

 <p>ESCOLA DE CIÊNCIAS DA SAÚDE E DA VIDA</p>	<p>PSICO</p> <p>Psico, Porto Alegre, v. 55, n. 1, p. 1-14, jan.-dez. 2024 e-ISSN: 1980-8623 ISSN-L: 0103-5371</p>
<p>http://dx.doi.org/10.15448/1980-8623.2024.1.40863</p>	

SEÇÃO: ARTIGOS

Instruments to measure gratitude: a systematic review

Instrumentos de mensuração da gratidão: uma revisão sistemática

Instrumentos para medir la gratitud: una revisión sistemática

Victoria Deluca¹

orcid.org/0000-0002-8460-0497
victoria.deluca@acad.pucrs.br

Carlos Eduardo

Loureiro Xavier²

orcid.org/0000-0001-8556-6756
carlos.lx27@gmail.com

Marina Bittelbrunn

Severo³

orcid.org/0000-0002-7210-3442
psico.marinasevero@gmail.com

Nicolas de Oliveira

Cardoso⁴

orcid.org/0000-0002-1555-1409
nicolas.deoliveira@hotmail.com

Maria Gloria Bernabe-

Valero⁵

orcid.org/0000-0003-2435-7509
gloria.bernabe@ucv.es

Irani Iracema de Lima

Argimon⁶

orcid.org/0000-0003-4984-0345
argimoni@pucrs.br

Received on: 28 abr. 2021.

Approved on: 19 dez. 2022.

Published on: 12 set. 2024.



Artigo está licenciado sob forma de uma licença
[Creative Commons Atribuição 4.0 Internacional](https://creativecommons.org/licenses/by/4.0/).

Abstract: Gratitude can be understood as a guide for life and ability to perceive and appreciate the positive in the world. The present study aimed to map how many and which instruments are available to measure gratitude, the circumstances of the evaluation and the predominant population. This systematic review located papers in four databases, resulting in a total of 36 papers. Of these, 16 original scales were found, and the remainder indicated as adaptations and validations. The main results show the numerical disparity of the perception of gratitude between genders and in relation to the age group evaluated. GQ-6 and GRAT are the most frequently used scales, with a greater variety of contexts and application audiences. The measures used to assess consistency have demonstrated, in most studies, concise reliability. It concludes by bringing the need for greater access to validated gratitude measures, in addition to the progress in the discussion regarding mental health.

Keywords: gratitude, systematic review, instruments

Resumo: A gratidão pode ser entendida como orientação para vida e capacidade de perceber e apreciar o positivo no mundo. O presente estudo objetivou mapear quantos e quais instrumentos estão disponíveis para mensuração da gratidão, as circunstâncias da avaliação e população predominante. Esta revisão sistemática localizou artigos em quatro bases de dados, resultando em um total de 36 artigos. Destes, foram encontradas 16 escalas originais e o restante indicado como adaptações e validações. Os principais resultados demonstram a disparidade numérica da percepção de gratidão entre gêneros e em relação à faixa etária avaliada. GQ-6 e GRAT são as escalas usadas com mais frequência, tendo maior variedade de contextos e públicos de aplicação. As medidas utilizadas para avaliação da consistência demonstraram, na maioria dos estudos, fidedignidade concisas. Conclui-se trazendo a necessidade de maior acesso a medidas de gratidão validadas, além do avanço na discussão referente à saúde mental.

Palavras-chave: gratidão, revisão sistemática, instrumentos

Resumen: La gratitud se entiende como una guía para la vida y la capacidad de percibir y apreciar lo positivo del mundo. El presente estudio tuvo como objetivo mapear cuántos y qué instrumentos están disponibles para medir la gratitud, cuales circunstancias de la evaluación y la población predominante. Esta revisión sistemática ubicó artículos en cuatro bases de datos, lo que resultó en un total de 36 artículos. De estas, se encontraron 16 escalas originales y el resto se indicó como adaptaciones y validaciones. Los principales resultados muestran la disparidad numérica de la percepción de gratitud entre géneros y en relación al grupo de edad evaluado. GQ-6 y GRAT son las escalas más utilizadas, con una mayor variedad de contextos y públicos de aplicación. Las medidas utilizadas para evaluar la coherencia han demostrado, en la mayoría de los estudios, una fiabilidad concisa. Se concluye planteando la necesidad de un mayor acceso a

¹ Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS), Porto Alegre, RS, Brasil.

² Universidade Federal do Rio Grande do Sul (UFRGS), Porto Alegre, RS, Brasil.

³ Centro Universitário Ritter dos Reis (UniRitter); Centro Integrado em Saúde (CIS), Canoas, RS, Brasil.

⁴ Universidade Federal Fluminense (UFF), Niterói, RJ, Brasil.

⁵ Universidade Católica de Valência, San Vicente Mártir (UCV), Valencia, Espanha.

⁶ Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS), Porto Alegre, RS, Brasil.

medidas de gratitud validadas, además de los avances en la discusión sobre salud mental.

Palabras clave: gratitude, revisión sistemática, instrumentos

Gratitude has been studied since antiquity and addressed by sciences such as Theology, Philosophy and Social Sciences. In Psychology, it has been appreciated from the emergence of Positive Psychology that defines Gratitude as one of the 24 forces of character allocated within the virtue Transcendence. This virtue represents the forces that help the human being to connect to something greater, as well as the other forces of character within this virtue, are the appreciation of beauty and excellence, hope, humor and spirituality (Bernabé-Valero, 2014; Peterson & Seligman, 2004; VIA, 2019).

In recent years, a significant amount of research has shown that gratitude is related to a wide variety of forms of well-being. However, research does not usually have agreement on the nature of this construct, and can be classified as an emotion, a feeling, an attitude, a moral virtue, a habit, a personality trait or a coping strategy. On the other hand, in all are the concept of orientation to life, the ability to perceive and appreciate the positive in the world (Pieta, 2009; Wood, Froh & Geraghty, 2010).

Gratitude can be evaluated in different ways, such as McCullough, Emmons & Tsang (2002) understand as an affective trait and its disposition. Thus, they classify dispositional gratitude as a universal tendency to feel grateful for positive feelings. On the other hand, Bernabé-Valero, García-Alandete & Gallego-Pérez (2014) understand the conceptualization of gratitude including interpersonal agents, as well as in other contexts in which people refer to God, nature, or fortune. Finally, other authors use the term of transpersonal gratitude to refer to the feeling of gratitude beyond the self (Hlava, Elfers & Offringa, 2014; Steindl-Rast, 2004).

Furthermore, in understanding gratitude, attention is taken to the existence of different areas in which it can be understood. According to Bernabé-Valero (2014), it is possible to understand the segments from an existential attitude, a moral

virtue, an emotion or a dispositional trait. The author sought to explore the different ways of understanding gratitude, considering that until then the authors who developed models of evaluating the construct, had presented measures selecting one of these characteristics cited, instead of contemplating gratitude as a whole.

