Leading During COVID-19 Crisis: The Influence of Principals' Leadership Styles on Teachers' Well-being in the United Arab Emirates Public Secondary Schools

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Abstract: Crises like COVID-19 affect organizations as well as employees' well-being. Leaders, in this sense, have a critical role to play in reducing the challenges and promoting a healthy workplace. With employees feeling overwhelmed and anxious to cope, leaders should provide the appropriate support and guidance. This quantitative study examined the relationship between different leadership styles, which are participative, directive, supportive, and Laissez-Faire, and teachers' well-being in the United Arab Emirates (UAE). The study adds insights into the UAE's public school context, where 101 teachers were surveyed following a snowball sampling technique. Findings revealed that Laissez-Faire and directive styles were the most dominant among the four leadership styles examined. In terms of the relationships between leadership styles and well-being, correlation and regression analyses were done through SPSS, and findings from the Generalized Linear Model analysis revealed that although the four styles correlated positively with well-being, the participative leadership style had the most decisive influence. The results showed that none of the demographics had any significant influence on well-being, and no differences in well-being in terms of demographics were reported.

Keywords: *UAE schools, leadership style, well-being, COVID-19, path-goal theory.*

Introduction

Teaching is a demanding and stressful profession (Johnson et al., 2005; MacIntyre et al., 2020). By systematizing the possible stressors of teaching, García et al. (2018) identified dimensions of stressors, including teaching career conditions, bureaucracy, administrative work, and policies to discipline and act with authority. While teaching is an already high-stress profession, after the COVID-19 pandemic that broke out in March 2020, it has become even more stressful. Significant changes in the educational and learning processes worldwide have been made, including in the United Arab Emirates (UAE). Shifting to distance learning was one of the major solutions intended to maintain the continuity of educational operations. This shift has produced heightened stress among teachers. Hence, teachers' well-being has been affected as sources of stress have increased, and there has been a need to detach from the direct leadership they were used to during face-to-face teaching (MacIntyre et al., 2020). A recent report (Diliberti et al., 2021) also indicated that teachers have been under pressure and stress since the pandemic started. Therefore, it became vital to investigate teachers' well-being during this crisis, specifically when the question of employees' well-being in the UAE is of policy significance.

Employees' well-being, emotions, and mental health have indeed received significant consideration in recent years. During the current COVID-19 crisis, challenges may form a source of frustration and stress for educators. Previous studies have indicated that among the different factors that were found to have an impact on well-being, leadership has been a crucial one (Sudha et al., 2016). Kelloway et al. (2017) stated that leaders' support was directly or indirectly related to employees' outcomes. As leadership styles are rich research areas, previous studies such as Sadeghi and Pihie (2012) and Nielsen and Daniels (2012) proved that the leadership style directly and significantly influences aspects like effectiveness, efficacy, and, most importantly, well-being. In such times, teachers need support from their leaders. With no clear limit between teaching and social life, teachers might develop silent anxiety without communicating as much

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with their principals for fear of being misjudged and misunderstood and, consequently, of receiving a lower evaluation. Teachers' fears derive from their belief that they should remain strong and not reveal a tendency to be affected by different incidents. Indeed, good leadership can significantly enhance employees' well-being, including the physical, mental, and social aspects. Leaders, in this sense, have a critical role to play in reducing the challenges and promoting a healthy workplace. With employees feeling overwhelmed and anxious to cope, leaders should focus on providing the appropriate support and guidance (Nyberg et al., 2011; Tafvelin et al., 2011). Regardless of the kind of support leaders provide, employees who feel 'supported' by their leaders are more likely to face their work challenges more effectively (Kelloway et al., 2017). In other words, developing effective 'leadership' styles is a crucial concern in schools today, specifically in such circumstances.

Within the context of leadership, several theories underpin this area of research. However, this study will utilize the Path-Goal Theory as the cornerstone. It proposes four leadership approaches, which are the directive, supportive, and participative leadership styles. Additionally, the paper will examine the Laissez-Faire leadership style. Previous studies have shown favorable results for supportive and participative leadership styles. These two styles were found to positively affect employees' outcomes, such as commitment, satisfaction, and well-being (Al-Sada et al., 2017; Blau, 1985; Cummings et al., 2010). However, the directive leadership style, which is task-oriented, and the Laissez-Faire leadership style, seemed to negatively impact employees' different outcomes compared to the people-oriented styles (Cummings et al., 2010; Somech & Wenderow, 2006; Tepper, 2000). For example, Williams and Hazer's (1986) findings indicated that this approach increased employee turnover rates.

Despite those favorable results, it is essential to mention that there is no consensus. Other studies have proved that task-oriented leadership, like the directive one, can lead to positive outcomes like increased commitment as it helps accomplish clear rules and goals in the workplace, and does not influence employees' 'psychological capital' (Huynh & Hua, 2020). Indeed, it is impossible and not realistic to identify one 'best' leading style for this crisis to enhance teachers' well-being. As Somech and Wenderow (2006) indicated, effective leadership varies according to the different circumstances at hand and in different contexts. However, this study attempts to explore the different leadership styles found in the UAE's public schools during the pandemic, explore which styles contributed positively to teachers' well-being, and help leaders and principals across the UAE examine how their styles and behaviors can impact their teachers.

Although a vast amount of literature is available on teachers' well-being, studying this aspect within the context of COVID-19 is still novel. Junior et al. (2020) indicated that only a few empirical studies add insights into the mental health and well-being aspects during the COVID-19 pandemic. Davidsen and Petersen (2021) also shed light on the fact that most of the studies that did add insights into the impact of COVID-19 on well-being targeted healthcare professionals, which leaves a gap in educational settings. Another gap in the literature that is worth mentioning is that while studies have explored teachers' well-being since the 1930s (Orsila et al., 2011), the focus has been primarily oriented toward teachers' burnout rather than toward well-being itself, and the influence of leadership style has on well-being (Hoy & Tarter, 2011). Thus, this study intended to fill these gaps by shedding light on the UAE context by adopting a quantitative approach. The study will focus on public school teachers across the UAE to examine the relationship between leadership styles and well-being during the COVID-19 pandemic. The study aimed to answer the following questions: What leadership style was the most dominant during the COVID-19 crisis across the UAE public schools? What is the relationship between the principals' leadership styles (supportive, participative, directive, and Laissez-Faire) and teachers' well-being during the COVID-19 crisis? The purpose of these research questions is twofold: to add insights into principals' leadership styles in public schools during the pandemic, which is a novel area to reveal, and to find the elements of leadership that best support teachers' well-being at such a critical time. Hence, the study will provide essential insights for principals and decision-makers on the best means of communicating, assigning tasks, and supervising teachers while teaching online.

Literature Review

Leadership

Organizational leadership can be viewed from three perspectives – goals, interactions, and power. It has been widely argued that leadership is essential to an organization's success (Müller & Turner, 2010). Previous studies have shed light on the fact that leadership is seen as a goal-oriented mechanism that is integrated with organizational processes, which consequently affects success at the personal and organizational levels (Fischer et al., 2017). Daft (2005) provided another definition of leadership that sheds light on the interaction between a leader and his/her members, where both parties influence each other. Leadership may be characterized as an individual's use of power to engage effectively in attaining institutional objectives (Yukl, 2008). That is, a leader exerts influence on his members by agreeing on the purpose, the objectives, the work that has to be done, and how to accomplish the goals. Hence, the relationship between leadership styles and teachers' well-being in the UAE's public schools during the COVID-19 is ideal for exploring and adding more insightful findings to the relevant literature.

The relationship between leadership styles and teachers' well-being has received a wide attention in the literature. Such attention highlighted that the relationship between the leader and the team members should not be overlooked.

In this context, a past study by Chemers (2002) noted that leaders have an essential role in building a relationship that considers subordinates' desires and interests. That can, therefore, be used to improve their followers' actions to achieve organizational targets and efficient leadership within an organization. However, ineffective, absent, or strict leadership, on the other hand, results in the most damaging impacts on individuals, groups, cultures, and even whole communities (Gandolfi & Stone, 2016).

Looking deeper into the literature, it seems that there is an ample research that places leadership as a cornerstone. Several theories have been found to underpin this specific area. However, it can be said that the Path-Goal theory is a pivotal one (Robbins, 2005). The path-goal theory was first introduced by Evans (1970), and later on, it was explored and delved deeply into by House (1971).

The Path-Goal Theory

This idea of the path-goal theory was created to identify how leaders would empower their subordinates to achieve predetermined objectives (House, 1971). House and Mitchell (1974) provided two broad theoretical proposals, which are: (1) leading behavior is considered by individuals to be appropriate or acceptable, and leading behavior is an essential or expected source of satisfaction, and (2) leaders' conduct encourages individuals to the degree that this conduct satisfies the individuals' independent performance requirements. These propositions are the foundation for a leader's strategic roles, which help inspire individuals fulfill their jobs, embrace the leader, and be satisfied with their jobs (House, 1996; House & Mitchell, 1974). There are a total of four types of leadership styles that this theory proposes: directive, supportive, participative, and achievement-oriented (House & Mitchell, 1974). Directive leaders focus on providing psychological support to individuals by outlining the tasks' requirements, guidelines, and other details. In other words, directive leaders are task-oriented. According to Fiedler (1989) and Al-Sada et al. (2017), this leadership style works best when members' tasks are ambiguous.

