

Original Article

Translation and Validation of the Revised “Rushton Moral Resilience Scale” in Greek

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Abstract

Background: High levels of moral resilience among nurses are crucial to maintain or restore moral integrity in response to moral challenges during their duties.

Aim: To translate and validate the revised “Rushton Moral Resilience Scale” (RMRS) in Greek.

Methods: We collected data from 316 nurses in Greece during July 2023. We translated the RMRS in Greek applying the forward-backward method and we adapted it in the Greek context. We used three other valid tools to estimate the concurrent validity of the RMRS: “Moral Distress Thermometer” (MDT) to measure levels of moral distress; “Quiet Quitting Scale” (QQS) to measure levels of quiet quitting; single item burnout measure to measure job burnout. We performed confirmatory factor analysis (CFA) to examine the construct validity of the RMRS.

Results: We found that the RMRS had excellent reliability since all intraclass correlation coefficients in test-rest reliability analysis were higher than 0.993 and statistically significant ($p < 0.001$). Moreover,

Cronbach's coefficients alpha for the response to moral adversity scale, personal integrity scale, relational integrity scale, moral efficacy scale, and total scale were 0.652, 0.795, 0.678, 0.640, and 0.778 respectively. Our confirmatory factor analysis confirmed the four-factors structure of the scale: response to moral adversity, personal integrity, relational integrity, and moral efficacy. Concurrent validity of the Greek version of the RMRS was exceptional since we found statistically significant correlations between the RMRS and MDT, QQS, and the single item burnout measure.

Conclusions: The revised "Rushton Moral Resilience Scale" is a reliable and valid tool to measure moral resilience in healthcare workers.

Keywords: Rushton Moral Resilience Scale; moral resilience; reliability; validity; nurses; Quiet Quitting Scale; moral distress; Greece

Introduction

The ability of nurses to develop skills and competences to help them recognise and manage their emotions is a prerequisite for providing quality health care (Nagel et al., 2016). Among these skills, moral resilience is highlighted, which is defined as the ability to maintain or restore moral integrity in response to moral challenges (Heinze et al., 2021; Holtz, Heinze & Rushton, 2018). Moral resilience is a concept that is constantly evolving and involves a stable and consolidated understanding of the moral issues that arise in the lives of individuals (Rushton, Caldwell & Kurtz, 2016). In a broader sense, moral resilience includes four dimensions: responses to moral adversity, personal integrity, moral efficacy, and relational integrity (Rushton et al., 2023).

In the case of nurses, moral resilience is of particular value, as this is a professional group that is constantly facing moral dilemmas. Indeed, these ethical dilemmas have increased in recent years with the advances in health sciences research and technology (Jiménez-Herrera et al., 2022; Petrova, Dale & Fulford, 2006). Nurses face more frequent ethical

dilemmas than other healthcare workers, as they are required to maintain more balance on issues such as equity and reciprocity in health care, patient privacy, confidentiality, relationships with patients and other health professionals, etc. (Huang et al., 2016). When ethical dilemmas remain unresolved, nurses are faced with moral distress and moral trauma that can subsequently lead to burnout (Rushton, Kaszniak & Halifax, 2013; Rushton et al., 2015).

Moreover, healthcare workers have experienced unprecedented working conditions during the COVID-19 pandemic with professional demands increasing sharply in an already exhausting working environment. For example, nurses during the pandemic experienced high rates of emotional and physical burnout, as well as depersonalization (Galanis et al., 2021, 2023g). Additionally, during the COVID-19 pandemic, a new emergence have emerged among healthcare workers and especially nurses: the phenomenon of quiet quitting (Galanis et al., 2023c, 2023d, 2023f). In this context, the phenomenon of quiet quitting has emerged, which threatens not only the well-being of workers but also the survival of

countries' economies worldwide, as it leads to reduced productivity. The phenomenon of quiet quitting increased significantly during the pandemic, possibly also because lockdowns disoriented workers and created an alienation from work (Le et al., 2023).

In this context, measuring moral resilience among healthcare workers with a reliable and valid tool is essential to improve their ability to deal with difficulties. Thus, the aim of this study was to translate and validate the revised "Rushton Moral Resilience Scale" (Rushton et al., 2023) in Greek in a sample of nurses.

Materials and Methods

Study design and population: We collected data from 316 nurses during July 2023. We measured socio-demographic characteristics of nurses, moral resilience, moral distress, levels of quiet quitting, and job burnout.

