Turkish Adaptation of Principal-Teacher Relationship Scale: Validity and Reliability Study

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> *Becoming a leader begins with being able to lead yourself*
> *(Lider olabilmek, kendi liderliğini yapabilmekle başlar)*
> Muhammet İbrahim Akyürek

Abstract

In the study, the Principal-Teacher Relationship Scale, originally created by Zee, Roorda, and Hanna (2023), was subjected to an adaptation study for Turkish culture. In line with this aim, data for the study were gathered from 389 teachers working in primary and secondary schools located in the districts of Konya, Turkey. The Principal-Teacher Relationship Scale (PTRS) was used as the data collection tool in the study. The PTRS is a two-dimensional scale consisting of a total of 10 items. As part of the adaptation of the PTRS into Turkish, permission for scale usage was initially obtained. Subsequently, the process of establishing the Turkish language equivalent of the PTRS was initiated. After completing this process, data for the study were collected and analyses were conducted. Within the framework of data analysis, the validity and reliability of the PTRS were tested. Confirmatory factor analysis was used to evaluate the validity of the PTRS's two-dimensional structure. The reliability of the PTRS was evaluated using Cronbach's alpha coefficient. Based on the validity and reliability analyses, it was concluded that PTRS is suitable for use in Turkish culture and is a valid and reliable data collection tool.

Keywords: Principal-teacher relationship scale, Validity, Reliability

Introduction

Principal-teacher interaction or relationship is an emotionally important bond that is crucial for schools to run smoothly and the education of students. This interaction or relationship can form the basis of cooperation between management and teaching at school and contribute to the academic achievement of pupils and the general development of teachers. According to Price & Moolenaar (2015), providing and ensuring the continuation of an effective learning environment has long been recognized as a crucial responsibility for education leaders. This has been seen as an important tool to enhance students' learning and achievement levels (Price & Moolenaar, 2015).

Principal behaviors and school climate are the most influential factors that affect the success of teachers and the institution (Tschannen-Moran & Gareis, 2015). Schools are institutions where the emphasis is on human resources and human relations and interactions, and the school climate is a distinctive factor that impacts the relationship between principals and teachers within the school (Güzelgörür et al., 2021). The interactions and relationships between principals and teachers have a crucial impact on molding the school climate (Latsch, 2017). School principals with a positive school climate are educational leaders who have a relationship with their teachers based on respect and love, are open to communication, listen and understand the other person, empathize, act fairly, and do not discriminate (Gök & Tarayan, 2023). An effective school climate is characterized by traits such as trust, respect, moral values, opportunities for participation, academic and social development, commitment, innovation, and interest (Kelly, Thornton, & Daugherty, 2005). Educators and researchers possess a shared comprehension of the concept of school climate and acknowledge the significance of fostering a positive school climate in order to enhance school effectiveness (Downs, 2018). The importance of social interactions between school principals and teachers in establishing such learning environments is highlighted by current developments in educational leadership and management (Price & Moolenaar, 2015).

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Effective school leadership has a direct and indirect impact on the environment of the school as well as the performance of teachers and students. The main characteristics of school principals under the theme of leadership are seen as valuing equality and justice, being closely involved with their teachers and establishing good relationships, being consistent and stable, being understanding and empathetic, being a guiding leader, being sensitive to problems, and knowing how to build effective relationships with their teachers (Helvacı & Aydoğan, 2011). As stated by Dinger (2018), communication is a crucial component of effective school leadership and has been defined by Katz and Kahn (1978) as the essence of a social system or organization. Teachers' perceptions of their leaders are positively influenced by actions such as giving importance to their leaders' needs and encouraging collaboration (Allen, 2015). Hulsbos, Evers, and Kessels (2016) state that it is important to develop communication and involve teachers in the decision-making process in order to expand the power of the interaction or relationship between teachers and administrators. The healthy communication of principals with their teachers will help teachers feel valued, increase their commitment to their work, and contribute to the general cooperation in the school. Additionally, principal-teacher communication and relationships are crucial for success within the school. Effective communication allows school management to respond to the needs of teachers and foster the collaboration necessary to achieve the school's goals.

