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Top-of-license practice for registered nurses: A scoping review



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ABSTRACT

Background: Registered nurses are vital to healthcare delivery, yet often perform non-nursing tasks, contributing to inefficiencies, dissatisfaction, and turnover. The concept "top-of-license" (TOL) nursing practice, introduced in 2013, remains inconsistently defined and applied.

Purpose: To explore how TOL nursing practice is defined and applied in existing literature.

Methods: A scoping review was conducted using Arksey and O'Malley's framework and PRISMA-ScR guidelines. Searches of 15 databases and gray literature (no start date—May 4, 2024) yielded 1,377 articles. Following screening, 45 articles met inclusion criteria.

Findings: Definitions and applications of TOL varied. Three themes emerged: (a) work—workforce efficiency, (b) benefits to patients—improving patient care and clinical outcomes, and (c) benefits to nurses—nurse perceptions of clinical practice. Limited articles measured TOL outcomes. Definitions and applications of TOL varied, thus differentiation from scope of practice and a definition are provided.

Discussion: Standardizing the definition of TOL is essential to advance research, policy, and improve care quality and outcomes.

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Background

Nurses represent vital human capital, essential for driving patient care, productivity, and organizational success (Yakusheva et al., 2024). Yet despite this, research indicates that nurses are often tasked with responsibilities unrelated to patient care (Grosso et al., 2019, 2021; Kearney et al., 2016). Non-nursing tasks include activities not requiring profession-specific education or training (i.e., administrative tasks, or work that could be delegated) (Grosso et al., 2021). Non-nursing tasks consume nearly one-third of a nurse's shift, contributing to job dissatisfaction, and are often performed out of a sense of moral obligation to patients (Bekker et al., 2015; Grosso et al., 2019, 2021).

Recognizing inefficiencies, the Institute of Medicine (IOM, 2011) report repeatedly calls for nurses to practice to their full scope of education and training, advocating for removal of barriers such as restrictive state and federal laws, and institutional practices and

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culture (Institute of Medicine US Committee on the Robert Wood Johnson Foundation Initiative on the Future of Nursing, at the Institute of Medicine, 2011). The American Nurses Association (ANA, 2021) defines scope of practice as the roles, settings, timing, methods, and societal contributions of nursing, highlighting its relevance wherever nursing knowledge is needed. Without clear precedent, in 2013, the term "top-of-license" (TOL) nursing practice appears to have first emerged in a report by a national nursing advisory group (Nursing Executive Committee, 2013). The report recommends a two-part framework to achieve TOL nursing practice. protecting nurses from tasks that could be automated or delegated and removing interprofessional barriers. Although TOL and full scope of practice appear to be related concepts, it is unclear if terms can be used interchangeably or address different aspects of practice. Scope of practice defines the legal boundaries of what a nurse is permitted to do, whereas TOL appears to focus on optimizing work within those boundaries, ensuring nurses are engaged in high-value activities aligned with expertise. A clear understanding of the meaning of TOL nursing practice is essential to enhance future research, inform practice guidelines, influence policymaking, and guide care model redesigns.

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Method

Design

A scoping review methodological approach was chosen exploring, identifying, mapping, and reporting characteristics of TOL nursing practice across all types of evidence sources (Peters et al., 2021). This method allows for inclusion of research and nonresearch evidence (including gray literature), which is necessary given TOL's significant traction in professional circles, scholarly discussions, and literature. The review follows Arksey and O'Malley's (2005) five-stage scoping review framework and Preferred Reporting Items for Systematic Reviews and Meta-analyses extension for scoping reviews (PRISMA-ScR) (Tricco et al., 2018).

Stage 1: Identifying the Research Question

The specific research question guiding this review is: How is "top-of-license" (TOL) nursing practice defined and applied in the literature? For this review, the population of interest is registered nurses, and concept is TOL nursing practice, with the context of any healthcare setting.

Stage 2: Identifying Relevant Literature

The search, conducted in collaboration with a large nonprofit health system librarian, spanned (n=15) electronic databases, including gray literature, with no inclusion start date restriction, ending May 4, 2024. See Table 1 for databases. The search strategy includes keywords and Medical Subject Headings (MeSH) terms in PubMed (Table 2), adapted to match indexing and terminology to each database.

Stage 3: Literature Selection

Inclusion and exclusion criteria are presented in Table 3. This review focuses on United States-based registered nurses, given geographical differences in roles, education, regulation, and licensure. Advanced practice nurses were excluded, as many are working toward full practice authority, expanding their scope of practice, whereas TOL optimizes nurses' roles within existing scope. This distinction is essential, as scope of practice defines the full range of legally permitted activities, while TOL appears to be a workforce strategy aimed at enhancing efficiency rather than expanding to full practice authority.

To identify relevant literature, two reviewers (J.H., R.L.) independently screened abstracts and titles for inclusion criteria and discussions occurred, reaching consensus with differences. If the

Table 1 List of Databases Searched (n = 15)

Database (Platform) Medline (PubMed) CINAHL (EBSCO) Google Scholar (Google) ProQuest Nursing and Allied Health Collection (ProQuest) Academic Search Complete (EBSCO) Cochrane Central Register of Controlled Trials (Cochrane Library) ISTOR (ITHAKA) ProQuest One Academic (ProQuest) Nursing and Allied Health (Gale One File) OAIster (Worldcat.org) ProQuest Dissertations & Theses Global (ProQuest) ProQuest Nursing & Allied Health Premium (ProQuest) Scopus (Elsevier) Embase (Elsevier) Web of Science (Clarivate)

Table 2 Search Strategy

Search Step	Keywords/MESH Terms	Result
PubMed with	n MEDLINE included	
1	"nurses"[MeSH Terms] OR "nurses"[All Fields] OR	83
	(("registered"[All Fields] AND "nurse"[All Fields])	
	OR "registered nurse"[All Fields])	
	OR registered-nurse OR direct-entry-master* OR "direct entry master*"	
2	("Scope of Practice"[Mesh] OR "scope of work" OR	
	scope-of-work OR "scope of practice" OR scope-of-	
	practice) AND (top[tw] OR top[tiab])	
	OR	
	(Top-of-license[tiab] OR "top of license"[tiab] OR top-of-	
	license[tw] OR "top of license"[tw]) OR ("top"[All Fields]	
	AND ("licence" [All Fields] OR "licensure" [MeSH Terms]	
	OR "licensure"[All Fields] OR "license"[All Fields] OR "licenced"[All Fields] OR "licences"[All Fields] OR	
	"licencing"[All Fields] OR "licensed"[All Fields] OR	
	"licenses"[All Fields] OR "licensing"[All Fields]))	
	OR	
	"top of license"[tiab] OR (licens*[tiab] AND "top	
	of"[tiab]) OR ("licensure"[MeSH] AND "top of"[tiab])	
	OR	
	"Licensure, Nursing"[Mesh] AND (top[tw] OR top[tiab])	

Table 3
Literature Inclusion and Exclusion Criteria

Inclusion	Exclusion
Written in English Address nursing in the United States Registered nurses Bachelor of Science in Nursing Associate Degree in Nursing Utilize TOL or related concept	Provider or advanced practice roles (APRN, PA) Nonregistered nurse roles Alternative care providers Licensed practical nurse Unlicensed assistive personnel
offize for of related concept	Nursing assistant Specific to policy or value

 $\it Note. APRN, advanced practice registered nurse; PA, physician's assistant; TOL, top-of-license.$

Related concepts are key search terms.

abstract and title met inclusion, the full-text article was obtained and subsequently reviewed for inclusion. References were hand-screened for additional relevant articles. All team members reviewed included full-text articles and abstracted information. Discussions between team members were used to reach consensus on retention in the final sample.

