, which includes self-recognition and psychological coherence (Huang et al., 2025).

Personal identity is not a single concept, but rather a broad and comprehensive set of interconnected questions (Olson, 2016; Sansour, 2024). such as "Who am I?" and "What defines a person?" are central to this debate. Central to this discussion is the question of what conditions are necessary for human survival over time. This is the essence of personal identity theory (Noonan, 2019). The environment contributes to building individuals' social identity. When a sense of belonging, meaning, and purpose is present, it supports mental health and improves well-being (Bingley et al., 2026; Haslam et al., 2008). Individuals consciously choose some aspects of their identity, such as educational paths, career roles, and personal values, while others are shaped through socialization and life experiences (O'Donnell & Habenicht, 2022). Personality has been classified into three categories, each category defines an individual's personality traits and their related elements consistency, stability, and individual differences. Examining personal identity is important, as it is linked to mental health. Research has shown that a complete identity is one in which a person understands and adheres to their role, values, and commitments, thus positively correlated with life satisfaction, reduced stress, and improved overall performance (Manzi et al., 2024). Interestingly, recent research is increasingly focused on studying personality in its entirety, rather than simply examining changes in identity levels. This suggests that future research should explore the development of identity across different life stages and develop more widely used identity measures that cover broader aspects of it. Because current measures may not always fully capture the process of personal identity formation, there is a growing need for measures that focus on more realistic, substantive, and relevant processes for studying identity (Branje et al., 2021). Many psychologists rely heavily on questionnaires and measurement tools because psychological concepts cannot be directly measured with physical

instruments. Validating a measurement tool is crucial, as it provides evidence that the results accurately reflect the intended goal (Acal et al., 2020; Martin-Martin et al., 2017). Therefore, the purpose of this study is to develop valid and reliable Arabic version scale to measure personal identity of adults.

2. METHODOLOGY

2.1. Participants and Procedures

The study targeted 155 male and female adults who meet the study criteria. Their age was between 18 years and older. Participants were invited to complete a voluntary, anonymous questionnaire. To obtain a representative sample, participants were recruited from different social settings in AL-Najaf Province of Iraq, such as malls, restaurants, and parks.

2.2. Ethical Considerations

The ethics committee at the University of Kufa, College of Medicine, approved the study, and written informed consent was obtained from participants to confirm their voluntary participation.

2.3. Development of the Scale

After an extensive review of the related literature, this scale is developed to measure personal identity of adults including three main aspects of personal identity: personality consistency, stability, and distinctiveness. The scale includes total of 17 items measured on four points semantic scale: 4 = applied to me to a high degree (90 – 100%); 3= applied to me (60 – 90 %); 2= somewhat applied to me (30 – 60 %); 1= not applied to me (<30%). The levels the personal identity scale depends on the sum of the items score. The minimum score is 17 and maximum score is 68. The scale analyzed as follow: (identity diffusion = 17 – 34, identity moratorium = 35 – 51, and identity achievement = 52 – 68). Scale items were developed based on related scales used to measure different aspects of identity. After developing the initial Arabic version, scale items were presented to 12 experts from various scientific disciplines, including psychology, psychiatric nursing, and pediatric health to ensure validity, and relevancy. Experts were asked to rate each item as fundamental, essential, beneficial, and not essential.

2.4. Content Validity

The content validity was assessed based on the responses of 12 experts who evaluated the suitability of the scale items in terms of measuring the intended construct. The overall mean CVI (S-CVI/Ave) was 0.93, which is higher than the minimum acceptable score of (0.80). This reflects a high degree of expert agreement on the validity of the scale items.

2.5. Data Analysis

Confirmatory factor analysis was conducted using SPSS-24. Reliability analysis, Cronbach's α , was used to measure internal consistency of scale items. Content validity analysis was performed to measure the content validity ration of each item (CVR) and the content validity index of the total scale (CVI).

