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Understanding Generational Differences in Nursing Practice Contexts: A Scoping Review

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Abstract

The presence of multiple generations within the nursing workforce introduces new challenges for nurse managers and healthcare organizations striving to meet the needs of both staff and patients, while aligning with institutional and public health policies. A supportive organizational climate is key to fostering healthy work environments that encourage collaboration among generations, acknowledging and valuing their distinct traits and perspectives. Such an approach is vital for enhancing team performance and overall organizational effectiveness. This study aims to identify and map the available scientific evidence on generational diversity among nurses within professional practice environments. A scoping review was conducted based on the Joanna Briggs Institute methodology. The PCC (Population, Concept, and Context) framework guided the comprehensive search for both published and unpublished studies, with no restrictions on language or publication date. A total of thirty-two studies were reviewed, addressing various dimensions of generational diversity, such as job satisfaction, organizational commitment, engagement, stress and burnout, work values and attitudes, turnover, and retention. Despite variations in findings, evidence consistently highlights that each generation brings distinct strengths to the nursing workforce. Fostering a balanced intergenerational dynamic is essential for creating a resilient and adaptable team capable of addressing professional challenges. Healthcare institutions should cultivate inclusive practice environments that allow all generations to actively contribute to high-quality patient care. This requires implementing generationally responsive strategies, promoting adaptable leadership approaches, and effectively managing workforce diversity in an evolving social context. Recognizing and valuing generational differences among nurses is fundamental to achieving equitable and inclusive healthcare delivery.

Keywords: Intergenerational relationships, Nursing, Practice environments, Workforce diversity

Introduction

Ongoing economic, social, and demographic shifts—particularly the rise in life expectancy—have extended the working lives of older adults [1], resulting in workplaces where up to four or even five generations now work side by side [2]. In nursing, this overlap has created complex professional settings where managers must accommodate differing expectations, communication styles, and work ethics. The increasing research attention to this issue highlights a growing recognition of the need to understand how generational differences influence nurses' professional experiences and organizational dynamics [1, 2].Although there is no single agreed-upon definition of what constitutes a "generation," researchers generally concur that members of the same age cohort share similar historical, technological, and sociopolitical experiences that shape their outlook, values, and behaviors [3, 4]. Yet, the precise birth-year ranges that define these cohorts remain a point of contention, often cited as a key limitation in generational studies [5, 6].

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Christensen *et al.* propose a widely used categorization: Traditionalists or Veterans (born 1922–1945), Baby Boomers (1946–1964), Generation X (1965–1979), Generation Y or Millennials (1980–1995), and Generation Z (born after 1995) [7].

The World Health Organization (WHO) has projected a global shortage of nearly 18 million healthcare professionals by 2030, placing additional pressure on health systems worldwide [8]. In this context, generational diversity offers both advantages and challenges. While it brings fresh perspectives and complementary skills, it can also create tension, miscommunication, and differences in work expectations, commitment, and satisfaction—factors that may contribute to burnout or turnover [9, 10]. Addressing these issues requires an understanding of what each generation values in the workplace and how these preferences affect teamwork and patient care. Tailored strategies that acknowledge generational distinctions are essential to building cohesive, resilient nursing teams [1].

An initial literature search conducted in databases including MEDLINE® (via PubMed), the Cochrane Database of Systematic Reviews, the Joanna Briggs Institute (JBI) Evidence Synthesis, PROSPERO, and the Open Science Framework (OSF) revealed only one systematic review focusing on three nursing generations—Baby Boomers, Generation X (Gen X), and Generation Y (Gen Y) [11]. That review produced inconsistent findings, signaling a need for broader and more robust research. The COVID-19 pandemic has further altered the generational landscape of the nursing workforce, introducing a growing number of Generation Z (Gen Z) nurses [12]. Considering these developments, this scoping review was undertaken to map the body of scientific evidence concerning generational diversity within nursing practice environments. It seeks to answer the question: *What evidence exists regarding generational diversity among nurses in professional practice settings?*

Methodology

Design

This study followed the methodological framework recommended by the Joanna Briggs Institute (JBI) for scoping reviews [13]. Reporting adhered to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) guidelines [14]. The review protocol was registered on the Open Science Framework (DOI: https://doi.org/10.17605/OSF.IO/6M8P7).

Eligibility criteria

In line with the Joanna Briggs Institute (JBI) approach, the inclusion parameters were established using the Participants (P), Concept (C), and Context (C) framework [13, 14]. This review focused on studies involving nurses (P) that examined generational diversity within professional nursing environments. Research was considered relevant if it explored interactions and relationships among nurses from different generations, or if it investigated how generational differences influence workplace factors such as engagement, organizational commitment, communication, job satisfaction, stress, burnout, retention, and intentions to remain or leave the profession. Studies addressing variations in work-related beliefs, attitudes, or values among generational cohorts of nurses across any practice setting were also included (C). A broad range of evidence was accepted, including peer-reviewed articles, literature reviews, theses, dissertations, and gray literature, with no limitations regarding publication year or language.

Search strategy

A preliminary search was first conducted in MEDLINE® (via PubMed) and CINAHL® Complete (via EBSCOhost) to identify commonly used descriptors and indexing terms appearing in titles and abstracts. These findings informed the development of a refined and comprehensive search strategy, which incorporated both keywords and controlled vocabulary (MeSH terms) using Boolean operators. The final search, completed in October 2023, covered MEDLINE® (via PubMed), CINAHL® Complete (via EBSCOhost), Business Source Ultimate® (via EBSCOhost), and SCOPUS®.

To ensure completeness, gray literature sources were also examined through databases such as ProQuest Dissertations and Theses® and WorldCat®. **Table 1** summarizes the search strategies and keywords employed for each database. In the final step, the reference lists of all included papers were manually reviewed to identify any additional studies that met the predefined inclusion criteria.

