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The Determinants of Nurses Retention: A Systematic Review

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***Abstract*: Nursing turnover is a critical problem in healthcare workforces because it increases costs and creates additional burdens on the remaining staff. The goal of this literature review is to examine the factors that lead to either the desire or the decision to leave a nursing position, as well as the desire or the decision to leave the profession altogether, based on studies from the past 11 years. The review is a combination of literature review and thematic synthesis, where the PRISMA guidelines are strictly followed. The aim is to classify the numerous determinants of a person's profession, such as workplace, managerial, and psychological influences. From the 220 studies reviewed, 51 were considered to meet our criteria. The matrix used in this review is innovative, and data recorded in the matrix refers to the number of determinants reported in the studies. The matrix demonstrated that studies primarily reported the determinants of nursing burnout and the quality of the work environment. The matrix demonstrated that the studies reported fewer determinants regarding reward and recognition systems and nursing professional autonomy. The review describes the nurse retention problem and provides recommendations for future empirical research pertaining to healthcare management and workforce policies.**

***Keywords*: nurse retention, turnover intention, intent to stay, nursing workforce, systematic literature review, work environment, leadership, burnout.**

1. Introduction

Assuring a stable nursing workforce promotes the efficient function of the healthcare system, the consistency of care provided, and the safety of patients. Worker retention indicates the continued work of persons in the same job or the same field. "Intention to stay" is a prospective attitude, while "turnover intention" is a more immediate inclination toward quitting. These concepts are related but not the same, given that positive intentions don't always lead to the same workforce permanence, and administrative records of turnover don't illuminate the reasons that preceded the departure. Woodward and Willgerodt (2022) show that retention and turnover of nurses are influenced by an interplay of the organization, profession, and the individual, and are shaped by the same factors across different healthcare contexts. Marufu et al. (2021) also mention work conditions, leadership and management, development, culture, and context. Knowing these factors is vital because an unstable workforce leads to an inability to staff adequately and increases costs. It also impairs team functioning and the health service's ability to deliver quality service and prevent a loss of valuable and experienced clinical staff.

The body of literature on nurse retention is large, but fragmented based on occupation outcomes, theoretical approaches, geography, nursing specialty, career progression, and methodology. There is a distinction in the research based on the actual turnover and research using the intention to stay or the intention to leave. There is also inconsistency in naming the factors, as supportive management, leadership quality, perceived organizational support, work environment, empowerment, and relational climate can refer to separate or overlapping mechanisms. Bae (2023) demonstrates how the intention to leave during the pandemic was related to working conditions and the worsening of other types of stress. Pressley and Garside (2023) suggest that personal and workplace factors correlate to the intention of nurses to stay employed. Most studies highlight, at best, a few factors that correlate to the outcome in question. A systematic review will highlight the fragmented nature of the field, with different studies highlighting different factors across inconsistent contexts, while retaining the meaning of those distinctions. This will also highlight where evidence is frequent and where there are gaps.

This paper provides a systematic review of literature on the retention of nurses. The purpose of this review is to identify, extract, and categorize retention factors, and to synthesize retention factors reported in literature. Unlike other studies, this paper does not focus on the collection of primary dataset, hypothesis generation, validation of a causal model, or evaluation of statistical effects. This paper does, however, addresses four review questions. These include: which factors have been studied with respect to nurse retention? How might factors related to nurse retention be systematically categorized? Which factors have been studied the most/least? and From the evidence, what are the theoretical, methodological, managerial, and policy implications? This review presents a literature coverage matrix and a thematic synthesis. This synthesis interprets the combinations of retention factors. It also does not consider the number of publications of a given retention factor as an indicator of a causal relationship. This paper also provides a framework for future research, considering the difference between the actual retention of nurses and the factors related to

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the retention of nurses. This framework also considers balance between research predominance and research neglect.

