

Design and validation of the multidimensional self-care scale in university students

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ABSTRACT

Self-care fosters health, well-being, and happiness while reducing stress through regular practices. The study aimed to improve the “Multidimensional Self-Care Scale” for thorough psychometric assessment. 209 university students from the southeast and northeast of Mexico, representing diverse programs, participated, with 68.9% female and 31.1% male, averaging 21.01 years ($SD= 4.46$). Exploratory factor analysis revealed five self-care dimensions (physical, psychological, spiritual, relational, emotional), explaining 61.35% of variance. Covariance analysis confirmed validity with satisfactory fit indices. Internal consistency for both total score subscales was adequate (between .77 and .94). Correlations with personal variables underscored the scale’s validity and reliability. This study was not registered.

Keywords: physical self-care, psychological self-care, spiritual self-care, relational self-care, emotional self-care.

1 INTRODUCTION

Self-care refers to the capacity of individuals to promote their well-being, preserve or improve one’s own health by striving towards happiness in times of tension (Butler et al., 2019). It requires active and responsible participation of the person with respect to his or her quality of life. It is composed moral and reasoning practices that exists in concrete life situations, directed by people towards themselves, others, or the environment, to regulate the factors that affect their own development and functioning for the benefit of their life, health, or well-being (Naranjo, 2019). The concept of self-care has varied depending on various fields of study like those of health sciences (Khademian et al., 2020). Most studies on self-care are based on the medical field focused on chronic diseases (Hernández, 2010) especially in older adults (Araya, 2012) and in health professionals such as first responders (Sillas & Jordan, 2011).

Studies have shown that people who practice self-care help in the development and proliferation of sustainable pro-social and pro-environmental practices (Corral et al., 2021). Although it is frequent to hear about self-care referring to physical deterioration and/or disease prevention (Mohebi et al., 2013), it also implies other practices that bring advantages such as the prevention of negative emotional states as well as to maintain a holistic balance and functioning.

Torres et al. (2021) postulate three dimensions necessary for self-care, these being psychological, physical, and spiritual care whose dimensions are based on integral care and not only the triad suggested by Campos et al. (2018) and Galiana et al. (2015). On the other hand, in accordance with and as a continuation to the dimensions postulated by Torres et al. (2021), two additional self-care domains should be considered, those being relational and emotional self-care, for a finer study and evaluation of self-care (Butler et al., 2019) in university students.

Physical self-care is inclusive of behaviors that promote taking care of physiological needs to give the body optimal and adequate functioning and to prevent physical or functional deterioration of the

internal and external systems. People need healthy food and water consumption, clean air, and access to medical check-ups and interventions in case of possible damage to the body. Therefore, self-care practices such as an age-appropriate sleep schedule (Carmichael; Reis, 2005) healthy nutrition and physical activities such as exercise are imperative (Torres et al., 2021).

Psychological self-care comprises two main objectives: to reflect on and understand the processes of the organism in its environment and to satisfy intellectual needs. For a good psychological functioning, people need a stable mental and emotional health as well as to be conscious of their person and the environment they find themselves in (mindfulness). It is necessary to prevent or avoid situations of stress, mental exhaustion as well as a good handling and management of situations to avoid mental and emotional fatigue such as Burnout. Some self-care practices in this dimension are the use of recreational and beneficial cognitive activities (Walsh, 2011) like listening to music, dancing, reading poetry, solving puzzles, etc. On the other hand, it is also important to practice mindfulness for good introspection.

Spiritual self-care is the way in which people perceive themselves and their lives in relation to the spiritual world and their subjectivity, that is, the meaning they give to life which gives value to their existence according to what they understand by the term “spirituality”. People in this case may belong to or believe in a religion, that is to believe in a superior being such as a God or they can also partake in practicing secular beliefs. It is important that people have this area in constant development because through it they can relate with others, with themselves and be able to create an existential and healthy relationship between themselves and their beliefs. For this to happen, it is important that they have a space and their right to express their faith or thoughts and the opportunity to put them into practice (Butler et al., 2019).

