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Task shifting in Dutch nursing practice: A repeated cross-sectional analysis of nurses' experiences

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Abstract

Aim: This study aims firstly to identify shifts in the execution of medical tasks by nurses in the past decade. Secondly, it aims to explore nurses' perspectives on task shifting: how they think task shifting affects the quality of care, the attractiveness of nursing practice and their collaboration with physicians.

Design: A quantitative repeated cross-sectional study.

Methods: A nationwide survey was conducted among Dutch registered nurses (RNs) working in hospitals and home care, first in 2012 and again in 2022, with sample sizes of 359 and 362, respectively. Analyses were based on descriptive statistics and logistic and linear regressions.

Results: Between 2012 and 2022, there was a significant increase in the execution of only one medical task by nurses, namely prescribing over-the-counter medication. The majority reported in both years that task shifting has positive impact on their professional autonomy and the attractiveness of nursing practice. However, most nurses also reported that task shifting increased their workload (72.7% in 2022) could lead to conflicts in care teams (20.9% in 2022 compared to 14.7% in 2012) and may cause physicians to feel threatened (32.8% in 2022 and 29.9% in 2012). There were no significant changes in nurses' perception of the impact of task shifting on quality of care, the attractiveness of nursing practice and the nurse–physician relationship.

Conclusion: There was an increase in the execution of prescribing over-the-counter-medication by nurses between 2012 and 2022. However, both in 2012 and in 2022, as the majority of nurses reported that task shifting increased their workload, there is reason to worry about this negative consequence of task shifting, e.g. with regard to labour market issues. Further research, also among the medical profession, is needed to better understand and address the implications of task shifting for the nursing profession.

Implications for the Profession: Implications for the nursing profession include potential scope expansion with complex tasks, attracting more individuals to nursing

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careers, although an eye must also be kept on what that means for the workload of nurses and the relationship with physicians.

Impact: Nurse prescribing medicines was more executed in 2022 compared to 2012. Nurses had a predominantly positive perspective on task shifting, but still felt it can cause conflicts in care teams, high workload and physicians feeling threatened. These results can help during implementation of task shifting and in monitoring the perceived effects of task shifting among nurses.

Reporting Method: This study followed the STROBE reporting guideline for cross-sectional studies.

Patient or Public Contribution: No Patient or Public Contribution. This study focussed on the task shifting (perspectives) of nurses.

KEYWORDS
nurses, nursing practice, task shifting, task shifts, task substitution

1 | INTRODUCTION

The number of people with chronic diseases and highly aged people with multi-morbidity is increasing (Nguyen et al., 2019; O'Connor et al., 2018). Vulnerable groups often need more complex care, which is provided by multiple healthcare professionals such as nurses and physicians. At the same time, most Western countries are experiencing shortages of physicians (Araujo et al., 2016; Drennan & Ross, 2019; Liu et al., 2017; Michel & Ecarnot, 2020; World Health Organization, 2016). As a result, some medical tasks are being transferred from physicians to nurses to improve access and efficiency of care, as nurses nonetheless visit patients (Korevaar & Donker, 2019; Michel & Ecarnot, 2020). Task shifting—the redistribution of tasks, including responsibilities and competencies, between healthcare professionals (De Maeseneer et al., 2019; van Tuyl et al., 2021)—is increasing being implemented and can reduce costs (de Bont et al., 2016; Karimi-Shahanjarini et al., 2019; Laurant et al., 2018; Maier & Buchan, 2018; Orkin et al., 2021). Moreover, a Cochrane review showed that nurses in primary care achieve higher levels of patient satisfaction, and equal or even better quality of care and patient outcomes, than general practitioners (Laurant et al., 2018). In addition, shifting tasks to nurses might enhance nurses' autonomy, result in high levels of clinical decision-making and increase the attractiveness of nursing as a career (Auerbach et al., 2013; Maier & Aiken, 2016a). Typically, task shifting involves transferring specific, standardized tasks from specialized and trained professionals to professionals with lower levels of education, e.g. from physicians to nurses (van Tuyl et al., 2021). Task shifting may be a solution for the shortages of physicians. The World Health Organization (WHO) has recommended this strategy for countries to strengthen their health systems (World Health Organization, 2008, 2012) and the European Union is looking for ways to implement it (De Maeseneer et al., 2019; Sundling et al., 2021).

There are several ways in which tasks can be shifted from physicians to nurses. Task shifts can occur due to changes in the social, economic and technological context in which a profession operates (Abbott, 1988). One example of a task shifting from physicians to nurses is the enhanced role of nurses in primary care. In many countries, nurses are now playing a more significant role in medical tasks, such as conducting physical examinations, diagnosing and treating common illnesses, prescribing medication and managing chronic conditions (Groenewegen et al., 2022; Maier & Aiken, 2016b).