2. Methodology

Page et al. (2021) encourage application of PRISMA within systematic reviews. Hence, this review delineates each step of study identification, screening, eligibility and inclusion with more detail and with improved clarification (Page et al., 2021). This review focused on the determination of factors that impact nurse retention, and thus focused on studies published during the predefined January 2015–December 2025 publication window. The studies published in this timeframe were expected to introduce the effects of the changes in the work environment for nurses in the years following the COVID-19 pandemic. Specifically, studies were expected to address the post-pandemic challenges to the workforce, including challenges related to leadership, staffing and work-related stress, safety, and issues related to work-life balance and career-related assignments. The databases that were searched for relevant studies included Scopus, the Web of Science Core Collection, PubMed/MEDLINE, CINAHL, and ScienceDirect. Google Scholar was used to track citations in both directions. The main Boolean search strategy concatenated terms pertaining to the nursing population, retention outcomes, and their respective potential determinants. Relevant studies were those that were peer-reviewed, published in English, within the specified time period, and that focused on a nursing population and included studies on retention intentions, turnover, intent to leave, and stay, and studies including turnover as a proximate concept. Inclusion of studies assessing proximal mechanisms as indirect retention evidence was based on the following inclusion criteria. Editorials, op-eds, studies without a substantive focus on nursing, studies on irrelevant populations and/or settings, reports without an eligible retention outcome and/or an outlined proximal mechanism, and studies with insufficient methodological information were excluded. The author conducted an updated search on 29 June the year after the main review was conducted, following the same search ideas and eligibility criteria.

The initial search retrieved 220 results, 52 of which were duplicates. The titles and abstracts of the outstanding results (n = 220 - 52 = 168) were reviewed. Of those, 91 were excluded. The eligibility of 77 less remaining articles were evaluated, and 26 were excluded. Of those, 10 did not report a relevant retention outcome, or justified proximal mechanisms, or both; 7 addressed either an inappropriate population, or an inappropriate setting; 5 reported inadequate study-related information; and, 4 did not meet the criteria for publication period and language. The original evidence matrix comprised 45 studies. The updated search found 6 eligible studies. 51 studies were the result of the qualitative synthesis. Along with the rationality of the study design, the confidence of the reviewed studies was affected by the clarity of the sampling, the measurement, and the analysis. This determined the interpretive weight applied to the findings of each study. This was necessary due to the heterogeneous nature of the sources. For each article, data were extracted regarding the year of study, setting, study design, retention outcome (or proximal mechanism), and determinants, as well as the major findings. This was combined with an iterative coding process, which averaged the original factor labels, and grouped those with similar semantics or framing. This process resulted in the retention of 14 determinants. Each publication was only counted a single time per determinant, without consideration to the number of samples, models, or associations reported. As a result, the binary matrix captures coverage at the publication level. It does not reflect statistical significance, effect sizes, measurement equivalence, or evidential independence. Frequencies were employed solely to indicate the level of interest from scholars. Due to the variation between study designs, populations, instruments, and outcomes, thematic and narrative syntheses were used.

