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# MULTIDIMENSIONAL AND TEMPORAL MATTERING: THE ITALIAN ADAPTATION OF THE MATTERING IN DOMAINS OF LIFE SCALE

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Mattering in Domains of Life Scale (MIDLS) is a 27 items scale to measure people's perception of mattering in terms of feeling valued by others and adding value to others. The scale considers mattering as a multidimensional construct, across several life domains such as personal, interpersonal, occupational, and community. Each MIDLS domain is measured on a temporal continuum. A national sample of 3180 Italian people, reduced to a final sample of 2600 cases following data cleaning, was involved. Confirmatory factor analysis (CFA), within the framework of covariance-based structural equation modelling (CB-SEM), revealed that the best structure of Italian MIDLS is a bifactor solution, with a general mattering factor and eight domain-specific factors. High standardized factor loadings, along with high levels of omega hierarchical for the general factor and omegas for the domain-specific factors show that the Italian MIDLS presents optimal psychometric proprieties in terms of dimensionality of the scale as well as reliability.

Keywords: Mattering; Feeling valued; Adding value; Worthiness; Multidimensional scale.

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Feeling important, significant, and valuable is a fundamental condition for individuals' health and well-being (DeForge & Barclay, 1997; Flett, 2018, 2022; Prilleltensky & Prilleltensky, 2021; Rosenberg & McCullough, 1981) throughout the life cycle (Rayle, 2005). The construct of mattering, which was first introduced by Rosenberg and McCullough (1981), pertains in a broader sense to an individual's tendency to value oneself as meaningful to others (Marshall, 2001) and the world (Elliott et al., 2004). In the first conceptualization Rosenberg and McCullough (1981) identified three components of mattering: the sense that other people depend on us; the perception that other people regard us as important; and the realization that other people are actively paying attention to us.


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Even if the construct is associated with and overlaps other concepts such as sense of belonging and self-esteem, as Cha (2016) and Flett et al. (2019) underlined, mattering is an independent variable. Several scholars introduced mattering as a predictor of the psychological well-being of adolescents (Marshall, 2004), of university students (Flett et al., 2019; Foo & Prihadi, 2021), of minority groups (Matera et al., 2021). Moreover, research during the COVID-19 emergency confirms the role of mattering as a predictor of well-being (Krok & Zarzycka, 2020).

The perception of being valuable has been conceptualized with respect to two specific aspects: "interpersonal mattering" (Elliott, 2009; Marshall, 2001; Nash et al., 2015; Rosenberg & McCullough, 1981; Schenck et al., 2009; Wu & Kim, 2009) and "societal mattering" (DeForge et al., 2008; Dixon et al., 2009; Elliott et al., 2004; Schieman & Taylor, 2001). Interpersonal mattering refers to the individual perceptions of how important one is to others, particularly one's close interpersonal network such as parents and friends (DeForge & Barclay, 1997; Rosenberg & McCullough, 1981). Societal mattering, on the other hand, concerns the perception of being meaningful and of playing a significant role in shaping the world (DeForge & Barclay, 1997; Rosenberg, 1985), "the feeling of making a difference in the broader scheme of sociopolitical events — of feeling that one's thoughts and actions have an impact, create ripples, are felt" (Rosenberg, 1985, p. 215). The link between mattering and psychological functioning is widely acknowledged in the literature. In fact, mattering correlates positively to well-being and positive affective states (Elliott et al., 2005; Jung & Heppner, 2017; Rosenberg & McCullough, 1981).

Recently, Isaac Prilleltensky (2014) developed a new conceptualization of mattering, which rests on two distinct tenets: recognition and impact. Recognition refers to the sense of being of value and important to others. Impact, on the other hand, is related to individual agency and refers to the feeling of being able to make a difference in the world and on the people who depend on us. Mattering, then, can be considered an ideal state of affairs, formed by two fundamental experiences: feeling valued (recognition) and adding value (impact) (Prilleltensky, 2014, 2020).

Specifically, adding value is an important component of mattering, already considered in previous conceptualizations of mattering (Elliott et al., 2004; Reece et al., 2019). However, adding value is more explicit and detailed in the theoretical proposal of mattering given by Prilleltensky; the author assumed that mattering is the right balance between feeling valued and adding value. Moreover, Scarpa et al. (2022) suggested that adding value is a critical component in Western society, where the cultural tendency to neglect adding value is spread.

Prilleltensky's model of mattering is built within an ecological and contextual perspective that deepened personal, interpersonal, occupational, and community levels. His conceptualization assumes that an individual can reach different levels of mattering in the four contexts included.

This means that this construct extends to several life domains, such as personal, interpersonal, occupational, and community. In Prilleltensky's model, balancing "feeling valued" with the sense of "adding value" across the several life domains is fundamental to achieve an optimal sense of mattering. Prilleltensky's vision of mattering has recently been operationalized by Scarpa and colleagues (2022) in the Mattering in Domains of Life Scale (MIDLS). The MIDLS is an instrument that measures a person's perception of mattering in terms of adding value and feeling valued across four life domains (personal, interpersonal, community, occupational), as well as an overall perception, and across three time periods: past, present, and future. The domains allow to create profiles of how individuals perceive their mattering in key areas of life that means also giving, from a pratical point of view, useful indications for the intervention. This ecological lens was applied by Prilleltensky et al. (2015) also to measure and intevene in the perception of well-being.

