
Organizational identification: Validation of the Italian scale in the healthcare context

Andrea Caputo¹, Paola Gatti², Amelia Manuti³, Claudio Giovanni Cortese¹

¹ Department of Psychology, University of Turin, Italy

² Department of Psychology, University of Milano-Bicocca, Italy

³ Department of Education, Psychology, Communication, University of Bari, Italy

andrea.caputo@unito.it

✎ **ABSTRACT.** Questo studio propone la validazione della versione italiana della scala di organizational identification proposta da Mael e Ashforth (1992), adattata al contesto sanitario. L'identificazione organizzativa riguarda la percezione dei lavoratori di sentirsi uniti alla propria azienda e questo sentimento può favorire comportamenti di cittadinanza organizzativa e proteggere dalle intenzioni di turnover, aspetti cruciali soprattutto per le organizzazioni sanitarie. Lo studio ha coinvolto 1505 infermieri del settore pubblico. I risultati confermano la versione italiana come uno strumento valido e affidabile nella valutazione dell'identificazione degli infermieri con la propria azienda sanitaria. L'uso di questo strumento può contribuire al miglioramento degli indici di benessere organizzativo e di retention degli infermieri nelle aziende sanitarie.

✎ **SUMMARY.** Organizational identification is related to employees' perception of oneness with their workplace. Being identified with one's organization could promote organizational citizenship behaviors and protect from turnover, very important performance outcomes especially in healthcare organizations. Mael and Ashforth's (1992) scale is one of the most used tools in literature, and this study proposes the validation of the Italian version within the healthcare context. 1505 nurses working in public sector were involved. Confirmatory factor analyses, multigroup and invariance tests, and reliability analyses were performed. Convergent and divergent validity were tested with correlational analyses. Results confirm the Italian version as a valid and reliable tool, facilitating the evaluation of nurses' identification with their healthcare organization. This validation allows enhancing understanding of organizational dynamics within healthcare contexts, ultimately contributing to the development of efficient management strategies and to the improvement of outcomes for both staff and patients.

Keywords: Organizational identification, Validation, Healthcare context

INTRODUCTION

Several studies have explored the role played by organizational identification in shaping employees' work engagement, job satisfaction and turnover intentions or organizational citizenship (Karanika-Murray, Duncan, Pontes & Griffiths, 2015; Urbini, Chirumbolo, Caracuzzo & Callea, 2023). Organizational identification arises from the wider construct of social identification (Mael & Ashforth, 1992). Mael and Ashforth (1992) defined organizational identification as "the perception of oneness with or belongingness to an organization, where the individual defines him or herself in terms of the organization(s) in which he or she is a member" (p. 104). Organizational identification is related to social identity theory (Tajfel & Turner, 1985), since individuals tend to classify both themselves and others into various social groups, including the belongingness to specific organizations. According to the process of social identification, individual perceives themselves as a member of a specific group, could it be a football team (e.g., "we" won the match) or an organization. Moreover, organizational identification has been described as a cognitive construct, and as a relational and comparative construct since individuals define themselves in terms of their membership to a specific organization with respect to another.

Mael and Ashforth (1992) distinguished organizational identification from other comparable constructs, such as organizational commitment and professional identification. Firstly, commitment involves an individual's acceptance of the organization's goals and values, willingness to exert effort on its behalf, and desire to maintain membership. Unlike organizational identification, which entails a sense of belonging to a specific organization, commitment does not necessarily include perceiving a collective destiny with that organization. Secondly, professional identification pertains to how individuals perceive themselves embodying the prototypical traits of a certain profession (Mao, Lu, Lin & He, 2021), thus not exclusively tied to a single organization, as the profession could be practiced across various organizations.

As regards antecedents and outcomes, a meta-analytic study (Lee, Park & Koo, 2015) showed that organizational identification is significantly associated with attitudes (such as job involvement and satisfaction) and behaviors (i.e., in-role and extra-role performance). Specifically, it could be considered a predictor for general attitude and

behavior. Furthermore, it is related to a sense of pride in being part of a particular organization. Organizational studies defined organizational identification as a mediator between antecedents and outcomes or as an outcome itself (Riketta, 2005).