Good communication also strengthens the relationship of trust between the principal and the teacher. Many effective relationships are built on trust (McLeary & Cruise, 2012). Principal-teacher interaction or relationship is based on trust. One of the methods that principals can adopt in manage the development of the school is to establish supportive and trusting relationships with teachers (Price, 2012). This relationship of trust is very important to the success of the school. Trust and communication elements affect the behavior of teachers and administrators and help the formation of good and lasting relationships (Downs, 2018). When principals support their teachers and provide them with opportunities, it helps teachers develop themselves and serve their students better. Likewise, teachers' support for their principals provides the necessary cooperation for the school to achieve its goals.

Principals' trust in their teachers is formed when they believe that they can do their jobs well and that they will make the necessary effort for students to be successful. Additionally, Brezicha, Bergmark, and Mitra (2014) mention that principals need to create a supportive, collaborative, and fair environment that fosters trust and a sense of security among teachers. A safe environment enables teachers to feel comfortable and freely express their thoughts. Similarly, Teachers' trust in their principals is formed when they believe that they will keep their promises, such as reducing the workload of teachers and working for the success of students. However, while emphasizing the importance of trust in effective teacher-principal relationships, Tschannen-Moran and Gareis (2015) also highlight the reality that trust is not easily established or sustained in such relationships.

The relationship between principals and teachers may also encounter conflicts from time to time. Conflict management has been a topic that people frequently encounter in working life around the world in the 21st century (Kanyip, Ezeh, & Chioma, 2023). Boucher (2013) acknowledges that conflicts are a natural occurrence and are considered a normal condition by Schein (2010). As stated by Schein (2010), conflicts always exist to some degree. Conflict management refers to taking a series of measures to control or regulate conflicts (Kanyip, Ezeh, & Chioma, 2023). Particularly, disagreements arising from different thinking styles, a lack of collaboration, or workload issues can negatively impact the relationship.

Conflicts and disagreements are not only unavoidable but also essential for successful change. Effectively handling conflicts between parties relies on both sides comprehending the intentions of the opposing party (Caldwell & Byers, 1988). Since conflict is a situation that cannot be evaluated as completely good or bad, it is crucial to handle it skillfully and address it constructively (Weitten, Yost-Hammer, & Dunn, 2016).

Conflicts between principals and teachers can significantly affect teacher performance. It is stated that unethical behavior and a lack of trust from principals will not have a positive impact on teachers' attitudes, performance, and commitment to the school (Yukl, 2012). One method to improve the standard of instruction is to enhance teachers' pedagogical competencies (Aimah et al., 2017). The performance of the principal is one of the factors that influence the pedagogical competence of teachers, and therefore, effective interpersonal communication and conflict management are important (Amini, Hariri, & Rini, 2022). Exactly. The existence of such conflicts can make it difficult for teachers to focus on their work and fulfill their duties, which can ultimately lower their performance. This conflicting situation can also affect teachers' motivation. Teachers rely on the support of their principals, and when they do not receive the support they need, their motivation can decrease.

Principal-teacher conflicts can also significantly affect the achievement of school goals. School goals are important factors that determine the success of students in their education and the position of the school in society. However, Nnamara (2005) points out that factors such as teachers' non-compliance with the school principal's directives, the principal's neglect of teachers' well-being, a lack of professional development, inadequate communication, and the undisciplined behavior of teachers may prevent the school from achieving its goals. Similarly, Tschannen-Moran (2012) has also emphasized that mistrust towards principals leads to communication problems, teachers' lack of commitment to school goals, a lack of trust in decision-making processes, and conflicts arising from distrust and lack of trust.

Boucher (2013) states that instead of eliminating conflict, the task of an effective leader is to manage conflict effectively. There is no single most effective management style for conflict management, so both principals and teachers should be prepared to embrace conflict resolution techniques that are appropriate for different situations. Therefore, school administrators should involve everyone in decision-making and school management and effectively collaborate to manage conflicts (Kanyip, Eze, & Chioma, 2023). This will help teachers feel valued, increase their commitment to their work, and contribute to overall collaboration within the school.

