





Principal's learning-centred leadership practices and teacher's wellbeing: a self-determination theory perspective

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ABSTRACT

This study examines the role of learning-centred leadership practices of school principals towards the fulfilment of teachers' basic psychological needs, which, in turn, predict the wellbeing of teachers. The data was collected from 1124 teachers from 37 primary and secondary schools in Riyadh province of the Kingdom of Saudi Arabia. Structural equation modelling (SEM) was employed to test the hypothetical relationships. The results affirmed the significant effect of school principals' learning-centred leadership practices on teacher wellbeing via the fulfilment of teachers' basic psychological needs. The findings provide important insights into how learning-centred school leadership can provide a school environment that would ensure the positive wellbeing of teachers, which, in turn, would lead to better academic achievement of students.

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Introduction

The wellbeing of teachers is directly related to their teaching quality (Cherkowski, Hanson, and Walker 2018; Darling-Hammond 2000; Fleming, Mackrain, and LeBuffe 2013; Mankin et al. 2018; von der Embse et al. 2017) making it extremely critical for effective education. Effective teaching entails wide-ranging attributes, both cognitive and non-cognitive, including interpersonal skills, passion, empathy, and enthusiasm (Klassen et al. 2018; McInerney et al. 2018), which often overwhelm teachers. Teaching is considered an emotional endeavour that often leads to increased stress and psychological issues, resulting in the decline of teachers' wellbeing (Chang 2013; Desrumaux et al. 2015; Frenzel 2014; Keller et al. 2014; Skaalvik and Skaalvik 2018).

Work-related wellbeing refers to an individual's positive experiences and healthy functioning of their work environment (Van Horn et al. 2004). In other words, it facilitates understanding of the core aspects of teachers' work that either enhances or thwarts their wellbeing (Collie, Shapka, and Perry 2012). Teachers' work-related wellbeing is contingent on several factors such as personal goals and motivation, however in most cases, deterioration of work-related wellbeing of teachers cannot be attributed to teacher's personal

dispositions alone; more often than not, it is the consequence of an uncondusive work environment at school (Collie, Shapka, and Perry 2012; Pas, Bradshaw, and Hershfeldt 2012). Substantial empirical evidence points towards the definitive, at times direct role of school principal's leadership practices in determining the quality of work environment at school and is the key to teacher's wellbeing (Adams and Olsen 2017; Anyon, Nicotera, and Veeh 2016; Liu and Hallinger 2018; Zheng et al. 2017).

Self-determination theory (SDT) has made a phenomenal contribution by proposing actions, behaviours and ways to design work environments and conditions that facilitate the satisfaction of the three basic needs – competence, autonomy, and relatedness – for optimal outcomes and healthy functioning in workplace (Chen et al. 2015; Olafsen 2017; Kaur & Noman, 2020a). The past studies in SDT have established that there is a close link between the satisfaction of the three basic psychological needs (i.e. autonomy, competence, and relatedness) and employees' wellbeing (e.g. Baard, Deci, and Ryan 2004; Van den Broeck et al. 2010; Vansteenkiste et al. 2007).

Given the extensive evidence on the significant role of need satisfaction on employees' wellbeing within SDT, researchers have explored the mediating role of need satisfaction in relation to leadership style such as transformational leadership (Kovjanic, Schuh, and Jonas 2013), and transactional leadership (Hetland et al. 2011), and school principal support (Ford et al. 2019; Rothmann and Fouché 2018). These leadership models are explicitly known for their motivating style, which has followers and their wellbeing at the heart of its practice (e.g. Bass, 1999). However, it is not clear how leadership styles such as learning-centred leadership that focus on improving instruction, make a distinctive contribution to social contextual factors for teachers' wellbeing. Therefore, to advance our understanding of the influence of such leadership styles on social contextual factors for teacher wellbeing, the current study explores the influence of learning-centred leadership practices of school principals on teachers' wellbeing via satisfaction of basic psychological needs. The primary objective of the study is to examine whether the fulfilment of the basic psychological needs of teachers mediates the relationship between learning-centred leadership and teacher wellbeing.

