



## Research article

## The Multi-Component Gratitude Measure in Spanish for youth: An adaptation of the MCGM in Colombia

Yvonne Gómez<sup>a,\*</sup>, Sonia Carrillo<sup>a,1</sup>, Gordon P.D. Ingram<sup>a,1</sup>, María Alejandra Tangarife<sup>a,1</sup>, Daniela Robles<sup>a,1</sup>, Marta Carolina Ibarra<sup>a,1</sup>, Blaire Morgan<sup>b,1</sup><sup>a</sup> Department of Psychology, Universidad de Los Andes, Bogotá, Colombia<sup>b</sup> Department of Psychology, University of Worcester, Worcester, United Kingdom

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## ABSTRACT

The present study explored the psychometric properties of the Multi-Component Gratitude Measure (MCGM), in Spanish with a sample of Colombian children. The sample was composed of 540 schoolchildren between 8–12 years old (265 females, mean age 10.04 years; 75 males, mean age 10.08 years). The MCGM aims to examine more comprehensively the moral virtue of gratitude as a construct with 3 components (emotional, cognitive/attitudinal, and behavioral) distributed across 6 subscales. We translated the MCGM into Spanish and validated the factor structure in a principal component analysis, basing the analysis on the 6 subscales. We corroborated that gratitude can be understood as a complex, multi-component construct from children's perspectives. Overall, the MCGM subscales showed good reliability coefficients between 0.7 and 0.9. Confirmatory factor analysis indicated that a 4-factor model structure (obtained in the PCA) presented the best-adjusted fit indices. Factor 1 represented the feelings subscale, factor 2 represented the attitudinal component, and factors 3 and 4 the behavioral component. Convergent validity was evaluated with other instruments of gratitude, along with additional variables including positive emotion, prosocial behavior and wellbeing, in a subsample of 210 children. Multiple sources of evidence indicate that the translated and validated measure, the MCGM-Spanish Youth (MCGM-SY), is an instrument with good reliability and validity for measuring gratitude in Spanish-speaking children.

## 1. Introduction

Gratitude has gained considerable research attention in psychology over the past few decades as an everyday experience that has been conceptualized in different ways. It can be thought of as a mood or emotional experience (Froh et al., 2008; Wood et al., 2010; McCullough et al., 2002), a trait-like disposition to be grateful (Roberts, 2004; Freitas et al., 2011), a character strength (Furlong, Gilman, and Huebner, 2009), or a moral virtue (McCullough et al., 2001; Morgan et al., 2017). Throughout history, different conceptions and subjective experiences of gratitude have portrayed it as a motivator of benevolent actions (Froh et al., 2010) or as a way of meeting normative moral obligations across individuals and societies (Mendonça and Palhares, 2017). Whilst conceptualizations of gratitude are diverse and often complex, the construct

is encountered in many different cultures and social contexts, and thus may play a significant role in normal human social development (Mendonça et al., 2018; Payir et al., 2018).

Gratitude represents a target for positive developmental interventions to enhance personal wellbeing and prosocial behavior (Froh et al., 2010); hence, many researchers have attempted to explore and promote its educational value both within and outside school settings (Carr et al., 2015; Froh et al., 2009a; Bono et al., 2014; Howells, 2014; Morgan et al., 2015). The practice of gratitude in educational settings expects teachers to adequately provide youths with the proper tools to engage with this construct (Howells, 2014, 2017; Ramsey et al., 2017). In-school gratitude interventions have shown positive results regarding increased school life satisfaction and the quality of peer relationships (Froh et al., 2008; Furlong et al., 2014). Previous research on this topic argued that

\* Corresponding author.

E-mail address: [yvgomez@uniandes.edu.co](mailto:yvgomez@uniandes.edu.co) (Y. Gómez).<sup>1</sup> These authors have contributed equally to this work.

gratitude serves as a vehicle to foster positive emotions (Nguyen and Gordon, 2020) and a better sense of control, coping skills, and personal well-being (Froh et al., 2009a; Gordon et al., 2004; Watkins 2014). Paying greater attention to gratitude in research and education has the potential to encourage its promotion (Hussong et al., 2017) so that students can perceive gratitude as providing them with sustained value over time (Howells, 2014, 2017), rather than it being the subject of an isolated, one-off intervention.

The adaptation of scales and questionnaires to measure gratitude in young people has provided a route to exploring the construct in a similar fashion to with adult populations. For example, Froh et al. (2011a) adapted adult gratitude questionnaires for children. They explored the properties of three questionnaires, the Gratitude Questionnaire (GQ-6), the Gratitude Adjective Checklist (GAC), and the Gratitude/Resentment/Appreciation Test – Short Form (GRAT), in 411 children and adolescents whose ages ranged from 10–13 years. The GQ-6 (McCullough et al., 2002) originated in the conception of gratitude as a positive affective trait. It is a six-item self-report questionnaire that tests whether an individual has grateful dispositions and emotions. Along the same lines, the GAC evaluates the frequency that people have experienced states related to grateful affect (feeling *grateful*, *thankful*, or *appreciative*; McCullough et al., 2002). Likewise, the Gratitude/Resentment/Appreciation Test – Short Form (GRAT; Watkins et al., 2003) is a five-item questionnaire that measures the sense of “abundance in life and appreciation of others” (Froh et al., 2011a, p.4). The three instruments obtained adequate internal consistency coefficients (Cronbach's  $\alpha = 0.79$ ,  $0.89$ , and  $0.73$  respectively), demonstrating that they are suitable for use in youths. Froh and colleagues' (2011a) adaptation of GQ-6 led to the development of a five-item youth-friendly version named the GQ-5.

In Spanish-speaking contexts, the GQ-6 and the GQ-5 have been successfully validated for two different samples of adolescents from Spain (one with the GQ-5 and the other with the GQ-6), ranging from ages 14 to 17 (Rey et al., 2018). Both scales showed adequate psychometric properties and internal consistency (GQ-6:  $\alpha = 0.73$ ; GQ-5:  $\alpha = 0.75$ ). The authors reported that the factor loadings for the GQ-6 were more substantial after removing item 6. The overall fit of the model was also better without considering this item. For the GQ-5 sample, items were loaded appropriately, which supported the idea that the GQ-5 was a better choice for evaluating gratitude in Spanish youth, similar to the findings of Froh et al. (2011a). A validation with Chilean adolescents with the GQ-6 (ages 12 to 20) showed a unique factor with five items, excluding the last item that emerged from the exploratory factor analysis (EFA). In the confirmatory factor analysis (CFA), the authors suggested that the unique-factor five-item model showed the best fit in this population and had an excellent internal consistency (GQ-5:  $\alpha = 0.73$ ; Langer et al., 2016).