Identification with healthcare organizations

Healthcare organizations are a peculiar professional context, due to the high demands the workforce have to face, the high rate of turnover and the high quality of care expected (Chen, Yu, Hsu, Lin & Lou, 2013; Katrinli, Atabay, Gunay & Guneri, 2008). Specifically, nurses represent the segment of the workforce with a steadily increasing turnover rates (Hayes et al., 2012). In Italy, between 2010 and 2019, there has been a rising detrimental turnover trend, with nurses not being adequately replaced (FNOPI, 2022; https://www.fnopi.it/wp-content/uploads/2022/10/AGENAS-personale_ssn_2022.pdf). Among the constructs that can protect nurses from exhaustion, organizational identification plays an important role in increasing nurses' performance and good contextual resources, since it is related to employees' perception of oneness with their organization (Katrinli et al., 2008). Studies within the healthcare context highlight that organizational identification could be affected by the quality of the relationship between nurses and their nurse leaders, and protect from turnover intentions (Katrinli et al., 2008). Thus, revisiting psychometrical properties of Organizational Identification Scale to highlight its inherent value is important, also to improve research within this specific target population.

Quantitative studies have employed a range of scales to evaluate organizational identification, yet the most prevalent in organizational research is the scale developed by Mael and Ashforth (1992), as highlighted by prior meta-analytic research (Riketta, 2005). Despite this, scale validation studies are surprisingly scarce, and the few that do exist tend to focus on generic organizations rather than being tailored to specific contexts. Indeed, in Italy, the psychometric properties of Mael and Ashforth's scale were tested on a sample of employees from micro and little organizations (Manuti & Bosco, 2012). This gap in the literature suggests a need for more nuanced validation efforts that consider the unique characteristics and dynamics of different organizational environments.

The present study

The present study aims to validate the Italian version of Mael and Ashforth's *Organizational Identification Scale* within a sample of nurses working in public sector hospitals. Thus, the process of developing the Italian version of the original *Organizational Identification Scale* was realized starting from the original items in Mael and Ashforth's scale (1992) to include in the wording of each item the specific mention of the healthcare organization in which the participant works. We then tested measurement invariance and performed a multigroup analysis. Additionally, we explored the convergent and divergent validity of the instrument to ensure its robustness and applicability in this specific context.

METHOD

Participants and procedure

Italian nurses and nurse leaders employed in 4 major hospitals belonging to the same healthcare organization in northwestern Italy participated in this study by completing paper and pencil questionnaires. This research came from a broader project titled "Feeling like a leader", which aimed to explore the dynamics of leadership relationships between nurse leaders and the nurses in their respective working groups. To safeguard participants' privacy, alphanumeric codes were generated to match nurse leaders with their respective follower groups, while ensuring confidentiality. Participants were briefed on the process through invitation letters and accompanying information sheets. Data collection started after approval from the Director of the Directorate of Health Professions and the nurse leaders of the targeted organization, as well as clearance from the Bio-Ethics Committee of the University of Turin (Approval letter, Prot. No. 55631, dated 01.02.2019). Nurse leaders received email invitations along with detailed research information. Upon their agreement to participate, paper questionnaires were personally delivered and collected by administrators. The study included the entire population of nurses from the targeted organizations, totaling 2664 individuals. A criterion for inclusion was the completion of at least 61% of all questionnaire items. Setting a threshold for the minimum percentage of completed items necessary for a respondent's data to be included in the analysis is a common practice. This

threshold can vary, but commonly used benchmarks range from 60% to 80% (e.g., Hox & De Leeuw, 1994). We selected a threshold slightly above the minimum to avoid employing an overly rigid and restrictive criterion. Following data cleaning, the final sample comprised 1550 nurses, representing 58.2% of the total population. The sample consists of 82.6% of women and 17.4% of men, with an average age of 43.4 years old ($SD = 9.2$). Regarding departmental distribution, 35.3% of nurses worked in medicine wards, 29.6% in surgery, 15% in emergency, and 20.1% in pediatrics. On average, nurses had been employed in their current hospital, i.e., tenure in the hospital, for 17.5 years ($SD = 9.9$), with a tenure within their specific ward averaging 11.5 years ($SD = 8.3$).