The Italian context has not been indifferent to the exploration and promotion of mattering. However, the primary instrument to measure the sense of mattering in Italian people was the Mattering to Others Questionnaire (MTOQ; Marshall, 2001), which was adapted by Matera et al. (2020) and applied to several studies (Matera et al., 2020, 2021). The tool assesses the global perceived mattering to specific others (mother, father, and friends). However, this instrument measures only the perception of being valued by others belonging to own interpersonal network; not of adding value. Furthermore, unlike the MIDLS, it provides neither a multidimensional and ecological prespective nor temporal perspectives on the construct.

In an attempt to extend the range of available tools for the measurement of mattering and to offer a more comprehensive instrument to be used by the Italian scientific community, this study introduces the Italian adaption of the Mattering in Domains of Life Scale (MIDLS). The study was part of a larger project, which examined the relation between justice, mattering, and well-being (see Esposito et al., 2022a, 2022b).

## Method

### Participants and Procedure

The first step for adapting the MIDLS to the Italian context was to translate and back-translate (Brislin, 1970) the original instrument into the Italian language and vice versa, in order to establish equivalence of meanings. Two independent researchers were in charge of this process, which was also overseen by one of the authors of this paper. Whenever disagreements or differences were found between the two translated versions, they were discussed and resolved by the whole research team. Once the process of language adaptation had been completed, the team started data collection, which was carried out in two phases: first with a pilot sample (April 2020) and later with a national sample (from May to November 2020).

The pilot study was conducted to test the language adaptation and preliminary psychometric properties of the scale, including factorial and face validity. This also allowed the research team to make any necessary changes to the scale, before testing it on a national sample. The pilot study collected a convenience sample of 291 university students (76% females and 24% males) from the University of Naples Federico II. This group of participants was approached by one of the researchers during class hours. Participants were asked to fill out an online questionnaire, which was hosted on the SurveyMonkey platform. Following the results of the pilot study, a national study was launched to test additional psychometric properties of the scale, including dimensionality of the scale, reliability, and comparisons to alternative models.

Since our aim was to obtain answers in all Italian regions, we decided to use the snowball sampling technique. Compared to other strategies for finding participants, this technique makes it possible to reach populations that are difficult to involve in research (Sharma, 2017), due to delicate issues or lack of contact with the target of interest. In our case, it would have been difficult to disseminate the questionnaire in the various Italian regions, using only the direct contacts of the research team. So, we chose to start with the university students of our region and then ask them to extend the questionnaire to their contacts in all of the other Italian regions.

For this purpose, a group of postgraduate students in psychology was trained in computer-assisted survey information collection (CASIC; Baker, 1998). Once trained, the students were asked to administer the questionnaire online among their personal network of contacts, which was formed primarily of people living across the country. Through this snowball sampling technique, a total of 3180 responses were collected. Data cleaning was applied by deleting those cases that met the following exclusion criteria: a) people

who did not consent to the use of their personal data; b) people under 18 years of age or cases in which age was not reported; c) people who did not live in Italy at the time of the survey or whose place of residence had not been reported; d) cases with more than 80% of missing data. Following data cleaning, the final sample was reduced to 2600 cases (61% females and 39% males), with a mean age of 29.56 years (*SD* = 12.63). This sample included participants from all Italian regions, of whom 19% were from the South, 45% from the Center, and 36% from the North of Italy. Demographic information about the pilot and national sample is reported in Table 1. The study protocol was approved by the Ethics Committee of the University of Naples Federico II.

TABLE 1
Demographic characteristics of the pilot sample and of the national sample

| | Pilot sample (university students) *N* = 291 | National sample (Italian citizens) *N* = 2600 |
|---|---|---|
| Age | *M* = 26.53 (*SD* = 12.53) | *M* = 29.56 (*SD* = 12.63) |
| | *N* (%) | *N* (%) |
| Sex | | |
| Female | 221 (76%) | 1586 (61%) |
| Male | 70 (24%) | 1014 (39%) |
| Marital status | | |
| Single | 131 (45%) | 1066 (41%) |
| With partner | 113 (39%) | 962 (37%) |
| Married | 47 (16%) | 468 (18%) |
| Separated/Divorced | 0 (0%) | 78 (3%) |
| Widower | 0 (0%) | 13 (0.5%) |
| Other marital status | | 13 (0.5%) |
| Employment status | | |
| Student | 291 (100%) | 1222 (47%) |
| Employee | N.A. | 676 (26%) |
| Self employed | N.A. | 208 (8%) |
| Unemployed | N.A. | 364 (14%) |
| Other employment status | N.A. | 130 (5%) |
| Territorial area | | |
| South | 279 (96%) | 494 (19%) |
| Center | 9 (3%) | 1170 (45%) |
| North | 3 (1%) | 936 (36%) |

## Measures

The Italian adaptation of the Mattering in Domains of Life Scale (MIDLS) was used in both the pilot and national study. The original MIDLS (Scarpa et al., 2022) is composed of 27 items, 24 items of which measure a person's subjective experience of mattering in terms of feeling valued by self and others and adding value to self and others. Both aspects of mattering are measured across four life domains, namely personal, interpersonal, occupational, and community. The remaining three items account for an overall mattering domain. As a note of caution, the overall mattering domain should not be confused with the general mattering factor tested in the bifactor model. Whereas the former accounts for the variability in only three

items of the scale (i.e., overall mattering present, past, and future), the latter accounts for the variability in the 24 items accounting feeling valued and adding value.

