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Article

Psychometric Properties of the Teachers' Responses to Bullying Questionnaire (TRBQ) in Spanish Students

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ABSTRACT

Background: Students' perceptions of teacher response play a critical role in addressing bullying, as they are closely linked to student involvement. However, no validated instruments currently exist in Spain to assess this construct adequately. This study aimed to validate the Teachers' Responses to Bullying Questionnaire (TRBQ) in Spain, examine its measurement invariance across educational levels, gender, and bullying roles, and to explore students' perceptions of teacher responses based on these variables. **Method:** A total of 1,241 students (48.8% girls; 48.3 % primary school; M_{age} = 12.00; *SD* = 1.79; range = 9–18 years) from southern Spain participated. **Results:** EFA revealed a three-factor structure—non-intervention, restorative psychoeducational strategies, and disciplinary methods—with good fit, confirmed through CFA. The instrument demonstrated satisfactory reliability and measurement invariance. Girls perceived teacher responses as more frequent. Restorative strategies were more common in primary school, while non-intervention was more prevalent in secondary school. No significant differences emerged for disciplinary methods. Non-involved students reported more restorative interventions, bullies-victims perceived more non-intervention; and aggressors reported greater use of disciplinary methods. **Conclusions:** The Spanish adaptation and validation of the TRBQ provides a valuable tool for assessing teacher responses to bullying and contributes to research and intervention in school contexts.

Propiedades Psicométricas del Teachers' Responses to Bullying Questionnaire (TRBQ) en Estudiantes Españoles

Palabras clave:
Acoso escolar
Respuesta del profesorado
TRBQ
Invarianza métrica

RESUMEN

Antecedentes: La percepción del alumnado sobre la respuesta del profesorado desempeña un papel fundamental en el acoso escolar, ya que se relaciona estrechamente con su implicación en el fenómeno. Sin embargo, en España no existen instrumentos validados que evalúen adecuadamente este constructo. Este estudio pretende validar el Teachers' Responses to Bullying Questionnaire (TRBQ) en España, examinar su invarianza métrica por nivel educativo, género y rol de implicación, y describir la respuesta del profesorado percibida en función de estas variables. **Método:** Participaron 1,241 estudiantes españoles (48.8% chicas; 48.3% de primaria; M_{edad} = 12.00; *DT* = 1.79; rango = 9-18 años). **Resultados**: El AFE reveló una estructura trifactorial—no intervención, estrategias psicoeducativas restaurativas y métodos disciplinarios—con un ajuste adecuado, confirmado por el AFC. El instrumento mostró una fiabilidad adecuada e invarianza métrica. Las chicas percibieron la intervención del profesorado como más frecuente. Las estrategias restaurativas fueron mayores en primaria, la no intervención en secundaria. El alumnado no implicado informó de más intervenciones restaurativas; los agresores-víctimas reportaron mayor no intervención; y los agresores mayor uso de métodos disciplinarios. **Conclusiones:** La adaptación española y validación del TRBQ representa una valiosa herramienta para evaluar la respuesta del profesorado al acoso escolar.

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The school context is one of the main settings in which bullying occurs (Yoon et al., 2016), positioning teachers as key figures in detecting it and intervening. Teachers' responses to bullying have become an increasingly important area of study in recent years (Colpin et al., 2021; Demol et al., 2020, 2021). In many cases, teachers are the first adults that students turn to for help in a situation of victimization (Díaz-Aguado, 2023; Wachs et al., 2019). Thus, it is the responsibility of teachers, alongside other members of the educational community, to ensure that appropriate interventions are implemented. Despite its importance, a lack of consensus persists regarding how teacher responses to bullying should be conceptualized and measured (Colpin et al., 2021).

Teacher responses to bullying have been conceptualized in various ways. One of the most common distinctions is between active and passive responses: the former encompasses any strategy employed by the teacher to address the situation, while the latter refers to inaction or the lack of response (Demol et al., 2020; Song et al., 2018; Troop-Gordon & Ladd, 2015). Other scholars have distinguished between individual and group responses. Individual responses target the victim or aggressor directly—for instance, by offering support to the victim or applying disciplinary measures to the aggressor—whereas group responses engage the peer group or other adult figures through strategies such as group discussions or collaboration with external professionals (Troop-Gordon & Ladd, 2015; Wachs et al., 2019; Yoon et al., 2016). Finally, some scholars have explored the distinction between punitive and restorative approaches. Punitive responses include imposing sanctions on the aggressor or encouraging the victim to adopt a more assertive attitude, while restorative responses focus on repairing the harm by offering emotional support to the victim and encouraging the aggressor to acknowledge the impact of their behavior (Bauman et al., 2008; Burger et al., 2015; Kollerová et al., 2021; Rigby, 2014).

Research on how teachers respond to bullying also differs depending on the source of data. Early studies primarily relied on teacher self-reports, often assessing hypothetical responses or intention to intervene in bullying situations using vignettes or simulated scenarios (Burger et al., 2015; Chen, 2023; Collier et al., 2015; Dedousis-Wallace et al., 2013; Duong & Bradshaw, 2013). Actual responses were assessed to a much lesser extent (Troop-Gordon & Ladd, 2015). More recent research has examined teacher responses to bullying from the students' perspective (Colpin et al., 2021), providing insights into how such responses are perceived and interpreted by those directly affected (Demol et al., 2020). In contrast to teacher self-reports, research drawing on students' perceptions usually examines teachers' actual responses to bullying incidents (Denny et al., 2014; Berkowitz, 2013).

This latter approach is particularly valuable. Research has shown that teachers often overestimate the frequency of their response, either due to social desirability bias or because they may fail to recognize all instances of bullying (Campaert al., 2017; Yoon & Bauman, 2014). Moreover, the effectiveness of teacher responses may depend not only on the specific actions taken but also on how those responses are perceived by students (Devlesschouwer et al., 2025; Muñoz-Fernández et al., 2025a; Troop-Gordon et al., 2021a; Wachs et al., 2019).

