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Item Type	Article
Authors	McHugh, Rita
DOI	10.1080/13603124.2023.2218112
Publisher	Informa UK Limited
Download date	2026-06-18 08:12:08
Item License	http://creativecommons.org/licenses/by/4.0/
Link to Item	http://hdl.handle.net/20.500.13012/164



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To cite this article: Rita McHugh (2023): A six-component conceptualization of the psychosocial well-being of school leaders: devising a framework of occupational well-being for Irish primary principals, International Journal of Leadership in Education, DOI: [10.1080/13603124.2023.2218112](https://doi.org/10.1080/13603124.2023.2218112)

To link to this article: <https://doi.org/10.1080/13603124.2023.2218112>



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Published online: 13 Jun 2023.



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A six-component conceptualization of the psychosocial well-being of school leaders: devising a framework of occupational well-being for Irish primary principals

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ABSTRACT

Drawing on a multidimensional conceptualization of occupational well-being, this mixed methods study aimed to ascertain levels of psychosocial well-being of a sample of Irish primary principals ($n = 488$). A Framework of Occupational Well-Being was devised which facilitated the first psychometric measurement of their levels of burnout, job satisfaction, trait mindfulness, work motivation, perception of fairness and the satisfaction/frustration of basic psychological needs (autonomy, competence and relatedness). Subsequent interviews provided supporting qualitative data and an evaluation by principals of the current management structure of Irish primary schools, 90% of which are governed by Catholic Boards of Management to whom principals are answerable in all their professional decision making. As employers, Boards' compliance with EU and Irish Occupational H&S directives is examined toward an understanding of the level of protection provided to principals. Results reveal high levels of burnout, anxiety, depression and autonomy frustration among principals alongside low levels of trait mindfulness and low perception of fairness regarding workload and remuneration. Beyond its application in the education sector, the Framework of Occupational Well-Being may prove useful for policy makers and as an assessment tool for employers of other white-collar workers as it provides both a definition of psychosocial well-being and a means by which to measure it

Introduction

This study presents an original, multidimensional conceptualization of occupational well-being comprising a six-component Framework of Occupational Well-Being (FOW-B). It was devised for a mixed methods PhD study ($n = 488$) which, through a survey, aimed to psychometrically measure levels of psychosocial well-being of Irish primary school principals (headteachers). The study represents the first comprehensive psychometric measurement of this under-researched cohort's occupational well-being.

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Responsibility for principals' occupational well-being rests with school Boards of Management (BOMs), as their employers, under Ireland's Safety, Health and Welfare at Work (SHWW) Act (2005). Accordingly, results from the online survey, combined with subsequent qualitative findings from interviewing of principals ($n = 20$) additionally served to evaluate the effectiveness of school boards of management in protecting principal well-being within their work environment. The FOW-B measured their levels of occupational burnout, satisfaction/frustration of basic psychological needs in the workplace, levels of work motivation, job satisfaction, dispositional mindfulness and their perceptions of organizational justice (perception of fairness). While this paper overviews findings for all six FOW-B components, it predominantly focuses on occupational burnout as alarming levels were uncovered among principals raising concerns not only for their physical and mental health, but also for their ability to effectively execute their school leadership role while experiencing very high levels of both personal and work-related burnout.

International research on school leadership suggests the role of the principal has become increasingly complex and challenging for, as highlighted by Fullan (2014), the role has experienced critical changes since the beginning of the 21st century. Research has highlighted the physical impact of working long hours, the escalation and extension of work and the emotional intensity experienced by principals in the workplace (Heffernan & Selwyn, 2021). Bush (2022) highlights that despite the normative preference for shared school leadership, principals retain primary responsibility for improving school performance, student learning and student welfare, which can be both stressful and time intensive (Stone-Johnson & Weiner, 2020). A recent international scoping review of the literature on principal challenges between 2003 and 2019 identified several stressors including leading teaching and learning, and autonomy needs relative to navigating education-related policy and authorities while facing increased pressures from families, the school community and wider society (Tintore et al., 2022). The 2018 *Australian Principal Occupational Health, Safety and Well-Being Survey* uncovered that principals report 1.5 times higher job demands, 1.6 times more burnout, 1.7 times more stress, 2.2 times more sleep disturbance and 1.3 times more depressive symptoms than the general population (Riley, 2019). Additionally, Dicke et al. (2018) found that Australian principals' work stressors and depression were related to job demands, while role confidence and autonomy were related to principal well-being. From an emotional perspective, Dor-Haim and Oplatka (2020) report there are health and well-being consequences for principals resulting from their identities being deeply entwined with their work. Heffernan et al. (2021) report that across a range of disciplinary perspectives, there is clear evidence that principals' work is impacting their health and well-being with the emotionally intensive nature of the role being a contributory factor. Kelly (2022) warns of a global crisis of recruitment and retention of school leaders as many principals leave the profession due to poor working conditions and overwhelming levels of work-related stress.

While there is a paucity of academic research specific to primary principal well-being in Ireland, some related research, commissioned by principals' representative bodies the Irish National Teachers' Organisation (INTO) and the Irish Primary Principals' Network (IPPN), has highlighted a variety of challenges facing Irish school leaders, such as increased demands for documentation and insufficient administrative support (Irish

National Teachers' Organisation [INTO], 2015). Evidence of bullying emerged with 48% of teachers being undermined, 56% being verbally abused at work and 35% being ignored by colleagues (Irish National Teachers' Organisation [INTO], 2000). IPPN-commissioned research conducted by Drea and O'Brien (2002) found primary principals consistently exceeded their contracted working hours while attempting to manage their workload. Collectively principals were found to score lower than average for well-being and quality of life than the general Irish population (Riley, 2015). Current figures show that there has been an increase in Irish principals' use of prescription medications from 18% in 2015 to 40% in 2022 with 39% of principals reporting diagnoses of stress-related medical conditions (McCumiskey, 2022). Research conducted on behalf of the Teaching Council of Ireland by Darmody and Smyth (2011) reported 45% of primary teachers and 70% of primary principals experience occupational stress with levels of principal stress exacerbated by poor administrative support. Russell et al. (2016) surveyed Irish employees for the incidence of work-related stress, anxiety and depression (SAD) and found that education sector employees represented the highest risk group for SAD-related illness. They recommended targeting employer groups in the high-risk sectors for support in conducting audits of work-related risks for SAD as 50% of employers admitted not knowing how to assess SAD risks among employees. These findings echo other European studies where burnout levels among education sector workers in both the Netherlands and the UK are higher than in other sectors (Beusaert et al., 2016). Other Irish research highlights the blurring of personal and professional boundaries for principals while navigating multiple work demands without formal preparation for the role (Stynes & McNamara, 2019). On this point, Murphy (2020) advises that training is particularly needed for administrative and financial duties, conflict management and resolution, managing challenging behaviors, and shared leadership practices. Brennan and Mac Ruairc (2017) found that principals in Irish disadvantaged schools in high-poverty areas exhibit significant emotional investment in the lives of their pupils to provide a safe and secure learning environment in their pursuit of social justice. This highly emotionally charged work environment can have a numbing effect, draining leaders' emotions. Zembylas (2010) similarly attests that leadership for social justice brings emotional complexity to the job, while Heffernan et al. (2021) conclude that the work of leadership comes at a cost to those employed in the role. Ireland's Department of Education and Skills (DES) published its *Action Plan for Education 2016–2019* which outlined measures to support student well-being but failed to include any measures to support teacher/principal well-being. This oversight is significant in terms of the level of stress associated with principalship with Chamorro-Premuzic (2020) cautioning that leaders' stress levels have a direct impact on employees' stress and anxiety levels affecting both their physical and emotional well-being. Kelly (2022) warns of the unsettling effect that principal turnover has on schools with teachers then more likely to also retire or move schools and student achievement declining. Kelly reminds that schools with long-serving principals are more likely to successfully implement school improvement measures. In their recent report *How Principals Affect Students and Schools: A Systematic Synthesis of Two Decades of Research*, Grissom et al. (2021) highlight the need for investment in principal well-being and concur that effective principals positively impact student achievement and attendance as well as teacher satisfaction and retention. Khalifa (2012) highlighted the important role played by principals in connecting with and

understanding the wider school community, especially in underprivileged areas, which positively impacts student achievement and community climate. This necessitates principals moving beyond the familiarity of the school walls in order to forge connections and gain an understanding of the community's unique social and cultural conditions. It is fair to assume that in doing so, principals must rely on their own set of interpersonal skills, as training in the nuances of successful school community outreach is not provided in Irish teacher training courses. Hence, navigating school community relationships is emotionally demanding on the principal who, nevertheless, knows the importance of creating and sustaining these relationships and the far-reaching positive impacts they bring to the successful functioning of the school in supporting student achievement and well-being.

Occupational health and safety legislation and school management

Referred to as the Framework Directive, the *European Framework Directive 1989/391/EEC* overshadows all EU member states' occupational safety and health (OSH) legislation and establishes general principles for managing H&S, such as employer responsibilities, employee rights and duties and risk assessment procedures (Brueck, 2020). Deriving from the Framework Directive, Ireland's *SHWW Act (2005)* obliges Irish employers to identify workplace hazards and inform employees of any potential or specific risks to their welfare, which their work may involve. Employers must also put in place preventative and protective measures to eliminate or curtail potential health hazards. Accordingly, significant evidence of work-related illness amongst Irish primary principals resulting from this study may point to an inherent failing in this historical Irish school management model in its legal capacity to protect employees from workplace health threats. In their EU Report *Evaluation of the EU Occupational Safety and Health Directives – Country Summary for Ireland*, Graveling and Winski (2015) conclude that it is not possible to accurately describe the degree of Irish compliance with EU OSH directives 'as this would mean closer scrutiny of the different sources of information, which are unfortunately not available or not existent' (p. 113).