When tasks are shifted from one profession to another, it is not always clear which profession has jurisdiction (formal control) over those tasks. According to the sociology of professions, with protagonists such as Abbott (1988) and Freidson (1970), jurisdiction refers to a profession's legitimate control over a specific domain of work. To establish this control for the own profession, representatives of the profession, such as professional associations (Greenwood et al., 2002) often engage with external actors, including policy makers and may form alliances with political actors (Abbott, 1988). Often, discussions, and sometimes even competition, between professions exist about who has jurisdictional control when certain tasks are substituted between professions. An example of task substitution and the related discussions about jurisdictional control and professional autonomy is the prescribtion of medicines. This task traditionally belonged exclusively to the medical profession (Maier & Aiken, 2016b). However, today in many Western countries, both medical professionals and some groups of (specialized) nurses can now prescribe medication (Kroezen et al., 2012; Maier, 2019). For instance, in The Netherlands, since about a decade specific groups of nursing professionals have legal authority to prescribe medicines (Kroezen, 2014; Maier, 2019). These groups have a Masters in Advance Nursing Practice or are RNs specialized in providing care for patients with diabetes, cancer or asthma/COPD. Prior to statutory prescribing authority, there have been many discussions within and between the relevant professions about whether nurses should also be given jurisdictional control over medical prescribing tasks and what this implicates for the autonomy of prescribing nursing professionals (Buijse, 2006). At an organizational level, these

discussions no longer seem to take place now the law regulates that nursing professionals have jurisdictional control and may prescribe autonomously under certain conditions (e.g. in terms of education, type of medication and field of expertise). However, there have been signs that discussions about jurisdictional control and autonomous prescribing still sometimes occurs in the professional practice (de Haan, 2018).

Also Abbott (1988) and Kroezen (2014). describe how substitutions of tasks can have a significant impact on the relationship between professionals. Task substitution between medical to nursing professionals can have both positive and negative effects, e.g. on the perceived quality of care, attractiveness of the nursing profession and the nurse–physician relationship (Abbott, 1988). When nurses take on specific medical tasks, it can blur the lines between the professions, and will affect professional autonomy. As said, competition between professions can also exist, influenced by internal and external forces. Internal forces come from within the profession itself (e.g. a need among nurses for continuing professional and academic development), while external forces for instance are shaped by ageing populations and shortages on the health care labour market (Abbott, 1988). All these internal and external forces can result in rearrangement of tasks between nurses and physicians (Brown et al., 2015).

However, nursing roles vary across different settings, and therefore task shifting varies between settings (Maier et al., 2022). Registered nurses in hospitals and home care have different views on their nature of work, reporting structures and autonomy (Kroezen et al., 2014; Maier et al., 2022). In hospitals, nurses operate within a fast-paced, specialized environment, collaborating with and reporting to medical specialists. Conversely, home care nurses collaborate with general practitioners, fostering a holistic approach to patient care and often work in self-directed teams in which they perceive more autonomy (Maurits et al., 2017). As the context for task shifting differs in various settings, equally does the extent to which countries have implemented task shifting (Groenewegen et al., 2022; Maier & Aiken, 2016b; Maier et al., 2018). Together with other countries, e.g. Australia, Finland and Ireland, the Netherlands is in general an early adopter of task shifts in nursing practice (Maier & Aiken, 2016b). This study focusses on the Dutch case that provides a relevant example of how in Western countries task shifting between the medical and nursing professions can take place and how nursing professionals perceive its impact on the quality of care and the relation with medical professionals.

As we expected that in the Netherlands in the last decade hospital and home care nurses have taken on more medical tasks, e.g. by the mentioned internal and external forces, we were interested in changes over time. By using survey data from two years (2012 and 2022), insights are provided into how the involved nursing professionals perceive changes in task shifting, also in relation to their collaboration with the medical profession. These insights may also offer implications for current and future task shifting between the medical and nursing professions.

In accordance with our expectations and reasoning, we formulated the following research questions:

1. What changes occurred in the execution of medical tasks according to registered nurses working in hospitals and home care in the Netherlands between 2012 and 2022?
2. What changes occurred in the perceptions of registered nurses working in hospitals and home care between 2012 and 2022 on task shifting in relation to
   a. The quality of care?
   b. The attractiveness of nursing practice?
   c. The nurse-physician relationship?

2 | METHODS

2.1 | Design

The study design involved two cross-sectional nationwide surveys in 2012 and 2022 among Dutch registered nurses (RNs). In 2012, the questionnaire was sent to nurses in collaboration with the national professional association of nurses who has a specific interest in task shifting and the consequences for the nursing profession. Since 2012, healthcare and nursing practice has changed, for instance, due to governmental reforms and an ageing patient population, e.g. some groups of specialized nurses now have legal authority to prescribe medication in the Netherlands (since 2014) (Maier, 2019).

