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WORK ENGAGEMENT AS A MEDIATOR BETWEEN AUTONOMY SUPPORT AND PSYCHOLOGICAL WELL-BEING

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ABSTRACT

This study explored the role of supervisor and colleague autonomy support in relation to psychological, social, and emotional well-being, using the components of work engagement—vigor, devotion, and absorption—as mediators. Grounded in the Job-Demands Resources (JD-R) Model, the research highlights the importance of job resources, such as peer-support, in managing job demands and enhancing employee well-being, particularly within the context of education during the pandemic. A total of 315 participants, including teachers, staff members, and administrators, completed scales assessing work self-efficacy, job engagement, and mental health. The study utilized a cross-sectional and predictive research design, conducting the survey at a single point in time to determine the direct relationships and mediating roles of autonomy support and work engagement in relation to well-being. Data was analyzed using mediation analysis and confirmatory factor analysis, with model fit indices indicating an excellent fit. The findings revealed that supervisor and colleague autonomy support significantly predicted well-being, with work engagement fully mediating these relationships. Consequently, the direct effects of autonomy support on well-being became non-significant when work engagement was accounted for, indicating full mediation. Based on these results, it is recommended that educational institutions promote a supportive social environment, provide growth opportunities, and respect employee autonomy. This study contributes to the literature by elucidating pathways through which supervisor and peer autonomy support influence psychological, emotional, and social well-being through work vigor, dedication, and commitment.

Keywords: Positive organizational behavior, work engagement, well-being, autonomy support.

INTRODUCTION

On March 17, 2020, the Commission of Higher Education (CHED) of the Republic of the Philippines implemented a temporary transition to fully online education to prevent the spread of Covid-19. Consequently, academic institutions had to rapidly adapt to online classes and administrative functions for the entire academic year starting in July 2020 (Embalsado et al., 2022). This shift to a fully online set up resulted in longer working hours, disrupted sleep patterns, and extended daily routines (Banna et al., 2020; Majumdar et al., 2020). Educators faced the dual challenge of teaching students and adapting their instruction to an online format, while also learning to use new technologies effectively, providing emotional and instructional support to students, and maintaining communication with parents (Bretones et al., 2020; Hodges et al. 2020). Creating a conducive home working environment, including access to devices and reliable internet, was essential for this transition. In this context, the support of supervisors and colleagues became crucial for fellow educators and university staff, serving as important job resources to manage the demands of this new setup (Ebersold, 2019; Embalsado et al., 2023; Slemp et al. 2018). Such support serves as an integral socio-environmental motivator, promoting positive occupational behavior and overall well-being (Embalsado et al., 2023). This study aims to explore how autonomy support from supervisors and colleagues influences the well-being of university educators and staff.

Embalsado et al. (2022) acknowledged the importance of supervisor support in providing both emotional and technical support to navigate the challenges of full online education. However, recent research on autonomy support and well-being has mainly focused on supervisor support in administrative, information technology, professional services, and health care sectors (Chong et al., 2021; Slåtten et al., 2020; Slemp et al., 2021). The findings consistently show that supervisor support positively impacts employee well-being. On the other hand, the scant literature on the impact of autonomy support for teachers and administrative staff, particularly regarding how supervisor support influences their well-being (Ebersold et al., 2019; Jiang & Tanaka, 2022). Most research across various fields and within higher education emphasizes supervisor support, general focusing on overall or psychological well-being. This study indicates that autonomy support is an important job resource to enhance employee well-being. However, the role of colleague autonomy support as an important job resource, and its effect on types of different well-being, has not been thoroughly explored. Recent studies by Embalsado et al. (2023), Ebersold (2018) and Slemp et al. (2018) suggest that both supervisor and colleague autonomy support are essential job resources for promoting employee well-being. Despite this, there is a notable gap in the literature regarding the roles of supervisors and colleagues in different types of well-being, including psychological, social, and emotional dimensions.

According to the Job Demands-Resources (JD-R) Model, autonomy support from both colleagues and supervisors is an important job resource that helps employees attain their occupational goals and manage job demands (Demerouti et al., 2001). The JD-R Model emphasized the importance of job resources in enhancing employee well-being. This model, along with existing literature, highlights the importance of further understanding autonomy support and its impact on well-being within the educational setting. The model also suggests that workplace resources, such as supportive coworkers and supervisors, can improve well-being by fostering work engagement. Specifically, autonomy support influences well-being through its effect on work engagement. This means that when supervisors and colleagues provide autonomy support, it enhances employees' work engagement, leading to a more positive state of mind. This heightened engagement, in turn, contributes to better well-being, as employees who are engaged in their work are more likely to experience positive outcomes (Embalsado

et al., 2023). Thus, a supportive environment that encourages employee engagement tends to promote positive well-being.

In this study, the JD-R Model serves as the theoretical framework. It posits that environmental resources, such as autonomy-supportive supervisors, enhance work engagement and well-being (Bakker & Demerouti, 2007). The study aims to address research gaps by providing a comprehensive empirical model that examines the role of supervisor and colleague autonomy support in psychological, social, and emotional well-being; with a particular focus on the mediating role of work engagement. Furthermore, the researcher explores how components of work engagement—specifically, vigor, dedication, and absorption—mediate the relationship between autonomy support and well-being. This approach provides insights into the impact of important environmental job resources within the educational context. The study has two primary objectives: first, to elucidate the impact of supervisor and colleague autonomy support on various aspects of well-being; and second, to investigate how the components of work engagement mediate the relationship between autonomy support and well-being. This research seeks to deepen the understanding of how a supportive workplace environment influences work engagement and, consequently, enhances employee well-being.

LITERATURE REVIEW

Employee Well-being

The environmental change and isolation cause by the pandemic had negatively impacted employee well-being (Banna et al. 2020; Embalsado et al., 2022, 2023). Keyes (2014) suggests that when assessing well-being, it is important to consider the tripartite model of mental health. This model posits that complete mental health encompasses three components: psychological, emotional, and social well-being (Keyes, 2014). Psychological well-being refers to personal appraisal of one's optimal functioning, including aspects such as environmental mastery, personal growth, purpose in life, positive relationships, and autonomy. Emotional well-being is characterized by a balance between negative and positive emotions, and a subjective appraisal of life satisfaction. Social well-being refers to one's satisfaction with their societal interactions and the perceptions and experiences related to social circumstances and challenges (Keyes, 2002).

In the workplace, psychological well-being emphasizes finding purpose, meaning, and growth in one's work. Employees with high psychological well-being are typically more engaged, find their work meaningful, and experience a sense of accomplishment (Grant & Ashford, 2008; Wright & Cropanzano, 2000). Social well-being in the workplace is associated with positive and supportive relationships with colleagues, superiors, and other stakeholders. Employees with high social well-being often feel a sense of belonging, connectedness, and support at work (Rhoades & Eisenberger, 2002; De Simone, 2014). Lastly, emotional well-being involves experiencing positive emotions such as happiness, joy, and contentment at work. It also includes the ability to cope effectively with negative emotions and manage work-related stress. Additionally, emotional well-being includes the importance of finding personal and family time for relaxation and leisure to alleviate work exhaustion (Barsade & Gibson, 2007; Grant & Ashford, 2008).

