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Place Matters at Work: A Systematic Review of Workplace Attachment and Environmental Factors

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ABSTRACT

The topic of workplace attachment has garnered significant attention in academic studies since the early 2010s. However, due to its inherently interdisciplinary scope, research on workplace attachment remains notably fragmented and lacks cohesion, resulting in numerous unresolved questions. Consequently, a systematic review was conducted to examine the association between workplace attachment and organizational and environmental factors. Both cross-sectional and longitudinal studies that used quantitative measures of workplace attachment were included. A total of 16 studies met inclusion criteria ($n = 5282$). The findings demonstrated distinct relationships between workplace attachment and (1) psychological and relational factors influencing organizational functioning, (2) spatial environmental factors, and (3) variables influencing the perception of work meaningfulness. This review provides nuanced insights into existing literature, examining workplace attachment from employee perspectives. By doing so, it offers an in-depth understanding of the challenges present within current theoretical frameworks on workplace attachment. A key contribution of this review is the integration of existing findings into a comprehensive conceptual framework on workplace attachment, which systematically synthesizes the relevant variables and theoretical foundations that underpin research in this domain.

1 | Introduction

Throughout adulthood, individuals devote a significant portion of their time to work and their workplace environment. Therefore, modern organizations are placing greater emphasis on enhancing workplace conditions to foster employee well-being and productivity (Mohamad and Abiddin 2024). On this basis, workplace attachment (WPA) plays a pivotal role.

The importance of attachment in forming emotional connections with environments and places carries significant psychological implications, as highlighted in attachment theory (Bowlby 1982). A fundamental characteristic of attachment is the innate tendency to seek proximity to the attachment figure or object. Central to attachment theory is the concept of internal

working models, cognitive frameworks that encode memories of social interactions and guide future behaviors in interpersonal contexts. These models play a crucial role in shaping individuals' social interactions and behavioral responses (Bowlby 1982).

1.1 | Place Attachment

Building on the construct of attachment, the concept of place attachment has emerged over time to describe the emotional and cognitive bonds that individuals form with specific locations (Brown et al. 2012). Specifically, place attachment is defined as a strong emotional tie between an individual and a specific location, marked by a preference for maintaining proximity to that place (Hidalgo and Hernández 2001; Kōiv

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et al. 2019). Prior research has highlighted the importance of place attachment within group contexts. For example, Fried and Gleicher (1961) showed that when place attachment is firmly established, forced relocation disrupts spatial identity and group cohesion, eliciting emotional reactions similar to mourning. In line with the theoretical foundation of place attachment, first proposed by Shumaker and Taylor (1983) and later expanded by Giuliani (1991) and Altman and Low (1992), emphasizes the importance of emotional aspects of the human-place connection (Scrima et al. 2014), comparable to the emotional importance of the broad concept of attachment. Research has also established links between place attachment and overall life satisfaction (Casakin and Kreitler 2008) as well as psychological well-being (Rollero and De Piccoli 2010). However, the majority of research has focused on residential environments, including homes (Meagher and Cheadle 2020) and neighborhoods (Lewicka 2005), which have long been recognized as key settings where individuals develop strong emotional connections. These studies emphasize the importance of place attachment in shaping identity, well-being, and social interactions. In contrast, while environmental psychology has extensively examined place attachment in these contexts, the concept of WPA, which refers to the emotional bond individuals form with their work environment, has received comparatively less attention (Deasy and Lasswell 1985; Hubiak and Banning 1994; Inalhan 2006; Rioux and Mokoukolo 2013; Sarı et al. 2024).

1.2 | Workplace Attachment

WPA is defined as the extent to which employees develop a meaningful connection with their organizations, even turning it into a personalized environment that aligns with their social and professional needs (van Rossenberg et al. 2018; Hur et al. 2022). It reflects an emotional and psychological connection to the workplace (Rioux 2006). WPA encompasses the ways in which employees relate to, value, and derive meaning from the spatial contexts in which their work activities are performed. Research findings suggest that WPA is linked to spatial and aesthetic characteristics (Rioux and Pignault 2013a), and it also involves psychological and relational factors (Khattab et al. 2023; Hassanie et al. 2024).

In the workplace, attachment extends beyond the mere physical environment to encompass the broader influence of organizational culture, which includes shared values, norms, and practices that shape employees' perceptions and interactions within the workplace (Rioux 2006). Research suggests that when employees are provided with opportunities to personalize their workspaces, such as adjusting décor, layout, or workspace arrangement, their emotional attachment to the environment is significantly strengthened. This deeper attachment, in turn, has been shown to result in notable improvements in various work-life quality indicators, including job satisfaction, engagement, and productivity (Scrima et al. 2019). Moreover, employees who experience strong WPA tend to cultivate more positive and supportive relationships with both colleagues and clients (Le Roy and Rioux 2012). These relational benefits further contribute to enhanced job satisfaction and psychological well-being. Such positive interactions not only foster a sense of community and

belonging within the organizations, but also improve employees' performance, as they are more motivated and emotionally engaged with their tasks (Le Roy and Rioux 2012). Consequently, WPA has been found to be a critical factor in enhancing not only individual well-being, but also team dynamics and organizational effectiveness (Rioux and Pignault 2013b; Nonnis et al. 2023; Mura et al. 2022; Hassanie et al. 2024). These findings highlight that WPA may play a fundamental role in various organizational contexts, such as education and healthcare, and future research should explore these contextual differences to further enhance our understanding of how WPA influences employee experiences and professional outcomes (Untaru et al. 2024; Sarı et al. 2024).

WPA refers to the emotional and cognitive bond that individuals form with their physical work environment (Rioux 2006). While conceptually grounded in attachment theory (Bowlby 1969), WPA is distinct from attachment styles, which capture enduring individual differences in forming emotional bonds with significant others. In contrast, WPA constitutes a context-dependent, situational attachment directed toward the physical locations associated with work. WPA also shares theoretical foundations with place attachment (Altman and Low 1992), a construct describing affective bonds with meaningful physical settings. However, place attachment predominantly pertains to residential or community environments, whereas WPA specifically addresses work-related spaces, which are shaped by professional objectives, organizational norms, and interpersonal dynamics. Additionally, WPA should be distinguished from constructs such as organizational commitment or organizational identification (Meyer and Allen 1991; Ashforth and Mael 1989), which denote psychological bonds with the organization as a social entity rather than with its physical environment. Accordingly, WPA research is situated at the environmental–organizational interface, emphasizing the spatial and affective connection to the workplace (such as an office, hospital, or school) rather than to the broader organization or occupational role. Table 1 provides greater conceptual clarity regarding the constructs that underpin and relate to WPA.

1.3 | Overview of the Current Study

This systematic review seeks to address a critical gap in the literature by examining the construct of WPA and its association with key organizational variables. While prior research has extensively investigated place attachment in residential and communal contexts (Lewicka 2005; Meagher and Cheadle 2020), WPA remains an underexplored yet pivotal concept with substantial implications for both employees and organizations. A comprehensive understanding of WPA is essential, as it directly affects job satisfaction, employee engagement, and overall well-being in occupational settings. Given that individuals spend a considerable amount of time, roughly 36 h per week, in professional settings (Eurostat 2025), fostering attachment to the workplace may contribute to enhanced psychological well-being, stronger interpersonal relationships, and greater productivity. Moreover, organizations that actively promote WPA may experience lower employee turnover, heightened organizational commitment, and the development of a more positive workplace culture (Curtis and Upchurch 2008; Le Roy and Rioux 2012).

TABLE 1 | Overview of attachment constructs across contexts.