Furthermore, supportive leaders often focus on creating a friendly and approachable leader who can satisfy the needs of the subordinates. Besides, the participative leaders focus on creating group participation in the decision-making process and allow ideas to be integrated into the organization. Finally, House and Mitchell (1974) also outlined achievement-oriented leadership, whereby the leader engages the subordinates in challenging tasks.

Laissez-Faire Leadership

In addition to the four leadership styles suggested by the Path-Goal theory, previous literature shed light on other leadership styles, like Laissez-Faire leadership. This type of leadership has been defined as a "follower-centered form of avoidance-based leadership by focusing on the subordinates' need for leadership, and the leader's non-response to such needs" (Skogstad et al., 2014, p. 325). In other words, as Cummings et al. (2010) claimed, this type is conceptualized as passive avoidance of issues and accountability. Leaders, in this case, have few decisions or avoid making decisions, so the followers choose appropriate workplace solutions. It has been argued that Laissez-Faire leaders fail to create the required balance. Social support is a critical tool to achieve career objectives in high-pressure environments and alleviate work fatigue on well-being and stress through social support (Bakker et al., 2005). From the subordinate perspective, Laissez-Faire leadership can be seen as a style that leads to avoidance conduct, under which a careless leader denies rewards to his team. Due to this behavior and the characteristics of a Laissez-Faire leader, this style is considered to be a type of hands-off leadership (Skogstad et al., 2014). For many researchers, this specific type of leadership style has negative connotations and has been called a non-leadership style. Indeed, as Vroom and Jago (1998) stated, no single style is appropriate. Instead, effective leadership styles may vary according to the situation.

Subjective Well-being

The concept of well-being in the workplace is no longer viewed as a luxury but a necessity (Well-being and the workplace, 2017). There is an extensive difference in the definition of 'well-being' across educational literature (McLeod & Wright, 2016). To define the concept, the following literature review outlined the conceptualization and application of the term 'well-being.'

Well-being is examined from a subjective perspective and is therefore known as Subjective Well-being (SWB). To measure SWB, three main instruments are usually used: life satisfaction, lack of negative emotions, and the existence of positive emotions (Diener et al., 2003). According to the hedonic perspective, subjective well-being includes experiences of pleasure and displeasure based on the judgments that are made about the positive and negative elements of life (Diener et al., 2003; Lee et al., 2019). It corresponds to the individual's internal experiences. Therefore, although external conditions significantly influence a person, they are not inherent or necessary and do not define him or her. Studies on subjective well-being have identified three elements that make it up: positive affection, negative affection, and satisfaction with life (Jeon et al., 2018; & Song et al., 2020).

Elevating people's happiness levels and enhancing their emotional prosperity are two major objectives of positive psychology (Peterson & Park, 2006). Positive affection is a transitory feeling, experienced at a particular moment as a

state of alertness, enthusiasm, and activity, which generates pure hedonic contentment (Fredrickson, 2001). On the other hand, negative affection is also defined as a transitory feeling, as it includes unpleasant emotions and distressing psychological symptoms (Fredrickson, 200). Satisfaction with life, in turn, is a cognitive judgment, a general assessment that the person makes of his own life, and that depends on the comparison between the circumstances in which he lives and the standards chosen by him (Jeon et al., 2018).

Subjective well-being is not the absence of negative factors but the predominance of positive effects over negative ones. According to Lee et al. (2019), well-being analysis is much more related to the frequency with which positive affection experiences happen than to the intensity of these experiences. In this way, one can assume that subjective well-being consists of the presence of frequent positive effects, the rare experience of adverse effects, and the satisfaction of the person with his life as a whole.

Psychological Well-being

Aristotle believed that true happiness was in the expression of the virtues of men and women. For him, man or woman's goal is to live according to his or her virtues or true self, which is when he or she expresses his or her best potential. Eudaimonia refers to well-being that differs from the simple experience of pleasure (Ryff, 2014). It is a subjective state related to the feelings present when the individual moves toward self-realization, developing their potential and advancing towards their life purposes. For psychological well-being theorists, happiness is centered on experiences of personal expression and self-realization (Kristjánsson, 2007).

According to Tandler et al. (2020), psychological well-being is defined by six dimensions that are linked to the different challenges faced by the individual in his or her search for self-realization. In this model, an individual with high well-being has high rates of positive attitudes towards himself or herself (self-acceptance), satisfaction and trust in his or her relationships with others (positive relationships with others), independence and self-regulation of behavior (autonomy), skills to choose or create situations appropriate to personal conditions (control of the environment), a sense of direction and goals that contribute to his or her realizing that life is meaningful (purpose in life) and development of his or her potential and personal expression (personal growth) (Tandler et al., 2020).

Hirschle and Gondim (2020) noted that eudaimonia is a sufficient condition but not necessary for hedonic happiness. That is, there are several things that the individual wishes to do. It is important to note that the inclusion of eudemonic elements in the concept of well-being at work can lead to a definition that mixes antecedents and consequences of the construct. For example, positive social relationships, autonomy, and control of the environment, which consist of dimensions of psychological well-being, are antecedents of the experience of happiness. A definition of well-being includes hedonic and eudemonic aspects but avoids mixing antecedents and consequences or related concepts (Hirschle & Gondim, 2020). Hedonic happiness happens more often than experiences of personal expression and self-realization. The satisfaction of physical and social needs, for example, generates positive affections and hedonic happiness, but not necessarily personal expression and fulfillment.

Well-being at Work

Despite the current importance that work has in one's life, it is observed that studies related to occupational well-being are still scarce. Evers et al. (2014) indicated a connection between employees' poor well-being and high absenteeism rates. Hence, well-being at work is an essential factor to consider when looking at productivity and commitment. Clear conceptions of this subject do not yet exist in the literature. Some scholars prefer to represent it as the absence of negative experiences associated with burnout or stress, and other authors prefer to represent it as job satisfaction, involvement, and organizational commitment (Aelterman et al., 2007). According to García et al. (2018), affection is the most relevant and central aspect of well-being. Thus, the author argues that when addressing well-being at work, one should consider the cumulative experience of the worker. The main criticism of the purely hedonistic approach to well-being is that it is not restricted to affection at work. In this sense, there seems to be a growing effort in recent years to conceptualize well-being at work as a multidimensional construct, which includes eudemonic and relational elements of happiness, such as the subjective experience of personal fulfillment as well as the influence of the work environment on one's well-being, in addition to emotions and moods at work (Wright & Pascoe, 2015).

Teachers' Well-being

Teacher well-being is a feeling of professional fulfillment, satisfaction, commitment, and happiness a person develops while communicating and working collaboratively with colleagues and students (Acton & Glasgow, 2015). This definition indirectly includes practical approaches and effective management plans related to the experiences that teachers go through in schools and classrooms. Kristjánsson (2007) highlighted that teachers' feelings and performance are tangled. That is, school, classroom culture, and climate may be influenced by teachers' feelings and performance.

Researchers and managers in the organizational field are interested in knowing the individual and contextual characteristics that interfere with the worker's well-being experience. The scientific literature points out that the

factors related to the occupational context seem to influence well-being at work, such as social climate, perception of justice, and organizational support (Wright & Pascoe, 2015). Despite this apparent impact on well-being at work, leadership and other contextual variables can also be its predictors. However, some authors warn of the importance of investigating the interaction between individual and situational variables since well-being at work does not depend only on personal or environmental variables, but on a combination of both. This, however, is still an issue that has been investigated a little empirically.

Many studies and theoretical proposals for the development of well-being at work are recent (Baptiste, 2008; Baverstock & Finlay, 2019; Hesketh & Cooper, 2019). Besides, studies on occupational well-being mainly address the emotions and moods of the worker, which consist of the hedonic dimension of well-being. Leadership style and its influence on teachers' well-being require more exploration to prove that workers' emotions, subjective well-being, and moods are not the only variables influencing their performance and well-being. Within the context of well-being during the COVID-19 pandemic, a recent study that analyzed employees' well-being from different sectors indicated that teachers were among the most negatively impacted employees, affecting their job outcomes (Davidsen & Petersen, 2021). Such findings make this research crucial within the UAE's context.

Leadership Styles and Employees' Well-being

Leaders hold a critical role in organizations, and their conduct has important repercussions on their workers' job conduct, success, and well-being (e.g., Avolio et al., 2009; Kuoppala et al., 2008). Leaders are part of the surrounding environment that directly influences the employees' well-being, especially at schools (Brady & Wilson, 2021; Kraft & Papay, 2014). Crises like COVID-19 shed light on a leader's worth, whereby effective responses and actions are needed (Rameshan, 2021). Somech and Wenderow (2006) investigated the impact of leadership on teacher actions and discussed how organizations nowadays are facing tremendous challenges. As such, developing effective leadership is crucial and a salient concern in most organizations, including schools (Somech & Wenderow, 2006).