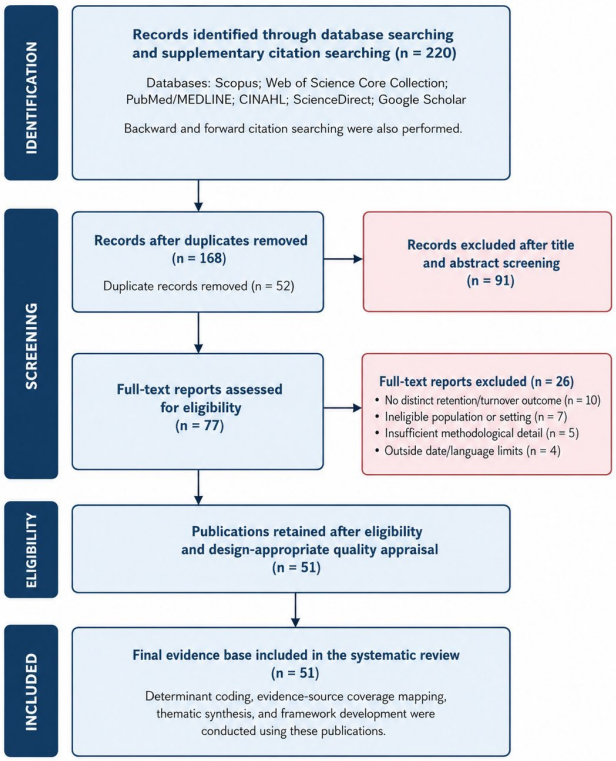

Fig. 1. The systematic review process

3. Determinants of Nurses Retention

Retention of nurses refers to the continued connection of skilled nurses and their employers. The literature describes the focal outcome reviewed here as employment continuity, intention to stay, intention to leave, and turnover. Each of the measures represents a different aspect of withdrawal and should not be viewed as the same. Within the literature, the determinants of retention recognize the plurality of retention. Namely, the design of work influences feelings of exhaustion and the ability to recover. Leadership shapes trust and the willingness to speak up. Organizational support shows nurses if they are valued. Professional development shapes the fit for one's future career. Lastly, personal relations within the workplace foster a sense of belonging. Retention has been found to be affected by the same set of working conditions,

leadership, professional development opportunities, and personal factors (Marufu et al., 2021). Likewise, the interventions that hospitals undertake to retain their employees center on the work environment, on leadership, and on the well-being and career progression of employees (de Vries et al., 2023). This body of evidence presents a case for the combined approach to retention. This approach considers various aspects of the workplace, the relational contract, professional identity, and the emotional attachment of employees toward the organization.

Table 1
Literature review matrix

No.	Author(s) and Year	Work Environment	Leadership Support	Staffing Adequacy	Workload	Job Satisfaction	Burnout	Organizational Support	Career Development	Compensation and Rewards	Work-Life Balance	Team Cohesion	Professional Autonomy	Recognition	Job Embeddedness
1	Marufu et al. (2021)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
2	Pressley and Garside (2023)	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
3	Al Yahyaei et al. (2022)	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓		
4	Woodward and Willgerodt (2022)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
5	de Vries et al. (2023)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
6	Bae (2023)	✓		✓	✓		✓	✓			✓				
7	Lee (2022)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
8	Brook et al. (2019)	✓	✓					✓	✓			✓		✓	
9	McDermid et al. (2020)	✓	✓	✓	✓	✓	✓	✓			✓	✓			
10	Williamson et al. (2022)	✓	✓	✓	✓		✓	✓	✓						
11	Vázquez-Calatayud and Eseverri-Azcoiti (2023)		✓			✓		✓	✓			✓		✓	
12	Galanis et al. (2024)		✓					✓							
13	Chen et al. (2024)	✓	✓	✓	✓	✓	✓	✓		✓	✓				
14	Wang et al. (2024)					✓		✓	✓		✓	✓		✓	✓
15	Goens and Giannotti (2024)	✓	✓					✓				✓		✓	
16	Tolksdorf et al. (2022)	✓	✓	✓	✓		✓	✓			✓				
17	Farahani et al. (2024)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
18	Penconek et al. (2024)	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
19	Wei et al. (2018)	✓	✓	✓	✓	✓	✓	✓				✓	✓	✓	
20	Zhang et al. (2016)		✓			✓		✓	✓			✓		✓	
21	Li et al. (2018)		✓			✓		✓	✓			✓	✓	✓	
22	Jun et al. (2021)	✓	✓	✓	✓		✓	✓							
23	Dall'Ora et al. (2020)	✓		✓	✓		✓	✓							
24	Al Sabei et al. (2020)	✓	✓	✓	✓	✓	✓	✓				✓	✓		
25	Poku et al. (2022)	✓		✓	✓	✓	✓	✓				✓			
26	Boamah et al. (2018)	✓	✓			✓		✓				✓	✓	✓	
27	Boamah and Laschinger (2016)	✓	✓		✓	✓	✓	✓			✓		✓		
28	Read and Laschinger (2015)	✓	✓			✓	✓	✓				✓	✓	✓	
29	Lavoie-Tremblay et al. (2016)	✓	✓		✓	✓	✓	✓				✓			
30	Al-Hamdan et al. (2017)	✓	✓			✓						✓	✓		
31	Bell and Sheridan (2020)	✓				✓		✓	✓						✓
32	Theucksuban et al. (2022)	✓	✓			✓		✓	✓		✓	✓	✓	✓	✓
33	Cao et al. (2021)	✓	✓				✓	✓				✓			
34	Kelly et al. (2021)	✓		✓	✓	✓	✓	✓							
35	Han et al. (2019)	✓					✓				✓				✓
36	Han et al. (2020)			✓	✓		✓				✓				✓
37	Kovner et al. (2016)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
38	Kim and Lee (2016)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓
39	Yeh et al. (2020)	✓	✓		✓		✓	✓				✓			
40	Kavaklı and Yildirim (2022)	✓	✓		✓	✓	✓	✓				✓		✓	
41	Rodríguez-García et al. (2024)	✓			✓	✓	✓				✓		✓		✓
42	AbdELhay et al. (2025)		✓			✓			✓		✓			✓	✓
43	Alasiry and Alkhaldi (2024)		✓			✓		✓				✓		✓	
44	Gautam et al. (2024)				✓	✓	✓			✓	✓				✓
45	Cho and Wee (2023)				✓	✓	✓				✓				✓
46	Brewer et al. (2016)		✓			✓									
47	AbuAlRub and Nasrallah (2017)	✓	✓												
48	Choi et al. (2022)		✓			✓		✓	✓			✓			
49	Conroy et al. (2023)		✓			✓		✓							
50	Lambert et al. (2024)	✓	✓				✓	✓				✓			
51	Buckley et al. (2025)	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓			