During the initial search, n=1,377 article abstracts were identified, with 175 duplicates removed, leaving 1,219 for screening. Of these, 62 were selected for full article retrieval, and assessed for eligibility. Articles were excluded if outside US (n=2), advanced practice provider focused (n=3), policy (n=3), alternative care providers (n=3), or value-based care (n=6) articles as these focus solely on financial incentivization and did not include related terminology. The final review includes n=45 articles (n=11) research studies, n=34 nonresearch articles/reports, and n=9 drawn from gray literature) displayed in Figure 1.

Stage 4: Charting the Data

A data collection form was created to "chart" key information, including author (year), method or type of article, sample (research only), setting (research) or context (nonresearch articles), TOL (or related) terminology, definitions utilized, and when included outcomes (Table 4). Two authors (J.H., R.L.) abstracted all data and the remaining authors (V.V., S.Q.) confirmed abstracted elements. The team reviewed extracted content independently and convened to synthesize descriptions of TOL practice characteristics into themes through discussion and consensus-building. Agreement was

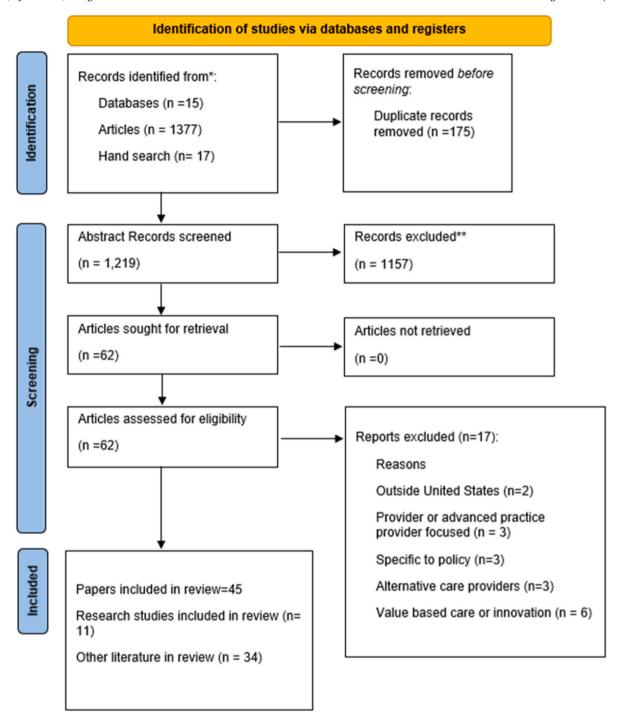


Figure 1. PRISMA diagram.

obtained by authors on all "charted" information and narrative themes.

Results

Stage 5: Collating, Summarizing, and Reporting Results

Table 4 shows articles included in the final review with abstracted key information. Eleven are research studies (all non-experimental), with three (n = 3) utilizing qualitative, six (n = 6) quantitative, and two (n = 2) mixed methodologies. Publication dates span from 2013 to 2024, with 2023 having the highest number of publications (n = 9) and 2020 the lowest (n = 0). The term

"TOL" is used by the majority (n = 32, 71%) with other variations, including "top or full/top scope of practice" (n = 7, 16%), "full extent of training, education, and scope" (n = 3, 6%), "enhanced registered nurse" (n = 1, 2%), "top scope of licensure" (n = 1, 2%), and "full practice authority" (n = 1, 2%).

Fifteen (*n* = 15, 33%) articles provide a definition. There is significant variation in definitions, with considerable overlap between TOL and scope of practice with inconsistencies on how terms are used or applied. Multiple definitions have cited sources, while others do not. Seven overlap with scope of practice by including full extent of education or training (Bednarski et al., 2023; Brown, 2017; Buck et al., 2018; Masters, 2019; Russell-Babin & Wurmser, 2016; Winterhalter et al., 2023; Yen et al., 2018) and three include

Table 4Charted Literature Elements by Theme

Citation (Year)	Method/Sample/Setting (Context)	Terminology and Definition	Outcome
Theme 1: Workforce Efficie	ency (Maximizing Skills or Education)		
Nursing Executive Center ^c (2013)	Report Healthcare environment	"Top-of-license" nursing practice—each member of the care team working to the full extent of his or her skills and training (p. 12)	-
Bodenheimer ^b (2015)	Report	Top-of-license	-
Cesta ^c (2015)	Community primary care practices Nonresearch practice description	Top-of-license	-
Smolowitz ^b (2015)	Case manager—acute care setting Nonresearch practice description RNs practice across 16 primary care	Full extent of training, education, and scope of practice	-
Bodenheimer ^b (2016)	Nonresearch practice description Primary care	Enhanced role of the registered nurse	
Boston- Fleischhauer ^b (2016)	Nonresearch practice description Cross-continuum healthcare delivery	Top-of-license	-
Corso ^b (2016)	Nonresearch practice description Primary care medical homes	Top-of-license and peak capabilities	-
Russell-Babin ^b (2016)	Nonresearch practice description Healthcare environment	"This has come to mean working to the full extent of the practice act under which a professional nursing license is granted (p. 25), <i>Top-of-license</i> practice means matching the right provider with the right skill set to provide the right level of care at the right time and place" (p. 25–26)	-
Brown ^b (2017)	Nonresearch practice description Primary care setting	"The idea of operating at the top of one's license means practicing to the full extent of one's education and training, instead of doing something that could be effectively done by	-
Flinter ^a (2017)	Descriptive observational RNs in 30 primary care practices Outpatient-primary care	someone else" (p. 16) "Elevating the RN role to top of licensure work also meant providing training for other staff members who could perform "traditional" nursing functions effectively with proper training and supervision" (p. 293)	Evaluation of high- value activities of RNs in primary care. Activities included: Independent nurse visits Transition management Coumadin panel management Independent RN visit inclusive of medication initiation or titration by standing order or by individualized patient treatment plan
Buck ^a (2018)	Qualitative focus groups Medical-surgical RNs (n = 14) Acute inpatient hospital	Practicing to the full extent of education has emerged as "top-of-license." Working at TOL leverages the unique knowledge and capacity of	Hospital visits by RN care managers Home visits Collaborative primary care provider/RN visits Focus groups to explore nurses' perceptions or RN practice relative to top-of-license from staf RN point of view
Loversidge ^a (2018)	Qualitative focus groups Medical-surgical RNs (n = 14) Acute inpatient hospital	the healthcare workforce—RNS (p. 266) "Top of license addresses how nurses use their time, examines nonvalued-added work, and identifies 8 defining top of license core nursing responsibilities" (p. 329)	Focus group to explore perceptions of associate degree and bachelor's prepared RN's perception of nursing activities and their relation to top-of- license practice
Miles ^b (2018)	Nonresearch practice description Emergency department	"Encourages RNs and other ED clinicians to operate at the "top of their licenses" by performing the highest skilled work they can do and delegating less skilled work to supportive personnel" (p. 453)	-
Yen ^a (2018)	Time motion study n = 15 RNs and 79 activity observations Medical-surgical unit in acute inpatient hospital	"Recommending that "nurses should practice to the full extent of their education," in other words, to work at the "top-of-license. Top-of-license nursing practice addresses how nurses should spend their time across the care continuum and suggest that nonvalue-added activities should be delegated and executed by other healthcare	Time motion to evaluate nursing activities on communication, hands-on tasks, locations, and compare differences between time blocks
Fontenot ^c (2019)	Editorial/commentary	personnel" (p. 1143) Top-of-license	-
Irland ^c (2019)	RNs across practice settings Editorial/commentary RN practice	"The opinion of the Oregon State Board of Nursing is that a nurse who works at the <i>top of</i> <i>her or his license</i> is a nurse whose trusted decisions are guided and validated by research and evidence" (p. 6)	-
Masters ^c (2019)	Editorial/commentary Clinical settings	Top-of-license "Each medical professional's routine activities should utilize the full extent of their education, training, and experience, and that their time	-
		should not be spent doing things that could be effectively done by someone else with a different set of skills"	