In the international context, several instruments have been developed to assess teacher responses. One of the earliest is the Handling Bullying Questionnaire (HBQ; Bauman et al., 2008), which was designed to measure teachers' intended responses to hypothetical bullying scenarios. The original instrument includes 22 items and assesses five dimensions: working with the victim, working with the bully, ignoring the incident, enlisting other adults, and disciplining the bully (Bauman et al., 2008). The HBQ has been cross-culturally validated with factorial solutions identifying two (Grumm & Hein, 2012; Yoon et al., 2011), five (Burger et al., 2015), and six factors (Siddiqui et al., 2023), with moderate reliability reported across these studies. Despite its usefulness, HBQ lacks a student-report version and is limited to assessing hypothetical teacher responses.

To overcome the limitations associated with using hypothetical scenarios, Troop-Gordon and Ladd (2015) designed the Classroom Management Policies Questionnaire (CMPQ), a 56-item instrument that assesses strategies teachers use in real-life bullying situations. The CMPQ asks teachers to indicate which strategies they usually apply in their classroom practice with boys and girls, separately. The original CMPQ is organized into seven dimensions: contacting parents, separating students, punishing aggressors, suggesting avoidance, suggesting assertion, advising independent coping, and ignoring the incident. In the validation conducted by Troop-Gordon and Ladd (2015), the last two dimensions were merged, resulting in a six-factor solution with good reliability indices.

The Perceived Teacher Response Scale (PTRS; Troop-Gordon & Quenette, 2010)—a 24-item student version of the CMPQ that originally assesses six dimensions: contact parents, reprimand aggressors, advocate avoidance, advocate assertion, separate students, and advocate independent coping. Following a cross-validation process, the 'separate students' dimension was excluded from the final model. A recent analysis of the PTRS reintroduced the separate students' dimension but removed the punishment scale due to its low reliability (Troop-Gordon et al., 2021b). This suggests that the factorial structure of the PTRS may lack stability. Moreover, the instrument does not account for the use of victim support strategies, a response identified in the literature as one of the most effective and valued by students in bullying situations (Gregory et al., 2011; Van der Zanden et al., 2015; Zych et al., 2019).

While the CMPQ and PTRS are valid and reliable tools for assessing teacher responses to bullying, their use has been limited to specific cultural contexts and, to our knowledge, no cross-cultural adaptations have been reported to date. To address this gap, the Teachers' Response to Bullying Questionnaire (TRBQ) was developed and validated in various countries, including Italy, Belgium, the Philippines, and China, showing good psychometric properties (Campaert et al., 2017; Llego et al., 2024; Nappa et al., 2021; van Gils et al., 2022; Xiao & Hooi et al., 2024). These adaptations make the TRBQ particularly suitable for cross-cultural comparisons.

The TRBQ includes both a teacher self-report version (TRBQ-T; Muñoz-Fernández et al., 2025b) and a student-report version (TRBQ; Campaert et al., 2017; Nappa et al., 2021), allowing for meaningful comparisons across informants. In its original version, Campaert et al. (2017) assessed students' perceptions of teacher responses to bullying in primary school

settings, focusing on three domains: actions directed towards the bully, actions directed at the victim, and non-intervention. Strategies targeting the aggressor included group discussion, mediation, and disciplinary sanctions, while those aimed at the victim included victim support, mediation, and group discussion.

Subsequently, Nappa et al. (2021) developed a revised version of the TRBQ for use with secondary school students. This version streamlined the structure into three broader dimensions: non-intervention, disciplinary methods, and supportive/relational interventions—the latter encompassing group discussion, mediation, and victim support. Building on this work, van Gils et al. (2022) extended the empirical validation of the revised TRBQ with a sample of primary school students in Italy and Belgium. Through comparisons of different factor structures, their findings supported a five-factor structure—non-intervention, disciplinary methods, group discussion, mediation, and victim support—as the best-fitting solution.

These discrepancies in factorial solutions—such as the three-factor model proposed by Nappa et al. (2021) for secondary students and the five-factor model supported by van Gils et al. (2022) for primary students—may reflect both cultural differences (e.g., between Italy and Belgium) and developmental differences between student age groups. Moreover, the TRBQ has not yet been adapted or validated in Spain. Therefore, it is necessary to examine its structure in Spain, including both primary and secondary students, to advance the empirical evidence on the TRBQ.

Beyond examining the psychometric properties of instruments such as the TRBQ, it is also crucial to consider the student-level variables that may influence how teacher responses are perceived. While these instruments aim to capture general trends in students' views, individual characteristics and contextual factors could significantly shape these perceptions. Factors such as gender, educational level, and bullying involvement role may impact how students interpret teacher actions. Although empirical evidence on these moderate effects remains limited, prior studies suggest these variables are closely associated with students' involvement in bullying and may therefore also influence how they perceive adult responses.

Regarding educational level, some studies indicate a higher prevalence of bullying involvement among younger students, particularly in the final years of primary school (van Aalst et al., 2022; van der Zanden et al., 2015; van Gils et al., 2023). However, teacher responses are often perceived as more effective in primary school settings (Kärna et al., 2011). In contrast, older students appear more likely to report victimization to teachers (ten Bokkel et al., 2021). These findings highlight the need for instruments capable of capturing differences across educational stages.

Regarding gender, boys are more often involved as aggressors or bully-victims (Ordóñez-Ordóñez & Narváez, 2020), while girls are often involved as victims (Chocarro & Garaigordobil, 2019; Li et al., 2020). However, findings regarding gender differences in perceived success of teacher responses remain inconclusive (Rigby, 2020; Wachs et al., 2019), underscoring the importance of adopting a gender-sensitive perspective and developing tools that facilitate gender-based comparisons.