Previous literature added insights into how different leadership styles can affect teachers' outcomes, such as satisfaction, commitment, performance, and, most importantly, their well-being. For example, shedding light on the well-being aspect that this study is about, the Laissez-Faire leadership style (Cummings et al., 2010; Nielsen et al., 2009; Zwingmann et al., 2014). was found to be associated with overall negative performance and health outcomes for the employees. While research in this aspect is limited, a few studies have found a negative association between Laissez-Faire leadership and employee well-being. For instance, Nielsen et al. (2008) found an association between Laissez-Faire leadership and employees' anxiety. They have also classified this leadership style as a destructive style that causes more harm to the employees' well-being than good. The leadership style not only causes interpersonal conflict, role stress, and emotional exhaustion, but it also impacts the physical health outcomes of the employees (Skogstad et al., 2014).

Furthermore, working under a destructive leader is considered to be a harmful event, and this was also indicated by Matta et al. (2014). Besides, Zwingmann et al. (2014) found a direct negative association between Laissez-Faire leadership and employee psychological well-being. A recent study (e.g., Petrus van der Vyver, 2020) also indicated similar results, where Laissez-Faire leadership was found to have a negative relationship with employees' professional well-being, as opposed to transformational leadership.

Upon shedding light on the path-goal theory, it is essential to mention that very little empirical research exists on the effect of participative, supportive, and directive leadership styles, as Majeed et al. (2010) stated. Majeed et al. (2010) found that participative, supportive, and directive leadership styles positively influenced employee well-being. Enabling subordinates to engage in decision-making often raises their understanding and comprehension of goals (Majeed et al., 2010). Furthermore, the success of subordinates is closely linked to the incentives and assistance from the additional work (Majeed et al., 2010).

While studies like Blau (1985) and Cummings et al. (2010) indicated that supportive and participative leadership styles, in particular, had a more positive impact on employees' commitment and well-being, directive leadership styles where the leader closely supervises his employees and tells them what they have to do and how to do the work, were found to negatively impact employees' commitment and well-being (Cummings et al., 2010). To put it differently, people-oriented leaders were found to significantly impact employees' outcomes as compared to the task-oriented leaders. However, interestingly, there is no consensus in this regard. For example, a recent study by Huynh and Hua (2020) proved that task-oriented leaders and directive ones could lead to positive outcomes. Setting clear rules and goals in the workplace was found to increase employees' outcomes like commitment, and there was no influence on the 'psychological capital' of employees' well-being (Huynh & Hua, 2020). Although only a few studies have been conducted that have evaluated employee well-being (Nielsen et al., 2008, 2009), researchers have found that inclusive and positive leadership styles positively influence employee well-being. Several mechanisms by which effective leaders influence positive outcomes include increasing feelings of self-efficacy, enhancing relational cohesion, providing motivational and supportive mediators, and ensuring positive group identification (Nielsen & Daniels, 2012; Nielsen et al., 2009).

Methodology

Research Design

This study aimed to examine the relationship between principals' leadership styles and teachers' well-being during the COVID-19 crisis, in which tremendous challenges have been witnessed in running the schools smoothly. It adopted a quantitative approach that poses essential questions to be studied empirically, linking it to relevant theories (Hoy & Adams, 2016). Moreover, it followed a cross-sectional design in which a snapshot of the population in focus was provided and enabled comparisons between different groups (Cohen et al., 2017).

Sample

The study was carried out in the United Arab Emirates (UAE), where all the teachers were considered the population of the study. Only 101 teachers from different public schools across the UAE participated in the survey by responding to an online survey questionnaire circulated through teachers' groups in social media in the UAE. The sampling method used was snowball sampling. As Roni et al. (2020) explained, this sample is used when individuals agree to participate in the study and recommend other individuals to participate. Since the current paper is a survey-based quantitative study, it was crucial to pilot the survey before circulating it to the participants. As Cohen et al. (2017) recommended, the significance of piloting derives from the fact that it helps to validate the wording of the survey and increases its reliability and practicality. Hence, the survey was piloted via an email request that was sent to 14 participants whose responses were excluded from the final ones analyzed in the current paper. The questionnaire was improved with the feedback of participants during the piloting. The overall reliability coefficient was above 0.7 and deemed suitable. The details of the sample have been presented in Table 1.

Table 1. Sample Characteristics

Demographics		Frequency	Percent
Gender	Male	15	14.9
	Female	86	85.1
Age	< = 30	10	9.9
	31-40	50	49.5
	41-50	31	30.7
	>50	10	9.9
Education Level	Bachelor's Degree	64	63.4
	Master's Degree	29	28.7
	Ph.D. and Others	8	7.9
Working Experience	<1 Year	6	5.9
	1-5 Years	28	27.7
	6-10 Years	27	26.7
	>10 Years	40	39.6

The demographics of the sample utilized for the study included (N=101) teachers, with the majority of them being females 85.1% and male teachers only 14.9%. Among the five age groups that were examined in the survey, the most frequent age group was 31-40 with a percentage of 49.5%, followed by the age range of 41-50 with a percentage of 30.7%. More than half of the sample (63.4%) were Bachelor's degree holders. The results also demonstrated that 39.6% of the participants had been working in the field of teaching for more than ten years, whereas 5.9% of the participants reported that they had less than one year of experience.

Online Questionnaire

A single online questionnaire was constructed by the authors based on the extensive literature review. The questionnaire was constructed in the Google Form for an online survey that was used to collect quantitative data from the participants. The survey was built following the literature explored thoroughly by the researchers of the current study. The questionnaire was structured into four leadership categories (participative, supportive, directive, and Laissez-Faire) and one in terms of well-being. It may be essential to point out that although the path-goal also includes the achievement-oriented leadership style, it was not used in this study because it is mostly found in high-tech organizations (Harris & Ogbonna, 2001).

The questionnaire consisted of three main parts, all with closed-ended questions. The first part aimed to collect general information about the participants, including demographic questions like gender, age, and tenure. The second part was built on four leadership styles: directive, supportive, participative, and Laissez-Faire. They were in the form of 4-point Likert-scale questions ranging from strongly disagree (1) to strongly agree (4). Similarly, the third section included 4-point Liker-scale questions ranging from 1 to 4 to measure teachers' well-being dimension. It is essential to mention

that the questionnaire was developed in both languages, English and Arabic, to ensure that teachers can access it effectively with no issues and to ensure that teachers understand each question accurately (see Appendix).

Reliability, Validity, and Normality

Using the SPSS software, the reliability of the survey items was tested, and the results showed high Cronbach alpha for all items (α = .956). Given that the leadership style variables examined in this paper cascade down into four group categories: participative, supportive, directive, and Laissez-Faire, the Cronbach alpha was therefore tested for each. The results were (α_p = .842), (α_s = .894), (α_d = .799), and (α_l = .942), respectively. Besides, the reliability of the well-being measure was found to be (α_w = .834). It is worth mentioning that five items (that were negatively stated) were reverse coded to enhance the reliability of the questionnaire.

Table 2. Normality Test for Employees' Well-being

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Participative	.160	101	.000	.950	101	.001
Supportive	.119	101	.001	.940	101	.000
Directive	.103	101	.010	.930	101	.000
Laissezfaire	.214	101	.000	.872	101	.000
Well-being	.090	101	.042	.974	101	.044

To ensure the normal distribution of the composite group variables, normality tests such as Shapiro-Wilk and Kolmogorov-Smirnova for all constructs were performed as shown in Table 2 and Figure 1. The results indicated that the dependent variable (well-being), with a Kolmogorov-Smirnov and a Shapiro-Wilk test, was not significant at p >.01 for both tests (Table 2), although other four constructs related to leadership styles as independent variables were significant (p < .01). The Q-Q plot for well-being also confirmed that the dependent variable (well-being) was normally distributed (Figure 1) at a 0.01 level of significance.
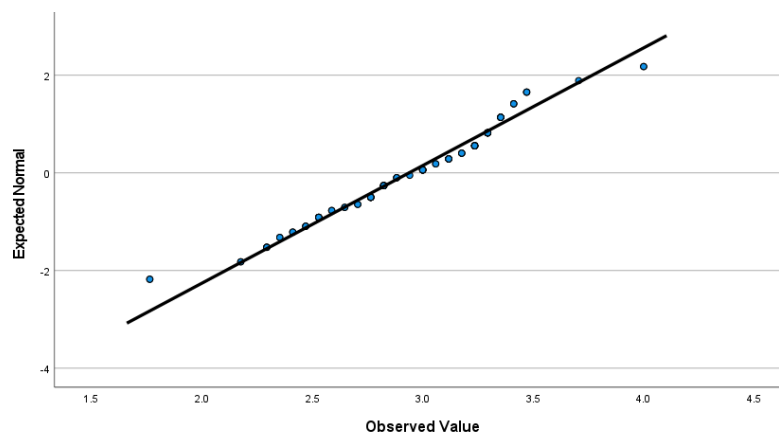

Figure 1. Q-Q Plot (Well-being)

Ethical Considerations

Shedding light on the ethical consideration measures, a consent form was sent to all the participants to inform them of the importance of this study and assure them that all data would stay anonymous. All the participants in the study were assured that their personal information would not be revealed and the data collected from them would solely be used for research purposes. Moreover, the participants had the right to withdraw and stop participating in the study if they wanted to without providing justification. The study was approved by the Research Ethics Committee of Office of Research, United Arab Emirates University in spring 2021.

