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An Examination of Physical Education Teachers' Leadership Styles and Their Motivation Toward the Teaching Profession

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Abstract

The purpose of this study is to examine whether physical education teachers' leadership styles and their motivation toward the teaching profession differ according to gender, marital status, age, educational level, years of service, and the institution in which they work. A total of 402 teachers participated in the study, including 236 male and 166 female teachers from two educational levels (primary school and high school). The data were collected using a 'Personal Information Form' consisting of demographic characteristics, the 'Multidimensional Work Motivation Scale' developed by Gagné et al. (2010) and adapted into Turkish by Çivilidağ (2017), and the 'Teacher Leadership Scale' developed by Beycioğlu (2009). Mann–Whitney U tests were used for binary comparisons, and Kruskal–Wallis tests were employed for multiple comparisons in the analysis of the data. While no significant differences were found in the total scores of the Teacher Leadership Scale and the Work Motivation Scale with respect to gender, a significant difference was observed in the amotivation subdimension of the Work Motivation Scale ($p < 0.05$). No significant difference was found in teacher leadership scores according to marital status; however, a significant difference was detected in work motivation scores ($p < 0.05$). No significant difference was observed in teacher leadership scores among different age groups, whereas a significant difference was found in work motivation ($p < 0.05$). According to educational level, no significant differences were found between groups in either the Teacher Leadership Scale or the Work Motivation Scale ($p > 0.05$). While no significant difference was found in teacher leadership scores based on years of service, a significant difference was observed in work motivation scores ($p < 0.05$). Additionally, no statistically significant differences were found between teachers working in primary schools and high schools in terms of teacher leadership and work motivation scores ($p > 0.05$). Based on these results, it can be stated that physical education teachers' leadership styles have an effect on their motivation toward the teaching profession.

Keywords: Sport, Coach/Instructor, Motivation, Leadership

INTRODUCTION

Motivation, which is necessary for individuals at every stage of life, is also an indispensable phenomenon for athletes. Especially in team sports, the motivation of individuals coming from different cultures toward a single goal, in addition to their physical and technical skills and their harmony with one another, as well as their individual characteristics, are important factors affecting the success of the team.

In the literature, the concept of motivation is generally used in the meanings of encouragement, stimulation, motivation, and willingness (Biçer, 2007). Motivation is defined as the total of efforts made to continuously mobilize one or more individuals toward specific aims or objectives (Ergül, 2005). People take action in order to satisfy their needs.

Physical Education is the complete development of personality in line with the principle of wholeness of the organism. It completes general education and is defined as an integral part of general education. In other words, physical education aims to ensure the intellectual, spiritual, and physical development of the individual in accordance with the fundamental principles of National Education (Akkoyunlu, 1996). Those who graduate from institutions providing sports education by receiving pedagogical formation are able to work as physical education and sports teachers within the Ministry of National Education.

It is known that physical education teachers also possess leadership characteristics. For example, preparing students for performances representing the school during national holidays, directing students in the prepared performances, and leading them can be shown as examples of the leadership of physical education teachers.

Leadership has been defined in many ways. It is defined as a person who mobilizes a group or organization toward its aims and objectives, guides them, inspires them, shows the way, and pioneers these processes (Biçer, 2020). Leadership has also been defined as influencing individuals and groups within an organization, helping these followers determine goals, and guiding them to achieve these goals (Nahavandi, 2000).

In the literature, the concepts of teacher leaders and teacher leadership are encountered (Harris, 2003). Teachers who are leaders lead their students not only within the classroom but everywhere and under all conditions. Leader teachers influence everyone around them together with their colleagues, identify with their institution, and cooperate with their environment to improve it (Katzenmeyer & Moller, 2001).

Displaying leadership behaviors is one of the most important criteria that physical education teachers should possess. It can be stated that physical education teachers who establish a healthy structure by creating effective communication channels with organizational members within a framework of respect and trust in their environment and organization exhibit leadership behaviors (Durukan, 2003; Ozkan & Yaman, 2023).

The aim of this study is to examine the leadership styles of physical education teachers and their motivation toward the teaching profession. In the literature review conducted, no direct research at the master's or doctoral level related to the title of the study was found. In this respect, it is considered that this study will contribute to the understanding of the leadership styles of physical education teachers and their motivation toward the teaching profession.

CONCEPTUAL EXPLANATIONS

Motivation

There are many definitions of the concept of motivation. In one definition, motivation is described as the processes that direct individuals toward a specific goal, mobilize them, encourage them to work, and increase their willingness to work and level of concentration (Robbins, 2000). In a similar definition, motivation is defined as "the psychological and mental processes that direct individuals, enable them to take action and engage in specific activities, and ensure continuity in their attitudes" (Koçel, 2010; Uzun et al., 2025).

There are three fundamental characteristics of the concept of motive. These are mobilizing the individual, ensuring continuity in the action taken, and positively directing the individual. In other words, a motive refers to all efforts that enable an individual or a group to take action in order to reach a previously determined goal (Keskin, 2008).

Tools Used in Motivation

Since employees possess different personality characteristics, the use of different motivational tools has become an inevitable necessity (Mercanlıoğlu, 2012).

Economic Tools

The need to earn money is a type of need that arises not only to sustain individuals' lives but also to achieve a certain standard of living (Gedik et al., 2018). Some of the economic tools used to increase the motivation of employees include sharing profits, wage increases, social benefits, bonuses, provision of transportation services, beverage services, lunch provision, clothing assistance, and similar incentives (Özmutaf & Aktekin, 2016).

Psycho-Social Tools

It has been determined that work motivation is increased by factors such as employees' work being appreciated by managers, individuals feeling committed to the organization, and maintaining good relationships between employees and managers (Karabekir et al., 2016; Öztürk & Dündar, 2003).

The psycho-social tools used in motivating employees have been identified as factors such as the social status provided by the job, employees' ability to act independently within the organization, easy access to managers, and being appreciated by managers (Özmutaf & Aktekin, 2016; Ozkan & Uzun, 2025).

Organizational and Managerial Tools

It has been determined that the use and development of tools such as unity of purpose, balance between the authority and responsibilities given to individuals, opportunities for personal and professional development, obtaining employees' opinions on work-related issues and valuing these opinions, ensuring participation in decision-making processes, improving communication within the organization, providing job security to individuals, job enrichment, providing development opportunities for individuals' career advancement within the organization, and improving and enriching working conditions positively affect and increase employees' work motivation (Özmutaf & Aktekin, 2016).

MOTIVATION FACTORS

The concept of motivation has maintained its importance from ancient times to the present day. For this reason, it has frequently been addressed and extensively researched. For an individual to be able to perform his or her job, there exists a driving force that motivates and propels the person. This force is referred to as motivation. Motivation is highly important for individuals. It occupies a particularly significant position in enabling individuals to achieve their goals and objectives, especially in their working lives (Biçer, 2006).

Arousal and Anxiety

Environmental or internal stimuli are important in terms of prompting an individual to take action. In order for an individual to take action within the framework of the need for achievement, the presence of motivating stimuli and the initiation of the orientation process are required (Kaymaz, 2010).

Needs

Needs arise in the human organism as a result of physiological imbalance and the feeling of deficiency. The continuity and quality of life are related to how these needs are met and to what extent they can be satisfied. Needs are divided into two groups: psychological needs such as being loved, loving, belonging, being respected, and self-actualization; and physiological needs such as water, food, heating, shelter, sexuality, and oxygen (Varol et al., 2014).

Beliefs

Beliefs are defined as a driving force that exists in human life. When something is genuinely believed in, it is observed that all possible ways are tried in order to obtain and achieve it, and that success is ultimately attained. Belief is indispensable for not giving up on a

task and for ensuring continuity. Performing a task in which belief is absent is considered to be meaningless (Öztürk & Erdoğan, 2013).

Goals

Just as individuals have certain goals, organizations also have specific objectives. It is known that a working individual exerts all efforts to achieve his or her own goals and utilizes all available means to reach the desired state. For this reason, goals occupy a highly important position.

Types of Motivation

The types of motivation that influence human behavior are examined under four main headings. These are as follows:

Instincts

Instincts are classified as unconscious behaviors that direct individuals toward needs of a natural nature. An instinct comprises all behaviors that are entirely unconscious and not based on rational thought (Aşıkoğlu, 1996). It can be stated that instincts are phenomena common to both humans and animals. Conditions such as thirst, hunger, inhaling and exhaling are common instincts; however, they show differences in terms of behaviors. It is known that instincts actually constitute the universal order.

Physiological Drives

Drives that are directed toward satisfying the basic needs required for individuals to sustain their lives are referred to as physiological drives. It has been determined that these drives are carried out partly consciously as well as partly unconsciously. For example, such drives can be defined as dressing and nutrition. These types of drives, which are based on the aim of satisfying physiological needs, exist in all humans; however, they differ among individuals in terms of strength and intensity (Aşıkoğlu, 1996; Erail & Uzun, 2023).