The study of gratitude was addressed by priests, theologians and was widely recognized by Saint Thomas Aquinas who defined gratitude in processes of interconnected actions, such as the recognition of a benefit, gratefulness with the feeling of gratitude and their retribution (Bernabé-Valero, 2014). In addition, a famous American lawyer, in his book *Gratitude and Justice*, concludes that gratitude is at the center of ethics, offering a way to avoid many sources of suffering in ourselves and others. It offers a way to avoid psychological patterns that can harm us physically and psychologically, destroy our relationships, and lead to actions that harm others (Fitzgerald, 1998).

Gratitude and its study are aspects that are relevant and fundamental throughout the history of humanity (McCullough, Kimeldorf & Cohen, 2008). Its most striking characteristic is the fact of recognition of the beneficial action and/or intention and the need to respond to this action in a mutual way (Sheldon & Kasser, 2001). In addition to experiencing and showing an intense sense of gratitude in life, it is important to take the time to genuinely express gratitude to others. It can be experienced by specific gifts or careful acts; it can also be the recognition of a person's contribution to their life or by deliberate acts such as a cool breeze on their face on a hot day (VIA, 2019).

The ability to be grateful also develops a sense of moral affection with moral consequences. McCullough, Kilpatrick, Emmons and Larson (2001) by assumption, argue that an individual, when connecting with the effects of gratitude, is inclined to have prosocial behaviors, being less prevented from engaging in destructive interpersonal behaviors. Moreover, because it is related to emotions such as generosity, respect, reciprocity and kindness it is directly associated in the way the quality of social skills acquired

by the individual is shaped (McCullough & Emmons, 2003; Fredrickson, 2004). It also relates to several clinically relevant phenomena, including psychopathologies, adaptive personality characteristics, health, positive relationships, subjective well-being, and humanist-oriented functioning (Wood, Froh & Geraghty, 2010). It is remarkable the relationship of gratitude with well-being as well as with personality traits (Bernabé-Valero, 2014).

In view of the breadth of the concept of gratitude and its importance in reducing symptoms related to mental disorders, it is important to review the measurement instruments that help in the identification of this construct. With this, this study aims to assist researchers and clinicians in the search for the ideal instrument for their population, while presenting scientific evidence. Therefore, this study aims to identify how many and which instruments are available worldwide to measure gratitude, and identify the internal consistency of which one. In addition, verifying the predominant population in the results found and what type of phenomenon and situations the instruments found assess gratitude.

Method

The present study is characterized as a systematic review based on the PRISMA method (Moher, Liberati, Tetzlaff, & Altman, 2009). Searches were conducted in March 2020 to May 2020 by three independent judges in electronic databases PsycINFO, Scopus, Web of Science and PubMed. The research was carried out from the search for the following descriptors: *gratitude AND questionnaire OR scale OR index OR psychometric OR assessment OR instrument OR test*. These descriptors were elected on the basis of the Medical Subject Headings (MeSH/PubMed) and Thesaurus (PsycINFO).

Advanced searches were performed with the defined terms, taking into account their presence in the title, abstract or keywords, without any other filter. The steps can be detailed as follows: in the PsycINFO database, the "abstract" classification followed by "journal" was used. At Scopus, first "article, abstract and keyword" and then "article".

On the Web of Science, "topic" that includes title, summary and keywords, along with the "article" classification. Finally, the description "title and abstract" was used in the PubMed database.

The results of this first step were imported into the Rayyan electronic tool, which allows optimizing the time of the selection of articles, as well as reducing the obstacles among the authors of Systematic Reviews (Olofsson et al., 2017). The initial search allowed a preliminary quantification of studies, based on their titles and abstracts. They were analyzed and selected according to the inclusion and exclusion criteria previously established. A second selection was made manually, considering the documents in full, in order to answer the research questions of this study.

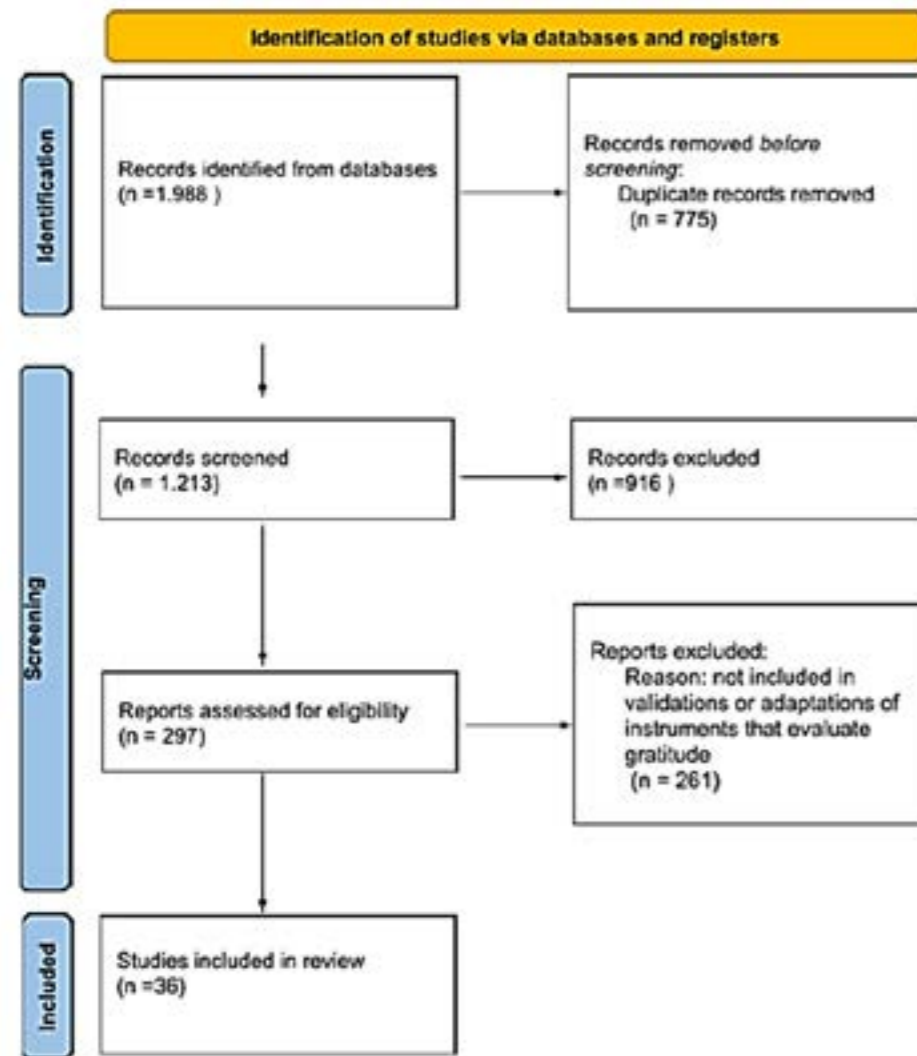
The review was recorded in PROSPERO (*International Prospective Register of Systematic Reviews*). As an inclusion criterion, it was accepted: 1. studies that used scales or questionnaires to assess gratitude in any population; and 2. articles that inform the internal consistency of the instrument. Exclusion criteria were: 1. productions characterized by other reviews or theoretical articles, dissertations, theses, monographs, books, book chapters, yearbooks, reports and course completion papers; and 2. repeated or unavailable online articles. No limitation was established regarding age, clinical characteristics of the population, date of publication or language of the study, intending a comprehensive analysis of the literature.

