

Self-care agency (SCA) among U.S. emergency medical service (EMS) practitioners during the COVID-19 pandemic: Foundational research for creating a functional definition of self-care literacy

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Abstract

Self-care agency (SCA) is part of the emerging concept of self-care literacy. SCA is the ability to meet and recognize care needs, assess available resources, and act to achieve goals. Self-care literacy is defined as knowledge, motivation, and competencies to promote health, prevent disease, and maintain health with or without the support of a healthcare provider. In the U.S., over 269,000 EMS practitioners assess injuries and illnesses provide emergency medical care. During the COVID-19 pandemic, SCA was assessed using the Self-Care Agency Scale-Revised among 91 EMTs. Findings are presented and implications for defining self-care literacy are explored.

Purpose

The purpose of this study was to explore self-care agency among U.S. emergency medical practitioners during the COVID-19 pandemic.

Methods

A mixed-methods study using the Self-care Agency Scale-Revised (ASAS-R) was conducted online via Qualtrics between September 2022 and January 2023. Participants were recruited via LinkedIn.

Data Analysis

- A confirmatory factor analysis (CFA) was performed to assess the goodness of fit of participants’ responses to the ASAS-R. The CFA revealed good to adequate fit to the three-factor (having power for self-care, developing power for self-care, lacking power for self-care) model, with a comparative fit index (CFI) = 0.974 and Tucker-Lewis Index (TLI) = 0.968. The χ^2/df was 4.63
- Internal consistency reliability for the entire instrument as well as the three subscales were examined via Cronbach’s alpha. The results were as follows: overall instrument (15 items) = 0.87, having power (six items) = 0.84, developing power (five items) = 0.70, and lacking power (four items) = 0.79.
- Simple descriptive statistical analyses (frequency, mean, standard deviation) were performed to assess the demographic characteristics of participants who chose to complete that portion of the survey (n = 61). Further descriptive analyses were then conducted to examine the mean and standard deviation for overall self-care agency scores as well as scores on each of the three subscales for all participants who completed the entire instrument (n = 91).

Results

Demographic Characteristics

Of the 91 respondents who completed the entire instrument, 67% (n = 61) also submitted full demographic information. Of these individuals, the majority identified as male (n = 40, 65.6%), white (n = 53, 86.9%), and non-Hispanic (n = 57, 93.4%) with an earned Bachelor’s degree (n = 32, 52.5%). The average age was 41.1 ± 10.5 years. Detailed demographic information is provided in the next column.

Gender [F (%)]	
Female	18 (29.5)
Male	40 (65.6)
Transgender male	1 (1.6)
Prefer not to answer	2 (3.3)
Race [F (%)]	
American Indian or Alaska Native	1 (1.6)
Two or more races	1 (1.6)
Asian	1 (1.6)
Black or African American	1 (1.6)
White	53 (86.9)
Prefer not to answer	4 (6.6)
Ethnicity: Hispanic/Latino origin [F (%)]	
	4 (6.6)
Highest level of education [F (%)]	
High school diploma or equivalent	11 (18.0)
Associate's degree	7 (11.5)
Bachelor's degree	32 (52.5)
Master's degree	6 (9.8)
Doctorate	2 (3.3)
Prefer not to answer	3 (4.9)
Worked from home during pandemic [F (%)]	
	4 (6.6)

Scores on the Appraisal of Self-Care Agency Scale-Revised (n = 91)

Overall Results		Score (Mean ± SD)
Total		50.0 ± 8.2
Subscale Results		Score (Mean ± SD)
Having Power		
Raw Score (possible range 6-30)		21.5 ± 4.1
Scaled Score (possible range 1-5)		3.5 ± 0.7
Developing Power		
Raw Score (possible range 5-25)		19.0 ± 2.9
Scaled Score (possible range 1-5)		3.8 ± 0.6
Lacking Power		
Raw Score (possible range 4-20)		10.0 ± 3.3
Scaled Score (possible range 1-5)		2.5 ± 0.8

Discussion

- The mean of EMS practitioners in this study was 50. In comparison to findings from previous research using the ASAS-R (Bastos-Silva et al. 2021; Rababah, 2022), this was the lowest self-care agency mean reported. In addition, the means for the participants in the subscales of having power, developing power, and lacking power were also lower than findings in previous research (Bastos-Silva et al. 2021).
- While there is limited research about self-care using the ASAS-R and limited research about well-being among the EMS population, the research that has been conducted seems to indicate lower levels of self-care among emergency workers.
- The findings in this study align with previous research among EMS population related to workplace stress (Bardhan & Byrd, 2023) and well-being (Lawn, 2020) displaying challenges relating the demands of delivering emergency care.

References

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