Theoretical underpinning and hypothesis

Educational leadership theories and models

While scholars have been studying the phenomenon of educational leadership for decades and have proposed several leadership models, distributed leadership, transformational leadership and instructional leadership are the three most widely acknowledged models (Hallinger 2003, 2005; Leithwood and Jantzi 2005; Neumerski 2013; Tian, Risku, and Collin. 2016). Distributed leadership theory suggests several sources of influence in organisations, and proposes the concept of 'leader plus' while discussing leadership (Spillane 2006, 3). While the theory proposes multiple sources of influence within an organisation, it does not discount the existence of one central figure as the formal leader. In fact, the theory emphasises the need for a formal leadership position to provide active support for distributed leadership to happen and be sustained in an organisation (Ban Al-Ani, Bligh, and Bligh 2011). On the other hand, according to the primary postulation of transformational theory, "[a] transformational leader motivates us to do more than we originally expected to do" Bass (1985, 31). Transformational leaders inspire followers to

pursue a common goal and transcend their self-interest, thereby achieving what they never believed they were capable of achieving (Bass 1985; Northouse 2013). Transformational leaders inspire, stimulate, motivate and “morally uplift” their followers (Burns 1978) which is a behaviour contrary to the traditional transactional behaviours relying on contractual commitments. Instructional leadership, as conceived by Hallinger and Murphy (1985) consists of three components; defining the school mission, managing the instructional programme, and promoting a positive school learning climate. There is an emphasis on leader-centred leadership, which is in contrast to what distributed leadership model proposes. However, the instructional leadership model has gone through several changes during the last decade (Gumus and Akcaoglu 2013), and its modified form is often referred to as “learning-centred leadership” or “leadership for learning” (Bush, 2003; Hallinger and Liu 2016) during the last decade. According to Bush (2003), “the term ‘instructional leadership’ derives from North America and it has been superseded in England and elsewhere by the notion of ‘learning-centred leadership’” (p.17).

Learning-centred leadership and basic need satisfaction

Hetland et al. (2011), in their study exclusively established that transformational leadership and a component of transactional leadership are capable of fulfilling teachers’ basic psychological needs. However, such links have not yet been explored and established for learning-centred leadership, while the evidence suggests a plausible association between the two.

The concept of learning-centred leadership is derived from Hallinger and Liu’s recent conceptualisation of educational leadership (Hallinger and Liu 2016) which is based upon integrated dimensions drawn from various models of transformational leadership and instructional leadership (Hallinger and Murphy 1985; Leithwood, Patten, and Jantzi 2010; Printy 2008). Learning-centred leadership comprises of four main dimensions: (1) builds a learning vision, (2) modelling, (3) provides learning support, (4) manages the learning programme. To build a learning vision, a leader inspires teachers as learners and offer a meaningful purpose for their learning and school (Liu and Hallinger 2017; Qian and Walker 2013; Robinson, Lloyd, and Rowe 2008). It is known that when people in power positions communicate using informational language and provide a rationale and value for doing a certain task, it minimises the feeling of control and coercion (Jang et al., 2012; Reeve et al., 2002). Therefore, it is likely that this practice will facilitate the experiences of agency and self-control among teachers. Additionally, framing goals at the community levels and meaningfulness of tasks promote intrinsic value and purpose among employees to experience volition and a sense of purpose (Assor, Kaplan, and Roth 2002; Niemiec and Ryan 2009). Through modelling, leaders encourage teachers by participating in learning activities themselves and demonstrating the values of openness and collaboration (Barth 1990; Hallinger 2011; Leithwood, Patten, and Jantzi 2010; Abdulaziz, Noman, and Kaur 2020). By doing so, learning-centred leaders articulate goals to all the stakeholders through formal and informal ways and build relational trust and agency amongst themselves (Ryan & Deci, 2000).

To provide learning support, leaders utilise strategies and practices to inspire teachers using intangible support such as encouragement, trust, respect, care and tangible support such as resources, opportunities, time and feedback (Drago-Severson 2012; Qian and Walker 2013; Geijsel et al. 2009). Within SDT, appropriate and timely feedback and

encouragement for accomplishing tasks are central to competence need satisfaction. Demonstrating care and provision of support (tangible or intangible) are associated with relatedness need fulfilment within SDT literature (Kaur and Noman 2020b; Reeve and Jang 2006). A learning-centred leader manages the learning programme through teacher development activities while ensuring that the activities are aligned with teachers' needs. They work proactively, mainly at a personal level (class observation and personal counselling), to remove the barrier and provide appropriate support for teachers' to achieve their goals (Drago-Severson 2012; Robinson, Lloyd, and Rowe 2008; Wang 2016; Zhao 2010; Kaur and Noman 2020a; Noman, Awang Hashim, and Shaik Abdullah 2018). Therefore, in line with SDT's assumptions, these practices enable the building of a trusting, respectful and empathic work environment at school which inspires teachers to take charge and exercise their agency and feel connected to the school as a community (Assor, Kaplan, and Roth 2002; Reeve and Jang 2006; Kaur and Noman 2020b). Additionally, learning-centred leaders are known for their deep involvement in the instructional programme of the school, therefore, principal-teacher conversations around teaching and learning frequent, rich, and provide performance information (Murphy et al. 2006). Thus, the conversations in safe environments that communicate task performance and feedback to teachers help build competence in teachers for undertaking challenging tasks (Reeve and Halusic 2009). The professional learning community developed by learning-centred leaders along with teaching excellence, enhance connectedness and a sense of belongingness among teachers.