Results

This systematic review identified a total of 1,988 studies. After detailed verification of the titles and abstracts, 297 articles were selected for reading in full, based on the inclusion and exclusion criteria previously established, considering only publications that refer to the development or adaptation of scales that evaluate gratitude. After analyzing this material, 36 articles were included according to the reliability of the gratitude assessment proposed in each work. The studies that remained were considered unanimously by the three judges as having sufficient evidence

of validity to compose the results of this article. Figure 1 shows all the stages of the process, from the initial identification to the final selection of the studies.

Figure 1 – Flowchart



Gratitude measurement instruments

We have seen 16 original instruments that assess gratitude from measurable observation, according to table 1. The variables presented refer to the circumstances present in the daily life of each cultural scenario evaluated. The names of the instruments found are: *Gratitude Questionnaire (GQ-6)*, *Gratitude Questionnaire-20 Items (G-20)*, *Gratitude Resentment and Appreciation Test (GRAT)*, *Raising Grateful Children (RGC)*, *The*

Transpersonal Gratitude Scale (TGS), *Existential Gratitude Scale (EGS)*, *Interpersonal Gratitude Scale for Children*, *Gratitude/Awe Scale (GrAw-7)*, *Perceived Gratitude Scale (PGrate)*, *Gratitude During Pregnancy (GDP)*, *Gratitude at Work Scale (GAWS)*, *Gratitude in University Students in Japan and Thailand*, *Gratitude in Service Encounters*, *Gratitude and Regret Towards Nature*, *Gratitude for Children and Adolescents Scale*, and *Gratitude Adjective Checklist (GAC)*.

Table 1 - Original Scales

Instrument	Population or sample number	Age	Gender	Internal Consistency	Phenomenon/Situation	Number of items	Number of adaptations
GQ-6 (McCullough, Emmons & Tsang, 2002)	238 psychology students	M= 21	M= 57 (24%); F= 174 (73%)	$\alpha = 0.82$	Dispositional gratitude	6	18
G20 (Bernabé-Vale-ro, Garcia-Alandete & Gallego-Pérez, 2014)	330 higher education students	M= 23.33; SD= 4.87	M= 88 (27,5%) F= 242 (72,5%)	$\alpha = 0.83$	Interpersonal and expres-sion of gratitude, in front of suffering and recogni-tion of gifts	20	-
GRAT (Watkins, Woo-ward, Stone & Kolts, 2003)	1: 237 Psychology students; 2: population 1 (57), population 2 (66) and population 3 (154);3: 104 psychology students; 4: 157 university students	-	-	$\alpha = 0.92$	Dispositional gratitude	44	5
GAC (McCullough, Em-mons & Tsang, 2002)	1.228 adults volunteers	M= 44.6; SD= 12.0	M= 185 (15%); F= 983 (80%)	$\alpha = 0.87$	Dispositional gratitude based on adjective	3	1
RGC (Hussong et al., 2019)	1: parent-child dyads (101); 2: -	1: M= 41; SD= 5; 2: M= 7,4; SD = 1,03	1: M= 15%; F= 85% 2: M= 48%; F=52%	$\alpha = 0.82 / \alpha = 0.84$	Expression of gratitude in children	10	-
TGS (Hlava, Elfers & Offringa, 2014)	1: 314 adults; 2: 385 adults	1: M= 47; SD= 14,1; 2: M= 45,7; SD= 16,1	1: M= 90 (28,7%); F= 224 (71,3%); 2: M= 165 (42,9%); F= 220 (57,1%)	$\alpha = 0.88$	Transpersonal gratitude	16	-
EGS (Jans-Beken & Wong, 2019)	186 participants adults and el-derly	M= 32; SD= 11	M= 108 (58%); F= 78 (42%)	$\alpha = 0.87 / \omega = 0.87$	Existential and dispositio-nal gratitude	13	-
Interpersonal Grati-tude Scale for Children (Fujiwara, Murakami, Nishimura, Hamagu-chi & Sakurai, 2014)	1,068 elementary school stu-dents between 4th and 6th grades	-	M= 538 (50,37%); F= 530 (49,63%)	$\alpha = 0.92$	Interpersonal gratitude	8	-

Graw-7 (Büssing, Recchia & Baumann, 2018)	183 adults	M= 51.8; SD= 15.5	M= 67.0%; F= 33.0%	$\alpha = 0,82$	Gratitude and awe	7	-
PGrate (Martini, Loera & Converso, 2015)	347 educator and early years teachers	M= 49.72; SD= 7.99	M= 1%; F= 99%	$\alpha = 0,82$	Gratitude expressions and gratitude as a source of support	9	-
GDP (O'Leary, Dockray & Hammond, 2016)	1: 375 Irish woman with no complications in the pregnancy; 2: 87 pregnant woman	1: M= 32.3; SD= 4.46; 2: M= 31.29; SD= 5.52	1: F= 100%; 2: F= 100%	$\alpha = 0,89$	Gratitude in pregnancy	18	-
GAWS (Cain, Cairo, Duffy, Meli, Rye & Worthington, 2019)	1: 207 full-time employees of human service and mental health's agencies in the north-west of USA; 2: 269 adults of USA or Canada; 3: 161 undergraduate students and part-time workers	1: M= 40.7 SD= 12.4; 2: M= 36.71 SD= 11.56; 3: M= 20.71 SD= 4.06	1: M= 19.6% F= 80.4%; 2: M= 49.8% F= 50.2%; 3: M= 25.2% F= 74.8%	$\alpha = 0,83$	Gratitude at work	10	-
Gratitude in University Students in Japan and Thailand (Naito, Wangwan & Tani, 2005)	1: 212 students of three universities of Japan and 284 students from a university in Thailand; 2: 150 women students of Japan	1: M= 19.25 SD= 1.88 (Japan), M= 20.31 SD= 1.48 (Thailand); 2: M= 18.99 SD= 0.96	1: M= 74 (34.91%) F= 138 (65.09%) (Japão); 2: M= 162 (57.04%) F= 122(42.96%)(Tailândia); 2: F=150	The alpha coefficients ranged from .80 to .93 for the Japanese group and from .85 to .95 for the Thai group.	Gratitude for favors received, debt feeling and increase of social participation	15	-
Gratitude in Service Encounters (Bock, Folse & Black, 2016)	1: 116 participants from university; 2: 213 participants that does not study; 3:230 university students and 4: 226 participants that does not study	1: - 2: M= 44; 3: - 4: M= 40;	1: - 2: M= 39% and F= 61%; 3: - 4: M= 48% F=52%	$\alpha = 0,90$	Customer's gratitude	10	-
Gratitude and Regret Towards Nature (Naito et al., 2010)	228 students form two Japanese universities (Tokyo and Tochigi)	M= 19.43 SD= 1,38	M= 67 (29%) F= 161 (71%)	$\alpha = 0,90 / \alpha = 0,95$	Pro-environment intention	13	-
Gratitude in children and adolescents (Cuello & Oros, 2016)	101 participants, inserted in dyads "parent-children"	Children: M= 7.4SD= 1.03; Parent: M= 41 SD= 5,2	Children: M= 48% F= 52%; Parent: F= 85% M= 15%	$\alpha = 0,76$	Gratitude and ingratitude in childrens and adolescents	15	-

M = Mean; SD= Standard Deviation; M = Male; F= Female; 1= Study 1; 2= Study 2; 3=Study 3; 4= Study 4.