Social Drives

Socially oriented drives are situations that societies regard as valuable. Individuals exert all their efforts in order to attain these. These include socially oriented emotions and thoughts that activate the individual, such as being recognized, becoming a member of a group, being loved and loving, being appreciated, and helping others. However, social drives gain importance at different times, in different forms, and at varying levels depending on

individuals' personal characteristics. On the other hand, the formation of these drives may also be directly dependent on social conditions (Kaplan, 2007).

Psychological Drives

The forces that influence an individual's behaviors in a certain direction and manner for various reasons are referred to as personal drives (Öztabağ, 1970). Such drives are integrated with the individual's behavioral characteristics and personality structure.

Job Motivation and Its Types

Job motivation is a concept that emerged in the 1930s and is considered one of the most prominent issues attracting interest in the social sciences today, as well as one of the major problem areas in public administration (Selden & Brewer, 2000).

Job motivation is related to the level at which employees perform their jobs willingly and enthusiastically (Ertürk & Aydın, 2016; Erail et al., 2024). According to Katzell and Thompson, job motivation is a broad structure dependent on processes and conditions related to an individual's job-related arousal, persistence of effort, direction, and the importance attributed to the job (Katzell & Thompson, 1990).

Intrinsic Motivation

Intrinsic motivation refers to an individual's voluntary engagement in an activity because it is perceived as enjoyable and interesting. When examining the essence of intrinsic motivation, it denotes a state in which the feeling of satisfaction is dominant. An intrinsically motivated individual does not take action by considering external factors such as pressure, rewards, or inducements (Gagné et al., 2014).

Actions that individuals perform without any source of extrinsic motivation, such as hobbies, are defined as intrinsic motivation.

Extrinsic Motivation

Rewards and punishments originating from sources external to the individual—such as colleagues and managers—constitute motivational factors that influence the individual's behavior. Organizational practices such as providing rewards to employees, arranging memberships in various associations or clubs, evaluating conducted activities according to specific criteria and assigning certain scores, and identifying and recognizing employees within the organization can be listed as instruments that provide positive motivation (Deci, 1971).

Leadership

The phenomenon of leadership has existed from the time humans became aware of their own existence; in other words, from the time they began to live collectively, and has continued to the present day (Biçer, 2014).

In a study conducted by the distinguished leadership scholar Joseph Rost, it was argued that academics and practitioners have been unable to formulate a precise and concise definition of leadership that would enable people to recognize it when it is practiced by an individual or a group. After analyzing 221 different definitions of leadership, Rost concluded that "leadership is an influence relationship between leaders and followers who intend real changes that reflect their mutual purposes" (Rost, 1993). Leadership scholar Jay Conger defines leaders as individuals who attract group members toward themselves and motivate those they attract in order to achieve the organization's objectives (Bakare, 2017).

Leadership in Sport

Interactional approaches to leadership are based on three assumptions: leadership cannot be predicted solely on the basis of personality traits, effective leadership behavior is situation-specific, and leadership styles are changeable (Klimushko, 2010). Earlier leadership models were grounded in research conducted in industry, education, and the military; therefore, Chelladurai developed the Multidimensional Model of Leadership specifically for the sport context (Klimushko, 2010; Uzun, et al., 2025). This theory places equal emphasis on three factors of actual leader behavior, the behavior preferred by athletes, and the behavior required by the situation. The model predicts that if the leader's actual behavior is congruent with the preferred behaviors as indicated in athletes' responses, this leader behavior will be perceived as appropriate to the specific situation, thereby enhancing member satisfaction and performance (Chelladurai & Riemer, 1998). In this model, actual leader behavior is based on athletes' responses. Preferred behavior is determined by athletes' preferences for specific behaviors, and required behavior is identified as the average of the behaviors preferred by all athletes within a given context. Furthermore, Chelladurai stated that athletes and leaders are both socialized through similar experiences, which leads them to expect and prefer certain types of perceived behaviors, thereby contributing to increased performance (Chelladurai, 1993). Consequently, the preferred behaviors identified by athletes may be a result of socialization rather than a reflection of athletes' genuine preferences for the coaching style they desire.

Along with the multidimensional model, Chelladurai and Saleh developed the Leadership Scale for Sports (LSS) and used it to measure the three dimensions of actual, preferred, and required leader behavior (Chelladurai & Riemer, 1998). The LSS was developed to assess sport leadership behaviors by taking into account athletes' perceptions of their leader's behaviors, their preferences for specific behaviors, and coaches' perceptions of their own behaviors (Chelladurai & Saleh, 1980).

Teacher Leadership

With the impact of technological developments in the 21st century and changing conditions, the needs within the teaching–learning process have also begun to differ. In this context, as access to information has become considerably easier, teachers have moved away from traditional approaches and begun to take part in different and new dimensions. The group most affected by these changes has been teachers themselves (Kaya, 2016). Today, the theory of teaching can be defined not merely as the act of transmitting knowledge, but as a profession that adapts to development and transformation; facilitates learning through the methods applied in the teaching–learning process; encourages learning; influences students and keeps the learning process continuously active; enables students to generate new ideas; learns together with students; and serves as an effective advisor, guide, and mentor who provides direction to students (Ağırman & Ercoşkun, 2017). An effective teacher's ability to lead students toward predetermined goals and behaviors, to improve conditions throughout the teaching–learning process, and to provide the necessary support and guidance services for student and school success can only be made possible through the display of instructional leadership behaviors. In line with this information, it is observed that instructional leadership has come to the forefront and has begun to gain importance.

There are certain characteristics that distinguish teacher leaders from their colleagues. These characteristics include the ability to establish effective communication, to work in a disciplined manner in line with plans, to manage group work, to use resources efficiently and effectively, to be open to change, and to be patient and composed (Aslan, 2011). In addition, there are certain leadership behaviors that teachers maintain as effective and valid under all circumstances. These can be listed as developing a vision, instilling confidence in the group, remaining calm, being an expert, taking risks, simplifying processes, and valuing differences (Çan, 2015).

METHOD

Research group (population-sample)

In this study, which examines the relationship between physical education teachers' leadership styles and their motivation for choosing the teaching profession, a correlational survey model, one of the general survey research designs, was employed. As is well known, survey research aims to describe the views and characteristics of large populations and involves studies in which participants' opinions or attitudes regarding a specified subject or phenomenon are determined (Büyüköztürk et al., 2013). In another sense, survey models are research approaches that aim to describe a situation that existed in the past or currently exists, as it is (Karasar, 2012).

The population of the study consists of physical education teachers working at middle school and high school levels in schools affiliated with Hatay province. The study sample comprises a total of 402 physical education teachers, including 166 females and 236 males. Stratified sampling was employed in the selection of the study sample. Stratified sampling is a type of sampling in which the population is divided into specific strata in accordance with the purpose of the study, and groups from these strata are included in the study (Johnson & Christensen, 2014).

Data collection tools

In the first section of the data collection instruments, information was gathered through the "Personal Information Form" developed by the researcher (Appendix 1). In the second section of the data collection instruments, the "Teacher Leadership Scale," developed by Beycioğlu (2009), was used to measure the levels at which physical education teachers exhibit leadership behaviors (Appendix 1). To measure physical education teachers' motivation for choosing and engaging in the teaching profession, the "Multidimensional Work Motivation Scale," developed by Gagné et al. (2010) and adapted into Turkish by Çivilidağ and Şekercioğlu (2017), was employed.

Personal information form

In order to understand the demographic characteristics of the participants who agreed to take part in the study and to obtain and interpret additional information that may be related to the research, participants were asked to complete the Personal Information Form.

The Personal Information Form included questions regarding age, gender, type of school, school level, length of service at the current school, professional experience, and educational level.

Teacher leadership scale (TLS)

In this study, the Teacher Leadership Scale developed by Beycioğlu (2009) was used to measure the level of teacher leadership. The Teacher Leadership Scale was developed as part of Beycioğlu's doctoral dissertation completed in 2009. The scale consists of three sub-dimensions and 25 items. The institutional development dimension includes 9 items (items 6, 7, 8, 9, 11, 13, 14, 15, and 16); the professional development dimension includes 11 items (items 10, 12, 17, 18, 19, 20, 21, 22, 23, 24, and 25); and the collaboration with colleagues dimension includes 5 items (items 1, 2, 3, 4, and 5).

The scale is a five-point Likert-type instrument. The items in the measurement tool were arranged according to a five-point Likert scale and scored as follows: "Always (5)," "Often (4)," "Sometimes (3)," "Rarely (2)," and "Never (1)."