3. RESULTS

Table (1): Descriptive statistics of participant's demographic variables

Sociodemographic Variables		Frequency	Percent
Sex	Female	85	54.8
	Male	70	45.2
	Total	155	100.0
Age Groups	18.0 - 26.6	42	27.1
	26.7 - 35.2	46	29.7
	35.3 - 43.9	32	20.6
	44.0 - 52.6	21	13.5
	52.7 - 61.2	7	4.5
	61.3+	7	4.5
	Total	155	100.0
Marital State	Married	104	67.1
	Single	46	29.7
	Divorce/ Separated	3	1.9
	Widow	2	1.3
	Total	155	100.0

Educational Level	Read and Write	5	3.2
	Primary Education	17	11.0
	Intermediate Education	9	5.8
	High School	19	12.3
	Diploma Degree	19	12.3
	Bachelor Degree	70	45.2
	Post Graduate Degree	16	10.3
	Total	155	100.0
Occupation	Employed	80	51.6
	Free Jobs	20	12.9
	Retired	10	6.5
	Not Working	45	29.0
	Total	155	100.0
Economical State	Not Enough	29	18.7
	Enough to Some Extent	69	44.5
	Enough	57	36.8
	Total	155	100.0

A total of 155 participants was collected, comprising (54.8%) females and (45.2%) males; their age ranged between 18 to 69 years old. The majority of participants were married (67.1%), have diploma education or higher (67.8%), governmental employee (51.6%), barely sufficient income (44.5%).

Table (2): Internal Consistency Reliability of the Personal Identity Scale

Items	Corrected Item	Cronbach's Alpha
Item 1	.393	.808
Item 2	.403	.807
Item 3	.578	.797
Item 4	.455	.804
Item 5	.580	.797
Item 6	.330	.814
Item 7	.430	.806
Item 8	.429	.806
Item 9	.396	.808
Item 10	.346	.811
Item 11	.427	.806
Item 12	.273	.815
Item 13	.345	.811
Item 14	.419	.806
Item 15	.489	.802
Item 16	.427	.806
Item 17	.329	.812
Overall Cronbach's alpha	0.414	0.806

Content validity

The content validity was assessed based on the responses of 12 experts who evaluated the suitability of the scale items in terms of measuring the intended construct. The overall mean CVI (S-CVI/Ave) was 0.93, which is higher than the minimum acceptable score of (0.80). This reflects a high degree of expert agreement on the validity of the scale items.

Confirmatory Factor Analysis

Table 3: Kaiser-Meyer-Olkin (KMO) test and the Bartlett test

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.789
Bartlett's Test of Sphericity	Approx. Chi-Square	625.824
	DF.	136
	Sig.	.000

The Kaiser-Meyer-Olkin (KMO) test and the Bartlett test were performed to verify the suitability of the resulting data for factor analysis. The KMO coefficient was (0.789), indicating a large and consistent sample size sufficient for factor analysis. Bartlett's test was also statistically significant ($p < 0.001$), indicating that the correlation coefficients between items were sufficient for conducting factor analysis, See (Table 3).

Table 4: Principle components method of items' extraction

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.510	26.530	26.530	4.510	26.530	26.530	2.899	17.052	17.052
2	1.618	9.516	36.046	1.618	9.516	36.046	2.341	13.772	30.824
3	1.343	7.900	43.946	1.343	7.900	43.946	2.231	13.122	43.946
4	1.324	7.791	51.737						
5	1.058	6.224	57.961						
6	.973	5.725	63.685						
7	.869	5.111	68.797						
8	.767	4.513	73.309						
9	.731	4.301	77.611						
10	.650	3.825	81.436						
11	.581	3.418	84.854						
12	.528	3.105	87.959						
13	.495	2.911	90.870						
14	.470	2.766	93.636						
15	.404	2.375	96.011						
16	.364	2.142	98.153						
17	.314	1.847	100.000						

Confirmatory factor analysis was performed to measure the validity of the developed Arabic version of the personal identity scale. Out of the 17 items, there are five factors show eigenvalues greater than 1 as shown by the total variance table. Three factors are identified as personality consistency, personality stability, and personality distinctiveness (Table 4).

Table 5: Rotated Component Matrix

Scale items	Component		
	Personality Consistency	Distinctive Personality	Personality Stability
Item 1	.509		
Item 2			.577
Item 3	.643		
Item 4	.623		
item5	.720		
item6			.672
item7			.605
item8	.447		
item9			.386
item10			.455
item11	.723		
item12		.575	
item13		.597	
item14		.653	
item15		.628	
item16		.670	
item17	.429		

Table (5) Illustrated the results of the rotation matrix, represent the loading of scale items that correlate with each other on same factor as follow:

1. Personality consistency factor is represented by seven items (1, 3, 4, 5, 8, 11, and 17).
2. Personality distinctiveness factor is represented by five items (12, 13, 14, 15, and 16).
3. Personality stability factor is represented by five items (2, 6, 7, 9, and 10).