Participants are asked to rate each domain in relation to three time points: present, past, and future. For each item, participants are asked to evaluate their level of mattering on a Cantril scale ranging from 0 (*the minimum*) to 10 (*the maximum*).[1]

## Data Analysis

Data were analyzed within the framework of a covariance-based structural equations model (CB-SEM; Bentler & Yuan, 1999), by means of the Mplus 8.0 software. Results from Mardia's test revealed a clear violation of multivariate normality in the pilot sample, in terms of skewness ($M$ = 74.63, $SD$ = 2.044, $p$ < .001) and kurtosis ($M$ = 777.91, $SD$ = 4.26, $p$ < .001). Similar results were found in the national sample in terms of multivariate nonnormal skewness ($M$ = 8.44, $SD$ = .18, $p$ < .001) and kurtosis ($M$ = 782.52, $SD$ = 1.49, $p$ < .001). Consequently, robust maximum likelihood (MLR) was used as the main estimator.

Missing values were treated with listwise deletion. It is worth reporting that, after data cleaning, the final sample of 2600 cases did not present any missing data. Power analysis based on RMSEA (MacCallum et al., 1996) shows that the final sample reached a power of 1 in every model we tested; therefore, we can be confident that our results did not incur a Type II error. Lastly, high and significant correlations were found across all items.

Based on the original structure of the MIDLS, confirmatory factor analysis (CFA) was used to test whether a bifactor model could best fit the data. For goodness-of-fit indices, we referred to the established guidelines proposed by Hu and Bentler (1999): root-mean-square error of approximation (RMSEA) ≤ .05; comparative fit index (CFI) and Tucker-Lewis index (TLI) ≥ .95; and standardized root-mean-square residual (SRMR) ≤ .08. We included information about chi-square test, but we did not rely on its significance given its high sensitivity to large sample sizes (Bentler & Bonnett, 1980; Fornell & Larcker, 1981). Lastly, the fit of the model was assessed by an inspection of the residual correlation matrix, which according to Kline (2016), should not show any absolute correlation residual >.10.

Omega hierarchical coefficients ($\omega_H$) for the general factor and omega$_s$ ($\omega_S$) for the domain-specific factors were used for model-based reliability testing. The $\omega_H$ of the general factor reflects "the proportion of total score variance that can be attributed to a single common factor (omegaH)" (Reise et al., 2013a, p. 133). The $\omega_S$ of domain-specific factors, on the other hand, evaluates the proportion of variance attributable to a single domain-specific factor, after having considered the general factor. Although there are no clear cut-off points, values of $\omega_H$ and $\omega_S$ higher than .7 should indicate acceptable level of reliability (Reise et al., 2013b). Item-level reliability was assessed through standardized factor loadings and their corresponding interitem reliability values ($R^2$), which represent the predicted value of the general and domain-specific factors relative to each item of MIDLS.

To test for the unidimensionality of the proposed scale, that is, the simultaneous presence of a multidimensional and unidimensional structure, we used the percentage of uncontaminated correlations (PUC), explained common variance (ECV), and $\omega_H$ (Rodriguez et al., 2016). Whilst $\omega_H$ has been explained above, PUC represents how much the general factor affects the proportion of total number of item correlation coefficients, and ECV is computed as the ratio of common variance explained by the general factor to the common variance explained by all factors (Liu et al., 2022).

## RESULTS

### Validity and Reliability Results

#### *Pilot Study*

Based on the original validated version of the MIDLS (Scarpa et al., 2022), we used the pilot study to test the same model with a bifactorial structure in which the observed variables loaded simultaneously on the general factor "mattering" (MAT), and four domain-specific factors (i.e., personal, interpersonal, community, and occupational), each of which measures mattering in terms of both feeling valued and adding value, for a total of eight subdomains. The last domain-specific factor, namely "overall mattering," measures a general account of a person's feeling of mattering, and therefore it is not divided into feeling valued and adding value, like the other four domains of mattering.

However, this model did not show convergence. Therefore, a decision was made to modify it through a gradual insertion of the hypothesized relationship between observed and latent variables. In this way we were able to find out that the factor preventing convergence was overall mattering. We therefore deleted this domain-specific factor and allowed its three congeneric items (i.e., present, past, and future overall mattering) to load only on the general mattering factor. Figure 1 shows the result of our changes in a graphic format. Following this change, the model showed good fit to the data, $\chi^2(216) = 369.95$, $p < .01$; RMSEA = .049 [.041, .058]; CFI = .970; TLI = .952; SRMR = .041.

Furthermore, the model showed significant factor loadings (λ) and adequate interitem reliability values ($R^2$) for all items (see Table 2). In the pilot study, standardized factor loads ranged from λ = .47 ($R^2$ = .56) for past personal mattering-adding value to λ = .89 ($R^2$ = .97) for present community mattering-feeling valued for the domain-specific factors, and from λ = .31 ($R^2$ = .43) for past occupational mattering-feeling valued to λ = .97 ($R^2$ = .95) for present overall mattering for the general factor.