The previously mentioned, helps in preventing existential crises, maintaining calm and inner peace, or can be used as tools to aid in emotional and situational management (Bryant & Wong, 2013) Some practices of self-care in the spiritual dimension are practices of reflection, prayer, meditation, participation in religious ceremonies, interaction with nature, etc.

Relational self-care refers to the ways in which attempts are made to maintain and improve communication and interaction with others. People are social beings who need to be surrounded by other people for their development and learning (Rodríguez; Cantero, 2020). Therefore, they have the need to interact with others, especially family, friends, colleagues, etc., who may come to them in times of difficulty or for support (Woodward et al., 2022). Relational self-care can be carried out through practices of inclusion in social events to expand the social circle, prioritizing close relationships, maintaining existing relationships, being altruistic (Walsh, 2011) and maintaining virtual or face-to-face communication with acquaintances. Relational self-care positively impacts a person's emotional wellbeing (Szalavitz; Perry, 2010; Walsh, 2011).

Emotional self-care must be carefully distinguished from psychological self-care. While psychological self-care involves understanding behavioral and learning processes, emotional self-care is based on preventing and protecting against negative emotions and maximizing positive emotions and experiences. Emotional self-care involves the need for people to have a space to express their emotions, the right to be heard and to have the tools to cope with any situation. Emotional self-care activities may vary but among them may be to identify stressful situations and avoid them, avoid harmful habits, perform activities or emotion management techniques such as yoga, Tai chi, therapy or mindfulness (Schuman et al., 2020), as well as identify healthy activities that provide positive emotions and experiences to the person.

Self-care practices has benefits in all dimensions of a person's life. It acts as an emotional and physical protector whose effects influence beyond them. Among some of its benefits, self-care helps in the functioning of the organism (Carmichael; Reis, 2005), stress reduction, assists in the management of emotions, improves learning and helps to detect and avoid negative situations to replace them with positive (Lyubomirsky et al., 2005).

Through a study carried out by Ruiz & Díaz (2019), it has been observed that the university phase of a person's life is when people are most likely to make or experience changes in their daily habits or routines especially regarding their physical, social and emotional habits. Self-care is noticed less likely to be carried out by these students since the transition from secondary to superior education or just a continuation of their superior level of studies may imply alterations to their habits like modifications to their alimentary habits, physical activity, or initiation to substance consumption like alcohol, tobacco and drugs (Welsh et al., 2019). On the other hand, students may experience emotional turbulence like loneliness and social isolation (Diehl et al., 2018). The previously mentioned, is therefore the expression of a lack of self-care habits expressed by students.

Currently there are several self-care evaluation methods such as the Mindful Self Care Scale (Cook; Guyker, 2018) or the Self Care Assessment for Psychologists (Dorociak et al., 2017). However, presently, no scale can be found that can assess all five dimensions of self-care together (Physical, Psychological, Spiritual, Relational and Emotional).

All the aforementioned research, including our own research, leads us to ask ourselves the following research questions: a) Given the preeminence of emotions in human relationships, and the existing relationships between them, could we conceive of an integral structure beyond the dimensions physical, psychological and spiritual that integrates both emotions and interpersonal relationships? b) Can a self-care evaluation scale be conceived based on a structure of 5 factors that allows knowing, with sufficient consistency, the contribution of each of them to the explanation of general self-care? Therefore, it is relevant to follow up and add two more dimensions (relational, emotional) to the trifactorial structure (physical, psychological, spiritual) already proposed by Torres et al. (2021) in order to assess the person

holistically and integrally. For the reasons already stated, the objective of the current study was to design and validate a self-care scale composed of five dimensions applied in university students in the Northwest and Southeast population in the country of Mexico.