Of the original scales, only GQ-6, GRAT and GAC received cross-cultural adaptations or validation studies for contexts beyond their original destination, as well as changes in the number of items or changes related to the age group of the evaluated public. In all, 18 adaptation or validation studies were identified for GQ-6, five articles for GRAT, and only one for GAC. These studies, as well as their respective internal consistencies, are listed in Table 2.

The instruments are very comprehensive in terms of the contents evaluated. A portion of the studies aims to identify gratitude in an integral way, without specifying a context, including GQ-6, GRAT, GAC and EGS, where they approach the

construct in the dispositional form. TGS, G20 and *Interpersonal Gratitude Scale for Children* assess interpersonal or transpersonal gratitude, and RGC and PGrate understand expressions of gratitude.

Another portion of results aims to measure the construct under certain circumstances, such as pregnancy (GDP), working relationships (GAWS and *Gratitude in Service Encounters*), or in the relationship with the environment (*Gratitude and Regret Towards Nature*). There were also differences of gratitude with other concepts, among them fear (GrAw-7), debt (*Gratitude in University Students in Japan and Thailand*) and ingratitude (*Gratitude in children and adolescents*).

Table 2 - Scale adaptations and validations

Instruments	Study	Context/ Population	Internal consistency and scale adjustment
	Bernabé-Valero, et al.(2013)	Spain /University students	$\alpha = 0,77$ - Scale reduced to 5 items
	Valdez, Yang & Datu (2017)	Philippines/High school students	$\alpha = 0,74$ - Scale reduced to 5 items
	Chen, Chen, Kee & Tsai (2009)	Taiwan /University students	$\alpha = 0,80$ - Scale reduced to 5 items
	Langer, et al. (2016)	Chile / Adults and adolescents	Adolescents- Scale reduced to 5 items $\alpha = 0,726$. Adults - 6 itens $\alpha = 0,832$
	Magallares, Recio & Sanjuán (2018)	Spain/ Adults	$\alpha = 0,79$ and $\alpha=0,78$ - Scale reduced to 5 items
	Yüksel & Oguz Duran (2012)	Turkey / University students	$\alpha = 0,77$ - After retest test $\alpha = 0,66$ Scale reduced to 5 items
	Zeng, Ling, Huebner, He & Lei (2017)	China / Adolescents	$\alpha = 0,794$, - Scale reduced to 5 items
GQ-6	Kong, You & Zhao (2017)	China / Adults	$\alpha = 0,87$
	Chen & Kee (2008)	Taiwan / Adolescents Athletes	Study 1 - $\alpha = 0,80$ - Study 2- $\alpha = 0,78$
	Rey, et al. (2018)	Spain/ Adolescents	$\alpha = 0,74$; $\alpha = 0,77$ - Scale reduced to 5 items
	Martos, Garay & Désfalvi (2014)	Hungary/ University students	$\alpha = 0,749$ and $\alpha = 0,789$
	Gouveia, et al. (2019)	Brazil/ University students	$\Omega = 0,87$ and $\alpha = 0,87$
	McGee, Zhao, Myers & Kim (2017)	USA/Elderly with diagnosis of cognitive decline	$\alpha = 0,56$
	Jans-Beken,et al. (2015)	Netherlands / Adults	$\omega = 0,75$
	Cabrera-Vélez, et al. (2019)	Ecuador / Adults	$\alpha = 0,927$, $\omega = 0,89$ -Scale reduced to 5 items
	Froh, et al. (2011)	USA/ Children and adolescents	$\alpha =$ Range from 0,76 to 0,85
	Carmona-Halty, et al.(2015)	Chile / Adults	$\alpha = 0,75$
	Fuochi, Voci & Veneziani (2018)	Italy/ Adults	$\alpha = 0,78$

	Lin & Huang (2016)	Taiwan /University Students	$\alpha = 0,85$
	Froh, et al. (2011)	USA/ Children and adolescents	$\alpha =$ Range from 0,72 to 0,83
GRAT	Diessner & Lewis (2007)	USA/University Students	Subscales: $\alpha = 0,80$, $\alpha = 0,87$ and $\alpha = 0,76$
	Jans-Beken, et al. (2015)	Netherlands / Adults	$\omega h = 0,75$
	Hammer & Brenner (2019)	USA/ Adults	$\omega H = 0,65$
GAC	Froh, et al. (2011)	USA/ Children and adolescents	$\alpha =$ Range from 0,82 to 0,90

Origin of studies and characteristics of the evaluated public

The category that concerns the target audience brings information about the cultural context and the population characteristics. The GQ-6 scale underwent adaptations and/or validations in more than 10 countries, GRAT had modifications to The Netherlands and Taiwan, while the GAC received an adaptation only for its locality of origin. These three tools were originally developed for the United States.

In view of the age group, of the 36 studies analyzed, 26 target adults and university students, in addition to 7 being intended for children or adolescents. GAC, GQ-6 and GRAT were initially elaborated for the adult population, receiving due adjustments to include possible applications in the young public. In addition, an instrument was identified for each of the following populations: elderly people in the general population and elderly with cognitive decline, pregnant women, adolescent athletes, workers, educators and teachers of the early years, as well as dyad between parents and children. (Cain, Cairo, Duffy, Meli, Rye & Worthington, 2019; Chen & Kee, 2008; Cuello & Oros, 2016; Hussong et al., 2019; Jans-Beken & Wong, 2019; Martini, Loera & Converso, 2015; McGee, Zhao, Myers & Kim, 2017; O'Leary, Dockray & Hammond, 2016)

Regarding the gender of the populations evaluated, it was seen that of the original instruments pointed out in this review, most target populations are women. Among the 15 instruments that described their sample, only four studies did not demonstrate this predominance of gender.

Internal Consistencies

All the scales found, together with their adaptations and validations made for different cultures, present internal consistency. It is observed that most scales (n= 37) used Cronbach's alpha to measure this variable, as well as others preferred to use the McDonald's Omega measurement (n=6). Most studies showed good or optimal internal consistency (Cronbach, 1951) ranging from $\alpha = .65$ to $\alpha = .92$, only one study did not demonstrate a satisfactory result (McGee, Zhao, Myers & Kim, 2017).

The instruments with the best results when measured from their internal consistency are GRAT, Gratitude in university students in Japan and Thailand, Gratitude in service encounters, Interpersonal Gratitude Scale for Children, and Gratitude and Regret Towards Nature. On the other hand, the adaptations with the best evidence refer to GQ6, presenting, in this order, excellent results for the Ecuadorian, Chinese and Brazilian populations.

