

Adaptation and Validation of the Appraisal of Self-Care Agency Scale Revised (ASAS-R) Instrument for the Filipino Context

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Abstract

The Appraisal of Self-Care Agency Scale-Revised (ASAS-R) is a commonly employed tool for evaluating an individual's subjective capacity to participate in self-care activities. Nevertheless, the extent to which it can be applied and its accuracy in the specific setting of the Philippines has not been investigated. The objective of this study was to modify and authenticate the ASAS-R tool for application in the Filipino community. An iterative adaptation procedure was undertaken, comprising translation, cultural adaption, and pilot testing. The modified tool underwent psychometric evaluation to determine its construct validity, reliability, and internal consistency. The results showed that the modified ASAS-R instrument had good psychometric qualities, confirming its validity and reliability for application in the Philippines environment. This study adds to the expanding body of research on the evaluation of self-care agency and offers a culturally suitable tool for assessing self-care practices among Filipinos.

Keywords: Self-Care Agency, ASAS-R Instrument, Cultural Adaptation, Construct Validity, Filipino College Students.

Introduction

Self-care agency is a crucial factor in the field of Filipino healthcare and psychological well-being, as it greatly influences individuals' capacity to uphold and improve their health. The Appraisal of Self Care Agency Scale-Revised (ASAS-R) is widely acknowledged as a helpful instrument for evaluating an individual's ability to take care of themselves. Its effectiveness has been demonstrated in several cultural settings. Nevertheless, it is crucial to prioritize the cultural adaptation and validation of evaluation instruments to guarantee their pertinence and precision within particular socio-cultural contexts. This study aims to add to the field by adapting the ASAS-R instrument for the Philippines context and thoroughly testing its construct validity in this distinct cultural milieu. The creation of a culturally sensitive and reliable

tool has important implications for both research and clinical practice, as it enables professionals to gain a deeper understanding of and provide greater support for individuals' ability to take care of themselves in the diverse and ever-changing cultural context of the Philippines.

Theoretical Framework:

This current research utilized theoretical framework from Bandura's Social Cognitive Theory. This theory, proposed by Albert Bandura, emphasizes the role of observational learning, modeling, and cognitive factors in shaping human behavior, including behaviors related to self-care.

Bandura's Social Cognitive Theory posits that individuals learn from observing others and that cognitive processes, such as attention, memory,

and motivation, play a crucial role in determining whether a behavior is imitated. In the context of self-care agency, this theory can be applied to understand how individuals acquire and develop their self-care practices through observation of role models, societal norms, and cultural influences.

Applying Bandura's Social Cognitive Theory to the study allows for an exploration of how cultural and social factors influence the self-care agency of individuals in the Philippines. The theory provides a framework to examine how observational learning, cognitive processes, and socio-cultural contexts interact in shaping self-care behaviors. Additionally, it allows for the investigation of the role of self-efficacy beliefs in determining the effectiveness of self-care practices.

By adopting Bandura's Social Cognitive Theory, the study can explore not only the adaptation and validity of the ASAS-R instrument but also the broader socio-cultural factors that influence self-care agency in the Filipino context. This theoretical framework provides a comprehensive lens through which to understand the complex interplay between cognitive processes, observational learning, and cultural influences on self-care behaviors.

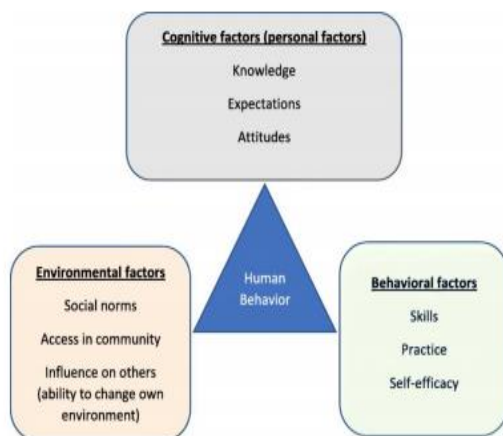


Figure 1. Bandura's Social Cognitive Theory (as cited from Igwesi-Chidobe, et al., 2020)