Measures

- *Organizational identification* was measured with the Italian version of Mael and Ashforth (1992) scale. The development of the Italian version followed a back-translation procedure (Brislin, 1970), starting from the original items in Mael and Ashforth's scale (1992). Instead of referring to a specific school (as the original authors did) or a specific firm labeled as "the organisation I work for" (as the Italian authors did in their version for generic organizations; Manuti & Bosco, 2012, p. 897), we tailored each item to specifically mention the name of the healthcare organization where the nurses work (see Appendix). This approach references the larger healthcare organization, which may encompass multiple hospitals, while still referring to the same overall entity, as healthcare organizations typically consist of various specialized hospitals. Initially, the original 6 items from Mael and Ashforth's (1992) scale were translated into Italian by the authors and then blindly translated back into English by a native speaker. Any minor discrepancies from the original wording were addressed to ensure the items were easily comprehensible for participants, who were asked to answer using a 6-point Likert scale (from 1 = Strongly disagree to 6 = Strongly agree), in order to avoid people choosing the central point, forcing them to take sides (Preston & Colman, 2000). Appendix shows items in both English and Italian versions.
- *Organizational tenure* was assessed with a single item asking participants "How many years have you been working at this hospital?"

- *Professional identification* was assessed with the adapted version of the 4-item scale by Ostermeier (2018), with a 5-point Likert scale (from 1 = Strongly disagree to 5 = Strongly agree). An example item is “My profession has a clear and unique vision”. McDonald’s $\omega = .82$.
- *Job satisfaction* was assessed with a 5-item scale from the *Copenhagen Psychosocial Questionnaire (COPSOQ)*; Pejtersen et al., 2010), with a 5-point Likert scale (from 1 = Strongly disagree to 7 = Strongly agree). An example item is “How satisfied are you with your work as a whole, taking into consideration each element?”. McDonald’s $\omega = .87$.
- *Work engagement* was assessed with a 9-item scale, i.e. the short version of the *Utrecht Work Engagement Scale (UWES)*; Schaufeli et al., 2006) in its Italian validated version (Balducci, Fraccaroli & Schaufeli, 2010), with a 7-point Likert scale (from 0 = Never to 6 = Always). An example item is “At my work, I am bursting with energy”. McDonald’s $\omega = .91$.
- *Emotional exhaustion* was assessed with an 8-item scale from Oldenburg Burnout Inventory (*OLBI*; Demerouti, Mostert & Bakker, 2010), with a 4-point Likert scale (from 1 = Strongly disagree to 4 = Strongly agree). An example item is “During my work, I often feel emotionally drained”. McDonald’s $\omega = .77$.

Data analyses

Analyses were conducted using SPSS for descriptive statistics, reliability, and correlational analyses, and Mplus for confirmatory factor, multigroup, and invariance analyses. Univariate and multivariate skewness and kurtosis were examined to assess the distributional characteristics. For multivariate normality assessment, Mardia’s coefficients were computed using a web tool available at the following link: <https://webpower.psychstat.org/models/kurtosis>.

Confirmatory factor analyses (CFAs) employing the maximum likelihood (ML) estimator were conducted to assess the model fit of the *Organizational Identification Scale*. The adequacy of model fit was evaluated using established thresholds for favorable model fit: Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI) values $>.90/.95$, Root Mean Square Error of Approximation (RMSEA) values $<.05/.08$, and Standardized Root Mean Square Residual (SRMR) values $<.08$ (Little, 2013).

RESULTS

Descriptive statistics and reliability

Regarding univariate skewness, as detailed in Table 1, the six items measuring organizational identification demonstrated a normal distribution, with skewness values falling below ± 2 and kurtosis values below ± 7 .

The results indicated a multivariate skewness coefficient of $.27$ ($p < .001$) and a multivariate kurtosis coefficient of 2.72 ($p < .001$). Given that the items related to organizational identification exhibited Mardia’s coefficients below ± 3 (Bandalos & Finney, 2010), they can be considered to conform to a normally distributed data pattern.

Reliability analyses evaluate the internal consistency of the scale and explore to what degree the scores are free from random measurement error. Cronbach’s α , McDonald’s ω , the average variance extracted (AVE) and the composite reliability (CR) were assessed (Fornell & Larcker, 1981). Acceptable values are above $.70$ for both Cronbach’s α , McDonald’s ω and CR, and above $.50$ for AVE; moreover, AVE should be smaller than CR (Hair, Black, Babin & Anderson, 2010). Table 2 shows reliability indices of the *Organizational Identification Scale*. All scores above the thresholds indicates a good reliability of the scale.