Table 4 (continued)

Community based medical dayscare and what is presented at the top of their professional illerane (INN), scope of practice. 2021 (p. 20) satisfaction and what is premitted at the top of their professional illerane (INN), scope of practice. 2021 (p. 20) satisfaction whorking at top of scope and what is premitted at the top of their professional illerane (INN), scope of practice. 2021 (p. 20) satisfaction and what is premitted at the top of their professional illerane (INN), scope of practice. 2021 (p. 20) satisfaction and their professional illerane (INN), scope of practice. 2021 (p. 20) satisfaction and training, instead of specified genetic ordered to delegation of work for all healthcare provide according at the few clusted and training, instead of specified genetic ordered to delegation of work for all healthcare provide according and training, instead of specified genetic education and training, instead of specified genetic education and ministry plant for advertision in committee of the commencary of the professional incommence of the	Citation (Year)	Method/Sample/Setting (Context)	Terminology and Definition	Outcome
Makedneld (2022) Maked methods Ref. clinical associate, and clerks) Antholiatory care—patient—contents Antholiatory care—patient—contents Home disalysis N Maked methods Ref. clinical associate, and clerks) Antholiatory care movides, Ref. clinical associate, and clerks) Antholiatory care setting Makednel (2023) Morrescarch practice description Military Health System Military Health	Colby ^b (2021)		professional is deemed competent to perform and what is permitted at the top of their professional license (ANA, scope of practice,	work at top of scope Job satisfaction Barriers to working at top of scope Shift length
Home dialysis RN employee practices to the full extent of their education and training, instanced of spending time doing tasks that could be performed by someone cisc (p. 14)	Wakefield ^a (2022)	n = 4,254 (primary care providers,RNs, clinical associates, and clerks)Ambulatory care—patient- centered	Top of scope	Quantitative survey with 15 items and qualitative open-ended question related to delegation of work for all healthcare provider:
Ambilatory care setting Nonresearch practice description Normality Nonresearch practice description Normality Nonresearch practice description Normality N	3ednarski ^b (2023)		employee practices to the full extent of their education and training, instead of spending time doing tasks that could be performed by someone	-
Military Health System Nonresearch practice description Virtual program in community hospital Nonresearch practice description Whitehalter* (2023) Nonresearch practice description Nonring Ledership Nonresearch practice description RN avaigues in outpatient cancer care clinic Nonresearch practice description RN avaigues in outpatient cancer care clinic Nonresearch practice description RN avaigues in outpatient cancer care clinic Nonresearch practice description RN avaigues in outpatient cancer care clinic Nonresearch practice description Ambulatory care Nonresearch practice description Ambulatory care Nonresearch practice description Nonresearch practice description Two units in an acute inpatient hospital Nonresearch practice description Two units in an acute inpatient hospital Nonresearch practice description Two units in an acute inpatient hospital Nonresearch practice description Two units in an acute inpatient hospital Nonresearch practice description Two units in an acute inpatient hospital Nonresearch practice description Two units in an acute inpatient hospital Nonresearch practice description Two units in an acute inpatient hospital Nonresearch practice description Two units in an acute inpatient hospital Nonresearch practice description Two units in an acute inpatient hospital Nonresearch practice description Two units in an acute inpatient hospital Nonresearch practice description Two units in an acute inpatient hospital Nonresearch practice description Two units in an acute inpatient hospital Nonresearch practice description Transitional or chronic care seeting Nonresearch practice description Cardiac surgical patients in acute care hospital Nonresearch practice description Cardiac surgical patients in acute care hospital Nonresearch practice description Cardiac surgical patients in acute care hospital Nonresearch practice description Cardiac surgical patients in acute care hospital Nonresearch practice description Cardiac surgical patients in acute care hospital Nonresearch pr	Blankson ^b (2023)			-
Virtual program in community hospital program in community hospital Editorial/commentary RN role Trepanier* (2023) Nonresearch practice description Nursing leadership Winterhalter* (2023) Nonresearch practice description Nursing leadership Winterhalter* (2023) Nonresearch practice description RN navigators in outpatient cancer care clinic Vinterhalter* (2023) Nonresearch practice description RN navigators in outpatient cancer care clinic Vinterhalter* (2023) Nonresearch practice description and training sometimes also referred to as at the top of their ficense* (p.139) Vinterhalter* (2023) Nonresearch practice description Ambulatory care Working at the full extent of their education and training sometimes also referred to as at the top of their ficense* (p.139) Vinterhalter* (p.139) Nonresearch practice description Ambulatory care Working at the full extent of their education and training sometimes also referred to as at the top of their ficense* Voreall satisfaction with items pare temotionally and educating patients and particles of education and nursing experience overall satisfaction with items pare temotionally and educating patients of education with ambulatory rore in relation to working at top-of-ficense Top	Madsen ^b (2023)		Top-of-license	-
Repanier Co223 Nonresearch practice description Repanier Co223 Nonresearch practice description Repanier Co224	Sagastume ^b (2023)	Virtual program in community	Top scope of licensure	-
Nonresearch practice description Nonresearch pr	Santelli ^c (2023)		"The stuff we're educated and legally permitted	-
Winterhalter ^b (2023) Nonresearch practice description RN navigators in outpatient cancer care clinic Nonresearch practice description care clinic Nonresearch practice description Ambulatory care Nonresearch practice description Healthcare industry Nonresearch practice description Two units in an acute impatient hospital Nongreal Drug terrapy problems (n = 133,847) Reaffor (2017) Editorial/commentary Professional roles Referso (2017) Referso (2017) Editorial/commentary Professional roles Referso (2018) Nonresearch practice description Cardiac surgical patients in acute care hospital Nonresearch practice description Cardia surgical patients in acute care hospital Nonresearch practice description Cardia surgical patients in acute care hospital Nonresearch practice description Cardia surgical patients in acute care hospital Nonresearch practice description Cardia surgical patients in acute care hospital Nonresearch practice description Cardia surgical patients in acute care hospital Nonresearch practice description Cardia confidence continuum Nonresearch practice description Cardia continuum Nonresearch practice	Trepanier ^b (2023)			-
Satisfaction with patients getting the full benefit of education and nursing experience Overall satisfaction with ambulatory nurse navigator role in relation to working at top-olicense **Top-of-license*** **Top-of-lic	Winterhalter ^b (2023)	Nonresearch practice description RN navigators in outpatient cancer	training, sometimes also referred to as at the top	report survey addressingRN satisfaction with coordinating patient care with various clinical team members RN satisfaction with time spent emotionally