Furthermore, the literature on learning-centred leadership (Hallinger, Piyaman, and Viseshsiri 2017; Hallinger, Liu, and Piyaman, . 2017; Liu, Hallinger, and Feng 2016) provides strong evidence for these practices in predicting teachers agency and trust and high quality of learning. Trust in these studies is operationalised as a psychological state where employee report high-quality emotional bonds and enhanced interpersonal relationships which is very close to the operationalisation of the need for relatedness in SDT (Ryan & Deci, 2000). On the other hand, the agency is defined as demonstrating ownership for achieving one's goals by becoming 'initiators of meaningful change in their schools' (Hallinger, et al., p.466) and this construct reflects the intrinsic and volitional value of the construct of autonomy need satisfaction in SDT (Ryan & Deci, 2000). Thus, we postulate that learning-centred leadership will predict teachers basic need satisfaction (H1).

Leadership and wellbeing

Wellbeing was found to be a complex, multi-faceted construct (Pollard and Lee 2003) and considered to be intangible, challenging to define and difficult to measure (Thomas 2009). While scholars refer to several agreeable definitions of wellbeing in the literature using terms like 'life satisfaction' and 'happiness' (Tov and Diener 2009), Deci and Ryan (2011) definition of wellbeing as "open, engaged, and healthy functioning" (p.47) is more widely accepted for work domain, including teaching (Collie et al. 2015) as it is domain-specific and presents a broader definition of human flourishing from eudemonic wellbeing (Huppert and So 2013) and psychological wellbeing (Ryff 1989) perspective which is a "combination of feeling good and functioning effectively" (Huppert and So 2013, 1).

Domain-specific wellbeing, also known as work-related wellbeing, is the positive perception and evaluation of a healthy work environment of an individual (Van Horn et al. 2004). For this study, we use the three dimensions of teacher wellbeing as proposed by (Collie et al. 2015) to gain a better understanding of what aspects of teaching work facilitates or thwarts teacher wellbeing in terms of stress, anxiety or burnout proposed in traditional measures of teacher wellbeing.

The scale measures teachers' wellbeing in three areas – Organisational wellbeing, Workload wellbeing and Student wellbeing. Organisational wellbeing refers to the effects of the work environment-related issues “such as relations and communications between teachers and administrators, support and recognition offered by administrators, participation in decision-making by teachers, and the school rules and procedures in place” (Collie 2014, 59). Learning-centred leaders build a healthy school climate by encouraging teachers to work as a professional community which is “deeply rooted in the academic and social learning goals of the schools” (Goldring et al. 2007, 7–8). They make certain that teachers have great camaraderie and work collaboratively to enhance instructional methods (Louis et al. 2010, 50). Better work climate in schools lead to a sense of higher wellbeing among teachers (Collie 2014). Workload wellbeing refers to the effects of quality and quantity of teaching duties “such as marking assignments, attending meetings, and working after hours” (Collie 2014, 57). Finally, student interaction wellbeing refers to the effect of “teachers' relations with their students, student behaviour, student motivation, and classroom management” on teacher's wellbeing (Collie 2014, 60). By highlighting the relevance of teachers' psychological functioning in the workplace, Collie and colleagues examined experiences of 485 Canadian school teachers of their basic need satisfaction at school, which in turn predicted teachers' wellbeing in the three areas – organisational wellbeing, workload wellbeing and student wellbeing (Collie et al. 2016).

The extensive body of empirical research on leadership in multiple disciplines has established that the quality of leadership practices significantly determines employees wellbeing (e.g. Eisenberger & Stinglhamber 2011; Gagne' & Deci, 2005). Specifically, studies in leadership have shown that “some leadership styles seem to be better suited to increase motivation and wellbeing among employees than others” (Hetland et al. 2011, 508).