As for bullying roles, literature typically distinguishes between aggressors, victims, and bystanders (Harbin et al., 2018; Salmivalli, 2010). However, roles are dynamic and can shift over time (Mendoza-González et al., 2020). Recent research has noted a rise in the bully-victim profile—students who are both victims and aggressors (Burger et al., 2015; Quintana-Orts et al., 2023; Romera et al., 2011)—surpassing the prevalence of the pure roles (Andrade et al., 2021; Sung et al., 2018). This emerging profile has sparked growing research interest due to its complexity. Furthermore, bullying roles may influence how students perceive the success of teacher responses, although findings are still scarce and inconsistent (Berkowitz, 2013; Johander et al., 2024; Wachs et al., 2019). These insights emphasize the need for measurement tools that demonstrate invariance across key variables such as educational level, gender, and bullying role. Measurement invariance ensures that the instrument assesses the same constructs in equivalent ways across different groups, allowing for meaningful comparisons of students' perceptions of teacher responses.

To address existing gaps in the literature and advance the field, the general aim of the present study is to contribute to the understanding of teacher response from the student perspective by adapting and validating the Teachers' Response to Bullying Questionnaire (TRBQ) with a sample of primary and secondary school students in southern Spain. The specific aims of this study are: 1) to explore the most appropriate factorial solution of the TRBQ in our context; 2) to test the measurement invariance of TRBQ across educational level, students' gender, and bullying involvement role; and 3) to describe the students' perceptions of teacher responses according to these variables. Given the lack of consistent evidence regarding the factorial structure of the TRBQ and the absence of prior validation studies in the Spanish context, an exploratory approach was adopted in this study. Previous research has reported varying structures—three factors in primary and secondary school settings (Campaert et al., 2017; Nappa et al., 2021) and five factors in more recent work on primary education (van Gils et al., 2022)—which may reflect cultural or developmental differences. Similarly, no prior studies have examined measurement invariance by gender, educational level, or bullying role using the TRBQ or related instruments. Therefore, this study does not test specific hypotheses but is grounded in existing classifications of teacher responses to bullying that inform the theoretical framework of the TRBQ.

Method

Participants

This study employed a cross-sectional design with a cluster sampling method. The sample consisted of 1,241 students (48.8% girls; $n = 605$), aged between 9 and 18 years ($M = 12.00$; $SD = 1.79$), from 72 classes across 11 schools in Andalusia, Spain. Regarding educational level, 48.3% of the students were in Primary Education ($n = 600$), and 51.7% were in Compulsory Secondary Education ($n = 641$). More specifically, the participants were distributed across the following grade levels: 5th grade ($n = 325$) and 6th grade ($n = 258$) in Primary Education; and 1st to 4th grades of Secondary Education—1st ESO ($n = 179$), 2nd ESO ($n = 191$), 3rd ESO ($n = 143$), and 4th ESO ($n = 128$).

Instruments

Teacher Responses to Bullying

The *Teachers' Responses to Bullying Questionnaire* (TRBQ; Nappa et al., 2021; van Gils et al., 2022) was adapted to Spanish. This instrument assesses students' perceptions of teacher responses in bullying situations using a 5-point Likert scale (*1 = Never, 2 = Almost never, 3 = Sometimes, 4 = Often, 5 = Always*). The instrument begins with the following prompt: "*What did your main teacher do, or what do you think they would do, in response to a bullying case in your class or school?*". In the Spanish educational context, the main teacher refers to the teacher responsible for overseeing the class group, often serving as the primary point of contact for both students and families. This wording was designed to capture both direct experiences (i.e., when students had witnessed teacher responses to actual bullying episodes) and general perceptions or expectations (i.e., in cases where they had not personally observed such situations). This approach enables the assessment of students' perceptions of teacher responses regardless of their direct exposure to bullying. The original TRBQ consists of 15 items. However, in the Spanish adaptation, the original item 14 ("My teacher reports the bullying episode to the principal or the parents") was split into two separate items, one referring to reporting the incident to the principal (item 14, see Table 1) and the other to the parents (item 15, see Table 1). As a result, the TRBQ in the Spanish version of the TRBQ comprises 16 items. The psychometric properties of the TRBQ are reported in the Results section.

Bullying

The *European Bullying Intervention Project Questionnaire* (EBIP-Q; Ortega-Ruiz et al., 2016) was used to assess bullying involvement. This instrument consists of 14 items that assess the frequency of students' engagement in victimization and aggression, using a 5-point Likert scale (*0 = Never, 1 = Almost never, 2 = Sometimes, 3 = Often, 4 = Always*). Based on the responses, students were classified into four involvement roles: victim, aggressor, bully-victim, and non-involved. The classification was performed using cut-off points based on previous studies (Ortega-Ruiz et al., 2016). Students were categorized as victims, who reported having suffered some behavior once or twice a month or more often in the last two months, or as aggressors if they reported engaging in aggression with the same frequency. Those who met both criteria were classified as bully-victims. Students who did not meet either threshold were classified as not involved. The psychometric properties of the EBIP-Q were tested in the original study (Ortega-Ruiz et al., 2016) and subsequent research (Rodriguez-Hidalgo et al., 2019), identifying two factors: victimization and aggression. In this study, internal consistency was adequate (α = .84 for victimization; α = .85 for aggression).

Procedure

Data was collected using paper-and-pencil questionnaires administered during a 30-minute session held during regular school hours. Participation in the study was voluntary and required informed consent from the students' families, assent from students under the age of 14, and informed consent from those aged 14 and older, along with the necessary permissions from the participating schools. Anonymity was assured for all participants. The research was approved by the Research Ethics Committee of the Universidad de Sevilla (0562-N23).