Table 1. Database search strategy and results

Database: Business Source Ultimate (EBSCO). Search conducted on October 16, 2023. Results: 7 (AB ((MH “staff nurses”) OR (MM “nurses”) OR “nurs*” OR “nurse practitioners” OR “nursing staff”) AB ((MH “Intergenerational Relations”) OR (MH “Generation Y”) OR (MH “Generation X”) OR (MH “Baby Boomers”) OR “Generation Y” OR “millennial generation” OR “Generation z” OR “baby boomer*” OR “millennial” OR “generational diversity” OR “generational differences”) AB ((MM “work environment”) OR (MH “professional practice”) OR work environment OR working conditions OR work setting OR practice environment OR positive work environment))

Database: CINAHL (EBSCO). Search conducted on October 16, 2023. **Results: 95** (AB ((MH "staff nurses") OR (MM "nurses") OR "nurs*" OR "nurse practitioners" OR "nursing staff") AB ((MH "Intergenerational Relations") OR (MH "Generation Y") OR (MH "Generation X") OR (MH "Baby Boomers") OR "Generation Y" OR "millennial generation" OR "Generation z" OR "baby boomer*" OR "millennial" OR "generational diversity" OR "generational differences") AB ((MM "work environment") OR (MH "professional practice") OR work environment OR working conditions OR work setting OR practice environment OR positive work environment))
Database: PubMed (Medline). Search conducted on October 13, 2023. Results: 128 (("nurses"[MeSH Terms] OR "nurs*" [Title/Abstract] OR "nursing staff" [Title/Abstract] OR "nurse practitioner" [Title/Abstract] "intergenerational relations" [MeSH Terms] OR "Generation Y" [Title/Abstract] OR "millennial generation" [Title/Abstract] OR "Generation z" [Title/Abstract] OR "baby boomer*" [Title/Abstract] OR "millennial" [Title/Abstract] OR "generational diversity" [Title/Abstract] OR "Generation X" [Title/Abstract] OR "generational differences" [Title/Abstract] "workplace" [MeSH Terms] OR "work environment" [Title/Abstract] OR "working conditions" [MeSH Terms] OR "work setting" [Title/Abstract] OR "professional practice" [MeSH Terms] OR "practice environment" [Title/Abstract] OR "positive work environment" [Title/Abstract]))))
Database: **ProQuest.** Search conducted on October 16, 2023. **Results: 80**. Source type: Dissertations and Theses Search strategy: Abstract (nurse) AND (intergenerational relations) Filter: Theses and Dissertations
Database: **Worldcat.** Search conducted on October 16, 2023. **Results: 5**. Source type: Dissertations and Theses. Search strategy: Kw: nurse AND kw: intergenerational relations Filter: Theses and Dissertations
Database: Scopus. Search conducted on October 16, 2023. Results:78 ABS ("nurses" OR "nurs*" OR "nursing staff" OR "nurse practitioner") ABS ("intergenerational relations" OR "Generation Y" OR "millennial generation" OR "Generation z" OR "baby boomer*" OR "millennial" OR "generational diversity" OR "Generation X" OR "generational differences") ABS ("workplace" OR "work environment" OR "working conditions" OR "work setting" OR "professional practice" OR "practice environment" OR "positive work environment") ABS ("nurses" OR "nurs*" OR "nursing staff" OR "nurse practitioner") AND ABS ("intergenerational relations" OR "Generation Y" OR "millennial generation" OR "Generation z" OR "baby boomer*" OR "millennial" OR "generational diversity" OR "Generation X" OR "generational differences") AND ABS ("workplace" OR "work environment" OR "working conditions" OR "work setting" OR "professional practice" OR "practice environment" OR "positive work environment"))

Study selection

All retrieved studies were organized and uploaded into the Rayyan® platform (Qatar Computing Research Institute, Doha, Qatar) for screening and management. Duplicate records were identified and removed prior to review. The remaining titles and abstracts were carefully examined to determine their relevance to the inclusion criteria, after which eligible studies were selected for full-text assessment. Study selection was conducted independently by two reviewers, with any disagreements resolved through discussion or, when necessary, by consulting a third reviewer. The screening and selection process followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) guidelines [14], and the overall workflow was illustrated using a PRISMA flow diagram [15] **(Figure 1)**.

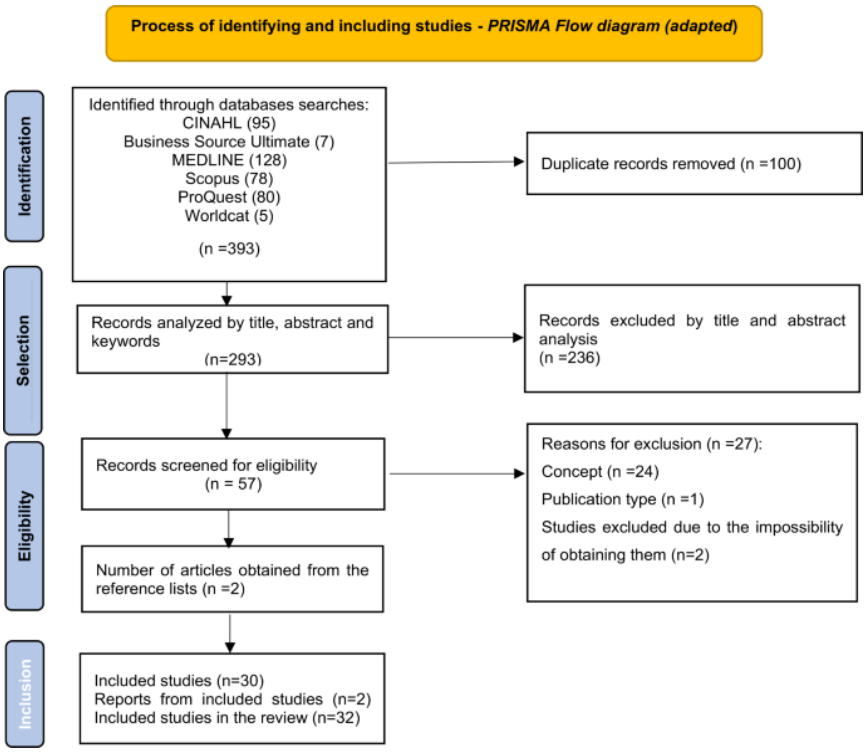

Figure 1. PRISMA flowchart of the study's article selection process. Adapted from: Page *et al.* [15]

Data extraction

Two independent reviewers carried out data extraction using a customized tool specifically developed for this review. The extracted information included key study characteristics such as author names, publication year, country of origin, study design, participant details, and main findings. There was no need to contact the original study authors for further clarification or supplementary data.

Data analysis and presentation

The collected data were organized and summarized in tabular form, accompanied by a descriptive narrative synthesis that aligned the findings with the review's objectives. To deepen the analysis and identify underlying patterns, thematic analysis was conducted following Bardin's methodological principles [16]. Atlas.ti 24 software facilitated data management and visualization, supporting the creation, organization, and integration of categories and subcategories.