Lastly, the analysis of the pilot data was followed by the collection of students' feedback regarding the clarity of the instrument, that participants understood well all the items of the scale and found no particular difficulty in completing the instrument. These results offered evidence in support of the face validity of the instrument. Additionally, as we shall see, findings showed promising psychometric properties in terms of reliability and factorial validity. These results prompted the research team to proceed with the collection of a national sample.

#### *National Study*

Following the promising result of the pilot study, the data from the national study were used to further test the reliability and factorial validity of the MIDLS. The first model tested with the national sample was the modified version of the bifactor model obtained from the pilot study (see Figure 1). This model presented excellent model fit indices, $\chi^2(195) = 341.69$, $p < .01$; RMSEA = .017 [.014, .020]; CFI = .996; TLI = .992; SRMR = .020, confirming the hypothesis that a bifactor model could be the best structure to apply to the data. Additionally, no correlation of residuals exceeded the value of .1.

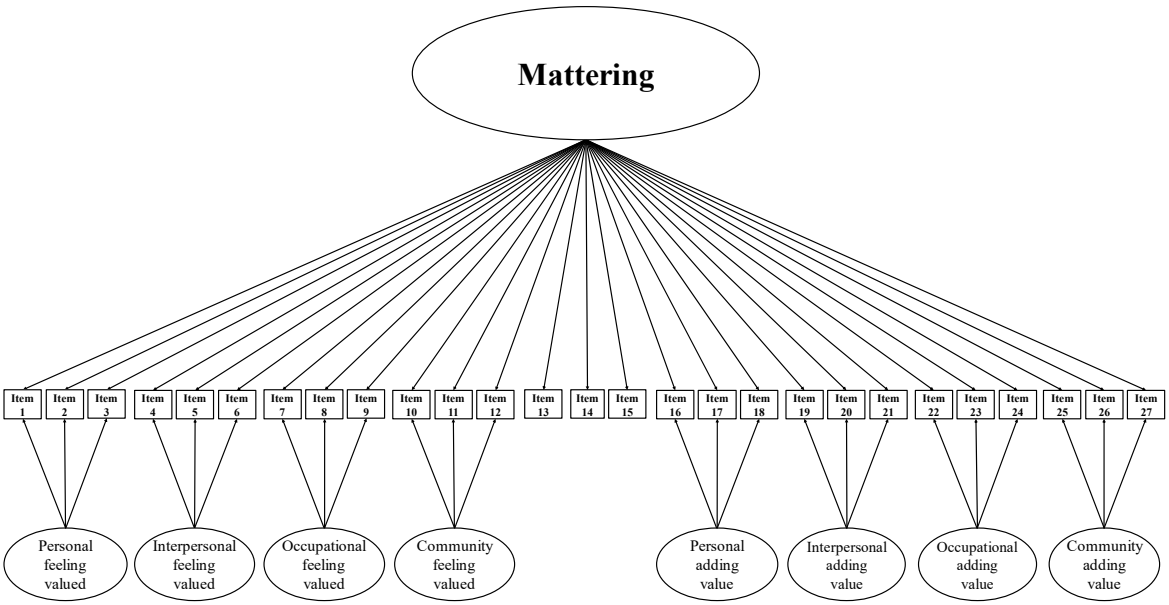


FIGURE 1
Model obtained after the changes made to the original structure

*Note.* Items 13, 14, and 15 shown in the Figure are the present, past, and future overall mattering items.

TABLE 2
Factor loadings and interitem reliability ($R^2$) of bifactorial model in the pilot study

| Types | Domains | Time | λ | λ | λ | λ | λ | λ | λ | λ | λ | ($R^2$) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Feeling valued | Personal | Present | .76 | | | | | | | | .62 | .96 |
| | | Past | .55 | | | | | | | | .40 | .46 |
| | | Future | .60 | | | | | | | | .59 | .71 |
| | Interpersonal | Present | | .76 | | | | | | | .57 | .90 |
| | | Past | | .58 | | | | | | | .43 | .51 |
| | | Future | | .68 | | | | | | | .58 | .75 |
| | Occupational | Present | | | .80 | | | | | | .47 | .86 |
| | | Past | | | .58 | | | | | | .31 | .43 |
| | | Future | | | .68 | | | | | | .50 | .71 |
| | Community | Present | | | | .89 | | | | | .41 | .97 |
| | | Past | | | | .82 | | | | | .42 | .84 |
| | | Future | | | | .81 | | | | | .44 | .85 |
| Adding value | Personal | Present | | | | | .74 | | | | .65 | .97 |
| | | Past | | | | | .47 | | | | .58 | .56 |
| | | Future | | | | | .56 | | | | .63 | .71 |
| | Interpersonal | Present | | | | | | .85 | | | .48 | .96 |
| | | Past | | | | | | .68 | | | .36 | .59 |
| | | Future | | | | | | .69 | | | .42 | .65 |
| | Occupational | Present | | | | | | | .82 | | .52 | .95 |
| | | Past | | | | | | | .59 | | .34 | .46 |
| | | Future | | | | | | | .65 | | .45 | .62 |
| | Community | Present | | | | | | | | .85 | .51 | .99 |
| | | Past | | | | | | | | .78 | .51 | .86 |
| | | Future | | | | | | | | .78 | .49 | .85 |
| Overall mattering | | Present | | | | | | | | | .97 | .95 |
| | | Past | | | | | | | | | .75 | .56 |
| | | Future | | | | | | | | | .83 | .70 |

Similar to the pilot study, the model also showed significant factor loadings (λ) and adequate interitem reliability values ($R^2$) for all items. As reported in Table 3, standardized factor loads ranged from λ = .51 ($R^2$ = .49) for past occupational mattering-adding value to λ = .85 ($R^2$ = .95) for present community mattering-feeling valued for the domain-specific factors, and from λ = .40 ($R^2$ = .52) for past occupational mattering-feeling valued to λ = .96 ($R^2$ = .92) for present overall mattering for the general factor.