Data Analysis and Interpretation

The data collected for the current study were analyzed with IBM SPSS-26 software. Tests such as descriptive statistical analysis were utilized for the data set demographics and highlighted the difference between the two gender groups. Normality tests, such as Kolmogorov and Shapiro, were performed to ensure the normal distribution of data. Correlation analysis was used and further supported by the General Linear Model to examine the effects of leadership styles on teachers' well-being during the COVID-19 pandemic in the UAE.

Findings

Descriptive Analysis

Descriptive statistical analysis for mean and standard deviation showed that the dominant leadership style was Laissez-Faire (Mean = 3.23, SD = 0.78) followed by directive (Mean = 3.15, SD = 0.66). The teachers felt their leaders were participative and supportive (Mean > 2.5) (Table 3). Overall, the well-being score was higher than the neutral value (Mean – 3.04, SD = 0.52). Furthermore, a t-test was conducted to highlight the existence of any difference in well-being when it comes to gender, and the results showed that such a difference does not exist in both cases, whether or not considering the equal variances, as the values are not significant (p > 0.01) (see Tables 4 and 5).

Table 3. Results of Descriptive Statistical Analysis for Leadership Styles and Well-being

Variable	Mean Score	Standard Deviation
Participative Leadership	3.13	0.77
Supportive Leadership	3.10	0.75
Directive Leadership	3.15	0.66
Laissezfaire Leadership	3.23	0.78
Well-being	3.04	0.52

Table 4. T-Test (Group Statistics) for Comparing Well-being Experience by Gender

	Gender of Teacher	N	Mean	Std. Deviation	Std. Error Mean
Well-being	Male	15	3.1059	.47540	.12275
	Female	86	2.9083	.39933	.04306

Table 5. T-Test (Independent Samples Test) for Well-being Experience with Gender

Test Variable		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Well-being	Equal variances assumed	.516	.474	1.718	99	.089	.19754	.11499	-.03062	.42569
	Equal variances not assumed			1.519	17.614	.147	.19754	.13008	-.07618	.47126

An ANOVA test was performed to highlight any difference in well-being for three demographic variables: age, educational level, and work experience. The findings of the study seem to reveal that there was no statistically significant difference, as the significance was 0.161, 0.965, and 0.364, respectively (p > 0.01) (See Tables 6, 7, and 8).

Table 6. One-Way ANOVA Test (Age)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.126	4	.281	1.679	.161
Within Groups	16.091	96	.168		
Total	17.217	100			

Table7. One-Way ANOVA Test (Education Level)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.048	3	.016	.091	.965
Within Groups	17.168	97	.177		
Total	17.217	100			

Table 8. One-Way ANOVA Test (Work Experience)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.553	3	.184	1.073	.364
Within Groups	16.664	97	.172		
Total	17.217	100			

A descriptive statistical analysis was also carried out to answer the first research question, 'What leadership style was the most dominant during the COVID-19 Crisis across the UAE schools?'. The results of compared means showed that the most dominant leadership style followed during the crisis was the Laissez-Faire style (M=3.22, SD=0.78), followed by the directive leadership style (M=3.15, SD=0.66), and then participative and supportive styles with close means (See Table 2).

Correlation between Leadership Styles and Well-being

To answer the second research question, 'What is the relationship between the leadership styles (supportive, participative, directive, and Laissez-Faire) and teachers' well-being during the COVID-19 crisis? ', a Spearman's rank correlation analysis was run because the distributions of leadership styles were not normal although well-being was normal for which non-parametric test deemed suitable. The results revealed that all four styles correlated positively and significantly with teachers' well-being. Among the four styles, the participative style had the highest correlation (r= 0.660, p < .01), followed by supportive leadership (r = 0.658, p < .01) and then the Laissez-Faire style (r = 0.655, p < .01) with teacher well-being. However, the lowest correlation among all four styles was between the directive leadership style and well-being (r = 0.545, p < .01). Nevertheless, it was still positive and significant (Table 9).

Table 9. Spearman's Rank Correlation Analysis of Leadership Styles and Well-being

		Participative	Supportive	Directive	Laissez-faire	Well-being
Participative	Spearman's Rank Correlation	1				
	Sig. (2-tailed)					
	N	101				
Supportive	Spearman's Rank Correlation	.878**	1			
	Sig. (2-tailed)	<.001				
	N	101	101			
Directive	Spearman's Rank Correlation	.642**	.740**	1		
	Sig. (2-tailed)	<.001	<.001			
	N	101	101	101		
Laissez-faire	Spearman's Rank Correlation	.794**	.882**	.780**	1	
	Sig. (2-tailed)	<.001	<.001	<.001		
	N	101	101	101	101	
Well-being	Spearman's Rank Correlation	.660**	.658**	.545**	.655**	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	
	N	101	101	101	101	101

**. Correlation is significant at the 0.01 level (2-tailed).

Regression between Leadership Styles and Well-being

To add further understanding and deeper insights into the findings of the current paper, the correlation results were supported by a Generalized Linear Model (GLM) for the dependent variable (well-being) with a probability distribution type of *normal* and a link function type of *identity*. The GLM is a generalized version of linear model that does not assume the linearity of dependent and independent variables and the homogeneity of those variables. The Pearson Chi-Square Goodness of fit is 6.991 with a degree of freedom of 85, and a value to the degree of freedom ratio of 0.082. Furthermore, concerning the Omnibus test, the likelihood ratio Chi-square is 91.034 with a degree of freedom of 15, and it is significant at p < 0.01.

Starting with the demographics, and with regard to age, age group 2 (25-30 years) significantly influenced well-being in a negative way (β = -0.326) at (p < 0.05), but not at (p < 0.01) (See Table 9). Although age group 1 (less than 25 years old) had a high value (β= .233), it was not significant with respect to the age group 5. Moving next in the GLM table, none of the educational levels reported a significant influence on well-being. In addition, similar results were found for

the total working experience dimension. Among the four leadership styles, the participative leadership style showed the highest beta value (β= .229), which was significant at p < 0.01 (Table 9).

Table 9: Generalized Linear Model Analysis for the Effect of Demographic Characteristics and Leadership Styles on Well-being

Parameter	B	Std. Error	95% Wald Confidence Interval		Hypothesis Test		
			Lower	Upper	Wald Chi-Square	df	Sig.
(Intercept)	1.488	.2567	.984	1.991	33.583	1	.000
[Gender: Male]	.059	.0801	-.098	.216	.540	1	.462
[Gender: Female]	0a	.	.	.	.	.	.
[Age: < 25]	.233	.2839	-.324	.789	.672	1	.412
[Age: 25-30]	-.326	.1311	-.583	-.069	6.185	1	.013
[Age: 30-40]	.023	.1009	-.175	.221	.052	1	.819
[Age: 40-50]	-.053	.1023	-.253	.148	.265	1	.607
[Age: < 50]	0a	.	.	.	.	.	.
[Education Level: Bachelors' Degree]	.116	.1991	-.274	.506	.338	1	.561
[Education Level: Master's Degree]	.204	.1992	-.187	.595	1.048	1	.306
[Education Level: Ph.D.]	.107	.2294	-.343	.557	.217	1	.642
[Education Level: Other Qualifications/Degree]	0a	.	.	.	.	.	.
[Working experience: <1 Year]	.049	.1254	-.197	.295	.152	1	.696
[Working experience: 1- 5 Years]	.068	.0736	-.077	.212	.846	1	.358
[Working experience: 6-10 Years]	-.076	.0707	-.215	.062	1.168	1	.280
[Working experience: > 10 Years]	0a	.	.	.	.	.	.
Participative	.229	.0715	.089	.370	10.286	1	.001
Supportive	.098	.1040	-.106	.301	.879	1	.349
Directive	.036	.0802	-.121	.193	.205	1	.651
Laissez-faire	.076	.0865	-.094	.245	.764	1	.382
(Scale)	.069b	.0097	.053	.091			

Dependent Variable: Well-being; Model: (Intercept), Gender of Teacher, Age of Teacher, the highest level of education obtained, Total working experience in the current school, Participative, Supportive, Directive, Laissez-faire a. Set to zero because this parameter is redundant. b. Maximum likelihood estimate

Discussion

This quantitative study aimed to examine which leadership style was the most dominant among the four leadership styles in the UAE's public schools and the influence of the four leadership styles (participative, supportive, directive, and Laissez-Faire) on teachers' well-being during the COVID-19 pandemic. The results suggested that the most prevalent leadership style followed during the pandemic was the Laissez-Faire style, the directive leadership style, and the participative and supportive styles, this order respectively. However, there was a greater variation in teachers' views of the Laissez-Faire leadership style followed by participative and supportive leadership of school principals in the UAE. This result is contrary to what Ibrahim and Al-Taneiji (2013) and Kadbey (2018) reported. In their study, Ibrahim and Al-Taneiji, and Kadbey reported that Laissez-Faire leadership style as the least dominant compared to transformational leadership with inspirational motivation and individualized influence attributes in Dubai and Abu Dhabi schools. However, in another study, Nasr (2017) found that school principals dominantly strive for uncertainty avoidance, the creation of vision, and an orderly and safe environment in schools in the UAE. Although these results were based on the teachers' perceptions of their principals' leadership before the COVID-19 pandemic (in 2017) which might have resonated their will to help teachers do their best during the crisis. Individualism and uncertainty avoidance were significant predictors of leadership effectiveness. One reason for teachers having opinion that their principals had a high level of Laissez-Faire leadership during the COVID-19 pandemic could be due to the closure of physical classrooms and working from home in online mode in which there were no direct interventions from the school leadership. The school principals might have been more resilient toward the teachers not to put much pressure during the COVID-19 pandemic due to safety and health concerns.