Results

Following a thorough screening and evaluation process, a total of 32 studies fulfilled the inclusion criteria and were incorporated into the review. **Table 2** presents a descriptive overview of the main characteristics and findings of these studies.

Table: Summary of Studies on Generational Differences in Nursing

Authors/Year/Country	Study Design & Sample	Key Findings & Implications
Tan & Chin, 2023 [17] Singapore	Cross-sectional 778 nurses	Younger generations (Gen Y & Z) prioritize work-life balance more and adapt faster to workplace changes.
Lee & Lee, 2023 [9] South Korea	Cross-sectional 159 nurses	Gen X shows higher job satisfaction and organizational loyalty than later generations; no generational differences in communication styles.
Pawlak *et al.*, 2022 [18] Poland	Literature review	Baby Boomers & Gen X display stronger organizational commitment; Gen Y & Z seek better work-life balance; Gen Z expects more from leadership.
White *et al.*, 2021 [19] Australia	Cross-sectional 18,963 nurses	Job satisfaction highest in Gen Z, then Gen Y, Baby Boomers, and Gen X; all generations report good work-life balance satisfaction.
Oliveira & González, 2021 [10] Spain	Integrative review	Older generations exhibit greater job satisfaction and commitment; Gen X & Y value professional-personal life balance highly.
Peter *et al.*, 2021 [20] Switzerland	Cross-sectional 98 midwives	Younger cohorts (Gen X & Y) more likely to leave organization than Baby Boomers; poor work-life balance increases intent to exit profession early.
Cantada & Lee, 2020 [21] South Korea	Descriptive-correlational 256 nurses	Job satisfaction decreases from Gen X → Gen Y → Gen Z; Gen Y & Z place higher value on personal time availability.
Campbell *et al.*, 2020 [22] USA	Concept analysis	Gen Y prioritizes pay, time off, relationships, benefits, and leadership support; Gen X values autonomy in clinical practice.
Stevanin *et al.*, 2020 [23] Finland	Cross-sectional 3,093 nurses	All generations enjoy intergenerational teamwork and see themselves as change-oriented and tech-savvy (Baby Boomers slightly less); Gen Y needs more feedback.
Hisel, 2019 [24] USA	Quantitative non-experimental 1,885 nurses	Engagement highest in Veterans, then Baby Boomers, Gen X, and lowest in Gen Y.
O'Hara *et al.*, 2019 [25] USA	Descriptive-correlational 825 nurses	Autonomy, collaboration, leadership, and motivation drive job satisfaction among Gen Y nurses.
Stevanin *et al.*, 2019 [26] Finland	Descriptive-correlational 3,218 nurses	Peer relationships matter most to Baby Boomers; they and Gen X are less open to change than Gen Y.
Huber & Schubert, 2019 [27] Germany	Cross-sectional 992 nurses	Gen Y less engaged than Gen X and Baby Boomers; professional ambition is more important to Gen Y.
Christensen *et al.*, 2018 [7] USA	Literature review	Intergenerational differences can enhance team performance via tailored communication, rewards, and flexible policies.
Stevanin *et al.*, 2018 [11] Finland	Mixed-methods systematic review	Baby Boomers report lower stress/burnout and higher satisfaction/engagement; Gen Y more stress-sensitive and less satisfied/engaged.

Stevanin *et al.*, 2017 [28] Finland	Cross-sectional 1,302 nurses	Multidimensional Nursing Generations Questionnaire effectively measures generational views on conflict, safety, relationships, teamwork, change orientation, presenteeism, turnover intent, and flexibility.
Lavoie-Tremblay *et al.*, 2014 [29] Canada	Descriptive-correlational 1,254 nurses	Under high cognitive load, Gen X less distressed than Gen Y; under high physical load, Gen Y less distressed than Gen X.
Wakim, 2014 [30] USA	Descriptive-correlational 262 nurses	Gen Y reports highest perceived stress compared to Gen X and Baby Boomers.
Sullivan Havens *et al.*, 2013 [31] USA	Descriptive-correlational 747 nurses	Veterans most engaged, Gen X least; practice environment predicts engagement across all generations.
Hendricks & Cope, 2013 [32] Australia	Literature review	Managers should respect generational differences in communication, commitment, and rewards. Veterans: loyal; Baby Boomers: idealistic; Gen X: tech-savvy; Gen Y: optimistic.
Shacklock & Brunetto, 2012 [33] Australia	Descriptive-correlational 900 nurses	Retention drivers differ by generation; only work attachment is common across Baby Boomers, Gen X, and Gen Y.
Leiter *et al.*, 2010 [34] Canada	Descriptive-correlational 522 nurses	Gen X reports highest distress and peer/supervisor relationship issues; younger nurses more likely to leave.
Stanley, 2010 [35] Australia	Literature review	Baby Boomers: strong work ethic; Gen X: need balance & tech skills; Gen Y: highly tech-literate.
Keepnews *et al.*, 2010 [36] USA	Longitudinal 3,380 nurses	Gen X highest work-family conflict; Gen Y shows greater organizational commitment than Gen X or Baby Boomers.
Wieck *et al.*, 2010 [37] USA	Mixed methods 1,773 nurses	Baby Boomers most satisfied; Gen Y highest turnover intent; 61% of all generations plan to leave within 10 years.
Lipscomb, 2010 [38] USA	Cross-sectional 77 nurses	Baby Boomers & Gen X prioritize autonomy; Gen Y prioritizes salary.
Dols *et al.*, 2010 [39] USA	Qualitative 25 nurses	Younger generations seek more feedback and better work-life balance.
Leiter *et al.*, 2009 [40] Canada	Descriptive-correlational 448 nurses	Gen X finds work less value-aligned, more stressful, higher burnout, and more likely to switch organizations than Baby Boomers.
Carver & Candela, 2008 [41] USA	Literature review	Veterans: loyalty & work ethic; Baby Boomers: recognition; Gen X: autonomy & balance; Gen Y: teamwork, feedback, longer onboarding.
Wilson-Keates *et al.*, 2008 [42] Canada	Descriptive-correlational 6,541 nurses	No generational differences in coworker satisfaction; Baby Boomers more satisfied overall than Gen X or Y.
Apostolidis & Polifroni, 2006 [43] USA	Descriptive-correlational 98 nurses	Baby Boomers prefer autonomy over status; Gen X satisfied with status but not pay.
Sherman, 2006 [44] USA	Literature review	Veterans: loyalty & hierarchy; Baby Boomers: work ethic; Gen X: balance; Gen Y: global, tech-savvy, instant communication.