The dimensions included in the measurement tool were named by Beycioğlu (2009) as follows:

Dimension 1: Institutional development

The institutional development dimension is the dimension in which teacher leadership most prominently differs from traditional leadership discourses. Teacher leadership behaviors generally transform the structure of leadership responsibilities that traditionally belong to the principal, and teachers take part in various administrative activities. These include actions such as ensuring coordination of certain decisions taken and controlling processes. Some of the items included in this dimension are as follows:

Item: Taking part in activities that will ensure greater participation of parents in the educational process,

Item: Participating in the process of determining and developing the school strategic plan or some of the objectives included in the plan.

Dimension 2: Professional development

In this dimension, while the teacher leader develops himself or herself professionally, he or she also exerts influence on students and colleagues by displaying pioneering and exemplary behaviors. Some of the items included in this dimension are as follows:

Item: Being open to learning new things from colleagues,

Item: Being willing to develop teaching–learning activities according to students' levels.

Dimension 3: Collaboration with colleagues

In this dimension, the teacher leader seeks to increase educational effectiveness by guiding teachers who have newly started the profession and by leading the formation of collaborative working groups and similar structures in line with emerging professional and institutional needs. Some of the items included in this dimension are as follows:

Item: Assisting teacher candidates, trainee teachers, and teachers newly appointed to the school,

Item: Providing feedback to colleagues by sharing observations and experiences.

Within the scope of the validity studies of the scale, exploratory and confirmatory factor analyses and item–total correlations were conducted by Beycioğlu (2009), while internal consistency and test–retest techniques were used for the reliability study. After determining that the data obtained were suitable for exploratory factor analysis in the perception-related items (Kaiser–Meyer–Olkin = .95, Bartlett's Test of Sphericity = 5463.25, p = .000), the data were subjected to factor analysis using the principal components analysis method. The cumulative variance explained by the scale was 57.23% for perception. Of the total variance of the scale, 23.14% was accounted for by the institutional development dimension, 19.71% by the professional development dimension, and 14.38% by the collaboration with colleagues dimension. The Cronbach's alpha values of the scale were calculated as .87 for the Institutional Development factor, .87 for the Professional Development factor, .92 for the Collaboration with Colleagues factor, and .95 for the scale as a whole (Beycioğlu, 2009).

Table 2. Cronbach's alpha internal consistency coefficients of the teacher leadership scale.

Dimension	Original (TLS)	Current Study (TLS)
Institutional Development	.87	.90
Professional Development	.87	.90
Collaboration with Colleagues	.92	.84

When Table 2 is examined, it is observed that the results obtained from the current study show similarities and differences with the original versions of the scales.

Multidimensional work motivation scale (MWMS)

The Multidimensional Work Motivation Scale was developed by Gagné et al. (2010) and adapted to Turkish culture by Çivilidağ and Şekercioğlu (2017). It is a measurement instrument consisting of 18 items and 6 sub-dimensions.

This scale is a 7-point Likert-type scale. The items in the measurement instrument were arranged according to a seven-point Likert scale and scored as follows: "Not at all appropriate (1)," "Mostly not appropriate (2)," "Not appropriate (3)," "Neutral (4)," "Appropriate (5)," "Quite appropriate (6)," and "Completely appropriate (7)."

This scale is based on self-determination theory and was developed in line with this framework. Its sub-dimensions are as follows: "identified regulation (items 8, 10, 12)," "extrinsic regulation–material (items 13, 15, 17)," "extrinsic regulation–social (items 7, 9, 11)," "amotivation (items 1, 3, 5)," "introjected regulation (items 14, 16, 18)," and "intrinsic motivation (items 2, 4, 6)." The aforementioned dimensions were constructed in accordance with the motivational regulations present in self-determination theory. In the original scale, the reason for extrinsic regulation consisting of two separate subscales was stated to be that the extrinsic regulation subscale includes both social and material punishments and rewards (Gagné et al., 2010). The brief structure of these subscales and sample items are presented below.

Identified regulation

This dimension refers to the extent to which individuals develop motivation based on the personal importance and value they attach to the outcome of the goal they aim to achieve (Ryan & Deci, 2000a). This dimension represents a high level of self-determination. It involves valuing and attaching importance to the activity. The items included in this dimension emphasize this aspect. For example:

Item 12: "I put effort into my job because I think that striving in this job is personally very important."

Extrinsic regulation – material

This dimension includes items that reflect the material (financial, monetary gain) aspect of extrinsic regulation, which is considered the least self-determined form of extrinsic motivation (Calp, 2013). For example:

Item 13: "Only if I put sufficient effort into my job will others (supervisors, employers, etc.) reward me financially."

Extrinsic regulation – social

This dimension includes items that reflect the social rewards and punishments (being appreciated, accepted, approved) aspect of extrinsic regulation, which is considered the least self-determined form of extrinsic motivation. For example:

Item 7: "I put effort into my job in order to obtain the approval of others (family members, colleagues, supervisors, etc.)."

Amotivation

This dimension refers to the state that expresses the absence of motivation toward an activity (Gagné et al., 2010). The structure of the items included in the subscale formed under this name reflects this state of absence. For example:

Item 1: "I do not put effort into my job because I think I am wasting my time."

Introjected regulation

This dimension is defined as the dimension in which individuals avoid internal punishments and attain an internal reward (such as feeling proud) (Ryan & Deci, 2000a). In the items included in this dimension, internal feelings are emphasized. For example:

Item 14: "I put effort into my job; otherwise, I would feel bad about myself."

Intrinsic motivation

This dimension is defined as an individual engaging in an activity for his or her own sake, because it is enjoyable and interesting (Gagné et al., 2010). In this dimension, willingness and inner desire are involved. It is known as the dimension with the highest level of self-determination. It is observed that this intrinsic nature is emphasized in the items included in this dimension as well. For example:

Item 2: "I put effort into my job because it is interesting."

As a result of the construct validity studies conducted for the Turkish adaptation of the MWMS (Çivilidağ & Şekercioğlu, 2017), it was determined that the total variance explained for the six-dimensional structure of the scale was 69.88%. Fit index values related to the obtained six-factor structure were determined, and additional evidence regarding the validity of the structure was sought. It was found that the standardized coefficients of the scale items

ranged between .40 and .84. The model fit indices were determined as $\chi^2(119) = 330.07$, p = .000, $\chi^2/df = 2.77$, RMSEA = .059, GFI = .93, AGFI = .90, SRMR = .59, and CFI = .96. Based on these values, it was concluded that the six-factor structure of the scale was supported and that the scale is an appropriate and valid instrument for measuring teachers' motivation. The reliability analysis values for the sub-dimensions of the scale are presented in the table.

Table 3. Cronbach's alpha internal consistency coefficients of the multidimensional work motivation scale.

Dimension	Adapted Study	Current Study
Identified Regulation	.76	.81
Extrinsic Regulation – Material	.80	.83
Extrinsic Regulation – Social	.78	.85
Amotivation	.72	.88
Introjected Regulation	.73	.74
Intrinsic Motivation	.73	.69

When Table 3 is examined, it is observed that the results obtained from the current study show similarities and differences with the original versions of the scales.

Data collection/processing method

First, permission was obtained from the authors of the "Teacher Leadership" and "Multidimensional Work Motivation" scales to be used in the study (Appendix 2), and ethical approval was obtained from the Ethics Committee of the Institute of Health Sciences at Marmara University on 13.09.2021 in order to conduct the study (Appendix 5). In addition, the necessary permissions to administer the scales in the schools where the groups determined as the sample were working were obtained from the relevant institutions (Appendix 4). After obtaining the permissions, all data collection instruments were organized as a single online form using Google Forms and sent to the participants via e-mail. All participants accessed the research questionnaires online. Preparing the data collection instrument in an internet-based format provided significant advantages in terms of time and cost, both in the process of delivering it to participants and in the rapid and accurate transfer of the data to the analysis program.

Data analysis

SPSS 21.0 software was used for the analysis of the data collected in the study. In the analysis of the research data, descriptive statistics such as arithmetic mean, frequency, standard deviation, and percentage values were examined. In order to determine whether parametric

analyses could be conducted for this study, the normality of the scale data was first examined. The results of the normality analysis are presented in Table 4, and according to the results obtained, it was determined that the research data did not show a normal distribution.

Table 4. Results of the normality test.

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Teacher Leadership Total	0,170	402	0,001	0,845	402	0,001
Work Motivation Total	0,068	402	0,001	0,981	402	0,001

Accordingly, the Mann–Whitney U test was used for pairwise comparisons, and the Kruskal–Wallis test was used for multiple comparisons in the analysis of the research data.