Term	Definition	Exemplar measures	Target	Level of analysis
Attachment style	Enduring individual pattern of forming emotional bonds with others (Bowlby 1969)	Adult Attachment Scale (Collins and Read 1990)	Significant others	Individual
Place attachment	Emotional and cognitive bonds with physical locations that hold personal significance (Altman and Low 1992)	Place Attachment Scale (Williams and Vaske 2003)	Residential/ community settings	Environmental
Organizational commitment	Psychological attachment to the organization, reflecting loyalty and intention to remain (Allen and Meyer 1990)	Organizational Commitment Scale (Allen and Meyer 1990)	Organizations	Organizational
Workplace attachment	Affective, cognitive, and behavioral bonds with the physical workplace in which job-related activities are performed (Rioux 2006)	Workplace Attachment Scale (Rioux 2006)	Physical workspace	Environmental– organizational interface

However, to date, no specific reviews or meta-analyses have been conducted to examine the relationship between WPA and psychological and relational factors characteristic of organizational functioning, spatial environmental factors, or the variables related to perceived meaningfulness of work. Instead, past meta-analyses have focused on the broader connection between general attachment and organizational factors. For instance, a prior meta-analysis investigating the relationships between attachment styles and key workplace elements revealed that personal attachment styles were associated with employees' work attitudes, behaviors, and leadership-related styles and attributes (Pham et al. 2023). Another meta-analysis confirmed the relationships between attachment style and various workplace correlates (Warnock et al. 2024), and the results supported the relevance of attachment styles as a significant correlate of organizational variables, such as job performance, job satisfaction, organizational commitment, turnover intentions, and leader-member exchange through trust in supervisor.

Despite an expanding body of research on WPA, the field remains markedly fragmented and characterized by limited conceptual and methodological integration. This fragmentation is largely attributable to its interdisciplinary foundations, which span environmental psychology, organizational behavior, and management studies. As a result, numerous theoretical and empirical issues remain insufficiently addressed, highlighting the need for a systematic and comprehensive synthesis of the existing evidence. Through a systematic review of the literature, this study aims to elucidate the psychological and environmental determinants of WPA, offering valuable insights for human resource professionals, organizational psychologists, and policymakers seeking to cultivate a more engaged and satisfied workforce. In doing so, the paper revisits a construct that has gained increasing prominence in recent years yet has not previously been subjected to a systematic review, thus providing the first comprehensive synthesis of the extant research.

By clarifying the conceptual landscape and mapping empirical findings across disciplinary contexts, the review enhances our understanding of how WPA has been examined to date. The methodological rigor of the review, underpinned by explicit quality assessment procedures, further strengthens the transparency and reliability of the analysis. Moreover, the paper identifies salient theoretical and methodological gaps, thereby proposing novel avenues for inquiry and offering concrete recommendations to guide future research on WPA.

Finally, the findings contribute to a broader framework for understanding how WPA interacts with spatial, psychological, and relational factors, ultimately shaping employees' workplace experiences and organizational outcomes. This systematic review thus highlights current advancements in WPA research and underscores its growing relevance within organizational and environmental psychology. Given the reasons outlined above, the overarching aim of this work is to critically examine the current state of knowledge on WPA. Specifically, the systematic review presented here aims to:

- understand the relationship between WPA and psychological and relational factors characteristic of organizational functioning (e.g., employees' psychological dimension,

such as workplace engagement, trust in supervisor, and job burnout);

- understand the relationship between WPA and its associated variables not merely psychological (i.e., spatial environmental factors and variables related to perceived meaningfulness of work);
- provide recommendations for researchers and HR managers on effective strategies to foster WPA, as the literature indicates its beneficial impact on organizational outcomes.

The following section outlines the methodology of the systematic review. It then presents a thorough analysis and synthesis of the existing literature on WPA. Subsequently, recommendations for future research are discussed. The paper concludes with a summary of the review's key contributions and limitations.

2 | Methods

2.1 | Search Strategy and Eligibility Criteria

The systematic review was conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement (Moher et al. 2015). The protocol was registered in PROSPERO (CRD42024611415), URL: https://www.crd.york.ac.uk/prospero/display_record.php?RecordID=611415. All empirical studies examining WPA were deemed eligible for inclusion, provided they met the following criteria: (1) they were original research articles, (2) written in English, (3) employed quantitative research design, such as cross-sectional, case-control, cohort, experimental or mixed-methods study design, and (4) specifically assessed WPA using validated measurement approaches. Studies were excluded if (1) they were not original research articles (e.g., conference papers, proceedings, reviews, opinion pieces, dissertations, case series, or case reports), or (2) they were qualitative studies, or (3) the attachment type assessed was not specifically contextualized to the workplace setting, such as attachment style.

A systematic and comprehensive search was conducted utilizing the following databases: PubMed/Medline, ISI Web of Science, PsychInfo, EMBASE, and Scopus. Moreover, Internet searches on pre-print servers for unpublished papers were adopted. The searches were conducted without imposing any time restrictions, given that WPA is a relatively recent phenomenon. Search terms were selected based solely on the phenomenon of WPA and organizational contexts, without considering specific organizational behaviors or psychological outcomes. This approach aimed to avoid narrowing the scope and to ensure a broad and inclusive search, given the limited number of studies on WPA. Search terms employed were: ("workplace" OR "organisation*" OR "work*" OR "Occupational setting" OR "Professional setting" OR "Job" OR "Worksite" OR "Business" OR "Office space" AND "attachment").

2.2 | Data Extraction and Analyses

RC, and NB extracted data from the eligible studies into a customized MS Excel spreadsheet. The following information from each study was extracted: authors, year of publication, country,

type of workplace context, and sample characteristics (sample size, mean age, % male, type of WPA measure, type of organizational or environments factors measure, and study results). At this stage, quality checks were iterative consultation of the data, meticulous cross-checking of the extracted information, and consensus-based decisions regarding the methodology. The systematic review was structured around two organizing results paragraphs to ensure a thorough and comprehensive analysis, categorized into those related to psychological and relational factors characteristic of organizational functioning, spatial environments, and variables related to perceived meaningfulness of work. It utilized a perspective to systematically divide and synthesize key concepts related to WPA and its associated variable. This methodology improved the quality of the review by emphasizing the synthesis of core concepts within the literature, rather than simply summarizing individual study outcomes (Webster and Watson 2002).

2.3 | Quality Assessment

A quality appraisal was carried out using a modified version (Al Maqbali et al. 2021) of the Newcastle-Ottawa Scale (Wells et al. 2014) for observational studies (see Table 2 for a description of the domains of study quality). A maximum score of 9 points was assigned. Studies were categorized as having a low risk of bias if they received a score between 7 and 9, a moderate risk of bias if they scored 5 or 6, and a high risk of bias if they scored 4 or below (Al Maqbali et al. 2021). Quality assessment was conducted by RC and NB. Any discrepancies between reviewers were resolved through discussion until a consensus was achieved; if necessary, the senior authors (SR and SP) were consulted for further guidance.

3 | Results

Figure 1 provides the flow diagram of all articles retrieved and included in the systematic review. A total of 899 records were retrieved from databases. After excluding 143 duplicates, 756 titles and abstracts were screened, and 47 full-text articles were assessed for eligibility. Additionally, one article was included from manual reference searches. The final set of 16 articles that met the inclusion criteria for the systematic review consisted of 14 cross-sectional studies and two longitudinal studies.

3.1 | Quality Appraisal

Table 2 presents the quality ratings of included studies. In total, no study fully met the criteria for robustness. Eighty-one percent ($n=13$) were assessed as having a high risk of bias, and 19% ($n=3$) were categorized as having a medium risk of bias. Most studies reported a high selection bias, with 75% ($n=12$) of the studies using inadequate recruitment strategies (e.g., snowballing recruitment), and 93.7% ($n=15$) reporting inadequate or unspecified participation rate. All the studies used a validated measure of WPA, such as the *aaa* Workplace Attachment Scale (WAS; Rioux 2006); and all studies utilized standardized instruments to assess the associated variables, such as the Utrecht Work Engagement Scale (Schaufeli et al. 2006) for measuring work

TABLE 2 | Quality assessment of included studies.