Instruments of Data Collection:

Rushton Moral Resilience Scale" (RMRS): We used the revised "Rushton Moral Resilience Scale" (RMRS) to measure moral resilience. The RMRS includes 16 items with answers in a four-point Likert scale: disagree (1), somewhat disagree (2), somewhat agree (3), and agree (4) (Rushton et al., 2023). Moreover, the English version of the RMRS includes four subscales: response to moral adversity (items #3, #5, #7, #9), personal integrity (items #2, #4, #6, #8), relational integrity (items #11, #13, #14, #16), and moral efficacy (items #1, #10, #12, #15). Answers on items #3, #5, #7, #9, #11, #13, #14, and #16 are revised. Scores on the RMRS and the subscales range from 1 to 4 with higher scores indicate higher levels of moral resilience.

We translated the RMRS in Greek applying the forward-backward method and we

adapted it in the Greek context (Galanis, 2019). Then, we used the Greek version of the RMRS in a pilot study with 30 nurses to perform the test-retest reliability analysis (Galanis, 2013). In that case, nurses completed the RMRS twice in a time interval of one week.

"Moral Distress Thermometer" (MDT): We used three other valid tools to estimate the concurrent validity of the RMRS. In particular, we used the "Moral Distress Thermometer" (MDT) to measure levels of moral distress that nurses face off in their work (Wocial & Weaver, 2013). The MDT takes values from 0 to 10 with higher values indicate higher levels of moral distress.

"Quiet Quitting Scale" (QQS): Also, we used the "Quiet Quitting Scale" (QQS) to measure levels of quiet quitting among nurses (Galanis et al., 2023e, 2023a). The QQS takes values from 1 to 5 with higher values indicate higher levels of quiet quitting.

The Single Item Burnout Measure: Additionally, we used the single item burnout measure to measure job burnout in nurses (Galanis et al., 2023b; Hansen & Pit, 2016). The single item burnout measure takes values from 0 to 10 with higher values indicate higher levels of job burnout.

Ethical considerations: We applied the guidelines of the Declaration of Helsinki to perform this study (World Medical Association, 2013). Additionally, the study protocol was approved by the Ethics Committee of Faculty of Nursing, National and Kapodistrian University of Athens (reference number; 451, June 09 2023).

Statistical analysis: We calculated intraclass correlation coefficients to compare scores on the RMRS between the two measurements in the pilot study. We performed confirmatory

factor analysis (CFA) to examine the construct validity of the RMRS (Galanis, 2013). In that case, we calculated chi-square/degree of freedom (χ^2/df); root mean square error of approximation (RMSEA); goodness of fit index (GFI); adjusted goodness of fit index (AGFI); Tucker–Lewis index (TLI); incremental fit index (IFI); normed fit index (NFI); comparative fit index (CFI). Acceptable value for χ^2/df is <5 , for RMSEA is <0.10 , and for all other measures in the CFA >0.90 (Baumgartner & Homburg, 1996; Hu & Bentler, 1998). We used the AMOS version 21 (Amos Development Corporation, 2018) to conduct the CFA. We calculated Pearson’s correlation coefficient to examine the concurrent validity of the RMRS by using MDT, QQS, and the single item burnout measure. P-values less than 0.05 were considered as statistically significant. We used the IBM SPSS 21.0 (IBM Corp. Released 2012. IBM SPSS Statistics for Windows, Version 21.0. Armonk, NY: IBM Corp.) for the analysis.

Results

Demographic characteristics

Our sample included 316 nurses. Among our nurses, 89.6% ($n=283$) were females and 10.4% ($n=33$) were males. Mean age was 34.3 years (standard deviation; 9.5). Most of nurses worked in shifts (77.5%, $n=245$).

Test-retest reliability analysis

We found that the revised “Rushton Moral Resilience Scale” had excellent reliability since all intraclass correlation coefficients in test-retest reliability analysis were higher than 0.993 and statistically significant ($p<0.001$),

(Table 1). Moreover, Cronbach’s coefficients alpha for the response to moral adversity scale, personal integrity scale, relational integrity scale, moral efficacy scale, and total scale were 0.652, 0.795, 0.678, 0.640, and 0.778 respectively. Thus, all Cronbach’s coefficients alpha were higher than the acceptable value of 0.600.