Nonresearch practice description Ambulatory care Nonresearch practice description Healthcare industry Nonresearch practice description Healthcare industry Nonresearch practice description Two units in an acute inpatient hospital Nonresearch practice description Two units in an acute inpatient hospital Nonresearch practice description Two units in an acute inpatient hospital Nonresearch practice description Two units in an acute inpatient hospital Nonresearch practice description Two units in an acute inpatient hospital Nonresearch practice description Two units in an acute inpatient hospital Nonresearch practice description Transitional or clores Nonresearch practice description Care coordination across healthcare continuum Nonresearch practice description Care continuum Nonresearch practice description Care coordination across healthcare continuum Nonresearch practice description Care continuum No				Satisfaction with patients getting the full benefit of education and nursing experience Overall satisfaction with ambulatory nurse navigator role in relation to working at top-ol
Mills® (2024) Nonresearch practice description Healthcare industry Theme 2: Improving Patient Tare and Clinical Outcomes Nonresearch practice description Two units in an acute inpatient hospital Marton® (2016) Nonresearch practice description Two units in an acute inpatient hospital Full extent of education, training, skills, and scope of Quality: hospital- acquired pressure ulcers Safety: falls per 1,000 pt days Service: nurse communication Engagement: Opportunity to do the things I do best Overall, I am satisfied with my job Employees genuinely care about patients Turnover: RN All staff Moawad® (2017) Editorial/commentary Professional roles Renfro® (2017) Retrospective observational Drug therapy problems (n = 133,847) Transitional or chronic care setting Nonresearch practice description Outpatient-primary care Mahnook® (2018) Nonresearch practice description Primary care Nonresearch practice description Cardiac surgical patients in acute care hospital Swan® (2019) Nonresearch practice description Care coordination across healthcare continuum Nonresearch practice description Care coordination across healthcare continuum Nonresearch practice description Care coordination across healthcare continuum Nonresearch practice description Care setting Nonresearch practice description Care coordination across healthcare continuum Nonresearch practice description Care coordinati	Young ^c (2023)		Top-of-license	-
Marton ^b (2016) Nonresearch practice description Two units in an acute inpatient hospital Nonresearch practice description Two units in an acute inpatient hospital Nonresearch practice description Two units in an acute inpatient hospital Nonresearch practice description Two units in an acute inpatient hospital Nonresearch practice description Two units in an acute inpatient hospital Nonresearch practice description Two units in an acute inpatient Practice Practice Pra	Mills ^b (2024)	Nonresearch practice description	Top-of-license	-
Two units in an acute inpatient hospital Top-of-license Coreal, I am satisfied with my job Employees genuinely care about patients Turnover: RN All staff All staff Top-of-license Coreal, I am satisfied with my job Employees genuinely care about patients Turnover: RN All staff Top-of-license Coreal, I am satisfied with my job Employees genuinely care about patients Turnover: RN All staff Top-of-license Drug therapy problem resolution by RN care managers Transitional or chronic care setting Nonresearch practice description Outpatient-primary care Vanhook** (2018) Nonresearch practice description Primary care Valhook** (2019) Nonresearch practice description Cardiac surgical patients in acute care hospital Switzer** (2019) Nonresearch practice description Cardiac surgical patients in acute care hospital Switzer** (2019) Nonresearch practice description Cardiac surgical patients in acute care hospital Nonresearch practice description Top of scope Nurse-driven resuscitation protocol outcomes Number of cardiac surgeries Survival to discharge Survival to			Full extent of education, training, skills, and scope of	Care delivery model unit metrics measured pr
Renfro ^a (2017) Retrospective observational Drug therapy problems (n = 133,847) Transitional or chronic care setting Bogrett ^b (2018) Nonresearch practice description Vanhook ^b (2018) Nonresearch practice description Primary care Roberts ^b (2019) Nonresearch practice description Cardiac surgical patients in acute care hospital Swan ^b (2019) Nonresearch practice description Care coordination across healthcare continuum Switzer ^b (2021) Nonresearch practice description Top of practice scope Full practice authority Full practice scope Full practice scope - Top of practice scope Full practice scope - Top of practice scope		Two units in an acute inpatient		and post Quality: hospital- acquired pressure ulcers Safety: falls per 1,000 pt days Service: nurse communication Engagement: Opportunity to do the things I do best Overall, I am satisfied with my job Employees genuinely care about patients Turnover: RN
Drug therapy problems (n = 133,847) Transitional or chronic care setting Nonresearch practice description Vanhook ^b (2018) Nonresearch practice description Primary care Roberts ^b (2019) Nonresearch practice description Cardiac surgical patients in acute care hospital Swan ^b (2019) Nonresearch practice description Care coordination across healthcare continuum Switzer ^b (2021) Nonresearch practice description Top of scope Nurse-driven resuscitation protocol outcomes Number of cardiac surgeries Survival to discharge - Top of practice authority - Top of practice scope -	Moawad ^c (2017)	,	Top-of-license	-
Nonresearch practice description Outpatient–primary care Vanhook ^b (2018) Nonresearch practice description Primary care Noberts ^b (2019) Nonresearch practice description Cardiac surgical patients in acute care hospital Nonresearch practice description Care coordination across healthcare continuum Number of cardiac surgeries Survival to discharge Full practice authority Full practice authority Full practice scope - Top of practice scope - Number of cardiac surgeries Survival to discharge - Survival to discharge - Top of practice scope - Top of practice scope	Renfro ^a (2017)	Retrospective observational Drug therapy problems (<i>n</i> = 133,847)	Top-of-license	
Vanhook ^b (2018) Nonresearch practice description Primary care Roberts ^b (2019) Nonresearch practice description Cardiac surgical patients in acute care hospital Nonresearch practice description Care coordination across healthcare continuum Switzer ^b (2021) Nonresearch practice description Top of scope Nurse-driven resuscitation protocol outcomes Number of cardiac surgeries Survival to discharge - Care coordination across healthcare continuum Top of practice scope -	Bogrett ^b (2018)	Nonresearch practice description	Top of scope	-
Cardiac surgical patients in acute care hospital Swan ^b (2019) Nonresearch practice description Care coordination across healthcare continuum Switzer ^b (2021) Nonresearch practice description Top of practice scope Number of cardiac surgeries Survival to discharge - Torp of practice scope -	, ,	Nonresearch practice description	Full scope of professional licensure	
Swan ^b (2019) Nonresearch practice description Care coordination across healthcare continuum Switzer ^b (2021) Nonresearch practice description Top of practice scope -	Roberts ^b (2019)	Nonresearch practice description Cardiac surgical patients in acute care	Top of scope	<u> </u>
Switzer ^b (2021) Nonresearch practice description Top of practice scope -	Swan ^b (2019)	Nonresearch practice description Care coordination across healthcare	Full practice authority	-
	Switzer ^b (2021)	Nonresearch practice description	Top of practice scope	-

Table 4 (continued)