Data collection took place between October and December 2023. In all schools, the administration was carried out by a trained research team following standardized instructions to ensure consistency.

Data Analysis

Analyses were conducted using SPSS Statistics 29 and Mplus 8.4. Descriptive statistics and item normality (skewness ±2; kurtosis ±7; George & Mallery, 2010) were first examined. A cross-validation approach was applied: an Exploratory Factor Analysis (EFA) was performed on a randomly selected subsample (n = 593), followed by a Confirmatory Factor Analysis (CFA) on the remaining subsample (n = 625) to test the TRBQ's structure in Spain. EFA used Robust Maximum Likelihood (MLR) estimation and GEOMIN oblique rotation. Factor retention was based on parallel analysis, requiring a minimum of three items per factor with loadings ≥ .30; cross-loading items (difference ≤ .10) were removed (Floyd & Widaman, 1995). Model fit was evaluated using

Table 1
Distribution of Responses for Each TRBQ Item

Items My main teacher…	Never *n* (%)	Almost never *n* (%)	Sometimes *n* (%)	Often *n* (%)	Always *n* (%)
Ignores bullying	896 (74.0%)	144 (11.9%)	89 (7.3%)	31 (2.6%)	51 (4.2%)
Does not notice when bullying occurs	641 (53.6%)	231 19.3%)	163 (13.6%)	62 (5.2%)	100 (8.4%)
Let the students solve it on their own.	508 (42.2%)	239 (19.9%)	292 (24.3%)	70 (5.8%)	95 (7.9%)
Helps the students involved to resolve the bullying.	194 (16.3%)	63 (5.3%)	145 (12.2%)	209 (17.5%)	581 (48.7%)
Talks about bullying with the whole class	206 (21.9%)	145 (12.2%)	217 (18.3%)	192 (16.2%)	372 (31.4%)
Discuss with the class how much the victim can suffer because of bullying	211 (17.7%)	85 (7.1%)	236 (19.8%)	213 (17.2%)	444 (37.3%)
Encourages the students to make peace	130 (10.9%)	63 (5.3%)	151 (12.7%)	251 (21.1%)	597 (50.1%)
Helps the (involved) students find a solution to the bullying episode	106 (8.9%)	51 (4.3%)	132 (11.1%)	214 (17.9%)	690 (57.8%)
Encourages other students in the class to comfort and support the victim	194 (16.3%)	122 (10.2%)	192 (16.1%)	202 (17.0%)	481 (40.4%)
Tries to help the victim	109 (9.1%)	39 (3.3%)	138 (11.5%)	159 (13.3%)	750 (62.8%)
Comforts the victim.	130 (11.1%)	57 (4.9%)	150 (12.8%)	169 (14.4%)	669 (56.9%)
Tells the bully/bullies that their behavior is unacceptable.	191 (16.2%)	94 (8.0%)	175 (14.8%)	157 (13.3%)	563 (47.7%)
Takes disciplinary actions against the bully/bullies.	116 (9.7%)	70 (5.9%)	141 (11.8%)	177 (14.8%)	688 (57.7%)
Reports the bullying episode to the principal.	135 (11.5%)	80 (6.8%)	198 (16.9%)	159 (13.6%)	597 (51.1%)
Reports the bullying episode to the families.	126 (10.7%)	65 (5.5%)	190 (16.1%)	174 (14.6%)	624 (53.0%)
Explains what bullying is and discusses it with the class.	182 (15.2%)	83 (7.0%)	189 (15.8%)	184 (15.4%)	556 (46.6%)

established thresholds: CFI > .90, RMSEA and SRMR < .08, and $\chi^2/df < 5$ (Hu & Bentler, 1999; Wheaton et al., 1977).

Internal consistency was assessed using Composite Reliability (CR), with .60 as the minimum for exploratory research (Bagozzi & Yi, 1988; Hair et al., 2014). Convergent validity was examined through CFA loadings (≥ .40), and Average Variance Extracted (AVE) was calculated (Weiss, 2011); AVE ≥ .50 was preferred, though .40 was acceptable if CR exceeded .60 (Fornell & Larcker, 1981; Huang et al., 2013).

To compare teacher responses across educational level (Primary: n = 600; Secondary: n = 641), gender (boys: n = 624; girls: n = 605), and bullying roles (victims: n = 382; aggressors: n = 57; non-involved students, n = 635; and bully-victims: n = 144), measurement invariance was tested. Measurement invariance testing included three steps: 1) configural invariance, assessing whether the model structure is the same across groups; 2) metric invariance, assessing whether groups interpret the items in the same way; and 3) scalar invariance, assessing whether factor means can be validly compared across groups. Configural, metric, and scalar invariance were evaluated using Chen's (2007) criteria: ΔCFI < .010 and ΔRMSEA < .015 indicated full invariance. Partial invariance was tested by freeing non-invariant parameters. The MLR estimator was used due to non-normal data distributions.

To examine group differences in students' perceptions of teacher responses, one-way and factorial ANOVAs were conducted. Effect sizes were interpreted using η^2: small (< .01), moderate (.01–.06), and large (> .14) (Cohen, 1988). A significance level of p < .05 was applied. Post hoc comparisons used the Bonferroni correction. Interaction effects between educational level, gender, and bullying role were explored via factorial ANOVA.

Missing data ranged from 2.4% to 5.8% per item. All models were estimated using Full Information Maximum Likelihood (FIML) to handle missing data without imputation (Enders & Bandalos, 2001).