In Argentina, Cuello and Oros (2016) designed the 15-item Gratitude Questionnaire for Children, which measures children's abilities to recognize benefactors, appreciate benefits, and reciprocate favors. The instrument was tested by dividing it into two subscales to explore gratitude and ingratitude separately and then joining the two subscales into a single-factor structure to evaluate gratitude overall. The instrument was investigated in children and youths aged 9–13 years. Overall, the instrument's psychometric properties showed appropriate reliability for the Gratitude subscale and the single-factor gratitude scale (Gratitude:  $\alpha = 0.75$ ; single-factor:  $\alpha = 0.76$ ), but not so much for the Ingratitude subscale ( $\alpha = 0.66$ ).

In terms of convergent validity, the psychometric studies of gratitude scales have used, besides other instruments to measure gratitude, the Positive and Negative Affect Schedule (PANAS) and different scales to measure happiness (the Subjective Happiness Scale or SHS; Lyubomirsky and Lepper, 1999), satisfaction with life (the Satisfaction with Life Scale or SWLS; Diener et al., 1985), and subjective well-being (in Spanish, *Escala de Bienestar Psicológico* or BIEPS; Casullo and Solano, 2000). All these scales are positively correlated with one another as well as with various gratitude scales (McCullough et al., 2002; Watkins et al., 2003).

The instruments used to measure gratitude in Latin American contexts show adequate psychometric properties. However, they are based on a conceptualization of gratitude as either an emotion or a disposition to be thankful (Bono et al., 2004). One of the main criticisms of these instruments is that they fail to capture gratitude as a multi-dimensional construct. To understand gratitude, it is important to go beyond feeling good emotionally, because this oversimplifies the representation of gratitude. We must additionally consider other aspects of the construct, such as individuals' conceptualization of the ideas, attitudes, and behaviors relating to gratitude (Morgan et al., 2017; Navarro and Tudge, 2020; Tudge and Freitas, 2017).

To overcome this issue, a growing consensus on the development of gratitude in young people aims to incorporate the cognitive, emotional, and behavioral components of gratitude at various stages of development (Gulliford et al., 2019; Morgan et al., 2017; Tudge and Freitas, 2017). To capture these different dimensions of gratitude (in adults rather than in children), Morgan et al. (2017) designed the Multi-Component Gratitude Measure (MCGM), which in their confirmatory factor analysis (CFA) with a British adult population, comprised six subscales mapped across three components of gratitude: an emotional component of gratitude, which evaluates the strength of grateful feelings and the situations in which gratitude is felt; an attitudinal component, which assesses individuals' considerations of why gratitude is an important virtue and when it is appropriate to be grateful; and a behavioral component, which covers people's evaluations of how to express gratitude after receiving a benefit. Simultaneously, Morgan et al. (2017) evaluated an additional cognitive component, which probes individuals' conceptions and understandings of gratitude. In their study, all the subscales showed an adequate internal consistency. The Feeling of Gratitude subscale, representing the emotional component, obtained Cronbach's  $\alpha$  of  $0.87$ . The Attitudes of Gratitude and Attitudes to Appropriateness, for the attitudinal component, both received good  $\alpha$  values;  $\alpha = 0.74$  and  $\alpha = 0.85$ , respectively. Regarding the behavioral component, the Behavioral Shortcomings ( $\alpha = 0.82$ ), Rituals/Noticing Benefits, ( $\alpha = 0.92$ ), and Expressions of Gratitude ( $\alpha = 0.79$ ) subscales all obtained good  $\alpha$  values. In addition, Hudecek et al. (2020) conducted a validation study in Germany with a sample ranging in age from 18 to 67 years. They too found a good six-factor model fit, equivalent to the UK scale. However, the authors had to make specific adjustments to some items that worsened the fit of the CFA, notably the exclusion of three items from the Attitudes to Appropriateness subscale. They suggested that a possible explanation for this could be the different cultural understandings of German adults compared to their British counterparts.

These results illustrate the influence of different linguistic and developmental backgrounds on the conceptualization of gratitude. Research with young people suggests that it is possible to make similar approaches to measuring gratitude in middle childhood and adolescence due to the abilities of perspective-taking and theory of mind, which are acquired by 5–7 years of age: these skills allow children to engage more objectively with the experience of gratitude in themselves and others. Around 12 years, preadolescent children acquire a still more sophisticated awareness of other people's thoughts and emotions towards them (Baumgarten, 1938; Mendonça and Palhares, 2017). Young people also acquire abilities to recognize the good intentions and effort required for a benefactor to provide a benefit to them (McCullough et al., 2002; Merçon-Vargas et al., 2016). This helps them to feel grateful for the benefactor's intentional acts and to value their relationship with them (Froh et al., 2011b; Oros et al., 2015), as well as creating a desire to reciprocate positively and acknowledge the benefit received (Watkins, 2014; Wood et al., 2010).

In the present study, we aimed to extend existing approaches to measuring gratitude in a novel population (Colombian young people) by evaluating in greater detail the psychometric properties of a child-oriented, Colombian-Spanish translation of the Multi-Component Gratitude Measure (MCGM). This is in line with our belief in the empirical exploration of gratitude in children and young people as a moral virtue

**Table 1.** Descriptive statistics of age by gender and school grade for the two subsamples.

Gender	Grade	Sample 1, n = 311		Sample 2, n = 229	
		Mean (SD)	N (%)	Mean (SD)	N (%)
Boys	4th	9.28 (0.71)	54 (17.3%)		
	5th	10.3 (0.97)	12 (3.8%)	9.92 (0.54)	123 (53.7%)
	6th	10.82 (0.67)	87 (27.9%)		
Girls	4th	9.10 (0.76)	63 (20.2%)		
	5th	10.4 (0.72)	16 (5.1%)	9.92 (0.47)	106 (46.3%)
	6th	10.86 (0.67)	80 (25.6%)		

that springs from developing abilities to recognize feelings, hold attitudes, and engage in behaviors relating to gratitude.

**2. Method**

This study first translated and adapted a Spanish version of the MCGM, using a back-translation procedure that followed the test translation guidelines of Muñiz et al. (2013). Then, it tested its reliability and established evidence of convergent and construct validity (exploratory and confirmatory factorial analysis) in Colombian schoolchildren aged 8–12 years.

**2.1. Participants**

The study was conducted with 4th, 5th, and 6th-grade primary school students, who provided written assent to participation and their parents’ written informed consent beforehand. All children in the relevant grades who were present on the dates of data collection, had their parents’ prior written consent, and gave verbal assent were included in the study. Trained research assistants (RAs) administered the questionnaires during online classes (due to the COVID-19 pandemic). The project received the approval of the Ethics Committee at the Universidad de los Andes.

We recruited a total of 540 children attending public and private schools in Bogotá, Colombia (265 females,  $M = 10.04$ ,  $SD = 0.90$  years; 275 males,  $M = 10.08$ ,  $SD = 0.84$  years). Children completed the questionnaire using the QualtricsXM survey platform. In the questionnaire, it was mandatory to provide an answer for one question before continuing with the next one. Also, to avoid biased results, we excluded participants who were helped by their parents or caregivers ( $n = 4$ ), participants who spent less than 7 min ( $n = 6$ ) or more than 90 min ( $n = 7$ ) on the questionnaire, and participants who did not complete the questionnaire ( $n = 25$ ). Thus, in total, we excluded 42 children from the analysis.