Reliability analysis

Reliability indicates the extent to which the collected data are free from random error (or sampling error). For this reason, the degree to which a scale yields the same results at different times or across different groups is of importance. In this way, the consistency of the results obtained from multiple administrations of the scale can be determined. Internal consistency reliability is used for scales in which multiple items are combined to form a total score. In this type of scale, each item measures a part of the construct. The alpha coefficient (Cronbach's α) is obtained as a result of dividing the scale items in different ways. This coefficient ranges between 0 and 1, and values of 0.80 and above indicate satisfactory internal consistency reliability.

In this study, the Cronbach's α internal consistency coefficient of the Teacher Leadership Scale consisting of 25 items was determined as 0.945, while the Cronbach's α internal consistency coefficient of the Work Motivation Scale consisting of 19 items was determined as 0.747. In this context, it was concluded that the reliability values obtained were at a highly adequate level.

FINDINGS

Levels of Leadership Behaviors Exhibited by Physical Education Teachers: The total mean score of the responses given by the physical education teachers participating in the study to the questions related to leadership behaviors was determined as $x = 112.85 \pm 12.72$.

Accordingly, it can be stated that the levels at which physical education teachers exhibit leadership behaviors are at a quite high level (at the "always" level).

Work Motivation Levels of Physical Education Teachers: The total mean score of the responses given by the physical education teachers participating in the study to the questions related to work motivation was determined as x = 92.04 ± 14.72. Accordingly, it can be stated that the levels of exhibiting leadership behaviors of physical education teachers are close to a high level (at the "appropriate" level). When the sub-dimensions of the Teacher Leadership Scale are examined, it is observed that there are high levels of leadership behaviors in the identified regulation dimension (x = 18.70 ± 3.59), the amotivation dimension (x = 18.17 ± 4.64), the introjected regulation dimension (x = 18.65 ± 3.20), and the intrinsic motivation dimension (x = 16.11 ± 4.49). (Since reverse coding was applied for the three items in the amotivation dimension, a high mean score obtained in this dimension indicates that the level of amotivation is low.)

For the extrinsic regulation–material dimension, a mean score of (x = 12.36 ± 7.18) was obtained, and for the extrinsic regulation–social dimension, a mean score of (x = 8.05 ± 5.54) was obtained. Accordingly, it can be stated that teacher leadership behaviors in these dimensions remain slightly below the moderate level.

Comparison of the Results Obtained from the Teacher Leadership and Work Motivation Scales According to Participants' Demographic Characteristics:The results of the Mann–Whitney U test evaluating the leadership behaviors and work motivation of physical education teachers according to gender are presented in Table 6. When the analysis results are examined in general, no significant difference was observed between male and female teachers in the total scores of the Teacher Leadership Scale and the Work Motivation Scale. However, in the amotivation sub-dimension of the Work Motivation Scale, it was found that the levels of female teachers (x = 18.55 ± 4.41) were significantly higher than those of male teachers (x = 17.90 ± 4.79) ($p < 0.05$). Considering that reverse coding was applied to the responses given to the items in the amotivation sub-dimension, it can be stated that males have higher levels of amotivation compared to females.

Table 7. Results of the Mann–Whitney U Test Comparing Leadership Behaviors and Work Motivation According to the Gender Variable.

	GENDER	**N**	**Mean**	**SS**	**Mean Square**	**Sum of Squares**	**Z**	**P**
Teacher Leadership	Male	236	113,08	13,05	205,68	48540,00		
							-0,863	0,388

Total	Female	166	112,52	12,25	195,56	32463,00		
	Male	236	38,91	6,07	207,67	49009,50		
Institutional Development							-1,277	0,201
	Female	166	37,93	6,72	192,73	31993,50		
	Male	236	51,20	5,18	202,92	47888,50		
Professional Development							-0,299	0,765
	Female	166	51,34	4,85	199,48	33114,50		
Collaboration with Colleagues	Male	236	22,98	2,92	200,36	47285,50		
							-0,246	0,805
	Female	166	23,25	2,41	203,12	33717,50		
Work Motivation Total	Male	236	91,81	15,51	200,64	47350,50		
							-0,178	0,859
	Female	166	92,36	13,57	202,73	33652,50		
	Male	236	18,54	3,79	200,22	47252,50		
Identified Regulation							-0,280	0,779
	Female	166	18,93	3,27	203,32	33750,50		
Extrinsic Regulation – Material	Male	236	12,20	7,43	197,24	46548,50		
							-0,881	0,379
	Female	166	12,58	6,83	207,56	34454,50		
Extrinsic Regulation – Social	Male	236	8,36	5,74	206,12	48644,50		
							-0,972	0,331
	Female	166	7,61	5,23	194,93	32358,50		
	Male	236	17,90	4,79	192,06	45325,50		
Amotivation							-2,119	0,034**
	Female	166	18,55	4,41	214,92	35677,50		
Introjected Regulation	Male	236	18,59	3,21	198,83	46924,50		
							-0,577	0,564
	Female	166	18,72	3,20	205,29	34078,50		
	Male	236	16,22	4,31	201,83	47631,00		
Intrinsic Motivation							-0,068	0,946
	Female	166	15,96	4,75	201,04	33372,00		

** P<0,05 Indicates a statistically significant difference at the p < 0.05 level.

The results of the Mann–Whitney U test evaluating the leadership behaviors and work motivation of physical education teachers according to their marital status are presented in Table 7. When the analysis results are examined in general, a significant difference was found between married and single teachers in the total scores and sub-dimensions of the Teacher Leadership Scale. In the total scores of the Work Motivation Scale, a significant difference was also found between married and single teachers. According to the results obtained, the work motivation levels of single teachers ($x = 94.77 \pm 15.57$) were found to be significantly higher than those of married teachers ($x = 89.97 \pm 13.72$) ($p < 0.05$).

When the results obtained from the total score and sub-dimensions of the Teacher Leadership Scale are examined, it was observed that the levels of single individuals in the institutional development sub-dimension were significantly higher than those of married individuals. In the extrinsic regulation–material sub-dimension of the Work Motivation Scale, the motivation level of single teachers ($x = 14.34 \pm 7.11$) was significantly higher than that of married teachers ($x = 10.86 \pm 6.88$). Similarly, in the extrinsic regulation–social sub-dimension, the motivation level of single teachers ($x = 8.99 \pm 5.79$) was found to be significantly higher than that of married teachers ($x = 7.35 \pm 5.25$) ($p < 0.05$).

Table 8. Results of the Mann–Whitney U Test Comparing Leadership Behaviors and Work Motivation According to the Marital Status Variable

	Marital Status	**N**	**Mean**	**SS**	**Mean Square**	**Sum of Squares**	**Z**	**P**
Teacher Leadership Total Score	Married	229	112,14	12,97	192,22	44019,50	-1,848	0,065
	Single	173	113,79	12,35	213,78	36983,50		
Institutional Development	Married	229	89,97	13,72	182,31	41750,00	-3,811	0,001**
	Single	173	94,77	15,57	226,90	39253,00		
Professional Development	Married	229	37,99	6,38	189,71	43444,00	-2,356	0,018**
	Single	173	39,18	6,27	217,10	37559,00		
With Colleagues	Married	229	51,17	5,04	197,62	45254,00	-0,791	0,429
	Marital Status	**N**	**Mean**	**SS**	**Mean Square**	**Sum of Squares**	**Z**	**P**
Collaboration	Single	173	51,37	5,05	206,64	35749,00		
Work Motivation Total	Married	229	22,98	2,79	194,23	44478,00	-1,519	0,129
	Single	173	23,23	2,63	211,13	36525,00		
Identified Regulation	Married	229	18,77	3,27	199,99	45797,50	-0,320	0,749
	Single	173	18,61	3,98	203,50	35205,50		
Extrinsic Regulation –Material	Married	229	10,86	6,88	176,53	40424,50	-4,981	0,001**
	Single	173	14,34	7,11	234,56	40578,50		
Extrinsic Regulation –Social	Married	229	7,35	5,25	185,49	42477,50	-3,249	0,001**
	Single	173	8,99	5,79	222,69	38525,50		
Amotivation	Married	229	18,19	4,53	201,34	46107,50	-0,034	0,973
	Single	173	18,15	4,79	201,71	34895,50		
	Married	229	18,72	3,04	201,68	46184,50		

Introjected Regulation	Single	173	18,55	3,41	201,26	-0,037 34818,50	0,970
Intrinsic Motivation	Married	229	16,09	4,58	201,56	46157,50 -0,012	0,990
	Single	173	16,14	4,39	201,42	34845,50	

** Indicates a statistically significant difference at the p<0.05 level.

The results of the Kruskal–Wallis test evaluating the leadership behaviors and work motivation of physical education teachers according to age groups are presented in Table 8. When the analysis results are examined in general, it was observed that there were significant differences among age groups in the institutional development sub-dimension of the Teacher Leadership Scale. Significant differences among age groups were also observed in the total scores of the Work Motivation Scale and in the extrinsic regulation–material and extrinsic regulation–social sub-dimensions. According to the results obtained, it was found that the work motivation of teachers aged 20–30 (x = 96.73 ± 14.10) was significantly higher than that of teachers in older age groups ($p < 0.05$).