Results

Descriptive Analysis

The detailed frequencies for each response category of TRBQ are provided in Table 1. Table 2 summarizes the descriptive statistics, skewness, and kurtosis for each item. Most items displayed acceptable levels of univariate normality. However, item 1 showed considerable deviations from normality, with high values of skewness and kurtosis across both samples. This suggests that students rarely perceive their teacher as ignoring bullying, leading to a strong concentration of responses at the lower end of the scale.

Exploratory Factor Analysis (EFA)

One- to four-factorial solutions were examined to evaluate the progressive model fit (see Table 3). The one- and two-factor models presented a poor fit. The three-factor model showed a clear improvement, with further enhancement observed in the four-factor model. However, the four-factor solution was not retained, as it did not meet the criterion of having at least three items per factor. The three-factor model was selected based on the results of the parallel analysis, which supported a three-factor structure. Upon further inspection, items 12 and 16 presented cross-loadings, with similar factor loadings on multiple factors. Consequently, both items were progressively removed. After their exclusion, the final model demonstrated good fit (see Table 3).

The first factor included items 1 to 3, reflecting a lack of teacher action in bullying situations, and was labeled as Non-Intervention (NI). The second factor, comprising items 4 to 11, encompassed strategies such as group discussion, victim support, and mediation, and was labeled Restorative Psychoeducational (RP). The third factor,

Table 2
Descriptive Statistics, Skewness, and Kurtosis of TRBQ Items in the EFA and AFC Subsamples

Item	EFA (n = 593)			CFA (n = 625)		
	M (SD)	Skewness (SE)	Kurtosis (SE)	*M (SD)*	Skewness (SE)	Kurtosis (SE)
1	0.49 (1.01)	2.17 (0.10)	3.90 (0.20)	0.49 (1.00)	2.19 (0.09)	4.01 (0.19)
2	0.96 (1.25)	1.16 (0.10)	0.23 (0.20)	0.95 (1.26)	1.18 (0.09)	0.25 (0.19)
3	1.17 (1.24)	0.79 (0.10)	-0.28 (0.20)	1.15 (1.23)	0.82 (0.09)	-0.24 (0.19)
4	2.77 (1.50)	-0.86 (0.10)	-0.75 (0.20)	2.78 (1.50)	-0.87 (0.09)	-0.75 (0.19)
5	2.22 (1.53)	-0.23 (0.10)	-1.41 (0.20)	2.23 (1.52)	-0.23 (0.10)	-1.40 (0.19)
6	2.51 (1.48)	-0.54 (0.10)	-1.09 (0.20)	2.51 (1.49)	-0.54 (0.10)	-1.11 (0.19)
7	2.93 (1.36)	-1.33 (0.10)	0.51 (0.20)	2.95 (1.35)	-1.10 (0.09)	-0.05 (0.19)
8	3.10 (1.30)	-1.33 (0.10)	0.51 (0.20)	3.10 (1.29)	-1.33 (0.10)	0.53 (0.19)
9	2.50 (1.49)	-0.51 (0.10)	-1.19 (0.20)	2.51 (1.49)	-0.52 (0.09)	-1.17 (0.19)
10	3.16 (1.31)	-1.43 (0.10)	0.72 (0.20)	3.17 (1.30)	-1.45 (0.09)	-1.17 (0.19)
11	3.00 (1.37)	-1.17 (0.10)	0,02 (0.20)	3.03 (1.36)	-1.21 (0.10)	0.15 (0.20)
12	2.66 (1.50)	-0.66 (0.10)	-1.04 (0.20)	2.67 (1.50)	-0.67 (0.09)	-1.03 (0.19)
13	3.01 (1.35)	-1.14 (0.10)	-0.03 (0.20)	3.03 (1.34)	-1.16 (0.10)	0.01 (0.19)
14	2.81 (1.42)	-0.83 (0.10)	-0.67 (0.20)	2.83 (1.41)	-0.85 (0.10)	-0.63 (0.20)
15	2.88 (1.39)	-0.95 (0.10)	-0.44 (0.20)	2.88 (1.40)	-0.95 (0.10)	-0.46 (0.20)
16	2.68 (1.48)	-0.72 (0.10)	-0.92 (0.20)	2.67 (1.49)	-0.70 (0.10)	-0.96 (0.19)

Table 3
EFA, CFA, and the Measurement Invariance of TRBQ

Models	S–B χ^2	df	χ^2/df	CFI	ΔCFI	RMSEA [90% CI]	ΔRMSEA	SRMR	BIC	AIC	Decision
EFA (1 factor)	702.45	104	6.75	0.819		0.099 [0.092-0.105]		0.077	28645.22	28434.73	
EFA (2 factors)	453.98	89	5.10	0.889		0.083 [0.076-0.091]		0.044	28420.60	28144.33	
EFA (3 factors)	284.31	75	3.79	0.937		0.069 [0.060-0.077]		0.035	28259.32	27921.66	
EFA (4 factors)	170.67	62	2.75	0.967		0.054 [0.045-0.064]		0.023	28175.42	27889.70	
EFA (without items 12 and 16)	204.49	52	3.93	0.946		0.070 [0.060-0.081]		0.031	24458.41	24164.60	
CFA (3 factors, without items 12 and 16)	301.07	74	4.06	0.914		0.070 [0.062-0.078]		0.049	26367.98	26168.28	
CFA (3 factors, Nappa et al., 2021)	395.59	101	3.91	0.903		0.068 [0.061-0.075]		0.050	30378.54	30152.21	
CFA (5 factors, van Gils et al., 2022)	278.36	94	2.96	0.939		0.056 [0.048-0.064]		0.045	30276.18	30018.79	
						Educational level					
Configural invariance	615.50	148	4.15	0.914		0.072 [0.066-0.078]		0.053	50539.72	50080.28	Accepted
Metric invariance	631.25	159	3.97	0.913	0.001	0.070 [0.064-0.076]	0.002	0.055	50477.46	50074.17	Accepted
Scalar invariance	694.16	170	4.08	0.904	0.009	0.071 [0.066-0.077]	0.001	0.058	50466.22	50119.08	Accepted
						Gender					
Configural invariance	636.14	148	4.29	0.909		0.074 [0.068-0.080]		0.054	50369.58	49910.95	Accepted
Metric invariance	645.17	159	4.05	0.909	0.000	0.071 [0.066-0.077]	-0.003	0.055	50295.02	49892.44	Accepted
Scalar invariance	659.43	170	3.87	0.909	0.000	0.069 [0.064-0.075]	-0.002	0.055	50225.66	49879.14	Accepted
						Bullying roles					
Configural invariance	825.92	296	2.79	0.908		0.077 [0.071-0.083]		0.056	50629.32	49712.51	Accepted
Metric invariance	860.06	329	2.61	0.907	0.001	0.073 [0.067-0.079]	0.004	0.060	50432.20	49683.47	Accepted
Scalar invariance	901.36	362	2.38	0.906	0.001	0.070 [0.065-0.076]	0.003	0.061	50234.17	49653.52	Accepted