2 METHODOLOGY

2.1 PARTICIPANTS

The The sample of the study was calculated with the formula for finite population at 95% confidence with a 5% margin of error of precision and 50% of the expected proportion (Negida et al., 2019). It ended up consisting of 209 university students from the northwestern and southeast of Mexico, which encompass the principal features expressed in Table 1.

Table 1. Statistical description of the sociodemographic characteristics of the participants ($n=209$).

Variable	<i>f</i>	%	Variable	<i>f</i>	%
Sex			Civil Status		
Female	133	68.9	Married	5	2.4
Male	65	31.1	Divorced	1	0.5
Age range			Single	190	90.9
17-25	192	91.9	Civil Union	13	6.2
26-34	11	5.3	Monthly Family Income		
35-43	4	1.9	≤ \$2500	44	21.1
44-52	2	0.9	\$2,501-\$5,000	52	24.9
Degree			\$5,001-\$10,000	58	27.8
Educational Psychology	1	0.5	\$10,001-\$20,000	35	16.7
CivilEngineering	6	2.9	\$20,001-\$40,000	20	9.6
Dentistry	6	2.9	Medical Insurance		
Educational Sciences	8	3.8	Hospital naval	5	2.4
Nursing	1	0.5	IMSS	95	45.5
Nutrition	3	1.4	ISSSTE	25	12.0
Psychology	104	49.8	Particular	12	5.7
Social and Communitary	47	22.5	Non	67	32.1
Physiotherapy	4	1.9	Other	5	2.4
Medicine	29	13.9	Type of disease		
Religion			Diabetes mellitus	3	1.4
Adventis	4	1.9	Thyroid diseases (Hyper or hypothyroidism)	2	1.0
Athiest	24	11.5	Chronic Kidney disease	1	0.5
Budism	1	0.5	Lung Disease (COPD, Tuberculosis, Asthma, Sleep Apnea)	15	7.2
Catholic	126	60.3	Systematic Arterial Hypertension	2	1.0
Christian	21	10.0	Obesity	7	3.3
Evangelist	1	0.5	Overweight	17	8.1
Jehovas Witness	2	14.4	Non	162	77.5
Other	30	1.0			

Note: *f*=Frequency; IMSS= Instituto Mexicano del Seguro Social; ISSSTE= Instituto de Servicios Sociales de los Trabajadores del Estado.

Source: The authors.

2.2 INSTRUMENT

Personal data questionnaire: Sociodemographic data was collected including age, sex, undergraduate degree, university of origin, grade point average, marital status, monthly family income, health insurance, religion, and any type of illness.

Multidimensional self-care scale (developed specifically for this study). The scale is made up of five self-care dimensions, three of which were postulated by Torres et al. (2021) and used as a reference to build a continuation based on the dimensions proposed by Butler et al. (2019). Composed of 39 items, the scales items are distributed as follows: physical (6 items), psychological (10 items), spiritual (9 items), relational (9 items) and emotional (5 items). It presents a 5-point Likert-type scale, where 1=never, 2=almost never, 3=occasionally, 4=frequently, 5=every day. Originally, the self-care scale was composed with a total of 52 items distributed in five different dimensions, whereas the dimensions were distributed as follows: physical (10 items), psychological (11 items), spiritual (9 items), relational (11 items), emotional (11 items). The scale by Torres et al. (2021) which was used as a reference to build a continuation of the same, expressed high internal consistency indices of the total score ($\alpha = .95$), which presented the validity of the scale and therefore making it viable for future use. With the aid of Lisa Butlers theory of self-care dimensions (Butler et al., 2019), two additional dimensions (relational and emotional) were incorporated whereby the relational dimensions evaluates behaviors like that of altruism, seeking social integration and social support, and that of social networking. The emotional dimension, on the other hand, evaluates the way a person is able to identify positive and negative emotions and experiences and the action taken to cope with them; it also focuses on practices that increase a person's wellbeing and happiness. The added dimensions were carefully chosen in order to target and evaluate university students self-care behaviors.