Validity analysis

We conducted confirmatory factor analysis to examine the structure of the RMRS and we found that the Greek version of the RMRS had a four-factors structure as the original version (Figure 1). All model fit indices were excellent as Table 2 shows. In particular, χ^2/df was 1.852, RMSEA was 0.052, GFI was 0.937, AGFI was 0.909, TLI was 0.914, IFI was 0.934, NFI was 0.907, and CFI was 0.933. Correlations between response to moral adversity scale, personal integrity scale, relational integrity scale, moral efficacy scale, and total scale ranged from 0.157 to 0.836 (Figure 1). Moreover, standardized regression weights ranged from 0.224 to 0.799.

Concurrent validity of the Greek version of the RMRS

Concurrent validity of the Greek version of the RMRS was exceptional since we found statistically significant correlations between the RMRS and MDT ($r = -0.28$, $p<0.001$) and QQS ($r = -0.47$, $p<0.001$). Moreover, we found statistically significant correlations between several subscales of the RMRS and MDT, QQS, and single item burnout measure. Concurrent validity of the Greek version of the RMRS is shown in Table 3.

Table 1. Intraclass correlation coefficients for the revised “Rushton Moral Resilience Scale” in test-retest study.

Scale	Intraclass correlation coefficient	95% confidence interval	P-value
Response to moral adversity	0.994	0.988 to 0.997	<0.001
Personal integrity	0.997	0.994 to 0.999	<0.001
Relational integrity	0.993	0.986 to 0.997	<0.001
Moral efficacy	0.998	0.996 to 0.999	<0.001
Total scale	0.999	0.998 to 1.000	<0.001

Table 2. Confirmatory factor analysis for the Greek version of the revised “Rushton Moral Resilience Scale”.

Model	χ^2	df	χ^2/df	RMSEA	GFI	AGFI	TLI	IFI	NFI	CFI
16 items	174.123	94	1.852	0.052	0.937	0.909	0.914	0.934	0.907	0.933