As Ireland predominantly upholds a dichotomous Church-State school management model, 90% of the country's 3,106 (Department of Education and Skills [DES], 2020) state-funded primary schools are governed by the Catholic Church, through Catholic BOMs, which are answerable to the local Catholic bishop (patron). Principals, in turn, report to their BOM regarding all their professional decision-making. BOMs typically comprise two bishop's representatives [including the chairperson] appointed by the bishop, two parents, two local community representatives, the principal and one other teacher. BOMs receive no formal training in education management or occupational H&S legislation, which raises questions regarding their faculty to support the school principal in their leadership role and in protection of employee welfare. Moreover, while the BOM workload is intended to be evenly shared amongst members, the lack of formal training and disparity between individual BOM's collective skillset frequently results in principals bearing primary responsibility for school administration. With two thirds of Irish primary principals also holding full teaching duties, Irish Primary Principals' Network (IPPN, 2013) report that these classroom-based *teaching principals* (as opposed to non-teaching office-based *administrative principals* of large schools) are in an unhealthy workplace considering their workload of full teaching duties alongside

primary responsibility for the administrative functioning of the school, conducted, for the most part, on an unpaid basis in their spare time.

Occupational well-being

At international level, the WHO Healthy Workplace Initiative (Burton, 2010) delineates four avenues of workplace well-being: (i) physical work environment, (ii) personal health resources, (iii) psychosocial work environment, and (iv) enterprise community involvement. And while all four avenues are described as being of equal status, Kortum (2014) considers that attention to employees' psychosocial work environment is largely ignored through not being clearly defined in OSH legislation. Suggested interventions from WHO's Healthy Workplace Initiative to support a healthy psychosocial work environment include enforcing zero tolerance for harassment, bullying or discrimination, recognizing and rewarding good performance, allowing meaningful worker input into decisions that affect them, reallocating work to reduce workload and allowing flexibility in how and when work is done to respect work–family balance (Burton, 2010).

For Irish primary principals, psychosocial well-being is the most relevant of WHO's four occupational well-being avenues considering their identified work demands and health challenges. And although Ireland's SHWW Act (2005) does not include a definition of psychosocial well-being, it does advise employers that in the case of human factor health hazards, such as stress and bullying they must do all that is reasonably practicable to protect their employees (Health and Safety Authority [HSA], 2005). In the absence of a consensus definition of occupational well-being, Wright et al. (2015) describe the term as a 'conceptually muddy' phrase, which is often taken for granted in both education policy and research. Consequently, this study sought to identify indicators of psychosocial well-being and to create an instrument, which could psychometrically measure those indicators toward determining current levels of occupational well-being of primary principals. In addition to bridging the knowledge gap relative to Irish principal well-being, such data would add to the near non-existent knowledge base on Irish compliance with EU OSH guidelines as identified by Graveling and Winski (2015). It would additionally contribute to an enhanced understanding of what school leaders' occupational well-being entails toward the conceptualization of a definition of occupational well-being for school leaders. It would also provide a means of measuring employee well-being for Irish employers who, as previously discussed, had stated they did not know-how to conduct such assessments. Finally, such findings would serve to identify principals' workplace hazards toward BOMs being able to inform school leaders of these hazards and toward the control of these hazards, as required under SHWW (2005).

Conceptualisation of a framework of occupational well-being

The following six components were selected as indicators of well-being in the workplace and proposed as a framework of occupational well-being (Figure 1) which facilitates the measurement of occupational well-being. Their selection is based on their suitability for measuring OSH psychosocial factors, not alone for this being the area of OSH found to be the most neglected in general (Kortum, 2014), but, more importantly, for their being the areas of OSH most relevant to principals' workplace

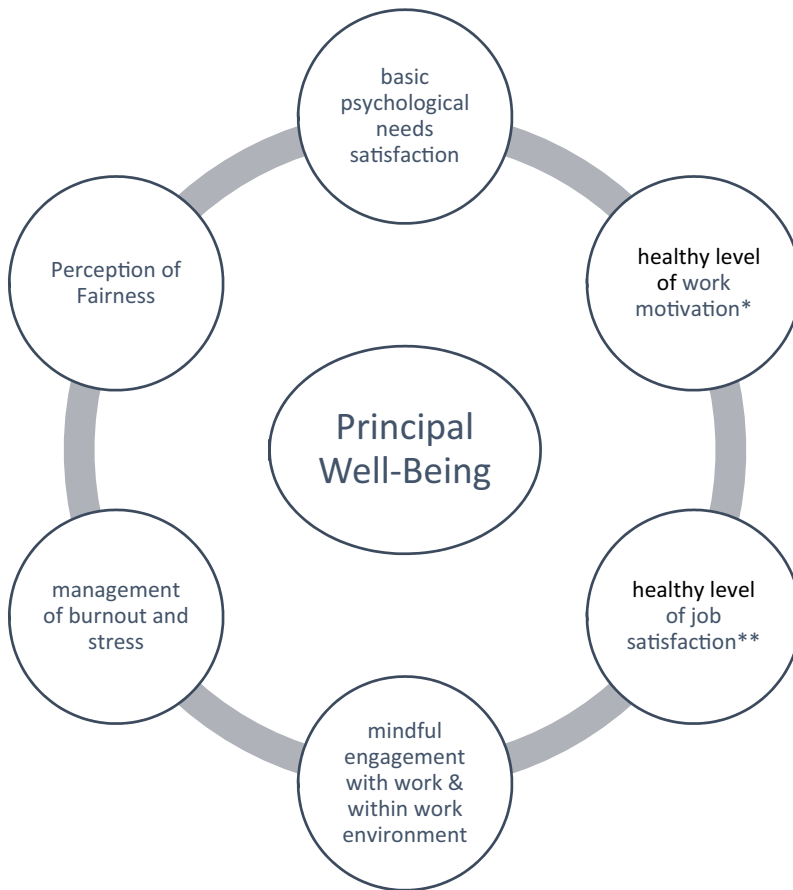


Figure 1. Proposed framework of occupational well-being (McHugh, 2021).

*A **healthy level of work motivation** refers to a measurable high score on Motivation at Work Scale (MAWS). ****healthy level of job satisfaction** refers to a measurable high score on the Job Satisfaction Scale. Both concepts are measurable and not subjective in nature. See individual scales for details.

well-being. Consideration was also given to previously identified factors impacting primary principal well-being, both internationally and in Ireland, alongside the author's personal observations and experiences as a former Irish-based primary principal and principal representative. The six selected measurable workplace well-being indicators are:

- Management of occupational stress toward prevention of burnout,
- Satisfaction of Basic Psychological Needs (BPNs) within the workplace and minimization of need frustration, encompassing (i) autonomy, (ii) competence and (iii) relatedness,
- work motivation,
- facility for mindful engagement with work and within the work environment,
- job satisfaction,
- perception of fairness of employment and work procedures and conditions.

It is proposed that measurement of all six FOW-B components provides an all-encompassing representation of principals' psychosocial well-being within an occupational context and that fulfillment of all six components is necessary to comprehensively support principal well-being in the workplace and in their leadership role. An overview of each selected component follows which justifies its inclusion in the FOW-B:

- (i) **Burnout** Within the education sector principal burnout is known to be a contributory factor to reduced leadership performance, increased absenteeism and job turnover (Beusaert et al., 2016). Previous Irish research on primary principals from Darmody and Smyth (2011) showed that teaching principals endure higher stress levels than their administrative counterparts (74% versus 67%) and teachers report higher stress levels in schools with teaching principals as opposed to administrative principals (54% versus 43%). This latter finding supports previous international research, which correlates the stress levels of leaders with negative impact on staff holistic well-being (Chamorro-Premuzic, 2020). Murphy (2020) has also highlighted teaching principals' consistent reporting of the lack of sustainability of their role, citing elevated stress and a need for additional pastoral and professional supports, e.g. counseling service and sharing of administrative responsibilities. The earliest research on stress is attributed to Hans Selye who in 1935 identified the syndrome in laboratory rats. Selye suggested four categories of stress: *Eustress* – good stress; *Distress* – bad stress; *Hyper stress* – over-stress, and *Hypo stress* – under-stress (Hesketh & Cooper, 2018).