Many trends currently occur in the investigation of nurse retention. The first trend is the investigation of the work environment. These studies generally focus on the sufficiency of staffing levels, manageable workloads, safety, participation, and the availability of resources. Wei et al. (2018) demonstrate that conducive working environments for nurses must include effective communication and collaboration, meaningful recognition, and some form of real leadership. Another trend is the investigation of leadership and the support of the organization. These studies focus on the fairness and availability of support, empowerment, and the provision of psychological safety and visible evidence of responsiveness to the concerns of the staff. Nurses' retention in acute care settings is most influenced by factors such as management and organizational structures (Al Yahyaei et al., 2022). The final trend focuses on the satisfaction of employees vs. burnout and how these factors influence retention. The studies focus on the early stage of the career and contact with mentorship, transitional support, career opportunities, and professional fit. There is also new work on embeddedness. In this context, embeddedness describes the connections, fit, and sacrifices that make leaving less desirable. Wang et al. (2024) identify job embeddedness as the primary factor affecting nurses' turnover desire.

The comprehensive synthesis included fifty-one studies completed during the review period. The scaffolding for this evidence base includes systematic and integrative reviews, cross-sectional and longitudinal studies, intervention-based reviews, and context-centric studies based in hospitals and in acute, intensive, and emergency care; in nursing homes; and in early career studies. The primary studies utilize both intent-based measures, as well as a limited number of longitudinal studies that utilize actual turnover. This strengthens the argument for recognizing the difference between attitudinal withdrawal and the actual employment transitions. There were fourteen determinant categories that were represented: work environment, support from management, staffing adequacy, workload, job satisfaction, burnout, support from the organization, career development, compensation and rewards, work-life-balance, team cohesion, professional autonomy, recognition, and job embeddedness. These determinants were further analyzed in terms of work design and leadership; job satisfaction and burnout; professional growth, autonomy, and recognition; interpersonal climate and team cohesion; job embeddedness; and contextual and career stage transitions. The matrix was designed to be an evidence map to show substantial coverage at the level of publication, rather than orders of magnitude in a causal framework. This design identifies the more and less researched facets and how they are studied in relation to one another. It preserved the distinctness and cohesion of the conceptual clusters. For example, managerial and interpersonal support is reflected in support from leadership, while support from the organization illustrates an institutional concept of support, care, and fairness.

Table 1 summarizes literature on organizational support, leadership support, work environment, job satisfaction, burnout, workload, and team cohesion. Support showed up in 42 studies, support in 40, work in 38, satisfaction in 36, burnout in 34, and both workload and cohesion in 30. Balance appeared in 24 studies, and staffing and career development in 21 each. In contrast, compensation and rewards were in 12 studies, job embeddedness 13 studies, professional autonomy 16 studies, and recognition in 20 studies. These publication frequencies at most patterns research, not effects magnitude, certainty, or independence. The matrix shows a lot of co-occurrence. Research on burnout includes in often workload, staffing, satisfaction, and support, and studies on leadership often include manager behavior, organizational culture, communication, development, and satisfaction. Studies on the early career combine leadership, mentorship, teamwork, recognition, and fit. The pattern implies that retention is interpreted best by determinant arrangements and not individual variable. It shows that the literature is generous to elements of the immediate environment, leadership, and attitude, and gives less consistent consideration to design of rewards, professional freedom, recognition, engagement, and the contextual elements that allow retention strategies to work.