In recent years, there has been an increased interest in social relationships among educators; however, not enough attention has been given to the relationships between administrators and teachers (Barnett & McCormick, 2004). School principals primarily assume the role of creating a climate within their institutions (Louis, Mayrowetz, Murphy, & Smylie, 2009). The relationships between principals and teachers affect the satisfaction, harmony, and commitment levels of both principals and teachers (Price, 2012). Collaboration, trust, communication, support for students, coherence, and the presence of organizational structure are among the factors that influence teachers' professional learning in schools (Li, Hallinger, & Ko, 2016). In this context, the significance of principal-teacher interaction and relationship can have an impact on teachers' professional development, students' learning experiences, overall school management, and community relations.

When reviewing the literature, it is evident that the principal-teacher interaction or relationship is a significant factor that directly influences the success of educational institutions, making it a relevant and timeless topic that requires attention. This relationship directly affects elements such as communication, collaboration, and motivation within the institution, thereby exerting a significant impact on the quality of students' education. Therefore, the nature of this relationship and its effective management are vital for the success of educational institutions. Furthermore, conducting research on the principal-teacher relationship and analyzing its results is an important step towards improving educational systems. Such research can contribute to mutual understanding between teachers and principals, the establishment of shared expectations, and the creation of a harmonious working environment. As a result, the quality of education in institutions can be enhanced through increased collaboration, coordination, and the development of students' abilities and progress.

The history of studies on principal-teacher relationships in international literature dates back 40-45 years (Andrew, Parks, & Nelson, 1985; Bhella, 1982; Blase & Blase, 1994; Halawah, 2005; Hunter-Boykin & Evans, 1995). In Turkey, however, the studies have a more recent history. In the national literature, indirect studies on principal-teacher relationships can be traced back 25-30 years (Akgün, Çıldız, & Çelik, 2009; Cemaloğlu & Kılınç, 2012; Türnüklü, Şahin, & Öztürk, 2002; Yıldız, 1996; Yılmaz, 2006). The topic of the principal-teacher relationship has been predominantly studied in the form of literature reviews and research based on the perspectives of teachers working at different school levels in both international and national literature. Furthermore, the principal-teacher relationship scale has not been used as a data collection tool in Turkey for scale development, adaptation, or independent quantitative or mixed-method studies. This suggests that the principal-teacher relationship has not been directly examined using a scale specifically designed for this purpose. Additionally, this may be attributed to a lack of awareness among educational science and management experts about the principal-teacher relationship scale or a lack of comprehensive research on the subject matter. The current research, being an adaptation study, can contribute to the field by offering a different perspective from the existing literature. In this context, the rationale of the study is to test the validity and reliability of the principal-teacher relationship scale in Turkish culture and adapt the scale into Turkish. Adapting the principal-teacher relationship scale into Turkish can provide valuable insights for researchers investigating the topic and contribute to their data collection processes. Therefore, the aim of the research is to adapt the principal-teacher relationship scale, originally developed by Zee, Roorda, and Hanna in 2023, to Turkish culture. In pursuit of this aim, the following research questions were addressed:
1. Is the Principal-Teacher Relationship Scale a valid measurement tool in Turkish culture?
2. Is the Principal-Teacher Relationship Scale a reliable measurement tool in Turkish culture?

Method

In this study, a quantitative methodology was employed to evaluate the reliability and validity of the Turkish version of the Principal-Teacher Relationship Scale (PTRS), which was originally developed by Zee, Roorda, and Hanna (2023). The study utilized a survey model, and quantitative techniques were employed to analyze the collected data.

Participants
The population of the study consists of 9701 teachers working in primary and secondary schools in the districts (Karatay, Meram, and Selçuklu) located in the city center of Konya in Turkey (Ministry of National Education [MNE], 2023). The study requires a minimum sample size of 370, as indicated by the lower limit of the 95% confidence interval (Gürbüz & Şahin, 2014). The sample of the study consists of 389 teachers working in

primary and secondary schools in the districts located in the city center of Konya in the 2022-2023 academic year. The 95% confidence interval indicates that the number of samples used in this study is adequate for the population (Gürbüz & Şahin, 2014). Simple random sampling was implemented to select the teachers for the sample. Randomness refers to the situation in which the units based on the sampling are equally likely to be selected for the sample (Büyüköztürk, Çakmak, Akgün, Karadeniz, & Demirel, 2012).