Hesketh and Cooper advise that in terms of workplace stress and burnout, a balance between *eustress* and *distress* is paramount. According to Buchanan and Huczynski (2017) *eustress* can be arousing and exciting and can enhance our performance and sense of satisfaction and accomplishment. The 'fight or flight' response to perceived stress (*hyper-stress*) is adaptive and accompanied by a number of physiological responses including the release of epinephrine and norepinephrine, which trigger cardiovascular responses (increased heart rate and blood pressure), respiration, perspiration, blood flow to muscles and enhanced mental activity. These evolved responses helped our ancestors escape from physical threats of attack, e.g. wild animals. However, in modern day context, such cardiovascular responses can occur when there is no obvious immediate threat to our welfare, e.g. a stressful work environment, which taxes the cardiovascular system. Hesketh and Cooper explain that it takes the body an hour to return to normal functioning after a single stress response and extrapolate that:

... the heart wears out after repeated exposure to chronic high blood pressure caused by stress. To make things worse, once the heart has been damaged, it seems it is prone to both physical and psychological stress, and although medicine has come a long way, it is still one of the biggest causes of premature death, especially in males. (Hesketh & Cooper, 2018, p. 53)

Boseley (2012) concurs that people in highly stressful jobs, with little or no autonomy, have a 23% higher risk of a heart attack. Buchanan and Huczynski (2017) attribute anxiety, fatigue, depression, frustration, nervousness and low self-esteem to chronic stress and warn that extreme stress can lead to mental breakdown and suicide. Hesketh and Cooper (2018) advise that role clarity, job satisfaction, healthy work relationships

and job control factors are critical to reducing occupational stress. In light of international findings on the limiting effect that stress and burnout have on principal well-being and role efficiency (Beusaert et al., 2016; Chamorro-Premuzic, 2020) and also Irish findings relative to the incidence of SAD among education sector workers (Russell et al., 2016), I elected to measure burnout levels of primary principals as this specific information was unknown and would contribute toward creating a better understanding of their level of occupational well-being, which has been shown to impact the execution of their leadership responsibilities.

- (ii) **Basic Psychological Need Theory** Developed in the 1980s by American psychologists Edward Deci and Richard Ryan, Self Determination Theory (SDT) is a macro theory of personality, development and well-being in social contexts, which is applicable across numerous applied domains (Deci & Ryan, 1985) including education, parenting, sports performance, health care, virtual worlds and work motivation (Gagné, 2015; Ryan & Deci, 2017). SDT encompasses six mini theories of which Basic Psychological Needs Theory (BPNT) is one. Sufficient application within the workplace has occurred to attest to its relevance within this domain (Gagné & Deci, 2005) as substantial research has shown that highly effective organizations are those in which BPNs of employees are satisfied leading to enhanced engagement and productivity, e.g. Gagné (2015) and Shuck et al. (2015).

A central tenet of BPNT is that humans have three evolved psychological needs, namely *autonomy*, *competence* and *relatedness* which contribute additively to human thriving and well-being in the same way as plants require certain vital nutrients in order to thrive (Sheldon & Filak, 2008). **Autonomy** is defined as the need to self-regulate one's experiences and actions. Autonomous actions are self-endorsed and 'congruent with one's authentic interests and values' (Ryan & Deci, 2017, p. 10). This need is frustrated when actions are influenced by external controlling forces (e.g. micromanagement, rules) which conflict with one's volition. Within a leadership context, BPNT research has shown that when managers are more autonomy supportive, employees internalize the value of their work efforts which, in turn, supports their well-being (Ryan & Deci, 2017). From this perspective, principals' levels of professional autonomy were of interest to me considering identified inconsistencies in BOM dynamics from BOM to BOM. **Competence** refers to the basic need for a sense of proficiency and feelings of effectiveness in one's work (Ryan & Deci, 2002). Gagné (2015) relates that employees are likely to feel more competent when given the opportunity to engage in challenging tasks that allow them to use and build on their unique existing skills and abilities. Ryan and Deci (2017) inform that competence satisfaction wanes in contexts where challenges are too difficult (e.g. excessive workload), where negative feedback is pervasive and where feelings of mastery and effectiveness are undermined by interpersonal factors, such as person-focused criticism and social comparisons. Baard et al. (2004) found that competence satisfaction was negatively related to an index of anxiety and depression. Drea and O'Brien (2002) identified principals' existing workload and additional BOM workload as extensive, their competency levels were of interest to me as excessive workload negatively impacts competency levels. Competency needs satisfaction is also subject to the level of preparedness felt by employees for their jobs. As Irish primary principals

receive no formal pre-appointment training their competency satisfaction levels may suffer in the face of multiple work demands and stressors. Mahfouz and Richardson (2021) highlight the importance of formal principal preparation suggesting that pre-service candidates are not currently equipped to deal with the stresses of the job. **Relatedness** refers to feeling socially connected and cared for by others. Humans need a sense of belonging and significance to others and are gratified by contributing to their social group and close others, by showing benevolence and from experiencing trustful interpersonal connections (Ryan & Deci, 2017). As previous Irish research had highlighted tension among school staff with evidence of bullying (INTO, 2000), I considered that a measurement of principals' relatedness satisfaction/frustration levels would add to the knowledge base on principals' occupational well-being.

Within the realm of school leadership research, distributed leadership is considered the most frequently adopted school leadership theory adopted internationally (Wang, 2018) appearing in policy documents worldwide (Harris, 2011). However, a recent Irish scoping review of international distributed leadership practices (Hickey et al., 2022) recommends an investigation of the influence of distributed leadership on leader well-being, noting that the management style of a school, as well as the actions of school administrators, can significantly impact teachers' well-being. Hickey et al. (2022) inform that distributed leadership has been critiqued for creating increased workload and stress among school staff. Elsewhere, Trépanier et al. (2012) found that school principals whose styles of leadership were more transformational were also those who experienced more interpersonal support, who were more autonomously motivated and who perceived themselves as being competent at their jobs suggesting that even transformational leaders themselves need supports to inspire and lead others. Ryan and Deci (2017) contrast transformational leaders (leading through charisma, inspiration, problem solving and individual attention to employees' needs) with transactional leaders (using contingent rewards, focusing on rules/norms and problem detection instead of improvement and growth). They hold that transformational leaders facilitate SDT's basic need satisfactions and inspire more autonomous work engagement from their team (Gozukara & Simsek, 2015). Likewise, Hetland et al. (2011) found that transformational leaders exhibit high satisfaction of autonomy, competence and relatedness needs. Gagné et al. (2017) consider the application of BPNT as critical for explicating issues of job retention, burnout levels, job engagement and workplace well-being. Finally, employers' attention to satisfying principals' BPNs alone addresses all suggested interventions from WHO's Healthy Workplace Initiative to supporting a healthy psychosocial work environment.

- (iii) **Work Motivation** It was Deci and Ryan's ongoing concern for a distinction between intrinsic and extrinsic forms of motivation, and their differential effect on motivation as a result of a person feeling controlled versus autonomous, which initially led to the development of SDT (Ryan & Deci, 2000). SDT proposes a continuum of motivation encompassing: (i) *amotivation* (lowest on continuum representing absence of motivation); (ii) *Extrinsic Regulation – social* e.g. behaviors motivated by desire for approval or to avoid criticism and *Extrinsic Regulation – material*, e.g. motivated by desire for financial reward or job security; (iii) *Introjected Regulation*, e.g. motivated by obligation or to avoid feeling shame or guilt; (iv) *Identified Regulation* including both external and internal motivating factors, and

- (v) *Intrinsic Motivation* - behaviors performed out of interest and enjoyment and associated with greater performance, more persistence and higher levels of satisfaction and creativity (Ryan & Deci, 2017). Trépanier et al. (2013) report that employees who display high levels of intrinsic motivation experience less psychological distress when facing stressful work demands. As Irish principals' levels of work motivation had not been measured to date, their motivation regulation style was unknown and of interest to me. Additionally, a higher placement on the motivation continuum for principals would indicate healthier levels of work motivation, work engagement and occupational well-being.
- (iv) **Mindfulness** Mindfulness is commonly defined as the state of being aware of and attentive to what is happening in the present moment. Within occupational contexts, Schulz et al. (2014) propose that innate trait disposition can enhance workplace well-being and potentially buffer against negative workplace climates. Arendt et al. (2019) argue that leaders' dispositional mindfulness has positive effects on staff engagement and outcomes, which are mediated by mindful communication. They found a positive link between leaders' dispositional mindfulness and staff well-being levels. Within the field of BPNT, mindfulness is considered to be supportive of autonomous, volitional functioning (Hodge, 2017) highlighting that being in the moment enhances one's ability to align their actions with their values (Niemiec et al., 2008). In this way, mindful awareness creates some distance between stressful occurrences and one's response to them whereby one can select an appropriate response as opposed to having an automatic response. Mindful awareness is therefore a useful resource (Taylor & Millea, 2016) and a protective factor for those working in stressful work environments. Hence, Irish principals' levels of trait mindfulness warranted measurement in light of the elevated SAD levels among Irish education sector employees and the facility for school leaders to enhance staff well-being and work engagement through their capacity for dispositional mindfulness.
- (v) **Job Satisfaction** Employees are often satisfied with their work conditions to the extent that their employment caters to their personal needs, values, beliefs, expectations and desires (Trépanier et al., 2015). Watson (2017) relates that in a classic review of a large body of work satisfaction studies Blauner (1964) found four significant emerging factors predicting levels of job satisfaction: (i) the degree of independence and control over the conditions of work (covering freedom from hierarchical control and the freedom to vary the pace of one's work and allocate one's time); (ii) the degree to which workers share non-work activities; (iii) the importance of the relative prestige of the job, and (iv) the extent to which social satisfactions are gained from working within an integrated group. Parker (1983) later added the following three factors: (i) opportunities to use personal skills, to create something; (ii) opportunities to work wholeheartedly, and (iii) opportunities to co-work with people who 'know their job'. Echoing BPNT, Watson (2017) additionally suggests that work which satisfies the intrinsic needs of employees (described as challenging, enriching and self-fulfilling), has expressive meaning for employees. Conversely, work which addresses employees' extrinsic needs

(described as work which becomes a means to an end and where human satisfaction is sought outside the work environment) reflects work which has only instrumental meaning for employees. International research on burnout relative to leaders' job satisfaction presents conflicting findings. Castle and Martins (2006), Roy and Avdija (2012) and Tsigilis et al. (2006) reported decreased levels of burnout relative to leaders' job satisfaction and Nagar (2012) and showed that occupational burnout decreased with workplace commitment. Contrastingly, while referring to the possible *dark side* of work commitment, which was linked to job satisfaction, Fayankinnu and Ogungbamila (2015) found associations between committed principals and increased burnout. They posit that a lack of resources to buffer the stress-inducing aspects of the organization may have exposed the principals to increased stress. In consideration of previous findings relative to BOM practices and professional relations, which impact Irish principals' professional lives, levels of principals' job satisfaction warranted measurement. Such findings would also add Irish data to the existing international body of the literature on leaders' and principals' job satisfaction relative to well-being.