Few studies have explored well-being as a comprehensive state of mental health among university educators and staff (Embalsado et al., 2022). Most research on mental health during the pandemic has focused either on general well-being or on specific aspects of well-being (Jakubowski & Sitko-Dominik, 2021; Simonton et al., 2022). The shift to unfamiliar educational modalities, social isolation,

and community quarantine significantly impacted the well-being of educators and staff, who faced challenges in adjusting to new work demands and environments (Nasr, 2020). A study conducted with 360 educators and staff revealed that their psychological was adversely affected by difficulties in functioning optimally within the new work environment and meeting ambiguous work demands (Embalsado et al., 2022). The uncertainty brought about by the pandemic may have threatened core aspects of their role as educators. Their ability to plan, impart knowledge, and engage with their students was hindered, adding to their stress and challenges (Simonton et al. 2022). In a longitudinal study assessing the mental health and well-being of various teacher groups throughout the pandemic, primary and secondary teachers reported frustration due to their inability to effectively schedule tasks amidst ongoing uncertainties (Kim et al., 2022). The transition to distance learning was also identified as a detrimental factor impacting educators' and staff's mental health. The loss of student-teacher interactions, which many teachers found to be a fulfilling aspect of their profession, further challenged their sense of purpose and commitment to teaching (Hascher et al., 2021).

Autonomy Support and Well-being

Support from colleagues and immediate supervisors is crucial for maintaining positive mental health and work engagement (Embalsado et al., 2023; Knight et al., 2017). In organizational contexts, autonomy support refers to a supervisor's ability to "understand and acknowledge the perspectives of their subordinates, provide meaningful information in an informative manner, offer opportunities for choice, and encourage self-initiation" (Deci et al., 2001, p. 931). Leadership that supports autonomy is positively associated with both well-being and work engagement. Previous studies have shown that leaders' actions impact employees' volition, psychological capital, innovative behavior, creativity, engagement, and overall well-being. (Ebersold et al., 2019; Slåtten et al., 2020; Slemp et al., 2018).

Supervisor autonomy support involves fostering freedom, independence, and personal control over work decisions and tasks. It enhances psychological well-being by building trust and support, making employees feel competent and confident in their roles. Autonomy-supportive supervisors allow employees to perform their tasks autonomously, which promotes a sense of control and ownership over their work (Van den Broeck et al., 2016). In terms of social well-being, supervisors who respect employees' autonomy often develop positive workplace relationships characterized by camaraderie, trust, respect, and mutual understanding. When employees perceive such support, they experience a sense of belonging, connectedness, support, and worth in the workplace (Gagné & Deci, 2005; Slemp et al., 2018). Additionally, autonomy support from supervisors can reduce work-related negative emotions, such as stress and burnout, by providing employees greater control and flexibility in their work (Slemp et al., 2018; Slemp et al., 2015).

Although extant literature highlights the influence of autonomy support on well-being and work engagement, most studies focus primarily on support from immediate supervisors. There is a notable gap in research regarding autonomy support from colleagues (Ebersold et al., 2019; Moreau & Mageau, 2012; Slemp et al., 2018). To address this gap, it is important to examine how both supervisors' and colleagues' autonomy support influence work engagement and well-being among university educators and staff within a single model (Ebersold et al., 2019). Limited research suggests that autonomy supportive colleagues can enhance psychological well-being by helping their peers feel competent and capable of independently managing their tasks. This fosters a sense of mastery and allows for self-directed decision-making and action, demonstrating personal control over one's work (Gardner, 2020). Additionally, positive relationships and mutual understanding among coworkers contribute to social well-being by providing a sense of inclusivity, respect, and collaboration. Such a collaborative

environment empowers employees to engage in workplace decision-making (Clausen et al., 2022; Chong et al., 2021). Furthermore, colleague autonomy support plays a crucial role in reducing stress and preventing burnout. By offering flexibility and support, colleagues help others manage their workloads according to their preferences. Feeling trusted and supported by coworkers alleviates feelings of overwhelm and emotional exhaustion. Autonomy-supportive interactions with colleagues also foster positive emotions such as gratitude, appreciation, and camaraderie, which enhance emotional well-being and create a positive work atmosphere (Slatten et al., 2020; Thompson & Prottas, 2006). Hence, based on the empirical findings, it is posited that:

H₁: Supervisor and colleague autonomy support significantly predict psychological well-being

H₂: Supervisor and colleague autonomy support significantly predict emotional well-being

H₃: Supervisor and colleague autonomy support significantly predict social well-being.

Autonomy Support and Work Engagement

Employees tend to be more engaged in their work when they are in a supportive environment (Rigby & Ryan, 2018). Supportive social connections within an organization build trust and provide emotional support, which in turn stimulates work engagement (Kahn & Heaphy, 2014; Zhou et al., 2022). Providing guidance to employees improve their decision-making abilities and offers them flexibility, freedom, and discretion, all of which contribute to greater work engagement (Siddiqi, 2014; Hidayah et al., 2018). Furthermore, an autonomy-supportive supervisor focuses on the career growth and development of their subordinates (Siddiqi, 2014), which helps them to flourish and thrive, ultimately increasing their work engagement (Kleine et al., 2019; Imran et al., 2020). When employees perceive that their supervisors support them, they are more likely to reciprocate with higher levels of work engagement. Opportunities to choose and decide on their work lead to increased interest and satisfaction, which further fosters work engagement (Malinowska et al., 2018; de Jong et al., 2020). For instance, a study of 49 secondary school teachers in Germany found that autonomy-supportive school principals promoted autonomous work behaviors, such as work engagement (Ebersold et al., 2019). Additionally, the sense of belonging and support from fellow workers also contribute to work engagement. Palo and Rothman (2016) and Ahmed et al. (2019) found that both supervisor and colleague autonomy support enhance work engagement.

Supervisor autonomy support particularly, plays a crucial role in shaping employees' level of work engagement, including vigor, dedication, and absorption. Autonomy-supportive supervisors empower employees by entrusting them with decision-making authority over their tasks and methods. This empowerment fosters a sense of energy and enthusiasm (vigor) motivating employees to invest their efforts wholeheartedly into their work (Kanat-Maymon et al., 2017). Furthermore, such autonomy nurtures a deep commitment and passion (dedication) towards their tasks, as employees perceive their work as personally meaningful and aligned with their values (Shi & Gordon, 2020). In such environments, employees also experience immersive engagement and focus (absorption), where they become fully engrossed in their tasks, experiencing a state of flow and heightened concentration (Yong et al., 2023). This immersive engagement not only enhances performance but also contributes to employees' overall job satisfaction and well-being in the workplace. Therefore, supervisor autonomy support is pivotal in shaping a work culture that fosters employee engagement and flourishing.

Colleague autonomy support significantly influences employees' work engagement, including vigor, dedication, and absorption. When colleagues provide autonomy support, employees feel trusted and respected in their decision-making regarding their tasks and work methods. This sense of empowerment

fosters energy and enthusiasm (vigor) within employees, motivating them to invest their efforts passionately in their work (Mokgata et al., 2023). Moreover, autonomy support enhances deep commitment and dedication to tasks, as employees perceive their work as personally meaningful and aligned with their values (Arka et al., 2022; Mokgata et al., 2023). In such supportive environments, employees experience immersive engagement and focus (absorption), becoming fully engrossed in their tasks and experiencing a state of flow and heightened concentration (Heyns & Rothmann, 2018; Mokgata et al., 2023). This immersive engagement not only enhances performance but also contributes to employees' overall satisfaction and well-being. Therefore, colleague autonomy support is essential for fostering a work culture that promotes employee engagement. Drawing on this, it is proposed that:

H₄: Supervisor and colleague autonomy support significantly predict the work vigor.