Of the participants, 236 are female (60.7%) and 153 are male (39.3%). Among them, 145 are primary school teachers (37.3%) and 244 are middle school teachers (62.7%). In terms of teaching experience, 35 participants have 1-5 years of experience (9%), 103 have 6-10 years (26.5%), 88 have 11-15 years (22.6%), and 163 have 16 years or more (41.9%). Regarding their tenure at their current schools, 145 have been serving for 1-3 years (37.3%), 100 for 4-6 years (25.7%), 76 for 7-9 years (19.5%), and 68 for 10 years or more (17.5%).

Upon examining the data, it can be noticed that the majority of participants are female teachers who work in middle schools, have 16 years or more of professional seniority, and have been serving in their current schools for 1-3 years.

Data Collection Tool

In this study, the PTRS (Principal-Teacher Relationship Scale) developed by Zee, Roorda, and Hanna (2023) was used as the data collection tool. PTRS is a 10-item, five-point Likert scale questionnaire with two dimensions. The dimensions of the scale are closeness (5 items) and conflict (5 items). During the development process of PTRS, data were collected from a sample of 630 participants, consisting of primary and middle school teachers. The Cronbach's alpha coefficient for PTRS was found to be .96 for the closeness dimension and .93 for the conflict dimension. The item load values of the 10 items in the PTRS range between .69 and .93. A confirmatory factor analysis (CFA) was performed to test the validity of the PTRS. As a result of CFA, the two-dimensional structure of PTRS was confirmed (X2/sd= 1.75, RMSEA= .03, TLI/NNFI= .98 ve CFI= .99).

Language Equivalence Study

In order to collect data for the study, the Turkish Draft Form of PTRS (PTRS-TDF) was used. Adaptation permission was obtained from Zee, Roorda, and Hanna, who first developed the PTRS during the preparation process. With the permission obtained, the language equivalence process of PTRS was initiated. For this purpose, support was obtained from four English language experts and two Turkish language experts who are proficient in both languages. The items in the PTRS were translated into Turkish by the first English-language expert. The translated TDF was then retranslated into English by the second English language expert. Subsequently, the original and retranslated English scale forms were reviewed by the third and fourth English language experts to check for any loss of meaning, and they reached a consensus that there was no loss of meaning in the scale. The final TDF of the scale was checked by two Turkish experts in terms of intelligibility and expression, and in line with the feedback received, the original meanings of the scale items were preserved. After these procedures, the most suitable expressions in the Turkish language were determined, and the final draft form was created. The PTRS-TDF, in its final version, was presented to 20 teachers for their opinions, and based on the feedback received, further adjustments were made to the scale items while preserving their original meanings. Through the entire process and procedures, considering linguistic and idiomatic aspects, the Turkish version of PTRS was created.

Procedures and Data Analysis

The measurement tool used in the study was applied in the 2022–2023 academic year. As a consequence of the studies conducted regarding language equivalence, the pilot implementation phase of the PTRS-TDF was initiated. On average, participants took 10 minutes to complete the scale.

In the digitally encoded data, erroneous entries were first checked and manually corrected. Then, missing data analysis was conducted, and the approximate value assignment method was used. The literature was reviewed to assess the adequacy of the sample size for validity and reliability analyses (Kline, 2013; Tabachnick & Fidel, 2012). According to the literature, it was decided that the sample of 389 participants was suitable for conducting validity and reliability analyses.