4. DISCUSSION

The Arabic personal identity scale includes total of 17 items measured on four points semantic scale: 4 = applied to me to a high degree (90 – 100%); 3= applied to me (60 – 90 %); 2= somewhat applied to me (30 – 60 %); 1= not applied to me (<30%). These items cover dimensions such as personality consistency (an individual's sense of self over time), personality stability (the continuity of their personal identity), and finally, personality distinctiveness (a sense of uniqueness).

This scale contributes to scientific research, serving as a scientific tool that helps researchers understand the characteristics of personal identity within a target group. Individuals behave in ways that align with the values and roles that constitute their identity. However, the extent to which identity consistently influences various behaviors, and whether this influence is direct or indirect, remains a subject of debate (Kristie-Lee R. Alfrey et al., 2025).

Discovering the relationship between identity and other psychological variables enhances the ability of future studies to explain the factors influencing identity formation and development in different contexts. Given the crucial importance of studying the concept of identity in clinical literature and the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), the findings highlight the growing need for assessment tools to better identify, track, and understand these issues (Kaufman et al., 2019).

The scale is closer to a scale for determining personality and social identity (Weissman & Compton, 2003). Therefore, it was used as a basis for developing the scale. In 2005, Seibert et al. validated the content of the “caregiver role identity scale” by presenting and reviewing the items with experts, who agreed that they were based on reliable theoretical and conceptual literature. The scale's content validity was then assessed by expert consultants to determine the clarity and readability of the subscales. This allowed for the establishment of the scale's content validity (Gupta et al., 2025; Siebert & Siebert, 2005).

Regarding the accuracy of the content, this was determined through consultation with experts specializing in this field. The expert review ensured that the provisions were relevant, comprehensive, and understandable to the target

audience. The comments from the 12-member expert panel with content-validity indices (CVI= 0.98) indicated that the provisions aligned well with the theoretical aspects of personal identity. Content validity testing is of paramount importance in the development of the scale (Boateng et al., 2018). Especially in psychological scales (Mokkink et al., 2024; Polit & Beck, 2006).

The KMO test values range from 0 to 1, values between 0.8 and 1.0 indicate a sufficient sample size, while values between 0.7 and 0.79 indicate an average sample size, and values between 0.6 and 0.69 indicate an average sample size. KMO values less than 0.6 indicate that the sample size is insufficient for factor analysis. A statistically significant value <0.05 on the Bartlett test suggests that factor analysis may be useful for the dataset (Maritz, 2023; Navarro Charris et al., 2024). If the statistical significance $p < 0.001$, this indicates stronger correlations between variables and more accurate and clear factor analysis (Abdulqadir et al., 2023; Navarro Charris et al., 2024).

The internal consistency of the two personal identity scales was estimated using Cronbach's alpha coefficient, which ranged from 0.797 to 0.815. Item-to-total correlations ranged from 0.273 to 0.580. No items were removed, indicating good homogeneity of items within each subscale. As recommended in the measurement literature, Alpha is an important concept in evaluating assessments and questionnaires (Sijtsma, 2009). Evaluators and researchers must understand this value to ensure the reliability and accuracy of their data interpretation. Alpha values above 0.70 are generally acceptable for early exploratory research, while values above 0.80 are preferred for applied work (Tavakol & Dennick, 2011).

The rounded component matrix shows the element loading on the factors extracted after exploratory factor analysis. This is a crucial step in the process of developing measures to understand the underlying structure of the observed variables. This step involves rounding the factors to achieve what is known as a simple structure, which helps in interpreting and analyzing the factors more clearly and consistently with the theory being used in the measure (Howard, 2015; Watkins, 2018). Academic studies show that the goal of factor rotation, such as the Varimax rotation commonly used in exploratory factor analysis, is to improve the interpretability of factors and simplify the loading structure so that each element has a strong association with only one factor, allowing for a clearer and stronger understanding of the dimensions of the scale (Osborne, 2005; Rohe & Zeng, 2023).

5. CONCLUSION

The personal identity scale is a valid and reliable tool for assessing personal identity of Arabic-speaking adults. It can be used in research, clinical assessment, and educational contexts.

6. Limitations

Despite the initial validity and reliability of the personal identity scale, certain limitations exist that could wider use of the scale. This study used a convenience sampling process from a specific geographical area of Iraq, which limits the generalizability of the results on population from other Arabic-speaking countries.

7. Conflict of Interest

The Authors declare no conflict of interest.

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