Related Literature:

The Appraisal of Self-Care Agency Scale – Revised (ASAS-R) is a psychometric tool used to evaluate an individual's level of self-care agency. It assesses the capacity for self-care and the ability to engage in behaviors that promote well-being. This tool was made by Sousa et al. (2010) based on the 24-item ASAS, which was originally introduced by Evers et al. in 1986. To enhance its effectiveness, the ASAS-R underwent revisions, such as revision of the four (4) items from the original ASAS based on recommendations from previous research findings; and deletion of the nine (9) items from the original measure after factor analyses revealed inadequate factor loadings. Finally, the ASAS-R came up with 15 items and captures the enabling traits (power components) of self-care agency. Respondents rate each item on a 5-point Likert scale, ranging from 1 (totally disagree) to 5 (totally agree).

The scale is divided into three factors:

1. Having power for self-care (6 items)
2. Developing power for self-care (5 items)
3. Lacking power for self-care (4 items)

In a general adult sample, the three factors demonstrated good internal consistency with Cronbach's alphas of 0.86, 0.83, and 0.79, respectively. The overall estimate of reliability for the ASAS-R was Cronbach's alpha = 0.89. The measure's convergent construct-related validity was also supported. Sousa et al. (2010) concluded that the 15-item three-factor ASAS-R is a short, reliable and valid instrument to measure self-care agency among individuals from the general population.

As mentioned by Souza et. al (2010) several studies have already demonstrated that self-care agency is an important construct in the development and maintenance of both health promoting behaviors (e.g., healthy eating, being active and adequate sleep) and specific illness self-management abilities (e.g., taking medications correctly; proper medical care; and adherence to treatment). ASAS-R has been shown to be a reliable assessment tool to

measure the self-care agency of individuals. Given the importance of this construct and the need for a rapid self-care agency assessment tool, several researchers have already tried to validate the original 15-item ASAS-R for use at their respective country's context.

Damasio and Koller (2013) had made an adaptation and construct validity of ASAS-R in the Brazilian context. They have found out that ASAS-R had excellent psychometric properties. Exploratory and confirmatory factor analysis yielded a three-factor solution which was similar to that of the original version. Furthermore, the test for convergent validity yielded the expected correlation coefficients for all three factors of the ASAS-R. These findings strongly indicate that the ASAS-R is an efficient tool to evaluate levels of health-related self-care capacity in the Brazilian population. Moreover, the researcher found out that self-care agency was found to be correlated with age, education level and income. And among individuals with chronic illnesses, higher self-care agency was associated with lower negative impact of the illness on daily life.

Similarly, Borrás et al. (2017) conducted research on the adaptation and validation of ASAS-R in a sample of Spanish older adults. Their results have demonstrated that ASAS-R is a reliable and valid instrument in measuring self-care agency among Spanish older population with CR indices > 0.7 and validity at AVE > 0.5 .

A study made by Guo et al. (2017) also tested the reliability and validity of the Chinese version of the Appraisal of Self-Care Agency Scale-Revised. They got a Cronbach's alpha (α) of 0.79, the test-retest correlation was 0.95, and the item-to-total correlations ranged from $r = .41$ to $r = .74$. Exploratory factor analysis (EFA) resulted in three factors that explained 65.31% of the total variance; all 15 items had strong factor loadings ranging from 0.54 to 0.91. The researcher concluded that ASAS-R-Chinese version is a reliable and valid instrument for measuring self-care agency among Chinese older adults.