As part of the data analysis, the fulfillment of the assumption of normality in the data set was examined. In this regard, the standard deviation, skewness, and kurtosis coefficients, as well as the mean, median, and mode values, were examined. The calculated standard deviation, skewness, and kurtosis values, respectively, were .85, -.77, .44 in PTRS; .94, -1.01, .84 in proximity dimension; conflict dimension is .89, -.45, .08. The skewness and kurtosis values in the study are between ±2. The interpretation of these findings suggests that the dataset follows a normal distribution (George & Mallery, 2010). Furthermore, the calculated mean, median, and mode values are as follows: for the overall PTRS, 3.61, 3.80, 3.80; for the proximity dimension, 3.81, 4.00, 4.00; and for the conflict dimension, 3.41, 3.60, 3.60, respectively. The proximity of the mean, median, and mode values in the study indicates that the data set follows a normal distribution (Hair, Ringle, & Sarstedt, 2011). In this context, the AMOS 22 software package was used for validity analysis, and confirmatory factor analysis was conducted

to test the validity (Jöreskog & Sörbom, 2006). Cronbach's alpha internal consistency coefficient and Item-total correlation techniques were used for the reliability analysis as the data set fulfilled the normality assumption (Gravetter & Walnau, 2000).

Findings

There are various methodologies regarding the required sample size for analysis in scaled development or adaptation processes. Different sources have emphasized that the sample size should be either 10 times the number of items (Nunnally, 1978) or 4 times the number of items (MacCallum et al., 2001). Furthermore, Comrey and Lee (1992), Tabachnick and Fidell (2012), and DeVellis (2014) have described sample sizes of 200 participants as "moderate," 300 participants as "good," 500 participants as "very good," and 1000 or more participants as "excellent." The generally accepted approach is that the sample size should be at least five times the number of items (Büyüköztürk et al., 2012; Tavşancıl, 2014). Therefore, the fact that this study was conducted with 389 teachers can be interpreted as reaching a sufficient number for statistical analysis.

Findings Regarding the Validity of the PTRS
The instrument, which aims to measure the level of the principal-teacher relationship and consists of 10 items, was developed based on two theoretical dimensions: closeness and conflict. The scale was prepared in a five-point Likert format. The rating range of the PTRS is as follows: strongly disagree (1.00-1.79), disagree (1.80-2.59), neither agree nor disagree (2.60-3.39), agree (3.40-4.19), strongly agree (4.20-5.00). In the context of the validity analysis of the PTRS, a confirmatory factor analysis was conducted to confirm the factor design of the tool.

According to the results of confirmatory factor analysis, the t-values for explaining the observed variables by latent variables were found to be significant at the .01 level. In terms of parameter estimates, t-values exceeding 1.96 are significant at the .05 level, and t-values exceeding 2.56 are significant at the .01 level (Çokluk, Şekercioğlu, & Büyüköztürk, 2014). Additionally, it was determined that the error variances of the observed variables are normally distributed (Çokluk et al., 2014). Due to the substantial t-values that were obtained for all items, all indicators have been incorporated into the model. The path diagram obtained from the confirmatory factor analysis is presented in Figure 1.
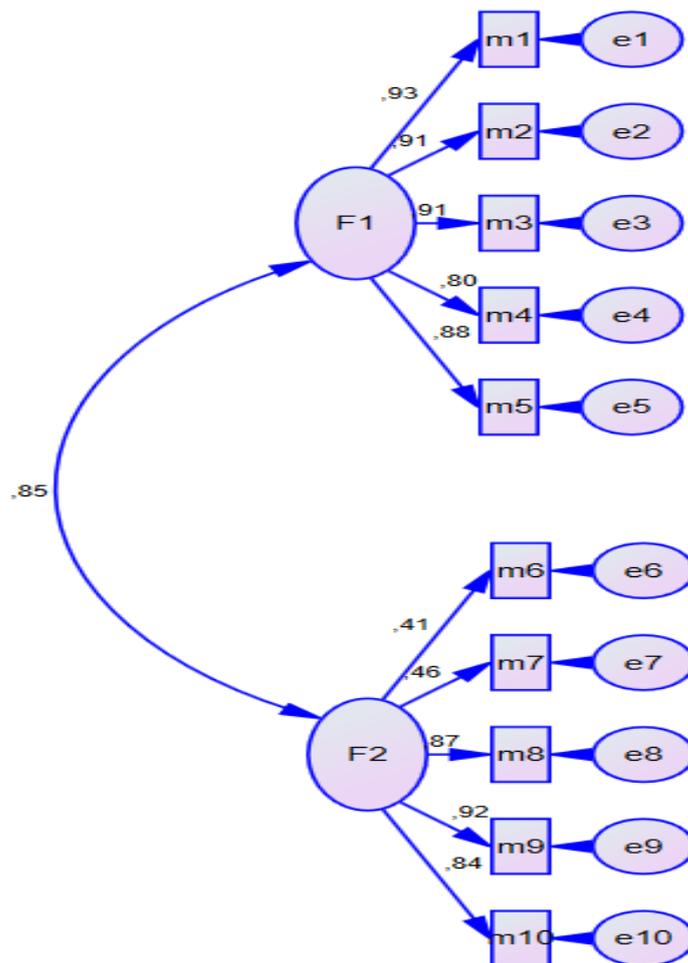
Figure 1. Path diagram of the principal-teacher relationship scale