Note. S-B χ^2 = Satorra-Bentler chi-square; χ^2/df = Satorra-Bentler chi-square/degrees of freedom; CFI = comparative fit index; ΔCFI = difference in CFI between the two models examined; RMSEA = root mean information criteria; 90% CI = confidence interval RMSEA; ΔRMSEA = difference in RMSEA between the two models compared; SRMR = standardized root mean square residual; BIC = Bayesian information criterion; AIC = Akaike Information Criterion.

consisting of items 13 to 15, reflected punitive responses and was labeled Disciplinary Methods (DM; see Table 4). The total variance explained was 53.72%: NI (9.33%), RP (28.91%), and DM (15.49%).

Table 4
Factor Loadings and Communalities From the EFA

Item	Factor 1 = NI	Factor 2 = RP	Factor 3 = DM	Communality
TR1	**0.734**	-0.265	0.008	0.55
TR2	**0.688**	-0.004	-0.122	0.48
TR3	**0.492**	0.060	-0.118	0.26
TR4	0.085	**0.599**	-0.066	0.33
TR5	0.202	**0.378**	0.006	0.21
TR6	0.053	**0.524**	0.073	0.34
TR7	-0.002	**0.761**	0.010	0.59
TR8	-0.086	**0.882**	-0.004	0.76
TR9	0.020	**0.599**	0.079	0.43
TR10	-0.012	**0.719**	0.200	0.74
TR11	0.004	**0.611**	0.294	0.70
TR13	-0.004	0.373	**0.515**	0.66
TR14	0.083	0.001	**0.901**	0.82
TR15	-0.005	0.155	**0.693**	0.65

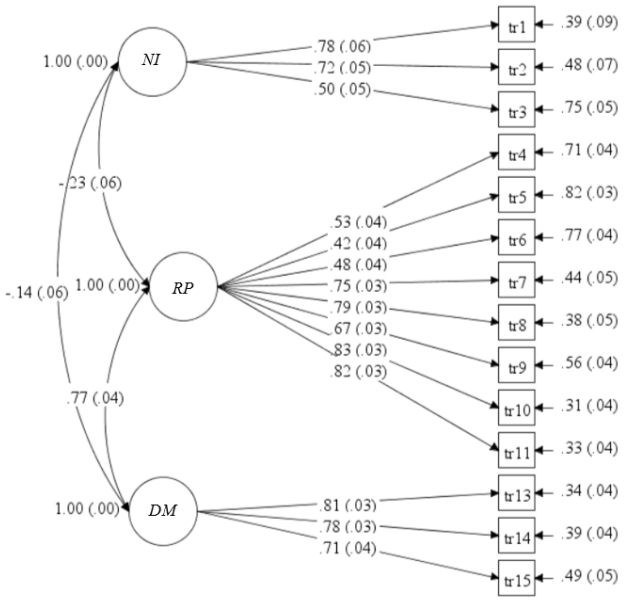
Note. NI = Non-intervention; RP = Restorative Psychoeducational; DM = Disciplinary methods.

Confirmatory Factor Analysis (CFA)

A CFA was performed to validate the three-factor structure (NI, RP, and DM) identified in the EFA. The model showed acceptable fit indices (see Table 3). Additionally, its fit was compared to two alternative models previously reported in the literature: the three-factor structure proposed by Nappa et al., (2021) and the five-factor structure by van Gils et al. (2022). The results indicated that the model derived from the EFA showed the best fit, as evidenced by the lowest AIC and BIC values (see Table 3).

All factor correlations were below .80, indicating adequate discriminant validity. Standardized factor loadings were statistically significant, ranging from .42 to .83. Both CR and AVE values met acceptable thresholds, further supporting the internal consistency and convergent validity of the factors (see Figure 1).

Figure 1
Three-factor Model of the TRBQ



Note. NI = Non-intervention; RP = Restorative psychoeducational; DM = Disciplinary methods; all values shown in the diagram are standardized; CR [NI = 0.71; RP = 0.86; DM = 0.81]; AVE [NI = 0.45; RP = 0.46; DM = 0.58].

Measurement Invariance

Differences in the Perception of Teacher Responses

Significant differences in students' perceptions of teacher responses were observed across educational level, gender, and bullying role (see Table 5). Regarding educational level, non-intervention was perceived as more frequent among secondary school students. Primary school students perceived higher levels of restorative psychoeducational responses. The effect sizes were small in both cases. No significant differences were found between educational levels in perceptions of disciplinary methods.

Concerning gender, girls perceived all forms of teacher response as more frequent than boys, although the effect sizes were small across comparisons.