When the results obtained from the total score and sub-dimensions of the Teacher Leadership Scale were compared according to the age variable, it was observed that there were significant differences among groups in the institutional development sub-dimension. It was found that the levels of individuals in the 20–30 age group were significantly higher than those of individuals in older age groups. In the extrinsic regulation–material sub-dimension of the Work Motivation Scale, it was observed that the work motivation of teachers aged 20–30 (x = 15.28 ± 6.68) was significantly higher than that of teachers in older age groups. Similarly, in the extrinsic regulation–social sub-dimension, it was observed that the work motivation of teachers aged 20–30 (x = 9.32 ± 5.82) was significantly higher than that of teachers in older age groups ($p < 0.05$).

Table 9. Results of the Kruskal–Wallis Test Comparing Leadership Behaviors and Work Motivation According to the Age Variable.

	Age	**N**	**Mean**	**SS**	**Mean Square**	**Ki Kare**	**P**
Teacher Leadership Total	20-30 years	172	114,08	11,67	213,20	3,257	0,196
	31-40 years	117	111,21	14,85	189,49		
	41 ve years and above	113	112,67	11,72	196,13		
Institutional Development	20-30 years	172	96,73	14,10	241,54	36,682	0,001**
	31-40 years	117	87,45	14,05	164,24		

	41 ve years and above	113	89,65	14,38	179,14		
Professional Development	20-30 years	172	39,38	6,16	219,96	7,806	0,020**
	31-40 years	117	37,79	6,39	185,12		
	41 ve years and above	113	37,90	6,49	190,36		
Collaboration with Colleagues	20-30 years	172	51,42	4,61	200,90	0,010	0,995
	31-40 years	117	50,82	6,21	201,68		
	41 ve years and above	113	51,46	4,27	202,23		
Work Motivation Total	20-30 years	172	23,27	2,46	208,51	3,352	0,187
	31-40 years	117	22,61	3,31	185,79		
	41 ve years and above	113	23,31	2,35	207,11		
Identified Regulation	20-30 years	172	18,84	3,45	200,89	0,080	0,961
	31-40 years	117	18,47	4,04	203,84		
	41 ve years and above	113	18,72	3,31	200,01		
Extrinsic Regulation – Material	20-30 years	172	15,28	6,68	251,27	56,153	0,001**
	31-40 years	117	9,89	6,72	159,02		
	41 ve years and above	113	10,46	6,84	169,73		
Extrinsic Regulation – Social	20-30 years	172	9,32	5,82	230,98	23,221	0,001**
	31-40 years	117	6,51	4,72	166,69		
	41 ve years and above	113	7,73	5,49	192,68		
Amotivation	20-30 years	172	18,36	4,58	200,49	2,173	0,337
	31-40 years	117	18,31	4,52	212,37		
	41 ve years and above	113	17,74	4,87	191,79		
Introjected Regulation	20-30 years	172	18,65	3,19	200,26	0,094	0,954
	31-40 years	117	18,48	3,49	200,74		
	41 ve years and above	113	18,82	2,91	204,18		
Intrinsic Motivation	20-30 years	172	16,28	4,21	203,15	0,747	0,688
	31-40 years	117	15,79	4,69	194,08		
	41 ve years and above	113	16,19	4,73	206,67		

** Indicates a statistically significant difference at the p<0.05 level.

The results of the Kruskal–Wallis test evaluating the leadership behaviors and work motivation of physical education teachers according to their educational status are presented in Table 9. When the analysis results are examined in general, no significant difference was found

among groups according to teachers' educational status in the total scores of the Teacher Leadership Scale and the Work Motivation Scale. When the results obtained from the sub-dimensions of the Teacher Leadership Scale were compared according to the educational status variable, no significant difference was found among groups. However, in the identified regulation sub-dimension of the Work Motivation Scale, it was found that the levels of teachers who were bachelor's degree graduates ($x = 18.89 \pm 3.43$) were significantly higher than those of teachers who were graduates of master's and doctoral programs ($p < 0.05$).

Table 10. Results of the Kruskal–Wallis Test Comparing Leadership Behaviors and Work Motivation According to the Educational Status Variable

	Educational Status	**N**	**Mean**	**SS**	**Mean Square**	**Ki Kare**	**P**
Teacher Leadership Total	Bachelor's Degree	350	112,88	12,88	202,27	0,140	0,932
	Master's Degree	44	112,36	12,36	197,35		
	Doctorate	8	114,13	7,10	190,81		
Institutional Development	Bachelor's Degree	350	92,24	14,48	202,65	0,927	0,629
	Master's Degree	44	89,73	16,79	188,19		
	Doctorate	8	95,88	13,50	224,56		
Professional Development	Bachelor's Degree	350	38,47	6,43	201,32	0,147	0,929
	Yüksek Bachelor's Degree	44	38,45	6,20	200,14		
	Doctorate	8	40,13	3,83	216,75		
Collaboration with Colleagues	Bachelor's Degree	350	51,30	5,13	203,53	1,195	0,550
	Yüksek Bachelor's Degree	44	51,00	4,58	191,69		
	Doctorate	8	50,75	3,65	166,75		
Work Motivation Total	Bachelor's Degree	350	23,11	2,78	203,90	1,274	0,529
	Master's Degree	44	22,91	2,34	185,26		
	Doctorate	8	23,25	1,75	186,00		
Identified Regulation	Bachelor's Degree	350	18,89	3,43	208,20	10,555	0,005**
	Master's Degree	44	17,25	4,53	152,77		
	Doctorate	8	18,50	2,88	176,31		
	Bachelor's Degree	350	12,15	7,00	198,52		

Extrinsic Regulation – Material	Master's Degree	44	13,84	8,24	224,03	1,926	0,382
	Doctorate	8	13,13	8,74	207,88		
Extrinsic Regulation – Social	Bachelor's Degree	350	7,91	5,43	198,97	1,556	0,459
	Master's Degree	44	8,91	6,23	215,36		
	Doctorate	8	9,88	6,56	235,81		
Amotivation	Bachelor's Degree	350	18,36	4,42	204,77	3,096	0,213
	Master's Degree	44	16,55	6,08	174,83		
	Doctorate	8	18,88	3,83	204,94		
Intrinsic Regulation	Bachelor's Degree	350	18,77	3,16	206,26	5,397	0,067
	Master's Degree	44	17,64	3,50	165,47		
	Doctorate	8	18,75	2,71	191,44		
Intrinsic Motivation	Bachelor's Degree	350	16,17	4,49	203,26	0,660	0,719
	Master's Degree	44	15,55	4,85	188,50		
	Doctorate	8	16,75	1,67	195,81		

** Indicates a statistically significant difference at the p<0.05 level.

The results of the Kruskal–Wallis test evaluating the leadership behaviors and work motivation of physical education teachers according to years of service are presented in Table 10. When the analysis results are examined in general, no significant difference was observed in the Teacher Leadership Scale according to teachers' years of service. When the results obtained from the sub-dimensions of the Teacher Leadership Scale were compared according to the years of service variable, it was observed that there were significant differences among groups in the Institutional Development sub-dimension. When the mean scores were examined, it was found that the levels of individuals with 0–2 years of service were significantly higher than those of individuals with longer years of service.

In the total mean score of the Work Motivation Scale, it was observed that the motivation levels of teachers with 0–2 years of service ($x = 96.22 \pm 13.78$) and teachers with 3–5 years of service ($x = 96.92 \pm 14.32$) were significantly higher than those of groups with longer years of service ($p < 0.05$). When the sub-dimensions of the Work Motivation Scale were examined, in the Extrinsic Regulation – Material dimension, it was observed that the motivation levels of teachers with 0–2 years of service ($x = 15.22 \pm 6.77$) and teachers with 3–5 years of service ($x = 14.71 \pm 7.05$) were significantly higher than those of groups with longer years of service. Similarly, in the Extrinsic Regulation – Social dimension, it was observed that

the motivation levels of teachers with 0–2 years of service ($x = 9.03 \pm 5.57$) and teachers with 3–5 years of service ($x = 9.51 \pm 6.21$) were significantly higher than those of groups with longer years of service ($p < 0.05$).

DISCUSSION AND CONCLUSION

According to the findings obtained in the present study, no statistically significant difference was found between the gender of physical education teachers and teacher leadership. It is considered that this result may stem from the fact that physical education teachers constituting the sample group possess an athletic personality and therefore also exhibit leadership characteristics.