Lastly, the general mattering factor showed a high value of $\omega_H$ = .83 in the pilot sample and .84 in the national sample. Additionally, high $\omega_S$ coefficients were found, ranging from .86 for occupational mattering-feeling valued to .96 for occupational mattering-adding value and community mattering-feeling valued in the pilot study, and from .85 for occupational mattering-adding value to .94 for community mattering-feeling valued in the national study. All reliability values for the national sample are reported in Table 4.

The bifactor structure of the scale was also assessed in terms of its unidimensionality. Generally speaking, the more PUC increases the less ECV tends to be important in determining the presence of unidimensionality. According to Reise and colleagues (2013b, p. 22), when PUC is higher than .80, the values of the strength indices such as $\omega_H$ and ECV are less important in predicting bias. Therefore, even if our results show that an ECV value of .41 is less than the recommended threshold of > .6, the value of $\omega_H$ = .85, which

TABLE 3
Factor loadings and interitem reliability ($R^2$) of bifactorial model in the national study

| Types | Domains | Time | λ | λ | λ | λ | λ | λ | λ | λ | λ | ($R^2$) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Feeling valued | Personal | Present | .75 | | | | | | | | .57 | .89 |
| | | Past | .56 | | | | | | | | .44 | .51 |
| | | Future | .62 | | | | | | | | .57 | .70 |
| | Interpersonal | Present | | .78 | | | | | | | .52 | .88 |
| | | Past | | .63 | | | | | | | .45 | .60 |
| | | Future | | .70 | | | | | | | .52 | .75 |
| | Occupational | Present | | | .81 | | | | | | .46 | .87 |
| | | Past | | | .60 | | | | | | .40 | .52 |
| | | Future | | | .65 | | | | | | .48 | .65 |
| | Community | Present | | | | .85 | | | | | .47 | .95 |
| | | Past | | | | .76 | | | | | .43 | .77 |
| | | Future | | | | .77 | | | | | .45 | .80 |
| Adding value | Personal | Present | | | | | .75 | | | | .63 | .95 |
| | | Past | | | | | .57 | | | | .54 | .61 |
| | | Future | | | | | .59 | | | | .60 | .70 |
| | Interpersonal | Present | | | | | | .83 | | | .50 | .94 |
| | | Past | | | | | | .67 | | | .41 | .62 |
| | | Future | | | | | | .69 | | | .48 | .71 |
| | Occupational | Present | | | | | | | .76 | | .55 | .87 |
| | | Past | | | | | | | .51 | | .48 | .49 |
| | | Future | | | | | | | .58 | | .51 | .60 |
| | Community | Present | | | | | | | | .80 | .54 | .93 |
| | | Past | | | | | | | | .69 | .49 | .71 |
| | | Future | | | | | | | | .74 | .50 | .79 |
| Overall mattering | | Present | | | | | | | | | .96 | .92 |
| | | Past | | | | | | | | | .79 | .63 |
| | | Future | | | | | | | | | .84 | .70 |

*Note.* All values are significant at .1% alpha level. λ = standardized factor loading; $R^2$ = interitem reliability values.

TABLE 4
Reliability and structural validity in the national study

| | | $\omega_H$ | $\omega_S$ | ECV | PUC |
|---|---|---|---|---|---|
| Types | Domains | | | | |
| Feeling valued | Personal | .52 | .87 | .06 | / |
| | Interpersonal | .60 | .90 | .07 | / |
| | Occupational | .61 | .86 | .07 | / |
| | Community | .71 | .94 | .09 | / |
| Adding value | Personal | .49 | .90 | .06 | / |
| | Interpersonal | .64 | .90 | .08 | / |
| | Occupational | .50 | .85 | .06 | / |
| | Community | .63 | .93 | .08 | / |
| Mattering general factor | | .85 | .97 | .41 | .93 |

*Note*. ECV = explained common variance; PUC = percentage of uncontaminated correlations.

is well above the recommended threshold of .70, along with the high value of PUC (.93) suggests that a unidimensional structure is relatively unbiased. In addition, when $\omega_H$ is higher than .80 total scores can be considered essentially unidimensional (Rodriguez et al., 2016). In our case, although ECV was .39 in the pilot sample and .41 in the national sample, PUC was .93 in both samples, and $\omega_H$ was .82 and .85 in the pilot and national sample, respectively. These results strongly support the presence of a unidimensional general factor in addition to the multidimensional structure of the scale.