Citation (Year)	Method/Sample/Setting (Context)	Terminology and Definition	Outcome
Darby ^a (2024)	Descriptive case study Patients (n = 100) Intensive primary care clinic	"Expanding an RN's role, for example to include management of complex chronically ill patients or leading interprofessional teams, has been called <i>top-of-license</i> practice" (p. 2)	Patient activation Self-efficacy/chronic disease Trust in provider Emotional support Quality of life Patient assessment of chronic illness care Emergency room and hospital visits Clinical outcomes: Hemoglobin A1c Blood pressure Body mass index
Jansen ^b (2024)	Nonresearch practice description Cancer screening telehealth appointments in ambulatory practice	Top-of-license	Lung cancer screening completion percentage (led by population health nurses)
Colby ^{b,d} (2021) Smolowitz ^{b,d} (2015)	Same as above	Same as above	Same as above
Theme 3: Nurse Percepti Chuang ^a (2017)	Semistructured interviews n = 73 (primary care providers, RN care managers, clinical associates, and administrative associates) Primary medical home	Top-of-license	Semistructured interviews to identify barriers and facilitators encountered in providing patient- aligned care team
Davidson ^a (2021)	Cross-sectional survey Acute care setting AACN nurses (n = 159)	Top of scope	Themes related to nurses' comments on experience with medication titration standards
Pratt ^a (2023)	Descriptive cross-sectional n = 623 RNs About 580 U.S. hospitals	Top-of-license	Survey data onInfusion task reallocation Perceptions of organizational safety Role of infusion- related resources and psychological safety
Byrne ^a (2024)	Mixed methods Healthcare settings across US n = 619 pediatric certified RNs	Top-of-license	Focus group interviews to create pediatric nurse competencies Quantitative survey to validate pediatric nurse competency framework with six professional role-based competency areas: Clinician, collaborator, advocate, educator, leader, and innovator
Buck ^{a,d} (2018) Loversidge ^{a,d} (2018) Colby ^{b,d} (2021) Dalton ^{a,d} (2023) Winterhalter ^{b,d} (2023) Literature not Aligning V	Same as above	Same as above	Same as above
Harker ^b (2017)	Nonresearch evidence Nursing students	Top-of-license	-
Pirschel ^c (2019)	Editorial/commentary Ambulatory care	Top-of-license	-

Note. AACN, American Association of Critical Care Nurses; RN, registered nurse.

- a Research.
- b Nonresearch evidence.
- ^c Nonpeer-reviewed (gray literature).
- d Literature thematic analysis fell under two categories.

licensure or legality as an element (Colby et al., 2021; Russell-Babin & Wurmser, 2016; Santelli, 2023). Six definitions suggest task delegation to achieve TOL (Bednarski et al., 2023; Brown, 2017; Flinter et al., 2017; Miles et al., 2018; Yen et al., 2018). Lastly, two provide examples of managing chronically ill patients, leading interprofessional teams (Darby et al., 2024), and making decisions guided by research and evidence (Irland, 2019).

Sixteen (*n* = 16, 35%) articles measure outcomes, however, only three explicitly state they were measuring TOL (Buck et al., 2018; Loversidge et al., 2018; Winterhalter et al., 2023), and one (Colby et al., 2021) measures "top of scope." Many articles suggest outcomes to address TOL, including cost savings, quality of care, resource utilization, patient outcomes, nurse retention, burnout, and impact of nurse-driven protocols (Barton and Anderson, 2021; Bogrett & Carriel, 2018; Brown, 2017; Corso & Gage, 2016; Davidson et al., 2021; Russell-Babin & Wurmser, 2016; Sagastume & Peterson, 2023; Smolowitz et al., 2015; Switzer et al., 2021).

Analysis of themes embedded in definitions and characteristics of TOL practice reveal three benefits of TOL nursing practice: (a) workforce efficiency (maximizing skills or education), (b) improving patient care and clinical outcomes, and (c) nurses' perceptions of their clinical practice. Themes are displayed in Table 4, with citations in chronological order, method/sample/setting, definition, and outcome when included.

Workforce Efficiency (Maximizing Skills or Education)

Workforce efficiency emerged as a theme, describing the benefits of maximizing nurses' skills and education. Three core elements were present across literature definitions: (a) nurses with requisite skills for a particular level of care should engage in such activities, delegating nonessential or nonvalue-added tasks (Bednarski et al., 2023; Flinter et al., 2017; Loversidge et al., 2018; Masters, 2019; Miles et al., 2018; Yen et al., 2018); (b) nurses benefit from practicing to their full range of education, training, and scope (Bednarski et al.,

2023; Brown, 2017; Buck et al., 2018; Irland, 2019; Masters, 2019; Nursing Executive Center, 2013; Winterhalter et al., 2023); and (c) nursing practice should align with legal/licensure requirements (Colby et al., 2021; Russell-Babin & Wurmser, 2016; Santelli, 2023). Maximizing RN roles across different healthcare settings was addressed in each article, with some evidence expanding optimized TOL practice beyond RNs to other interdisciplinary team members.

Seven articles applied or evaluated TOL/related constructs in some capacity (Buck et al., 2018; Colby et al., 2021; Flinter et al., 2017; Loversidge et al., 2018; Wakefield et al., 2022; Winterhalter et al., 2023; Yen et al., 2018). This included self-report surveys with questions addressing RN satisfaction, delegation of work, task allocation, high-value RN activities, perceptions, and barriers to TOL practice, organizational safety, and patient satisfaction. The results indicate RNs value is evident by maximizing skills, and education differs depending on setting (Buck et al., 2018; Colby et al., 2021; Flinter et al., 2017; Loversidge et al., 2018; Wakefield et al., 2022; Winterhalter et al., 2023; Yen et al., 2018).

Improving Patient Care and Clinical Outcomes

Articles highlight an effort to maximize RN roles and suggest maximizing the RN role improves patient care and clinical outcomes. Darby et al. (2024) reported expanding RN's roles to include managing complex chronically ill patients and leading interprofessional teams, which improved patient's physical health outcomes. Some piloted programs resulted in improved lung cancer screening, resuscitation protocol outcomes, and decreased falls and hospital-acquired pressure ulcers (Jansen et al., 2024; Roberts & Miller, 2019; Wharton et al., 2016). Others reported improved care delivery quality, financial and safety metrics (Roberts & Miller, 2019; Wharton et al., 2016), clinical outcomes (blood pressure, body mass index, and hemoglobin A1c), patient perceptions of care, screening completions, child observations, and drug therapy resolutions (Colby et al., 2021; Darby et al., 2024; Jansen et al., 2024; Renfro et al., 2017). There was a clear focus on autonomy and improved clinical practice with nurse-driven protocols (Jansen et al., 2024; Roberts & Miller, 2019). Wharton et al. (2016) highlight positive changes from RN inpatient care delivery model redesign. Despite varied outcomes, the results show improved patient and clinical care outcomes from TOL practice.

Nurse Perceptions of Clinical Practice

Nurses' perceptions of clinical practice were evident in several articles, highlighting how care relates to TOL. Findings showed perceptions of clinical activities in relation to TOL differed between associate and bachelor's degree RNs (Loversidge et al., 2018). Despite differences, evidence recommends nurses' perceptions on barriers to TOL should be considered with nursing care delivery models (Buck et al., 2018). In outpatient settings, barriers and facilitators prevent or promote TOL care in medical home models for women veterans (Chuang et al., 2017). Despite reported challenges, interdisciplinary staff self-reports higher job satisfaction, healthy work environments, and effective work structure when working at top of scope (Colby et al., 2021). Moreover, satisfaction was higher when nurses perceived their job-related tasks and role was perceived aligned with TOL practice (Winterhalter et al., 2023).