Concerning the relationships examined, the correlation analysis showed that all four leadership styles correlated positively and significantly with teachers' well-being, with the supportive style having the highest correlation, followed by participative leadership. Teachers' well-being has been found to be a result or outcome of principals' leadership practice in the UAE. Yacoub (2021) discussed different forms of teacher well-being affected by principals' leadership practices. For example, social well-being, economic well-being and environmental well-being are affected or influenced by school leadership functions. Teacher well-being in the forms of job satisfaction and organizational culture was highly correlated with school leadership and management practices in Dubai (Yacoub, 2021). Viac and Fraser (2020) emphasized four dimensions of teacher well-being: cognitive, social, subjective, and physical and mental. These forms of well-being are influenced by both school characteristics and teacher characteristics. In this sense, teacher well-being is contingent upon school principals' leadership styles to create a conducive working environment in the school. Both affective and cognitive well-being were significantly positively correlated with principals' transformational leadership, whereas they were negatively correlated with transactional leadership styles (Heidmets & Liik, 2014).

Moreover, the regression findings revealed that of the four leadership styles, one only demonstrated a significant positive influence on teachers' well-being, which was the participative leadership style, with a beta value (β= .229), which was significant at $p < 0.01$. However, past studies showed mixed findings. For example, Nguni et al. (2006) reported Laissez-Faire leadership style as a stronger predictor of teacher job satisfaction leading to well-being. Nonetheless, Biggerstaff (2012) and Waters (2013) found transformational leadership as a strong predictor of teacher well-being in terms of job satisfaction. The correlation and regression findings above aligned with previous studies such as Cummings et al. (2010) and Somech and Wenderow (2006), who proved that people-oriented leadership styles correlated positively with employees' well-being and outcomes. However, the findings of this present study indicated that, in addition to the people-oriented leadership styles, the Laissez-Faire leadership style was also found to correlate positively with teachers ' well-being. This result contradicts the findings of Cummings et al. (2010), Somech and Wenderow, and Tepper (2000), in which a negative correlation was indicated between the two. Zwingmann et al. (2014) and Petrus van der Vyver (2020) also found a direct negative association between Laissez-Faire leadership and employees' well-being, which contradict this study's findings. Additionally, focusing on the directive leadership style, previous studies, such as Cummings et al., indicated that this style negatively influenced employee well-being. However, the findings of this study indicated the opposite. This case can be justified by Al-Sada et al. (2017) claims that this style of leadership works best when tasks are ambiguous to members, which could be the case during the conversion to the online learning experience in response to the crisis. It is also worth discussing that while previous studies, such as De Pue et al. (2021), indicated that among the different demographics, being aged above 50 can impact well-being negatively, the results of the present study proved the opposite as people's well-being at the age of 25-30 years was found to be negatively affected in such crisis time. This finding indicates that this group is at risk and needs the attention of organizations, especially school leaders.

As evidence of how soon the current crisis could end is not provided, emphasizing teachers' well-being is critical. Hence, as this study indicated a solid link between principals' leadership styles and teachers' well-being, it is suggested that more attention should be directed to this area. According to the findings, it is recommended to follow a participative leadership style, as it was found to significantly influence teachers' well-being compared to the other styles. Unfortunately, this study indicated that this style is among the least dominant.

Conclusion

In conclusion, the current study supports previously examined topics related to leadership styles and well-being, adding more profound insights into the UAE public schools, specifically during the COVID-19 crisis. Among the four leadership styles, the Laissez-Faire style was found to be the most dominant, followed by the directive. However, there was also the greatest variability among the perceptions of the Laissez-Faire leadership style of school principals, among other styles. In line with previous literature, a participative leadership style was found to be significantly associated with teacher well-being. An interesting finding was that Laissez-Faire and directive leadership were found to correlate positively, which contradicted previous studies. However, according to the Generalized Linear Model, among the four leadership styles, the participative leadership style showed the highest beta value (β= .229), which is significant at $p < 0.01$.

Moreover, according to the t-test and ANOVA results, there were no differences in teachers' well-being regarding gender, age, years of experience, and educational level. Also, in terms of demographics' influence on well-being, there were no statistically significant scores. The findings from the current study add to the literature of principals' leadership styles and teachers' well-being in general and teachers' well-being during the COVID-19 pandemic in particular in the UAE. The results from the study on school teachers' perceptions of their principal's dominant leadership styles and their relationship with well-being may provide school leaders and policymakers some insight into which leadership may affect teachers' well-being and their retention in schools. Further research is recommended, especially since this research (during the COVID-19 pandemic) is a novel area that allows more examination.

Recommendation

School teachers' well-being is still affected by the consequences of the pandemic, whether at the health level or the financial level. It is then crucial for school leaders to consider the best ways of lavishing the communication between school members and turn the surrounding conditions into social hub through which people can lessen the side-effects of the current situation, exchange experiences, and support one another. This study highlighted the importance of leadership in influencing employees' well-being and particularly emphasized the positive influence of the participative leadership style. Therefore, as this leadership style seemed less prevalent in the UAE's schools as per the findings, special attention should be given by the leaders to listening to employees' ideas and involving them in the decision-making process. It is crucial to provide training in the different leadership styles depending on the contextual factors and the surrounding circumstances, especially since different learning modes are now found in the educational system. In this sense, there is a policy implication of the result that showed a significant impact of participatory leadership on employees' well-being indicating the importance of employees' participation in the functioning of schools during a crisis such as COVID-19.

Teachers' well-being is an area that has different dimensions with the diversity of the different dimensions of such a topic requires extended comprehension. Therefore, it is recommended to investigate the influence of the principals' leadership styles on the different dimensions of teachers' wellbeing proposed by Seligman (2011, 2018) in the PERMA model. This model includes five key elements of well-being: positive emotion, engagement, relationships, meaning, and achievement (Seligman, 2018). Hence, PERMA is the acronym used to refer to the resulting framework to explain the concept of flourishing, which is found in the definition of Seligman (2011), who explained his understanding of positive psychology by saying that positive psychology is all about well-being. Studies similar to this current one could be expanded to larger populations and samples. With the addition of a qualitative research method to the quantitative method utilized in this study, more insightful results may be revealed into the best principles of leadership styles that can be adopted during the time of difficulty. Further studies can explore the relationship between leadership styles and other outcomes, other than well-being. Moreover, another area to investigate is the difference between private and public school teachers' well-being and principals' behaviors.

Limitations

While conducting the research, two significant limitations were experienced that are worth addressing for future consideration. The first was that failure to randomize the sample utilized for the study might have affected the validity of the results (Cohen et al., 2017). The primary purpose of selecting snowball sampling was to gather as many participants as possible to ensure the validity of the outcomes, given that the study's time frame was very limited. The second limitation was related to reaching out some schools in suburban areas. Reaching them required extra documentation and approval, which could have affected the representativeness of the sample (Cohen et al., 2017).

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Declarations

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2. There was no funding support for this study by any institution.
3. The study was approved by the Research Ethics Committee of a higher education institution in the UAE.
4. The data for this study is not available publicly.

Author Contribution Statement

Al Attar: Concept and design, data acquisition, data analysis, interpretation, drafting manuscript, statistical analysis, final approval. Al Hammadi: Concept and design, data acquisition, data analysis and interpretation, drafting manuscript, statistical analysis, and final approval. Belbase: Critical revision of the manuscript, admin, data analysis, technical and material support, supervision, extensive editing and revising, and final approval.