4. Discussion: Thematic Synthesis of Determinants

Work design is the first major thematic cluster. This includes the work environment, staffing adequacy, workload, and work-life balance. Turnover for emergency-nurses is partly due to the changing nature of high support, high acuity workplaces, McDermid et al. (2020). Williamson et al. (2022) identify issues for emergency-nurses that are similar to those experienced in recruitment and retention for Intensive Care. Concerns regarding work design and staffing are not merely an administrative issue. Insufficient staffing and high workloads are associated with burnout, turnover intention, and poorer quality of care (Al Sabei et al., 2020; Dall'Ora et al., 2020; Poku et al., 2022). Turnover during the pandemic was attributed to the high, challenging, and demanding work environments (Tolksdorf et al., 2022). Work-life balance of shift-nurses has been shown to impact retention (Cho & Wee, 2023). The cited works support the same argument, but due to differing work design dimensions that were measured, and the work retention results, a relative effect comparison is not possible. Balance and high demands removal are two parts of the same approach. Protection of recovery is made possible with flexible staffing, but cannot be relied on in systems with chronic shortages. Increased staffing may also be restricted in a larger hostile and unresponsive work environment.

The second cluster pertains to leadership and organizational support. Nursing staff interpret management behaviors to determine if their concerns will be addressed, if safety in speaking will be supported, and if the support of their arduous efforts is forthcoming. Leadership style and turnover intention in Saudi hospitals has been explored by Alasiry and Alkhaldi (2024), while Goens and Giannotti (2024) concentrate on transformational leadership and retention. Nurse-manager leadership styles and organizational culture regarding Jordanian nurses' decision to remain employed were positively examined by AbuAlRub and Nasrallah (2017). Brewer et al. (2016) discuss a more refined approach. They found that

transformational leadership was positively related to organizational commitment, but there was no direct positive relationship to the intent to stay or to job satisfaction. Suggests the influence of leadership can be indirect. According to Choi et al. (2022), lower turnover intentions and increased job satisfaction relate to managers' advocacy for and developmental management of employees, as well as the enhancement of team collaboration and communication and the assurance of quality. Conroy et al. (2023) reported a mix of predominantly positive or negative outcomes of the mostly limited and heterogeneous first studies about transformational leadership and retention of staff nurses. Boamah et al. (2018) addressed the relationship between transformational leadership and job satisfaction along with positive outcomes of the workplace, while Read and Laschinger (2015) described benefits of authentic leadership and empowerment in improving relational and attitudinal resources of newcomers. Policies which embrace support and fairness; adequate staffing; psychological safety; and support of accommodations reflect organizational support. Galanis et al. (2024) found that organizational support was consistently associated with turnover intention.

Taken together, these findings lend support to a credible-recipient theory. Continued membership increases when nurses view responsive leadership and institutional actions as reliable, fair, and responsive (as opposed to symbolic or episodic). Thus, the evidence is stronger for the leadership/support continuum as connected direct and indirect resources rather than a direct, unqualified, singular resource of any leadership style.

Job satisfaction and burnout create a third proximal pathway to nurse retention through linking attitudinal and health-related factors. Job satisfaction in nursing describes the degree to which employment meets the professional, social, and financial expectations of nurses. Burnout, in contrast, is the emotional and physical exhaustion from prolonged and relentless nursing demands and from nursing the inadequate nursing resources. Turnover intent for nursing-home staff was related to job satisfaction, the environment, and personal issues (Lee, 2022). Burnout has been related to adverse outcomes for patients, staff, and healthcare systems; and both organizational and occupational turnover (Jun et al., 2021; Kelly et al., 2021). In regard to these studies, the work environment plays the most crucial role in influencing the job satisfaction, burnout, and turnover intent of nurses (Al Sabei et al., 2020).

For a complete understanding of job satisfaction and burnout, it is important to recognize that burnout is the depletion of resources and that many nurses experience a lack of resources in many positive aspects of their work. Strategies to retain nurses that do not improve nursing resources, the environment, and the organizational structure will not have long-term positive outcomes.