Emerging Definition of TOL Practice

Thus, a definition and differentiation from scope of practice is presented based on the review of extant literature. TOL nursing practice is defined as RNs, (a) operating at their full professional capacity as guided by their education, training, and licensure, (b) focusing on value-added nursing care aligning with their highest competencies (c) while efficiently and effectively delegating nonspecialized tasks. A TOL environment enhances workforce efficiency,

optimizing patient care delivery and clinical outcomes, allowing RNs to focus on high-value practice. In stark contrast, full scope of practice refers to *breadth* of activities that a nurse is legally permitted to perform under their professional license, based on education, training, and state-specific regulations, encompassing all duties and responsibilities authorized to undertake (ANA, 2021). Meaning that while scope of practice defines what nurses can do, TOL focuses on what they should do within those legal constraints to maximize efficiency, value, and patient care.

Discussion

To our knowledge, this is the first scoping review addressing TOL nursing practice among nonadvanced practice nurses. Findings indicate that while the phrase "TOL practice" is increasingly common in published sources, defining characteristics overlap (delegating nonessential or nonvalue-added tasks, full range and scope, and alignment with legal/licensure requirements) with no universally accepted definition. Of the 45 articles meeting inclusion criteria, only 15 defined TOL practice, despite 16 attempting to quantify or evaluate outcomes using the concept. This underscores the need for clarity and consistency in defining TOL practice, especially as healthcare leaders adopt new care models. The term is frequently used without clear application and often as a "buzzword," and conflated with full scope of practice. To improve TOL nursing practice, strategies should include implementation of structured delegation protocols, integration of support staff to offload administrative and auxiliary tasks, and leadership-driven initiatives that reinforce role clarity and optimize workflow. Additionally, technology-driven solutions, such as automation of documentation and task management, can further enable nurses to focus on high-value clinical responsibilities (Buck et al., 2018).

However, findings from this scoping review suggest that TOL is not merely about practicing at full scope but about strategic delegation and efficiency within the existing legal framework. Factors contributing to TOL include clear role delineation, appropriate delegation, supportive leadership, and organizational policies that minimize engagement in non-nursing tasks. When these factors are absent, role dissatisfaction increases as nurses are burdened with administrative and auxiliary work, leading to burnout and reduced well-being. By addressing these inefficiencies, healthcare systems have an opportunity to enhance job satisfaction and subsequently patient outcomes as well as burnout (Grosso et al., 2021).

The included studies, primarily nonexperimental, examined nursing and patient outcomes across community clinics, primary care, and acute care settings. Despite varied settings and outcomes, TOL practice consistently focused on maximizing workforce efficiency and care delivery effectiveness. However, for RNs' maximal potential in any care environment, model redesigns must integrate "value-informed nursing practice," emphasizing outcomes and cost efficiency, while linking nursing decisions to resource use, quality outcomes, and care costs as outlined in the Nursing Human Capital Value Model (Beauvais et al., 2023; Yakusheva et al., 2022, 2024). TOL nursing practice moves the gears forward to propel healthcare outcomes in the Nursing Human Capital Value Model by ensuring workforce efficiency by focusing on high-value tasks suited to education and experience. Recently, there has been a push to distinguish nursing services from other hospital charges, leading to the establishment of the Commission for Nurse Reimbursement featuring an inpatient prospective payment system with an alternative hospital nursing payment model (Yakusheva & Longyear, 2024; https:// commissionfornurse reimbursement.com). In order to distinguish nursing services, it is imperative to delegate nonvalue-added activities to ancillary staff or the applicable interdisciplinary department when appropriate, maximizing and capturing nursing value.

This scoping review raises a critical question when examining the need to optimize roles: Can RNs practice exclusively at TOL in every circumstance? Evidence indicates that 12-hr shifts contribute to fatigue and burnout, impeding care delivery (Benzo et al., 2022). Delegation of non-nursing tasks, while common, depends on accountability, responsibility, and training, as tasks like ambulating a stable postoperative patient—though delegable—can provide opportunities for assessment and teaching, illustrating the complexity of nursing practice (Wilson et al., 2023). RNs face cognitive overload from managing inefficient care systems, constant alerts, and fragmented workflows (Collins, 2020). Non-nursing tasks, primarily administrative or auxiliary, negatively impact the quality and quantity of nursing care (Grosso et al., 2021). Addressing these issues requires investment in system improvements and assistive roles. While operational inefficiencies may be addressed in the short term by RNs taking on non-nursing tasks, long-term consequences remain unclear, highlighting the need for a clear TOL definition.

Limitations

This scoping review has several limitations. Articles were drawn from English-language and U.S. publications only, possibly overlooking relevant insights from other countries' experiences. Despite a thorough search strategy, some relevant articles/gray literature may have been missed due to search term limitations. Many studies relied on self-reported metrics, reflecting nurses' perceptions of clinical practice, rather than objective data, which may not fully capture tangible impacts of TOL on workforce efficiency, patient outcomes, or perceptions of clinical practice.

Conclusion

This scoping review underscores complexities and challenges associated with consistently defining TOL nursing practices and outcomes across various healthcare settings. Ideally, TOL practice involves nurses engaging in value-added, high-level, critical tasks aligned with their training and expertise. However, real-world constraints such as fatigue, burnout, and healthcare inefficiencies often hinder role optimization. Findings highlight the necessity for a clear definition, ensuring that nurses consistently deliver quality care in optimized environments. As health care continues to evolve, establishing sustainable models supporting TOL practices will require addressing operational inefficiencies and nursing workforce utilization. Ongoing research, strategic policies, and adaptive care models that measure and maximize TOL nursing practice are crucial.

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Declaration of Competing Interest

The authors declare no conflicts of interest.