Confirmatory factor analysis, multigroup, and invariance tests

The CFA on the Italian translation of the *Organizational Commitment Scale* showed the following model fit: $\chi^2_{(9)} = 235.501$ ($p < .001$); CFI = $.95$; TLI = $.91$; RMSEA = $.13$ [$.116; .145$]; SRMR = $.04$. Table 3 shows standardized factor loadings.

Subsequently, we examined measurement invariance by comparing two subsamples based on organizational tenure. To accomplish this, the organizational tenure variable was dichotomized using the median, resulting in two groups: nurses with tenures up to 17 years and those with tenures ranging from 18 to 43 years. First, we conducted a CFA for each of the two groups separately. Subsequently, we explored measurement invariance according to the four levels delineated in the literature (Meredith, 1993). The first level is configural invariance, which assessed a model with no invariance constraints, serving as a baseline comparison.

Table 1 – Descriptive statistics of Organizational Identification Scale, Italian version

Item	Mean	SD	Skewness		Kurtosis	
			Stats	SE	Stats	SE
Orgid_1	3.46	1.550	-.113	.064	-1.063	.127
Orgid_2	3.64	1.445	-.264	.063	-.824	.127
Orgid_3	4.43	1.433	-.849	.063	-.086	.127
Orgid_4	3.92	1.509	-.466	.064	-.753	.127
Orgid_5	4.07	1.493	-.551	.064	-.665	.127
Orgid_6	4.10	1.514	-.525	.064	-.685	.127

Legenda. SD = Standard deviation; SE = Standard error.

Table 2 – Reliability indices of Organizational Identification Scale, Italian version

	Cronbach's α	McDonald's ω	AVE	CR
Organizational identification	.88	.88	.56	.88

Legenda. AVE = Average variance extracted; CR = Composite reliability.

Table 3 – Factor loadings from CFA (ML estimator)

Items	Standardized estimates	t-value	p
Orgid_1	.70	46.92	<.001
Orgid_2	.64	36.91	<.001
Orgid_3	.73	51.69	<.001
Orgid_4	.84	84.92	<.001
Orgid_5	.86	94.74	<.001
Orgid_6	.68	42.78	<.001

The second level, weak invariance, tested the equivalence of factor loadings across groups. Achieving weak invariance suggests that factor loadings of items are consistent across groups. Moving on, the third level, strong invariance, entailed constraining item intercepts. If attained, this level permits comparisons of means across groups. Finally, the fourth level, strict invariance, was examined for invariance in error variances. Table 4 shows the comparisons of CFAs for the two separate groups and of the models for measurement invariance.

Results of the CFA performed in both groups divided by tenure (i.e., group 1 = working up to 17 years in the organization, and group 2 = working between 18 and 43 years in the organization) indicated that the models exhibited acceptable fit to the data in both samples.

Regarding the invariance test, the configural model demonstrated a good fit to the data, implying that the model adequately captured the data from both samples without imposing additional invariance constraints. Then, metrical (weak) model invariance was also supported, since the difference in fit between the weak and configural models was not statistically significant. Also, the scalar (strong) model displayed a good fit compared to the weak model. Finally, the strict model exhibited a slightly worse fit compared to the scalar (strong) model based on the chi-squared difference. However, the changes in RMSEA and CFI were below the recommended thresholds of .015 and .01, thereby supporting strong measurement invariance and enabling comparisons of means between the two samples.

Convergent and divergent validity

Convergent validity assesses the degree to which a measure correlates positively with other measures that it theoretically should correlate with, thereby confirming expected relationships between related constructs. Conversely, divergent validity ensures that the measure is distinct from unrelated constructs and accurately captures the intended construct without measuring unintended aspects. Convergent and divergent validity were assessed correlating organizational identification with the organizational tenure in hospital, constructs related to other kind of identification (i.e. professional identification), and some classical organizational outcomes (i.e. job satisfaction,

work engagement, emotional exhaustion). Table 5 shows results of the correlation analysis.

Results of correlations table confirms the relatedness of organizational identification with organizational tenure, in line with literature (Chen et al., 2013), it is also positively related to constructs of identification and group cohesiveness, furthermore it shows convergent validity with some organizational wellbeing outcomes, while showing divergent validity with emotional exhaustion.