Author, date	1. Representativeness of the sample	2. Sample size	3. Non-respondents/loss to follow up	4. Assessment of the exposure	5. Comparability/adjustment for conf	6. Assessment of the outcome	7. Statistical analyses	8. Follow up	Total score
Frankó et al. (2023)	0	0	1	1	0	1	1	1	5
Hassanie et al. (2024)	0	0	1	1	0	1	1	0	4
Khattab et al. (2023)	0	1	0	1	0	1	1	0	4
Kõiv et al. (2019)	1	0	0	1	0	1	1	0	4
Koul (2024)	0	0	0	1	0	1	1	0	3
Le Roy and Rioux (2012)	0	0	0	1	0	1	1	0	3
Murphy and Maynard (2022)	0	0	1	1	0	1	1	0	4
Rioux and Mokoukolo (2013)	0	0	0	1	1	1	1	0	4
Rioux and Pignault (2013a)	0	0	0	1	1	1	1	0	4
Rioux and Pignault (2013b)	1	0	0	1	0	1	1	0	4
Sari et al. (2024)	0	0	0	1	0	1	1	0	3
Scrima et al. (2014)	1	0	0	1	0	1	1	0	4
Scrima et al. (2017)	0	0	1	1	0	1	1	0	4
Scrima et al. (2019)	0	0	1	1	0	1	1	1	5
Scrima (2015)	1	0	1	1	0	1	1	0	5
Untaru et al. (2024)	0	0	1	1	0	1	1	0	4

Note: *Representativeness of the sample* refers to cases where the sample is not randomly selected, however, a sampling strategy is employed (e.g., quota sampling), and the sample reflects the population in terms of most, if not all, key demographic characteristics. *Sample size* refers to a sufficient sample substantiated by a power calculation. *Non-respondents* refers to a participation rate greater than 70%, or an adequately addressed difference between participants and non-participants. *Assessment of exposure* refers to a clearly defined measure of phubbing behavior (e.g., single item or validated scale of phubbing behavior). *Comparability* refers to the use of control variables: (1) controlling for basic demographic factors, such as gender, age, education, or ethnicity; and (2) controlling for additional demographic factors. *Assessment of the outcome* refers to a clearly defined outcome measure (e.g., the *Maslach Burnout Inventory* or an appropriate ad hoc tool, such as a single question on job satisfaction). *Statistical analyses* refer to the use of appropriate and comprehensive statistical tests, including both test statistics and corresponding *p*-values or 95% confidence intervals. *Follow-up* refers to a presence of a longitudinal evaluation of the data.

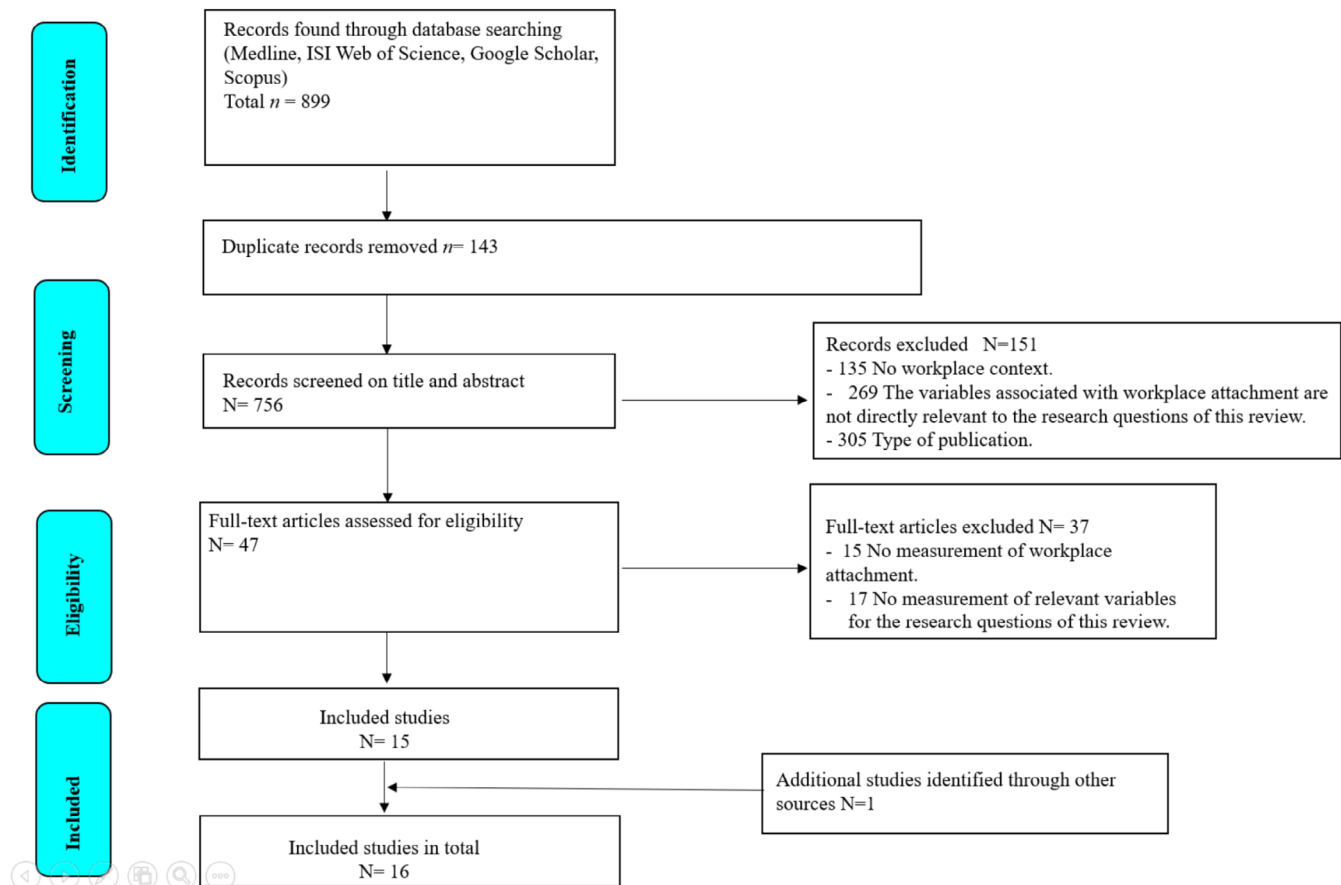


FIGURE 1 | PRISMA flowchart of study selection. [Colour figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com)]

engagement. All the studies provided complete information on the statistical analyses used (e.g., statistical tests and 95% CI or *p*-value). Forty-four percent ($n=7$) of the studies reported the participation rate or sufficiently addressed the differences between participants and non-participants. Only 12.5% ($n=2$) of the studies controlled the analysis for basic socio-demographic variables (i.e., age) and no study for additional potential confounders.

3.2 | Characteristics of the Studies

The characteristics of included studies are presented in Table 3. The findings are presented in two sections, focusing on WPA and its associations with (1) psychological and relational factors characteristic of organizational functioning, and (2) factors related to spatial environments and variables related to perceived meaningfulness of work. Twelve studies (75%) reported its association with psychological and relational factors characteristic of organizational functioning. Four studies (25%) reported its association with spatial environment factors and variables related to perceived meaningfulness of work. The total number of participants was 5282 employees from various sectors, with 47.19% of males and a mean age of 39.42 years. Four studies utilized samples of workers from organizations in unspecified sectors, while three studies focused on workers from hospitals and schools, respectively. Three studies examined samples from a generic mixed sector, and fewer studies focused on workers from offices, supermarkets, and zoos. Five studies were conducted in France, two studies in Italy, and one

study each in Estonia, Hungary, Lebanese, Romania, Turkey, USA, India and mixed countries, respectively.