The fourth category consists of professional development, independence, and appreciation. Career development consists of direction, specialization, education, promotion, and a bright future in the establishment. As stated in Zhang et al. (2016), mentoring programs have been shown to assist newly graduated nurses in adapting to the work environment. As for the retention of nurses in hospitals, Vázquez-Calatayud and Eseverri-Azcoiti (2023) associate it with transition and development support in the new work environment. Professional autonomy of nurses is in regard to the liberty to make decisions, participate in the decision-making process, and the use of one's judgment in the practice of nursing. The job satisfaction of nurses, as stated in Li et al. (2018), is explained by psychological empowerment, and the connection between job satisfaction and the intention to stay is illustrated by job crafting in Rodríguez-García et al. (2024). Appreciation as opposed to pay consists of recognition, feedback, voice, and respect. The relation of the retention of nurse-managers in the work environment to empowerment, feedback, meaningful work, and satisfaction is presented in Penconek et al. (2024). The aforementioned studies depict that nurses leave due to support in their identity, and professional development and practice of nursing, and not to simply survive in the work environment. Contrary to organizational support, leadership, and work environment, the greater part of retention is dedicated to empowerment and satisfaction, and not professional development.

Team cohesion and interpersonal climate are included in a fifth cluster. Patterns of communication in nursing often relate to the nature of the practice, and staff support may absorb the informal, unconditional solidarity that exists in the workplace. Negative climates can result in a lack of support between individuals. Al-Hamdan et al. (2017) relate the nursing environment to satisfaction and the intention to remain, and Wei et al. (2018) relate effective communication along with collaboration and relationship building to the presence of recognized contributions within a positive work environment. Team cohesion can ease the burden of work, strengthen learning, and provide a sense of support and inclusion. Additionally, unhealthy workplace bullying and a hostile environment create the need to conceal these organizational problems. Many of these studies cite some version of the same practice, unskilled supportive supervision in a nursing context. Unstable or inadequate workplace conditions, including unsafe staffing levels, bullying, and abusive supervision, are factors that create a permanent need. Organizational inertia, along with a lack of constructive activity, is strain that cannot be concealed by supportive co-workers.

A sixth grouping consists of job embeddedness and career stage transitions. Embeddedness comprises links, fit and perceived sacrifice, and describes what connects nurses to jobs, organizations, colleagues, professions, and communities. An inverse relationship between embeddedness and leaving intentions was noted by Wang et al. (2024). Regarding the attachment to a system, Dynamic Attachment Theory was suggested as preferring gradual attachment as opposed to the attachment being present upon entry. Kovner et al. (2016) associated early-career turnover with work attitudes and conditions and career opportunities. Kim and Lee (2016) explained the turnover timing of new nurses through multilevel factors. With the career-stage model, sleep disruptions due to work are studied to understand the real reasons for staff turnover and to gain additional insight into employee retention (Han et al., 2019, 2020). This model proposes that the demands

of retention will differ depending on the career stage of the employee; for example, recent nursing graduates may need more mentoring and coaching as nurse managers may face more challenges with social integration. There was more focus on sacrificed accrued recognition and career advancement for other nurse managers. Job embeddedness was referred to in 13 of the matrix publications. Given that its early references are integrative, it will be treated as such. The theory's validity and reliability will be assessed in more varied settings.

The final thematic cluster focuses on contextual and intervention particularities. Evidence is not convincing and does not demonstrate the necessity for universal retention models. Bell and Sheridan (2020) argue that engagement with the organization is a shared characteristic connected to retention at different phases of nurses' careers. Theucksuban et al. (2022) link the retention of nurses in Thailand to career satisfaction and commitment to the organization. Work-life balance also ha s an important relationship with job satisfaction and the intent to quit among nurses (Gautam et al., 2024). The interrelationship between job satisfaction and the conditions of employment, work-life balance, and quitting intention is also part of nurses' employment conditions. In the proposed retention model, work–life balance and transformational leadership were the most important variables, while career growth and work-related well-being showed no important roles (AbdELhay et al., 2025). Building on these results, post-COVID-19 nurse retention focuses on the safety and flexibility of staffing, a supportive and high-quality work environment, and a variety of support work for the organization, including leadership, mental health and well-being support, training and development, and mentoring (Buckley et al., 2025). With only 12 reports in the matrix mentioning compensation and rewards, compensation and rewards should be considered an underexplored area in employment relations. The synthesis shows that organizations should first consider the workforce's contextual factors. Based on this, organizations should tailor staffing and supportive interventions to the workforce's context.