References

Acton, R., & Glasgow, P. (2015). Teacher well-being in neoliberal contexts: A review of the literature. *The Australian Journal of Teacher Education, 40*(8), 99-114. https://doi.org/10.14221/ajte.2015v40n8.6

Aelterman, A., Engels, N., Petegem, K. V., & Verhaeghe, J. P. (2007). The well-being of teachers in Flanders: The importance of a supportive school culture. *Educational Studies, 33*(3), 285-297. https://doi.org/10.1080/03055690701423085

Al-Sada, M., Al-Esmael, B., & Faisal, M. N. (2017). Influence of organizational culture and leadership style on employee satisfaction, commitment and motivation in the educational sector in Qatar. *EuroMed Journal of Business, 12*(2), 163-188. https://doi.org/10.1108/EMJB-02-2016-0003

Avolio, B. J., Walumbwa, F. O., & Weber, T. J. (2009). Leadership: Current theories, research, and future directions. *Annual Review of Psychology*, *60*, 421–449. https://doi.org/fm5hnr

Bakker, A. B., Demerouti, E., & Euwema, M. C. (2005). Job resources buffer the impact of job demands on burnout. *Journal of Occupational Health Psychology, 10*(2), 170–180. https://doi.org/10.1037/1076-8998.10.2.170

Baptiste, N. R. (2008). Tightening the link between employee well-being at work and performance: A new dimension for HRM. *Management Decision*, *46*(2), 284-309. https://doi.org/10.1108/00251740810854168

Baverstock, A., & Finlay, F. (2019). Well-being at work. Archives of Disease in Childhood. *Education and Practice Edition*, *104*(3), 123-123. https://doi.org/10.1136/archdischild-2019-317208

Biggerstaff, J. K. (2012). *The relationship between teacher perceptions of elementary school principal leadership style and teacher job satisfaction* [Doctoral dissertation, Western Kentucky University]. WKU TopSCHOLAR. https://digitalcommons.wku.edu/diss/22/

Blau, G. J. (1985). The measurement and prediction of career commitment. *Journal of Occupational Psychology*, *58*(4), 277-288. https://doi.org/10.1111/j.2044-8325.1985.tb00201.x

Brady, J., & Wilson, E. (2021). Teacher well-being in England: Teacher responses to school-level initiatives. *Cambridge Journal of Education*, *51*(1), 45-63. https://doi.org/10.1080/0305764X.2020.1775789

Chemers, M. M. (2002). Efficacy and effectiveness: Integrating models of leadership and intelligence, In R. E. Riggio, S. E. Murphy & F. J. Pirozzolo (Eds.), *Multiple intelligence and leadership* (pp.139-160). Lawrence Erlbaum Associates.

Cohen, L., Manion, L., & Morrison, K. (2017). *Research methods in education* (8th ed.) Routledge. https://doi.org/10.4324/9781315456539

Cummings, G. G., MacGregor, T., Davey, M., Lee, H., Wong, C. A., Lo, E., Muise, M., & Stafford, E. (2010). Leadership styles and outcome patterns for the nursing workforce and work environment: A systematic review. *International Journal of Nursing Studies*, *47*(3), 363-385. https://doi.org/10.1016/j.ijnurstu.2009.08.006

Daft, R. (2005). *The leadership experience*. Thomson Southwestern.

Davidsen, A. H., & Petersen, M. S. (2021). The impact of COVID-19 restrictions on mental well-being and working life among Faroese employees. *International Journal of Environmental Research and Public Health*, *18*(9), Article 4775. https://doi.org/10.3390/ijerph18094775

De Pue, S., Gillebert, C., Dierckx, E., Vanderhasselt, M. A., De Raedt, R., & Van den Bussche, E. (2021). The impact of the COVID-19 pandemic on well-being and cognitive functioning of older adults. *Scientific Reports*, *11*(1), 1-28. https://doi.org/10.17605/OSF.IO/RE7SM

Diener, E., Oishi, S., & Lucas, R. E. (2003). Personality, culture, and subjective well-being: Emotional and cognitive evaluations of life. *Annual Review of Psychology, 54*(1), 403-425. https://doi.org/10.1146/annurev.psych.54.101601.145056

Diliberti, M. K., Schwartz, H. L., & Grant, D. (2021). *Stress topped the reasons why public school teachers quit, even before COVID-19*. RAND Corporations. https://doi.org/10.7249/RRA1121-2

Evans, M. G. (1970). The effects of supervisory behavior on the path-goal relationship. *Organizational Behavior and Human Performance*, *5*(3), 277–298. https://doi.org/10.1016/0030-5073(70)90021-8

Evers, K. E., Castle, P. H., Prochaska, J. O., & Prochaska, J. M. (2014). Examining relationships between multiple health risk behaviours, well-being and productivity. *Psychological Reports, 114*(3), 843-853. https://doi.org/10.2466/13.01.PR0.114k25w4

Fiedler, F. E. (1989). The effective utilization of intellectual abilities and job-relevant knowledge in group performance: Cognitive resource theory and an agenda for the future. *Applied Psychology: An International Review, 38*, 289-304. https://doi.org/10.1111/j.1464-0597.1989.tb01259.x

Fischer, T., Dietz, J., & Antonakis, J. (2017). Leadership process models: A review and synthesis. *Journal of Management, 43*(6), 1726-1753. https://doi.org/10.1177/0149206316682830

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *The American Psychologist*, *56*(3), 218-226. https://doi.org/10.1037//0003-066X.56.3.218

Gandolfi, F., & Stone, S. (2016). Clarifying leadership: High-impact leaders in a time of leadership crisis. *Review of International Comparative Management/Revista de Management Comparat Internaţional*, *17*(3), 212–224. http://rmci.ase.ro/no17vol3/03.pdf

García, F. E., Barraza-Peña, C. G., Wlodarczyk, A., Alvear-Carrasco, M., & Reyes-Reyes, A. (2018). Psychometric properties of the brief-COPE for the evaluation of coping strategies in the Chilean population. *Psychology, Reflection, and Criticism/Psicologia, Reflexão e Crítica*, *31*(1), 1-11. https://doi.org/10.1186/s41155-018-0102-3

Harris, L. C., & Ogbonna, E. (2001). Leadership style and market orientation: An empirical study. *European Journal of Marketing*, *35,* 744-764. https://doi.org/10.1108/0309056011038819

Heidmets, M., & Liik, K. (2014). School principals' leadership style and teachers' subjective well-being at school. *Problems in Education in the 21st Century, 62*(1), 40-50. https://doi.org/10.33225/pec/14.62.40

Hesketh, I., & Cooper, C. (2019). *Well-being at work: How to design, implement and evaluate an effective strategy*. Kogan Page Limited.

Hirschle, A. L. T., & Gondim, S. M. G. (2020). Stress and well-being at work: A literature review. *Science and Public Health, 25*(7), 2721-2736. http://doi.org/10.1590/1413-81232020257.27902017

House, R. J. (1971). A path-goal theory of leader effectiveness. *Administrative Science Quarterly*, *16*(3), 321-339. https://doi.org/10.2307/2391905

House, R. J. (1996). Path-goal theory of leadership: Lessons, legacy, and a reformulated theory. *The Leadership Quarterly, 7*(3), 323-352. https://doi.org/10.1016/S1048-9843(96)90024-7

House, R. J., & Mitchell, T. R. (1974). Path-goal theory of leadership. *Journal of Contemporary Business, 3*(4), 8l-97.

Hoy, W. K., & Adams, C. M. (2016). *Quantitative research in education: A primer* (2nd ed.). SAGE.

Hoy, W. K., & Tarter, C. J. (2011). Positive psychology and educational administration: An optimistic research agenda. *Educational Administration Quarterly*, *47*(3), 427-445. https://doi.org/10.1177/0013161X10396930

Huynh, T. N., & Hua, N. T. A. (2020). The relationship between task-oriented leadership style, psychological capital, job satisfaction and organizational commitment: Evidence from Vietnamese small and medium-sized enterprises. *Journal of Advances in Management Research*, *17*(4), 583–604. https://doi.org/10.1108/JAMR-03-2020-0036

Ibrahim, A. S., & Al-Taneiji, S. (2013). Principal leadership style, school performance, and principal effectiveness in Dubai schools. *International Journal of Research Studies in Education, 2*(1), 41-54. https://doi.org/10.5861/ijrse.2012.86

Jeon, L., Buettner, C. K., & Grant, A. A. (2018). Early childhood teachers' psychological well-being: Exploring potential predictors of depression, stress, and emotional exhaustion. *Early Education and Development*, *29*(1), 53-69. https://doi.org/10.1080/10409289.2017.1341806

Johnson, S., Cooper, C., Cartwright, S., Donald, I., Taylor, P., & Millet, C. (2005). The experience of work-related stress across occupations. *Journal of Managerial Psychology, 20*(2), 178-187. https://doi.org/10.1108/02683940510579803

Junior, F. J. G., Sales, J. C. E., Monteiro, C. F., Costa, A. P. C., Campos, L. R. B., Miranda, P. I. G., Monteiro, T. A., Lima, R. A. G., & Lopes-Junior, L. C. (2020). Impact of COVID-19 pandemic on mental health of young people and adults: A systematic review protocol of observational studies. *BMJ Open, 10*(7), e039426-e039426. https://doi.org/10.1136/bmjopen-2020-039426

Kadbey, H. (2018). *Leadership styles of principals and job satisfaction of teachers in Abu Dhabi public schools: The role of organizational commitment and national culture* [Doctoral dissertation, The British University in Dubai]. The British University in Dubai. https://bspace.buid.ac.ae/handle/1234/1292

Kelloway, E. K., Nielsen, K., & Dimoff, J. K. (2017). *Leading to occupational health and safety: How leadership behaviours impact organizational safety and well-being*. John Wiley & Sons, Incorporated.

Kraft, M. A., & Papay, J. P. (2014). Can professional environments in schools promote teacher development? Explaining heterogeneity in returns to teaching experience. *Educational Evaluation and Policy Analysis*, *36*(4), 476-500. https://doi.org/10.3102/0162373713519496

Kristjánsson, K. (2007). *Aristotle, emotions, and education*. Ashgate.