3.3 | Workplace Attachment and Psychological and Relational Factors Characteristic of Organizational Functioning

Twelve of the selected studies examined the relationship between WPA and psychological and relational factors characteristic of organizational functioning. Significant associations have been identified between WPA and various employees' psychological dimensions, encompassing factors characteristic of individual performance and overall organizational success. Le Roy and Rioux (2012) reported a positive relationship between WPA and civic virtue, a form of positive organizational behavior characterized by employees exceeding their formal duties to benefit the organization. Additionally, Khattab et al. (2023) demonstrated a positive association with organizational identification. Other associations have been identified also between WPA and some aspects of psychological empowerment; specifically, positive relationships were found with autonomy, competence, impact, and meaning (Kõiv et al. 2019).

Significant associations have been identified between WPA and various dimensions of organizational effectiveness. It was found a positive association between WPA and job crafting (Khattab et al. 2023), organizational tenure (Scrima et al. 2017), work engagement (Sarı et al. 2024),

TABLE 3 | Characteristics of included studies.

Authors	Type of study	Keywords	Aim of the study	Type of sample	Gender		Type of organizational or environments factors			Workplace context	Main results
					n (%)	Male	Country	Operationalizations of WPA	age (SD)		
Frankó et al. (2023)	Longitudinal	Office environment, Territorial behaviour, Personalization, Workplace attachment, Workstation attachment, Shared desk design, Office design change, Case study.	To present an environmental psychological case study regarding an office design change	Employees (n = 176)	176 (45.11)	37.59 (7.44)	Hungary	Attachment to the own workstation.	English version by Scrima (2015) of Workplace Attachment Scale (WAS; Rioux 2006); 6 items; $\alpha = 0.84$.	Large multinational company	The authors investigated the longitudinal development of participants' territorial behavior and place attachment. The level of personalization, understood as a form of territorial behavior, declined significantly not only among individuals who lost their permanent workstations, as hypothesized, but also across the entire cohort. While attachment to the workplace remained stable at the population level, attachment to individual workstations showed a marked decline among participants who transitioned to shared desk arrangements

(Continues)

TABLE 3 | (Continued)

Authors	Type of study	Keywords	Aim of the study	Type of sample	Gender		M age (SD)	Type of organizational or environments factors			Main results
					n (%) male	Country		Operationalizations of WPA	Workplace context		
Hassanie et al. (2024)	Cross sectional	Service recovery performance, Workplace attachment, Employee-organization relationship, Satisfaction with work-life balance	Employee-organization relationship and satisfaction with work-life balance mediate the influence of workplace attachment on service recovery performance	Healthcare workers (e.g., nurses, physicians, radiology technicians and laboratory technologists) (n = 582)	582 (37.80)	Lebanon	41.92	Employee organization relationship; Satisfaction; Work-life balance; Service recovery performance	Workplace Attachment Scale (Rioux 2006); 7 items; $\alpha = 0.97$	Hospital	Workplace attachment exerts a substantial influence on the employee-organization relationship, work-life balance satisfaction, and service recovery performance. Furthermore, the employee-organization relationship and work-life balance satisfaction significantly affect service recovery performance and serve as full mediators in the relationship between workplace attachment and service recovery performance
Khattab et al. (2023)	Cross sectional	N.R.	To investigate the relationship between nurses' job crafting, organizational identification, and work attachment	Nurses (n = 270)	270 (N.R.)	Egypt	N.R.	Job Crafting; Organizational Identification.	Workplace Attachment Scale (Rioux 2006); 7 items; $\alpha = 0.81$	Hospital	Over half of the nurses indicated a moderate level of job crafting, while none reported a high level of organizational identification. Additionally, the majority of nurses reported low levels of work attachment

(Continues)

TABLE 3 | (Continued)

Authors	Type of study	Keywords	Aim of the study	Type of sample	Gender n (% male)	M age (SD)	Country	Type of organizational or environmental factors	Operationalizations of WPA	Workplace context	Main results
Kõiv et al. (2019)	Cross sectional	Job satisfaction, School leadership, Trust in leader, Teachers' empowerment, Workplace attachment	To examine the mediating effect of teacher's psychological empowerment between school leadership style and teachers' work-related outcomes	Teachers (n = 711)	711 (13.5)	—	Estonia	Principal's empowerment; Competence; Meaning; Impact; Autonomy; Trust in leader; Job satisfaction; Transformational leadership	Place attachment scale (Ramkissoon et al. 2012); 6 items; $\alpha = 0.85$	Schools	Psychological empowerment, specifically the subscales of meaning and impact, mediates the relationship between perceived leadership empowerment behaviors and teachers' work-related outcomes, including workplace attachment and job satisfaction. Similarly, psychological empowerment (meaning and impact) also mediates the relationship between perceived leadership style and teachers' work-related outcomes, such as workplace attachment and job satisfaction
Koul (2024)	Cross sectional	Employee well-being, Organizational excellence, Workplace attachment, Workplace happiness, Workplace spirituality	To investigate the direct and indirect effects of workplace spirituality on workplace engagement and employee well-being, with workplace happiness (WPH) serving as a mediator	Working professionals from organizations (n = 473)	473 (63)	N.R.	India	Workplace happiness; Employee well-being	Workplace Attachment (Frankó and Düll 2019); 6 items; $\alpha = 0.89$	Banking sector, IT sector, education sector, service sector, and manufacturing companies	Employees with a strong sense of workplace spirituality exhibit higher levels of workplace attachment. Workplace happiness serves as a mediator in the relationship between workplace attachment and employee well-being

(Continues)

TABLE 3 | (Continued)

Authors	Type of study	Keywords	Aim of the study	Type of sample	Gender n (% male)	Mean age (SD)	Country	Type of organizational or environmental factors	Operationalizations of WPA	Workplace context	Main results
Le Roy and Rioux (2012)	Cross sectional	Workplace attachment, Organizational commitment, Organizational citizenship behavior	Research exploring variables from environmental psychology, such as workplace attachment, within the context of organizational behavior remains in its early stages. This article aims to integrate these three concepts using a causal approach to investigate the nature of their relationships	Employees (n = 118)	118 (55.1%)	35.17 (8.51)	France	Affective commitment; Normative commitment; Helping Behavior. Civic Virtue	Workplace Attachment Scale (Rioux 2006); 7 items; $\alpha = 0.76$	Offices	Workplace attachment serves as a predictor of helping behavior. Additionally, it plays a mediating role in the relationship between affective and normative commitments and helping behavior
Murphy and Maynard (2022)	Cross sectional	Conservation psychology, Environmental behavior, green, Management, Organizational behavior, Sustainability.	To examine the validity of a pilot survey investigating the relationship between positive workplace attachment and the performance of pro-environmental behaviors, aiming to determine whether a meaningful connection exists between these constructs	Zoo and aquarium professional (n = 41)	41 (N.R.)	N.R.	USA	Pro Environmental Behavior.	Subscale of workplace spirituality scale (Milliman et al. 2003); 19 items; $\alpha = 0.90$	Zoos and aquariums	The findings indicate that zoo and aquarium employees with positive workplace attachment are more likely to engage in pro-environmental behaviors, particularly those employed in operations departments

(Continues)

TABLE 3 | (Continued)