Regarding bullying roles, non-intervention was perceived as more frequent by students identified as bully-victims, with a small effect size. Non-involved students perceived restorative psychoeducational responses as more frequent, whereas bully-victims perceived them as less frequent. Finally, aggressor students perceived greater use of disciplinary methods. The effect size was small across comparisons (see Table 5).

Additionally, interaction effects of educational level, gender, and bullying role on students' perceptions of teacher responses were examined. For non-intervention, a three-way interaction effect between educational level, gender, and bullying role was significant ($F(3, 1177) = 4.81$, $p = .002$, $\eta^2 = .012$). In primary school, female bully-victims perceived higher levels of teacher non-intervention, whereas in secondary school, male bully-victims and aggressors perceived the highest levels of non-intervention. Regarding restorative psychoeducational responses, a significant interaction effect was found between educational level and gender ($F(1, 1174) = 4.26$, $p = .039$, $\eta^2 = .004$). Male students in primary school perceived more restorative psychoeducational responses than male students in secondary school. All the effect sizes were small. No significant interaction effects were found for perceptions of disciplinary methods.

Discussion

Although an increasing number of studies confirm that teacher response is crucial to prevent and stop the development of bullying cases, there are no validated instruments in Spain to analyze it validly and reliably. Therefore, the main objective of this study was to contribute to the field of research on teacher response to bullying by adapting and analyzing the psychometric properties of the Teachers' Responses to Bullying Questionnaire (TRBQ).

The first objective was to explore the structure of TRBQ in Spain to further explore the underlying dimensions. The EFA identified a three-factor solution: non-intervention, restorative psychoeducational strategies (including group discussion, victim support, and mediation), and disciplinary methods. Items 12 and 16 were removed due to cross-loadings on multiple factors, likely because both referred to actions that could plausibly fit into more than one response category. The three-factor structure was subsequently confirmed through the CFA, whose fit indices were adequate. These results support the validity of the TRBQ as an appropriate instrument for assessing students' perceptions of teacher responses to bullying in the Spanish educational context.

Similarly, the factorial solution identified aligns with previous studies, such as Nappa et al. (2021) in Italy, where a three-factor structure was also found in a sample of secondary school students, encompassing non-intervention, relational or supportive responses, and disciplinary methods. These findings suggest a cross-cultural convergence in students' perception, as similar structuring of teacher responses to bullying emerges in both Spain and Italy. Notably, restorative psychoeducational strategies are rarely applied in isolation; instead, they are typically combined—integrating victim support, mediation, and group discussion. This tendency to employ multiple responses aligns with recent studies indicating that teachers often employ a combination of responses rather than relying on a single response, as concluded from studies based on teacher reports (Burger et al., 2015) and student reports (Muñoz-Fernández et al., 2025a; van Gils et al., 2024).

The second objective of the study was to analyze the measurement invariance of the TRBQ across educational level, gender, and bullying role. The results indicated full measurement invariance across all comparisons, supporting TRBQ's validity for assessing students' perceptions of teacher responses regardless of whether the students are boys or girls, in primary or secondary education, or involved in bullying as aggressors, victims, bully-victims, or not involved. To date, few studies have examined measurement invariance based on bullying roles, marking this work an innovative and relevant contribution in this field. Moreover, these findings not only reinforce the instrument's psychometric robustness but also highlight its utility as a versatile tool, suitable for use across diverse educational contexts and student profiles—enhancing its applicability and potential for cross-group comparisons.

Regarding the third objective, the study analyzed differences in students' perceptions of teacher responses. The results indicated that

Table 5
Perceived Teacher Responses Across Educational Level, Gender, and Bullying Roles

	Educational level					Gender					Bullying roles					
	Primary *M (SD)*	Secondary *M (SD)*	*F(df)*	*p*	η^2	Boys *M (SD)*	Girls *M (SD)*	F(df)	p	η^2	Not involved *M (SD)*	Aggressors *M (SD)*	Victims *M (SD)*	Bully-victims *M (SD)*	*F(df)*	*p*	η^2
NI	0.82 (0.82)	0.93 (1.02)	F(1, 1215) = 3.91	.034	.004	0.80 (0.92)	0.92 (0.92)	F(1, 1210) = 5.28	.001	.013	0.72 (0.81)	1.05 (0.99)	0.92 (0.92)	1.37 (1.16)	F(3, 1199) = 21.51	.001	.051
RP	2.95 (0.88)	2.61 (1.12)	F(1, 1212) = 33.46	<.001	.027	2.72 (1.10)	2.86 (0.92)	F(1, 1206) = 2.89	.034	.007	2.89 (0.97)	2.82 (0.85)	2.71 (1.05)	2.42 (1.15)	F(3, 1196) = 8.84	.001	.022
DM	2.89 (1.15)	3.00 (1.24)	F(1, 1203) = 2.37	.124	.002	2.87 (1.27)	3.04 (1.10)	F(1, 1210) = 3.39	.017	.008	3.08 (1.16)	3.31 (0.88)	2.79 (1.23)	2.56 (1.29)	F(3, 1189) = 11.30	.001	.028

Note. NI = Non-intervention; RP = Restorative psychoeducational; DM = Disciplinary methods; Sample sizes: Primary ($n = 600$), Secondary ($n = 641$), Boys ($n = 624$), Girls ($n = 605$), Not involved ($n = 635$), Aggressors ($n = 57$), Victims ($n = 382$), Bully-victims ($n = 144$).

restorative psychoeducational strategies were perceived as more frequent among primary school students, whereas non-intervention was more commonly perceived among secondary school students. Additionally, the analysis of the interaction between educational level and gender in restorative psychoeducational responses revealed that primary school boys perceived greater use of this strategy compared to secondary school boys. This difference may be explained by the greater sensitivity and proactive attitudes of primary school teachers in addressing bullying situations (Sokol et al., 2016; van Aalst et al., 2024), potentially related to differences in teacher training. In Spain, primary school teachers complete a four-year university degree that includes coursework in child development, pedagogy, psychology, and classroom management. In contrast, secondary school teachers typically hold a subject-specific degree followed by a one-year postgraduate program in education (Real Decreto 1834/2008).