Studies, specifically in educational leadership have also purported that school principals are responsible for ensuring that teachers remain in the best of their psychological health to be able to perform optimally. For example, Eyal and Roth (2010) in their study explained how leadership styles enable school principals to facilitate teachers' motivation, which in turn predicts their wellbeing. Ford et al. (2019) demonstrated that leadership practices that provide intrapersonal, interpersonal, and organisational support can contribute significantly towards teachers' wellbeing. Konu, Viitanen, and Lintonen (2010) studied teachers wellbeing across elementary, lower secondary and unified schools and found out that the schools that reported effective leadership practices also reported higher wellbeing. Moreover, scholars have also argued that school leadership practices, specifically instructional leadership, can significantly shape students' wellbeing to a great extent (Adams and Olsen 2017; Waters 2017). Based on this evidence, we hypothesised that **learning**-centred leadership will predict teacher's wellbeing (H2).

Need satisfaction as a mediator

Self-determination theory (SDT) postulates that all individuals possess natural, innate, and constructive propensities for self-development through the satisfaction of their three basic psychological needs, namely autonomy, relatedness, and competence (Ryan & Deci, 2000). These needs are “innate psychological nutriments that are essential for ongoing psychological growth, integrity and wellbeing” (Ryan & Deci, 2000, p.229) and are universal, irrespective of cultures, periods and contexts (Ryan & Deci, 2000). The need for autonomy is the individual’s desire for self-endorsed behaviour, the need for relatedness is the sense of belonging with a community or organisation while the need for competence refers to the sense of being able to carry out tasks effectively. Ryan and Deci (2008) claim that fulfilment of three basic needs of an individual leads to enhanced wellbeing which leads to “optimal psychological functioning and experience” (Ryan and Deci 2001, 142).

Studies have shown that school leadership affects teacher wellbeing indirectly, by creating conditions that healthy, supportive and optimal for teachers’ functioning (Eyal and Roth 2010; Gillet et al. 2012; Panaccio and Vandenberghe 2009) rather than directly. Therefore, the link between the two has an underlying mechanism to explain the indirect association.

Work Organisation scholars have heavily relied on the satisfaction of the three basic psychological needs (i.e. autonomy, competence, and relatedness) as an explanatory mechanism between managerial practices and employees’ wellbeing (e.g. Baard, Deci, and Ryan 2004; Van den Broeck et al. 2010; Vansteenkiste et al. 2007). Similar trend is noticed in educational leadership studies, for example, For instance, Rothmann and Fouché (2018) showed that teacher’ perceptions of the degree of principal support for autonomy, relatedness and competence predicted their satisfaction of the needs for autonomy, competence, and relatedness, which in turn predicted teachers’ engagement and intention to leave. This underlying mechanism explains that when managers behaviours create a positive and supportive environment at the workplace leads to the fulfilment of the three basic psychological needs – autonomy, competence and relatedness – of an individual (Avci, Bozgeyikli, and Kesici 2017; Deci & Ryan, 2000). On the other hand, the perception of inadequate support by the employees negatively affects the need fulfilment or lead to need frustration which in turn, diminishes an individual’s wellbeing (Deci and Ryan 2011; Ryan & Deci, 2000). Several studies (Bassi and Fave 2012; Liu, Huan, and Miao 2018; Parker et al. 2012) found that teachers who are allowed autonomy by their leaders in their professional goals are also more engaged, resilient and demonstrate a high level of wellbeing. Teacher wellbeing is at its optimum when teachers experience control over their work, are intrinsically motivated and goal-oriented and are not driven by external motivators (Ryan & Deci, 2000). Thus, we hypothesised that teachers’ basic need satisfaction will mediate the relationship between Learning-centred leadership teachers wellbeing (H3).

Methods

Participants and procedures

The current study can provide valuable insights into the role of learning-centred principals to create a conducive work environment for teachers and, for them to feel motivated

and committed for students' learning as well as their maintain their work-related wellbeing.

The study employed a cross-sectional survey design to collect data for the variables proposed in the hypothetical model. In cross-sectional survey studies, a large amount of data could be used for collecting data for a variety of variables at one point of time and is not geographically bound (Bourque 2004). This design suited well for this study. A total of 1124 teachers (50.80% males and 49.20% females) across 37 schools (rural and urban) in the province of Riyadh, Saudi Arabia. Table 1 summarises the demographic information of the respondents. The data were collected after obtaining ethical permission from the local education office. From the schools that were contacted, 37 schools agreed to participate in the study. Teachers were informed explicitly that their participation was optional and voluntary. Out of a total of 1451 teachers, 1146 teachers responded, representing a response rate of 80%. The response rates ranged between 65% and 95%. Upon scrutiny of data, 22 responses were found to be incomplete or invalid hence they were not included in the final analysis. As a result, a total of 1124 responses were analysed.