2.3 PROCEDURE

The survey was created through Microsoft Forms and was shared to different schools whereby the heads of department of the same were in charge of sharing the survey with their students. Ahead of the initiation of the process, the pupils were informed of the objective of the study and their consent was requested while being briefed on the confidentiality and voluntary participation in the procedure.

2.4 DATA ANALYSIS

Asymmetry and kurtosis tests were used to evaluate the normal distribution of the data obtained by the application of the scales, it was also analyzed the univariate statistics (means and standard deviation) and a frequency analysis was made for the categorical variables with the support of the Statistical Package for the Social Sciences (SPSS) version 26. To test the degree of association between variables, a Pearson correlation (Faizi; Alvi, 2023) analysis was performed and a comparison by gender with Levene's and Student's t-tests (Turcio, 2015).

With the EQS program version 6.1, a first structural model was tested to assess the multidimensionality of the instruments within the measurement model. Significant ($p < 0.05$) and elevated (≥ 0.30) factor loadings were expected, as indications of convergent construct validity for all measures, using Maximum Likelihood as the estimation method.

To evaluate the goodness-of-fit of the confirmatory model, three types of fit index indicators will be considered: practical, statistical and population. Goodness-of-fit tests are hypotheses to test whether the data observed in a random sample are fitted with some level of significance to a certain probability distribution. The statistical indicator was the chi-square (χ^2) that determines the degree of relationship that exists between variables, if the hypothesized model is relevant, the chi-square (χ^2) will have a high and non-significant value ($p > .05$) and is represented with degrees of freedom (*g.l.*) (Bentler, 2007). As the significance of the χ^2 depends on the sample size, we will also take the relative χ^2 ($< .5$) which is calculated by dividing the χ^2 fit index by the degrees of freedom. According to previous research (Schumacker; Lomax, 2016) if this ratio is $< .5$ the model is considered to have a good fit.

Since statistical indicators are particularly sensitive to sample size, practical indicators were also considered. These include the Comparative Fit Index (CFI), Bentler-Bonett Normed (BBNFI) and Non-Normed Fit Index (BBNNFI) ($\geq .90$) and the Root Mean Square Error of Approximation (RMSEA) ($\leq .09$) (Vinaccia et al., 2017).

To test the construct validity of the multidimensional self-care scale, an Exploratory Factor Analysis by the principal component's method and Varimax rotation with factor loadings $> .40$, and coefficient estimation with the Kaiser-Meyer-Olkin (KMO) test and Barlett's sphericity ($< .05$) was performed, as well as a Confirmatory Factor Analysis (CFA) that tested the theoretical contribution of the items to the factor (Orcan, 2018).

3 RESULTS AND DISCUSSIONS

3.1 EXPLORATORY FACTOR ANALYSIS

The factorial structure presented five dimensions that explain 61.35% of the total variance, with a high acceptable internal consistency index ($\alpha=.94$). The sample adequacy measure (KMO=.903) and Bartlett's test of sphericity were acceptable ($p<.001$). Both values indicated an adequate adjustment of the factor analysis for the set of items. It is important to mention that items with $\lambda < 0.40$ were deleted. Therefore, four items from the physical self-care component (7, 8, 9, 10), one item from the psychological component (13), two items from the relational component (43, 47) and six items from the emotional component (54, 55, 56, 60, 61, 62) were removed. This resulted in a total of 39 items for the final self-care scale, divided into 5 subscales (physical self-care=6, psychological self-care=10, spiritual self-care=9, relational self-care=9, emotional self-care=5). The communality statistics (η^2) were greater than 0.50 (82.05%), which shows that the factorial solution was able to explain high proportions of variance for each item subjected to assessment.

Table 2. Mean, standard deviation, standard matrix, and communalities (η^2) for the items of the multidimensional self-care scale.