When the relevant literature is examined, studies reporting results similar to those of the present research are encountered. Contrary to these findings, Adams and Hambirght (2004) stated that female teachers show greater interest in teacher leadership training programs and are more willing to assume leadership roles. Likewise, Kılınç (2013), Savaş (2016), Doğan (2016), Yılmaz (2017), and Tekeş (2018) reported in their studies that male teachers' perceptions of leadership were lower than those of female teachers. Ülger (2015), on the other hand, reported a different finding, indicating that female teachers' perceptions of teacher leadership were lower than those of male teachers.

It is considered that the reasons for the differing results reported in the studies discussed above may be related to the responsibilities and roles assumed by female teachers in their private lives, which may constitute barriers to leadership; the fact that school principals are generally male and tend to prefer working with male teachers; and the association of the concept of leadership with male teachers. Finally, it is thought that the wide range of differing results may also be due to teachers' personal life problems, having different principals, and working at different educational levels and in different regions.

According to the findings obtained from the study, no statistically significant difference was found between the gender of physical education teachers and their work motivation. However, in the amotivation sub-dimension of the Work Motivation Scale, female teachers were found to have higher motivation levels than male teachers. It is assumed that this result may be attributed to the fact that the difference observed in the amotivation sub-dimension of work motivation according to gender may stem from the predominance of male administrators in the schools where female teachers work, their closer attitudes toward male teachers, and

spending more time with them, which may lead female teachers to experience lower levels of motivation.

When the literature is examined, studies reporting results similar to those of the present research are encountered. Avcı (2006), Kılıçaslan (2006), Recepoğlu (2012), Argon and Ertürk (2013), Arık (2016), and Akman (2017) determined in their studies that there was no significant difference between teacher motivation and gender. Contrary to these results, Ertürk (2016) found a difference in teachers' intrinsic motivation according to the gender variable. In the study conducted by Çetin (2019), it was observed that there were differences between females and males in the Identified Regulation and Intrinsic Motivation dimensions. In both sub-dimensions, it was concluded that males had higher mean scores than females, while no differences were found in the other sub-dimensions. Elmas (2018), on the other hand, concluded that female teachers were more open to learning from their stakeholders than male teachers, paid greater attention to students' levels when planning activities related to students, were more student-centered, and as a result, had higher levels of work motivation compared to male teachers.

According to the findings obtained in the present study, no statistically significant difference was found between the marital status of physical education teachers and teacher leadership. It is assumed that this result may be due to the lack of a relationship between the marital status of physical education teachers constituting the sample group and leadership, and therefore no difference emerged.

When the literature is examined, studies reporting results similar to those of the present research are encountered. Yalınkılıç (2012) and Çengelci (2014) found no significant difference between leadership behavior and the marital status variable in their studies. Contrary to these findings, Çemberci (2003) reported a significant difference in leadership behaviors according to marital status.

In this study, when the relationship between the marital status of physical education teachers and work motivation was examined, it was found that the work motivation of single teachers was higher than that of married teachers. It is considered that this result may be related to the fact that married teachers have family and child-related responsibilities and therefore may not be as motivated in their work as single teachers.

When the literature is examined, no study supporting the present research was found. However, contrary to the findings of this study, Arslantaş et al. (2018) reported that there was no statistically significant difference between marital status and work motivation.

According to the findings obtained in this study, no statistically significant difference was found between the age of physical education teachers and teacher leadership. It is assumed that this result may be due to the fact that the absence of a difference between age and leadership among the physical education teachers constituting the sample group stems from their athletic personalities, and that they possess leadership characteristics derived from this athletic disposition.

When the literature is examined, studies reporting results similar to those of the present research are encountered. Kadak (2008), Kılınç and Recepoğlu (2013), Senger (2014), Kaya (2014), Arslanoğlu (2016), Kızılkaya (2017), Taşpınar (2019), and Turan et al. (2020) determined in their studies that there was no significant difference according to the age variable in terms of teacher leadership. Contrary to these findings, studies conducted by Dereli (2003), McArdle (2008), Buharalıoğlu (2014), and Ocak (2014) reported significant differences in teacher leadership according to age.

According to the findings obtained in this study, significant differences among age groups were also observed in the Extrinsic Regulation – Material and Extrinsic Regulation – Social sub-dimensions of work motivation with respect to the ages of physical education teachers. Based on these results, it was observed that the work motivation of teachers aged 20–30 was significantly higher than that of teachers in older age groups. It is assumed that this result may be due to the fact that the physical education teachers constituting the sample group are relatively young and have not yet encountered the difficulties or the wearing aspects of the profession.

When the literature is examined, studies reporting results similar to those of the present research are encountered. Bilir (2007), Karaboğa (2007), Yavuz and Karadeniz (2009), Yıldırım (2015), Ertürk (2016), and Özmen (2017) concluded in their studies that there were significant differences in teachers' multidimensional work motivation with respect to the age variable. Contrary to these findings, Orhan (2020) concluded that teachers' expectations regarding motivating behaviors did not show a significant difference according to age. It is considered that the reasons for these differing results may be that some teachers do not lose

their motivation regardless of advancing age, whereas others lose their work motivation due to encountering wearing factors and professional difficulties.

According to the findings obtained in this study, no statistically significant difference was found between the educational status of physical education teachers and teacher leadership. It is assumed that this result may be due to the fact that the education received by the physical education teachers constituting the sample group is largely based on teamwork and leadership principles, and therefore no difference emerged.

When the literature is examined, studies reporting results similar to those of the present research are encountered. Kalyoncu (2008), Kadak (2008), Arslanoğlu (2016), and Yıldırım (2017) found no significant differences in teacher leadership behaviors according to educational status. Contrary to these findings, Kaya (2014) and Kızılkaya (2017) determined that there were significant differences according to the educational status variable.

According to the findings obtained in this study, no statistically significant difference was found between the educational status of physical education teachers and their work motivation. It is assumed that this result may be due to the fact that there is little difference in personal rights and financial conditions among the physical education teachers constituting the sample group, or that any existing difference is not satisfactory.

When the literature is examined, studies reporting results similar to those of the present research are encountered. Ergen (2009), Recepoğlu (2012), Yıldırım (2015), Ertürk (2016), and Emiroğlu (2017) concluded in their studies that there was no significant difference between the educational status of physical education teachers and their work motivation. Contrary to these findings, studies conducted by Polat (2010) and Deniz and Erdener (2016) reported that there was a significant difference between the educational status of physical education teachers and their work motivation.

According to the findings obtained in the present study, no statistically significant difference was found between the years of service of physical education teachers and teacher leadership. It is assumed that this result may stem from the fact that physical education teachers constituting the sample group possess leadership characteristics derived from their background in sports and that they exhibit these behaviors regardless of the length of their service.

When the literature is examined, studies reporting results similar to those of the present research are encountered. Kılınç and Recepoğlu (2013), Senger (2014), Arslanoğlu (2016), Kadak (2008), and Kızılkaya (2017) determined in their studies that there was no significant

difference between years of service and leadership level. Contrary to these findings, Ocak (2014), Çakır (2015), and Yıldırım (2017) reported significant differences between years of service and teacher leadership in their studies.

According to the findings obtained in the present study, no statistically significant difference was found between the years of service of physical education teachers and their work motivation. It is assumed that this result may be due to the fact that physical education teachers are continuously involved in sporting activities and participate in competitions and tournaments, which keeps their motivation consistently high, resulting in similar motivation levels among all physical education teachers.

When the literature is examined, studies reporting results similar to those of the present research are encountered. Kılıçaslan (2006), Polat (2010), Vural (2016), and Emiroğlu (2017) found no significant difference between teachers' motivation levels and years of service in their studies. Contrary to these findings, Ertürk (2016) reported that teachers' work motivation levels increased as their seniority, that is, years of service, increased.

According to the findings obtained in the present study, no significant difference was found between the institutions where teachers work and teacher leadership. It is considered that this result may be due to the belief that teacher leadership among physical education teachers exists at all times regardless of time and place.

When the literature is examined, studies reporting results similar to those of the present research are encountered. Deniz and Erdener (2016) and Turan et al. (2020) determined in their studies that there was no significant difference between the institutions where teachers work and teacher leadership. Contrary to these findings, studies conducted by Can (2006) and Yiğit et al. (2013) concluded that there was a significant difference between the institutions where teachers work and teacher leadership.

According to the findings obtained in the present study, a significant difference was found between the institutions where teachers work and work motivation. It was determined that teachers working at the middle school level had higher motivation levels compared to those working at the high school level. It is considered that this result may be related to the fact that children at the middle school level are more attached to their teachers.

When the literature is examined, studies reporting results similar to those of the present research are encountered. Özan et al. (2010), Vural (2016), and Emiroğlu (2017) identified differences between the institutions where teachers work and work motivation in their studies.

Contrary to these findings, Karaköse and Kocabaş (2006) found no significant difference in teachers' work motivation according to the institutions where they work.