Authors	Type of study	Keywords	Aim of the study	Type of sample	Gender		Country	Type of organizational or environmental factors		Operationalizations of WPA	Workplace context	Main results
					n (%)	Male (SD)						
Rioux and Mokoukolo (2013)	Cross sectional	France, Employees behaviour, Age groups, Subjective age at work, Age identity, French salaried workers, Attitudes, Older workers	To show that workers have a subjective age bias specific to the organisational context, and that this reveals their attitudes to work better than their overall subjective age bias	Workers (n = 508)	508 (N.R.)	N.R.	France	Professional/occupational life satisfaction.	Workplace Attachment Scale (Rioux 2006) 7 items; $\alpha = 0.83$.	Three sectors (education, health, retail industry)	Significant positive correlations were found between subjective age at work and both satisfaction with professional life and attachment to the workplace. Moreover, subjective age at work emerged as a stronger predictor of satisfaction with professional life and workplace attachment compared to general subjective age, highlighting its greater relevance in these contexts	
Rioux and Pignault (2013a)	Cross sectional	Place attachment, Workplace, meaning of work, Environmental psychology	The objective is to demonstrate that employees exhibit a subjective age bias uniquely tied to the organizational context, which more effectively reflects their attitudes toward work compared to their general subjective age bias. To identify the attachment of secondary school teachers to their workplace, and to show that the places that predict overall workplace attachment are also those that give meaning to work	Teachers working in this school (n = 158)	158 (N.R.)	32 (11.58)	France	Enjoyment of work in the classroom/resource room; Perceived autonomy in the medical room; Relationships built up in the restaurant/in the staffroom; Feeling of usefulness in the classroom; Time spent outside the classroom; Attachment to the classroom/ photocopying corner/medical room/resource room/staff room/administrative offices	Workplace Attachment Scale (Rioux 2006) 7 items; $\alpha = 0.91$	school	The results show that all the teachers were more closely attached to places that provide opportunities for informal communication than to those directly related to teaching. The main workplace attachment predictors also concern places constituting the essence of the profession and/or places where teachers can manage their organizational stress	

(Continues)

TABLE 3 | (Continued)

Authors	Type of study	Keywords	Aim of the study	Type of sample	Gender		Type of organizational or environmental factors		Operationalizations of WPA	Workplace context	Main results
					n (%)	M age (SD)	Country	Workplace attachment			
Rioux and Pignault (2013b)	Cross sectional	Job satisfaction, psycho-environmental variables, psycho-organizational variables, workplace attachment, workspace appropriation, satisfaction with professional life	To clarify the relationship between psycho-environmental variables (such as workplace attachment) and work satisfaction by comparing them in a single model of psycho-organizational variables whose impact on satisfaction at work is well known	Supermarket workers (n = 112)	112 (34)	44.19 (10.08)	France	Job satisfaction.	Workplace Attachment Scale (Rioux 2006) 7 items; $\alpha = 0.81$.	Supermarket	Regression analysis showed that the psycho-environmental variables were predictors of job satisfaction (attachment to place, attachment to workplace)
Sarı et al. (2024)	Cross sectional	Workplace attachment, Work engagement, Positive affect, Negative affect, Life satisfaction	To examine the relationship between teachers' attachment to their institution and positive affect, through work engagement	Primary school teachers (n = 289)	289 (53.2)	37.46 (9.29)	Turkey	Frequency of communication with colleagues; Work Engagement; Positive affect; Negative affect.	Workplace Attachment Scale (Rioux 2006) 7 items; $\alpha = 0.87$.	School	Teachers who regularly engage in communication with their colleagues exhibit a strong attachment to their workplace. Moreover, primary school teachers with a higher degree of institutional attachment demonstrate greater work engagement, which subsequently results in elevated levels of positive affect and reduced levels of negative affect
Scrima et al. (2014)	Cross sectional	9999	To compare three-factor and two-factor solutions and construct validity of the Adult Attachment in the Workplace (AAW) questionnaire	Employees (n = 660)	660 (51.6)	N.R.	France, Italy, and Great Britain	Affective commitment	Attachment in the Workplace scale (AAW; Neustadt et al. 2006); 18 items, N.R. Workplace Attachment Scale (Rioux 2006) 6 items, α French = 0.87, α Italian = 0.84, α British = 0.85	Organizations and public institution	Workplace attachment correlates with affective commitment

(Continues)

TABLE 3 | (Continued)

Authors	Type of study	Keywords	Aim of the study	Type of sample	Gender n (%) male	Age (SD)	Country	Type of organizational or environments factors	Operationalizations of WPA	Workplace context	Main results
Serima et al. (2017)	Cross sectional	Place attachment, Attachment Theory, Secure, Avoidant, Preoccupied, Workplace attachment	To investigate whether different patterns of workplace attachment exist and to explore the relations between adult attachment styles and the level of workplace attachment	Italian employees ($n = 351$)	351 (58)	43.0 (9.7)	Italy	Adult attachment style; Organizational tenure	Workplace Attachment Scale (Rioux 2006) 7 items; $\alpha = 0.82$ at T1, $\alpha = 0.84$ at T2	Large public-sector organization	The findings indicated that higher workplace attachment scores were significantly associated with a secure attachment style, whereas lower scores were linked to insecure attachment styles. These results provide valuable insight into the diverse patterns of workplace attachment
Serima et al. (2019)	Longitudinal	Place attachment; Workplace attachment; Job satisfaction; Semilongitudinal design; Environmental psychology	To explore the relationship between place attachment and place satisfaction with a semilongitudinal design	Employees recruited from medium and small organizations-full time ($n = 325$)	325 (59)	38.5 (9.3)	France	Job satisfaction	Workplace Attachment Scale (WAS; Rioux 2006) 7 items; $\alpha = 0.81$ at T1, $\alpha = 0.82$ at T2	Companies not specified	The results show that workplace attachment is a predictor of job satisfaction and not vice versa
Serima (2015)	Cross sectional	WAS, Discriminant validity, AAW, Affective commitment, Structural equations modelling	To check the convergent and discriminant validity of the Workplace Attachment Scale (WAS) by comparing it with two other scales: the Adult Attachment in the Workplace Scale (AAW) and the Affective Commitment Scale (ACS)	Employees from a broad range of organizations ($n = 320$)	320 (48)	45 (10.41)	Italy	Adult attachment secure; Affective commitment.	Workplace Attachment Scale (WAS; Rioux 2006) 6 items; $\alpha = 0.84$.	Organizations not specified	Results show that the Workplace Attachment Scale is related to but independent of both the e Adult Attachment in the Workplace Scale and the e Affective Commitment Scale

(Continues)

TABLE 3 | (Continued)

Authors	Type of study	Keywords	Aim of the study	Type of sample	Gender n (% male)	M age (SD)	Country	Type of organizational or environments factors	Operationalizations of WPA	Workplace context	Main results
Untaru et al. (2024)	Cross sectional	Biophilic design, Covid-19, Hospice, Attitude toward biophilic design, Emotional well-being, Satisfaction, Workplace attachment	To investigate the effect of hospice professionals' attitudes toward the uncovered green features on the prediction of their workplace attachment	Healthcare professionals (i.e., physicians, nurses, volunteers, and social workers) (n = 188)	188 (48)	N.R.	Romania	Emotional well-being; Attitudes toward biophilic design; Satisfaction with green features; natural décor	Three items were borrowed from Yuksel et al. (2009) and Scrima et al. (2021) N.R.	Hospital	The perception of exposed biophilic design elements within the context of the COVID-19 pandemic significantly enhanced healthcare providers' emotional well-being. This improvement, in turn, fostered greater satisfaction with green features and natural décor, as well as strengthened their attachment to the workplace

Abbreviation: N.R., not reported.

normative commitment (Le Roy and Rioux 2012), and affective commitment (Le Roy and Rioux 2012; Scrima et al. 2014; Scrima 2015). Furthermore, Hassanie et al. (2024) observed a positive association between WPA and service recovery performance, a critical aspect of addressing service failures, as effective employee problem-solving plays a pivotal role in restoring customer satisfaction and loyalty. Lastly, Murphy and Maynard (2022) identified positive relationships between WPA and pro-environmental behavior, which consists of the employees' conscious minimization of the negative impacts of human behavior on the natural world.