H₅: Supervisor and colleague autonomy support significantly predict work dedication.

H₆: Supervisor and colleague autonomy support significantly predict work absorption.

Work Engagement and Well-being

Work engagement is defined as a fulfilling and sustained positive state of mind related to one's work, encompassing feelings of dedication, vigor, and absorption (Schaufeli & Salanova, 2007). Dedication involves substantial involvement in one's work accompanied by a sense of enthusiasm, significance, and challenge. Vigor is characterized by high levels of mental energy and resilience at work. Absorption refers to being fully engrossed and concentrated in work, where time seems to pass quickly, and it becomes difficult to detach from work (Schaufeli & Bakker, 2004).

Research on positive organizational behavior reveals that work engagement significantly impacts employees' well-being (Embalsado et al., 2023; Lien Ooi et al., 2022). Higher levels of physical, emotional, and cognitive engagement are positively associated with overall well-being (Shimazu et al., 2012). Engaged employees often experience increased life satisfaction and improved physical and mental health (Schaufeli et al., 2008). Conversely, work engagement is negatively related to several indicators of poor well-being, such as job exhaustion (Koyuncu et al., 2006), psychosomatic symptoms including cardiovascular issues, and headaches (Schaufeli et al., 2008; Koyuncu et al., 2006), and sleep problems (Hallberg & Schaufeli, 2006). Despite these findings, much of the research on well-being within organizations has focused on general well-being (Slemp et al., 2018) or specific negative aspects like burnout (Embalsado et al., 2023; Schaufeli et al., 2008), anxiety or depression (Desouky & Allam, 2017). There is notable gap in research regarding positive well-being among teachers.

Researchers hypothesize that the components of work engagement—vigor, dedication, absorption— affect various types of well-being including psychological, social, and emotional well-being. This hypothesis includes the direct effect of colleague and supervisor autonomy support on work engagement components and well-being. The study aims to explore the mediating role of work engagement components (vigor, dedication, absorption) in the relationship between autonomy support (from colleague and supervisors) and different types of well-being (i.e. psychological, social, and emotional).

Work vigor, characterized by the enthusiasm and energy employees bring to their roles, has significant implications for overall well-being. High levels of work vigor often contribute to positive psychological outcomes, such as an elevated mood and a sense of accomplishment (Çelîk & Esen, 2017). Moreover, vigorous employees tend to foster positive relationships with colleagues and supervisors, creating a supportive and collaborative work environment that enhances social well-being (Shirom et al., 2011). Additionally, employees with high vigor are better equipped to navigate workplace stressors,

demonstrating resilience and maintaining positive emotional states (Choochom, 2016). Overall, work vigor plays a crucial role in promoting employees' psychological, social, and emotional well-being, contributing to their overall job satisfaction and success.

Work dedication, which reflects employees' strong commitment and passion for their roles, has a significant impact on their overall well-being. Employees who are deeply dedicated to their work often experience a strong sense of purpose and fulfillment, contributing to their psychological well-being (Wang et al., 2022). This commitment also helps in building positive relationships with coworkers and supervisors, thereby fostering a supportive and collaborative work environment that enhances social well-being (Ariza-Montes et al., 2019). Additionally, dedicated employees demonstrate resilience when facing challenges, maintaining a positive outlook and emotional stability. Their commitment is frequently accompanied by positive emotions, such as satisfaction and pride, which further enhance their emotional well-being (Hamilton et al., 2021). In summary, work dedication plays a vital role in promoting employees' psychological, social, and emotional well-being, leading a more fulfilling and satisfying work experience.

Work absorption, which describes employees' deep engagement and focus on their tasks, has profound implications for their well-being. When employees are fully absorbed in their work, they often experience a state of flow—characterized by intense concentration and enjoyment—that enhances their psychological well-being (Rusu & Colomeischi, 2020). This state of absorption fosters intrinsic motivation, leading to fulfillment and satisfaction within the work itself and their sense of autonomy and control. Absorbed employees also tend to develop positive relationships with coworkers, as their engagement and dedication inspire and motivate others, creating a supportive and collaborative work environment that enhances social well-being (Penttinen et al., 2020). Moreover, their focus and efficiency in their tasks contributes to team productivity, which enhances social cohesion. Work absorption serves as a coping mechanism for stress, providing employees with a sense of mastery and reducing anxiety (Janssen et al., 2020). Overall, employees who are deeply absorbed in their work are more likely to experience emotional well-being, characterized by positive emotions and a sense of fulfillment in their professional lives. Based on the empirical evidences and theoretical assertions, the following hypotheses are proposed:

H₇: Work vigor significantly predicts psychological, social, and emotional well-being.

H₈: Work absorption significantly predicts psychological, social, and emotional well-being.

H₉: Work dedication significantly predicts psychological, social, and emotional well-being.

Underpinning Theory

The Job Demands–Resources (JD-R) Model offers a framework for understanding employees' work conditions by categorizing them into two main types: job demands and job resources. Job demands refer to the physical, social, or organizational aspects of work that involve sustained physical or mental effort. These demands often come with physiological and psychological costs (Demerouti et al., 2001). Job resources, on the other hand, are the physical, social, or organizational features of the job that help employees attain their goals at work. They can mitigate the negative effects of job demands and related physiological and psychological costs, while also fostering personal growth and development (Demerouti et al., 2001).

The revised JD-R model incorporates both positive and negative psychological states to provide a more comprehensive explanation of work-related outcomes. It outlines two fundamental psychological

processes: the energetic or health impairment process and the motivational process. According to the revised JD-R model, high job expectations and inadequate job resources lead to burnout through energetic or health impairment process. Burnout is associated with health issues such as depression, cardiovascular disease, and psychosomatic ailments (Melamed et al., 2006). Thus, burnout is assumed to mediate the relationship between job demands and employee health and well-being. On the other hand, the motivational process is activated when job resources are plentiful. A work environment rich in resources fosters employees' willingness to dedicate effort and skills to their tasks (Meijman & Mulder, 1998). Job resources thus play a crucial motivational role: they not only encourage employees to expend effort and reduce job demands, but also support the achievement of work goals. Furthermore, job resources satisfy employees' basic needs for autonomy, relatedness, and competence which contributes to intrinsic motivation (Deci & Ryan, 2000). The JD-R Model's motivational process underpins this study. Either through the accomplishment of goals or the satisfying of basic human needs, employment resources lead to a positive and contented state of mind, which is linked to job satisfaction. This affective-motivational state, in turn, encourages favourable organizational outcomes, such as employee well-being. Therefore, work engagement is proposed as a mediator between autonomy support and well-being. Given that, it is proposed that:

H₁₀: Work vigor significantly mediates the relationship between supervisor and colleague autonomy support and psychological, social, and emotional well-being.