Recommendations

As a result of this study;

1. In the Work Motivation sub-dimension, it was determined that the state of amotivation is higher among female teachers. Therefore, the reasons underlying amotivation should be investigated in depth, and necessary initiatives should be implemented to increase the motivation of female teachers.
2. It was determined that there is a gradual decrease in the work motivation of teachers aged 31 years and above. In order to increase the enthusiasm and motivation of these teachers, applied training programs should be organized by the Ministry and/or relevant institutions.
3. It was found that the work motivation of teachers working at the high school level is low. Therefore, the reasons underlying the low motivation of high school teachers should be investigated, and activities aimed at problem-solving, training programs, and face-to-face support should be planned to be provided by mentors.
4. It may be recommended that awareness-raising activities related to work motivation and leadership be conducted at universities.
5. Working conditions should be improved, and life satisfaction should be ensured.
6. Monotony and stress factors should be reduced through job enrichment practices.

For future studies;

1. It was determined that a sufficient number of teachers at the master's degree and doctoral degree levels could not be reached in the sample group of the present study. In future studies, the number of participants in these groups should be increased.
2. It was observed that there is a significant numerical difference between female and male teachers in the sample group of the study. In future studies, the numerical disparity between these groups should be reduced.
3. It is recommended that the research topic be expanded by using different variables.

REFERENCES

Adams, K., & Hambright, W. (2004). Encouraged or discouraged? Women teacher leaders becoming principals. The Clearing House: A Journal of Educational Strategies, Issues and Ideas, 77(5), 209-212.

Ağırman, N., & Ercoşkun, M. (2017). Evaluation of teacher competency and teacher leadership levels of primary school teachers. *Anemon Mus Alparslan University Journal of Social Sciences, 5*(3), 715-728.

Akkoyunlu, Y. (1996). Physical education and sport. *Pamukkale University Journal of Education Faculty, 1*(1), 80-81.

Akman, Y. (2017). The relationship between work motivation and organizational identification according to teachers' perceptions. *Hasan Ali Yucel Faculty of Education Journal, 14*(27), 71-88.

Argon, T., & Ertürk, R. (2013). Primary school teachers' intrinsic motivations and perceptions of organizational identity. *Educational Administration: Theory and Practice, 19*(2), 159-179.

Arık, H. (2016). *Investigation of mobbing, anxiety and work motivation levels of teachers working in private and state institutions* [Unpublished Master's Thesis]. Beykent University.

Arslanoğlu, Ş. (2016). *Leadership in high school principals, the effect of leadership levels on teachers' motivation* [Unpublished Master's Thesis]. KTO Karatay University.

Arslantaş, H., Tösten, R., & Bektaş, D. M. (2018). Professional motivation factors in high school teachers: A mixed method study. *Mersin University Journal of the Faculty of Education, 14*(3), 880-895.

Aşıkoğlu, M. (1996). *Motivation - As a tool to direct human resources to productivity*. Istanbul: Universite Kitabevi.

Aslan, M. (2011). *Teacher leadership behaviors and classroom climate: A research in the context of teacher and student opinions* [Unpublished Master's Thesis]. Eskisehir Osmangazi University.

Avcı, M. (2006). Social adaptation problems in adolescence. *Ataturk University Journal of Social Sciences Institute, 7*(1), 39-63.

Bakare, G. O. (2017). *Leadership in the book of proverbs* [Unpublished Doctoral Dissertation]. The University of Birmingham.

Beycioğlu, K. (2009). *An evaluation regarding the leadership roles performed by teachers in primary schools (Hatay province example)* [Unpublished Doctoral Dissertation]. Inonu University.

Biçer, T. (2006). *Psychology of championship*. Istanbul: Beyaz Yayınlar.

Biçer, T. (2007). *Management of emotion and mind in sports*. Istanbul: Beyaz Yayınlar.

Biçer, T. (2014). *Total quality applications in sports and football application*. Istanbul: Beyaz Yayınlar.

Biçer, T. (2020). *Psychosocial fields in sports V*. Eskisehir: T.C. Anadolu University Publications.

Bilir, M. (2007). *Investigation of the relationship between transformational leadership characteristics of primary school administrators and teachers' job satisfaction according to teacher perceptions* [Unpublished Master's Thesis]. Selcuk University.

Buharalıoğlu, C. (2014). *Opinions of primary school teachers regarding the levels of school administrators exhibiting visionary leadership behaviors (Izmir province Cigli district example)* [Unpublished Master's Thesis]. Okan University.

Çakır, M. (2016). *Investigation of the relationship between teachers' leadership styles and classroom teacher behaviors* [Unpublished Master's Thesis]. Abant Izzet Baysal University.

Can, N. (2006). Teacher leadership and its barriers. *Journal of Social Sciences Research, 1*(2), 137-161.

Çan, S. (2015). Factors motivating teachers working at elementary and secondary schools. *Social and Behavioral Sciences, 174*(1), 3087-3093.

Çengelci, E. (2014). *Ethical leadership behaviors of school administrators* [Unpublished Master's Thesis]. Afyon Kocatepe University.

Çetin, N. (2019). In the light of theoretical leadership analysis, school principalship and teachable situational leadership characteristics. *Pamukkale University Journal of Education Faculty, 23*(23), 74-84.

Chelladurai, P. (1993). Leadership. In R. Singer, M. Murphey, & L. Tennant (Eds.), *Handbook of Research in Sport Psychology*. New York: Macmillan.

Chelladurai, P., & Remier, H. (1998). Measurement of leadership in sport. In J. Duda (Ed.), *Advances in Sport and Exercise Psychology Measurement*. Morgantown, WV: Fitness Information Technologies.

Chelladurai, P., & Saleh, S. (1980). Dimensions of leader behavior in sports: Development of a leadership scale. *Journal of Sport Psychology, 2*(1), 34-45.

Çivilidağ, A., & Şekercioğlu, G. (2017). Adaptation of the multidimensional work motivation scale to Turkish culture. *Mediterranean Journal of Humanities, 7*(1), 143-156.

Deci, E. L. (1971). Effects of externally mediated rewards on intrinsic motivation. *Journal of Personality and Social Psychology, 18*(1), 105–115.

Deniz, Ü., & Erdener, M. (2016). Factors affecting work motivation of teachers. In Ö. Tüfekci (Ed.), *Strategic Research in Social Sciences*. Saarbrücken: Lap Lambert Academic Publishing.

Dereli, M. (2003). *A survey research of leadership styles of elementary school principals* [Unpublished Master's Thesis]. Middle East Technical University.

Doğan, S. (2016). Contemporary leadership approaches. In N. Güçlü (Ed.), *Leadership in Educational Administration*. Ankara: Pegem Akademi.

Durukan, E. (2003). *Comparison of leadership behaviors of Selcuk University school of physical education and sports 1st and 4th grade students* [Unpublished Master's Thesis]. Selcuk University.

Elmas, G. U. (2018). *Investigation of middle school teachers' views on teacher leadership behaviors* [Unpublished Master's Thesis]. Gaziantep University.

Emiroğlu, O. (2017). *School administrator and teacher opinions on teacher motivation sources* [Unpublished Doctoral Dissertation]. Near East University.

Erail, S., & Uzun, R. N. (2023). Comparison of Self-Efficacy of Individual and Team Athletes. *Mediterranean Journal of Sport Science, 6*, 584–592.

Erail, S., Uzun, R. N., & Çebi, A. İ. (2024). Spor Bilimleri Fakültesi Öğrencilerinin Kariyer Planlaması ve İş Bulma Kaygılarının İncelenmesi. *Spor ve Performans Araştırmaları Dergisi, 15*(2), 315–324.

Ergül, H. F. (2005). Motivation and motivation techniques. *Electronic Journal of Social Sciences, 4*(14), 67-79.

Ertürk, R. (2016). Job motivation of teachers. *Journal of Educational Theory and Practice Research, 2*(3), 1-15.

Ertürk, R., & Aydın, B. (2016). The relationship between teachers' work motivation and organizational commitment. *International Journal of Educational Sciences, 3*(9), 147-173.

Gagné, M., Forest, J., & Vansteenkiste, M. (2014). The multidimensional work motivation scale: Validation evidence in seven languages and nine countries. *European Journal of Work and Organizational Psychology, 24*(2), 178-196.

Gagné, M., Forest, J., Gilbert, M. H., Aube, C., Morin, E., & Malorni, A. (2010). The motivation at work scale: Validation evidence in two languages. *Educational and Psychological Measurement, 70*(4), 628-646.

Gedik, T., Çil, M., Korkut, D. S., Kaya, M. Y., & Şimşek, B. (2018). A research on the work motivation of Duzce forest products industry managers. *Turkish Journal of Forestry, 19*(1), 91-97.

Harris, A. (2003). Teacher leadership as distributed leadership: Heresy, fantasy or possibility. *School Leadership & Management, 23*(3), 313-324.