A review of the methodology of the included studies indicated a strong predominance of quantitative research (n = 21), with the majority being descriptive, correlational, or cross-sectional in design, and only a single longitudinal study. The publication years ranged from 2006 to 2023, and the studies were conducted in various countries: the United States (n = 13), Finland (n = 4), Australia (n = 4), Canada (n = 4), and South Korea (n = 2). Single studies were also reported from Singapore, Germany, Spain, Switzerland, and Poland. Most studies (n = 31) were published in English, while one was written in Korean.

Among the quantitative studies, a total of 43 different instruments were employed. Only one tool, the Multidimensional Nursing Generations Questionnaire (MNGQ), specifically evaluates the characteristics of different nursing generations within professional practice settings. It examines eight dimensions: generational conflicts, perspectives on patient safety, intergenerational relationships, functioning as a multigenerational team, openness to change, presenteeism and job commitment, intention to leave, and flexibility and availability. This instrument leverages the traits of each generational cohort to monitor factors that may affect productivity, efficiency, effectiveness, and the overall quality of nursing care [17,18].

In the qualitative [19] and mixed-methods [20] studies, data were primarily gathered through focus group discussions.

The findings from the reviewed studies were organized into five overarching categories: (1) Generational presence in nursing; (2) Importance assigned to work; (3) Significance of leadership; (4) Quality of relationships between

nurses and healthcare organizations; and (5) Strategies to enhance professional practice environments. The categories and their corresponding subcategories are presented in **Figure 2**.

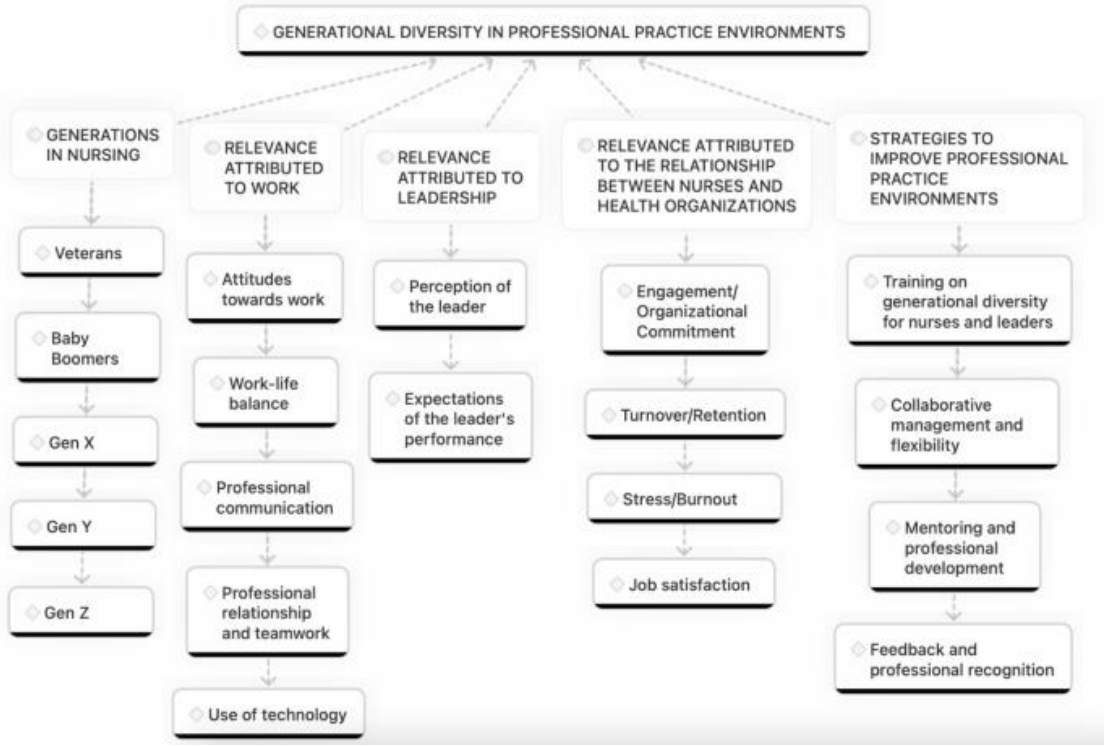

Figure 2. Categories and subcategories emerging from the analysis of the studies

Generational presence in nursing

Few studies addressed all nursing generational groups simultaneously. Only two studies examined the combined impact of five generations on professional practice environments [7, 21]. Most research focused on subsets of generations, including four cohorts (Veterans, Baby Boomers, Gen X, and Y or Baby Boomers, Gen X, Y, and Z) [10, 22–29], three cohorts (Baby Boomers, Gen X, and Y or Gen X, Y, and Z) [9, 11, 17–20, 30–39], and two cohorts (Gen X and Baby Boomers or Gen X and Y) [40–43]. A single study focused exclusively on Generation Y [44]. Across these studies, Gen X was the most frequently investigated group [7, 9–43], followed by Gen Y [7, 9–44].

Perceptions of work

The review highlighted generational differences in how nurses view their work and professional relationships, with five key subcategories identified: (i) work attitudes, (ii) work-life balance, (iii) professional communication, (iv) professional relationships and teamwork, and (v) technology use.

Work attitudes

Veteran nurses were generally characterized by discipline [7, 28, 29], strong work ethic [28], dedication [10, 21, 25, 29], risk aversion [7, 21], diligence [7, 21, 27], and organizational loyalty [7, 10, 25, 27–29]. Baby Boomers shared many of these traits but also demonstrated professionalism [23], autonomy [21, 23], competitiveness [7, 27, 28], idealism [37], and optimism [7, 21, 23, 25, 34]. They often prioritized work highly, were perceived as workaholics [23, 27–29], and focused on outcomes [23, 28], valuing recognition and meaningful work [24, 29, 35].

Gen X retained a results-oriented approach [21, 27, 28] but was less financially motivated and less bound by organizational culture [29]. They favored professional settings that recognized their skills and creativity [23, 41] and valued autonomy [7, 24, 27, 28], flexibility [7, 28], diversity, and informality [21, 25]. Flexibility was a consistent trait across Gen X, Y, and Z [7, 27].

Generation Y nurses were highly educated, adaptable, confident, multicultural, and capable of multitasking [10, 21, 24, 25, 27, 28]. They often shared work values with Veterans [29]. Generation Z, while theoretically well-prepared, faced challenges in practical application [23] but were optimistic, entrepreneurial, pragmatic, and committed to continuous professional development [23]. Like Gen X and Baby Boomers, they maintained a results-oriented mindset [7].