H₁₁: Work absorption significantly mediates the relationship between supervisor and colleague autonomy support and psychological, social, and emotional well-being.

H₁₂: Work dedication significantly mediates the relationship between supervisor and colleague autonomy support and psychological, social, and emotional well-being.

METHODOLOGY

Participants and Procedures

Data collection was conducted from February 2, 2022 to June 6, 2022. The survey was administered online via email, using the university mailing list managed by the Human Resource Department Center (HRDC). Survey links were sent directly to research participants' college email accounts. A convenience sampling method was employed, inviting all faculty members and staff to complete the survey. This approach was chosen to include all willing employees and ensure that no demographic group was excluded.

The study utilized both cross-sectional and predictive research designs. The cross-sectional design involved a one-time data gathering through the survey. While the predictive research design focused on examining the hypothesized relationships between autonomy support and well-being, as well as the mediating role of work engagement.

GPower was used to compute the statistical power of the sample size (Faul et al., 2007). Using a priori statistical power analysis, a total sample size of 226 was required to achieve a medium effect size ($f^2 = 0.15$), with an alpha level of 0.05 for the probability error, and a statistical power of 0.95. This analysis accounted for 21 predictors or regression pathways, including the effects of supervisor and colleague support on work engagement components and well-being, and the effects of work engagement components on various types of well-being. With 315 complete responses, the post hoc analysis revealed a statistical power of 99.52%, indicating that the sample size was more than sufficient for the study's needs.

The age of the participants ranged from 21 to 79 years, with a mean age of 39.3 years. Of the 190 female participants (60.3%), the mean age was also 39.3 years. Most participants were married (170, 54%). In terms of educational attainment, the majority held either a bachelor's degree (126, 40%) or a master's degree (126, 40%). In terms of employment status, most participants were full-time regular employees (193, 61.3%) (See Table 1).

Table 1

Demographic Profile

	M	SD	Range
Age	39.3	10.8	21-79
	Frequency	Percentage	Cumulative Percentage
Male	125	39.7%	39.7%
Female	190	60.3%	100%
	Frequency	Percentage	Cumulative Percentage
Legally Separated	4	1.3%	1.3%
Married	170	54%	55.2%
Never Married	122	38.7%	94%
Separated	8	2.5%	96.5%
Widowed	11	3.5%	100%
	Frequency	Percentage	Cumulative Percentage
Full-time Contractual	7	2.2%	2.2%
Full-time Probationary	78	24.8%	27%
Full-time Regular	193	61.3%	88.3%
Part-time	37	11.7%	100%

Note: N=315, M-Mean, SD-Standard Deviation

Measurement and Instrumentation

The Work Climate Inventory Short Form (WCI-SF) was used to assess colleague autonomy support (CAS) and supervisor autonomy support (SAS) (Bard et al., 2004). This scale is composed of 12 items, rated on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The items related to colleague autonomy support include statements such as 'I am able to be open with my colleagues' and 'My colleagues encourage me to ask questions.' Supervisor autonomy support is assessed with items such as 'I feel that my supervisor accepts me' and 'I feel that my immediate supervisor provides me with choices and options.' These items are administered separately for colleagues and supervisors. In terms of the psychometric properties, the two-factor work climate inventory obtained good fit with the following indices: (χ^2 (42) =127.338, $p < .001$; GFI =.938; CFI =.981; TLI =.970; RMSEA =.080; SRMR =.028) (See Table 3). The inventory also exhibited strong internal reliability, with Cronbach's alpha coefficients of $\alpha = .959$ for SAS and $\alpha = .960$ for CAS (See Table 2).

The Mental Health Continuum Short Form (MHC-SF) was used to assess employee well-being. This self-report questionnaire consists of 14-items, rated on a 6-point Likert scale ranging from 1 (Never) to 6 (Every Day). It includes three subscales, each representing different aspects of well-being constructs. Participants responded to prompts such as 'During the past month, how often did you feel the following ways...' The subscales are: Psychological well-being (6-items), e.g., 'That your life has a sense of direction or meaning to it.' Emotional well-being (3-items), e.g., 'Happy.' Social well-being (5-items),

e.g., ‘That you belonged to a community’ (Keyes, 2002). The MHC-SF demonstrated excellent psychometric properties, with fit indices as follows: (χ^2 (69) = 185.586, $p < 0.001$; GFI = 0.932; CFI = 0.963, TLI = 0.953; RMSEA = 0.073; SRMR = 0.043) (See Table 3). The internal reliability of the subscales was also strong: Psychological Well-Being (PWB), $\alpha = 0.883$; Social Well-Being (SWB), $\alpha = 0.880$; Emotional Well-Being (EWB), $\alpha = 0.901$ (See Table 2).

Table 2

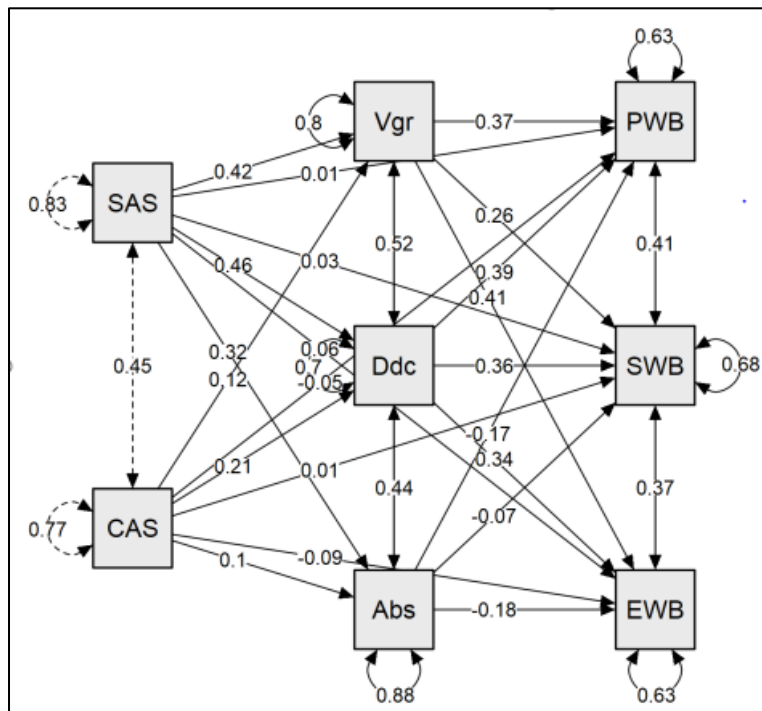
Correlation Matrix and Descriptive Statistics

	M	SD	α	1	2	3	4	5	6	7
PWB	4.01	0.859	0.883							
SWB	3.597	1.068	0.880	0.749***						
EWB	4.07	0.891	0.901	0.785***	0.710***					
Vigor	4.45	1.033	0.769	0.561***	0.513***	0.565***				
Dedication	5.07	0.978	0.871	0.554***	0.535***	0.539***	0.765***			
Absorption	4.713	0.966	0.707	0.287***	0.321***	0.275***	0.583***	0.633***		
SAS	6.319	0.913	0.959	0.295***	0.315***	0.314***	0.441***	0.524***	0.341***	
CAS	6.229	0.877	0.960	0.203***	0.245***	0.188***	0.323***	0.421***	0.252***	0.565***