- (vi) ***Perception of Fairness*** It is broadly recognized that psychosocial and organizational work conditions, such as employee workload, decision-making input, social support (Lawson et al., 2009) and organizational justice are important avenues for the protection and promotion of employee well-being (Elovainio et al., 2004). Research conducted by Ylipaavalniemi et al. (2005) found that the perception of injustice in the workplace is linked to a range of adverse health outcomes including reduced well-being, increased depression and reduced job satisfaction, as well as impacting levels of work engagement (Joseph, 2015). In Ireland, a range of cost-saving measures were introduced by government in response to the economic recession of 2008–2010. Education sector employees faced substantial pay cuts and the requirement to complete one additional unpaid hour per week as introduced under the terms of the Croke Park Agreement amounting to 36 h per annum of unpaid overtime. At ground level, these measures were met with disillusionment as teachers'/principals' workloads already require several hours of voluntary unpaid overtime per week. Hence, the introduction of pay cuts and Croke Park Hours (CPHs) suggested either a blind spot or indifference on behalf of government to this ongoing work commitment and goodwill.

Fall and Roussel (2015) inform that employee effort is sensitive to incentive rewards and these rewards have a significant effect on motivation and job performance. Several theories support this claim, e.g. Solow's *Wage Efficiency Theory* (1979), Adam's *Equity Theory* (1963) and Akerlof and Yellen's (1990) *Fair Wage-Effort Hypothesis* which suggests that employees adapt their efforts to balance the 'fair wage' against the 'received wage'. Hence, if an employee's actual wage is lower than what they consider to be a fair wage, they will reduce their efforts proportionally in order to retain the contribution-reward balance. For the purposes of this study, a targeted definition of *perception of fairness* was utilized to capture principals' thoughts on recent pay cuts, lack of pay restoration, the completion of CPHs, workload and work input relative to reward which were identified as being the aspects of organizational justice currently impacting

primary sector employees. As pay restoration has not been fully achieved by the teaching profession following public sector pay cuts, it was hypothesized that educators may feel under-rewarded for their work contributions as equity has not been restored and CPHs have further increased their workload. The resulting impact on work motivation, work engagement, goodwill and any associated impact on their well-being from the introduction of these contentious measures had not been researched and thereby warranted exploration. Figure 1 illustrates the devised Framework of Occupational Well-Being.

Methodology

Procedure and participants

Both quantitative and qualitative data were collected as part of this study, which was *QUANqual*→*qual* in design featuring both concurrent and sequential qualitative aspects to a predominantly quantitative study. An initial survey which collected both quantitative and qualitative data preceded an interview stage. Data were collected during academic year 2018–2019. A government database (2016) provided work e-mail addresses of all 3,106 Irish primary principals who were invited to complete the survey and/or volunteer to be later interviewed. As several hundred had retired/resigned since publication of the database, only 2,500 were reached producing 480 valid responses to the survey. Subsequent interviews ($n = 20$) collected both confirmatory and explanatory data. Of the 20 interviewees, 12 had completed the survey bringing the total sample size to 488 equating with 20% of the total population of primary principals available for inclusion in the survey. Demographics reveal that the mean number of years worked in a principalship position was 8 years (SD 0.548; median 9 yrs.) signifying a high level of work experience among the sample. The demographics also found the majority of principals were aged 35–60 with almost half of respondents aged 46–55. Seventy percent of respondents were female reflective of the higher number of females employed in the primary sector in general. Interviewees (13 females:7 males) represented four patronage models – Catholic Church, Church of Ireland, the multid denominational Educate Together Ltd. and *An Foras Patrúnachta* (patronage body for Irish-language schools). Full details of data collection protocol and sample characteristics are presented in McHugh (2021). Ethical approval was granted by the School of Education Research Ethics Committee at the University of Lincoln on December 12, 2017 .

Measures

The survey comprised seven sections with Section A collecting principal demographics. Section B comprised five subsections (Burnout, BPNs, Motivation, Job Satisfaction and Mindfulness) each including a pre-validated Likert scale, some of which featured minor adjustments appropriate to the study sample. Survey Section C (SS-C) comprising 50 researcher-designed questions, collected both quantitative and qualitative data to support and/or extend my interpretations of the data from Section B's Likert Scale findings. SS-C also featured questions on school patronage, management, workplace well-being and principals' leadership experience. Three researcher-designed questions on the FOW-B construct *perception of fairness* were included in this section as no suitable pre-validated

scale was available. These questions tapped into current frustrations with pay cuts and the introduction of CPHs. SS-C featured 14 optional textboxes, which facilitated commentary on principals' Likert scale responses, thereby adding a qualitative aspect to the quantitative Likert scale responses.

The interview schedule comprised 17 questions and was designed following analysis of survey data. Thus, while not influencing the design of the FOW-B, interview findings aimed to collect supplementary data, which could expand on and confirm survey findings as well as clarifying matters arising from analysis of the survey data. The following pre-validated scales were used and/or adjusted to measure these identified well-being indicators, with SPSS 25 being utilized to calculate internal reliability ratings (Cronbach's alpha) for each subscale:

Burnout The Copenhagen Burnout Inventory (CBI) (Kristensen et al., 2005) is a public-domain 19-item Likert scale questionnaire, which measures the degree of psychological fatigue experienced in three subdimensions of burnout: personal (PB), work-related (WRB) and client-related burnout. Eleven items from the PB and WRB were used in this survey. Client-related items were deemed unsuitable for this study sample. The Cronbach's alpha for the *adjusted Copenhagen Burnout Inventory* scale was 0.90.

Basic Psychological Needs - Autonomy: nine items selected from Ryan and Deci's *Basic Psychological Needs Satisfaction and Frustration Scale* (BPNS&FS), the *Basic Psychological Needs at Work Scale* (BPN@WS), the *Index of Autonomous Functioning* and the *Work-related Basic Needs Satisfaction Scale*. **Competence:** seven items selected from the BPNS&FS and the BPN@WS. **Relatedness:** six items selected from the BPNS&FS and BPN@WS; one additional relatedness frustration item was developed by researcher specific to the work context of the principal and the suspected role isolation inherent in the job, *'I feel that my position somewhat isolates me from the rest of the staff'* ($\alpha = 0.73$). The Cronbach's alphas for the resulting adjusted BPNs scale were – Autonomy satisfaction ($\alpha = 0.83$); Autonomy frustration ($\alpha = 0.74$); Competence satisfaction ($\alpha = 0.63$), Competence frustration ($\alpha = 0.73$); Relatedness satisfaction ($\alpha = 0.60$); Relatedness frustration ($\alpha = 0.81$). The total BPNs scale had a Cronbach's alpha of 0.71.

Motivation 11 items selected from the *Multidimensional Work Motivation Scale* (MWMS) which was developed by Gagné et al. (2014); an additional three items from the Motivation at Work Scale (MAWS) (Gagné et al., 2010), along with four items of my own design particular to this specific work cohort totaling 18 items. Selected items measure extrinsic regulation (social and material), introjected regulation, identified regulation, intrinsic motivation and amotivation. Cronbach's alphas of the resulting adjusted Motivation scales ranged between 0.6 and 0.87 with a total scale alpha of 0.69.

Mindfulness 15-item *Mindfulness Attention Awareness Scale* (MAAS) designed by Brown and Ryan (2003) which had a Cronbach's alpha of 0.89.

Job Satisfaction Nine of 18 items from the Job Descriptive Index (Lake et al., 2010) scale were used to which a further nine sample-specific researcher-designed items were added. The Job Satisfaction Survey (Spector, 1985) measures employees' attitudes about their job and aspects of their job. It contains 36 items of which 13 were included in this study. Items omitted were deemed either an overlap of questions already asked in a previous survey section or unsuitable for the study sample. Three researcher-designed items were added to this scale. The Cronbach's Alpha readings for the *adjusted Job Satisfaction scales* scored between 0.72 and 0.78. These measured principals' levels of

satisfaction with their: (i) Pay ($\alpha = .77$), (ii) Manager ($\alpha = .72$), (iii) Co-workers, a ($\alpha = .77$) and (iv) Job Characteristics ($\alpha = .78$).

Analysis

The survey was created on Qualtrics and analyzed using SPSS 25 producing both descriptive and inferential statistics. Analysis protocols for pre-validated scales were followed as defined by respective developers. A Pearson's Correlation was conducted to test the relationship between the six well-being constructs (Table 3). Subsequent interview data were analyzed using NVivo 12 software. Consistent with mixed methods research analysis practices codes were developed a priori from existing concepts arising from survey findings and from research literature and were also data driven, emerging from the raw interview data. Using NVivo data analysis software an iterative process of coding followed. First and second cycle coding procedures, as delineated by Saldana (2016), included provisional coding, structural coding, simultaneous coding, provisional coding and subcoding.