A positive association has been observed between WPA and dimensions of adult attachment. Adult attachment provides a framework for understanding how individuals establish and maintain relationships in adulthood, shaping their emotional well-being and interpersonal dynamics. Notably, a significant positive relationship was observed with secure attachment (Scrima 2015) and with the general adult attachment style (Scrima et al. 2017), which is a relatively expected finding given that the concept of WPA is fundamentally rooted in employees' personal attachment styles (Ren et al. 2024; Warnock et al. 2024).

Additionally, the findings indicate a positive association between WPA and certain aspects of organizational leadership. In particular, positive correlations were observed with leader empowerment, transformational leadership style, and trust in leaders (Köiv et al. 2019).

Additional associations have been identified between WPA and relational dynamics within organizations. A positive association was found between WPA and employee–organization relationship (Hassanie et al. 2024), which is a concept that outlines the relationship between employees and their respective organizations (Hon and Grunig 1999). Furthermore, Le Roy and Rioux (2012) identified positive correlations with helping behavior, defined as voluntary actions aimed at assisting coworkers to achieve objectives or prevent potential issues (Scaffidi Abbate and Ruggieri 2008).

Additionally, employee well-being has been identified as another psychological factor closely linked to WPA. Notably, research has demonstrated a positive relationship between WPA and job satisfaction (Köiv et al. 2019; Rioux and Pignault 2013b; Scrima et al. 2019), as well as satisfaction with work-life balance (Hassanie et al. 2024). Furthermore, positive correlations have been observed with emotional well-being (Untaru et al. 2024) and general well-being (Koul 2024). Finally, WPA has been associated with affective states that significantly influence employees' work behaviors and organizational outcomes. Specifically, WPA was positively correlated with positive affect (Sarı et al. 2024) and workplace happiness (Koul 2024), while it has a negative relationship with negative affect (Sarı et al. 2024).

3.4 | Workplace Attachment, Spatial Environments Factors, and Variables Related to Perceived Meaningfulness of Work

Three of the selected studies examined the relationship between WPA and factors pertaining to spatial environments. Rioux and

Pignault (2013a) showed that there is an association between WPA and attachment to specific workplace environments. Specifically, there is a positive relationship with the attachment to administrative to the classroom (particularly relevant in educational settings), to the medical room, to resource rooms, to the staff room, and to the photocopying corner. Also, Frankó et al. (2023) showed that there is an association between WPA and attachment to the own workstation. These attachments reflect the integral relationship between individuals and their work environments, where specific spaces contribute to both personal and collective identity. In addition, a positive association was found between WPA and the satisfaction derived from workplace environments (Rioux and Pignault 2013a). The satisfaction derived from workplace environments is influenced by factors such as functionality, aesthetics, and emotional resonance. Rioux and Pignault (2013a) also showed that there is a positive association between WPA and the enjoyment in the resource room and the enjoyment in the classroom. Moreover, Untaru et al. (2024) highlight the importance of biophilic design, showing the association between WPA and positive attitudes toward incorporating natural elements in personal workspaces enhance overall satisfaction. Also, they found an association between WPA and features such as greenery and natural décor, which contribute to employee well-being by reducing stress and increasing aesthetic appeal. These elements not only improve individual experiences, but also encourage a greater appreciation of the workplace environment as a whole, demonstrating the critical link between design and satisfaction in professional settings (Untaru et al. 2024).

Two of the selected studies examined the relationship between WPA and variables related to perceived meaningfulness of work. Assuming Morin's (2003) meaning of the work as "a coherence effect between the characteristics a subject seeks in his work and those he perceives in the work he performs" (p. 13), this alignment underscores the psychological fulfillment derived from one's professional environment and tasks. This research perspective highlighted how employees' perceptions of alignment between personal values, workplace culture, and the physical or symbolic aspects of their work environment contribute to their sense of attachment. Specifically, a positive association was found between WPA and the perceived autonomy in the medical room of one's work, the feeling of usefulness in the classroom, the time spent outside the classroom building during the day, and the relationships built up in the restaurant and in the staffroom (Rioux and Pignault 2013a). It was also found that there was a relationship between WPA and the frequency of communication with colleagues (Sarı et al. 2024).

4 | Discussion

The present systematic review of 16 studies, with 5282 employees, has the aim to critically evaluate the current state of knowledge on the relationship between WPA and psychological and relational factors characteristic of organizational functioning, spatial environmental factors, and variables related to perceived meaningfulness of work. The results revealed several associations between WPA and other work-related factors, suggesting its potential for organizational dynamics that warrant further investigation.

Regarding the relationship between WPA and psychological and relational factors characteristic of organizational functioning, research has shown a positive association with employees' psychological dimensions, dimensions of organizational effectiveness, employees' adult attachment, relational dynamics, organizational leadership dynamics, employee's well-being, and affective states. The relationship between WPA and these variables is important for identifying and assessing its potentials inside organizations dynamics and to relieve the negative conditions associated with tiredness and conflicts that arise in the workplace. Referring to employees' psychological dimensions and dimensions of organizational effectiveness, such as organizational identification and psychological empowerment, the literature indicates that certain organizational variables are closely linked to WPA. These include job satisfaction, particularly intrinsic satisfaction, which has been identified as a predictor of WPA among caregiving personnel in hospitals (Rioux and Pignault 2013a). Additionally, organizational commitment has been shown to play a significant role, as evidenced by research conducted with diverse employee groups, including staff, nursing, clerical workers, teachers, and employees in the secondary sector (Le Roy and Rioux 2012). Numerous studies have demonstrated that WPA is associated with a range of critical work-related attitudes and behaviors, including organizational self-esteem, work engagement, and both in-role and extra-role performance (Wang et al. 2017; Zoonen and Banghart 2018).

The concept of place attachment is significant for individuals when the associated location holds personal meaning (Lewicka 2011) and when events occurring within that space align with their values (Scannell and Gifford 2010), as is often the case in the workplace. According to Hidalgo and Hernández (2001), place attachment encompasses both social (attachment arising from relationships with others connected to the place) and physical (attachment to the physical location itself) dimensions. They argue that the social dimension is more influential, as attachment to a place often stems from the presence of meaningful relationships rather than the physical attributes of the space. A workplace can also serve as an object of place attachment when an individual develops an emotional bond with it, allowing it to become part of their identity (Fischer et al. 2004). This is why WPA can be understood as an integral aspect of organizational culture, facilitating employees' integration within their organization (Rioux and Pignault 2013b). Hazan and Shaver (1990) observed that employees who feel attached to their workplace report greater satisfaction, while Curtis and Upchurch (2008) emphasized that WPA decreases turnover intentions and enhances job performance. For example, research on teachers by Rioux and Pignault (2013a) revealed that they often identify the classroom as a significant source of work-related meaning. Additionally, extracurricular time spent at school was positively correlated with teachers' attachment to the school as a workplace, which, in turn, led to increased job satisfaction.

With regard to the relationship between WPA and relational dynamics or organizational leadership dynamics, the findings highlight a strong connection between interpersonal relationships within organizational contexts and employees' attachment to their workplace. When individuals perceive their workplace positively and develop an emotional connection to it, they are

more likely to exhibit a favorable attitude toward their colleagues (Le Roy and Rioux 2012). This increased predisposition toward others often manifests in stronger interpersonal connections and interactions grounded in mutual understanding, trust, and empathy. The positive emotions associated with WPA create a conducive environment for collaborative efforts and social cohesion within the organization. Additionally, WPA is associated with leadership dynamics. Employees who feel a strong bond with their work environment are more likely to demonstrate responsiveness and loyalty to organizational leaders (Hassanie et al. 2024; Ruggieri et al. 2023). This connection may arise from the perception that leaders play a role in shaping and maintaining the positive attributes of the workplace, thereby linking attachment to the physical and cultural aspects of the organization with attachment to those in positions of authority. Such dual attachment can enhance alignment with organizational goals, improve communication, and cultivate a shared sense of purpose between employees and leaders, thereby increasing job satisfaction (Rioux and Pignault 2013b).