Note: N=315, PWB - Psychological Well-being, SWB- Social Well-being, EWB - Emotional Well-being, SAS - Supervisor Autonomy Support, CAS - Colleague Autonomy Support. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Figure 1

Conceptual Diagram with Regression Coefficients



Utrecht Work Engagement Scale (UWES) is a 9-item self-report scale developed by Schaufeli et al. (2008). It assesses three dimensions of work engagement: vigor, dedication, and absorption. Sample items include: Vigor: *'When I get up in the morning, I feel like going to work.'* Dedication: *'My job inspires me.'* Absorption: *'When I am working, I forget everything else around me.'* All items are rated on a 7-point Likert scale ranging from 0 (Never) to 6 (Always). The UWES also showed excellent psychometric properties, with fit indices as follows: (χ^2 (21) = 48.908, $p < 0.001$; GFI = 0.967; CFI = 0.983; TLI = 0.971; RMSEA = 0.065; SRMR = 0.0313) (See Table 3). The internal reliability for the dimensions was satisfactory: Vigor, $\alpha = 0.769$; Dedication, $\alpha = 0.871$; Absorption, $\alpha = 0.707$ (See Table 2).

Ethical Considerations

The study received ethics approval from the Angeles University Foundation, Ethics Research Committee with the study approval number - 2021-414. Participation in the study was voluntary, and participants could withdraw at any time during data gathering. An informed consent form was provided, describing the purpose, procedures, risks, benefits, confidentiality measures, and data management practices of the study. Participants' identities were kept anonymous, and no personal information that could identify them was disclosed. After the survey, participants were given a debriefing form that explained the nature of the study. Data was stored securely on a drive accessible only to the research proponent through the organization's email, ensuring exclusive access to the data.

RESULTS

Statistical analyses were conducted using Jeffreys's Amazing Statistics Program (JASP), an open-access statistical software capable of conducting complex statistical analysis. The preliminary analysis involved descriptive statistics for demographic information and research variables. Pearson r product correlations were calculated for the research variables, and Cronbach's alpha was used to assess the internal consistency of the scales. Confirmatory factor analysis (CFA) was conducted to evaluate the validity of the measures. The model fit was assessed using the following criteria: a) Insignificant chi-square b) Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR) values lower than 0.08 and c) Tucker-Lewis Index (TLI), Comparative Fit Index (CFI), and Goodness-of-Fit Index (GFI) values above 0.9 (Hu & Bentler, 1999). A mediation analysis was conducted with colleague and supervisor autonomy support as the predictors, work engagement as the mediator, and psychological, social, and emotional well-being as outcomes. The indirect effects were estimated using a corrected bias bootstrap percentile with 5000 repetitions.

Confirmatory Factor Analysis

A series of CFAs were conducted to determine the factor structure of the research scales. The CFA for the Mental Health Continuum Scale (Keyes, 2002) which measures psychological, emotional, and social well-being, the initial CFA showed moderate fit indices (χ^2 (74) = 278.147, $p < 0.001$; GFI = 0.888; CFI = 0.983; TLI = 0.924; RMSEA = 0.094; SRMR = 0.0483). Modifications were made based on the modification indices: Items 4 and 5 as well as 5 and 8 were allowed to correlate since they pertain to social well-being. Similarly, items 10 and 12, 11 and 12, and 12 and 13 were allowed to covary due to their relevance to psychological well-being. These adjustments improved the model fit significantly (χ^2 (69) = 185.586, $p < 0.001$; GFI = 0.932; CFI = 0.963; TLI = 0.953; RMSEA = 0.073; SRMR = 0.043).

The Work Climate Inventory (Bard et al., 2004), which measures autonomy support from supervisors and colleagues, initially showed poor fit indices ($\chi^2(53) = 288.605$, $p < 0.001$; GFI = 0.872; CFI = 0.947; TLI = 0.934; RMSEA = 0.119; SRMR = 0.032). However, after inspecting the modification indices, we allowed items to covary. Following these adjustments, the factors for colleague autonomy support and supervisor autonomy support exhibited acceptable fit indices ($\chi^2(42) = 127.338$, $p < 0.001$; GFI = 0.938; CFI = 0.981; TLI = 0.970; RMSEA = 0.080; SRMR = 0.028).

Similarly, the initial three-factor model of the Utrecht Work Engagement Scale (Schaufeli et al., 2006) also demonstrated poor fit indices ($\chi^2(24) = 89.284$, $p < 0.001$; GFI = 0.944; CFI = 0.960; TLI = 0.941; RMSEA = 0.093; SRMR = 0.0451). Analysis of the modification indices suggested allowing items 1 and 2, 4 and 6, and 8 and 9 to covary, as these items belong to similar factors. These modifications resulted in excellent fit indices ($\chi^2(21) = 48.908$, $p < 0.001$; GFI = 0.967; CFI = 0.983; TLI = 0.971; RMSEA = 0.065; SRMR = 0.0313). Although the scales were scrutinized for possible modifications, the RMSEA remained less favorable compared to other fit indices (See Table 3).

Table 3

Results of Confirmatory Factory Analysis

	χ^2	<i>df</i>	<i>p</i>	GFI	CFI	TLI	RMSEA	SRMR
MHC (Three-Factor Model)	278.147	74	<0.001	0.888	0.983	0.924	0.094	0.0483
MHC (Modified Three-Factor Model)	185.586	69	<0.001	0.932	0.963	0.953	0.073	0.0430
WCI (Two-Factor Model)	288.605	53	<0.001	0.872	0.947	0.934	0.119	0.0320
WCI (Modified Two-Factor Model)	127.338	42	<0.001	0.938	0.981	0.970	0.080	0.028
UWES (Three-Factor Model)	89.284	24	<0.001	0.944	0.960	0.941	0.093	0.0451
UWES (Modified Three-Factor Model)	48.908	21	<0.001	0.967	0.983	0.971	0.065	0.0313

Note: N = 315, MHC - Mental Health Continuum, WCI - Work Climate Inventory, UWES - Utrecht Work Engagement Scale

Mediation Analysis

JASP was used to examine the hypothesized mediation of work engagement components in the relationship between supervisor autonomy support and psychological well-being, emotional well-being and social well-being. The analysis revealed that SAS significantly predicted PWB ($\beta = 0.290$, $p < 0.001$), SWB ($\beta = 0.284$, $p < 0.001$) and EWB ($\beta = 0.334$, $p < 0.001$) (See Table 6). However, when including the mediators—vigor, dedication, and absorption—the direct effects of supervisor autonomy support on psychological well-being ($\beta = 0.010$, $p = 0.877$), social well-being ($\beta = 0.032$, $p = 0.631$), and EWB ($\beta = 0.064$, $p = 0.999$) were no longer significant (See Table 4). Bootstrap analysis with 5000 repetitions indicated significant indirect effects: vigor ($\beta = 0.154$, CI 95% [0.072, 0.273], $p < 0.001$), dedication ($\beta = 0.180$, CI 95% [0.090, 0.307], $p < 0.001$), and absorption ($\beta = -0.054$, CI 95% [-0.127, -0.012], $p = 0.015$) between supervisor autonomy support and psychological well-being. For social well-being only dedication showed a significant indirect effect ($\beta = 0.082$, CI 95% [0.021, 0.172], $p = 0.007$). Moreover, vigor ($\beta = 0.110$, CI 95% [0.041, 0.220], $p = 0.002$) and dedication ($\beta = 0.166$, CI 95% [0.075, 0.286], $p < 0.001$) had a significant indirect effect between supervisor autonomy support and employee

well-being (See Table 5). The findings provided evidence that vigor, dedication, and absorption fully mediate the relationship between SAS and PWB. Dedication fully mediates the link between supervisor autonomy support and social well-being, while vigor and dedication fully mediate the association between supervisor autonomy support and emotional well-being.