Work-Life balance
Younger generations, especially Gen Y and Z, placed greater emphasis on achieving a balance between professional and personal life compared to older cohorts such as Baby Boomers [7, 10, 11, 19, 21–31, 35]. Campbell *et al.* (2020) highlighted that Gen Y nurses consider work-life balance crucial for fostering positive practice environments [32], and disruptions caused by inadequate staffing or high workloads negatively affect nursing care quality [19].

Professional communication
Generational differences also emerged in communication preferences, particularly with the increased reliance on digital platforms. Gen Y and Z favored electronic communication, whereas older generations preferred face-to-face interaction [7, 10, 23, 24, 27–29]. Gen Z frequently used social media and was seen as creative and interactive, though sometimes less effective in team-based communication [23, 24]. One study found no significant differences in communication preferences among Gen X, Y, and Z [9].

Professional relationships and teamwork
Baby Boomers demonstrated strong social skills and loyalty to colleagues [23, 43], while Gen X tended to be more individualistic and less team-oriented [20, 27]. Gen Y valued social connections, teamwork, and diversity [7, 10, 21, 25, 27, 28], and Gen Z also appreciated collaboration and had a stronger orientation toward social causes [7, 23]. Across generations, teamwork was recognized as essential for positive practice environments, though the prioritization varied [32]. Professional relationships were generally unaffected by generational differences [33, 37].

Use of technology
All generations acknowledged the importance of technology and adaptability. Baby Boomers reported slightly lower technological adaptability, reflecting their upbringing in a less technology-focused era [7, 33]. In contrast, Gen Y and Z were more comfortable with technology, though Baby Boomers and Gen X experienced greater challenges in integrating it into professional practice [17, 22].

Perceptions of leadership
The reviewed studies indicated generational differences in the expectations and value placed on leadership, influencing how nurses perceive the role of leaders within teams and healthcare organizations.

Perceptions of leadership
Veteran nurses generally valued authority and tended to favor structured, hierarchical organizations, thriving in traditional bureaucratic environments [7, 10, 21, 27, 29]. In contrast, younger nurses were less inclined toward rigid hierarchies and were more likely to perceive leaders as mentors or guides [7, 23]. Across all generations, important leadership traits included trustworthiness, transparency, honesty, and the ability to provide support [19, 20].

Leadership expectations
Gen Y nurses expressed a preference for shared or rotating leadership roles and valued being involved in decision-making processes [21, 28]. Supportive leadership was a major factor influencing their job satisfaction, with one study attributing over half of their satisfaction to this support [44]. Similarly, Gen Z nurses highlighted the importance of mentorship and guidance for recognition at work [23]. Younger nurses also preferred longer orientation periods and prompt positive feedback, whereas older generations prioritized being respected and recognized within the organization [7, 19, 20, 34].

Relationship between nurses and organizations
The studies underscored organizational interest in understanding how generational differences shape nurses' experiences and professional practice environments. Four main themes emerged: (i) organizational engagement and commitment, (ii) staff turnover and retention, (iii) occupational stress and burnout, and (iv) job satisfaction.

Engagement and organizational commitment
Older generations, especially Veterans and Baby Boomers, tended to show higher engagement and stronger loyalty to their organizations [10, 11, 23, 25, 26, 31, 34]. By contrast, Gen X, Y, and Z nurses demonstrated lower engagement, with Gen Z exhibiting the least commitment [10, 17, 23, 25, 31]. Results regarding Gen Y were mixed, with some studies reporting higher organizational commitment than Gen X and Baby Boomers [26, 37], while others found it was greater than only Gen X [26].

Turnover and retention

Intentions to leave varied by generation. Gen X and Y nurses were more likely to consider leaving their positions compared to Baby Boomers [11, 23, 30, 33], with younger nurses generally showing a higher turnover tendency [20, 42]. Gen Y was described as particularly mobile, being easy to recruit but challenging to retain in unsupportive or unengaging workplaces [7, 28]. Evidence regarding Gen Z was limited. Factors influencing retention differed among generations: Baby Boomers cited work-family balance, autonomy, attachment to work, and interpersonal relationships [36]; Gen X highlighted attachment to work and supervisory relations [36]; and Gen Y focused primarily on attachment to work [36].

Stress and burnout

Gen X nurses frequently reported higher stress and burnout, often due to work environments that did not align with their professional values [35, 41, 42]. Compared with Gen Y, they experienced less psychological distress in complex scenarios [40]. Conversely, Gen Y nurses showed reduced stress compared with Gen X when resources were limited [40].

Job satisfaction

Several studies investigated how generational differences influence nurses' job satisfaction. Findings indicated that Gen X and Gen Y nurses generally reported lower satisfaction than Baby Boomers [38, 39]. Among younger generations, Gen X nurses experienced higher satisfaction than Gen Y and Gen Z, with Gen Z showing the lowest levels [9, 31]. Baby Boomers appeared most content with extrinsic rewards, career opportunities, acknowledgment, and professional recognition [39]. For Baby Boomers, payment and autonomy were key factors contributing to satisfaction [38, 43], whereas for Gen Y, remuneration was the primary influencing factor [38].

Strategies to enhance professional practice environments

Numerous studies highlighted the need for targeted strategies to improve nursing work environments [9, 20–24, 26–29, 31–33, 35, 36, 43]. These strategies can be grouped into four main areas: (i) generational diversity training for staff and leaders; (ii) flexible, collaborative management; (iii) mentoring and career development; and (iv) feedback and recognition systems.

Generational diversity training for nurses and leaders

Training initiatives that increase awareness of generational differences among nursing teams and leadership were identified as critical for fostering harmonious intergenerational relationships [9, 20–24, 26–29, 31–33, 35, 36, 43]. Work practices should be tailored to generational preferences, such as providing tangible rewards for Baby Boomers, promoting creativity and autonomy for Gen X, or offering extended orientation and onboarding periods for Gen Y [7, 17, 20, 28, 29]. Encouraging open communication and opportunities to share knowledge, experiences, and concerns across generations also emerged as an effective strategy for enhancing collaboration and mutual understanding [7, 27, 29, 37, 43].