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References

- American Nurses Association (ANA) (2021). *Nursing: Scope and standards of practice* (4th ed). American Nurses Association.
- Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology*, 8(1), 19–32. https://doi.org/10.1080/1364557032000119616
- Barton, A. J., & Anderson, J. L. (2021). Meeting the challenge of perinatal care in rural communities. *The Journal of Perinatal & Neonatal Nursing*, 35(2), 150–159. https://doi.org/10.1097/JPN.000000000000562
- Beauvais, B., Kruse, C. S., Ramamonjiarivelo, Z., Pradhan, R., Sen, K., & Fulton, L. (2023). An exploratory analysis of the association between hospital labor costs and the quality of care. Risk Management and Healthcare Policy, 16, 1075–1091. https://doi.org/10.2147/RMHP.S410296
- Bednarski, D., Painter, D., Pryor, L., Villaran, T., Walz, D., & Kurosaka, A. T. (2023). The current state of the role of the nephrology registered nurse in home dialysis therapies and future implications. *Nephrology Nursing Journal*, 50(1), 13–21. (https://www.annanurse.org/download/reference/journal/nnjJF23Bednarski1. pdf).
- Bekker, M., Coetzee, S. K., Klopper, H. C., & Ellis, S. M. (2015). Non-nursing tasks, nursing tasks left undone and job satisfaction among professional nurses in South African hospitals. *Journal of Nursing Management*, 23(8), 1115–1125. https://doi.org/10.1111/jonm.12261
- Benzo, R. M., Farag, A., Whitaker, K. M., Xiao, Q., & Carr, L. J. (2022). Examining the impact of 12-hour day and night shifts on nurses' fatigue: A prospective cohort study. *International Journal of Nursing Studies Advances*, 4, Article 100076. https:// doi.org/10.1016/j.ijnsa.2022.100076
- Blankson, M. (2023). Potential clinical and economic impact of registered nurses supporting opioid use disorder treatment in the ambulatory care setting. *Nursing Economic*, 41(3), 145–151.
- Bodenheimer, T., & Bauer, L. (2016). Rethinking the primary care workforce—An expanded role for nurses. *The New England Journal of Medicine*, 375(11), 1015–1017. https://doi.org/10.1056/NEJMp1606869
- Bodenheimer, T., Bauer, L., Olayiwola, J. N., & Syer, S. (2015). RN Role reimagined: How empowering registered nurses can improve primary care. California Health Care Foundation
- Bogrett, H., & Carriel, M. (2018). The case for utilizing RNs in Medicare annual wellness visits. *The Journal of Nursing Administration*, 48(2), 75–78. https://doi.org/10.1097/NNA.0000000000000577
- Boston-Fleischhauer, C. (2016). The strategic plan for cross-continuum nursing. *The Journal of Nursing Administration*, 46(1), 7–8. https://doi.org/10.1097/NNA. 00000000000000285
- Brown, V. M. (2017). Managing patients with hypertension in nurse-led clinics. Nursing, 47(4), 16–19. https://doi.org/10.1097/01.NURSE.0000513619.81056.60
- Buck, J., Loversidge, J., Chipps, E., Gallagher-Ford, L., Genter, L., & Yen, P. Y. (2018). Top-of-license nursing practice: Describing common nursing activities and nurses' experiences that hinder top-of-license Practice, Part 1. The Journal of Nursing Administration, 48(5), 266–271. https://doi.org/10.1097/NNA.00000000000000011
- Byrne, D., Bigani, D., Robinson, A. (2024, March 12). The creation and validation of a pediatric nursing competency framework. (http://dx.doi.org/10.2139/ssrn. 4747450).
- Cesta, T. (2015). Case Management insider. The top ten mistakes you may be making in your case management department: Part 1. Hospital Case Management: The Monthly Update on Hospital-based Care Planning and Critical Paths, 23(6), 71–74.
- Chuang, E., Brunner, J., Mak, S., Hamilton, A. B., Canelo, I., Darling, J., Rubenstein, L. V., & Yano, E. M. (2017). Challenges with implementing a patient-centered medical home model for women veterans. Womens Health Issues, 27(2), 214–220. https:// doi.org/10.1016/j.whi.2016.11.005
- Colby, A., Yanco, A., Inson, A., & Gance-Cleveland, B. (2021). Relmagine: A multi-disciplinary quality improvement plan to work at top of scope. *Journal of Pediatric Nursing*, 60, 92–99. https://doi.org/10.1016/j.pedn.2021.02.023
- Collins, R. (2020). Clinician cognitive overload and its implications for nurse leaders. Nurse Leader, 18(1), 44–47. https://doi.org/10.1016/j.mnl.2019.11.007
- Corso, K. A., & Gage, D. (2016). Nurses and Psychologists advancing the patient-centered medical home model. *Nursing Administration Quarterly*, 40(3), 192–201. https://doi.org/10.1097/NAQ.000000000000176
- Darby, M., Smith, L., Waldron, B., & Fiandt, K. (2024). Intensive primary care nursing: Exploring the impact of a nurse-led model for medically and social complex patients. *Clinical Nursing Research*, 33(5), 384–394. https://doi.org/10.1177/10547738241253654

- Davidson, J. E., Chechel, L., Chavez, J., Olff, C., & Rincon, T. (2021). Thematic analysis of nurses' experiences with the Joint Commission's medication management titration standards. *American Journal of Critical Care*, 30(5), 375–384. https://doi.org/ 10.4037/aicc2021280
- Flinter, M., Hsu, C., Cromp, D., Ladden, M. D., & Wagner, E. H. (2017). Registered nurses in primary care: Emerging new roles and contributions to team-based care in high-performing practices. *The Journal of Ambulatory Care Management*, 40(4), 287–296. https://doi.org/10.1097/JAC.000000000000193
- Fontenot, J. (2019). Top of license practice: Supporting the Movement. Pelican News, July, August, September 2019, 13.
- Grosso, S., Longhini, J., Tonet, S., Bernard, I., Corso, J., de, Marchi, D., Dorigo, L., Funes, G., Lussu, M., Oppio, N., Grassetti, L., Pais Dei Mori, L., & Palese, A. (2021). Prevalence and reasons for non-nursing tasks as perceived by nurses: Findings from a large cross-sectional study. *Journal of Nursing Management*, 29(8), 2658–2673. https://doi.org/10.1111/jonm.13451
- Grosso, S., Tonet, S., Bernard, I., Corso, J., De Marchi, D., Dorigo, L., Funes, G., Lussu, M., Oppio, N., Pais dei Mori, L., & Palese, A. (2019). Non-nursing tasks as experienced by nurses: A descriptive qualitative study. *International Nursing Review*, 66(2), 259–268. https://doi.org/10.1111/inr.12496
- Harker, M. (2017). History of nursing education evolution Mildred Montag. Teaching and Learning in Nursing, 12(4), 295–297. https://doi.org/10.1016/j.teln.2017.05.006
- Institute of Medicine (US) Committee on the Robert Wood Johnson Foundation Initiative on the Future of Nursing, at the Institute of Medicine (2011). The future of nursing: Leading change, advancing health. National Academies Press (US)
- Irland, N. (2019). Evidence-based practice: Are you working at the top of your license? Oregon State Board of Nursing Sentinel, February (38) 1, 6–9.
- Jansen, E., Bolivar, J., Auguste, S., Clancy, M., Kearney, L., Henderson, L., Steiling, K., & Cordella, N. (2024). Population health nurse-driven lung cancer screening. NEJM Catalyst, 5. https://doi.org/10.1056/CAT.24.0002
- Kearney, A., Grainger, P., Chubbs, K., & Downey, J. (2016). Survey of managers regarding nurses' performance of nonnursing duties. *The Journal of Nursing Administration*, 46(7-8), 379–384. https://doi.org/10.1097/NNA.00000000000363
- Loversidge, J., Yen, P. Y., Chipps, E., Gallagher-Ford, L., Genter, L., & Buck, J. (2018). Top-of-license nursing practice, Part 2: Differentiating BSN and ADN perceptions of top-of-license activities. *The Journal of Nursing Administration*, 48(6), 329–334. https://doi.org/10.1097/NNA.0000000000000623
- Madsen, C., Poropatich, R., & Koehlmoos, T. P. (2023). Telehealth in the Military Health System: Impact, obstacles, and opportunities. *Military Medicine*, 188(1), 15–23. https://doi.org/10.1093/milmed/usac207
- Masters, P. (2019). Practice at the top of your license: What does that really mean? KevinMD.com. https://www.kevinmd.com/2019/02/practice-at-the-top-of-your-license-what-does-that-really-mean.html.
- Miles, G., Olmos, M., Trotter, E., & Newcomb, P. (2018). Teaching nurses how to infiltrate lacerations in the emergency department. *Journal of Emergency Nursing*, 44(5), 453–458. https://doi.org/10.1016/j.jen.2018.03.020
- Mills, A. (2024). Next level nurse partnership: Caring for caregivers. Nurse Leader, 22(3), 291–294. https://doi.org/10.1016/j.mnl.2024.03.008
- Moawad, H. (2017). Practicing at the top of your license. Medical Economics. https://www.medicaleconomics.com/view/practicing-at-the-top-of-your-license.
- Nursing Executive Center (2013). Achieving top-of-license nursing practice: Best practices for elevating the impact of the frontline nurse. The Nursing Executive Center, The Advisory Board Company.
- Peters, M. D. J., Marnie, C., Colquhoun, H., Garritty, C. M., Hempel, S., Horsley, T., Langlois, E. V., Lillie, E., O'Brien, K. K., Tunçalp, Ö., Wilson, M. G., Zarin, W., & Tricco, A. C. (2021). Scoping reviews: Reinforcing and advancing the methodology and application. Systematic Reviews, 10(1), 263. https://doi.org/10.1186/s13643-021-01821-3
- Pirschel, C. (2019). Comfort, close to home: The vial role of oncology nursing in ambulatory care. ONS Voice, November 2019, 16–20. https://voice.ons.org/news-and-views/the-vital-role-of-oncology-nursing-in-ambulatory-care.
- Pratt, B. R., Dunford, B. B., Vogus, T. J., Ashkanani, A. M., Morgeson, F. P., & Alexander, M. (2023). Unsafe by design: Infusion task reallocation and safety perceptions in U.S. hospitals. *Health Care Manage Review*, 48(1), 14–22. https://doi.org/10.1097/ HMR 00000000000000351
- Renfro, C. P., Ferreri, S. P., Williams, N., Clark, C., & Pfeiffenberger, T. (2017). Description of drug therapy problem resolution in a statewide care management program.