The results of the confirmatory factor analysis of the PTRS are presented in Table 1.

Table 1. The results of the confirmatory factor analysis of the principal-teacher relationship scale

Compliance measurements	Measurement value	Reference range
p	.00	$< .01$
X^2/sd	2.16	≤ 3
RMSEA	.05	$\leq .05$
SRMR	.02	$\leq .05$
GFI	.97	$\geq .95$
TLI/NNFI	.98	$\geq .95$
CFI	.99	$\geq .95$

Based on the findings presented in Table 1, the p-value is statistically significant at the .01 level. It is common in many confirmatory factor analyses to observe significant p-values, which can be attributed to the large sample size (Çokluk et al., 2014). Therefore, alternative fit indices regarding the fit between the two matrices have been evaluated. The analysis results indicate that the X^2/sd, RMSEA, SRMR, GFI, TLI/NNFI, and CFI values exhibit excellent fit (Çokluk et al., 2014). Based on the analysis values, the two-factor structure of PTRS, consisting of 10 items (with 5 items each for the proximity and conflict factors), has been confirmed as a valid model.

Findings Regarding the Reliability of the PTRS
Reliability analyses were conducted by examining item analysis using item-total correlations and Cronbach's alpha to assess the reliability of the scale. The reliability analysis results for MÖİÖ are presented in Table 2.

Table 2. Reliability Analysis Results of Principal-Teacher Relationship Scale

Dimensions	Alpha value	Item-total correlation
Closeness	.95	.78-.89
Conflict	.82	.39-.78
Principal-teacher relationship scale	.92	.35-.84

According to Table 2, the internal consistency coefficient (Cronbach's alpha) values are .92 in the PTRS, .95 in the proximity dimension, and .82 in the conflict dimension. In this context, it can be stated that the internal consistency coefficient in the general and dimensions of the PTRS is sufficient for the reliability of the scale scores. A reliability coefficient of .70 and above is considered sufficient for the reliability of test scores (Büyüköztürk, 2013). The item-total correlations were between .35-.84 in the PTRS, .78-.89 in the proximity dimension, and .39-.78 in the conflict dimension. In this context, it can be stated that the items in the scale distinguish individuals well according to the item-total correlations in the general and dimensions of the PTRS. Items with an item-total correlation of .30 and above distinguish individuals well (Büyüköztürk, 2013).

Discussion

In this study, the adaptation of the original Principal-Teacher Relationship Scale (PTRS), developed by Zee, Roorda, and Hanna (2023), to Turkish culture was conducted. Within this framework, the Turkish language equivalent of PTRS was administered to 389 teachers working in primary and secondary schools in Konya province. Validity and reliability analyses were performed on the dataset. In the normality analyses conducted in this direction, CFA was performed on the basis of the model based on covariance for validity, and Cronbach alpha was performed for reliability since the data set fulfilled the assumption of normality.