Oliveira et al. (2022) also aimed at validating the Portuguese version of the ASAS-R among medical students in mainland Portugal. The

overall estimate of reliability of the ASAS-R was a Cronbach's alpha value of 0.85. Cronbach's alpha was also calculated to evaluate the internal consistency of each of the factors. It presents the inter-item correlation (mean), the corrected item-total correlation, and the Cronbach's alpha in case the item in question was excluded. The factors "Having power for self-care" and "Lacking power for self-care" showed an inter-item correlation mean greater than 0.4 (0.42 and 0.49, respectively). However, the factor "Developing power for self-care" revealed an inter-item correlation mean less than 0.4 (0.24). In the factors "Having power for self-care" and "Lacking power for self-care", all items have a particularly good item-total correlation. In the "Developing power for self-care" factor, items 9 and 13 have a corrected item-total correlation 'good, can improve' and item 7 presents a corrected item-total correlation 'sufficient but needs improvement'. In all three factors, removing any item would reduce Cronbach's alpha value of the respective factor (0.81, 0.55, and 0.83, respectively). In this study, the Cronbach's alpha value of each instrument used to explore convergent validity of the ASAS-R was also calculated (SHS—0.86; SWLS—0.83; MHI—0.97). The reported values confirmed adequate internal consistency and, consequently, reliability of the mentioned scale. Their study concluded that the ASAS-R is a valid and effective instrument to measure self-care agency among Portuguese medical students.

Methodology:

The present study is a quantitative, analytical, and cross-sectional study that aims to evaluate the psychometric properties of the ASAS-R among college students, aiming to determine its validation in the Filipino context. Data were collected through the use of an online questionnaire provided to students from three private universities in Metro Manila. Participants gave their free and informed consent in the online questionnaire itself. The sample was developed using the snowball sampling technique. It consisted of 300 individuals (78% are females and 22% are

males) aged between 15 to 24, of which 66.3% are in their first year, 23.3% are in their second year, 10% are in their third year, and .3% are on their final year in college. The study was conducted from December 2023 to February 2024.

The ASAS-R and its Filipino adaptation questionnaires were both administered to the participants. The adaptation process of the original ASAS-R to Filipino underwent several steps. First, the questionnaire was translated from English to Filipino by two doctoral students who are majoring in Filipino. The test was then further validated by two licensed psychologists. Finally, the questionnaire was adjusted accordingly and the version was checked by the authors of the present study to assess the similarity between the original version and the Filipino adaptation to ensure that there were no discrepancies.

In order to draw meaningful descriptions of the data collected, some statistical tools were employed. Frequency distribution and percentage were used to determine the demographics of the participants. Cronbach's Alpha was also utilized to measure the reliability of the test.

Results:

I. Sample Characteristics

Table 1.1

		Age			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	15-17	2	.7	.7	.7
	18-20	223	74.3	74.3	75.0
	21-23	63	21.0	21.0	96.0
	Above 24	12	4.0	4.0	100.0
	Total	300	100.0	100.0	

Table 1.1 illustrates the demographic profile of the respondents, emphasizing the distribution of their ages. The age groups are classified into four brackets: 15-17, 18-20, 21-23, and above 24. The predominant age group among the respondents is 18-20, constituting (n=223,

74.3%). Following this, 21-23 has (n=63, 21%) respondents, and the age group above 24 comprises (n=12, 4%). In contrast, the age group 15-17 exhibits the lowest representation, with only (n=2, 4%).

Table 1.2

		Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	234	78.0	78.0	78.0
	Male	66	22.0	22.0	100.0
	Total	300	100.0	100.0	

As shown in Table 1.2, the demographic composition of the respondents is presented based on their gender, categorized into two groups: male and female. A total of two hundred thirty-four (n=234, 78%) respondents identified as female, while sixty-six (n=66, 22%) respondents, identified as male.

Table 1.3

		Year Level			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1st Level	199	66.3	66.3	66.3
	2nd Level	70	23.3	23.3	89.7
	3rd Level	30	10.0	10.0	99.7
	4th Level	1	.3	.3	100.0
	Total	300	100.0	100.0	

Table 1.3 illustrates the demographic distribution of the respondents categorized by their year level. The participants were enrolled in three private colleges and universities in Manila. The majority of respondents were in the first year, comprising (n=199, 66.3%) individuals. The second year level followed, with (n=70, 22.3%) respondents. The third year level accounted for (n=30, 10%) respondents. Lastly, the fourth year level had (n=1, 0.3%) respondent.