Items	Mean	SD	Components					η^2
			1	2	3	4	5	
PHS1. I do some kind of physical activity.	3.15	1.103				.533		.299
PHS2. I try to eat healthy foods.	3.27	.858				.764		.623
PHS3. I used to alternate the position of my body throughout the day to preserve my health.	3.23	1.008				.743		.635
PHS4. I make changes in my bad habits to maintain my health.	3.21	.886				.696		.612
PHS5. I attend periodic medical check-ups to maintain my health.	2.49	1.047				.599		.490
PHS6. Before taking medicine, I get all the information about the harmful effects on my health.	3.25	1.184				.579		.378
PS11. I usually spend time thinking about my emotions.	3.28	.910	.650					.456
PS12. When I am sad, I think of all the pleasures in my life.	3.22	.991	.590					.495
PS14. I participate in activities that help me to be a better person.	3.43	1.040	.582					.513
PS15. I try to get myself better every day.	3.67	1.042	.783					.655
PS16. After work (or study) I try to reward myself with any pleasant activity.	3.43	1.067	.683					.555
PS17. I am aware of my feelings in different situations.	3.62	1.002	.843					.688
PS18. I do things that generate well-being.	3.77	.945	.709					.691
PS19. I have empathy for myself when something difficult happens.	3.47	1.033	.796					.640
PS20. I examine situations in different perspectives.	3.58	.987	.686					.574