- Journal of the American Pharmacists Association, 57(3S), S289–S292. https://doi.org/10.1016/j.japh.2017.03.007
- Roberts, M., & Miller, S. A. (2019). Implementation of an innovative nurse-driven resuscitation protocol. *The Journal of Nursing Administration*, 49(7-8), 372-376. https://doi.org/10.1097/NNA.000000000000770
- Russell-Babin, K., & Wurmser, T. (2016). Transforming care through top-of-license practice. *Nursing Management*, 47(5), 24–28. https://doi.org/10.1097/01.NUMA. 0000482527.15743.12
- Sagastume, R., & Peterson, J. (2023). The virtual nurse program in a community hospital setting. The Online Journal of Issues in Nursing, 28(2), https://doi.org/10. 3912/OIIN.Vol28No02Man02
- Santelli, J. (2023). Seize the opportunity. American Nurse's Association-New York Nurse, January 2023.
- Smolowitz, J., Speakman, E., Wojnar, D., Whelan, E. M., Ulrich, S., Hayes, C., & Wood, L. (2015). Role of the registered nurse in primary health care: Meeting health care needs in the 21st century. Nursing Outlook, 63(2), 130–136. https://doi.org/10.1016/j.outlook.2014.08.004
- Swan, B., Haas, S., & Jessie, A. (2019). Care coordination: Roles of registered nurses across the care continuum. *Nursing Economics*, 37(6), 317–323. (https://www.proquest.com/docview/2328560721).
- Switzer, T., Sawin, E. M., Eaton, M., Switzer, D., Lam, C., Robinson, J., & Elkins, D. (2021). Implementing enhanced primary care registered nurse reimbursement in rural health clinics: A policy analysis. *Policy, Politics, & Nursing Practice*, 22(3), 201–211. https://doi.org/10.1177/15271544211011989
- Trepanier, S. (2023). The art and science of delegating effectively. *The Journal of Continuing Education in Nursing*, 54(10), 444–445. https://doi.org/10.3928/00220124-20230913-03
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., Moher, D., Peters, M. D. J., Horsley, T., Weeks, L., Hempel, S., Akl, E. A., Chang, C., McGowan, J., Stewart, L., Hartling, L., Aldcroft, A., Wilson, M. G., Garritty, C., ... Straus, S. E. (2018). PRISMA Extension for Scoping Reviews (PRISMASCR): Checklist and Explanation. Annals of Internal Medicine, 169(7), 467–473. https://doi.org/10.7326/M18-0850
- Vanhook, P., Bosse, J., Flinter, M., Poghosyan, L., Dunphy, L., & Barksdale, D. (2018). The American Academy of Nursing on policy: Emerging role of baccalaureate registered nurses in primary care. Nursing Outlook, 66(5), 512–517. https://doi.org/10. 1016/j.outlook.2018.09.003
- Wakefield, B. J., Lampman, M. A., Paez, M. B., Farag, A., Ferguson, H., & Stewart, G. L. (2022). Delegation of work within a patient-centered medical home. *The Journal of Nursing Administration*, 52(12), 679–684. https://doi.org/10.1097/NNA.0000000000001231
- Wharton, G., Berger, J., & Williams, T. (2016). A tale of 2 units: Lessons in changing the care delivery model. *The Journal of Nursing Administration*, 46(4), 176–180. https://doi.org/10.1097/NNA.000000000000323
- Wilson, N. J., Pracilio, A., Morphet, J., Kersten, M., Buckley, T., Trollor, J. N., & Cashin, A. (2023). A scoping review of registered nurses' delegating care and support to unlicensed care and support workers. *Journal of Clinical Nursing*, 32(17-18), 6000-6011. https://doi.org/10.1111/jocn.16724
- Winterhalter, M., Cobb, K., Heron, K., Metzgar, M., McCullough, C., & Rux, S. (2023). Nurse navigators as the drivers to an enhanced patient referral process. *Journal of Oncology Navigation & Survivorship*, 14(5), 139–144. (https://www.jons-online.com/issues/2023/may-2023-vol-14-no-5/4898-nurse-navigators-as-the-drivers-to-an-enhanced-patient-referral-process).
- Yakusheva, O., Lee, K. A., & Weiss, M. (2024). The nursing human capital value model. International Journal of Nursing Studies, 160, Article 104890. https://doi.org/10. 1016/j.ijnurstu.2024.104890
- Yakusheva, O., & Longyear, R. (2024, May 20). Center For Medicare and Medicaid innovation should test an alternative payment model for hospital nursing, Health Affairs Forefront, May 20, 2024. https://doi.org/10.1377/forefront.20240516. 427482.
- Yakusheva, O., Rambur, B., & Buerhaus, P. I. (2022). Value-informed nursing practice: What is it and how to make it a reality. *Nursing Outlook*, 70(2), 211–214. https://doi.org/10.1016/j.outlook.2022.01.001
- Yen, P.Y., Kellye, M., Lopetegui, M., Saha, A., Loversidge, J., Chipps, E.M., Gallagher-Ford, L., & Buck, J. (2018). Nurses' Time Allocation and Multitasking of Nursing Activities: A Time Motion Study. AMIA ... Annual Symposium proceedings. AMIA Symposium, 2018, 1137–1146.