The sample consisted of two subsamples from two groups of schools that agreed to participate in the project. One was composed of 311 children (159 females,  $M = 10.1$ ,  $SD = 1.10$  years; 152 males,  $M = 10.2$ ,  $SD = 1.00$  years) and the second of 229 children (106 females,  $M = 9.9$ ,  $SD = 0.47$  years; 123 males,  $M = 10.43$ ,  $SD = 0.54$  years) who completed a set of questionnaires in the same week as the MCGM questionnaire. The first sample was used for the PCA to explore factor distribution, and the second for the CFA. To evaluate the convergent validity, we used the second sample. See Table 1 for additional demographic details by gender and school grade for this subsample.

**2.2. Measures**

**2.2.1. Multi-Component Gratitude Measure (MCGM)**

The original MCGM questionnaire was kindly provided by its authors (Morgan et al., 2017). The MCGM consists of 29 items grouped into 6 subscales (*Feelings of gratitude*, *Attitudes toward gratitude*, *Attitudes toward the appropriateness of gratitude*, *Behavioral shortcomings*, *Rituals/noticing benefits of gratitude*, and *Expressions of gratitude*), which in turn are clustered into 3 components of gratitude understanding: emotions, attitudes,

and behavior (see Table 2). The emotional component has one subscale, *Feelings of gratitude* (items 1 to 6). The attitudinal component is divided into two subscales: *Attitudes of gratitude* (items 7 to 10) and *Attitudes to appropriateness* (items 11 to 16). The behavioral component is divided into three subscales – *Behavioral shortcomings* (items 17 to 20), *Rituals/noticing benefits* (items 21 to 25), and *Expressions of gratitude* (items 26 to 29).

Each item in the survey is rated with a 7-point scale. Items 1 to 17 provide information on how much participants agree with certain statements (1 = strongly disagree; 7 = strongly agree), while items 18 to 29 have to do with how often they engage in certain behaviors (1 = never; 7 = more than once a day).

**2.2.2. Scale for measuring gratitude in children and adolescents**

With the sub-sample who took part in the external validation study, we used a scale designed by Cuello and Oros (2016) that aimed to measure the emotional aspects of gratitude in Argentinian schoolchildren aged 9–13 years. It is composed of 15 items grouped into two main components that measure gratitude ( $\alpha = 0.75$ ) and ingratitude ( $\alpha = 0.66$ ), rated on a 3-point scale (1 = yes, 2 = sometimes, 3 = no). The alpha values refer to those found by Cuello and Oros (2016).

**2.2.3. Positive emotions questionnaire for children**

We also used a questionnaire designed by Oros (2014) to measure positive emotional experiences in Argentinian children aged 8–12 years. The questionnaire is made up of 23 items grouped into 4 dimensions: joy and gratitude ( $\alpha = 0.70$ ); serenity ( $\alpha = 0.74$ ); sympathy ( $\alpha = 0.70$ ); and personal satisfaction ( $\alpha = 0.68$ ). Each item is rated on a 3-point scale (1 = yes, 2 = sometimes, 3 = no). The total scale had an alpha of 0.88 (All alpha values refer to those found by Oros, 2014.).

**2.2.4. Spanish adaptation of the inventory of social skills (TISS)**

The Spanish adaptation of the TISS (Inglés et al., 2003) is a self-report questionnaire that measures teenagers’ behaviors relating to social competence and peer acceptance. It comprises 40 items rated on a 6-point scale (1 = does not describe me at all; 6 = illustrates me totally), grouped into two components that measure prosocial and antisocial behavior. For our study, we only included the prosocial behavior component ( $\alpha = 0.91$  in the original study).

**Table 2.** Description of the components and subscales of the MCGM questionnaire.

Subscale	Component	Item
Feelings of gratitude	Emotions	1,2,3,4,5,6
Attitude of gratitude	Attitudes	7*,8,9,10
Attitudes to appropriateness	Attitudes	11*,12*,13*,14*,15*,16
Behavioral shortcomings	Behavior	17*,18*,19*,20*
Rituals/noticing benefits	Behavior	21,22,23,24,25
Expressions of gratitude	Behavior	26,27,28,29,

\*’ on items’ means that the item is reverse scored.

### 2.2.5. Spanish adaptation of the positive affect/Negative Affect Scale for Children (PANAS)

The PANAS is a questionnaire consisting of different words that describe positive and negative feelings (Watson et al., 1988). The scale comprises 20 items grouped into two components that measure positive affect and negative affect. For this study, we measured only those items in the Positive Affect subscale ( $\alpha = 0.88$  in the original study of Watson et al.).

### 2.2.6. Youth Psychological Wellbeing Scale (BIEPS)

The Youth Psychological Wellbeing scale (*Escala de Bienestar Psicológico para Jóvenes*; Casullo and Solano, 2000) measures children's psychological wellbeing. It is composed of 13 items, each measured on a 5-point scale (1 = very slightly or not at all; 5 = extremely). Casullo and Solano found that Cronbach's alpha for the total scale was 0.74.

### 2.3. Procedure

The first step was to adapt the MCGM instrument for a population of Spanish-speaking children. The items were translated from English to Spanish by a research team member who is a native speaker of Spanish. This version was then evaluated by other members of the research team, who modified some of the items into simpler versions suitable for children, before another research team member who is a native English speaker made a back-translation. This translation process allowed us to adjust the instrument to the Spanish language and make it appropriate for the cultural context of Colombian children. The Spanish version of the instrument is provided in Appendix 1.

During the translation process, we identified several items that were difficult for children to understand, such as.

- Item 14: *I only show gratitude for the things that are not already due to me/are mine by right.*
- Item 16: *I only feel grateful when the benefit is of genuine value to me.*
- Item 29: *I go out of my way to thank others for their help.*

To address this issue, a native Spanish speaker with experience in qualitative research conducted a cognitive interview (Schoua-Glusberg and Villar, 2014) with six children between 10 and 13 (one 10-year-old boy, two 11-year-old girls, two 12-year-old girls, and one 13-year-old girl, who all had parental consent to participate).

Children were invited to complete the scale and ask questions about any items that were confusing or difficult to understand. For the aforementioned problematic items, the team proposed two versions from which children could choose the better one or create a new one according to their own understanding. We asked children which scale was easier to respond to regarding the rating scale: a 5-point Likert scale or the original 7-point structure. All children preferred the 5-point Likert scale for the items that required agreement responses (items 1 to 17; 1 = *strongly disagree*; 5 = *strongly agree*). However, for the frequency responses, they preferred to have a wider span of options to answer (items 18 to 29; 1 = *never*; 7 = *more than once a day*). Therefore, in the main study, we used the preferred numbers of response options for the respective items.

### 2.4. Data analysis

We first tested the construct validity of the MCGM, using principal component analysis (PCA), along with the Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test of sphericity to probe initial item correlations. For the PCA, we chose an oblimin rotation, anticipating that the items would be related to their respective subscales, as with the findings of Morgan et al. (2017). To select the number of components, we used the Parallel analysis (Çokluk and Koçak, 2016). We also evaluated the internal consistency reliability of the subscales, using Cronbach's alpha and McDonald's omega coefficients.