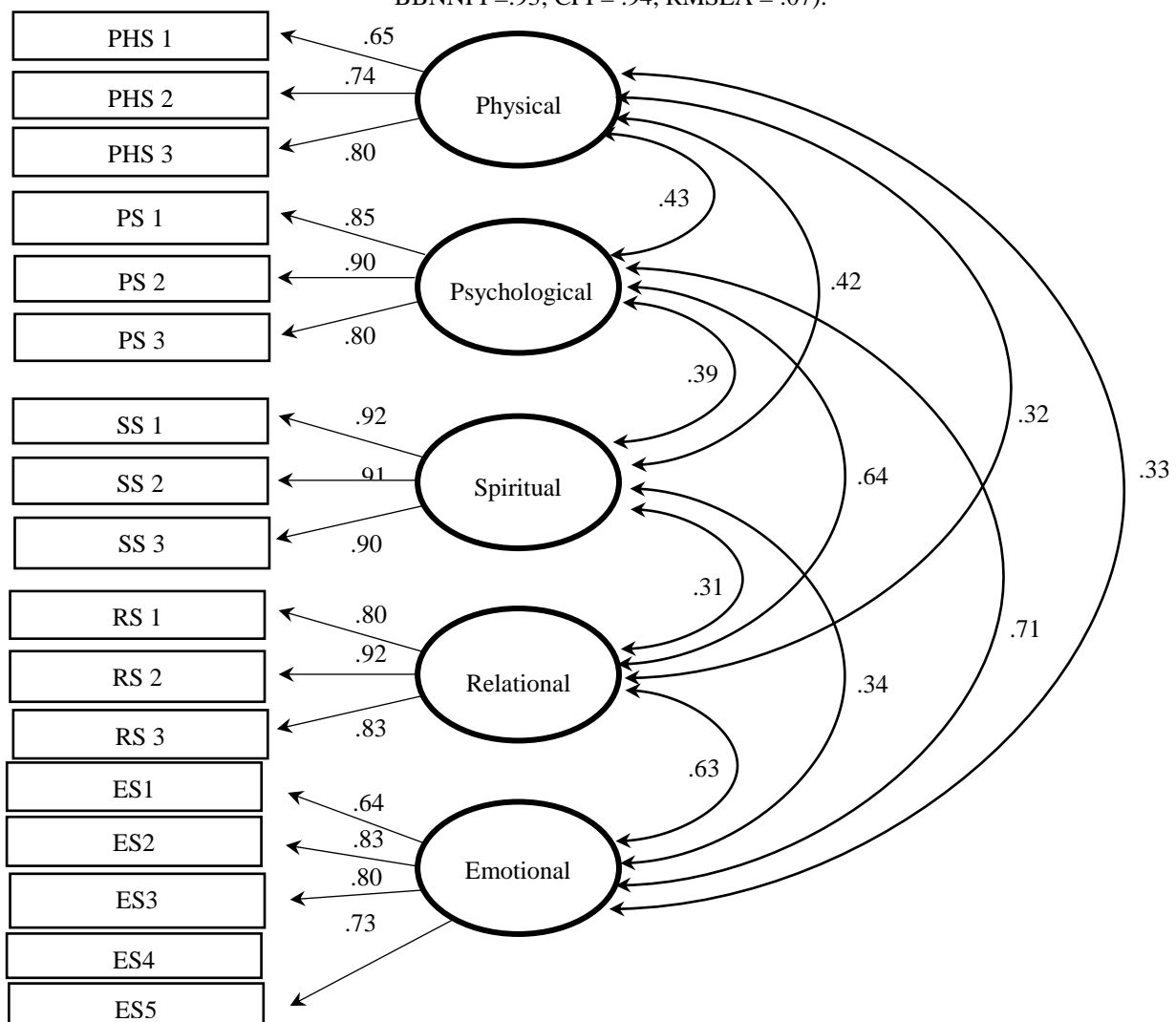
PS21. I am aware and I appreciate the things which I am grateful for.	3.87	1.001	.762		.663			
SS22. I turn to meditation to find inner peace and strength.	2.22	1.091		.760	.626			
SS23. I practice spiritual activities to find harmony with the world.	2.14	1.131		.872	.767			
SS24. I feel connected to be a being greater than myself (God).	2.63	1.438		.687	.540			
SS25. I practice spiritual practices to maintain my health (yoga, tai chi, meditation, praying, biblical coexistence groups, reading spiritual texts, etc.).	2.10	1.180		.853	.735			
SS26. I seek comfort through spiritual means (prayer, meditation, attending religious or spiritual services, or attending spiritual counseling).	2.24	1.222		.900	.802			
SS27. I practice spiritual activities to find meaning to the world.	2.04	1.134		.923	.811			
SS28. I meditate or pray to have better understanding and consciousness.	2.32	1.263		.859	.753			
SS29. I work on my spiritual development.	2.30	1.220		.887	.825			
SS30. I try to reach maximum consciousness levels.	2.62	1.328		.680	.611			
RS44. I try to spend time with my family, friends, classmates, etc.	3.52	.970		.705	.581			
RS45. I assist to social events like parties, reunions or communitarian events.	3.02	1.013		.819	.601			
RS46. I communicate myself and/or request emotional support from persons closer to me.	3.09	1.122		.712	.582			
RS47. I always try to get to know new people and make new friends.	2.94	1.177		.725	.561			
RS48. I keep in touch with my family and friends.	3.52	1.070		.788	.682			
RS50. I know who I can go to during difficult times.	3.67	1.180		.465	.496			
RS51. I make myself available to others when they need me.	3.89	1.030		.453	.456			
RS52. I keep in touch with my friends, family and acquaintances to make sure they are well.	3.62	1.053		.756	.671			
RS53. I try to relate to others mostly through physical interactions rather than virtual interactions.	3.36	1.14		.602	.561			
ES57. I try to be conscious and present in all of my daily activities.	3.66	.952			.646 .563			
ES58. I am able to identify the persons, places, objects or events that causes me satisfaction or discontent.	3.85	.926			.766 .759			
ES59. I know the activities, persons or places that elevate my state of mind or that comfort me in moments of distress.	3.88	.938			.831 .726			
ES63. I participate in activities that make me feel comfortable, secure and happy.	3.55	1.09			.624 .607			
ES64. I am capable of knowing what makes me happy and I practice it with frequency.	3.68	.987			.620 .641			
Cronbach's alpha				.92	.94	.89	.77	.87
Explained variance				32.62	12.47	6.56	5.61	4.08

Source: The authors.