As the interview schedule was specifically designed to resolve outstanding issues from the survey, interview findings were not seen as stand-alone findings. Rather, they were viewed as explanatory qualitative extensions of exceptional survey findings. For this reason, interview findings were thematically segregated and subsumed into the overall study findings, which were arranged for reporting according to the following themes: BPNT, Work Motivation, Mindfulness, Job Satisfaction, Burnout, Leadership, School Management and Patronage. Finally, in the reporting and discussion of study findings, as well as serving to provide supporting and explanatory data, interview findings were triangulated with quantitative survey findings from the pre-validated scales and also with data from SS-C. All study measures and analysis procedures may be viewed in McHugh (2021).

Results and discussion

While some work-based support mechanisms were identified in this research, nonetheless a substantial body of evidence emerged relative to work-related illness among principals suggesting they have an inadequate level of psychosocial support in their work environment. This is evidenced in principals' low dispositional mindfulness, high burnout, high autonomy frustration, low perception of organizational justice and general dissatisfaction surrounding school management, with a majority stating it is time for the current dichotomous Church-State education model to end. A preference for state-run education provision was expressed. Notably, with almost 90% of primary schools under Catholic Church patronage only 22% of principals declared themselves devout Catholics. As summarized by one principal, *'I think the role of the bishop and the priest running the school is no longer acceptable'*. Regarding the predominant Catholic Church BOM model, interviewees listed the undemocratic appointment of the BOM chairperson and the lack of satisfactory BOM training as challenges to the optimum functioning of BOMs which consequently lack the facility to adequately support their principals in their leadership role. Principals explained that they are reluctant to approach BOM members for assistance with the BOM administrative workload, intended to be evenly shared, in light of

their untrained, unpaid, voluntary status. A preference for principal involvement in the selection of the BOM chairperson was expressed, in light of the critical need for positive close working relations between these two key BOM members, toward the creation of the optimum school leadership and school management settings.

It also emerged that currently neither EU nor Irish OSH legislation, under which BOMs operate, goes far enough in the protection of employee well-being through not providing a definition of occupational well-being, through the ambiguity of Irish employers only being advised to do 'all that is reasonably practicable' in protection of employee psychosocial well-being resulting in unclear or deficient sanctions for employers who are neglectful toward the escalation of psychosocial illnesses among their employees. To that end, the FOW-B offers a definition of occupational well-being advising satisfaction and low frustration of autonomy, competency and relatedness needs, capacity for mindful engagement with and within the work environment, a sense of organizational justice relative to employment conditions, control of occupational stressors toward their not escalating to burnout and healthy levels of both work motivation and job satisfaction (denoting high scores on psychometric measurement). These well-being components are measurable and controllable within the work environment and employers within the education sector may use the FOW-B to monitor the occupational well-being of their employees thereby complying with H&S legal requirements to identify and control employees' workplace stressors.

FOW-B findings

The FOW-B psychometrically measured the incidence of principal burnout, BPNs satisfaction/frustration, job satisfaction, dispositional mindfulness, work motivation and their perception of organizational justice via an online survey. This incorporated the QUAN aspect from the wider QUANqual→qual PhD study for which it was designed. Accordingly, this paper predominantly reports on quantitative survey findings from the FOW-B with a specific focus on principal burnout results as very high levels of personal and work-related burnout were uncovered with implications for both principals' well-being, which directly impacts staff stress levels (Chamorro-Premuzic, 2020), and principals' execution of leadership responsibilities. Results for each of the remaining five FOW-B constructs are briefly overviewed. A detailed account of the wider study is presented in McHugh (2021).

Incidence of burnout

Table 1 shows the mean distribution of scales, items and principals' response frequencies for the CBI. Considered to be an important tool for the diagnosis of psychosocial risks related to burnout syndrome in the academic environment (Rocha et al., 2020), CBI developers (Kristensen et al., 2005) advise that the scales predict future sickness, sleep problems, use of painkillers and turnover intention in employees.

Both the *Personal Burnout* (PB) scale and the *Work-related Burnout* (WRB) scale are negatively skewed indicating that most of the survey respondents used the response categories corresponding to high burnout levels. Results reveal that 24.3% of principals were in the highest exhausted category with a PB score of ≥ 70 . A further 34.3% of

Table 1. Copenhagen Burnout Inventory (CBI). Scales, items and response frequencies.

	Response Category and Scoring:					Missing n	Skewness	Kurtosis	Median	Mean	SD
	Always (Scoring 100) %	Often (Scoring 75) %	Sometimes (Scoring 50) %	Rarely (Scoring 25) %	Never (Scoring 0) %						
$\alpha = .90$ (total scale)											
Personal Burnout ($\alpha = 0.84$) ($n = 480$)											
How often do you feel tired?	21.0	56.4	20.1	2.2	0.2	33	-.440	.417	75	73.9	18.0
How often are you physically exhausted?	8.1	40.7	36.9	13.0	1.3	33	-.271	-.199	50	60.3	21.6
How often are you emotionally exhausted?	5.6	46.2	37.9	8.7	1.6	34	-.515	.400	75	61.4	19.9
How often do you feel weak and susceptible to illness?	0.9	15.4	42.3	34.7	6.7	33	.049	-.334	50	42.3	21.1
Total average score										59.5	13.0
Work-related burnout ($\alpha = 0.85$) ($n = 480$)											
How often do you feel burnout because of your work?	2.5	28.7	46.9	16.4	5.6	34	-.398	.034	50	51.5	22.0
How often does your work frustrate you?	5.1	42.3	43.8	8.7	0	33	-.069	-.299	50	61.0	18.1
How often do you feel worn out at the end of a work day?	15.5	53.4	26.5	4.5	0.2	34	-.376	.129	75	69.8	19.0
How often do you feel tired in the morning facing a work day?	7.4	33.6	39.0	17.5	2.5	34	-.151	-.336	50	56.5	22.9
How often can you easily 'switch off' and relax after work?	2.0	22.2	40.8	29.6	5.4	34	-.005	-.447	50	53.5	22.3
(reverse scoring)											
How often do you feel energized at work?	1.3	36.1	47.3	13.2	2.0	34	-.476	.117	50	44.6	19.1
(reverse scoring)											
How often have you enough energy for family and friends after work? (reverse scoring)	2.5	21.1	49.9	23.6	2.9	35	.012	-.004	50	50.8	20.4
Total average score										55.4	8.1

Possible score range for all scales is 0–100.

principals were in the moderately burnt out category with a PB score of ≥ 50 . With regard to the WRB scores, 19.6% of principals were in the highest burnout category scoring ≥ 70 while a further 16.2% of principals feature in the moderately burnt out category scoring ≥ 50 . The proportion of non-responders of the individual items was 7%. With a mean PB score of 59.5 and a WRB score of 55.4 Irish primary principals display some of the highest recorded mean levels of PB and WRB compared to several thousand other professionals who have completed the CBI since its inception. For example, during its development data from the PUMA Baseline Study of 1,914 Danish public sector employees was used. Their highest recorded mean PB score was for midwives at 44.7 who also scored highest on WRB at 43.5. Both of these scores are exceeded by Irish primary principals whose mean scores are also higher than many other professionals from recent CBI studies – at 59.5 Irish primary principals exhibit higher PB levels than New Zealand teachers (43.0) (Milfont et al., 2008) ($n = 129$), South African paramedics (48.0) (Stassen et al., 2012) ($n = 40$), South African paramedic students (53.4) (Stein & Sibanda, 2016) ($n = 93$), Italian full-time academics (50.3), Italian environmental technicians (48.0) and Italian university professors (56.5) (Sestili et al., 2018) ($n = 95$), Brazilian university professors and academics (31.5) (Rocha et al., 2020) ($n = 676$) as well as Taiwanese health and education employees (44.0) (Lan-Ping & Jin Ding, 2013) ($n = 276$). The WRB mean score of Irish primary principals in this study (55.4) also exceeds those of UK trauma center surgeons (50.0) and UK hospital trauma center junior doctors (53.4) (Caesar et al., 2020) ($n = 165$), U.S.A. academic librarians (49.6) (Wood et al., 2020) ($n = 1628$), Brazilian university professors and academics (27.1) (Rocha et al., 2020) ($n = 676$) and Italian university professors (54.8) (Sestili et al., 2018) ($n = 95$). This finding is also significant considering leaders' stress levels having a direct impact on employees' stress and anxiety levels affecting both their physical and emotional well-being (Chamorro-Premuzic's, 2020).

Several of these studies raised the same concerns and identified the same occupational stressors as principals from the present study. For example, in their study of South African paramedics. Stassen et al. (2012) found participants felt undervalued by superiors that their salaries were inadequate, their workload was excessive and they did not receive adequate managerial support. Lan-Ping and Jin Ding (2013) correlated burnout with decreased job satisfaction, low job control and a level of depression in caregivers which was six times greater than in the general population (Hu et al., 2010). On this point, Cullen (2018) reported that Ireland has one of the highest rates of mental health illness in Europe, scoring joint third of 36 countries, with 18.5% of the population having a condition such as anxiety, depression, bipolar disorder or engaging in substance abuse. Measurement of the incidence of anxiety and depression among principals from the present study revealed that an alarming 58% report anxiety and 23.3% suffer from depression placing them firmly above both national and European averages for mental health illness. An independent samples T test analysis of the incidence of SAD in youngest and oldest principals in this study found younger principals have higher mean scores than their older counterparts for all three SAD conditions – stress (84.6 vs 59.7); anxiety (1.47 vs 1.38) and depression (1.83 vs 1.75). This finding supports previous findings from Thomas et al. (2016) that improvements in mental health come with age and life experience of employees.