In addition to measuring internal consistency, regarding the validation of the instruments, the studies presented other evidence of validity. The studies that made the adaptation of GQ-6 and GRAT for their countries, performed the cross-cultural validity to identify the equivalence of the instrument in a different context. The GQ-6 scale is the instrument with the highest number of adaptations, nine of which opted for the removal of the last item from the "Long amounts of time can go by before I feel grateful to something or someone", for not presenting satisfactory factorial load.

It was seen that, beside the process of obtain-

ing the internal consistency, some studies used convergent validity to test the correlation with other scales that assess positive characteristics or character forces, such as positive affects, meaning, life satisfaction, happiness, and subjective well-being. Discriminant validity was found in the studies when there was a correlation with some negative construct, such as depression, suicidal ideation, burnout, ingratitude, and negative affects. Finally, the authors also performed factor analyses to test the dimensions of the construct.

Discussion

This systematic review aimed to identify how many and which instruments are available worldwide to measure the gratitude, that have at least shown internal consistency. They were also identified under what circumstances gratitude was being evaluated, as well as the predominant population. Therefore, a total of 36 studies were found within the pre-established criteria and 16 original scales, sometimes presenting adaptations.

It was found that, of the original scales, 13 had their construction aimed at adults, thus presenting a numerical disparity in relation to other populations, such as children, adolescents, and elderly. It is known that the most evaluated population worldwide today are adults for their ease of access to the public and for the understanding of questionnaires. When it comes to the child and elderly public, the responsible becomes present, which ends up hindering access to this population. However, it is understood that gratitude is an important construct to be evaluated in adolescence, due to its associations with prosocial behaviors (Yu, Li & Zhao, 2020), protective factors related to academic performance (Ma, Kibler & Sly, 2013), the use of appropriate coping strategies, in addition to having a relevant role in suicidal ideation and cyberbullying behaviors (Sun, Sun, Jiang, Jia & Li, 2019; Yudes, Rey & Extremera, 2020; Kwok, Gu & Cheung, 2019). As well as in the elderly population, which has grown exponentially, it points to gratitude as a protective factor for aging (Viana, Oliveira, Rodrigues, Bastos, & Argimon,

2017). These findings characterize these stages of development as a period not assisted by the gratitude evaluation researchers, indicating the need for further studies to be conducted in order to reduce this gap.

Different levels of perception of gratitude between men and women have been shown previously (Kashdan, Mishra, Breen & Froh, 2009; Lasota, Tomaszek & Bosacki, 2020). Based on such evidence, the need to address these gender barriers with investment in new research and practices was pointed out (Kashdan, Mishra, Breen & Froh, 2009). However, what was seen in the findings of this review, is that women continue to be the most evaluated public and receive the most investment in the search for measures of gratitude. It is understood, therefore, that the incentive to study the phenomenon of male gratitude can help in the search for the cause of the existing distinction between genders in relation to positive emotions.

In relation to the main scales used, GQ-6 and GRAT predominate, with GQ-6 being the one with greater cultural scope because it was adapted to several other countries (Renshaw & Steeves, 2016; Card, 2019). However, regarding the territories contemplated, there is a predominance of instruments destined to countries in America, Western Europe, and some locations in the east, including China, Japan, and Taiwan. No tools have been identified for countries located in Africa and Oceania.

It is important that these instruments can be accessed by localities of different cultures and socioeconomic conditions, since gratitude is associated with constructs linked to mental health, such as subjective well-being and happiness (Portocarrero, Gonzalez & Ekema-Agbaw, 2020), in addition to there being indications of their assistance for those who face difficulties with sleep (Boggis, Consedine, Brenton-Peters, Hofman & Serlachiusa, 2020). Therefore, disregarding certain localities causes strategies to strengthen such variables not to be implemented, directly implying the mental health of the population.

Bernabé-Valero, Blasco-Magraner and Gar-

cia-March (2020) bring weak correlation by using convergent validity of the G20 scale with GQ-6 for the original population of the instrument development. This evidence can be understood from the difference of other studies on gratitude through different cultures, causing the construct to be also influenced in the way it is expressed. In addition, the authors also bring the understanding that one-dimensional scales, such as the example of GQ-6, may present insufficiency in cross-cultural adaptation. This is because some scales are adapted to a reduced model, making it difficult to measure such specificities.

Allen (2018) reports that most of the articles found in her study focus on gratitude as a trait or dispositional gratitude and gratitude as an emotion, in addition, the author is aware of the fact that they are taken into consideration which type of gratitude they refer to. It is noted that, according to the author, in this research the most used phenomenon of gratitude is the dispositional, followed by the interpersonal. According to McCullough et al. (2002), this type refers to the affective trait and its disposition, that is, feeling grateful in the face of different positive situations.

It is understood that the gratitude's construct will show features that are in accordance with the definition of gratitude. Bernabé Valero (2014) indicates that there are multiple definitions of the construct, including an attitude, an emotion, and a virtue. Therefore, based on the instruments identified in this research, it shows the presence of different gratitude's conceptualizations that implicate directly in the interpretation of its outcomes. The results of each instrument will demonstrate only features based on its definition of gratitude, not the construct. Thus, to use this instrument it is necessary to consider this definition previously, and the tool needs to be in accordance with the objective of the assessment, since its characteristics do not contemplate all the expressions of gratitude. Furthermore, due to the multiple definitions, it is relevant not to make a comparison between the instruments, since each one is based on distinct gratitude's characteristics. These differences are expressed

in how the items are developed, the grounded theory, its aims, and other factors. Besides that, all the tools identified in this review demonstrate importance and a main goal, requiring the researcher to pay attention in those statements before applying.

As far as Cronbach's alpha is concerned, a measure most used to assess internal consistency in the studies, DeVellis (2003) highlights values below 0.60 as unacceptable, between 0.60 and 0.64 classified as undesirable, between 0.65 and 0.70 minimally acceptable, 0.70 to 0.80 respectable, 0.80 to 0.90 very good, but far above 0.90 may allow the reduction of the scale. Regarding McDonald's Omega, values higher than 0.65 (Katz, 2006) are respectable, i.e., the studies that used this measure in this study also have good reliability based on this measure.

As seen by Card (2019), the instrument that presents one of the greatest reliabilities through Cronbach's alpha measurement is GRAT. In this study, in addition to this measure, the studies from Japan that originated the "Gratitude and Regret Towards Nature", "Interpersonal Gratitude Scale for Children" and "Gratitude in university students in Japan and Thailand" also showed high reliability measurements.

This research focused on only one measure of psychometric property, reliability through internal consistency, as proposed by Card (2019). This focus is important since all studies used this measure in their results. However, attention is given to the importance of considering other measures, including the test-retest, to provide support in long-term interventions.

Final considerations

From the analysis of the studies found, 16 original scales and 24 adaptations were identified that evaluate the construct of gratitude in different circumstances, age groups and cultures. It is concluded that GQ-6 and GRAT are used more frequently and in a wider variety of contexts and application audiences. It is important to highlight that the findings of this review demonstrated that the instruments have good psychometric

properties, more precisely in relation to the reliability measure, measured by Cronbach's alpha and McDonald's Omega.