Table 1.4

Socio Economic				
		Frequency	Percent	Cumulative Percent
Valid	Less than Php, ±12,082	49	16.3	16.3
	Between Php, ±12,082 and Php, ±24,164	72	24.0	40.3
	Between Php, ±24,164 and Php, ±48,328	72	24.0	64.3
	Between Php, ±48,328 and Php, ±84,574	57	19.0	83.3
	Between Php, ±84,574 and Php, ±144,984	23	7.7	91.0
	Between Php, ±144,984 and Php, ±241,640	12	4.0	95.0
	Php, ±241,640 and above	15	5.0	100.0
	Total	300	100.0	100.0

Table 1.4 shows the demographic distribution of respondents based on their socio-economic status. The majority, constituting (n=72, 24%), falls within the socio-economic range of Php 12,082 to Php 24,164 and Php 24,164 to Php 48,328. Following this, (n=57, 19%) respondents fall within the socio-economic range of Php 48,328 to Php 84,574. A total of (n=49, 16.3%) respondents have a socio-economic status of less than Php 12,082. The socio-economic range of Php 241,640 and above is represented by (n=15, 5%), and the socio-economic status between Php 144,984 and Php 241,640 is accounted for by (n=12, 4%) respondents.

II. Level of ASAS-R in Philippine Context descriptive statistics

Table 2.1

Items	Mean	Verbal Interpretation
1. Sa mga pagbabagong nangyayari, gagawin ko ang mga dapat na pagsasaayos upang manatiling malusog ang aking kalusugan. (As circumstances change, I make the needed adjustments to stay healthy.)	4.54	Lubos na sumasang-ayon
2. Kung ang aking kakayahan sa pagkilos ay bumagal, gagawin ko ang mga dapat na aksyon upang maging maayos. (If my mobility is decreased, I make the needed adjustments).	4.44	Lubos na sumasang-ayon
3. Kung kinakailangan, aayusin ko ang aking mga prayoridad upang manatiling malusog. (When needed, I set new priorities in the measures that I take to stay healthy).	4.44	Lubos na sumasang-ayon
4. Madalas nawawalan ako ng lakas para alagaan ang sarili sa paraang dapat ko sanang gawin. (I often lack energy to care for myself in the way that I know I should.)	3.48	Sumasang-ayon
5. Hahanap pa ako ng mga mas mahuhusay na kaparaanan upang maalagaan ang aking sarili. (I look for better ways to take for myself.)	4.34	Lubos na sumasang-ayon

6. Kung kinakailangan, isasaayos ko ang aking oras upang mapangalagaan ang aking sarili. (When needed, I manage to take time to care for myself.)	4.30	Lubos na sumasang-ayon
7. Kung inom ako ng bagong gamot, aalaman ko ang tungkol sa posibleng negatibong epekto nito upang mas mapangalagaan ko ang aking sarili. (If I take a new medication, I obtain information about the side effects to better care for myself).	4.32	Lubos na sumasang-ayon
8. Sa nakaraan, binago ko ang ilan sa mga luma kong nakasanayan upang mas mapabuti ko ang aking kalusugan. (In the past, I have changed some of my old habits in order to improve my health.)	4.20	Sumasang-ayon
9. Palagian kong sinusuri ang mga bagay para masigurado ang kaligtasan ng aking sarili at pamilya. (I routinely take measures to ensure the safety of myself and my family.)	4.31	Lubos na sumasang-ayon
10. Palagian kong sinusuri kung epektibo ang mga bagay na aking ginagawa upang mapanatili ang aking kalusugan. (I regularly evaluate the effectiveness of things that I do to stay healthy.)	4.14	Sumasang-ayon
11. Sa pang-araw-araw kong mga aktibidad, bihira ko lamang paglaanan ng oras ang pangangalaga sa sarili. (In my daily activities I seldom take time to care for myself.)	3.22	Patas
12. Nakukuha ko ang kinakailangan kong mga impormasyon kapag ang aking kalusugan ay nasa panganib. (I am able to get information I need, when health is threatened.)	3.91	Sumasang-ayon
13. Humahanap ako ng makakatulong sa mga pagkakataong hindi ko kayang pangalagaan ang aking sarili. (I seek help when unable to care for myself.)	3.91	Sumasang-ayon
14. Madalang lamang akong magkaroon ng panahon para sa aking sarili. (I seldom have time for myself.)	3.10	Patas
15. Hindi ko madalas nagagawa ang pangangalaga sa sarili sa paraang nais ko. (I am not always able to care for myself in a way I would like.)	3.22	Patas
Total	4.54	Lubos na sumasang-ayon