We then used confirmatory factor analysis (CFA) to test how well the questionnaire structure fitted with the six-factor structure found by Morgan and collaborators (2017) and the four-factor structure obtained in the PCA. We run the CFA using a robust ML as estimator. We evaluated goodness of fit using the Root Mean Square Error of Approximation (RMSEA), the Comparative Fit Index (CFI), and the Tucker-Lewis index (TLI). The RMSEA identifies how far the hypothesized model is from a perfect model (Xia and Yang, 2019). It considers the model's parsimony (Morgan et al., 2017) and indicates the amount of unexplained variance. The CFI and TLI indices compare the model's fit with a baseline model with the worst possible fit (Xia and Yang, 2019). Hu and Bentler (1999) suggested that an adequate fit includes RMSEA values near or lower than 0.06 and TLI and CFI values greater than .95; however, values greater than .90 are also reasonable indicators of an acceptable model fit (Byrne et al., 1995).

We computed the questionnaires' descriptive statistics and the internal consistency reliability using Cronbach's alpha and McDonald's omega coefficients. Given that the data distribution of the sample for the different instruments did not achieve normality (Shapiro-Wilk  $p < 0.05$  for all variables), we established the MCGM's convergent validity through Spearman's bivariate correlations between its subscales and the other instruments with adequate Cronbach's alpha, admitting as acceptable correlation coefficients  $r > 0.30$ . We hypothesized that higher levels of gratitude as measured by the MCGM would be reflected in higher positive affect, better social skills, and a greater sense of individual and interpersonal well-being in children.

Data were analyzed using the *lavaan* (Rossee, 2012) and *lme4* (Bates et al., 2015) packages in R, along with the *factor\_analyzer* package (Biggs, 2020) in Python 3.7. The data file is open for access (Gómez et al., 2022).

## 3. Results

### 3.1. Principal component analysis

The Kaiser-Meyer-Olkin measure of sampling adequacy (0.88) and Bartlett's test of sphericity ( $\chi^2 [406] = 4203, p < 0.001$ ) indicated that correlations between the items were strong enough to run an exploratory factor analysis. The parallel analysis showed that it was possible to consider four components, as shown in the scree plot (see Figure 1). This grouping accounted for 55% of the total variance.

From this analysis, we observed that the *Feelings of gratitude* and *Attitudes to gratitude* subscales were grouped as one component and showed

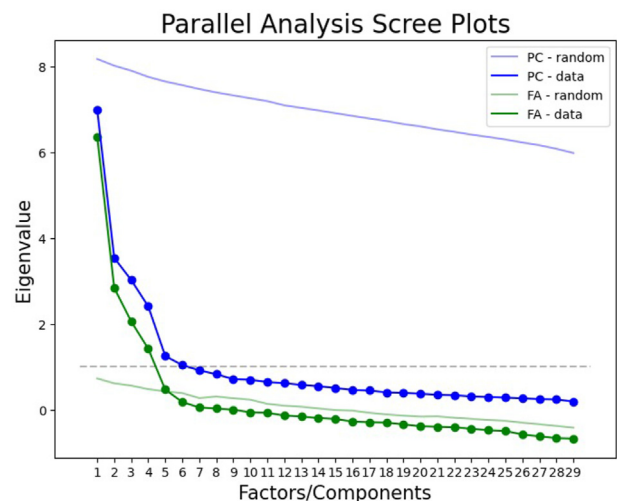


Figure 1. Scree plot representing the number of eigenvalues per factor in the MCGM. Items were tested in a principal component analysis (PCA) using oblimin rotation (as in Morgan et al., 2017) to explore the data structure. The PCA extracted a four-factor structure rather than the original six-factor structure.

a fair loading within their components, despite being conceptualized initially to explore distinct aspects of gratitude, the emotional and the attitudinal. In the same way, the last two subscales, *Rituals/noticing benefits*, and *Expressions of gratitude* both loaded as one subscale.

Factor loadings of the *Attitudes to gratitude* and *Feelings of gratitude* subscales correlated positively within themselves, except for item 7 (*No creo que sea necesario mostrar gratitud a los demás*/"I don't think it is necessary to show your gratitude to others"), which instead correlated with the *Behavioral shortcomings* subscale. Item 16 (*Yo sólo siento gratitud cuando el beneficio que recibo tiene valor verdadero para mí*/"I only feel grateful when the benefit is of genuine value to me") from the *Attitudes to appropriateness* subscale did not load onto this subscale or any other subscale in the questionnaire. The other subscales (*Attitudes to appropriateness*, *Behavioral shortcomings*, *Rituals/noticing benefits*, and *Expressions of gratitude*) did load to their original factor structures as reported by Morgan et al. (2017). Regarding the overall data reliability, the instrument showed an adequate internal consistency (Cronbach's  $\alpha = 0.76$ , McDonald's  $\omega = 0.85$ ). At the same time, the internal consistency of the individual factors could also be considered adequate (see Table 3). Factor 1 represented the feelings subscale (items 1–10 excluding item 7), Factor 2 represented the attitudinal component (items 11–15), and Factors 3 and 4 the behavioral component. This was split between behavioral

shortcomings (items 17–20) which is a reverse-scored subscale and represented the things that people forget to engage regarding gratitude, and Factor 4 (items 21–29) which represented different kinds of rituals or customs used to express gratitude.

### 3.2. Confirmatory factor analysis

CFA was carried out for both the six-factor and the four-factor models. We decided to calculate factor-loading estimates using robust maximum likelihood estimation (RML), due to our small sample size, although if samples are larger the suggestion is to use a diagonally weighted least squares method when working with ordinal data (Li, 2016). We first tested the six-factor structure reported in the model from Morgan et al. (2017), including items 7 and 16 in the analysis. Results from the indices showed a good fit (Table 4). The model displayed a better fit when removing items 7 and 16 from the analysis. We then tested the structure of the four-factor model obtained in the PCA. When including items 7 and 16, the model did not fit better than the original six-factor model. As with the six-factor model, removing these items from the analysis also increased the fit indices of the four-factor model. The final fit indices of the four-factor model were more robust when excluding items 7 and 16 (RMSEA = .054, 90% CI [.045, .061], CFI = .91, TLI = .90). These results allowed us to accept both the original and the four-factor models without items 7 and 16. The accepted final (four-factor) model is shown in Figure 2.

### 3.3. Convergent validity

The following analysis aimed to examine the convergent validity of the MCGM with other instruments relating to gratitude to evaluate whether children's multidimensional experiences of gratitude correlate with scores obtained on other measures of gratitude, positive emotions, prosocial behavior, or wellbeing. The latter scores were obtained using the Gratitude scale for children, designed by Oros (2014); the New Positive Emotions Questionnaire for Children, developed by Cuello and Oros (2016); the Spanish adaptation of the Positive Affect/Negative Affect Scale for Children (PANAS; Gonzalez & Valdez, 2015); the Spanish adaptation of The Inventory of Social Skills (TISS; Inglés et al., 2003); and the Youth Psychological Wellbeing Scale (BIEPS) of Cuello and Solano (2000).