Table 4

Direct Effects

			β	p-value	t-value	SE	95% CI	
							Lower	Upper
SAS	→	PWB	0.010	0.690	0.156	0.064	-0.133	0.164
SAS	→	SWB	0.032	0.710	0.478	0.067	-0.112	0.183
SAS	→	EWB	0.064	0.770	1.0	0.064	-0.066	0.217
CAS	→	PWB	-0.050	0.470	0.794	0.063	-0.193	0.083
CAS	→	SWB	0.012	0.800	0.185	0.065	-0.132	0.148
CAS	→	EWB	-0.086	0.320	1.365	0.063	-0.231	0.047

Note: N=315; ***<0.001, **<0.01, *<0.05, SAS- Supervisor Autonomy Support, CAS- Colleague Autonomy Support, PWB-Psychological Well-being, EWB-Emotional Well-being, SWB-Social Well-being.

Among the well-being outcomes, only social well-being was significantly predicted by colleague autonomy support ($\beta = 0.112$, $p < 0.001$) (See Table 6). When mediators—vigor, dedication, and absorption—were included, the direct effect of colleague autonomy support on social well-being was no longer significant ($\beta = 0.012$, $p = 0.859$) (See Table 4). Confidence bias bootstrap percentile with 5000 repetitions revealed significant indirect effects of dedication between colleague autonomy support and PWB ($\beta = 0.075$, CI 95% [0.018, 0.169], $p = 0.010$), and emotional well-being ($\beta = 0.072$, CI 95% [0.017, 0.154], $p = 0.010$). Additionally, vigor ($\beta = 0.168$, CI 95% [0.077, 0.301], $p < 0.001$), dedication ($\beta = 0.159$, CI 95% [0.079, 0.266], $p < 0.001$), and absorption ($\beta = -0.058$, CI 95% [-0.137, -0.014], $p = 0.011$) showed significant indirect effects between colleague autonomy support and social well-being (See Table 5). Following the guidelines of Hayes (2013), Shrout and Bolger (2002), the significance of the total effects alone does not determine mediation. Instead, mediation is assessed based on the significance of the indirect effects, as verified by corrected bias bootstrap with 5000 repetitions (MacKinnon et al., 2004).

Table 5

Indirect Effects

					β	p-value	t-value	SE	95% CI		Decision
									Lower	Upper	
SAS	→	Vigor	→	PWB	0.154	<0.001	3.94	0.039	0.072	0.273	Supported
SAS	→	Dedication	→	PWB	0.180	<0.001	4.091	0.044	0.090	0.307	Supported
SAS	→	Absorption	→	PWB	-0.054	0.027	2.455	0.022	-0.127	-0.012	Supported
SAS	→	Vigor	→	SWB	0.046	0.130	1.704	0.027	-0.016	0.126	Not Supported
SAS	→	Dedication	→	SWB	0.082	0.030	2.733	0.030	0.021	0.172	Supported
SAS	→	Absorption	→	SWB	-0.017	0.078	1.214	0.014	-0.066	0.008	Not Supported

(continued)

				β	p-value	t-value	SE	95% CI		Decision	
								Lower	Upper		
SAS	→	Vigor	→	EWB	0.110	0.013	3.143	0.035	0.041	0.220	Supported
SAS	→	Dedication	→	EWB	0.166	<0.001	3.773	0.044	0.075	0.286	Supported
SAS	→	Absorption	→	EWB	-0.023	0.095	-1.150	0.020	-0.084	0.018	Not Supported
CAS	→	Vigor	→	PWB	0.033	0.082	1.571	0.021	-0.009	0.099	Not Supported
CAS	→	Dedication	→	PWB	0.075	0.035	2.586	0.029	0.018	0.169	Supported
CAS	→	Absorption	→	PWB	-0.007	0.065	-0.875	0.008	-0.048	0.005	Not Supported
CAS	→	Vigor	→	SWB	0.168	<0.001	4.200	0.040	0.077	0.301	Supported
CAS	→	Dedication	→	SWB	0.159	<0.001	3.786	0.042	0.079	0.266	Supported
CAS	→	Absorption	→	SWB	-0.058	0.025	-2.522	0.023	-0.137	-0.014	Supported
CAS	→	Vigor	→	EWB	0.050	0.130	1.667	0.030	-0.016	0.133	Not Supported
CAS	→	Dedication	→	EWB	0.072	0.035	2.571	0.028	0.017	0.154	Supported
CAS	→	Absorption	→	EWB	-0.018	0.078	-1.286	0.014	-0.072	0.009	Not Supported

Note: N-315; SAS- Supervisor Autonomy Support, CAS- Colleague Autonomy Support, PWB-Psychological Well-being, EWB-Emotional Well-being, SWB-Social Well-being.

Table 6

Total Effects

				β	p-value	t-value	SE	95% CI		Decision
								Lower	Upper	
SAS	→	PWB		0.290	<0.001	4.08	0.071	0.101	0.467	Supported
SAS	→	SWB		0.284	<0.001	4.00	0.071	0.097	0.459	Supported
SAS	→	EWB		0.334	<0.001	4.70	0.071	0.143	0.528	Supported
CAS	→	PWB		0.061	0.120	0.82	0.074	-0.065	0.289	Not Supported
CAS	→	SWB		0.112	<0.001	1.51	0.074	0.097	0.459	Supported
CAS	→	EWB		0.018	0.320	0.24	0.074	-0.160	0.185	Not Supported

Note: N-315; SAS- Supervisor Autonomy Support, CAS- Colleague Autonomy Support, PWB-Psychological Well-being, EWB-Emotional Well-being, SWB-Social Well-being.

DISCUSSIONS AND IMPLICATIONS

The evidence supports the hypothesis that vigor, dedication, and absorption mediate the relationship between supervisor autonomy support and psychological well-being. Specifically, vigor and dedication mediate the connection between supervisor autonomy support and emotional well-being, while dedication alone mediates the relationship between supervisor autonomy support and social well-being. On the other hand, absorption has a negative indirect effect on the relationship between supervisor autonomy support and psychological well-being. For colleague autonomy support, the only mediation effect that supported the research hypothesis was the mediation of dedication between colleague autonomy support and psychological well-being. On the other hand, vigor, dedication, and absorption together mediate the relationship between colleague autonomy support and social well-being, while dedication alone mediates the connection between colleague autonomy support and emotional well-

being. The findings are consistent with the application of the Job Demand Resources Model in the context of remote work for educators and staff during the pandemic (Bakker & Demerouti, 2007). Autonomy-supportive supervisors and colleagues served as social resources that helped mitigate the negative effects of ambiguous work demands on well-being. The significant mediation effects of work engagement components in this study align with existing research on the mediating role of work engagement in relation to social environments and well-being. The study contributes to the literature by elucidating the different direct and indirect pathways through which supervisor and colleague autonomy support affect psychological, social, and emotional well-being, with vigor, dedication, and absorption serving as distinct mediators.