3.2 CONFIRMATORY FACTORIAL ANALYSIS

Figure 1 shows the results of a structural model in which the first order factors (physical, psychological, spiritual, relational, emotional) emerge coherently from the high and significant relationships between their manifest indicators, and where the factor loadings indicate construct validity for the lambdas (λ) of the self-care factors. All covariances were significant ($p < .05$). The highest covariances occurred between psychological and emotional behavior ($\lambda = .71$), psychological with relational ($\lambda = .64$) and relational with emotional ($\lambda = .63$). The rest of the covariances were moderately low (physical and spiritual = .42, physical and psychological = .37, spiritual and emotional = .34, physical and emotional = .33, psychological and spiritual = .32). Regarding the model's goodness-of-fit indicators, the χ^2 was not significant [$\chi^2 = 237.72$, (108 df), $p < .001$, $\chi^2_{\text{relative}} = 2.20$], and the practical indicators [BBNFI = .90; BBNNFI = .93; CFI = .94], as well as the RMSEA = .07, indicate that the theoretical model fits the empirical data adequately (See Figure 1).

Figure 1. Covariance model between the self-care dimensions. ($\chi^2 = 237.72$, [108 df] $p = .001$, $\chi^2_{\text{relative}} = 2.20$, BBNFI = .90; BBNNFI = .93; CFI = .94, RMSEA = .07).



Source: The authors.

Parcels of the five self-care factors emerged as acceptable ($.65 < \lambda < .92$). After being tested, the AVE of each subscale was found to be greater than .50 while the difference with the Sqrt AVE and the covariances expressed a positive score. Thus, the factors presented in the self-care model express both divergent and divergent validation (Tables 3 and 4).

Table 3. Extracted mean variance and root mean square variance extracted for the self-care scales.

Self-care scales	AVE	Sqrt AVE
Physical Self-care	.53	0.73
Psychological Self-care	.72	0.85
Spiritual Self-care	.82	0.91
Relational Self-care	.72	0.85
Emotional Self-care	.94	0.97

Note: AVE: average variance extracted; Sqrt AVE: square root of average variance extracted.
Source: The authors.

Table 4. Difference between the extracted root mean square variance and the covariances of the self-care constructs.

Self-care scales	Difference Sqrt AVE - covariance
Physical Self-care – Psychological self-care	.30
Physical Self-care - Spiritual Self-care	.31
Physical Self-care - Emotional Self-care	.40
Physical Self-care - Relational Self-care	.41
Psychological Self-care - Emotional Self-care	.14
Psychological Self-care - Spiritual Self-care	.46
Psychological Self-care - Relational Self-care	.21
Psychological Self-care - Physical Self-care	.42
Emotional Self-care - Relational Self-care	.34
Emotional Self-care - Spiritual Self-care	.63
Emotional Self-care - Psychological self-care	.26
Emotional Self-care - Physical Self-care	.64
Spiritual Self-care - Relational Self-care	.60
Spiritual Self-care - Physical Self-care	.49
Spiritual Self-care - Emotional Self-care	.57
Spiritual Self-care - Psychological self-care	.52
Relational Self-care - Physical Self-care	.53
Relational Self-care - Psychological self-care	.21
Relational Self-care - Emotional Self-care	.22
Relational Self-care - Spiritual Self-care	.54

Note: Sqrt AVE: square root of average variance extracted
Source: The authors.

The results of the present study show that the Multidimensional Self-care Scale (MSS) has good psychometric properties. The factorial structure of the proposed scale evidenced the presence of 5 dimensions for self-care, presenting adequate internal consistency for each dimension as well as for the scale in general. Likewise, the exploratory factor analysis showed factor loadings greater than .60, thus demonstrating convergent construct validity. Similarly, covariations between each variable studied were lower than the factor loadings, so that divergent validity is evidenced.