Regarding the limitations of this review, when prioritizing four databases, some instruments may not have been located. In this sense, despite having obtained a considerable number of results, it is suggested an expansion of the searches to disseminate an even more complete picture of the existing measures of gratitude.

The data obtained promote the importance of broad access to validated gratitude measures, in addition to the progress in the discussion about this construct when talking about mental health. It is considered essential to continue studies on the subject, as well as the development of gratitude scales aimed at specific audiences and contexts.

References

- Allen, S. (2018). *The Science of Gratitude*. John Templeton Foundation. https://scholar.google.com/scholar_lookup?title=The+Science+of+Gratitude%2E&author=Allen+S.&publication_year=2018
- Bernabé-Valero, G., Blasco-Magraner, J. S., & García-March, M. R. (2020). Gratitude Questionnaire—20 Items (G20): A Cross-Cultural, Psychometric and Crowdsourcing Analysis. *Frontiers in Psychology*, 11, 1-9. <https://doi.org/10.3389/fpsyg.2020.626330>
- Bernabé-Valero, G. (2014). *Psicología de la Gratitud. Integración de la Psicología Positiva y Humanista* (Col. Cuadernos de Psicología 01). Latina.
- Bernabé-Valero, G., García-Alandete, J., & Gallego-Pérez, J. F. (2013). Comparative analysis of two models of the gratitude questionnaire-six items form. *Revista latinoamericana de Psicología*, 45(2), 279-288. http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0120-05342013000200010&lng=en&tlng=es
- Bernabé-Valero, G., García-Alandete, J., & Gallego-Pérez, J. F. (2014). Construcción de un cuestionario para la evaluación de la gratitud: el Cuestionario de Gratitud-20 ítems (G-20). *Anales de Psicología*, 30(1), 278-286. <https://doi.org/10.6018/analesps.30.1.135511>
- Bock, D. E., Folse, J. A. G., & Black, W. C. (2016). Gratitude in service encounters: implications for building loyalty. *Journal of Services Marketing*, 30(3), 341-358. <https://doi.org/10.1108/JSM-06-2015-0223>
- Boggiss, A. L., Consedine, N. S., Brenton-Peters, J. M., Hofman, P. H., Serlachius, A. S. (2020) A systematic review of gratitude interventions: Effects on physical health and health behaviors. *Journal of Psychosomatic Research*, 135, 110165. <https://doi.org/10.1016/j.jpsychores.2020.110165>
- Büssing, A., Recchia, D. R., & Baumann, K. (2018). Validation of the Gratitude/Awe Questionnaire and its association with disposition of gratefulness. *Religions*, 9(4), 117. <https://doi.org/10.3390/rel9040117>
- Cabrera-Vélez, M., Lima-Castro, S., Peña-Contreras, E., Aguilar-Sizer, M., Bueno-Pacheco, A., & Arias-Medina, P. (2019). Adaptation and Validation of the Gratitude Questionnaire GQ-6 for the Ecuadorian Context. *Avaliação Psicológica*, 18(2), 129-137. <https://doi.org/10.15689/ap.2019.1802.15689.03>
- Cain, I. H., Cairo, A., Duffy, M., Meli, L., Rye, M. S., & Worthington Jr., E. L. (2019). Measuring gratitude at work. *The Journal of Positive Psychology*, 14(4), 440-451. <https://doi.org/10.1080/17439760.2018.1484936>
- Card, N. A. (2019). Meta-analyses of the reliabilities of four measures of gratitude. *The Journal of Positive Psychology*, 14(5), 576-586. <https://doi.org/10.1080/17439760.2018.1497690>
- Carmona-Halty, M. A., Marin-Gutierrez, M., & Belmar-Saavedra, F. (2015). Psychometric analysis of Gratitude Questionnaire 6 (GQ-6) in Chilean Population. *Universitas Psychologica*, 14(3), 881-888. <https://doi.org/10.11144/Javeriana.upsy14-3.apgg>
- Chen, L. H., & Kee, Y. H. (2008). Gratitude and adolescent athletes' well-being. *Social Indicators Research*, 89(2), 361-373. <https://doi.org/10.1007/s11205-008-9237-4>
- Chen, L. H., Chen, M. Y., Kee, Y. H., & Tsai, Y. M. (2009). Validation of the Gratitude Questionnaire (GQ) in Taiwanese undergraduate students. *Journal of Happiness Studies*, 10(6), 655-664. <https://doi.org/10.1007/s10902-008-9112-7>
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297-334.
- Cuello, M. I., & Oros, L. B. (2016). Construction of a scale measuring gratitude in children and adolescents. *Revista de Psicología Clínica con Niños Y Adolescentes*, 3(2), 35-41. <https://www.researchgate.net/publication/336235157>
- DeVellis, R. F. (2003). *Scale development: Theory and application*. Sage.
- Diessner, R., & Lewis, G. (2007). Further validation of the gratitude, resentment, and appreciation test (GRAT). *The Journal of Social Psychology*, 147(4), 445-447. <https://doi.org/10.3200/SOCP.147.4.445-448>
- Fitzgerald, P. (1998). Gratitude and Justice. *Ethics*, 109(1), 119-153. <https://doi.org/10.1086/233876>
- Fredrickson, L. B. (2004). Gratitude. Like Other Positive Emotions, Broadens and Builds. In Emmons, R. A., & McCullough, M. E. (Eds.), *The Psychology Of Gratitude* (pp. 145-166). Oxford.
- Froh, J. J., Fan, J., Emmons, R. A., Bono, G., Huebner, E. S., & Watkins, P. (2011). Measuring gratitude in youth: Assessing the psychometric properties of adult gratitude scales in children and adolescents. *Psychological Assessment*, 23(2), 311-324. <https://doi.org/10.1037/a0021590>

Fujiwara, T., Murakami, T., Nishimura, T., Hamaguchi, Y., & Sakurai, S. (2014). 小学生における対人的感謝尺度の作成 [Development of an interpersonal gratitude scale for children]. *Japanese Journal of Educational Psychology*, 25, 399-411. <https://doi.org/10.5926/jjep.62.187>

Fuochi, G., Voci, A., & Veneziani, C. (2018). Factorial validity and item response theory analysis of the Gratitude Questionnaire in an Italian sample. TPM: Testing, Psychometrics, *Methodology in Applied Psychology*, 25(3), 313-325. <https://doi.org/10.4473/TPM25.3.1>

Gouveia, V. V., Ribeiro, M. G. C., de Aquino, T. A. A., Loureto, G. D. L., Nascimento, B. S., & Rezende, A. T. (2019). Gratitude Questionnaire (GQ-6): Evidence of construct validity in Brazil. *Current Psychology*, 40, 2481-2489. <https://doi.org/10.1007/s12144-019-00197-x>

Hammer, J. H., & Brenner, R. E. (2019). Disentangling gratitude: A theoretical and psychometric examination of the Gratitude Resentment and Appreciation Test-Revised Short (GRAT-RS). *Journal of personality assessment*, 101(1), 96-105. <https://doi.org/10.1080/00223891.2017.1344986>