Components of work engagement fully mediated the relationship between supervisor autonomy support and employee well-being. Specifically, vigor, dedication, and absorption fully mediated the association between supervisor autonomy support and psychological well-being, supporting the research hypothesis. Supervisors who understand, support, and encourage autonomy at work foster high levels of energy, willingness, and persistence among employees to tackle challenging work demands. These findings support existing literature that highlights the positive impact of autonomy support on work engagement. Autonomy support serves as a motivational force, encouraging employees to engage in their work (Gagné & Deci, 2005). By allowing employees to pursue tasks aligned with their interests and volition, autonomy-supportive supervisors enhance work engagement. Furthermore, such supervisors inspire and challenge their subordinates, helping them find meaning and purpose in their work—particularly in terms of dedication. Supervisors who foster vigor and dedication positively influence employees' psychological well-being. They also encourage employees to fulfill their duties, participate willingly in tasks, provide constructive feedback, and understand their subordinates (Baard, 2006; Embalsado et al., 2023). Furthermore, autonomy-supportive supervisors enhance employees' positive appraisal of their optimal functioning, such as mastering work tasks, expressing thoughts and ideas confidently, and feeling a sense of direction at work.

Absorption at work was found to have a negative indirect effect. University educators and staff, while working remotely, managed to balance home and work demands (Polymili, 2021). They adapted to juggling work, personal, and family responsibilities while working from home (Harapan et al., 2020). Over time, employees became proficient in managing remote work alongside other responsibilities (Sánchez-Pujalte et al., 2021). Furthermore, educators and staff have placed greater emphasis on the needs of their families, prioritizing positive family relationships. They tend to work better when they maintain healthy relationships with their families (Galanti et al., 2021; Mihalca et al., 2021). In this context, being excessively absorbed in work restricted their ability to fulfill personal and family obligations. Employees who had previously enjoyed flexible arrangements for managing their duties found that focusing solely on work became unproductive during the pandemic (Galanti et al., 2021; Mihalca et al., 2021). Restricting employees to rigid work schedules and conditions hindered their optimal functioning. Therefore, supervisors who motivate employees to be fully absorbed in work might negatively impact their psychological well-being.

Vigor and dedication were found to mediate the relationship between supervisor autonomy support and emotional well-being, aligning with the research hypothesis. This suggests that when supervisors provide autonomy support, it promotes vigor and dedication in employees, leading to greater happiness, interest, and life satisfaction. The study's findings on the positive effect of work engagement on emotional well-being support previous research, such as (Shimazu et al., 2012), which indicated that engaging employees in a supportive social environment enhances their emotional well-being, as evidenced by increased positive emotions and job satisfaction. Furthermore, Employees who receive

support from autonomy-supportive supervisors generally find greater satisfaction and enjoyment in their jobs. This support often motivates them to put in more effort, overcome challenges, and maintain high energy levels in fulfilling their duties. Extant literature supports this view, showing that emotional well-being at work is closely associated with job resources including supportive supervisors who assist in completing tasks (Darvishmotevali & Ali, 2020; Garg & Singh, 2020; Bakker & Oerlemans, 2010; Rusu & Colomeischi, 2020). Recent research by Pattnaik and Panda (2020) and Shi and Gordon (2019) further confirms that supervisor support enhances work engagement. When supervisors are actively involved, they inspire a sense of purpose and motivation among their employees, contributing to higher job satisfaction and emotional well-being (Pattnaik & Panda, 2020; Xanthopoulou et al., 2008). Additionally, a study conducted in Indonesia revealed that empowering employees leads to increased positive emotions (Rantika & Yustina, 2017). These findings emphasize that leaders who respect and support their team members cultivate a meaningful work environment, which enhances feelings of competence and autonomy. Supportive supervisors have been linked to higher work engagement and lower turnover rates among call center employees in India (Pattnaik & Panda, 2020), and hospitality workers in the United States (Shi & Gordon, 2020).

Dedication fully mediated the relationship between supervisor autonomy support and social well-being, which supports our research hypothesis. Autonomy-supportive supervisors who foster a sense of inspiration, significance, pride, and meaning in their employees' work satisfaction influence their satisfaction with their societal contributions. When supervisors help employees find meaning in their work and feel proud of their achievements, these employees are more likely to perceive their value in society, which enhances their social well-being. The pandemic has exacerbated social isolation and challenges, leaving social well-being particularly vulnerable (Embalsado et al., 2022). Distance learning during the pandemic negatively affected educators' and staff's sense of belonging and their ability to receive support from students and family (Anderson et al., 2021). Furthermore, the negative perception of the teaching profession from the media, coupled with an increased workload, has led educators to feel undervalued by society (Kim et al., 2022). The sudden changes in the working environment and the pressure to balance personal and professional responsibilities have taken a toll on employees' mental health. Thus, supervisors who provide autonomy support and help employees find meaning in their work can improve their perception of their impact in society.

Dedication also fully mediated the relationship between colleague autonomy support and psychological well-being, which aligns with our research hypothesis. Colleagues who support each other foster self-initiation and enthusiasm, thereby inspiring one another. This supportive environment enhances employees' psychological well-being. Specifically, educators and staff who feel supported by their colleagues are likely to show more warmth and trust, feel confident in sharing their ideas, and experience personal growth. Filipino teachers who adapt to changes in their work environment and feel supported by their colleagues experience enhanced autonomy, leading to increased engagement and dedication to their tasks. Research has shown that colleague support fosters work engagement and positive organizational behavior (Choochom, 2016). Subsequent studies further corroborate these findings. For instance, Mérida-López et al. (2020) discovered that support from fellow teachers in Spain enhances work engagement and reduces turnover among educators from preschool to secondary education. Similarly, Cao and Chen (2019) identified colleague support as a significant factor contributing to the work engagement of nurses in China.

Xanthopoulou et al. (2008) determined an indirect effect of colleague support on positive organizational behavior through work engagement. Even though recent literature has explored the role of colleague support in work engagement and well-being, there is limited research focusing on the daily impact of

colleague support. Simbula (2010) conducted a daily-diary study and found a positive correlation between daily colleague support, work engagement, and mental health. Despite variations in daily support, colleague support remains crucial for promoting both work engagement and mental well-being. Furthermore, research consistently underscores the significance of colleagues in providing guidance on coping with job demands. When peers share similar challenges, their support can enhance motivation and feelings of competence, particularly when perceived as autonomy-supportive. Thus, employees who view their colleagues as autonomy-supportive tend to be more motivated and feel more competent in fulfilling their professional and personal duties.