Additional ailments which principals in the present study attributed to their occupation included arthritis and musculoskeletal pain (41.2%), neck pain (41%) and back pain (26%). To a lesser degree other ailments, such as stress-induced autoimmune disease, repetitive strain injury, tendonitis, carpal tunnel syndrome, cubital tunnel syndrome, migraine, eye strain, vocal cord damage and insomnia were also attributed to work. Principals reported feeling that their job was ‘pulling them in several directions’ (83.4% frequently; 15% occasionally), 93% go to work despite being ill, 64% experience anxiety before BOM meetings, 81% report work-related irritability after work which impacts close/family relationships and 99.6% find it necessary to do voluntary unpaid overtime on a daily basis ‘just to keep the ship afloat’.

CBI results confirm that job frustration levels are high in principals with 41% scoring ≥ 70 in the highest category of frustration including 7.4% with the maximum score of 100. A further 43.8% report ‘sometimes’ feeling frustrated by their jobs. No principals chose the option for ‘never’. Supporting qualitative data from SS-C reveal the most frustrating aspects are workload demands and lack of supports from government (75.4%). Frustration was also expressed at the lack of a step-down option for Irish principals experiencing burnout:

‘I’m exhausted a lot of the time . . . I have no ability to stay in my school and step down. So, do I retire early . . . or stay and do my job badly?’; ‘There is no opportunity for principals to step down without being financially punished and perhaps people would look at you and say you couldn’t cut it, so you went back teaching’.

Perception of fairness

Principals responded to three statements designed to measure their perception of fairness with recent pay cuts and the introduction of CPHs. In response to the statement, *It is fair to reduce work input in response to pay cut with no reduction of workload*, 41.2% agreed, 21.4% disagreed and 37.4% were unsure (SD .767). In response to a second statement, *It is fair to reduce work input in response to pay cut with increased workload* 55.6% agreed, 19.5% disagreed and 24.9% were unsure (SD .789). This question described their own occupational context relative to CPHs and salary reductions suggesting that almost two thirds of principals consider their working hours and remuneration to be unfair. Finally in response to the statement, *I and/or my staff have disengaged from work since pay cuts and CPHs*, 46% agreed, 40.9% disagreed and 13.1% were unsure. Principals’ responses support Akerlof and Yellen’s (1990) *Fair Wage-Effort Hypothesis* with almost half of principals acknowledging that they and/or their staff have disengaged from work since the introduction of pay cuts and CPHs.

Job satisfaction results

Dissatisfaction with salary was expressed by 73.6% of principals. This reiterates the study’s Perception of Fairness findings. Items on this subscale included (i) *I feel I am being paid a fair amount for the work I do*; (ii) *Pay raises are too few and far between*; (iii) *The amount of tax I pay is fair*. With 99.6% of principals engaging in unpaid overtime (as

uncovered in CBI), this figure is understandable. A high level of satisfaction with their manager was expressed by principals (84.2%) and with coworkers (64.2%). Examples of items on these subscales include *My Chairperson (manager) is competent in his/her role* and *I like the people that I work with*. Over half of principals expressed dissatisfaction with job characteristics (55%). Items on this subscale included (i) *I have too much paperwork*; (ii) *Many rules and procedures make doing a good job difficult*; (iii) *When I do a good job, I receive the recognition I deserve*; (iv) *Sometimes, I feel my job is meaningless*.

Supporting qualitative data revealed varying degrees of freedom in decision-making is experienced by principals relative to their BOMs. While answerability to BOMs is part of a principal's lot, several principals reported feeling professionally undermined in having their professional judgments outvoted and overturned by BOMs consisting of untrained members with little to no experience or background in education. Many reported BOM internal politics sometimes working in favor of personal agendas, which conflict with the principal's vision for the school.

Mindfulness

With a scale average of 3.0 (range 1–5) no item's mean score is above 3.8 indicating that principals' levels of dispositional mindfulness are not high. Skewness and kurtosis distributions are within the normal range. The total mean average for the group is below average at 2.94. By comparison, average scores for undergraduate students during development of the scale were 3.85, while Zen meditators scored an average of 4.38 (Brown & Ryan, 2003). Supporting qualitative data showed that 97.7% of principals find themselves preoccupied with school concerns outside of work time ($n = 475$) which erodes mindful awareness of the present moment.

It is noted from Table 2 that principals scored low on awareness of both physical and emotional sensations. While scoring highest on awareness of physical environment (mean 3.8 for *I break or spill things from carelessness, not paying attention, or thinking about something else*), principals do not have the same level of awareness of their own bodies (2.65) or emotions (1.79), at least on workdays. During interviews many principals expressed frustration at the amount of work that they need to do outside of work hours. There was consensus among the teaching principals that their job is undoable in its current format.

Based on previously discussed findings from Schulz et al. (2014) mindful individuals are more likely to see stressful situations as less demanding or threatening. By extension, mindful leaders exude a calm sense of competency, which inspires confidence among staff and supports the creation of a healthy work environment for all. Accordingly, this finding has ramifications for the need to promote the capacity for mindfulness among principals who have been shown in this research to have untypically high burnout levels. In turn, this would promote their mental health, their long-term physical health and the generation of a healthy work environment for staff, which in turn supports the optimum learning environment for students.

Table 2. Mindfulness attention awareness scale. Items, ratings and results.

Scale item ($n = 480$) ($\alpha = .89$)	Mean	SD	Missing n	Skewness	Kurtosis	Total
1. I could be experiencing some emotion and not be aware of it until later	1.79	.925	64	-.190	-.375	
2. I break or spill things from carelessness, not paying attention, or thinking of something else	3.80	.919	63	.409	-.460	
3. I find it difficult to stay focused on what's happening in the present	3.39	.917	65	.178	-.454	
4. I tend to walk quickly to get to where I am going without paying attention to what I experience along the way	2.53	1.026	63	-.302	-.486	
5. I tend not to notice feelings of physical tension or discomfort until they really grab my attention	2.65	1.090	65	-.239	-.798	
6. I forget a person's name almost as soon as I've been told it for the first time	2.66	1.006	63	-.361	-.490	
7. It seems I am 'running on automatic' without much awareness of what I'm doing	3.01	.860	65	.087	-.300	
8. I rush through activities without being really attentive to them	3.18	.868	67	.148	-.237	
9. I get so focused on the goal I want to achieve that I lose touch with what I am doing right now to get there	3.24	.850	65	-.123	-.206	
10. I do jobs or tasks automatically, without being aware of what I am doing	2.56	.875	66	-.327	-.184	
11. I find myself listening to someone with one ear, doing something else at the same time	3.08	1.043	64	-.195	-.594	
12. I drive places on 'automatic pilot' and then wonder why I went there	2.91	.960	64	-.085	-.345	
13. I find myself preoccupied with the future or the past	3.14	1.128	64	.013	-.848	
14. I find myself doing things without paying attention	2.80	.850	66	-.134	-.228	
15. I snack without being aware that I'm eating	3.33	.972	64	.193	-.562	
Total scale average						2.94

Possible score range for all items is 1–5.

Basic psychological needs

Quantitative data for *autonomy*, *competence* and *relatedness* satisfaction and frustration levels of principals were gathered from administration of the 23-item BPN scale. Ranging from 0 to 5, total mean scores of subscales indicate that competency satisfaction levels are higher in principals ($M = 3.6$, $SD 0.56$) than competency frustration levels ($M = 1.9$, $SD 0.91$). Similarly, relatedness satisfaction ($M = 3$, $SD 1.1$) was higher than relatedness frustration ($M = 2.1$, $SD 1.0$). However, this pattern was reversed for autonomy as principals scored 3.5 ($SD 1.1$) for frustration and 3.2 ($SD 0.97$) for satisfaction. With micromanagement considered a contributory factor in autonomy frustration, qualitative data supported these findings with a majority of principals stating they encounter micromanagement from their BOMs and the DES and only 2.7% not feeling micromanaged. Supporting SS-C evidence of a sense of micromanagement from DES and BOMs emerged with 84% believing they could successfully manage the school themselves without answerability to untrained BOMs.

Responding to a question asking if they felt more like a leader or a follower in their role, 85.4% identify either 'considerably' or 'completely' with being 'followers' in their role. As Irish principals are appointed on the basis of an interview, there is no formal training for this leadership position although post-appointment training days are

available. When asked if they thought the available training adequately prepared them for their leadership role, 76% disagreed. This lack of formal training is likely a factor in their unhealthy burnout levels and their low scores in identifying as leaders. Principals' BPN frustration scores must also be viewed in context of previously identified correlations between transformational leadership traits and high BPN satisfaction (Hetland et al., 2011).

Relatedness satisfaction scored a mean of 3 (60%) in the BPNSFS Work Domain. Items included in the scale include, 'At work I feel connected to people who care for me and for whom I care'. *Relatedness* frustration scored a mean of 2.1. Items included, 'At work I feel the work relationships I have are just superficial' and the researcher-designed item, 'At work I feel that my position somewhat isolates me from the rest of the staff'. This last item yielded the highest percentage of 'completely' and 'considerably' responses on this subscale (27%; SD 1.1). Supporting qualitative data from SS-C found evidence of role isolation among principals, with some experiencing loneliness in the role:

... it is most definitely an isolated position. You are part of a staff and yet you are at the helm, and there can only be one person there.