Kadak, Z. (2008). *Investigation of the relationship between leadership styles and classroom management of teachers working in primary schools* [Unpublished Master's Thesis]. Yeditepe University.

Kalyoncu, K. (2010). *Visionary leadership competencies of primary school principals* [Unpublished Master's Thesis]. Yeditepe University.

Kaplan, M. (2007). *The effect of incentive tools applied within the scope of motivation theories on employee performance and an application* [Unpublished Master's Thesis]. Atılım University.

Karabekir, M., Akçay, A., & Özhasar, B. (2016). The relationship between organizational trust levels of public employees and work motivation tools. *International Alanya Faculty of Business Journal, 8*(1), 131-139.

Karaboğa, M. (2007). *The effect of motivation of managers of secondary education institutions in Avcilar district on employee (teacher) motivation* [Unpublished Master's Thesis]. Beykent University.

Karaköse, T., & Kocabaş, İ. (2006). Effects of teachers' expectations on job satisfaction and motivation in private and state schools. *Theory and Practice in Education, 2*(1), 3-14.

Katzell, R., & Thompson, D. (1990). Work motivation: Theory and practice. *American Psychologist, 45*(2), 144-153.

Katzenmeyer, M., & Moller, G. (2001). *Awakening the sleeping giant: Helping teachers develop as leaders*. Thousand Oaks: Corwin Press.

Kaymaz, K. (2010). Effects of job rotation practices on motivation: A research on managers working in automotive enterprises. *Business and Economics Research Journal, 1*(3), 69-85.

Keskin, B. (2008). *Motivation and motivation techniques as a tool in increasing the performance of employees* [Unpublished Master's Thesis]. Ankara University.

Kılıçaslan, C. (2006). *Views and expectations of high school teachers regarding the motivating behaviors of school principals: The case of Bornova district* [Unpublished Master's Thesis]. Ege University.

Kılınç, A., & Recepoğlu, E. (2013). Perceptions and expectations of secondary school teachers regarding teacher leadership. *Kalem Journal of Education and Human Sciences, 3*(2), 175-215.

Kızılkaya, C. (2017). *Investigation of the relationship between leadership characteristics and classroom management skills of teachers working in middle schools* [Unpublished Master's Thesis]. Istanbul Aydın University.

Klimushko, R. (2010). *Coach leadership: An analysis of leadership theory and how reflection can lead to improved coach practices* [Unpublished Master's Thesis]. University of Alberta.

Kocabaş, F., Elden, M., & Yurdakul, N. (1999). *Target audience in advertising and public relations*. Istanbul: İletişim Yayınları.

Mcardle, M. (2008). *Leadership orientations of community college presidents and the administrators who report to them: A frame analysis* [Unpublished Doctoral Dissertation]. University of Central Florida.

Mercanlıoğlu, Ç. (2012). The relationship between performance management and employee motivation in organizations. *Journal of Organization and Management Sciences, 4*(1), 41-52.

Mutlu, C. (2016). *The relationship between leadership perceptions, managerial ethics and work motivation in educational organizations* [Unpublished Master's Thesis]. Bahçeşehir University.

Nahavandi, A. (2000). *The art and science of leadership*. Upper Saddle River, NJ: Prentice Hall.

Ocak, S. (2014). *Investigation of leadership styles of school principals and teachers in terms of some variables (Erzurum province example)* [Unpublished Master's Thesis]. Istanbul University.

Orhan, H. (2020). *The relationship between teachers' work motivation and teacher leadership* [Unpublished Master's Thesis]. Necmettin Erbakan University.

Özan, M., Türkoğlu, A., & Şener, G. (2010). The effect of democratic attitudes and behaviors exhibited by school administrators on teachers' motivation. *Fırat University Journal of Social Sciences, 20*(1), 275-294.

Özkan, R., & Uzun, R. N. (2025). The Psychosocial Effects of Interaction Communication and Group Dynamics in Team Sports. *Journal of Recration, Sport and Tourism Research, 2*(1), 35–47.

Özkan, R., & Yaman, M. (2023). Amatör spor kulüpleri federasyonu yöneticilerinin liderlik yönelimleri kişilik özellikleri ve empati düzeyleri arasındaki ilişkinin incelenmesi. *The Online Journal of Recreation and Sports, 12*(1), 55–69.

Özmen, A. (2017). *Investigation of the relationship between leadership behaviors of school administrators and teachers' job motivation* [Unpublished Master's Thesis]. Yeditepe University.

Özmutaf, N., & Aktekin, E. (2016, May). *Perceptions of employees in optical stores regarding work motivation*. Paper presented at the Istanbul Global Business Research Congress, Istanbul.

Öztabağ, L. (1970). *First step in psychology*. Istanbul: Remzi Kitabevi.

Öztürk, M. H., & Erdoğan, S. (2013). Interaction model of health behavior: A guide to determining children's eating habits. *Dokuz Eylül University Faculty of Nursing Electronic Journal, 6*(4), 218-223.

Öztürk, Z., & Dündar, H. (2003). Organizational motivation and factors motivating public employees. *CU Journal of Economics and Administrative Sciences, 4*(2), 57-67.

Polat, S. (2010). *The relationship between teacher perceptions regarding the managerial power sources used by pre-school administrators and teacher motivation* [Unpublished Master's Thesis]. Yeditepe University.

Robbins, S. (2000). *Organizational behavior*. New Jersey: Prentice Hall.

Rost, J. (1993). *Leadership for the twenty-first century*. Westport: Praeger Publishers.

Selden, S., & Brewer, G. (2000). Work motivation in the senior executive service: Testing the high performance cycle theory. *Journal of Public Administration Research and Theory, 10*(3), 531-550.

Senger, K. (2014). *Investigation of teachers' leadership orientation perceptions* [Unpublished Master's Thesis]. Kafkas University.

Taşpınar, B. (2019). *The relationship between teachers' reflective thinking tendencies and teacher leadership behaviors* [Unpublished Master's Thesis]. Kütahya Dumlupınar University.

Tekeş, H. (2018). *The relationship of learning organization and taking initiative with teacher leadership* [Unpublished Master's Thesis]. Gazi University.

Turan, M., Gözler, A., Koç, K., & Yüce, M. (2020). Investigation of leadership cultures of teachers of different branches according to some variables. *Akdeniz Journal of Sport Sciences, 3*(1), 1-14.

Ülger, M. (2015). *A research on the relationship of middle school teachers' teacher leadership perceptions with organizational citizenship and work engagement levels* [Unpublished Master's Thesis]. Zirve University.

Uzun, R. N., Özkan, R., & İmamoğlu, O. (2025). An Investigation into Athletes Perceived Mental Fatigue Awareness. *Uluslararası Spor Egzersiz ve Antrenman Bilimi Dergisi*, *11*(4), 402–407.

Uzun, R. N., Yamak, B., Erail, S., & Orhan Akar, Ö. (2025). An İnvestigation Of Media Usage Purposes And Social Media Addiction Levels Of Faculty Of Sport Sciences Students. *Journal of ROL Sport Sciences, 6*(2), 0–0.

Varol, F., Özer, S., & Türel, Y. (2014). Views on z-books designed for the ARCS motivation model. *Journal of Instructional Technologies & Teacher Education, 3*(3), 1-8.

Vural, G. (2016). *The effect of leadership styles of school administrators on employee motivation: The case of Rize province* [Unpublished Master's Thesis]. Eurasia University.

Yalınkılıç, D. (2008). *The relationship between leadership behaviors of primary school principals and organizational culture according to teacher perceptions* [Unpublished Master's Thesis]. Maltepe University.

Yavuz, C., & Karadeniz, C. (2009). The effect of classroom teachers' motivation on job satisfaction. *International Journal of Social Research, 2*(9), 507-519.

Yiğit, Y., Doğan, S., & Uğurlu, C. (2013). Teachers' views on teacher leadership behaviors. *Cumhuriyet International Journal of Education, 2*(2), 93-105.

Yıldırım, A. (2017). *Evaluation of female school administrators' leadership behaviors according to teacher views* [Unpublished Master's Thesis]. Erciyes University.

Yıldırım, O. (2015). *The relationship between professional competencies of school principals and teacher motivation* [Unpublished Master's Thesis]. Istanbul Sabahattin Zaim University.

Yılmaz, K., Oğuz, A., & Altınkurt, Y. (2017). The relationship between teachers' leadership behaviors and learner autonomy support behaviors. *Hacettepe University Journal of Education Faculty, 32*(3), 659-675.

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Literature Review	*Review the literature required for the study*	Turgay BIÇER
Data Collecting and Processing	*Collecting, organizing and reporting data*	Onur Can DOLĞUN
Discussion and Commentary	*Evaluation of the obtained finding*	Onur Can DOLĞUN, Turgay BIÇER
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