The dimensions of work engagement—vigor, dedication, and absorption—fully mediated the relationship between colleague autonomy support and social well-being, supporting our research hypothesis. Colleagues who provide choices, explain their rules, and acknowledge their peers' feelings and perspectives contribute to higher levels of work involvement, dedication, mental energy, and focus. This demonstrates the positive effect of colleague autonomy support on work-related outcomes, such as job satisfaction and psychological health (Renard, 2023; Moreau & Mageau, 2012), increased motivation, and higher levels of perceived competence (Colegnesi et al., 2020; Williams et al., 2005). Additionally, these findings confirm the role of job resources, like colleague autonomy support in enhancing intrinsic motivation. Such support, by providing decision latitude and social support, satisfies needs for autonomy and relatedness, thereby encouraging a fulfilling and positive job-related mindset (Deci & Ryan, 2000; Miao et al., 2020).

When employees become enthusiastic and deeply involved in their work, developing a strong sense of duty toward their organization, their sense of belongingness is heightened, even amidst the challenges of digitized learning environments. Hence, an autonomy-supportive work climate should provide the requisite conditions that promote greater involvement and dedication through meaningful work experiences and increased energy levels. This, in turn, can improve employees' satisfaction with their contribution as members of the academic community.

However, absorption at work showed a negative indirect effect. With the shift to work-from-home arrangements, university educators and staff faced the challenge of balancing work and personal demands (Polymili, 2021). Many employees struggled to separate their work and private lives, which could lead to burnout (Lonska et al., 2021; Mihalca et al., 2021). Being overly absorbed in one's tasks may impede the ability to fulfill other roles effectively. Consequently, colleagues who encourage a high level of immersion and focus on work might inadvertently reduce their peers' sense of belonging and their perceived contributions to the academic community.

Colleague autonomy support positively influences emotional well-being through the mediation of dedication. Specifically, employees who receive support from colleagues who understand and respect their choices tend to be more engaged in their work, which in turn enhances their overall life satisfaction. Colleagues who share information, knowledge, and creative problem-solving approaches are associated with lower levels of emotional exhaustion and reduced turnover intentions (Ducharme et al., 2008; Golden & Gajendran, 2019). The community quarantine protocols have continued to disrupt employees' sense of freedom and daily routines, negatively affecting their emotional well-being. Teachers, for example, have reported experiencing a range of overwhelming emotions, including guilt and hopelessness (Anderson et al., 2021), emotional uncertainty, frustration (Simonton et al., 2022), anxiety, and depression (Kim et al., 2022). However, support and feedback from colleagues have made it easier for teachers to manage their responsibilities and reduce mental health issues (Hascher et al., 2021). Simonton et al. (2022) further emphasized that employees who feel supported and valued by their

colleagues tend to be more committed to their jobs and experience less guilt, shame, or frustration. Support from colleagues also strengthens employees' sense of identity and serves as an important resource in navigating the challenges brought about by the pandemic (Kim et al., 2022). Extant literature underscores the importance of colleague autonomy support in managing difficult situations (Bernnecke, 2019; Moreau & Mageau, 2011). Therefore, autonomy supportive colleagues who acknowledged their peers' feelings and foster a sense of self-initiation can significantly enhance employees' enthusiasm for their work and satisfaction with their lives.

The study elucidates the direct impact of job resources on managing job demands, which in turn enhances well-being. It highlights the crucial role of colleagues and supervisors as essential occupational socio-motivational factors in enhancing work engagement and well-being. The findings provide independent pathways to support the JD-R model by demonstrating that autonomy support from peers and supervisors contribute to managing well-being through improved work engagement. The study reinforces the JD-R model by showing how social resources, such as support from colleagues and supervisors, are vital in managing health and work engagement.

The study provides evidence that autonomy support from peers and supervisors serve as a significant social motivator and determinant of well-being. Furthermore, it underscores the importance of work engagement, revealing that autonomy support from colleagues and supervisors predicts key dimensions of work engagement: vigor, dedication, and absorption. This provides evidence of the different pathways. The research also indicates that all components of work engagement mediate the relationship between supervisor autonomy support and psychological well-being. This contrasts with other forms of well-being, suggesting that supervisor autonomy support fosters psychological well-being primarily through enhanced work engagement. Psychological well-being encompasses environmental mastery, personal growth, positive relationships, and autonomy—factors that are essential for productivity and achieving life goals in a work environment. Employees focused on task completion and productivity benefit from supervisors who promote autonomy and provide guidance at work, which enhances work engagement, in turn improve psychological well-being.

The study found that colleague autonomy support mediates all components of work engagement with respect to emotional well-being. This indicates that colleague autonomy support positively impacts employee emotions, in contrast to its effect on other types of well-being. Colleagues who support their peers create a supportive work environment that enhances emotional well-being. This suggests that colleague support is particularly effective in providing emotional support rather than occupational support, as evidenced by its pathways to emotional well-being. However, absorption at work showed a negative effect as a mediator. This finding implies that when supervisors and colleagues encourage excessive absorption in work, it can negatively affect both psychological and emotional well-being. The study highlights that being too absorbed in work may inhibit the development of positive well-being, suggesting that balance is crucial for maintaining overall well-being.

Employee stress often stems from both personal and occupational concerns (Lonska et al., 2021). To effectively promote employee wellness, it is essential to create a supportive working environment. While employees prioritize fulfilling their obligations, supervisors and peers should actively support their needs. Institutions can enhance support by fostering interactions among peers and providing mentoring opportunities for junior staff, as well as maintaining close interaction with supervisors. Institutions should also consider conducting regular focus group discussions (FGD) with employees to explore their stressors, coping strategies, and psychological resources. This approach will help monitor employees' mental health over time. Alongside FGDs, conducting annual surveys that assess employee

needs and mental health (including well-being, psychological resources, social support), and coping styles can provide valuable insights into employees' concerns and track changes. Furthermore, it is important to recognize that employees who are encouraged to be overly absorbed in their work may experience reduced well-being.

CONCLUSION, LIMITATIONS, AND RECOMMENDATIONS FOR FUTURE RESEARCH

The study contributes to the literature on employee well-being by elucidating the specific pathways through which supervisor and peer autonomy support influence psychological, emotional, and social well-being through work vigor, dedication, and commitment. Key findings indicate that all components of work engagement mediate the relationship between supervisor autonomy support and psychological well-being. Vigor and dedication mediate the relationship between supervisor autonomy support and social well-being. Dedication mediates the relationship between supervisor autonomy support and emotional well-being. For colleague autonomy support, dedication mediates the relationship with psychological well-being. All components of work engagement mediate the relationship between colleague autonomy support and social well-being. Dedication mediates the relationship between colleague autonomy support and emotional well-being.

This study has several limitations: First, the use of self-report surveys limits participants to predefined response options. Future research could benefit from qualitative studies exploring the effects of supervisor and peer autonomy support in more depth. Second, the cross-sectional design of the study captures data at a single point in time. Longitudinal studies can be conducted to explore how autonomy support, work engagement, and well-being develop and interact over time. Third, researchers can also utilize daily diaries to provide insights into daily variations in mental health and work engagement, and identify triggers of adverse mental health (Bakker & Oerlemans, 2010). Fourth, data was collected from only one institution. Expanding the sample to include multiple educational institutions could provide more variability in the data. Fifth, the study employed convenience sampling, which may limit the generalizability of the findings. This sampling method could have affected the variability of the results based on participants' demographic profiles. Future research should consider more diverse sampling methods and be cautious when generalizing findings. Lastly, future studies could explore the impact of institutional support and organizational identification on work engagement and well-being. This could provide further insights into how the social environment affects employees.

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