Kuoppala, J., Lamminpää, A., Liira, J., & Vainio, H. (2008). Leadership, job well-being, and health effects: A systematic review and a meta-analysis. *Journal of Occupational & Environmental Medicine*, *50*(8), 904–915. https://doi.org/10.1097/JOM.0b013e31817e918d

Lee, T. S., Tzeng, W., & Chiang, H. (2019). Impact of coping strategies on nurses' Well-Being and practice. *Journal of Nursing Scholarship, 51*(2), 195-204. https://doi.org/10.1111/jnu.12467

MacIntyre, P. D., Gregersen, T., & Mercer, S. (2020). Language teachers' coping strategies during the Covid-19 conversion to online teaching: Correlations with stress, well-being and negative emotions. *System*, *94*, Article 102352. https://doi.org/10.1016/j.system.2020.102352

Majeed, K., Bhatti, A. M., Nemati, A. R., Rehman, I. U., & Rizwan, A. (2010). Can cultural change with different leadership styles enhance the organizational performance? *Research Journal of International Studies, 3*(17), 102-132. https://l24.im/sVJ

Matta, F. K., Erol-Korkmaz, H. T., Johnson, R. E., & Biçaksiz, P. (2014). Significant work events and counterproductive work behavior: The role of fairness, emotions, and emotion regulation. *Journal of Organizational Behavior*, *35*(7), 920-944. https://doi.org/10.1002/job.1934

McLeod, J., & Wright, K. (2016). What does well-being do? An approach to defamiliarize keywords in youth studies. *Journal of Youth Studies, 19*(6), 776-792. https://doi.org/10.1080/13676261.2015.1112887

Müller, R., & Turner, J. R. (2010). Attitudes and leadership competences for project success. *Baltic Journal of Management*, *5*(3), 307–329. https://doi.org/10.1108/17465261011079730

Nasr, I. (2017). *Leadership effectiveness of school principals and institutional development: The overarching role of leaders' national culture in Arabic schools in UAE* [Master's thesis, The British University of in Dubai]. The British University of in Dubai. https://l24.im/iNsK

Nguni, S., Sleegers, P., & Denessen, E. (2006). Transformational and transactional leadership effects on teachers' job satisfaction, organisational commitment, and organisational citizenship behavior in primary schools: The Tanzanian case. *School Effectiveness and School Improvement, 17*(2), 145-177. https://doi.org/10.1080/09243450600565746

Nielsen, K., & Daniels, K. (2012). Does shared and differentiated transformational leadership predict followers' working conditions and well-being? *Leadership Quarterly, 23*(3), 383–397. https://doi.org/10.1016/j.leaqua.2011.09.001

Nielsen, K., Randall, R., Yarker, J., & Brenner, S. O. (2008). The effects of transformational leadership on followers' perceived work characteristics and psychological well-being: A longitudinal study. *Work and Stress*, *22*(1), 16–32. https://doi.org/10.1080/02678370801979430

Nielsen, K., Yarker, J., Randall, R., & Munir, F. (2009). The mediating effects of team and self-efficacy on the relationship between transformational leadership, and job satisfaction and psychological well-being in healthcare professionals: A cross-sectional questionnaire survey. *International Journal of Nursing Studies*, *46*(9), 1236–1244. https://doi.org/10.1016/j.ijnurstu.2009.03.001

Nyberg, A., Holmberg, I., Bernin, P., Alderling, M., Åkerblom, S., Widerszal-Bazyl, M., Magrin, M. E., Hasselhorn, H., Milczarek, M., D'Angelo, G., Denk, M., Westerlund, H., & Theorell, T. (2011). Destructive managerial leadership and psychological well-being among employees in Swedish, Polish, and Italian hotels. *Work*, *39*(3), 267-281. https://doi.org/10.3233/WOR-2011-1175

Orsila, R., Luukkaala, T., Manka, M., & Nygård, C. (2011). A new approach to measuring work-related well-being. *International Journal of Occupational Safety and Ergonomics*, *17*(4), 341–359. https://doi.org/10.1080/10803548.2011.11076900

Peterson, C., & Park, N. (2006). A positive psychology perspective on post-9/11 security. *Basic and Applied Social Psychology*, *28*(4), 357-361. https://doi.org/10.1207/s15324834basp2804_9

Petrus van der Vyver, C. (2020). The relationship between teachers' professional well-being and principals' leadership styles to improve teacher retention. *Perspectives in Education*, *38*(2). https://doi.org/10.18820/2519593X/pie.v38.i2.06

Rameshan, P. (2021). Crisis leadership of covid-19 fightback: Exploratory anecdotal evidence on selected world leaders. *Iim Kozhikode Society & Management Review, 10*(2), 136-149. https://doi.org/10.1177/2277975220986274

Robbins, S. P. (2005). *Essentials of organizational behavior.* Prentice Hall.

Roni, S. M., Merga, M. K., & Morris, J. E. (2020). *Conducting quantitative in education*. Springer.

Ryff, C. D. (2014). Psychological well-being revisited: Advances in the science and practice of eudaimonia. *Psychotherapy and Psychosomatics*, *83*(1), 10-28. https://doi.org/10.1159/000353263

Sadeghi, A., & Pihie, Z. A. L. (2012). Transformational leadership and its predictive effects on leadership effectiveness. *International Journal of Business and Social Science, 3*(7), 186–197. https://l24.im/sYB3

Seligman, M. (2011). *Flourish: A visionary new understanding of happiness and well-being.* Free Press.

Seligman, M. (2018). PERMA and the building blocks of well-being. *The Journal of Positive Psychology, 13*(4), 333-335. https://doi.org/10.1080/17439760.2018.1437466

Skogstad, A., Aasland, M. S., Nielsen, M. B., Hetland, J., Matthiesen, S. B., & Einarsen, S. (2014). The relative effects of constructive, Laissez-Faire, and tyrannical leadership on subordinate job satisfaction: Results from two prospective and representative studies. *Journal of Psychology/Zeitschrift Fur Psychologie*, *222*(4), 221–232. https://doi.org/10.1027/2151-2604/a000189

Somech, A., & Wenderow, M. (2006). The impact of participative and directive leadership on teachers' performance: The intervening effects of job structuring, decision domain, and leader-member exchange. *Educational Administration Quarterly*, *42*(5), 746-772. https://doi.org/10.1177/0013161X06290648

Song, H., Gu, Q., & Zhang, Z. (2020). An exploratory study of teachers' subjective well-being: Understanding the links between teachers' income satisfaction, altruism, self-efficacy and work satisfaction. *Teachers and Teaching: Theory and Practice, 26*(1), 3-31. https://doi.org/10.1080/13540602.2020.1719059

Sudha, K. S., Shahnawaz, M. G., & Farhat, A. (2016). Leadership styles, leader's effectiveness and well-being: Exploring collective efficacy as a mediator. *Vision*, *20*(2), 111-120. https://doi.org/10.1177/0972262916637260

Tafvelin, S., Armelius, K., & Westerberg, K. (2011). Toward understanding the direct and indirect effects of transformational leadership on well-being: A longitudinal study. *Journal of Leadership & Organizational Studies*, *18*(4), 480-492. https://doi.org/10.1177/1548051811418342

Tandler, N., Krauss, A., & Proyer, R. T. (2020). Authentic happiness at work: Self- and peer-rated orientations to happiness, work satisfaction, and stress coping. *Frontiers in Psychology, 11*, Article 1931. https://doi.org/10.3389/fpsyg.2020.01931

Tepper, B. J. (2000). Consequences of abusive supervision. *Academy of Management Journal*, *42*(2), 178-190. https://doi.org/10.5465/1556375

Viac, C., & Fraser, P. (2020). *Teachers' well-being: A framework for data collection and analysis*. OECD iLibrary. https://doi.org/10.1787/c36fc9d3-en

Vroom, V. H., & Jago, A. G. (1998). Situation effects and levels of analysis in the study of leader participation. In F. Dansereau & F. J. Yammarino (Eds.), *Leadership: The multiple level approaches* (pp. 145-159). JAI.

Waters, K. K. (2013). *The relationship between principals' leadership styles and job satisfaction as perceived by primary school teachers across NSW independent schools* [Doctoral dissertation, University of Wollongong]. University of Wollongong Australia. https://ro.uow.edu.au/theses/4074/

Well-being and the workplace. (2017). *Human Resource Management International Digest, 25*(4), 38–40. https://doi.org/10.1108/HRMID-04-2017-0065

Williams, L. J., & Hazer, J. T. (1986). Antecedents and consequences of satisfaction and commitment in turnover models: A reanalysis using latent variable structural equation methods. *Journal of Applied Psychology, 71*(2), 219-231. https://doi.org/10.1037/0021-9010.71.2.219

Wright, P. R., & Pascoe, R. (2015). Eudaimonia and creativity: The art of human flourishing. *Cambridge Journal of Education, 45*(3), 295-306. https://doi.org/10.1080/0305764X.2013.855172

Yacoub, H. A. M. (2021). *Understanding the factors affecting teachers' well-being in harmony with the leadership practices: A study among teachers at a private school in Dubai* [Master's thesis, The British University in Dubai]. The British University in Dubai. https://bspace.buid.ac.ae/handle/1234/2084

Yukl, G. (2008). How leaders influence organizational effectiveness. *Leadership Quarterly*, *19*(6), 708–722. https://doi.org/10.1016/j.leaqua.2008.09.008

Zwingmann, I., Wegge, J., Wolf, S., Rudolf, M., Schmidt, M., & Richter, P. (2014). Is transformational leadership healthy for employees? A multilevel analysis in 16 nations. *German Journal of Human Resource Management*, *28*(1–2), 24–51. https://doi.org/10.1177/239700221402800103

Appendix

The Study Questionnaire

Leading during Covid-19 crisis: The Influence of Principals' Leadership Styles on Teachers' Well-being in the UAE Public Secondary Schools

القيادة المدرسية خلال جائحة كوفيد -19: تأثير أنماط القيادة للمدراء على رفاهية المعلّمين في مدارس الثانوية العامة في دولة الإمارات العربية المتحدة.