5.00-4.20 Lubos na sumasang-ayon; 4.19-3.40 Sumasang-ayon; 3.39-2.60 Patas; 2.59-1.80 Di Sumasang-ayon; 1.79-1.00 Lubos na Di Sumasang-ayon.

Table 2.1 presents an overview of the descriptive statistics for each of the 15 items of the ASAS-R within the Philippine context, encompassing 300 individuals in this research. The items belonging to Factors I—Having power for self-care (items 1, 3, 8, and 10) and II—Developing power for self-care (items 7, 9, 12, and 13) exhibit mean scores ranging from 3.91 to 4.54, indicating universally positive scores regarding self-perceived abilities for self-care and its development. Conversely, for items under Factor III—Lacking power for self-care (items 4, 6, 11, 14, and 15), mean scores fluctuate from 3.10 to 4.30.

This indicates that, although respondents generally perceive themselves positively in terms of self-care and its development, they recognize shortcomings in energy, time management, and organizational skills for effectively practicing self-care. They possess the capability to maintain good health, demonstrating awareness of self-care practices. However, they also acknowledge occasional shortcomings in caring for themselves.

III. Significant difference between the level of self-care agency of the respondents and their profiles

Table 3.1

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Age	Between Groups	12.338	44	.280	.934	.595
	Within Groups	76.579	255	.300		
	Total	88.917	299			
Year Level	Between Groups	20.954	44	.476	1.020	.445
	Within Groups	119.083	255	.467		
	Total	140.037	299			
Socio Economic	Between Groups	107.154	44	2.435	.948	.569
	Within Groups	655.042	255	2.569		
	Total	762.197	299			

Table 3.1 illustrates the examination of the significant difference in the level of self-care agency and the profiles of the respondents. The analysis, conducted through one-way ANOVA, revealed no significant difference between group means in the level of self-care agency and respondents' age at the $p < .05$ level for three conditions [$F(44, 255) = 0.93, p = 0.60$]. Furthermore, the results indicated no significant difference between group means in the level of self-care agency concerning the respondents' year level $F(44, 255) = 1.02, p = 0.45$. Similarly, the comparison of the respondents'

level of self-care agency with their socio-economic status exhibited no significant difference [$F(44, 255) = 0.95, p = 0.57$].

IV. Psychometric Characteristics

Table 4.1

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.876	.883	15

Table 4.1 illustrates the computation of Cronbach's alpha for the ASAS-R in the Philippine context. In assessing the adapted ASAS-R in the Filipino language, Cronbach's alpha was employed, as it serves as an indicator of internal consistency, an important aspect associated with reliability and validity in this context.

In this research, the Cronbach's alpha value of the instrument was computed (ASAS-R—0.876). The obtained value affirms satisfactory internal consistency and, by extension, the reliability of the mentioned scales. The overall estimate of reliability yielded a high level of internal consistency. Each item demonstrated acceptable reliability, as the Cronbach's alpha coefficient for all items was above 0.7. No missing values need to be addressed, as the online survey consisted of mandatory answer items.