Concerning the relationship between WPA and employees' well-being and affective states, the reviewed research provides several noteworthy insights. A critical factor related to WPA is the availability of physical spaces that allow coworkers to interact securely and meaningfully, as highlighted by Manzo (2005). Such spaces foster a sense of connection and inclusivity, creating an environment where employees feel comfortable engaging with one another. These interactions not only enhance individual emotional well-being, but also contribute to a sense of belonging within the organization, which is a crucial element of WPA. Previous research by Scannell and Gifford (2013) emphasized the importance of social interactions in fostering general place attachment, noting that positive interpersonal contacts within a given environment (such as a residential area) can significantly strengthen individuals' emotional ties to that place. These relationships are particularly impactful because they provide essential psychological benefits, including emotional support from others and the reinforcement of a sense of security. Similarly, Dallago et al. (2009) argue that these relational dynamics create an atmosphere where individuals can quickly establish a strong sense of connection to the place. The benefits derived from these interactions, such as reduced feelings of isolation, increased trust, and a shared sense of community, are foundational to the development of place attachment. The results of this review have clarified how these dynamics are similarly triggered within workplace contexts, where place attachment is conceptualized as workplace attachment, thereby connecting it to key relational elements of work environments.

Observing the relationship between WPA and spatial environments factors, research indicates an association with various elements connected to the physical environment. Engagement in physical environments often leads individuals to form emotional bonds with specific places, thereby fostering WPA (Casakin and Kreitler 2008). These associations can foster an emotional connection between an individual and a location, where they experience comfort, safety, and a strong preference to stay (Hernández et al. 2007). In this way, workplaces gain personal significance for individuals (Lewicka 2011), with events within these spaces often aligning with their personal values as well as organizational values (Scannell and Gifford 2010). Thus,

WPA, as a distinct form of place attachment, can be conceptualized as an element of organizational culture that facilitates the integration of employees' values within the organization. Although most studies have conceptualized WPA as a bond with the physical work environment in broad terms, a small number of contributions have adopted a more fine-grained spatial perspective. In particular, Rioux and Pignault (2013a) and Frankó et al. (2023) examined WPA with reference to clearly delineated micro-settings within the organization. Their work investigated how attachment develops toward specific spatial zones (such as personalized desks or collaborative areas) and how this attachment is shaped by contextual factors, including the degree of personalization and the perceived meaningfulness of the work conducted in those settings. These findings indicate that future research may benefit from attending to the multi-layered structure of workplace environments, considering attachment not only to the workplace as a whole, but also to its distinct functional and symbolic subspaces.

The findings of this systematic review emphasize the complex interaction between the psychological and physical dimensions of WPA, demonstrating how both components could contribute to employees' emotional well-being and their overall satisfaction with the workplace. The physical environment, encompassing factors such as office layout and design, plays a role in shaping employees' sense of comfort and belonging, while the psychological dimension, including interpersonal relationships with colleagues and leadership, fosters a sense of support and connection. If considered together, these dimensions could contribute to a comprehensive WPA, thereby enhancing employee engagement, job satisfaction, and overall well-being.

Future research on workplace attachment should prioritize the identification and empirical examination of the mechanisms that initiate, motivate, and sustain employees' WPA. Forthcoming studies would benefit from investigating both the facilitating conditions (e.g., supportive leadership, autonomy, meaningful spatial design, and organizational identification) and the antecedent predictors (e.g., individual dispositions, work-related resources, and contextual features) that contribute to the emergence of WPA. Such work would clarify not only the reasons employees develop attachment to their physical work settings, but also the processes through which this attachment unfolds over time and interacts with broader organizational dynamics.

In addition, future studies could employ longitudinal and multi-level research designs to assess causal pathways and potential reciprocal relationships between WPA and outcomes such as well-being, engagement, and turnover intention. Integrating theoretical frameworks and methodological approaches from environmental psychology and organizational behavior may further advance a more comprehensive understanding of WPA and help mitigate the current fragmentation characterizing this literature.

4.1 | Integrative Conceptual Framework

Building on the empirical associations identified in this systematic review and drawing on our own reflections as well as the fragmented literature concerning the variables examined

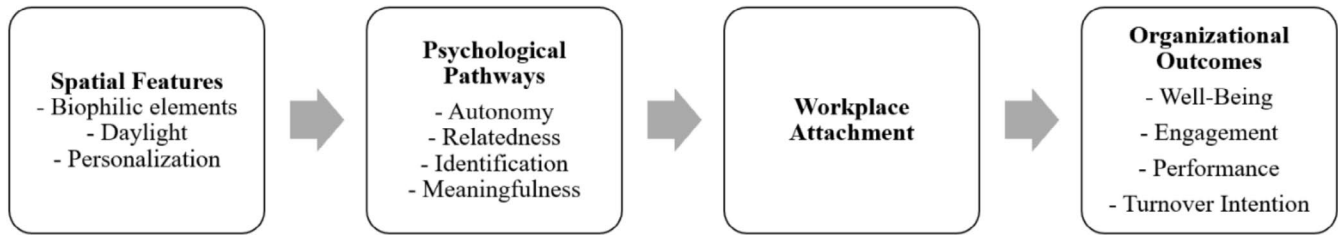


FIGURE 2 | Integrative conceptual framework of workplace attachment.

herein, we propose a mechanism-level framework that links concrete spatial features of the workplace to underlying psychological processes (Figure 2), which in turn influence WPA and organizational outcomes. Specifically, exposure to biophilic elements and ample daylight may facilitate restoration and positive affect, thereby enhancing employees' experiences of autonomy and meaningfulness. Opportunities for personalization (e.g., individualized desks or symbolic objects) could strengthen identification with the workplace by enabling the integration of the environment into the self. Clearly delineated quiet and collaborative zones structure social affordances that support relatedness and interaction when needed, while preserving opportunities for focused autonomy when required. These psychological processes (i.e., autonomy, relatedness, identification, and meaningfulness) mediate the relationship between spatial features and WPA: when spatial design satisfies these psychological needs, employees are more likely to develop strong emotional bonds with their workplace, which in turn predict higher well-being, engagement, and performance, and lower turnover intention.

This mechanism-level framework draws on theoretical perspectives from both environmental psychology and organizational behavior. Within environmental psychology, place attachment explains how meaningful experiences and symbolic personalization foster enduring emotional bonds with specific settings, while Person-Environment Fit (Caplan 1987; Kristof 1996) elucidates how alignment between individual needs and spatial affordances supports well-being. Within organizational behavior, the Job Demands-Resources (Demerouti et al. 2001) model conceptualizes spatial features as job resources that buffer demands and promote engagement, and social identity theory clarifies how personalization and symbolic ownership cultivate organizational identification and collective belonging. By integrating these perspectives, the integrative conceptual framework of WPA proposed in Figure 2 provides a coherent explanation for why and under what conditions spatial design influences WPA and related organizational outcomes.

4.2 | Managerial Implications

The results of the present review suggest that WPA is closely linked to employees' organizational behaviors and well-being and may have the potential to enhance key organizational aspects, such as leadership dynamics, interpersonal relationships,

and job performance. Regarding WPA and its relationship with employees' psychological features, the findings indicated that employees' WPA is strongly associated with numerous employees' psychological dimensions, dimensions of organizational effectiveness, employees' adult attachment, relational dynamics, organizational leadership dynamics, employees' well-being, and affective states. Based on the above-mentioned results, the paper's findings provide several managerial theoretical and practical implications.

From a theoretical perspective, this study validates the ideas regarding the relationship between WPA and key organizational factors. Specifically, most of the research supports the notion that the workplace serves as an affective space, which can be more accurately conceptualized in complex and multi-dimensional terms. While numerous scientific investigations have been conducted on WPA, researchers have often overlooked the diverse psychological aspects that are involved in these relationships.