1.0 Background Information معلومات عامة

These questions intend to gather general information about the participants. Please mark the appropriate box.

تهدف هذه الأسئلة إلى جمع معلومات عامة عن المشاركين، لذا يرجى اختيار الإجابة المناسبة:

1. Gender: الجنس
   - ☐ Male / ذكر
   - ☐ Female /أنثى

2. Age:العمر
   - ☐ Less than 25/أقل من 25 سنة
   - ☐ 25-30
   - ☐ 31-40
   - ☐ 41-50
   - ☐ Above 50 /50 فوق

3. Highest level of education obtained: المستوى التعليمي
   - ☐ Bachelor's degree /البكالوريوس
   - ☐ Master's degree / الماجستير
   - ☐ PhD /الدكتوراة
     Other:أخرى : _____

4. Total working experience in the current school:مجموع سنوات الخبرة في المدرسة الحالية
   - ☐ Less than one year: أقل من سنة
   - ☐ 1-5 years. من 1-5 سنوات
   - ☐ 6-10 years. سنوات 10-6
   - ☐ More than 10 years. أكثر من عشر سنوات

2.0 Leadership Styles أنماط القيادة

The purpose of this section is to investigate the principal's leadership style at your school. The choices range from Strongly Disagree (1) to Strongly Agree (4). How well do the following statements describe your school principal during Covid-19 online teaching experienceز

تهدف الأسئلة أدناه إلى التعرّف على نمط القيادة المتبع من قبل مدير/ة المدرسة. يرجى قراءة الأسئلة جيدا واختيار الإجابة المناسبة بحسب درجة الموافقة من (1) لا أوافق بشدة إلى الرقم (4) أوافق بشدة.

	Description	Strongly disagree	Disagree	Agree	Strongly agree
	The decision-maker/principal: مدير/ة المدرسة				
Participative (1-5)	1- consults teachers about new programs, initiatives and change-decisions. يستشير المعلّمين حول البرامج والمبادرات الجديدة وقرارات التغيير.	1	2	3	4

	2-	involves teachers in programs, initiatives and change decisions. يحرص على إشراك المعلّمين في البرامج والمبادرات الجديدة وقرارات التغيير.	1	2	3	4
	3-	values teachers' comments on his/her decisions. يُقدّر ملاحظات المعلّمين حول قراراته.	1	2	3	4
	4-	often follows up on teachers' suggestions regarding the improvement of teaching and learning processes. يحرص على متابعة اقتراحات المعلّمين التطويرية والمتعلقة بأساليب التعليم والتعلم.	1	2	3	4
	5-	does not take any of teachers' comments and suggestions into concern*. لا يأخذ ملاحظات المعلّمين واقتراحاتهم بعين الاعتبار.	1	2	3	4
Supportive leadership (6-13)	6-	shows concern for teachers' satisfaction during times of conflict. يبدي اهتمامه حول رضا المعلّمين في الأزمات.	1	2	3	4
	7-	conducts regular meetings to listen to teachers' issues, views and concerns. يجتمع بصورة دورية مع المعلّمين للاستماع إلى آرائهم ومشكلاتهم.	1	2	3	4
	8-	provides equal support for teachers. يُقدم دعماً متساوياً لجميع المعلّمين.	1	2	3	4
	9-	shows equal care for teachers. يهتم بجميع المعلّمين على حدٍ سواء.	1	2	3	4
	10-	directs school management to organize well-being sessions during the pandemic for teachers. يوّجه إدارة المدرسة لتنظيم محاضرات وورش عمل حول طرق تحسين مستوى الرفاهية لدى المعلّمين.	1	2	3	4
	11-	facilitates the conduction of mental health and anxiety sessions. يُرحب بتقديم ورش تحسين الصحة النفسية والتعامل مع القلق للمعلّمين.	1	2	3	4
	12-	is often unwilling or reluctant to pay enough attention to teachers' well-being during the change*. لا يُبدي استعدادا للاستماع للمعلمين والاهتمام بهم أثناء الجائحة.	1	2	3	4
	13-	participates in positive talks with teachers. يُشارك في أحاديث إيجابية مع المعلّمين.	1	2	3	4
Directive leadership (14-18)	14-	clearly informs teachers of the rules, expectations and responsibilities. يقوم بإبلاغ المعلّمين بالقرارات والتوقعات والمسئوليات بشكل واضح.	1	2	3	4
	15-	provides a detailed plan which teachers must follow. يقدم خطط تفصيليّة ليتم اتباعها من قبِل المعلّمين.	1	2	3	4
	16-	strictly monitors and supervises teachers to ensure the effective achievement of the goals. يقوم بمتابعة المعلّمين عن كثب لضمان تحقيق الأهداف بفعالية.	1	2	3	4
	17-	asks for regular detailed reports from teachers. يطلب تقارير تفصيلية من المعلّمين بشكل دوريِّ.	1	2	3	4
	18-	interferes with teachers' classroom management strategies and decisions. يتدخّل في استراتيجيات الإدارة الصفية لدى المعلّمين وقراراتهم.	1	2	3	4
laissez faire (19-23)	19-	gives teachers the space to find solutions for the challenges. يُتيح الفرصة للمعلّمين للتوصّل إلى أفضل الحلول في مواجهة التحديات.	1	2	3	4

	Strongly disagree	Disagree	Agree	Strongly agree
20- provides constructive feedback when necessary. يُقدم ملاحظات بنّاءة للمعلمين عند الضرورة.	1	2	3	4
21- provides supportive tools when necessary. يُوّفر الدعم للمعلمين عند الضرورة.	1	2	3	4
22- gives teachers maximized authority to make decisions without his/her control. يمنح المعلّمين الصلاحية القصوى لاتخاذ القرارات دون فرض السيطرة عليهم.	1	2	3	4
23- encourages teachers' creativity and innovation. يُشجع المعلّمين على الإبداع والابتكار.	1	2	3	4
*Reverse Scoring				

3.0 Teachers' Well-being رفاهية المعلّمين

The purpose of this section is to investigate teachers' well-being during the Covid-19 online teaching experience. The choices range from Strongly Disagree (1) to Strongly Agree (4). How well do the following statements describe you during the Covid-19 online teaching experience?

Description	Strongly disagree	Disagree	Agree	Strongly agree
24- I enjoy working from home. استمتع بالعمل من المنزل أثناء الجائحة.	1	2	3	4
25- I follow the principal's instructions with full excitement أحرص على اتباع إرشادات مدير المدرسة بكل شغف.	1	2	3	4
26- I feel contented during this experience. أشعر بالرضا أثناء العمل في الجائحة الحالية.	1	2	3	4
27- I am living the best time of my career life. أعيش أفضل وقت في حياتي المهنية.	1	2	3	4
28- I feel stressed during online meetings*. أشعر بالضغط أثناء التعليم عن بعد.	1	2	3	4
29- I get totally engaged in what I am doing . أندمج كلياً في الأعمال التي أقوم بها.	1	2	3	4
30- I am excited and interested in things. أشعر بالحماس والاستمتاع في الأشياء.	1	2	3	4
31- I feel isolated during this experience* أشعر بالعزلة في هذه الفترة.	1	2	3	4
32- I share my updates and concerns with my colleagues/friends/family members. أشارك الأهل/ الأصدقاء/ الزملاء بالمخاوف التي تساورني ومستجدات حياتي.	1	2	3	4
33- I have time to communicate and socialize with others. لدي الوقت الكافي للتواصل مع الآخرين.	1	2	3	4
34- I am satisfied with my relations with my colleagues. أشعر بالرضا تجاه علاقاتي مع زملائي.	1	2	3	4
35- I have a good relation with my principal لدي علاقة جيدة مع مديري.	1	2	3	4
36- I have a purpose to achieve. لدي هدف واضح لتحقيقه.	1	2	3	4
37- My job is still valuable despite the changes. مازالت وظيفتي ذات قيمة عالية على الرغم من التغييرات الحالية.	1	2	3	4
38- I have someone to guide me at work. لدي من يحرص على توجيهي في العمل.	1	2	3	4
39- I don't undertake tasks that are not listed in my KPI. * أرفض القيام بمهام إضافية غير مذكورة ضمن أهدافي السنوية.	1	2	3	4
40- I feel less productive during the pandemic. * أشعر بأنني أقل إنتاجية أثناء هذه الجائحة.	1	2	3	4
*Reverse Scoring				

Thank you for your valuable participation! شك