Flexible and collaborative management

Leaders are encouraged to implement adaptable work structures that consider diverse scheduling needs, workload management, shift allocation, and the physical demands of nursing care [11, 19, 21–24, 26, 31, 33, 34, 37]. Flexibility is particularly valued by younger nurses who prioritize work-life balance and leisure time [9, 21, 30, 31]. Leadership approaches should be inclusive, allowing all generational groups to participate in decision-making and clinical governance, thereby reflecting the diversity of professional practice environments [11, 19–21, 34, 37, 39].

Mentoring and professional development

Professional growth is a priority for Gen X, Y, and Z nurses [23]. Initiatives that encourage skill development and career advancement can empower these nurses, fostering autonomy and engagement [9, 19, 29, 33, 39]. Mentoring programs can also bridge generational gaps, leveraging technological skills from Gen Y and Z to support older colleagues, while tapping into the experience and expertise of Baby Boomers and Gen X to guide younger staff [7, 22, 25, 33, 37]. These programs additionally help mitigate stress and improve adaptation across generations [40, 41].

Feedback and professional recognition

All generational groups value recognition, support, and ongoing feedback, though younger nurses particularly emphasize its importance [19, 32, 34]. Establishing an inclusive environment where daily challenges are framed as opportunities for growth encourages effective communication, regular performance feedback, and reflection, fostering continuous professional development for nurses from all generations [7].

Discussion

The studies included in this review highlighted inconsistencies in defining generational boundaries, particularly regarding the age range for each cohort. This issue is most pronounced for Gen Z, whose chronological limits vary widely across studies. Individuals born at the transitional periods between generations, often referred to as "cuspers," exhibit characteristics from two adjacent cohorts, complicating comparisons across studies [41]. For instance, Leiter *et al.* (2010) excluded cuspers to emphasize clear generational distinctions.

Generational differences appear to influence attitudes and behaviors toward work. Social transformations in the 20th century have shifted perceptions of work, making it less central to individuals' identities compared with older cohorts. Younger generations increasingly prioritize work-life balance, reflecting their desire to dedicate time to family, social activities, and personal goals [7, 10, 11, 19, 21–25, 27–30, 35]. Leaders who provide flexibility and support in achieving work-life balance can enhance satisfaction and engagement among these employees [46]. The 2024 Deloitte Global report similarly emphasizes that work-life integration is a critical factor in workplace choice for Gen Y and Gen Z [47].

While multigenerational workplaces could theoretically introduce communication challenges or conflicts, the evidence from this review suggests that generational diversity does not inherently increase workplace disputes [33]. Rather, nurses perceive team diversity as an opportunity to leverage complementary skills, enhancing collaboration and overall performance [33, 37]. The key challenge lies in managing age-diverse teams through tailored strategies that respect the professional values and expectations of each generation [33].

Leadership is a pivotal factor in promoting effective organizational functioning [48, 49]. Findings indicate a shift in preferences from hierarchical leadership, favored by Veterans, toward more collaborative and mentor-oriented approaches valued by younger nurses [7, 23, 34]. Younger generations also emphasize participation in decision-making, frequent feedback, and consistent communication with leaders, highlighting the need for managers to adapt leadership practices to meet these expectations [46].

The global nursing shortage, exacerbated by financial constraints, has intensified challenges in retention and increased turnover intentions, particularly among younger nurses [49]. This review showed that older generations, including Veterans and Baby Boomers, generally exhibit higher levels of engagement, organizational commitment, job satisfaction, and lower turnover intentions compared with younger cohorts [21, 28, 29]. Conversely, younger nurses are more sensitive to job insecurity, salary devaluation, and precarious work conditions, which influence their engagement and relationship with organizations [9].

Despite these well-documented generational preferences, many healthcare organizations fail to adequately address them, resulting in suboptimal working conditions that can affect both staff retention and the quality and safety of patient care [50–52]. To address these challenges, administrators and nurse managers should implement strategies that enhance engagement, satisfaction, and retention across all generational groups. Promoting intergenerational collaboration allows younger nurses to develop leadership, autonomy, and professional growth while enabling knowledge transfer from experienced staff, bridging gaps and sustaining organizational values [22].

Implications for health and organizational policies

Effective health and organizational policies aimed at fostering positive practice environments should prioritize improving working conditions, including adequate nurse staffing, sufficient resources, and strong leadership [27]. Such policies must be inclusive of all generational groups, enabling nurses to provide safe, high-quality care while recognizing their professional and economic value [7].

However, many organizations struggle to adapt to evolving health policies and workplace demands. The key challenge lies in creating inclusive environments that leverage the strengths of each nurse and generational cohort, fostering cohesive multigenerational teams focused on collaboration and quality care [29, 53, 54]. Leaders and health organizations play a critical role in shaping these environments by understanding the distinct characteristics of each generation, supporting younger nurses in contributing to organizational improvement, and retaining the expertise of older nurses to maintain high-quality care [27, 33, 40].

Nurse managers must acknowledge that each generation brings unique values and expectations to the workplace. Consequently, management strategies should be tailored to harmoniously integrate intergenerational groups [22]. As Gen Z increasingly enters the workforce alongside more senior nurses, it becomes evident that a single, uniform management style is insufficient. Instead, motivational approaches should be adapted to generational preferences—for instance, offering younger nurses more flexibility or time off, while providing Baby Boomers and Veterans with financial rewards and public recognition [46].

Creating a positive, inclusive culture that draws on the strengths of each generation is essential. Baby Boomers contribute deep clinical expertise and mentoring skills; Gen X nurses are innovative and adaptable, capable of modernizing care delivery; Gen Y brings technological proficiency and excels in collaborative teamwork; and Gen Z offers dynamic learning, communication, and problem-solving skills that challenge organizations to redesign workplaces to accommodate their approaches [7, 29].

Study Limitations

This review is limited by the search strategy, which may not have captured all relevant studies due to the databases used. Only one longitudinal study was identified, making it difficult to assess how generational characteristics influence professional practice over time. Future longitudinal research is necessary to examine the persistence of generational traits and the impact of new cohorts on nurses' attitudes, behaviors, and professional outcomes.
Additionally, historical and social contexts heavily influence generational definitions, which may vary between countries, limiting the generalizability of findings. Nonetheless, identifying common characteristics within each generation provides a useful foundation for promoting generational harmony in the workplace [46].