Evidence also emerged of workplace bullying impacting professional relationships with 45% of principals reporting they have been and/or are being bullied. Those primarily cited as being responsible for bullying were colleagues (47%); parents/guardians of pupils (30%); BOM 15% collectively (Chairperson 11%; Treasurer 4%).

Work motivation

The Motivation at Work survey section comprised 18 items with 11 from the *Multidimensional Work Motivation Scale* (Gagné et al., 2014), three from the MAWS (Gagné et al., 2010) and a further four specific to this particular cohort which I designed. Principals responded to the stem 'Why do you put effort into your current job?'. The four items of my own design particular to this specific work cohort included: *Because I am accountable for my work*; *Because I feel obliged to be a good role model to staff and pupils*; *I don't, because the work is unchallenging*; *I'd prefer to be working at another job*. Principals scored highest on the Identified Regulation subscale (81.8%) representing a dominance of extrinsic motivators. This motivation subtype includes both external and internal motivating factors and is the second highest level of motivation the continuum. Incorporating those choosing 'considerably' and 'completely', items scoring highest included, 'It is personally important to me to put in the effort' (94.6%) (internal regulation); 'I am accountable for my work' (91.9%) (external regulation); 'I feel obliged to be a good role model to staff and students' (93.6%) (external regulation). Dor-Haim and Oplatka's (2020) warning of the link between principal well-being and strong identification with their position as principal typifies principals' Identified Regulation.

High scores were also recorded on the intrinsic motivation subscale (73.4%) indicating a high level of self-determined work motivation among principals. This exemplifies a high degree of internalization and integration of the duties, responsibilities and obligations of their leadership role among the cohort, which is also supported by the number of principals (99.6%) who voluntarily engage in unpaid overtime. Brennan and MacRuairc's (2017) findings on Irish principals' strong emotional investment in their work and their

wholehearted commitment to improving their students' lives may be better understood in the context of principals' Intrinsic Motivation and Identified Motivation scores from this study. Principals scored 64.3% on the Introjected Regulation subscale, which is a relatively high score. Introjected Regulation indicates that individuals act out of obligation, in order to avoid shame and internal pressure. Results for Amotivation show that over 10% of Irish primary principals wish they were '*working at another job*'.

Inferential analysis

An inferential analysis was conducted to examine the linear correlation between FOW-B variables and the strength of any such correlations. [Table 3](#) displays the resulting correlation coefficients. A two-tailed test was employed as it tests for the possibility of both positive and negative tails of a distribution as required in this research, a condition, which is supported by Rixton and Neuhauser (2010). The FOW-B comprises six constructs, which incorporate 15 variables as follows:

- (1) BPN – Autonomy satisfaction (AuSat)
- (2) BPN – Autonomy frustration (AuFr)
- (3) BPN – Competence satisfaction (ComSat)
- (4) BPN – Competence frustration (ComFr)
- (5) BPN – Relatedness satisfaction (RelSat)
- (6) BPN – Relatedness frustration (RelFr)
- (7) Motivation – Intrinsic (IntrinMot)
- (8) Motivation – Identified regulation (IdRMot)
- (9) Motivation – Introjected regulation (IntjRMot)
- (10) Motivation – Extrinsic (ExtMot)
- (11) Amotivation (Amotiv)
- (12) Mindfulness (Mindf)
- (13) Burnout
- (14) Perception of Fairness (P-Fair)
- (15) Job Satisfaction (JobSat).

The most statistically significant variables are *Autonomy Satisfaction*, *Competence Frustration* and *Burnout* with the strongest positive association between *Autonomy Satisfaction* and *Competence Satisfaction* (.607). [Table 3](#) indicates that satisfaction of *Autonomy* for principals correlates moderately with *Intrinsic Motivation* (.563), *Job Satisfaction* (.517), *Relatedness Satisfaction* (.480) and *Mindfulness* (.405). *Autonomy Satisfaction* has strong negative correlation with *Autonomy Frustration* (–.561), *Competence Frustration* (–.604) *Burnout* (–.534) and *Relatedness Frustration* (–.439). Consistent with these results, *Autonomy Frustration* has positive associations with *Competence Frustration* (.520) and *Burnout* (.571) and strong negative associations with *Intrinsic Motivation* (–.410) and *Job Satisfaction* (–.489). Hence, it would appear that satisfaction of professional autonomy is important for principals as it is associated with satisfaction of other BPNs along with enhancing *Job Satisfaction*, controlling *Burnout* and *Amotivation* while supporting both *Intrinsic Motivation* and dispositional *Mindfulness*. Dispositional *Mindfulness* appears to mediate against frustration of all three

Table 3. Pearson's correlation matrix of framework occupational well-being constructs.

	AuSat	AuFr	ComSat	ComFr	RelSat	RelFr	Amotiv	ExtMot	IntjRMot	IdRMot	IntrinMot	Mindf.	Burnout	P/Fair
AuSat	1													
AuFr	-.561**	1												
ComSat	.607**	-.339**	1											
ComFr	-.604**	.520**	-.560**	1										
RelSat	.480**	-.280**	.434**	-.314**	1									
RelFr	-.439**	.359**	-.316**	.504**	-.559**	1								
Amotiv	-.385**	.308**	-.362**	.394**	-.213**	.270**	1							
ExtMot	-.207**	.170**	-.082	.217**	-.127*	.172**	.228**	1						
IntjRMot	.008	.140**	.081	.101*	.030	.034	-.091	.401**	1					
IdRMot	.299**	-.082	.265**	-.184**	.181**	-.170**	-.324**	.140**	.452**	1				
IntrinMot	.563**	-.410**	.422**	-.377**	.304**	-.230**	-.489**	-.179**	.131**	.437**	1			
Mindf.	.405**	-.417**	.284**	-.449**	.223**	-.303**	-.345**	-.377**	-.213**	.085	.344**	1		
Burnout	-.534**	.571**	-.367**	.513**	-.290**	.303**	.396**	.251**	.099*	-.141**	-.438**	-.572**	1	
P/Fair	.211**	-.134**	.177**	-.066	.046	-.019	-.105*	-.072	.007	.089	.163**	.076	-.105*	1
JobSat.	.517**	-.489**	.327**	-.408**	.263**	-.337**	-.330**	-.165**	-.032	.160**	.480**	.401**	-.496**	.195**

FOW-B constructs: Basic Psychological Needs satisfaction/frustration, work motivation, dispositional mindfulness, burnout, perception of fairness & job satisfaction.

BPNs for principals (*Autonomy Frustration* $-.417$; *Competence Frustration* $-.449$; *Relatedness Frustration* $-.303$) as well as *Amotivation* ($-.345$) as they are all negatively correlated. An interesting finding from this correlation is that results suggest the more intrinsically motivated principals are, the less *Burnout* is experienced as illustrated in [Figure 2](#). As motivation regulation becomes increasingly intrinsic along the motivation continuum (as displayed) burnout level decreases.

amotivation* → *extrinsic motivation* → *introjected regulation* → *identified regulation* → *intrinsic motivation

The highest level of burnout is associated with amotivation and lowest level of burnout associated with Intrinsic Motivation (considered the healthiest category of motivation).

As motivation becomes incrementally more intrinsic along the continuum, an almost linear drop in Burnout is observed which may suggest that Intrinsic Motivation is a protective factor when facing burnout-inducing occupational stressors. It could also be interpreted as indicating that as principals become increasingly burned out their motivation wanes. In either case, [Figure 2](#) illustrates that Burnout, which has a strong negative association with professional autonomy, in particular, does not co-exist with healthy work Motivation levels. It is therefore important to consider the importance of satisfaction of employee BPNs in order to also mediate against occupational Burnout and low work Motivation levels. [Figure 3](#), which illustrates the correlation between BPNs satisfaction/frustration and Burnout, supports the impression that BPNs satisfaction/frustration are sensitive to the level of Burnout experienced by principals with Autonomy and Competence satisfaction and frustration exhibiting the strongest associations.

A final consideration, relative to principal burnout is the amount of unpaid overtime being volunteered by principals. On calculation of the total number of hours per week worked by principals, inclusive of voluntary overtime, this study found 68.7% are working at least 2 days unpaid overtime per week, including 35.5% who are volunteering upwards of 3 days unpaid overtime on a weekly basis. As discussed, the work motivation style they predominantly exhibit is *Identified Regulation* which may explain why they impose this work schedule on themselves as they strongly identify with being in charge and, as evidenced, are willing to shoulder any excess workload deriving from BOM responsibilities and implementation of DES initiatives, which are surplus to ensuring standard curriculum delivery. However, they do not identify strongly as leaders per se as this study revealed that over 85% of principals more so identify as followers. They appear to identify and behave more akin to middle managers, answerable to the DES and BOMs while attempting to lead school staff and pupils. They also somewhat align with the description of *servant leaders* which is heavily linked to fields of virtue ethics and spiritual practice/theology. Patterson (as cited in Tirmizi & Tirmizi, 2020) defines servant leadership in terms of personality traits linked to ethical behaviors, such as humility, vision, altruism, trust and service. Considered more prevalent in social and public sector leadership. Anderson (2005) reports a strong relationship between servant leadership and teachers' job satisfaction in religious educational entities. To this end, Catholic Church control of 90% of Ireland's primary schools, their BOMs and their employees must be considered.