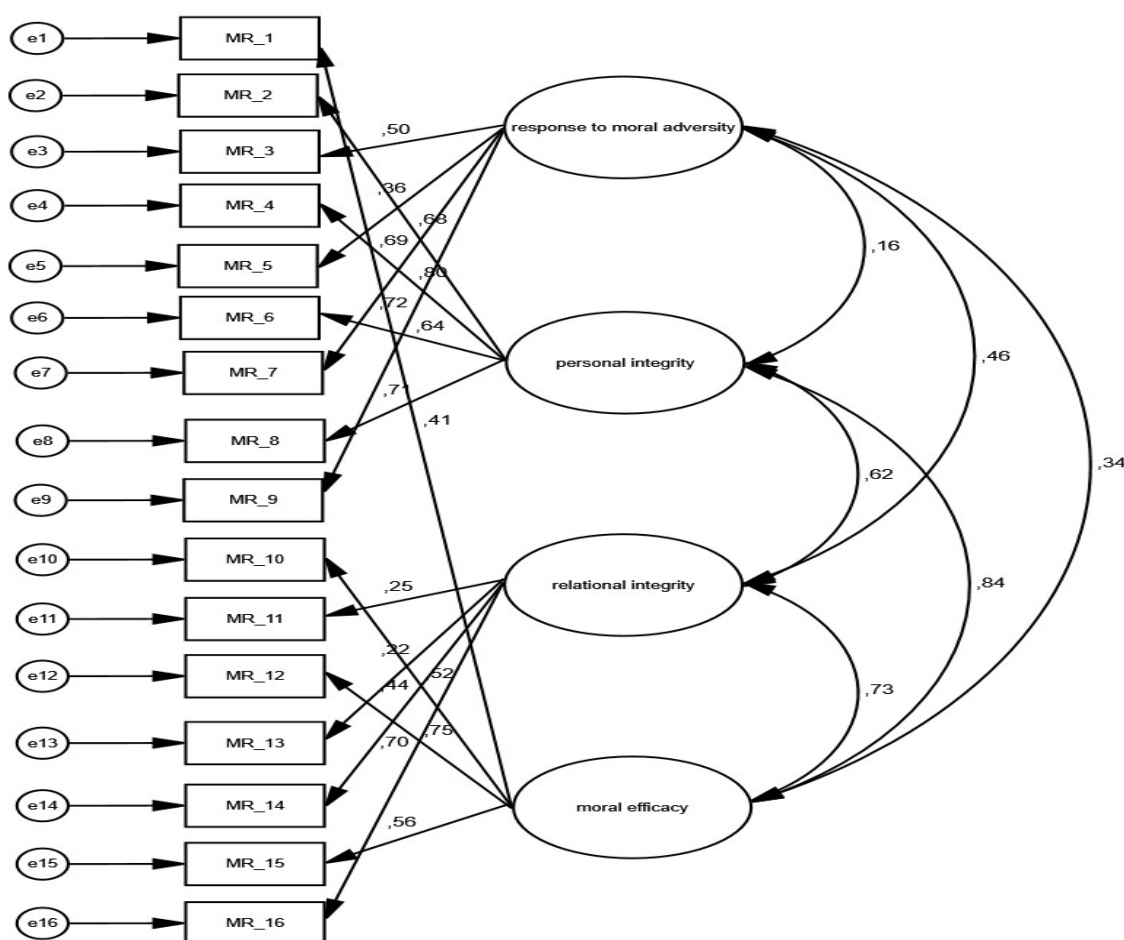


Figure 1. Confirmatory factor analysis for the Greek version of the revised “Rushton Moral Resilience Scale”.

Table 3. Concurrent validity of the Greek version of the revised “Rushton Moral Resilience Scale”.

Rushton Moral Resilience Scale	Moral Distress Thermometer		Quiet Quitting Scale		Single item burnout measure	
	Pearson's correlation coefficient	P-value	Pearson's correlation coefficient	P-value	Pearson's correlation coefficient	P-value
Response to moral adversity	-0.40	<0.001	-0.26	<0.001	-0.17	0.002
Personal integrity	-0.07	0.25	-0.30	<0.001	-0.03	0.78
Relational integrity	-0.14	0.02	-0.34	<0.001	-0.02	0.76
Moral efficacy	-0.13	0.02	-0.42	<0.001	-0.01	0.99
Total scale	-0.28	<0.001	-0.47	<0.001	-0.01	0.99

Discussion

To the best of our knowledge this is the first study that translate and validate the revised “Rushton Moral Resilience Scale” (Rushton et al., 2023) in Greek language. In particular, we validated the RMRS in a sample of nurses in Greece and we found that it is reliable and valid tool to measure moral resilience among healthcare workers.

We used confirmatory factor analysis to test the original four-factor structure of the RMRS in our sample. We found that the Greek version of the RMRS had a four-factors structure as the original version, namely response to moral adversity factor, personal integrity factor, relational integrity factor, and moral efficacy factor. A similar study with nurses in Turkey was in accordance with the

results of our confirmatory factor analysis (Kovanci & Atli Özbaş, 2023). Another study including nurses in China found a three-factors structure of the RMRS (Tian et al., 2023).

Moreover, our concurrent validity analysis confirmed the high level of validity of the RMRS. In particular, we found a negative correlation between moral resilience and moral distress. In other words, nurses with higher levels of moral resilience experienced lower moral distress. Additionally, we found a negative correlation between moral resilience and quiet quitting among nurses. Thus, increased moral resilience reduced levels of quiet quitting in our sample. Also, we found a negative correlation between moral resilience and job burnout indicating

that nurses with higher levels of moral resilience experienced lower levels of job burnout. In total, moral resilience seems to be a protective factor against work-related variables such as quiet quitting and job burnout. Literature confirms the protective relationship between moral resilience and moral distress, moral injury and job burnout (Antonsdottir et al., 2022; Rushton et al., 2022; Kovanci & Atli Özbaş, 2023).

In a similar way, we found that the RMRS shows exceptional reliability. In particular, all intraclass correlation coefficients in test-retest reliability analysis showed a strong correlation in nurses' answers during the test-retest study. Moreover, all Cronbach's coefficients alpha for the response to moral adversity factor, personal integrity factor, relational integrity factor, moral efficacy scale, and total scale were higher than the acceptable value of 0.600.

There are several limitations in our study. First, we conducted a cross-sectional with a convenience sample of nurses in Greece. Thus, we cannot generalize our results in other healthcare workers. Future research should employ samples from different jobs in a more representative way. Additionally, we used self-reported questionnaires (i.e., "Moral Distress Thermometer", "Quiet Quitting Scale" and the single item burnout measure to measure job burnout) to assess the concurrent validity of the RMRS. Thus, information bias was probable in our results. Finally, more types of validity can be examined such as convergent validity or criterion validity of the RMRS.

In conclusion, the Greek version of the revised "Rushton Moral Resilience Scale" shows very good reliability and validity.

Therefore, the revised "Rushton Moral Resilience Scale" is a valid and reliable tool to measure moral resilience in healthcare workers.

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