Concerning the use of disciplinary methods, the lack of significant differences in perceptions between primary and secondary school students aligns with previous research indicating that teachers at both educational levels tend to resort to disciplinary strategies when aiming to restore order and enforce clear consequences (Bauman et al., 2008; Yoon & Bauman, 2014). Moreover, this tendency could be explained by the fact that disciplinary strategies represent a more traditional and immediately applicable response, whereas the proper implementation of restorative psychoeducational strategies might require specific skills and training.

In terms of gender, the results of this study showed that girls perceived teachers' responses as more frequent than boys. One possible explanation, consistent with previous research, is that girls tend to consider bullying as a more serious problem, which may make them more attentive to, and more likely to report, teachers' responses (Sokol et al., 2016). Additionally, girls are more often involved in bullying as victims (Chocarro & Garaigordobil, 2019; Li et al., 2020), have greater academic engagement, and have more positive perceptions of their teachers in both academic and relational aspects (King, 2016). These factors may contribute to their greater sensitivity to teacher responses.

While the overall pattern showed girls perceiving greater teacher responses, the interaction effects revealed important nuances. Specifically, female bully-victims in primary school perceived the highest levels of non-intervention. This may be explained by their closer relationships with teachers (Furrer & Skinner, 2003), which could foster higher expectations of support. When these expectations are unmet, perceptions of teacher inaction may be particularly salient.

In contrast, boys perceived all teacher responses as less frequent than girls. This perception could be partly explained by a lower tendency among boys to seek help (Bjereld et al., 2024), as well as by the association between being a boy and a higher probability of experiencing a failed response, both in the role of aggressor and victim (Johander et al., 2024). This interpretation is supported by the interaction effects observed: in secondary school, male students involved in bullying—both as aggressors and bully-victims—reported the highest perceptions of teacher inaction. These patterns suggest that students' roles in bullying, combined with their gender, shape how they interpret teachers' responses. These findings underscore the importance of ensuring that teachers' responses are equally visible and effective for all students, and they point to the need for further research into the reasons why boys, especially those involved in bullying, tend to report lower awareness of teacher intervention.

Regarding bullying roles, non-involved students perceived more restorative psychoeducational strategies, while those involved as bully-victims tended to perceive a greater lack of response. This may suggest that students not involved in bullying dynamics are more receptive to teacher responses. In contrast, bully-victim students may perceive a systematic absence of response, reinforcing feelings of ambivalence and neglect. This highlights the urgent need to address this complex profile, which often poses challenges for teachers in terms of identification and appropriate response.

Meanwhile, students identified as aggressors reported a higher perception of disciplinary methods, consistent with previous studies that highlight the predominance of punitive approaches when addressing this group (Byers et al., 2011; Campaert et al., 2017; Rigby, 2014; Yoon et al., 2016). However, these results may suggest the need to work with aggressive students from a psychoeducational perspective, enabling them to recognize the harm they have caused and to take responsibility to change the situation.

Despite its contribution, some limitations should be acknowledged. First, the reliance on student self-reports may be subject to halo effects (Spooren et al., 2013), as perceptions of teacher responses could be influenced by personal relationships or past experiences, potentially compromising objectivity. Future research should adopt multi-informant designs to cross-validate student reports with data from teachers or families. Second, although a three-factor structure was validated, the restorative strategies dimension comprises more items and subtypes than the disciplinary and non-intervention dimensions. Future work should aim to balance the scale by expanding items in the latter dimensions. Third, the TRBQ lacks specific items targeting restorative responses toward aggressors, despite growing evidence supporting psychoeducational approaches for this group (Johander et al., 2021). Developing a dedicated subscale would enhance the instrument's comprehensiveness. Additionally, the proportion of students identified as victims or bully-victims (43%) exceeds national averages. This discrepancy likely stems from methodological differences: our study included students reporting victimization once or twice a month (Solberg & Olweus, 2003), while national data (MEFP, 2022) used a stricter 'once a week' criterion and considered only pure victims. Harmonizing frequency and classification criteria across studies would improve comparability and prevalence estimates. Finally, the study's cross-sectional design and regional sample (southern Andalusia) limit generalizability. Future longitudinal research with broader and more diverse samples is needed to confirm the instrument's stability and applicability across educational and cultural contexts.

This study represents one of the first contributions in Spain to validate an instrument for assessing teacher responses to bullying from the students' perspective. The adaptation of the TRBQ enables meaningful cross-cultural comparisons with other countries where it has been validated. The TRBQ demonstrates sensitivity to key variables such as gender, educational stage, and the bullying roles, making it a versatile tool for exploring different student profiles. Furthermore, it can serve as a valuable resource for evaluating the effectiveness of programs in general, and teacher training programs in particular, by measuring changes in teacher responses following targeted interventions (Van Verseveld et al., 2019). The findings can serve for designing school policies and prevention strategies tailored to the unique characteristics of the student population and the specific educational stages.

Author Contributions

Laura Rodríguez-Pérez: Conceptualization, Formal analysis, Methodology, Writing - Original draft, Writing - Review and editing. **Rosario Del Rey**: Conceptualization, Methodology, Writing – Review and editing. **Noemí García-Sanjuán**: Conceptualization, Writing - Original draft. **Noelia Muñoz-Fernández**: Funding Acquisition, Project administration, Formal Analysis, Methodology, Supervision, writing - Review and editing.

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Declaration of Interests

The authors declare that there is no conflict of interest.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon request.

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