Conclusion

Economic, social, and demographic changes have delayed retirement and increased the presence of multiple generations within nursing practice environments. This review identified five key categories characterizing generational diversity: (1) generations in nursing; (2) relevance attributed to work; (3) relevance attributed to leadership; (4) relevance attributed to nurses' relationships with healthcare organizations; and (5) strategies to enhance professional practice environments. These categories highlighted both the differences and shared characteristics across generational cohorts.
Generational diversity presents both challenges and opportunities for nurse leaders and organizations. Developing inclusive practice environments that enable collaboration between younger and older nurses is crucial for delivering high-quality care and improving professional outcomes. Organizations should implement strategies such as leadership training, mentoring programs, communication skills development, tailored feedback mechanisms, ongoing professional development, and flexible work policies to effectively support a multigenerational nursing workforce.

Abbreviations

Gen: Generation
JBI: Joanna Briggs Institute
USA: United States of America
MNGC: Multidimensional Nursing Generations Questionnaire

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References

1. Burton C, Mayhall C, Cross J, Patterson P. Critical elements for multigen- erational teams: a systematic review. Team Performance Management: An International Journal. 2019:25(7/8);369–401. Emerald Publishing Limited 1352–7592. https://doi.org/10.1108/TPM-12-2018-0075
2. Stanley D. (2017). Clinical Leadership in Nursing and Healthcare. In Clinical Leadership in Nursing and Healthcare. https://doi.org/10.1002/9781119253785
3. Chen P, Choi Y. Generational differences in work values: A study of hospitality management. Int J Contemp Hosp Manag. 2008. https://doi.org/10.1108/095 96110810892182
4. Noble S, Schewe C. Cohort segmentation: An exploration of its validity. Int J Bus Res. 2003. https://doi.org/10.1016/S0148-2963(02)00268-0
5. Parry E, Urwin P. The evidence base for generational differences: Where do we go from here? Work Aging Retire. 2017. https://doi.org/10.1093/workar/waw 037
6. Reeves TC, Oh EJ. Generational differences. In J. M. Spector, M. D. Merrill, J. J. G. Van Merrienboer, & M. Driscoll, editors, Handbook of research on educational communications and technology: 2007, 295–303. Mahwah, NJ: Lawrence Erlbaum Associates. ISBN: 9780203880869.
7. Christensen S, Wilson B, Edelman L. Can I relate? A review and guide for nurse managers in Leading generations. J Nurs Manag. 2018. https://doi.org/10.111 1/jonm.12601
8. World Health Organization. Health Equity Policy Tool: A framework to track policies for increasing health equity in the WHO European Region. WHO Regional Office for Europe. 2019. http://www.who.int/europe/publications/i/i_tem//WHO-EURO-2019-3530-43289-60670 Accessed 25 Jun 2024

9. Lee A, Lee J. Differences in occupational values, communication types, job satisfaction, and organizational commitment among clinical nurses across generations. Front Psychol. 2023. https://doi.org/10.3389/fpsyg.2023.117419
10. Oliveira RS, González JS. Nursing Professionals within the Intergenerational Context during the 20th and 21st Centuries: an Integrative Review. Invest educ enferm. 2021. https://doi.org/10.17533/udea.iee.v39n3e14
11. Stevanin S, Palese A, Bressan V, Vehviläinen-Julkunen K, Kvist T. Workplace- related generational characteristics of nurses: A mixed-method systematic review. J Adv Nurs. 2018. https://doi.org/10.1111/jan.13538
12. Backes M, Higashi G, Damiani P, Mendes J, Sampaio L. Working conditions of nursing professionals in coping with the Covid-19 pandemic. Rev Gaúcha Enferm. 2021. https://doi.org/10.1590/1983-1447.2021.20200339
13. Peters MDJ, Godfrey C, McInerney P, Munn Z, Tricco AC, Khalil H. Chapter 11: Scoping reviews (2020 Version). In Aromataris E, Munn Z, editors, JBI Evid Synth. JBI; https://doi.org/10.46658/JBIMES-20-12
14. Tricco AC, Lilie E, Zarin W, O'Brien KK, Colquhoun H, Levac D, et al. PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. Ann Intern Med. 2018. https://doi.org/10.7326/M18-0850
15. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ. 2021. https://doi.org/10.1136/bmj.n71
16. Bardin L. 2016. Content Analysis. São Paulo: Almedina Edições 70. ISBN 9788562938047.
17. Stevanin S, Mikkonen S, Bressan V, Vehviläinen-Julkunen K, Kvist T. Psycho- metric validation of the Multidimensional Nursing Generations Questionnaire (MNGQ). J Adv Nurs. 2019. https://doi.org/10.1111/jan.14118
18. Stevanin S, Bressan V, Vehviläinen-Julkunen K, Pagani L, Poletti P, Kvist T. The Multidimensional Nursing Generations Questionnaire: development, reli- ability, and validity assessments. J Nurs Manag. 2017. https://doi.org/10.1111/jonm.12465
19. Dols J, Landrum P, Wieck L. Leading and Managing an Intergenerational Workforce. Creat Nurs. 2010. https://doi.org/10.1891/1078-4535.16.2.68
20. Wieck KL, Dols J, Landrum P. Retention priorities for the intergenerational nurse workforce. Nurs Forum. 2010. https://doi.org/10.1111/j.1744-6198.2009. 00159.x
21. Stanley D. Multigenerational workforce issues and their implications for leadership in nursing. J Nurs Manag. 2010. https://doi.org/10.1111/j.1365-283 4.2010. 01158.x
22. Tan S, Chin G. Generational effect on nurses' work values, engagement, and satisfaction in an acute hospital. BMC Nurs. 2023. https://doi.org/10.1186/s12 912-023-01256-2
23. Pawlak N, Serafin L, Czarkowska-Pączek B. Analysis of the influence of inter- generational differences on cross-generational cooperation among nurses. Pielegniarstwo XXI wieku / Nurs 21st Century. 2022. https://doi.org/10.2478/p ielxxiw-2022-0007
24. White J, Hepworth G, Alvorado J, Lemmon C, Brijnath B. Managing workplace change: Intergenerational perspectives from Victorian public hospital nurses. Collegian. 2021. https://doi.org/10.1016/j.colegn.2020.06.006
25. Hisel M. Measuring work engagement in a multigenerational nursing work- force. J Nurs Manag. 2019. https://doi.org/10.1111/jonm.12921
26. Sullivan Havens D, Warshawsky N, Vasey J. RN work engagement in genera- tional cohorts: the view from rural US hospitals. J Nurs Manag. 2013. https://doi.org/10.1111/jonm.12171
27. Hendricks JM, Cope VC. Generational diversity: What nurse managers need to know. J Adv Nurs. 2013. https://doi.org/10.1111/j.1365-2648.2012. 06079.x
28. Carver L, Candela L. Attaining organizational commitment across different generations of nurses. J Nurs Manag. 2008. https://doi.org/10.1111/j.1365-28 34.2008. 00911.x
29. Sherman R. Leading a multigenerational nursing workforce: Issues, chal- lenges and strategies. Online J Issues Nurs. 2006. https://doi.org/10.3912/OJI N.Vol11No02Man02
30. Peter KA, Meier-Kaeppeli B, Pehlke-Milde J, Grylka-Baeschlin S. Work-related stress and intention to leave among midwives working in Swiss maternity hospitals - a cross-sectional study. BMC Health Serv Res. 2021. https://doi.org/10.1186/s12913-021-06706-8
31. Cantada M, Lee H. Generational Differences between Nurses Focus on Work Value and Job Engagement. J Digit Convergence. 2020. https://doi.org/10.14 400/JDC.2020.18.9.199
32. Campbell C, Patrician P, Booth R. Generational preferences in the nursing work environment: A dimensional concept analysis. J Nurs Manag. 2020. https://doi.org/10.1111/jonm.13024