The descriptive statistics (mean and standard deviation) and the instrument reliability measures obtained for our sample of Colombian children are shown in Table 5. The total reliability of the instruments, as assessed with Cronbach's alpha and McDonald's omega, ranged between 0.7 and 0.9, indicating that they were consistent for our sample population (Cronbach and Meehl, 1955; Oviedo and Campo-Arias, 2005).

We next tested whether these instruments correlated positively with the MCGM gratitude components of emotions, attitudes, and behaviors and negatively with the *Behavioral shortcomings* subscale (due to its reverse-scored structure). We found that the MCGM's subscales correlated in the expected directions with the other scales measured in our subsample. As expected, the *Feelings* subscale of the MCGM correlated positively with the gratitude, prosocial behavior, wellbeing, and positive affect questionnaires, while the *Rituals/noticing benefits* and *Expressions of gratitude* subscales correlated with the wellbeing, positive emotions, and prosocial behavior questionnaires. We also expected to find negative correlations with the *Behavioral shortcomings* subscale, and results were in that direction. However, the *Attitudes to appropriateness* subscale did not show a significant association with the other instruments (Table 6).

More specifically, the *Feelings* subscale correlated positively with the Positive Emotions questionnaire ( $r = 0.47, p < 0.001$ ), and its subscales of *Gratitude and joy* ( $r = 0.37, p < 0.001$ ), *Serenity* ( $r = 0.35, p < 0.001$ ), and *Personal satisfaction* ( $r = 0.48, p < 0.001$ ). This subscale also displayed positive associations with the Gratitude questionnaire ( $r = 0.42, p < 0.001$ ) subscale of the Gratitude questionnaire. As expected, the *Feelings* subscale positively correlated with the BIEPS wellbeing

Table 3. Factor loading for the Exploratory Factor Analysis.

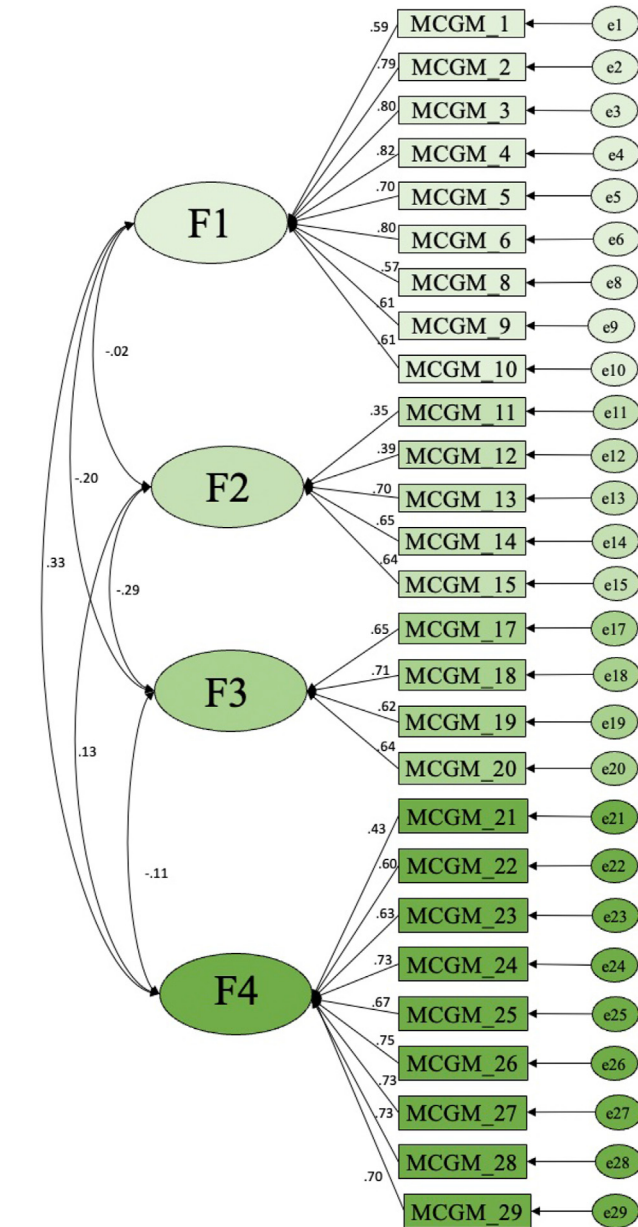
Component Loadings	Component			
	1	2	3	4
1) Feelings of Gratitude	0.824			
2) Feelings of Gratitude	0.766			
3) Feelings of Gratitude	0.828			
4) Feelings of Gratitude	0.830			
5) Feelings of Gratitude	0.686			
6) Feelings of Gratitude	0.789			
7) Attitudes for Gratitude			0.601	
8) Attitudes for Gratitude	0.797			
9) Attitudes for Gratitude	0.717			
10) Attitudes for Gratitude	0.779			
11) Attitudes to Appropriateness <sup>1</sup>				0.681
12) Attitudes to Appropriateness <sup>1</sup>				0.659
13) Attitudes to Appropriateness <sup>1</sup>				0.721
14) Attitudes to Appropriateness <sup>1</sup>				0.692
15) Attitudes to Appropriateness				0.673
16) Attitudes to Appropriateness <sup>1</sup>				
17) Behavioral Shortcomings			0.812	
18) Behavioral Shortcomings <sup>1</sup>			0.755	
19) Behavioral Shortcomings <sup>1</sup>			0.832	
20) Behavioral Shortcomings			0.822	
21) Rituals/Noticing Benefits		0.604		
22) Rituals/Noticing Benefits		0.651		
23) Rituals/Noticing Benefits <sup>1</sup>		0.740		
24) Rituals/Noticing Benefits		0.774		
25) Rituals/Noticing Benefits <sup>1</sup>		0.798		
26) Expressions of Gratitude		0.698		
27) Expressions of Gratitude		0.739		
28) Expressions of Gratitude		0.727		
29) Expressions of Gratitude <sup>1</sup>		0.774		
Eigenvalue	6.99	3.52	3.03	2.409
% Variance	24.08	12.15	10.44	8.308
Cronbach's $\alpha$	0.92	0.88	0.84	0.73
McDonald's $\omega$	0.92	0.88	0.84	0.73

<sup>1</sup> Item text adapted with colloquial wording after cognitive interviews with children.