Discussion:

The primary objective of this study was to assess the psychometric properties of the ASAS-R Scale in the Philippine context. In examining respondents' sociodemographic variables, the study revealed that self-care agency did not exhibit correlations with age, education level, and socio-economic status. This implies that age, year level, and income are not determining factors for the capacity for self-care, developing capacity for self-care, and lacking capacity for self-care. This finding differs from the results of the Brazilian adaptation conducted by Damasio

and Koller (2013), where they stated that older individuals demonstrated elevated levels in both possessing the capacity for self-care and developing the capacity for self-care, with a relatively lower level of lacking capacity for self-care. Further, comparable correlations were identified among individuals with higher educational attainment and income levels.

Respectively, the study found that respondents exhibited self-perceived abilities for self-care and its development. However, they also acknowledged shortcomings in energy, time, and organizational skills for effective self-care. This result aligns with the findings of a previous study, specifically the reliability and validity testing conducted among Portuguese medical students by researcher Oliveira et al. (2022) where they discussed the descriptive statistics of the adaptation of ASAS-R, revealing that the overall responses of the respondents show a positive self-perception regarding their capacity for self-care and its development. However, they also acknowledge deficiencies in terms of energy, time, and skills in taking care of themselves.

Further, the psychometric properties of the Philippine version of the ASAS-R among college students demonstrate that ASAS-R is a valid and reliable instrument for measuring self-care agency in this population. The 3-factor model of ASAS-R, consisting of 15 elements, yielded consistent results in the Philippine context, where a high level of internal consistency was demonstrated in all 15 items. The computation of Cronbach's alpha value for the instrument (ASAS-R—0.876) confirms satisfactory internal consistency and, consequently, the reliability of the scales used.

Similar to Sousa and colleagues (2010), who developed the three-factor ASAS-R scale with a reduced number of elements while ensuring validity and reliability, their findings indicate that this scale is highly efficient in assessing self-care in the general population.

More so, this study was similar to the study conducted by Topi et al. (2023) in their adaptation in Greek context stated that the ASAS-R demonstrated validity and reliability in

assessing self-care in a mentally ill population. Wherein convergent validity was supported by positive correlations between ASAS-R, ISMI, and WHODAS, reinforcing the validity of the three scales.

The current study also aligns with previous findings in its adaptation for the Brazilian context by Damasio and Koller (2013). Similar to their results, the ASAS-R exhibited excellent psychometric properties, as both exploratory and confirmatory factor analyses generated a three-factor solution consistent with the original version. Additionally, the test for convergent validity showed the expected correlation coefficients for all three factors of the ASAS-R. These consistent results reinforce the notion that the ASAS-R is a dependable tool for evaluating levels of health-related self-care capacity in the Brazilian population.

Additionally, the current study aligns with the findings of Guo et al. (2017), who investigated the reliability and validity of the Chinese version of the Appraisal of Self-Care Agency Scale—Revised. They reported a Cronbach's alpha (α) of 0.79, a test–retest correlation of 0.95, and item-to-total correlations ranging from $r = .41$ to $r = .74$. Guo et al. concluded that the ASAS-R-Chinese version is a reliable and valid instrument for assessing self-care agency among Chinese older adults.

The findings in this study also align with the results from the Portuguese version by Oliveira et al. (2022). In their study, they reported a total Cronbach's alpha value of 0.85, with the Cronbach's alpha for the three factors being 0.81, 0.55, and 0.83, respectively. The consistent results between the two studies suggest that the ASAS-R maintains its validity and reliability as an instrument for measuring self-care agency, not only in the Philippines but also among Portuguese medical students.

Conclusion

In conclusion, the adaptation of the ASAS-R serves as a valid and efficient tool for assessing self-care agency in the Philippine context. This measuring instrument opens avenues for further

research, including the characterization of self-care agency patterns within specific population, identification of correlations between self-care agency and other variables such as burnout, quality of life, the incidence of physical and mental illnesses, and exploration of determinants influencing individual self-care agency.

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