Measures

Our data collection instrument consisted of a combination of well-established instruments for measuring learning-centred leadership, teacher wellbeing and teacher's basic needs, which were all originally in the English language. We translated the instrument from the English language to Arabic and carried out content validation procedures to ensure that the translation was accurate and was easily understood by the respondents. For translation purposes, we employed Brislin's (1970) method. An expert translator who was an educator translated the instruments from English into Arabic. Then the Arabic version of the instrument was translated back to English by another expert. We then consulted four experienced educators (1 leader and 3 teachers) to compare the translated version in English with the original English version instruments for accuracy and minor adjustments were made before the Arabic version was deemed fit.

Table 1. Demographic information of the respondents (n = 1124).

		n	%
Gender	Male	571	50.80
	Female	553	49.20
Age (In Years)	<25	191	17.0
	26–40	581	51.7
	41–60	352	31.3
Education	Pre-University	149	13.3
	Bachelor	763	67.9
	Master	212	18.8
School Level	Secondary School	668	59.4
	Primary School	466	40.6
Location	Urban	642	57.1
	Rural	482	42.9

Learning-centred leadership

To measure Learning-Centred Leadership, the instrument employed by Hallinger and Liu (2016) was utilised (LCL), which consisted of 24 items. This instrument is derived from several instruments developed by scholars to measure various leadership models (Hallinger and Murphy 1985; Leithwood, Patten, and Jantzi 2010). The instrument consists of four factors, namely Learning Vision (six items, e.g. “my principal communicates a learning vision with teachers”), Learning Support (eight items, e.g. “my principal rewards teachers who participate in ongoing professional learning”), Learning Programme (five items, e.g. “my principal makes regular visit to monitor teachers”) and Modelling (five items, e.g. “my principal displays energy and enthusiasm for learning”), which have been included in this study. All items were scored on a Likert scale of 1 to 7 wherein a higher score indicated a stronger presence of the factors. Cronbach’s alphas were computed, and the results revealed good reliability with the value of .95 for learning vision, .96 for learning support, .95 for learning programme, and .96 for modelling and .91 for the scale. To establish the construct validity of the scale, a 4-factor Confirmatory factor analysis (CFA) was run which provided a good fit with values these values: $\chi^2(165) = 1612.3$, Root Mean Square Error of Approximation (RMSEA) = .07, Standardised Root Mean Square Residual (SRMR) = .01, Normed Fit Index (NFI) = .96, and Comparative Fit Index (CFI) = .96.

Teacher Wellbeing scale

Wellbeing in this study refers to open, engaged, and healthy functioning as a teacher. In order to measure teacher wellbeing, the instrument Teacher Wellbeing Scale (TWBS) developed by Collie et al. (2015) was used. The TWBS consists of 16 items and measures three factors of wellbeing, namely Workload wellbeing, Organisational wellbeing and Student interaction wellbeing. The TWBS is rated by the teachers on a Likert scale 1–7 scale ranging from Negatively (1), Mostly negatively (2), More negatively than positively (3), Neither positively nor negatively (4), More positively than negatively (5), Mostly positively (6), to Positively (7). Teachers were asked to indicate the degree (ranging from negatively to positively) to which different aspects of teaching work affect their wellbeing as a teacher. A stem was included in the opening question: “Currently, how do the following aspects of being a teacher affect your wellbeing as a teacher? e.g. Workload wellbeing (six items, e.g. “fitting everything into the allotted time”), Organisational wellbeing (six items, e.g. “participation in school-level decision making”) and Student interaction wellbeing (four items, e.g. ‘relations with students in my class). Cronbach’s alphas for each factor was computed and the results revealed good reliability with the value of .91 for workload wellbeing, .90 for organisational wellbeing, and .84 for student interaction wellbeing and 0.94 for the scale. To establish the construct validity of the scale, a 3 factor CFA was run which provided a good fit with values these values: $\chi^2(42) = 477.1$, SRMR = .03, RMSEA .08, NFI = .95 and CFI = .95.

Basic psychological needs at work

The basic Psychological Needs at Work (BPNWS) scale developed by Ryan and Deci (2000) was used. The scale concerns employees’ feelings about their work and measures

Table 2. Descriptive statistics.