**Table 4.** The goodness of fit indices of the CFA model. Estimator RML.

Model	Fit indices							
	$\chi^2$ (df)	p	$\chi^2/df$	CFI	TLI	RMSEA [90% CI]	AIC	BIC
<b>MCGM 6 factor*</b>	383.416 (265)	<0.0001	1.45	0.94	0.93	0.045 [0.034,0.054]	15342.460	15548.483
<b>MCGM 6 factor**</b>	406.502 (309)	<0.0001	1.32	0.95	0.95	0.037 [0.027,0.046]	16281.369	16518.296
<b>MCGM 4 factor*</b>	605.519 (371)	<0.0001	1.63	0.89	0.88	0.053 [0.045,0.060]	17891.051	18110.809
<b>MCGM 4 factor**</b>	519.981 (318)	<0.0001	1.63	0.91	0.90	0.054 [0.045,0.061]	16385.245	1641.245

\*\*\* CFA includes items 7 and 16; \*\*\*\* CFA doesn't include items 7 and 16.



**Figure 2.** Path diagrams for the confirmatory factor analysis (n = 229). Here, we represent the correlated factor structure of the four-factor MCGM model, the item correlations, and respective errors. All standardized coefficients are significant at the .05 level. Note: F1: Feelings of Gratitude and Attitudes of Gratitude; F2: Attitudes to Appropriateness; F3: Behavioral Shortcomings; F4: Rituals/Noticing Benefits and Expressions of Gratitude.

**Table 5.** Descriptive statistics with reliability indicators for the convergent validity measures.

Instrument	Mean	SD	Cronbach's alpha	McDonald's omega
<b>Positive emotions</b>	2.51	0.31	0.88	0.89
Joy and gratitude	2.72	0.31	0.83	0.83
Serenity	2.34	0.39	0.71	0.71
Personal Satisfaction	2.65	0.5	0.79	0.80
<b>Gratitude</b>	2.66	0.28	0.78	0.81
Gratitude subscale	2.77	0.31	0.78	0.79
<b>TISS – prosocial behavior</b>	4.08	0.98	0.90	0.90
<b>PANAS</b>	3.73	0.67	0.76	0.79
<b>BIEPS</b>	2.69	0.31	0.83	0.84

Note. TISS: Teenage Inventory of Social Skills; PANAS: Positive Affect/Negative Affect Scale for Children; BIEPS: *Escala de bienestar psicológico para jóvenes* (Scale of Psychological Wellbeing for Young People).

questionnaire ( $r = 0.41, p < 0.001$ ) and the PANAS *Positive affect* subscale ( $r = 0.32, p < 0.001$ ). These results indicated an association between the affective component of the MCGM and similar constructs measuring children's engagement with positive emotions triggered by satisfying life events, and their states of contentment when obtaining a benefit from a benefactor (Emmons and McCullough, 2003; Oros, 2014).

The MCGM subscale *Behaviors* correlated positively with the Positive Emotions instrument ( $r = 0.36, p < 0.001$ ). Specifically, *Behaviors* showed a significant association with the *Serenity* subscale of that instrument ( $r = 0.31, p < 0.001$ ), implying that the ability to emotionally regulate and cope with adverse situations, as reflected in the subscale's items, was more prevalent for participants who engaged more often in gratitude-related behaviors. This subscale also correlated with the *Gratitude and joy* subscale, possibly suggesting an engagement from the more

**Table 6.** Spearman's correlations between the four-factor MCGM and related scales.

	Feelings	Attitudes to Appropriateness	Behavioral Shortcomings	Behaviors
<b>Positive Emotions</b>	0.47***	0.15*	-0.39***	0.36***
Gratitude and joy	0.48***	0.14*	-0.35***	0.29**
Serenity	0.35***	0.14*	-0.36***	0.33***
Personal satisfaction	0.36***	0.10*	-0.30***	0.19*
<b>Gratitude</b>	0.42***	0.13*	-0.33***	0.23**
<b>TISS</b>	0.29**	0.06	-0.13*	0.30***
<b>BIEPS</b>	0.41***	0.26**	-0.32***	0.25**
<b>PANAS -PA</b>	0.32**	0.08	-0.33***	0.30***

\* $p < 0.05$  \*\* $p < 0.01$  \*\*\* $p < 0.001$ .

grateful individuals with positive emotions such as joy and happiness, triggered by satisfying life situations (Oros 2014), and positive expressions from obtaining a benefit granted by a benefactor (Emmons and McCullough 2003; McCullough et al., 2002). Behavior was also related to the TISS instrument ( $r = 0.30, p < 0.001$ ), indicating that the social acceptance and positive perception of social relations with peers was more prevalent for children who reported more frequent expressions of gratitude. Results also showed positive associations with the BIEPS measure of wellbeing ( $r = 0.30, p < 0.001$ ) and the PANAS questionnaire ( $r = 0.30, p < 0.001$ ), suggesting an association between children's reports of their experiences of wellbeing, pleasure, and satisfaction with life (Oros, 2014) and their engagement in expressing thanks (Morgan et al., 2017).

In contrast, the *Behavioral shortcomings* subscale displayed a series of negative associations with the constructs measured by the other questionnaires. This result was expected, as the items on that subscale are phrased negatively in order to measure participants' reflections about their own behavioral misgivings related to gratitude, whereas all the other instruments focus on positive states. Results reported negative correlations with the *Positive Emotions* measure ( $r = -0.39, p < 0.001$ ), and its subscales (*Gratitude and Joy*:  $r = -0.35, p < 0.001$ ; *Serenity*:  $r = 0.36, p < 0.001$ ; *Personal Satisfaction*:  $r = 0.30, p < 0.001$ ), the *Gratitude* instrument subscale ( $r = -0.33, p < 0.001$ ), and the PANAS scale ( $r = -0.33, p < 0.001$ ). This subscale also correlated negatively with the wellbeing questionnaire ( $r = -0.31, p < 0.001$ ). No instruments displayed significant associations with the *Attitudes to appropriateness* subscale.

#### 4. Discussion

This study aimed to determine the psychometric properties of the Spanish version of the MCGM with Colombian schoolchildren. In accordance with the results of Morgan et al. (2017) and Hudecek et al. (2020) for adult populations, our reliability indices showed good levels of internal consistency for the MCGM subscales. The PCA exhibited a four-factor model, which was adequate for analysis. This structure was partially consistent with the six-factor structure of the original instrument designed by Morgan and collaborators (2017), but it grouped the *Feelings of gratitude* and *Attitudes of gratitude* as one factor, and the *Rituals/noticing benefits* and *Expressions of gratitude* subscales as another factor – even though as originally conceptualized by Morgan and colleagues, *Attitudes of gratitude* should belong to the attitudinal component of gratitude, and *Feelings of gratitude* to the emotional component.