Hlava, P., Elfers, J., & Offringa, R. (2014). A transcendent view of gratitude: The transpersonal gratitude scale. *International Journal of Transpersonal Studies*, 33(1), 1-14. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.687.164&rep=rep1&type=pdf>

Hussong, A. M., Langley, H. A., Thomas, T. E., Coffman, J. L., Halberstadt, A. G., Costanzo, P. R., & Rothenberg, W. A. (2019). Measuring gratitude in children. *The journal of positive psychology*, 14(5), 563-575. <https://doi.org/10.1080/17439760.2018.1497692>

Jans-Beken, L., Lataster, J., Leontjevas, R., & Jacobs, N. (2015). Measuring gratitude: a comparative validation of the Dutch gratitude questionnaire (GQ6) and short gratitude, resentment, and appreciation test (SGRAT). *Psychologica Belgica*, 55(1), 19-31. <https://doi.org/10.5334/pb.bd>

Jans-Beken, L., & Wong, P. T. (2019). Development and preliminary validation of the Existential Gratitude Scale (EGS). *Counselling Psychology Quarterly*, 1-15. <https://doi.org/10.1080/09515070.2019.1656054>

Kashdan, T. B., Mishra, A., Breen, W. E., & Froh, J. J. (2009). Gender differences in gratitude: Examining appraisals, narratives, the willingness to express emotions, and changes in psychological needs. *Journal of personality*, 77(3), 691-730. <https://doi.org/10.1111/j.1467-6494.2009.00562.x>

Katz, M. H. (2006). *Multivariable analysis* (2. ed.). Cambridge University Press.

Kong, F., You, X., & Zhao, J. (2017). Evaluation of the gratitude questionnaire in a Chinese sample of adults: factorial validity, criterion-related validity, and measurement invariance across sex. *Frontiers in Psychology*, 8(1498), 1-6. <https://doi.org/10.3389/fpsyg.2017.01498>

Kwok, S., Gu, M., & Andy, C. P. S. (2019). A longitudinal study on the relationship among childhood emotional abuse, gratitude, and suicidal ideation of Chinese adolescents. *Child Abuse & Neglect*, 94. <https://doi.org/10.1016/j.chiabu.2019.104031>

Langer, Á. I., Ulloa, V. G., Aguilar-Parra, J. M., Araya-Véliz, C., & Brito, G. (2016). Validation of a Spanish translation of the Gratitude Questionnaire (GQ-6) with a Chilean sample of adults and high schoolers. *Health and quality of life outcomes*, 14(1), 1-9. <https://doi.org/10.1186/s12955-016-0450-6>

Lasota, A., Tomaszek, K., & Bosacki, S. (2020). Empathy, Gratitude, and Resilience—Does Gender Make a Difference. *Anales De Psicologia/Annals of Psychology*, 36(3), 521-532. <https://doi.org/10.6018/analesps.391541>

Lin, S. H., & Huang, Y. C. (2016). Psychometric properties and factorial structure of the Chinese version of the Gratitude Resentment and Appreciation Test. *British Journal of Guidance & Counselling*, 44(3), 347-361. <https://doi.org/10.1080/03069885.2015.1119234>

Ma, M., Kibler, J. L., & Sly, K. (2013). Gratitude is associated with greater levels of protective factors and lower levels of risks in African American adolescents. *Journal of Adolescence*, 36(5), 983-991. <https://doi.org/10.1016/j.adolescence.2013.07.012>

Magallares, A., Recio, P., & Sanjuán, P. (2018). Factor Structure of the Gratitude Questionnaire in a Spanish Sample. *The Spanish Journal of Psychology*, 21(E53), 1-7. <https://doi.org/10.1017/sjp.2018.55>

Martini, M., Loera, B., & Converso, D. (2015). Users' Gratitude as a source of support for Social-Health Operators: First Validation of the Perceived Gratitude Scale (PGrate). *BPA-Applied Psychology Bulletin (Bollettino di Psicologia Applicata)*, 63(274), 23-33. <http://search.ebscohost.com/login.aspx?direct=true&db=an&AN=111796053&lang=pt-br&site=ehost-live>

Martos, T., Garay, M., & Désfalvi, J. (2014). Introduction and psychometric properties of the Hungarian version of the Gratitude Questionnaire (GQ-6-H). *Mentálhigiéné és Pszichoszomatika*, 15(3), 203-214. <https://doi.org/10.1556/mental.15.2014.3.3>

McCullough, M. E., Emmons, R. A., & Tsang, J.-A. (2002). The grateful disposition: A conceptual and empirical topography. *Journal of Personality and Social Psychology*, 82(1), 112-127. <https://doi.org/10.1037/0022-3514.82.1.112>

McCullough, M. E., & Emmons, R. A. (2003). Counting blessings versus burdens: An experimental investigation of gratitude and subjective well-being in daily life. *Journal of Personality and Social Psychology*, 84(2), 377-389. <https://doi.org/10.1037/0022-3514.84.2.377>

McCullough, M. E., Kimeldorf, M. B., & Cohen, A. D. (2008). An adaptation for altruism: The social causes, social effects, and social evolution of gratitude. *Current directions in psychological science*, 17(4), 281-285. <https://doi.org/10.1111/j.1467-8721.2008.00590.x>

McCullough, M. E., Kilpatrick, S. D., Emmons, R. A., & Larson, D. B. (2001). Is gratitude a moral affect? *Psychological Bulletin*, 127(2), 249-266. <https://doi.org/10.1037/0033-2909.127.2.249>

McGee, J. S., Zhao, H. C., Myers, D. R., & Kim, S. M. (2017). Positive psychological assessment and early-stage dementia. *Clinical Gerontologist*, 40(4), 307-319. <https://doi.org/10.1080/07317115.2017.1305032>

Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G. (2009) Preferred reporting items for systematic reviews and meta-analyses: The PRISMA Statement. *PLoS Med*, 6(7), 1-6. <https://doi.org/10.1371/journal.pmed1000097>

Naito, T., Matsuda, T., Intasuwan, P., Chuawanlee, W., Thanachanan, S., Ounthitawat, J., & Fukushima, M. (2010). Gratitude for, and regret toward, nature: Relationships to proenvironmental intent of university students from Japan. *Social Behavior and Personality: an international journal*, 38(7), 993-1008. <https://doi.org/10.2224/sbp.2010.38.7.993>

Naito, T., Wangwan, J., & Tani, M. (2005). Gratitude in university students in Japan and Thailand. *Journal of Cross-Cultural Psychology*, 36(2), 247-263. <https://doi.org/10.1177/0022022104272904>

O'Leary, K., Dockray, S., & Hammond, S. (2016). Positive prenatal well-being: conceptualising and measuring mindfulness and gratitude in pregnancy. *Archives of women's mental health*, 19(4), 665-673. <https://doi.org/10.1007/s00737-016-0620-x>

Olofsson, H., Brolund, A., Hellberg, C., Silverstein, R., Stenström, K., Österberg, M., & Dagerhamn, J. (2017). Can abstract screening workload be reduced using text mining? User experiences of the tool Rayyan. *Research Synthesis Method*, 8(3), 275-280. <https://doi.org/10.1002/jrsm.1237>

Peterson, C., & Seligman, M. E. (2004). *Character strengths and virtues: A handbook and classification*. Oxford University Press.