## Model Comparison

Having established the bifactor structure in both the pilot and national sample, we decided to test whether this structure was tenable after comparing it with alternative models. Figure 2 shows the main models we used for comparisons. Model A represents the bifactor model tested so far, which matches the structure of the original MIDLS, with the exception that in our case the overall mattering items load only onto the general mattering factor. Model B proposes a third-order model in which four higher order factors (i.e., personal, interpersonal, occupational, and community) account for the variability in the eight subfactors of mattering. Additionally, a higher order mattering factor accounts for the variability in the four second-order subfactors, as well as of the overall mattering factor. Model C depicts a multitrait-multimethod composed of two general factors (i.e., feeling valued and adding value), eight domain-specific mattering factors, and an overall matterring factor. Model D includes one mattering factor, which accounts for the variability in the 27 manifest variables comprising the MIDLS. Lastly, Model E represents a 9-factor correlated traits model in which the nine correlated mattering factors account for the variability in the 27 manifest variables comprising the MIDLS.

Since we focused our analyses exclusively on the national sample, we had to consider the relatively high number of observations; therefore, we had to rely on indices that are more robust to large sample size, other than the chi-square (Fan & Sivo, 2007). The literature suggests that differences in CFI,

gamma hat, and McDonald's non centrality index (NCI) for nested models (Fan & Sivo, 2009), and differences in Bayesian information criterion (BIC) values for nonnested models (Kass & Raftery, 1995), give quite accurate results that are independent from sample size variations. Cheung and Rensvold (2002) stated that "a value of ΔCFI smaller than or equal to –0.01 indicates that the null hypothesis of invariance should not be rejected. For Δgamma hat and ΔMcDonald's NCI, the critical values are –.001 and –.02, respectively" (p. 251). Kass and Raftery (1995), suggest the following guidelines to assess differences in BIC in nonnested models: between 1 and 3 = *not worth mentioning*, between 3 and 20 = *positive*, between 20 and 150 = *strong*, higher than 150 = *very strong*.

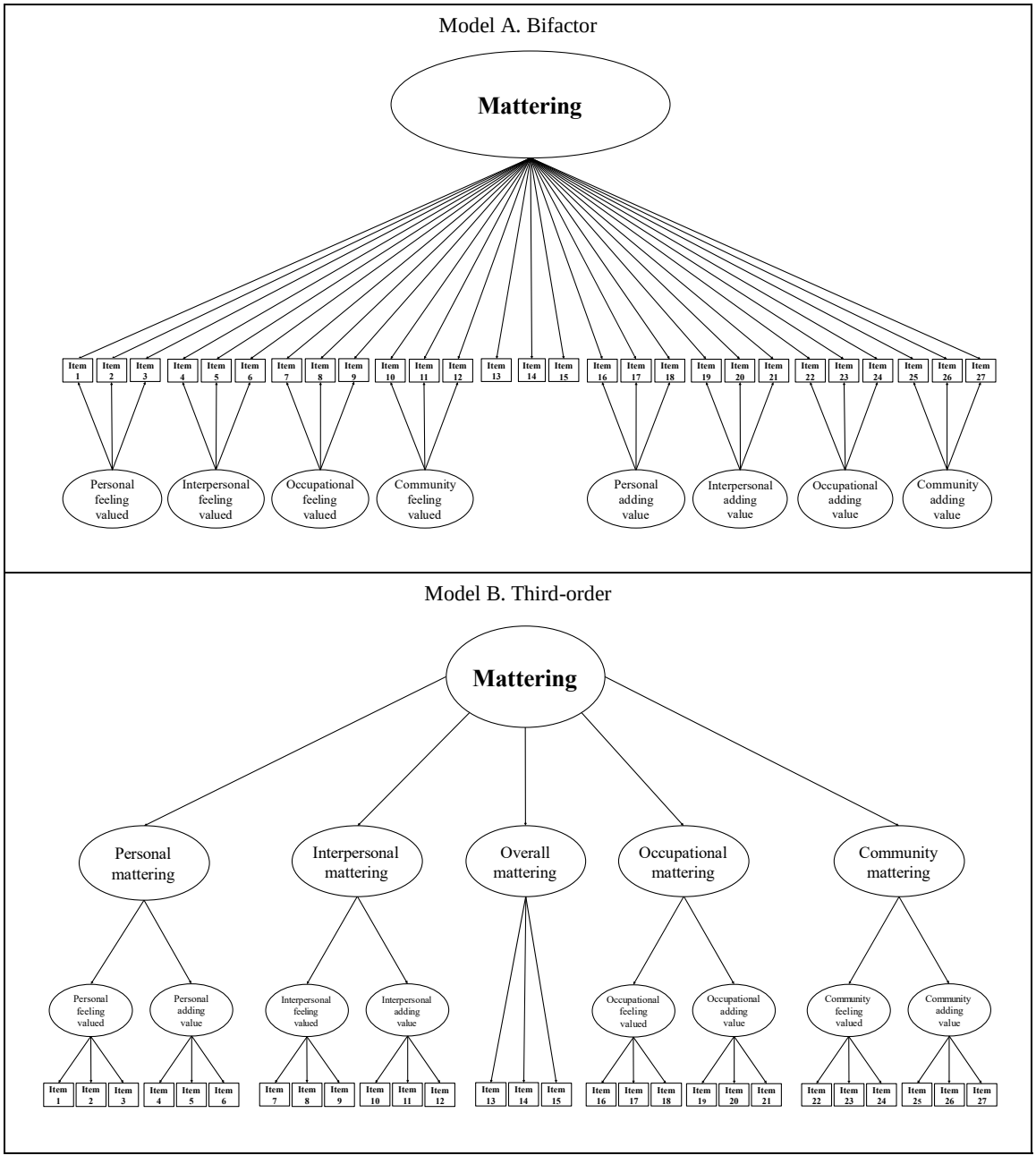


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Figure 2 (continued)