The CFA findings regarding the validity of the two-dimensional structure of the Turkish version of PTRS have demonstrated that the scale is valid. The findings align with the factor structure in the original study conducted by Zee, Roorda, and Hanna (2023). The CFA results from the original scale development process also confirmed the two-dimensional structure of PTRS. Therefore, in the process of adapting PTRS to Turkish, the two-dimensional structure of the scale has been supported by the findings from the development of the original scale. The theoretical foundations of PTRS were established by Zee, Roorda, and Hanna (2023). Accordingly, a healthy principal-teacher relationship involves the presence of positive elements such as love, respect, transparency, sincerity, trust, and collaboration between principals and teachers. By fostering such healthy relationships, a positive atmosphere can be created in schools. This, in turn, contributes to the overall well-being of stakeholders, including students, and facilitates effective and successful educational processes. With the synergy created, all stakeholders can experience a happy and peaceful learning environment in which they can effectively participate in teaching and learning activities. The theoretical model that underlies PTRS, along with its compatibility with the findings of the current study, demonstrates its validity for Turkish culture. However, it should be noted that the Principal-Teacher Relationship Scale has not been used as a data collection tool in any scale development, adaptation, or independent quantitative or qualitative studies in Turkey.

The study findings demonstrate that the Turkish version of PTRS is a highly reliable data collection tool in both its overall scale and its sub-dimensions. The current results are consistent with the findings of the study conducted by Zee, Roorda, and Hanna (2023), which also determined that PTRS is a highly reliable data collection tool. When the validity and reliability findings from both the current study and the study by Zee, Roorda, and Hanna (2023) are examined holistically, it can be concluded that the Turkish version of PTRS is suitable for use in studies focused on principal-teacher relationships.

Conclusion and Recommendations

In this study, the original Principal-Teacher Relationship Scale (PTRS) developed by Zee, Roorda, and Hanna (2023) was adapted to Turkish culture, and validity and reliability analyses were conducted. The analysis of the data indicated that the two-dimensional Turkish version of PTRS is a valid and reliable tool for data collection. Therefore, it can be stated that the Turkish version of PTRS is suitable for conducting studies on principal-teacher relationships in educational institutions in Turkey. The data in the study were obtained from teachers. However, future research can include school administrators as participants in data collection. Additionally, studies can be designed to include other educational levels that may differ from the current study, which focused on primary and middle schools. By including different sample groups, the validity and reliability of PTRS can be tested in various contexts. Furthermore, testing the validity and reliability of the Turkish version of PTRS with data obtained from larger samples can contribute to the literature in this field.

Authors Contribution Rate

All authors contributed equally to the article.

Conflicts of Interest

There is no conflict of interest.

Ethical Approval

Ethical permission (Date May 23, 2023; E-16343714-605.02-522062) was obtained from Selcuk University Rectorate Education Faculty Dean's Scientific Ethics Evaluation Committee institution for this research.

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Principal-Teacher Relationship Scale (Turkish Version: Müdür-Öğretmen İlişkisi Ölçeği)

	Yakınlık
1	Müdürümle sevgi ve saygıya dayalı samimi bir iletişimim/etkileşimim var.
2	Müdürüm benimle olan iletişimine/etkileşimine değer verir.
3	Müdürümle olan iletişimim/etkileşimim beni huzurlu ve mutlu hissettirir.
4	Duygu ve deneyimlerimi müdürümle açıkça paylaşırım.
5	Müdürümle olan etkileşimlerim beni faydalı ve kendinden emin hissettirir.
	Çatışma
6	Müdürümün bana adil davranmadığını düşünürüm.
7	Müdürümle yaşadığım çatışmalar enerjimi düşürür.
8	Müdürümün bana karşı olan duygu ve düşünceleri öngörülemez ya da aniden değişkenlik gösterir.
9	Elimden gelenin en iyisini yapmama rağmen müdürümle olan iletişimimden/etkileşimimden rahatsızım.
10	Müdürümle olan iletişimimde/etkileşimimde kendimi karşılıklı bir mücadelenin içerisinde hissederim.

- **The Principal-Teacher Relationship Scale (PTRS) can be used without getting permission but with citation.**
- **Important notes about the scale:**
  - The items of the conflict dimension (6-10) should be reverse-coded.
  - The high scores obtained from the overall scale indicate that the principal-teacher relationship is positive/high/positive.