DISCUSSION

This study highlights the effectiveness of the Italian version of the *Organizational Identification Scale* in measuring how nurses identify with their employing healthcare organization. This tool holds significant potential for advancing research within the healthcare sector. By assessing organizational identification, which is often investigated as a moderator or mediator in research frameworks, it provides deeper insights into organizational dynamics that influence both performance and wellbeing (Lee et al., 2015).

Limitation and future studies

One initial limitation concerns the cross-sectional design of the study and reliance on self-reported data. Moreover, this study is focused only on nurses. Additionally, nurses who participated in the study were employed in hospitals located within the same city and only in a public organization. Therefore, achieving a robust definition of the constructs will necessitate integration with additional investigations conducted nationwide and involving nurses working in the private sector. Future studies could ensure the reliability of the instrument with multigroup analyses referring to a sample of nurses working in private and public organizations; also, future research could use this tool to evaluate the extent to which nurses would identify with their own healthcare organization (whether public or private) from a longitudinal perspective, to assess changes of identification over time, and connecting this evidence to contextual events, also in relation to significant outcomes for nurses, such as job satisfaction (Gatti et al., 2020). Finally, future validation efforts could involve a broader range of healthcare staff.

Table 4 – Results of CFA and multigroup invariance tests (ML estimator)

Model	χ^2	df	p	$\Delta\chi^2$	Δdf	p	CFI	TLI	RMSEA (90% CI)	SRMR	ΔCFI
<i>Single groups models</i>											
Tenure 1*	104.169	9	<.001				.961	.935	.122 [.101; .143]	.033	
Tenure 2**	137.976	9	<.001				.925	.876	.144 [.123; .165]	.043	
<i>Multiple groups invariance</i>											
Configural	242.146	18	<.001				.946	.910	.133 [.118; .148]	.038	
Metric (weak)	250.200	23	<.001	8.05	5	.153	.945	.929	.118 [.105; .132]	.045	.001
Scalar (strong)	286.111	29	<.001	35.91	6	<.001	.938	.936	.112 [.101; .124]	.066	.007
Strict	323.986	35	<.001	323.99	12	<.001	.931	.940	.108 [.098; .119]	.059	.007

Legenda. df = degree of freedom; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; RMSEA = Root Mean Square Error of Approximation; SRMR = Standardized Root Mean Square Residual.

Note. * Organizational tenure up to 17 years, $N = 724$; ** Organizational tenure between 18 and 43 years, $N = 699$.

Table 5 – Correlation table

	1.	2.	3.	4.	5.
1. Organizational identification	–				
2. Organizational tenure	.136***	–			
3. Professional identification	.177***	.012	–		
4. Job Satisfaction	.312***	.097***	.136***	–	
5. Work engagement	.372***	.035	.193***	.581***	–
6. Emotional exhaustion	-.143***	-.003	-.140***	-.460***	-.474***

*** $p < .001$

CONCLUSION

This study contributes to the existing literature by validating the efficacy of the Italian version of the *Organizational Identification Scale* among nurses, a workforce that interacts closely with patients and contends with numerous daily demands. Given the significance of organizational identification, human resource management

within healthcare institutions, including managers such as nurse managers or head physicians, should prioritize efforts to enhance it. Therefore, organizational wellbeing and citizenship behaviors among nurses could be promoted, thereby improving both the employer brand to strengthen employee retention (Caputo, Molino, Cerato & Cortese, 2023) and the quality of patient care, mitigating challenges associated with workforce turnover (Lee et al., 2015).

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APPENDIX

English and Italian version of Organizational Identification Scale

English version (Mael & Ashforth, 1992)	Italian version
When someone criticizes (name of school), it feels like a personal insult	Quando qualcuno critica l'azienda ospedaliera in cui lavoro, mi sento insultato personalmente
I am very interested in what others think about (name of school)	Sono molto interessato a sapere quello che gli altri pensano dell'azienda ospedaliera in cui lavoro
When I talk about this school, I usually say 'we' rather than 'they'	Quando parlo dell'azienda ospedaliera in cui lavoro di solito dico "noi" piuttosto che "loro"
This school's successes are my successes	I successi dell'azienda ospedaliera in cui lavoro sono i miei successi
When someone praises this school, it feels like a personal compliment	Quando qualcuno elogia l'azienda ospedaliera in cui lavoro, è come se mi facesse un complimento personale
If a story in the media criticized the school, I would feel embarrassed	Se una notizia nei mass-media criticasse l'azienda ospedaliera in cui lavoro, mi sentirei a disagio