Variables	LCL	BPN	WWB	OWB	SWB
Learning-centred leadership (LCL)	1				
Basic psychological needs (BPN)	.48	1			
Workload wellbeing (WWB)	.60	.44	1		
Organisational wellbeing (OWB)	.70	.44	.86	1	
Student wellbeing (SWB)	.57	.43	.83	.84	1
Mean	4.95	4.88	5.01	5.05	4.98
Standard deviation	1.59	1.63	1.61	1.58	1.66

Note: All correlations are significant at $p < .000$.

their experiences of need fulfilment on their job. This scale has 21 items and measures the three factors of basic psychological need satisfaction at work, namely Autonomy (seven items, e.g. “I feel pressured at work”), relatedness (eight items, e.g. “I really like the people I work with”) and Competence (six items, e.g. “when I am working, I do not feel very capable”). All three factors were measured for this study on a Likert scale of 1 to 7 wherein a higher score indicated a stronger presence of the factors. Cronbach’s alphas were computed and the results revealed good reliability with the value of .81 for autonomy, .90 for relatedness, .78 for competence and .92 for the scale. All the three scales in the instrument employed a seven-point Likert-type scale (1–7) wherein a higher score indicated a stronger presence of the factors. To establish the construct validity of the scale, a 3 factor CFA was run which provided a good fit with these values after deleting few items that did not fit: $\chi^2(62) = 1606.1$, SRMR = .03, RMSEA .08, NFI = .95 and CFI = .96.

Data analysis

Before hypotheses testing, the data were checked for the presence of outliers and missing values using SPSS 22. Next, descriptive statistics and correlations among all variables were conducted (see Table 2). The model adequacy was assessed with structural equation modelling (SEM) using AMOS 23 and the maximum likelihood method was used to estimate parameters.

To test the goodness fit of the models to the data, the following indices were used: the Comparative Fit Index (CFI), the Normed Fit Index (NFI), the Standardised Root Mean Square Residual (SRMR) and the Root Mean Square Error of Approximation (RMSEA). RMSEA values of less than or equal to .08 and .05 are considered evidence of adequate and good fit, respectively (Schumacker and Lomax 2010). An SRMR value of less than .08 is generally considered a good fit (Hu and Bentler 1999). CFI and the NFI equal to or larger than 0.90 represent an acceptable fit (Kline 2011).

Findings

For this study, the proposed model comprised of five latent variables Learning-centred leadership, Basic psychological needs, Organisational wellbeing, Student wellbeing and Workload wellbeing. Learning-centred leadership was measured using four observed variables (24 indicator items in all). Basic psychological needs were measured using

three observed variables (21 indicator items in all) while wellbeing was measured by three latent variables (16 indicator items in all). However, for the brevity sake, the final model only shows the five latent variables.

We began with testing of indirect paths only from LCL to OWB, WWB, SWB via BPN. All the paths were found to be significant at $p < .000$ and the model fit values were: $\chi^2(163) = 1867.5$, $\chi^2/df = 11.45$, $p < .000$, RMSEA .09, SRMR = .13, CFI = .91 and NFI = .91. However, when direct paths from LCL to OWB, WWB, SWB were added, the model (Figure 1) yielded a better fit to the data with the values: $\chi^2(160) = 1483.0$, $\chi^2/df = 9.26$, $p < .000$, RMSEA .08, SRMR = .05, CFI = .93 and NFI = .92. The result shows that Learning-Centred Leadership had direct and significant effects on Organisational Wellbeing ($\beta = .50$, $p < .001$), Workload Wellbeing ($\beta = .50$, $p < .001$), and Student Wellbeing ($\beta = .63$, $p < .001$).

The results also show that Learning-Centred Leadership positively predicted Basic Psychological Needs ($\beta = .55$, $p < .001$) which in turn significantly predicted Organisational Wellbeing ($\beta = .25$, $p < .001$), Workload Wellbeing ($\beta = .24$, $p < .001$), and Student Wellbeing ($\beta = .18$, $p < .001$) of teachers. To verify the significance of indirect effects, we acquired 2000 bootstrapped estimates of the variable paths between Learning-Centred Leadership and Teacher Wellbeing at a 95% confidence interval. Preacher and Hayes (2008) recommend this as a robust approach for assessing the size of the effects, obtaining confidence intervals for variable paths, and establishing significance levels for the paths.