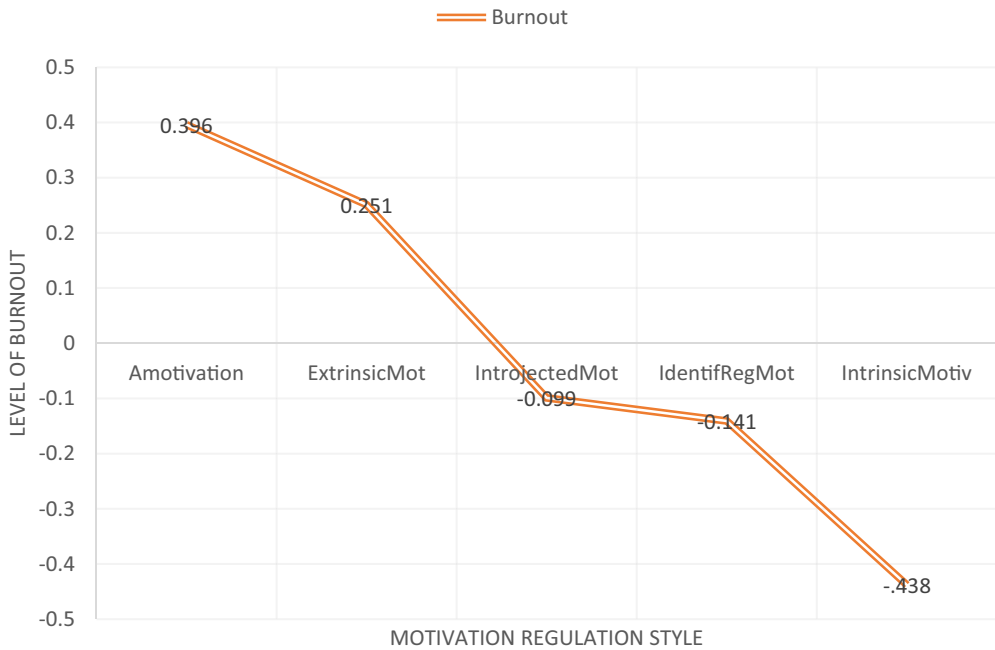


Figure 2. Irish primary principals level of burnout relative to category of work motivation.

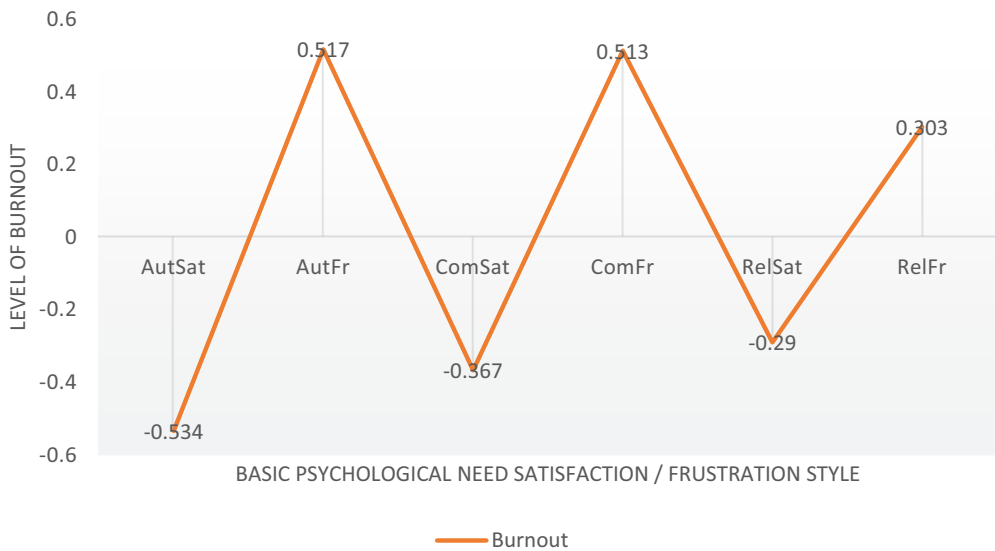


Figure 3. Emergent pattern from correlation between BPN satisfaction/frustration relative to burnout.

Conclusion

In line with the aims of this QUANqual→qual study, its MM design facilitated the psychometric measurement of the component factors, which comprise and reflect psychosocial well-being of school leaders and was supported by two further qualitative

stages, which explored the predominantly quantitative results providing contextualization and clarification for these findings. As such, this study represents the first such comprehensive psychometric measurement of the well-being of this cohort and facilitated the emergence of a holistic understanding of both the supporting and thwarting factors impacting their leadership role and occupational well-being. This first application of the FOW-B has produced clear results for each of the six selected psychosocial well-being components. These results may serve as the catalyst for initiating conversation among the various Irish education stakeholders regarding how best principals may be prepared for and supported in their role as school leader, e.g. IPPN, INTO, the Teaching Council, the DES, the CPSMA, Ireland's Health and Safety Authority and the recently founded Centre for School Leadership.

The FOW-B draws employer attention to what Kortum (2014) highlighted as the most neglected area of worker well-being – that of psychosocial well-being. In the absence of a consensus definition of psychosocial well-being at policy, legislative and management levels, it offers a definition which may prove useful. It additionally facilitates the psychometric measurement of psychosocial well-being. Henceforth, while allowing for the need to design sample-specific items for the Perception of Fairness component, the FOW-B may be utilized to measure the psychosocial health of other school leaders internationally as well as other cohorts of white-collar employees. And as previously highlighted, by ensuring that FOW-B constructs are satisfactorily addressed at worker level, employers are complying with all suggested interventions for employee psychosocial well-being as delineated by WHO's Healthy Workplace Initiative.

Regarding the study in hand, this research uncovered excessive levels of WRB being endured by Irish primary principals compared to a variety of professionals in multiple international studies who had also completed the CBI. Considering the long-term negative impacts on health and well-being attributed to stress, this constitutes a grave work-related occupational hazard, which warrants immediate intervention as suggested in both EU and Irish OSH legislation. From a legal perspective, this study's findings now place an onus on BOMs, as employers, to wholeheartedly initiate the introduction of stress-reducing measures for principals as *SHWW Act (2005)* instructs that employers must control workplace hazards including psychosocial hazards such as stress and bullying (HSA, 2005). To this end, and in the absence of any long service leave or step-down options for Irish principals, periodic mental health days could be made available to principals as enjoyed by multiple other professions who display lower burnout scores. Based on principals' reporting of role isolation the initiation of a discreet mentoring service for principals is recommended. Recently retired principals who have an abundance of role expertise and experience could be trained for this purpose. Additionally, through inadequacies in the collective skillset of the BOM and lack of training, BOMs were found to add to principals' workload instead of relieving it, which contravenes both EU and Irish OSH legislative requirements for employers, as presented. Accordingly, mandatory pre-appointment training for BOM members is recommended to control the ongoing devolution to principals of the majority of BOM tasks. It is clear from the results of the present study that investment in Irish primary principal well-being is urgently required considering the negative impacts on health and well-being uncovered in this study, and also considering the pivotal role played by school leaders in the achievement and welfare of students, in teacher retention, job satisfaction and well-being and in

linking with and serving community needs (Grissom et al., 2021; Kelly, 2022; Khalifa, 2012). Grissom et al. (2021) conclude in their report on how principals impact students and schools, that:

Principals **really** matter . . . given not just the magnitude but the scope of principal effects . . . it is difficult to envision an investment with a higher ceiling on its potential return than a successful effort to improve principal leadership.

Principals' call for enhanced job control and decision-making autonomy suggests that direct principal input to DES curricular interventions and initiatives, their design and the pace of their delivery is needed. Mandatory pre-service training for principals is also recommended resulting from the low level of preparedness felt by principals for their leadership role. As Irish principals are appointed on the basis of an interview and considering the differences in workload, responsibility and accountability between a classroom teacher and a school principal, it is unacceptable that principals receive no formal training for this highly demanding position. This study's findings additionally add to the near non-existent pool of information on Irish compliance with OSH directives as described by Graveling and Winski (2015).

A sample-related limitation of this study is that only currently employed principals were accessible for inclusion in the study. It may have been useful to include recently retired/resigned principals or those on sick leave as some may have left the system because of failures in the protection of their psychosocial well-being thereby rendering them an unfortunate omission. However, it was not possible to access former principals from available databases. Relative to Irish principals' alignment with servant leadership traits, it remains to be investigated whether other Irish professionals work comparable levels of unpaid overtime or if the teaching profession characteristically attracts the type of person who firstly, fits the servant leader profile and, secondly, is willing to sacrifice aspects of their well-being for altruistic purposes.

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes on contributor

Rita McHugh is an Associate Lecturer in the School of Education at the University of Lincoln, UK, where she recently completed her PhD in Educational Research and Development. Rita has a comprehensive knowledge of the primary education sector having worked in several positions including principal, classroom teacher, special needs teacher, *Gaelscoil* teacher (Irish language) and island-school teacher, as well as serving on various INTO and IPPN committees and fora. Rita is also an Adjunct Faculty member in the School of Education at Hibernia College, Dublin, working as a module author, tutor, research supervisor and assessor. Her research interests include leadership well-being, psychosocial well-being in the workplace, school management, self-determination theory, teacher training and research methodologies.

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