These results imply a positive and significant correlation between the dimensions of self-care. This is corroborated by the findings by Torres et al. (2021) in their investigation of the tridimensional self-care

scale, where the psychological, physical and spiritual dimensions correlate positively and significantly confirming that physical self-care plays a vital role in the development of a healthy psychological self-care since an optimal physical self-care helps with a positive emotional life. Therefore, positive self-care practices like healthy eating and physical exercise demonstrates positive impacts in cognitive development (attention and memory) and alleviation of psychological disorders like depression (Northey et al., 2018; Khalid et al., 2016; Gordon et al., 2018).

On the other hand, a relationship between physical self-care and spiritual self-care has been found with psychological self-care as a mediator. That is, psychological practices like emotional gestation helps in physical care and aids in existentialist practices which has an inversely effect (Torres et al., 2021) meaning spiritual practices aid in the reduction of fatigue, burnout, traumas etc. which also aids in ideal physical practices. Similar to what Guerrero and Hernández-Cervantes (2020) found spiritual self-care allows healthy introspective development and emotional gestation allowing the person to functionally practice healthy physical activities.

In terms of spiritual self-care, it has been found that healthy spiritual wellbeing and its practices favors the lowering of psychological distress like anxiety, depression, and stress in university students (Leung; Pong, 2021). Spiritual self-care also elevates altruism in relational self-care by providing empathy and understanding through service (Severuno-González et al., 2022). In addition to the previously discovered, a continuous and frequent social life lowers physical and health deterioration and partakes in the longevity of a person's life span (Yang et al., 2015). On the other hand, emotional stability exposes emotional empathy with oneself and others as the result of understanding and self-introspection (Sebastian et al., 2022). As a result of psychological stability, the person is emotionally impacted and they may experience emotional satisfaction, happiness, calmness etc. It simultaneously encourages the person to interact socially and gives a sense of value and worthiness amongst others; the person engages in close relationships (Synder, 2021). Spiritual health, on the other hand, establishes emotional development like optimism, compassion and empathy of oneself and others.

On the other hand, relational self-care is understood as the search for associations of oneself with those close to you (Chen et al., 2011). Involving self-conceptions such as integration and social support that are associated with improvements in happiness, quality of life, resilience, and cognitive capacity, finding for this reason improvements in the physical state, as well as in the psychological and emotional dimension of self-care (Butler et al., 2019).

The present study has limitations like that of sample amount and dimensions used. The sample size collected was relatively low which doesn't allow that the findings may be generalized with the entirety of university students in Mexico. Based on the sample's characteristics it isn't feasible to express the results as a generality of Mexico's student population since the sociodemographic findings were

limited to certain demographic areas. Overall, the scale's dimensions were adapted to fit university students' potential self-care behaviors based on Butler et al. (2019) theory, due to that, the professional dimension was not taken into consideration, thus the theory's dimensions were not used on its entirety. Therefore, it is important to analyze the proposed self-care scale in a wider range of Mexican universities to gather general and extensive findings which can be used for comprehensive evaluations of self-care behaviors in university students.

4 CONCLUSION

Self-care behaviors constitute a set of choices and measures that a person adopts with the purpose of fostering and preserving health and wellbeing in various life aspects of a physical, psychological, spiritual, emotional, and relational nature. This concept encompasses a series of routines and practices aimed at satisfying personal needs, preventing disease, managing stressful situations, and promoting healthy lifestyles. In this context, self-care contributes to improving health from a biopsychosocial perspective, requiring commitment and consideration for one's own well-being.

For Health Sciences professionals, training, promotion, prevention, and health care are of vital importance as this enables them to transcend to the care and protection of other people. However, university education imposes important challenges that can lead students to self-care deficits due to the high demand of activities and school commitments that limit the maintenance of healthy lifestyles such as physical exercise, maintaining a good quality of sleep, preparing food with high nutritional value, or performing relaxation and meditation activities that promote personal balance.

Therefore, the multidimensional scale of self-care constitutes an important tool that allows the analysis of the actions taken by students to maintain their health and in this way, it can be used in future research efforts in primary health care and for the design and implementation of public policy programs that allow the establishment of healthy and sustainable lifestyles in the university population.

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