The analysis revealed significant indirect effects at $p < .005$. The results confirmed the mediating role of basic need satisfaction between LCL and Organisational Wellbeing ($\beta = .09$, CI = .13 – .06), between LCL and Workload Wellbeing ($\beta = .13$, CI = .17–.10), and between LCL and Student Wellbeing ($\beta = .13$, CI = .17–.09). Total variance explained

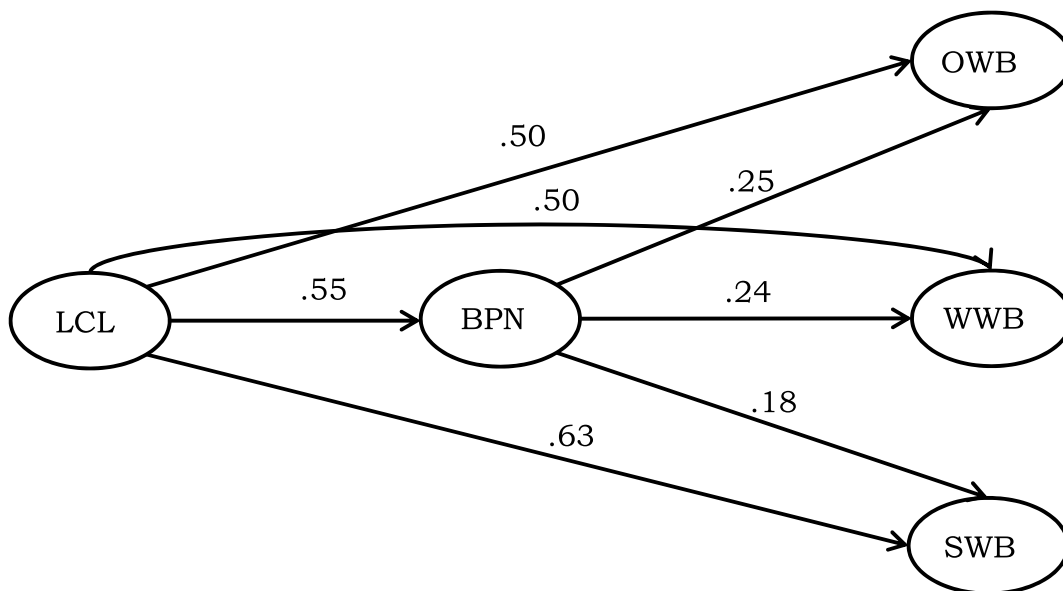


Figure 1. Graphic portrayal of the mediational model. The reported standardised coefficient is significant at $p < .001$. ($n = 1124$). Note- LCL - Learning-centred leadership; BPN - Basic psychological needs; OWB -Organisational wellbeing; WWB-Workload wellbeing; SWB; Student Interaction well-being; BPN- basic psychological needs.

for each of the endogenous variables was 30% for BPN, 55% for Organisational Wellbeing, 45% for Workload Wellbeing and 44% for Student Wellbeing.

Discussion and conclusion

The present study was conducted to test the mediational model between Learning-Centred Leadership and Teacher Wellbeing via Basic Psychological Needs satisfaction. The results clearly inform that there is indeed a significant positive effect of LCL on Teacher Wellbeing and that it is mediated by teachers' Basic Psychological Needs satisfaction. The encouraging findings of this study from the Kingdom of Saudi Arabia support the broader international literature of learning-centred leadership practices of school principals in facilitating enabling factors for teachers to be effective and lead to better academic outcomes (Desrumaux et al. 2015; Frenzel 2014; Keller et al. 2014; Skaalvik and Skaalvik 2018). Studies from around the world have demonstrated that leadership practices of school principals play a decisive role in teachers' effectiveness leading to better academic achievement of their students (Cherkowski, Hanson, and Walker 2018; von der Embse et al. 2017). There is also ample evidence that school principals are the key to teacher wellbeing (Adams and Olsen 2017; Anyon, Nicotera, and Veeh 2016) and school principals that focus on learning-centred leadership invariably lead to better learning outcomes (Noman, Awang Hashim, and Shaik Abdullah 2017, 2018; Liu and Hallinger 2018; Zheng et al. 2017).