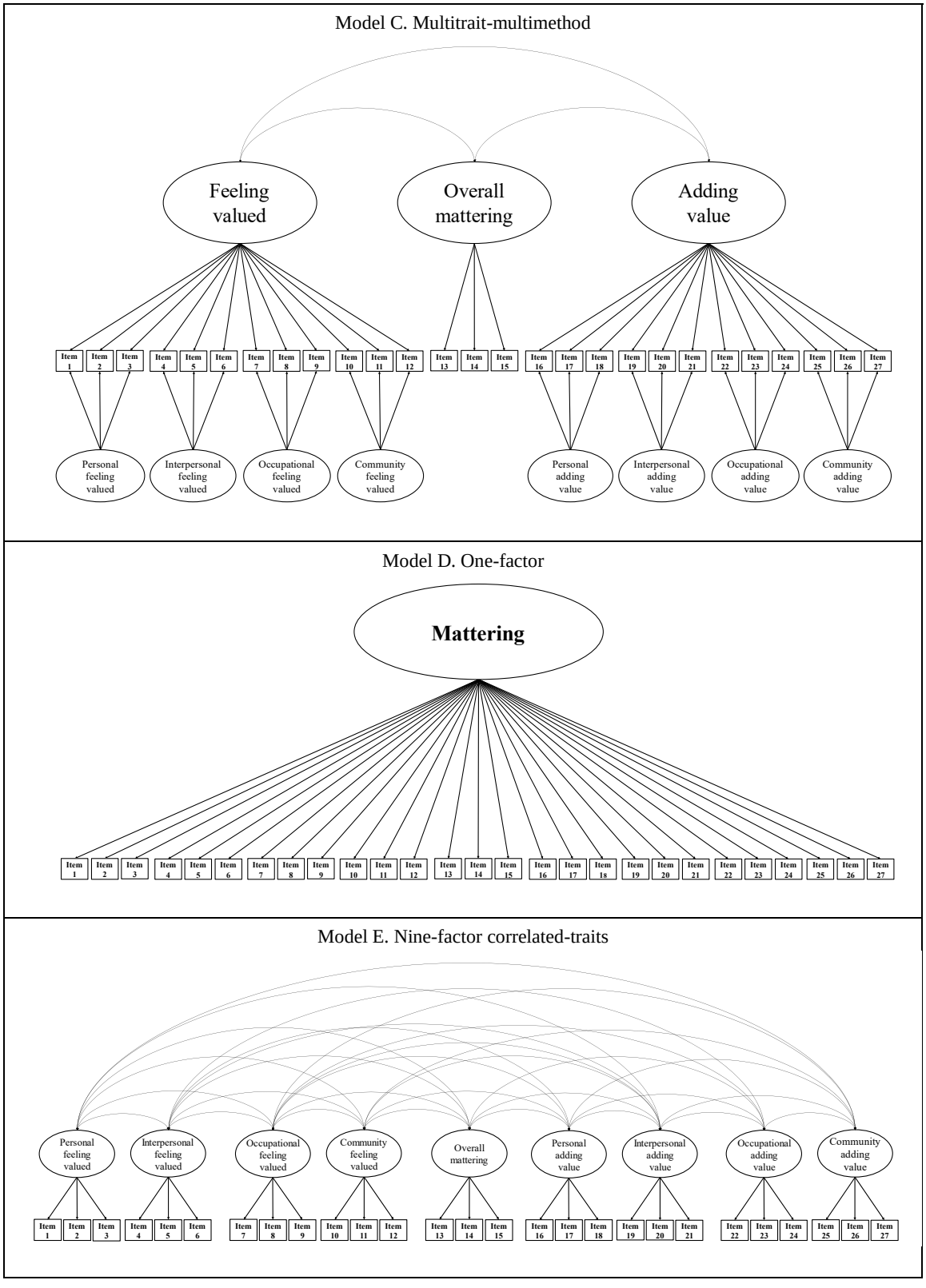


FIGURE 2
Alternative models

As we can see from Table 5, the bifactor model (A) shows better indices of model fit than any of the alternative models we proposed. Regarding comparisons between nonnested models, a very strong difference in BIC between Model A and Model B, ΔBIC = 772.571, and a strong difference in BIC between Model A and Model C, ΔBIC = 84.301, suggests that the bifactor model provides a better fit to the data than the two competing models. Regarding comparisons between nested models, high differences in indices between Model A and Model D, ΔCFI = .025, Δgamma hat = .022, and ΔNCI = .141, once more favor the bifactor solution to its competing model. Lastly, in the case of Model A versus Model E, although the difference in ΔCFI = .002 and Δgamma hat = .001 is below the recommended threshold, the difference in ΔNCI = .012 and a positive difference in ΔBIC = 11.671, ultimately, tends to favor the bifactor solution.