33. Stevanin S, Voutilainen A, Bressan V, Vehviläinen-Julkunen K, Rosolen V, Kvist T. Nurses' Generational Differences Related to Workplace and Leadership in Two European Countries. West J Nurs Res. 2020. https://doi.org/10.1177/01939459 19838604
34. Huber P, Schubert H. Attitudes about work engagement of different gener- ations-A cross-sectional study with nurses and supervisors. J Nurs Manag. 2019. https://doi.org/10.1111/jonm.12805
35. Wakim N. Occupational stressors, stress perception levels and coping styles of medical surgical RNs: a generational perspective. J Nurs Adm. 2014. https://doi.org/10.1097/NNA.0000000000000140
36. Shacklock K, Brunetto Y. The intention to continue nursing: work variables affecting three nurse generations in Australia. J Adv Nurs. 2012. https://doi.org/10.1111/j.1365-2648.2011.05709.x
37. Keepnews DM, Brewer CS, Kovner CT, Shin JH. Generational differences among newly licensed registered nurses. Nurs Outlook. 2010. https://doi.org/10.1016/j.outlook.2009.11.001
38. Lipscoomb V. Intergenerational Issues in Nursing: Learning from each genera- tion. Clin J Oncol. 2010. https://doi.org/10.1188/10.CJON.267-269
39. Wilson-Keates B, Widger K, Pye C, Cranley L, Squires M, Tourangeau A. Job satisfaction among a multigenerational nursing workforce. J Nurs Manag. 2008. https://doi.org/10.1111/j.1365-2834.2008.00874.x
40. Lavoie-Tremblay M, Trepanier S, Fernet C, Bonneville-Roussy A. Testing and extending the triple match principle in the nursing profession: a generational perspective on job demands, job resources and strain at work. J Adv Nurs. 2014. https://doi.org/10.1111/jan.12188
41. Leiter MP, Price SL, Spence Laschinger HK. Generational differences in distress, attitudes and incivility among nurses. J Nurs Manag. 2010; https://doi.org/10. 1111/j.1365-2834.2010.01168.x
42. Leiter MP, Jackson NJ, Shaughnessy K. Contrasting burnout, turnover inten- tion, control, value congruence and knowledge sharing between Baby Boomers and Generation X. J Nurs Manag. 2009. https://doi.org/10.1111/j.1365-2834.2008.00884.x
43. Apostolidis BM, Polifroni EC, Nov. 36(11):506–9.
44. O'Hara M, Burke D, Ditomassi M, Palan Lopez R. Assessment of Millennial Nurses' Job Satisfaction and Professional Practice Environment. J Nurs Adm. 2019; https://doi.org/10.1097/NNA.0000000000000777
45. World Economic Forum. The Future of Jobs Report 2020. October. http://ww w3.weforum.org/docs/WEF_Future_of_Jobs_2020.pdf Accessed 11 Jun 2024.
46. Christensen M, Asvang M. Generations in the Workplace: An Exploration of Work Values, and Leadership Needs and Desires of Younger Employees. Master's thesis in Management of Technology. 2024. Norwegian University of Science and Technology. https://hdl.handle.net/11250/3152392. Accessed 25 November 2024.
47. Deloitte Global. Gen Z and Millennial Survey Living and working with pur- pose in a transforming world 2024. https://www.deloitte.com/content/dam/assets-shared/docs/campaigns/2024/deloitte-2024-genz-millennial-survey.pdf?dlva=1, Accessed 25 November 2024
48. Burke A, Walker L, Clendon J. September. Managing intergenerational nursing teams: evidence from the literature. The Free Library (September,1) https://www.thefreelibrary.com/Managing intergenerational nursing teams: evidence from the literature. The Free Library 01 2015. Accessed 10 May 2024.
49. International Council of Nurses. Practice-Friendly Environments: Conditions at Work = Quality Care. (Ordem dos Enfermeiros Review); 2007. Available at: https:// www.ordemenfermeiros.pt/arquivo/publicacoes/Documents/Kit_DIE_2007.p df Accessed 12 May 2024.
50. Karami A, Farokhzadian J, Foroughameri G. Nurses' professional com- petency and organizational commitment: Is it important for humanresource management? PLoS ONE. 2017. https://doi.org/10.1371/journal.pone.0187863
51. Nunes E, Gaspar M. The quality of the leader-member relationship and nurses' organizational commitment. Rev Esc Enferm USP. 2017. https://doi.org/10.15 90/s1980-. 220x2016047003263.
52. Aiken L, Sloane D, Bruyneel L, Van den Heede K, Sermeus W. Nurses' reports of working conditions and hospital quality of care in 12 countries in Europe. Int J Nurs Stud. 2013. https://doi.org/10.1016/j.ijnurstu.2012.11.009
53. Costa P, Mónico L, Parreira P, Fonseca C, Santos V. Similarities between the knowledge creation and conversion model and the competing values frame- work: An integrative approach. Journal Aging & Innovation. 2016; http://journ alofagingandinnovation.org/wp-content/uploads/4-similarities.pdf Accessed 16 Jun 2024.
54. Melo R, Mónico L, Carvalho C, Parreira P. Leadership and its effects: Nursing leadership in healthcare organizations. 2017. Nursing School of Coimbra. Health Sciences Research Unit: Nursing. ISBN 978-989-99426-6-0.