The findings confirmed our first hypothesis that LCL will predict basic psychological needs satisfaction of the teachers. The findings highlighted the mechanism of how principals' leadership practices determine the wellbeing of teachers through the fulfilment of the basic psychological needs of their teachers. The successful basic psychological needs fulfilment of professionals in organisational cultures can be a potential way forward for educational leadership development in Asian settings, which was demonstrated by the findings of this study. Learning-centred leaders fulfil these needs by providing them with an environment wherein teachers feel empowered in not only making decisions related to the teaching and learning process but also improving their skills through formal and informal learning (Liu, Hallinger, and Feng 2016). If individuals experience the satisfaction of their basic psychological needs, they experience positive wellbeing, their actions are autonomously motivated and produce better outcomes (Olafsen 2017). The findings also confirmed our second hypothesis that LCL predicts higher wellbeing among teachers. Teachers with a better sense of wellbeing feel good about themselves and are less stressful leading to professional effectiveness (Ryan & Deci, 2000). LCL, with its four dimensions drawn from established educational leadership models like transformational leadership and instructional leadership (Hallinger and Murphy 1985; Leithwood, Patten, and Jantzi 2010; Printy 2008) influences teachers' wellbeing through their vision enactment, providing learning support, management of learning program, and setting examples through modelling.

And finally, the findings also confirmed our third hypothesis that the fulfilment of basic psychological needs of the teachers mediates between LCL and teachers' wellbeing. When the basic psychological needs are met, teachers feel autonomous, positively disposed and develop an increased self-perception of their wellbeing status (Ryan & Deci, 2000). The indication that the effects of LCL practices of school principals on teacher

wellbeing are achieved through the fulfilment of teacher's basic psychological needs offers an important insight with implications for school leadership in general and school leaders in the Kingdom of Saudi Arabia in particular. Saudi Arabia is a collectivist society with a high score for power distance (95) and low on individualism (25) on Hofstede's scale (Hofstede, Hofstede, and Minkov 2010). In collectivist cultures, respect for seniority and hierarchy are important aspects of their work culture (Kaur & Noman, 2015). This results in teachers being largely distant from decision-making in school matters while the principals function in a controlled and autocratic way. These challenges are common in all collectivist cultures and several scholars have proposed using leadership practices to be drawn from other cultures and merged with their own (Dimmock and Walker 1998; Hallinger and Heck 1996; Noman and Gurr 2020).

The Kingdom of Saudi Arabia is amid massive educational reforms which aim to move away from the traditional, hierarchical form of educational management that has hindered their education system for a long time. If the practices of school principals in a collective society like Saudi Arabia is more learning-centred, they would be able to overcome the barriers created by these traditional, hierarchical traditions and create an environment that would satisfy the basic psychological needs of the teachers which would lead to their better wellbeing resulting in the betterment of the educational outcomes. School-level decentralisation, with more involvement of teachers in decision making, focus on learning and a better school environment would help in increasing the general wellbeing of teachers which will complement the efforts of the educational reforms.

While the findings of this study were significant, particularly for school principals and policymakers in the Kingdom of Saudi Arabia, it should be kept in mind that the data were not representative of all Saudi schools. While the sample size was large, the study was still limited to data collected from teachers in one province of the Kingdom. Moreover, school size, teachers' gender and work experience, geographic location of the school and the effects of gender segregation in schools may also contribute to differences in the fulfilment of basic needs and teachers wellbeing. It is therefore recommended that future studies must also include those confounding variables in their studies to make the findings more meaningful. It should also be noted that there are predictive limitations of cross-sectional studies like the current study. It is recommended that further studies may be focussed on longitudinal design to be able to give a more accurate prediction of the cause and effect of the variables over a period of time.

School principals are key drivers of success for a school and their success largely depends upon the performance of teachers under their care. For teachers to be effective, they must have a positive perception of their psychological wellbeing. School principals, through their practices, can create a school climate that will lead to the positive wellbeing of teachers. The findings of this study emphasise that school principals need to orient their learning-centred leadership practices in such a way that fulfils the basic psychological needs of teachers which, in turn, leads to teachers' wellbeing. However, before putting all the responsibility of improving teachers' wellbeing on the practices of school principals, one should keep in mind the suggestions of Berryhill, Linney, and Fromewick (2009) who cautioned that "making changes in individuals when the system is part of the problem leaves basic structures intact and is unlikely to affect the problem . . . Therefore, policymakers should consider making changes for teachers rather than in teachers" (p.9).

It thus implies that teacher wellbeing is not a simple issue but rather a complex one that needs to be addressed holistically. While school principals still play an important role, there is room for improvement in the systemic policies that govern schools. Teacher wellbeing needs to be perceived as a shared responsibility that works best in partnership between school leaders with relevant authorities, policymakers and educational leaders. Rather than working with a deficit mindset and focussing on negative aspects like reducing work-related stress and burnout, efforts should be made on creating a positive school climate and sense of empowerment among teachers which will eventually lead to a better sense of wellbeing.

Disclosure statement

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