Regarding the conjoined subscales *Feelings of gratitude* and *Attitudes of gratitude*, it is possible that the children in our study understood the content of these two subscales similarly. The MCGM's attitudinal component includes two subscales exploring the benefits and importance of expressing gratitude and evaluating its appropriateness. Children may have related recognition of gratitude's benefits (an attitude) with feeling grateful for something or to someone who had given them a benefit. This would be consistent with the typical level of reasoning shown by children of this age (7–12 years of age), since they tend to focus on concrete experiences in the "here and now" and can have difficulties with considering abstract or global concepts (Piaget, 2003). At that age, it is also common for children to over-generalize the meaning of related concepts to broader contexts, where the concepts do not necessarily have the same semantic content (Polo del Rio et al., 2017). In contrast, children did not show significant comprehension difficulties with the second attitudinal subscale (*Attitudes to appropriateness*), which centered on the conditions under which gratitude would be appropriate. This subscale displays a similar linguistic structure to the behavioral rules and norms about gratitude that Colombian adults commonly encourage in their daily socialization of children (e.g., saying "Thanks" when they are given something). Previous research that has used parents' reports of children's displayed gratitude to measure the influence of the effect of socializing gratitude with children (Hussong et al., 2019) supports the idea that increased exposure to a more proactive socialization may increase

children's practices of gratitude. For that reason, we may have observed firmer discrimination of these items compared to the *Attitudes to gratitude* subscale. The *Rituals/noticing benefits* and *Expressions of gratitude* subscales also loaded as one factor. Both subscales represent the behavioral component of gratitude described by Morgan et al. (2017) in their theory of gratitude as a multicomponent virtue, so it makes sense to unite these subscales into one.

The items all loaded well to their respective factors, except for items 7 and 16 from the *Attitudes of gratitude* and *Attitudes to appropriateness* subscales, respectively. A possible reason for this may be related to the incongruence of their valence with the other items in these two subscales. Item 7 (*No creo que sea necesario mostrar gratitud a los demás*/"I don't think it is necessary to show your gratitude to others") was the only reverse-scored item in the *Attitudes to gratitude* subscale. Results showed a stronger correlation between item 7 and the items of the *Behavioral shortcomings* subscale, composed of reverse-scored items, probably because they are syntactically more similar. Therefore, we removed item 7 from the *Attitudes to gratitude* subscale in the analysis. Another possibility is to rewrite the item in a positive direction in the same subscale to verify if it loads to the *Attitudes to gratitude* factor. It would be important for future studies that use the MCGM to address this issue. Item 16 (*Yo solo siento gratitud cuando el beneficio que recibo tiene valor verdadero para mí*/"I only feel grateful when the benefit is of genuine value to me") did not show any association with *Attitudes to appropriateness* or any other subscale in the questionnaire. One potential explanation for this result is that item 16 is the only positive item in the *Attitudes to appropriateness* subscale, which otherwise consists of reverse-scored items. A second plausible explanation relates to the translation of the word "genuine." The literal translation of the word "genuine" is *genuino* in Spanish; yet we did not use this term because the word is not commonly used by Colombian children, as they reported in the cognitive interviews. We instead translated it as *verdadero* (literally "true"). However, in the data collection procedure, children perceived redundancy in the phrase *valor verdadero* ("true value") because, for them, the word *valor* ("value") implied that something was true. We suggest that another phrase such as *valor real* or *valor importante* might be better understood by children.

Similar difficulties with items in the attitudinal component of the MCGM were also identified in the validation of the MCGM with a German population by Hudecek et al. (2020). These authors found deviations in the *Attitudes to appropriateness* loadings that slightly worsened the fit of their model. They suggested that these deviations might be related to different cultural understandings about when gratitude is warranted and when it is not. Likewise, many differences that we identified were also related to the items from the attitudinal component of the MCGM and might be associated with children's blurring of the lines between *Attitudes for gratitude* and *Feelings of gratitude*, along with the lack of loading of items 7 and 16, which had a different positive or negative valence to the rest of their respective subscales.

For the CFA, we compared the four-factor model extracted from our PCA with the original six-factor model structure proposed by Morgan and collaborators (2017). We found a good model fit for both the four-factor and the six-factor structures (in both cases, when excluding items 7 and 16). The results obtained from the CFA allow us to suggest that the original six-factor model of Morgan and collaborators (2017) is statistically adequate for evaluating gratitude in Colombian children. Similarly, the four-factor model obtained in the EFA is also adequate for this population and could be a simpler alternative for gratitude evaluation in children.

A reason to choose the four-factor structure was that we were not able to differentiate the *Feelings of gratitude* and *Attitudes to gratitude* subscales in the PCA, which did not replicate the six-factor structure. Instead, when the PCA analysis was fixed to six factors, once again, the *Feelings of gratitude* and *Attitudes to gratitude* subscales were matched together. Still, different items from the *Attitudes to appropriateness* subscale were separated into two factors, which we did not consider to be of theoretical value in measuring gratitude. Therefore, we recommend joining the

*Feelings of gratitude* and *Attitudes to gratitude* subscales as one conceptual dimension and the *Rituals/noticing benefits* and the *Expressions of gratitude* as another in this Spanish version of the MCGM, excluding items 7 and 16. This decision favors a more parsimonious model of gratitude.

In terms of convergent validity, correlations between different components of the four-factor Spanish version of the MCGM and the measures for positive emotions, prosocial behavior and wellbeing were mainly in the expected directions. Our results showed that the emotional component correlated positively with the instruments that captured positive feelings and emotions (the gratitude measure for children of Cuello and Oros, 2016; the positive emotions questionnaire of Oros, 2014; and the positive affect subscale of the PANAS used by González & Valdez, 2015). The emotional component also correlated with the gratitude scale designed by Cuello and Oros (2014)—gratitude being conceptualized by these authors as an emotion oriented towards social exchange. As expected, the emotional component displayed positive correlations with the wellbeing questionnaire BIEPS, from Casullo and Solano (2000). However, it is worth noting that the associations with the Positive Emotions and PANAS instruments were also significant for the *Behaviors* subscale. As expected, the behavioral component of the MCGM correlated with the Prosocial Behavior subscale of the TISS instrument (Inglés et al., 2003). Correlations for the *Behavioral shortcomings* subscale were consistently negative with all the other instruments. This reflects the fact that this subscale is composed of reverse-scored items that served as prompts for participants to engage in critical reflection about gratitude-related behaviors in which they had failed to engage (Morgan et al., 2017).

The relatively low correlations for the MCGM *Attitudes to appropriateness* subscale with the other questionnaires were mirrored in the results of Hudecek et al. (2020) for their validation study in Germany. It is important to note that the subscale of *Behaviors* was associated with almost all the external questionnaires, apart from Cuello and Oros's (2014) gratitude measure for children. A similar association between the positive emotion and positive affect questionnaires was also found by Hudecek et al. (2020). These results support the idea that children's responses in the MCGM are related to similar constructs that gauge gratitude's behavioral, attitudinal, and emotional components. As such, we observed from the other instruments additional information about the children's experiences of gratitude, through the associations with other positive psychological constructs already validated in children.

As observed in the correlation analysis, the MCGM components might capture gratitude from additional perspectives, above and beyond simplistic conceptualizations of gratitude as an entirely positive affective trait, or as an expression of thanks after receiving a benefit. Such conceptualizations fail to achieve a comprehensive understanding of gratitude as a multifaceted construct because of their emphasis on the relationships of trait gratitude and grateful feelings with a sense of appreciation, happiness, and so on. For example, both the GRAT (Watkins et al., 2003) and the CG-6 (McCullough et al., 2002) scales have reported strong correlations with positive affect, satisfaction with life, and wellbeing instruments, among other things. Yet they tend to focus on grateful feelings, appreciations, and instrumental benefits, while ignoring evaluative aspects of gratitude and considerations of whether and when it should be expressed (Morgan et al., 2017). For that reason, our adaptation of the MCGM in Spanish can be a good tool to measure the complexity of children and young people's conceptualizations of gratitude.