Pieta, M. A. M. (2009). A expressão do sentimento de gratidão: um estudo com crianças e adolescentes escolares de Porto Alegre [Masters dissertation, Federal University of Rio Grande do Sul]. <https://www.lume.ufrgs.br/bitstream/handle/10183/15871/000691725.pdf?sequence=1&isAllowed=y>

Portocarrero, F. F., Gonzalez, K., & Ekema-Agbaw, M. (2020) A meta-analytic review of the relationship between dispositional gratitude and well-being. *Personality and Individual Differences*, 164, 110101. <https://doi.org/10.1016/j.paid.2020.110101>

Prospero. (2015). *University of York. Centre for Reviews and Dissemination. International Prospective Register of Systematic Reviews*. University of York. <http://www.crd.york.ac.uk/PROSPERO/>

Renshaw, T. L., & Olinger Steeves, R. M. (2016). What good is gratitude in youth and schools? A systematic review and meta-analysis of correlates and intervention outcomes. *Psychology in the Schools*, 53(3), 286-305. <https://doi.org/10.1002/pits.21903>

Rey, L., Sánchez-Álvarez, N., & Extremera, N. (2018). Spanish Gratitude Questionnaire: Psychometric properties in adolescents and relationships with negative and positive psychological outcomes. *Personality and Individual Differences*, 135, 173-175. <https://doi.org/10.1016/j.paid.2018.07.005>

Sheldon, K. M., & Kasser, T. (2001). Goals, congruence, and positive well-being: New empirical support for humanistic theories. *Journal of humanistic psychology*, 41(1), 30-50. <https://doi.org/10.1177/0022167801411004>

Steindl-Rast, D. (2004). Gratitude as thankfulness and as gratefulness. In R. A. Emmons & M. E. McCullough (Eds.), *The psychology of gratitude* (pp. 282-289). Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780195150100.003.0014>

Sun, P., Sun, Y., Jiang, H., Jia, R., & Li, Z. (2019). Gratitude and Problem Behaviors in Adolescents: The Mediating Roles of Positive and Negative Coping Styles. *Front. Psychol.*, 10, 1547. <https://doi.org/10.3389/fpsyg.2019.01547>

Valdez, J. P. M., Yang, W., & Datu, J. A. D. (2017). Validation of the Gratitude Questionnaire in Filipino secondary school students. *The Spanish Journal of Psychology*, 20(e45), 1-7. <https://doi.org/10.1017/sjp.2017.51>

VIA Character. (2019). *Gratitude*. <https://www.viacharacter.org/character-strengths/gratitude>

Viana, S. A. R., Oliveira, C. R., Rodrigues, G.V.A., Bastos, A. S., & Argimon, I. I. L. (2017). A Gratidão como fator protetivo no envelhecimento. *Aletheia*, 50(1-2), 132-142. <https://doi.org/10.29327/226091>

Watkins, P. C., Woodward, K., Stone, T., & Kolts, R. L. (2003). Gratitude and happiness: Development of a measure of gratitude, and relationships with subjective well-being. *Social Behavior and Personality: an international journal*, 31(5), 431-451. <https://doi.org/10.2224/sbp.2003.31.5.431>

Wood, A. M., Froh, J. J., & Geraghty, A. W. (2010). Gratitude and well-being: A review and theoretical integration. *Clinical psychology review*, 30(7), 890-905. <https://doi.org/10.1016/j.cpr.2010.03.005>

Yu, G., Li, S., & Zhao, F. (2020). Childhood maltreatment and prosocial behavior among Chinese adolescents: Roles of empathy and gratitude. *Child Abuse & Neglect*, 101, 104319. <https://doi.org/10.1016/j.chiabu.2019.104319>

Yudes, C., Rey, L., & Extremera, N. (2020) Predictive Factors of Cyberbullying Perpetration amongst Spanish Adolescents. *Int. J. Environ. Res. Public Health*, 17(11), 3967. <https://doi.org/10.3390/ijerph17113967>

Yüksel, A., & Oguz Duran, N. (2012). Turkish adaptation of the gratitude questionnaire. *Eurasian Journal of Educational Research*, 46, 199-216. <https://files.eric.ed.gov/fulltext/EJ1057318.pdf>

Zeng, Y., Ling, Y., Huebner, E. S., He, Y., & Lei, X. (2017). The psychometric properties of the 5-item gratitude questionnaire in Chinese adolescents. *Journal of Psychiatric and Mental Health Nursing*, 24(4), 203-210. <https://doi.org/10.1111/jpm.12372>

Victoria Deluca

Mestre em Psicologia Clínica pela Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS) e bolsista CNPq, em Porto Alegre, RS Brasil. Especialista em Terapia Cognitivo Comportamental e em Terapia de Esquema pela Wainer Psicologia Cognitiva, em Porto Alegre, RS, Brasil. Psicóloga pela PUCRS.

Carlos Eduardo Loureiro Xavier

Psicólogo pela Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS), em Porto Alegre, RS, Brasil. Mestrando em Psicologia na Universidade Federal do Rio Grande do Sul (UFRGS), em Porto Alegre, RS, Brasil.

Marina Bittelbrunn Severo

Mestre em Saúde Coletiva pela Universidade Federal do Rio Grande do Sul (UFRGS), em Porto Alegre, RS, Brasil; psicóloga pela Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS), em Porto Alegre, RS, Brasil. Preceptora da clínica de psicologia do Centro Integrado em Saúde – CIS Canoas, do Centro Universitário Ritter dos Reis (UniRitter).

Nicolas de Oliveira Cardoso

PhD em Psicologia com pós-doutorado em Psicologia pela Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS), em Porto Alegre, RS, Brasil. Bolsista de pós-doutorado da Universidade Federal Fluminense (UFF).

Maria Gloria Bernabe-Valero

Doutora em Psicologia pela Universidade Católica de Valência, San Vicente Mártir (UCV), em Valencia, Espanha. Docente na UCV, investigadora do grupo de investigação MEB Lab, investigadora principal da linha Psicologia Positiva e Virtudes Humanas.

Irani Iracema de Lima Argimon

Doutora em Psicologia Clínica pela Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS), em Porto Alegre, RS, Brasil. Professora Titular das Escolas Ciências da Saúde e da Vida e da Escola de Medicina da PUCRS, trabalhando Avaliação e Intervenção no Ciclo Vital.

Mailing Address

IRANI IRACEMA DE LIMA ARGIMON

Pontifícia Universidade Católica do Rio Grande do Sul
Avenida Ipiranga, 6681, Prédio 11, sala 908
Partenon, 98010-082
Porto Alegre, RS, Brasil

Os textos deste artigo foram revisados pela SK Revisões Acadêmicas e submetidos para validação do(s) autor(es) antes da publicação.