From an applied perspective, the present review contributes new insights into the utilization of WPA within management practices. Specifically, understanding the intensity of WPA can help identify other psychological factors associated with the workplace, offering a valuable indicator for human resource (HR) managers who oversee employee comfort, career development, and satisfaction. To the extent that WPA styles can be improved, it may also be possible to adjust certain HR management practices to encourage employees to develop the WPA. In particular, the results underscore several domains on which managers can focus to implement concrete actions within their organizations and foster WPA. For instance, the incorporation of natural elements, vegetation, natural light, and quiet areas enhances emotional bonds and mitigates stress, thereby promoting positive emotional connections with the physical workspace (Untaru et al. 2024). To operationalize this approach, organizations may integrate plants, maximize exposure to natural light, employ materials that evoke nature, and establish restorative areas that facilitate relaxation and cognitive recovery. Managers can also enable employees to personalize their workstations and shared spaces, thereby enhancing self-expression and supporting the integration of personal identity with the work environment, which in turn reinforces emotional attachment (Frankó et al. 2023; Rioux and Pignault 2013a). Furthermore, managers can ensure that workspaces are both functional and aesthetically coherent, improving employees' affective evaluation of the environment and strengthening their satisfaction and WPA

(Rioux and Pignault 2013a). Practical measures in this regard include investing in ergonomic furniture, maintaining functional spaces, and ensuring aesthetic consistency throughout the workplace to optimize comfort and usability. Moreover, organizations can promote the creation of areas that support collaboration and social interaction. The design of staff rooms and informal meeting areas fosters social cohesion and relational identification with the workplace (Rioux and Pignault 2013a; Sari et al. 2024). This approach encourages collaboration and a sense of community by providing spaces that facilitate informal interactions and enhance social engagement among employees. Table 4 provides a summary of the points discussed above.

When employees experience a sense of attachment to their organization, they cultivate loyalty and commitment, which subsequently enhances motivation and performance (Neininger et al. 2010). This emotional attachment could contribute to a reduction in turnover and absenteeism, as employees who feel emotionally engaged are less likely to leave or withdraw. For organizations, fostering a culture of trust and belonging not only supports individual well-being but also promotes the development of a stable, focused, and productive workforce. Providing consistent opportunities for employees to align with the organization's values, vision, and mission further solidifies this attachment. Regular team meetings, individual check-ins, and company-wide events serve to reinforce these emotional bonds, ensuring that employees feel acknowledged and valued.

In conclusion, the interaction between WPA and organizational dynamics highlights the critical importance of cultivating an environment where employees feel secure, valued, and supported. By acknowledging and addressing psychological needs, promoting positive relational dynamics, and offering personalized leadership, organizations can enhance their overall effectiveness, improve employee well-being, and ultimately develop a resilient and high-performing workforce.

4.3 | Limitation

This systematic review has several limitations. First, the choice of keywords and specific databases may have inadvertently excluded relevant studies, even though efforts were made to employ sufficiently broad search terms. Secondly, the restriction to articles published in peer-reviewed academic journals may have led to the omission of valuable research. Future investigations could address these limitations by incorporating materials from a broader range of sources or by including grey literature. Third, due to the high number of studies with medium to high risk of bias, few definitive conclusions could be drawn regarding the association between WPA and psychological and relational factors characteristic of organizational functioning, spatial environments factors, and variables related to perceived meaningfulness of work. Future research could prioritize studies with a medium or low risk of bias to improve the generalizability of the

TABLE 4 | Design and managerial levers enhancing workplace attachment: Mechanisms, evidence, and implementation guidelines.

Design & managerial lever	Mechanism linking to WPA	Supporting studies	Implementation tips
Biophilic and restorative design (e.g., natural elements, greenery, daylight, quiet zones)	Strengthens affective bonds and reduces stress, thereby fostering positive emotional connections to the physical workspace	Untaru et al. (2024)	Incorporate plants, maximize natural light, use materials that evoke nature, and create restorative areas to support relaxation and cognitive recovery
Personalization of workspace	Enhances self-expression and the integration of personal identity with the work environment, thereby reinforcing emotional attachment	Frankó et al. (2023); Rioux and Pignault (2013a)	Allow employees to personalize their workstations and shared spaces, as well as provide autonomy in spatial arrangement and decoration
Functional and aesthetic satisfaction	Improves affective evaluation of the environment, reinforcing place satisfaction and attachment	Rioux and Pignault (2013a)	Invest in ergonomic furniture, aesthetic coherence, and maintenance of functional spaces to increase comfort and usability
Zones supporting collaboration and social interaction (e.g., staff rooms, informal meeting areas)	Builds social cohesion and relational identification with the workplace	Rioux and Pignault (2013a); Sari et al. (2024)	Design collaborative areas and promote informal interactions that strengthen community and belonging

findings. Fourth, this systematic review was restricted to articles published in English, potentially excluding studies available in other languages. Future research could address this limitation by including studies published in non-English languages. Fifth, this systematic review included studies utilizing only cross-sectional data, except for two longitudinal studies. Consequently, for all the categories identified in our results, causal associations could not be established. The scientific community should be encouraged to conduct longitudinal or experimental studies, enabling future reviews to include analyses of causal relationships between variables. Finally, due to the limited diversity in the countries where the studies were conducted, with the majority taking place in European territories, few generalizable conclusions can be drawn regarding the association between WPA and employees' psychological features, as well as its relationship to spatial environments factors and variables related to perceived meaningfulness of work. Future research could include studies conducted in countries across a broader geographical range to enhance the generalizability of the findings.

In summary, the literature on WPA is geographically and methodologically fragmented. Most studies have been conducted in Europe, particularly in France, Italy, and Hungary, with limited representation from regions such as the Middle East, Africa, Asia, and North America, and none from Latin America or Oceania. In terms of sectors, research has primarily focused on healthcare, education, and general office employees, with only isolated studies addressing specialized professional contexts; industrial, manufacturing, technology, and public administration sectors remain largely unexplored. Methodologically, cross-sectional designs dominate the field, while only a few studies employ longitudinal data. Sample sizes vary widely, from very small to moderate, limiting generalizability. Measurement approaches are largely based on the WAS by Rioux (2006), sometimes adapted or combined with other scales, resulting in heterogeneity in item numbers and reliability. These patterns collectively highlight the need for broader, multi-country, multi-sector, and longitudinal studies, as well as more standardized and diverse measurement approaches, to advance understanding of WPA and its organizational correlates.

Despite these limitations, this review provides the first comprehensive analysis of the existing literature on WPA.

5 | Conclusions

This is the first systematic review which provides a comprehensive analysis of the existing literature on WPA and psychological and relational factors characteristic of organizational functioning, spatial environment factors, and variables related to perceived meaningfulness of work. The findings indicate that WPA can have a positive relationship with employees' psychological features, potentially improving key organizational aspects, such as employees' psychological dimensions, leadership dynamics, and relational dynamics. In this context, it can be concluded that employees' WPA could foster positive perceptions of their organizations, thereby enhancing their sense of identification with the organization. Several managerial implications of these findings in relation to WPA and psychological and relational factors characteristic of

organizational functioning, spatial environment factors, and variables related to perceived meaningfulness of work are discussed in relation to the results of this review. Overall, these results underscore the need for further high-quality research to investigate WPA, its associated factors, and the causal relationships among the variables considered in this review.

Author Contributions

R.C.B., N.B., S.P., and S.R. contributed to the study conception and design. Material preparation and data collection were performed by R.C.B., and N.B. Analyses were performed by R.C.B. The first draft of the manuscript was written by R.C.B., S.P., and S.R. and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

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The authors have nothing to report.

Ethics Statement

The study was conducted in accordance with the ethical standards of the Italian Psychological Association (AIP), as well as the Helsinki Declaration of 1975.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The dataset generated for this study is available on request from the corresponding author.

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