#### 4.1. Limitations

Considering that this is a first approximation to the translation and cultural adaptation of the MCGM in Colombian children, our results exhibited some linguistic differences that might have influenced

children's interpretations of certain items. During the translation and adaptation, several items were discussed and altered to try to find a more suitable version. In the cognitive interviews, children highlighted comprehension difficulties, which were submitted to modifications to increase their understanding. Although it is possible that similar difficulties may still have affected children's comprehension in the main study, we think that this is unlikely, since apart from a few items already mentioned, there was good internal consistency between most of the items in their respective subscales and a good overall fit of both the five- and six-factor models. It is important to highlight that the cognitive interviewing sample was small and gender-biased, since there were only six participants and five were girls. There is mixed evidence regarding gender differences in gratitude in children (Froh et al., 2009b; Freitas et al., 2011).

Additionally, it is essential to note that our data was collected during the COVID-19 pandemic, and this unusual context may have influenced some of the responses given by children. For that reason, we suggest that it is worth continuing to examine the validity evidence for the MCGM instrument, not only in other demographic and developmental contexts, but also with similar populations post-lockdown. In line with current guidelines for research with children, we also advocate complementing quantitative approaches such as the MCGM with qualitative techniques in a mixed-methods analysis, providing a more profound and fine-grained understanding of experiences of gratitude in children. This kind of child-centered approach that includes more participative methodologies to clearly understand children's perspectives points of view (Sixsmith et al., 2007), can offer qualitative insights into children's understanding of complex constructs, including gratitude. Another suggestion is to add to the data collection procedure a social desirability measure that can give additional evidence on children's perceptions of themselves while answering the questions, and their social expectations of which responses they think are more "correct" or pleasing to others (Lemos, 2005).

In the future, we expect to test the MCGM as an instrument to evaluate the effectiveness of educational interventions and relate it with variables known to function as mediators in gratitude research. The multidimensional approach of the MCGM can help to give a more sophisticated understanding of the various components that comprise gratitude, in addition to its well-known positive emotional aspects, which have already been explored in other Latin American populations.

## 5. Conclusion

In conclusion, our results in Colombian schoolchildren aged 8–12 years allow us to recommend this Spanish-language adaptation of Morgan and colleagues' (2017) approach to measuring gratitude as a multi-component construct. We validated the MCGM's structure as comprising four main factors, reflecting the emotional, attitudinal, and behavioral components of gratitude. Factor 1 represented the emotional component, Factor 2 represented the attitudinal component, and Factors 3 and 4 the behavioral component. The behavioral shortcomings subscale loaded on to a separate factor in the behavioral component since it based on reversed scores that represent gratitude-related behavioral expressions that people can neglect to engage in. Based on our findings, this version of the MCGM has been validated in a Colombian context and can be named the Multi-Component Gratitude Measure for Spanish Youth (MCGM-SY). We also found positive correlations between most of the children's multidimensional experiences of gratitude and other measures of gratitude, positive emotions, prosocial behavior, and wellbeing, with the *Behavioral shortcomings* subscale consistently showing negative correlations with all these other instruments. Our cross-cultural adaptation of this instrument can help deepen our understanding of gratitude in children—including those from non-English-speaking populations—and



its association with other positive development characteristics, and potentially serve as a measure to evaluate educational programs that promote gratitude in school contexts.

## Declarations

### Author contribution statement

Yvonne Gómez: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Sonia Carrillo; Gordon P.D. Ingram: Conceived and designed the experiments; Analyzed and interpreted the data; Wrote the paper.

Maria Alejandra Tangarife: Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Daniela Robles; Marta Carolina Ibarra: Performed the experiments; Contributed reagents, materials, analysis tools or data.

Blaire Morgan: Analyzed and interpreted the data; Wrote the paper.

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### Data availability statement

Data associated with this study has been deposited at <https://doi.org/10.17632/j44r9t8hm3.1>.

### Declaration of interest's statement

The authors declare no competing interests.

### Additional information

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## Appendix 1

Translation of the items from the original version of the MCGM (Morgan et al., 2017).

### FEELINGS OF GRATITUDE [E].

1. Hay muchas personas hacia las que me siento agradecido/a.
2. Aprecio el apoyo que muchas personas me han dado en mi vida.
3. Me siento agradecido/a por las personas en mi vida.
4. Hay muchas personas por las que me siento agradecido/a.
5. Cuando pienso en todo lo que tengo para estar agradecido/a me siento feliz

6. Hay muchas cosas por las que estoy agradecido/a.

### ATTITUDES OF GRATITUDE [A].

7. No creo que sea necesario mostrar gratitud a los demás\*
8. Creo que es importante agradecer sinceramente a las personas por la ayuda que me dan.
9. Creo que es importante tener la gratitud como valor.
10. Es importante reconocer la amabilidad de otras personas.

### ATTITUDES TO APPROPRIATENESS [A].

11. La gratitud debería reservarse para cuando las personas no quieren nada a cambio\*

La gratitud se debe reservar para cuando las personas no esperan que tú les des algo a cambio.

12. Se debería reservar la gratitud para cuando alguien busca lo mejor para tí\*

13. Yo sólo siento gratitud hacia personas que me han beneficiado sin desear nada a cambio\*

14. Sólo muestro gratitud por las cosas que nadie esta en la obligación de darme\*

15. Yo solamente muestro gratitud hacia las personas que claramente tuvieron la intención de beneficiarme\*

16. Yo solo siento gratitud cuando el beneficio que recibo tiene valor verdadero para mí.

### BEHAVIOURAL SHORTCOMINGS [B].

17. Se me olvida demostrarle a los demás lo mucho que los aprecio\*
18. Se me olvida reflexionar sobre las cosas por las que estoy agradecido/a\*

19. No me doy cuenta de cuanto tengo para estar agradecido\*
20. Se me olvida que hay mucho en la vida por lo cual estar agradecido\*

21. Me tomo unos minutos para reconocer las cosas buenas que tengo en mi vida.

### RITUALS/NOTICING BENEFITS [B].

22. Reconozco cuantas cosas tengo por las cuales estar agradecido/a.
23. Me tomo unos minutos para pensar en todas las cosas por las cuales estoy agradecido/a.

24. Reflexiono sobre todas las cosas buenas que tengo
25. Me recuerdo a mí mismo de los beneficios que he recibido

### EXPRESSIONS OF GRATITUDE.

26. Para mí es una prioridad agradecerle a los demás.
27. Expreso mi agradecimiento a quienes me ayudan

28. Me doy cuenta de las personas que son amables conmigo
29. Hago todo lo posible para agradecer a los demás por su ayuda, aún si tengo que esforzarme un poco.

- Note. “\*” indicates that the item is reverse-scored.

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