TABLE 5
Model comparisons between the proposed Italian MIDLS bifactor structure and competitive models

| Model/Indices | A Bifactor | B Third-order | C Multitrait-multimethod | D One-factor | E Nine-factor correlated-traits |
|---|---|---|---|---|---|
| MLR $\chi^2$ | 341.688 | 979.621 | 369.067 | 1184.543 | 421.755 |
| $\chi^2$ *df* | 195 | 235 | 212 | 223 | 211 |
| $\chi^2$ *p* | < .001 | < .001 | < .001 | < .001 | < .001 |
| CFI | .996 | .977 | .995 | .971 | .994 |
| TLI | .992 | .966 | .992 | .954 | .989 |
| RMSEA | .017 | .035 | .017 | .041 | .020 |
| 90% CI | [.014, .020] | [.033, .037] | [.014, .020] | [.038, .043] | [.017, .022] |
| SRMR | .020 | .049 | .024 | .052 | .032 |
| Gamma hat | .995 | .979 | .995 | .973 | .994 |
| NCI | .972 | .866 | .970 | .831 | .960 |
| AIC | 237919.511 | 238926.613 | 237934.885 | 239303.006 | 238024.994 |
| BIC | 239150.797 | 239923.368 | 239066.496 | 240370.121 | 239162.468 |
| Model comparison | | A versus B | A versus C | A versus D | A versus E |
| ΔCFI | / | .019 | .001 | .025 | .002 |
| Δgamma hat | / | .016 | 0 | .022 | .001 |
| ΔNCI | / | .106 | .002 | .141 | .012 |
| ΔBIC | / | 772.571 | 84.301 | 1219.324 | 11.671 |

*Note*. MLR = robust maximum likelihood; *df* = degrees of freedom; CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root-mean-square error of approximation; CI = confidence interval; SRMR = standardized root-mean-square residual; NCI = McDonald's noncentrality index; AIC = Akaike information criterion; BIC = Bayesian information criterion.

## DISCUSSION

The results of our study suggest that the Italian adaptation of the Mattering in Domains of Life Scale (MIDLS) shows strong face and structural validity as well as reliability; therefore, it can be suitable to be applied to the Italian context. Our findings support a bifactor structure, which is very similar to the one proposed for the original scale (Scarpa et al., 2022). Our adapted version of the MIDLS includes a general mattering factor as well as personal, interpersonal, occupational, and community for both feeling valued and

adding value. The main difference between the Italian MIDLS and the original version relates to the personal adding value domain, which did not emerge as a separate factor in the original scale.

The bifactor structure was further confirmed by extremely high values of PUC and $\omega_H$, which support the presence of unidimensionality in the scale in addition to its multidimensionality. This final structure presented from medium to high factor loadings and interitem reliability. Additionally, high values of $\omega_H$ and $\omega_S$ offer support to strong structural and face validity.

Further evidence in favor of the bifactor structure was provided by comparing the proposed model to competing models with alternative structures. Results indicate that a bidimensional model provides the best fit to the data in all cases. However, this should not rule out the chance to use other structures, which in our study still provided acceptable indices of model fit. These, in fact, might be useful to answer some specific research questions. For example, a 9-factor correlated-traits model could be useful in instances where researchers are particularly interested in testing only the specific domains of mattering (e.g., community mattering); whereas a multitrait-multimethod structure could be useful in cases where researchers might want to focus on the adding value and feeling valued components of mattering.

## Limitations and Future Perspectives

Despite the advantages deriving from the adaptation of MIDLS in the Italian context, the present study presents some limitations. Firstly, the snowball sampling technique, which we used to recruit participants in the national study, is not probabilistic. This implies that we cannot limit the possible sampling error and generalize the results obtained from the sample to the population (Sharma, 2017). Secondly, the composition of the national sample is not very homogeneous with respect to the variable employment status: in fact, as many as 47% of the participants were university students. Furthermore, the average age of the national sample is about 30 years, which is lower when compared to the average age of the Italian national population, which is about 46 years (Istat, 2021). In terms of validity, although our analyses revealed strong face and structural validity, future studies should explore other subtypes of construct validity, including convergent and disciminant validity.

One last limitation pertains to the absence of a second administration of the MIDLS to the same sample, which prevented testing the time invariance of the instrument. Future longitudinal studies could better assess whether the Italian MIDLS is consistent across time.

## Conclusions

The construct of mattering is gaining increasing attention across psychological disciplines, and the Italian scholarship is following suit with mounting interest. It is therefore important for the Italian scientific community to rely on robust instruments capable of capturing the multifaceted complexity of this construct. In this study, we presented the adaptation of Mattering in Domains of Life Scale (MIDLS) as a psychometrically sound and valuable tool to measure people's perception of mattering in terms of feeling valued and adding value.

Adapting the MIDLS to the Italian context offers several advantages to the study, promotion, and assessment of mattering. Similar scales already in use by the Italian scientific community tend to focus on limited aspects of mattering. The Italian adaptation of the MIDLS provides a more comprehensive

understanding of this construct drawing from the ecological, multidimensional, and multitemporal perspective. Furthermore, the Italian MIDLS opens the path to investigating mattering in relation to constructs such as well-being and justice, which have already been explored in other studies that have employed the same scale (Scarpa et al., 2021). Lastly, the scale we proposed in this paper can be a useful instrument for Italian researchers, practitioners, activists, policy makers, and all those who are interested in understanding and designing interventions for promoting people's feeling that their existence matters both for themselves and for others.

## NOTE

1. The Italian version of MIDLS is available upon request from the Authors.

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