5. Research Gaps and Future Research Directions

The first gap refers to the fragmented approach to the determinants. Studies tend to focus on a singular category, be it job satisfaction, burnout, or leadership. Far fewer studies comprehend the interconnectedness of these determinants. This research should analyze the interconnectedness of workload, staffing, burnout, leadership, pay, career advancement, and the overall work environment on the retention challenge of nurses. The second gap refers to the limited association of organizational commitment and the determinants. Pressley and Garside (2023) place organizational commitment in the larger retention literature. This research should analyze the impact of organizational commitment on the retention of nurses and how it influences the nurses' response to the workload, leadership, pay, and the overall environment.

The third gap describes the determinants of organizational justice and recognition. Based on the coded matrix, they were far less numerous than job satisfaction, burnout, and work environment. Future studies should analyze how perceptions of justice, recognition, reward fairness, open and fair promotion opportunities, and formal recognition programs influence the retention of nurses in different contexts. The fourth gap describes country, context, and method coverage. Most studies are context-specific, and findings from one healthcare context can hardly be applicable to other contexts. Future studies should focus on different contexts, countries, different types of units, different employment forms, and different levels of experience with methods that account for context-specific patterns. Retention determinants are context- and time-specific. Therefore, the development of longitudinal studies is a priority. The fifth gap describes the level of measurement and synthesis. Some researchers use different names for the same determinants, while others mix several determinants under broad/general categories. Future studies should focus on the development of a more detailed coding framework, agreed definitions for the determinants, and methods of measurement that enhance the level of comparison among studies.

6. Conclusion

This systematic review of literature analyzed the factors influencing nurses' retention, synthesizing results of 51 studies published in the specified timeframe. The study describes the topic as a review-based evidence synthesis, not as a study based on the researcher's hypothesis or collection of primary data. Its principal contribution is a determinant matrix showing and categorizing fourteen recurs. These recurs include: work environment, leadership support, staffing support, workload, job satisfaction, burnout, support, career development, compensation and rewards, work-life balance, team cohesion, professional autonomy, recognition, and job embeddedness. The thematic synthesis grouped these determinants into seven related clusters: work design, leadership and organizational support, job satisfaction and burnout, professional growth, autonomy and recognition, interpersonal and team cohesion, job embeddedness and career stage transitions, and context and intervention specificity. The extended evidence map illustrates that support and leadership as well as work satisfaction and burnout and teamwork and collaboration have concentrated research focus, whereas embeddedness, autonomy, recognition and compensation have received comparatively little. The patterns of frequencies present a picture of research focus and not of the strength of effects. In addition, the synthesis showed that retention is an interrelated and multifactorial process. Factors that influence nurses to stay focus on the interplay of the different needs and gaps, as well as the quality of leadership, support and the opportunities for professional and personal fulfillment, and the relationships that are built and maintained over time.

For researchers, the review provides a way to select categories of determinants, define outcomes, and develop longitudinal and contextual studies, which are not treated as effect size by review frequencies. For healthcare managers, the review illustrates that retention issues are made up of configurations and cannot be solved by isolated incentives. For policymakers, the review combines strategies of safe staffing, supportive leaders, scheduling and recovery, professional

development, workplace recognition, fair employment, and locally relevant provisions in the context of workforce strategies. There are limits to the review. It restricts to studies published in English, within the specified time period for the review, and primarily published studies, and it includes a variety of study designs and measures, and heterogeneous studies in the same review. It also includes primary studies and secondary studies, which means some coverage of the studies may be based on the same evidence and should not be considered as statistically independent confirmation. The binary matrix shows if the determinant was evaluated, but it does not show statistical significance, causal effect, sameness in measurement, or evidence quality. The limitations of the review provide rationale for a demand for stronger primary studies. The review gives an integrated framework of the determinants for nurse retention and a focused framework for research and workforce policies.

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