2.2 | Participants and recruitment

The survey was conducted among nurses across the Netherlands who were members of the Nursing Staff Panel (https://www.nivel.nl/en/panel-verpleging-verzorging/nursing-staff-panel). After the data collection only panel members who worked in hospitals or home care (359 in 2012 and 362 in 2022) were included. We selected these RNs because they make up two large groups of nurses working in different settings with different expectations about task specifications and collaboration with physicians. The response rates among participants of the Nursing Staff Panel were 68% in 2012 and 30% in 2022.

Besides dissemination among members of the Nursing Staff Panel, in 2022 links to the online survey were also posted on relevant social media and through various channels of the Dutch Nurses Association (V&VN). This resulted in 198 additional responses, before inclusion of only those working in hospitals or home care. Participation was voluntary and anonymous. Only RNs were included in the study. RNs in the Netherlands may have a secondary vocational qualification (a nursing qualification obtained on completing secondary vocational education), or a bachelor's degree (a degree in nursing obtained at a university of applied sciences).

2.3 | Data collection and survey questionnaire

In 2012, participants could choose between an online survey questionnaire and a survey questionnaire on paper. In 2022, the survey questionnaire was only available online. Non-respondents of the Nursing Staff Panel received up to two reminders, approximately 14 and 28 days after the initial sending.

The survey was originally designed by Scholten et al. (1999). and previously adapted and used by De Veer (2007). and Kroezen et al. (2014). to assess RNs' perceptions of task shifting from physicians to nurses. The survey included multiple choice questions. The first part of the survey included demographic characteristics of the respondents. The remaining questions focused on the execution of medical tasks by RNs working in teams, the perceptions of RNs on task shifting in general and the perceptions of the effect of task shifting on the relationship with physicians.

Seventeen dichotomous items were used to determine whether RNs in nursing teams performed certain tasks. Respondents answered these questions for nurses working in their team in general, although not all nurses may execute all tasks. The first eight (a–h) are tasks that should be performed by physicians according to Dutch law (Wet BIG) but where a legal amendment has allowed these tasks to be independently executed by RNs (in Dutch: "functioneel zelfstandige bevoegdheid"). The next seven (i–o) are tasks related to restricted procedures and activities that may be performed by non-physicians provided they are competent and capable. The last two questions, about prescribing medication (p and q), are derived from a different questionnaire for the 2012 data and were added to the survey in 2022 as this is a new task (since 2014) specific groups of nurses are allowed to perform. Perceptions on task shifting were assessed using 11 items on a 5-point Likert scale, ranging from 'completely disagree' to 'completely agree'. The survey was pretested for comprehensibility and completeness in 2007. In 2022, minor adjustments were made based on feedback from two RNs to enhance content validity.

2.4 | Ethical considerations

Participation in the study was voluntary, and personal data were managed confidentially and anonymously in accordance with the Dutch Data Protection Act and relevant codes of conduct for scientific research. The survey did not raise any significant ethical concerns, and participant consent was obtained when the respondents became members of the Nursing Staff Panel or, for non-members, when they started the survey. Participants were informed of the anonymity and confidentiality of their responses in the cover letter that accompanied the survey.

2.5 | Data analysis

First, the background characteristics of the 2012 and 2022 participants were compared using Chi-square tests and t-tests. This showed that there were differences between the two groups in the educational level and work setting of RNs. Since these variables are related to the tasks of RNs, the 2022 population was weighted to match the 2012 sample population. For the first research question, differences in proportions of nurses performing the task were tested for significance ($p < .05$) with logistic regression analyses; these logistic regressions were weighted for educational level and work setting to match the 2012 sample population. To answer the second research question, RN's perceptions on task shifting were assessed using items on a 5-point Likert scales, ranging from 1 'completely disagree' to 5 'completely agree'. Scores for perceptions on task shifting were calculated and differences between the 2012 and 2022 samples were tested for significance ($p < .05$) using linear regression analyses; these linear regressions were weighted as described. To account for the multiple testing problem we corrected all P-values using the Holm-Bonferroni method.

The analyses considered the fact that the Nursing Staff Panel is a dynamic group of professionals that includes some overlap between the 2012 and 2022 samples. A total of 39 nurses participated in the survey for both years. Within-group disparities in task execution between the years were assessed using either a Chi-square test or, if data assumptions were unmet, a Fisher's exact test. To account for clustering at the respondent level, we corrected this using the 'vce' command in Stata version 16.1; it calculates standard errors that are robust in the face of correlation between the groups.

3 | RESULTS

3.1 | Demographics

After eliminating participants who started the survey but did not respond to any of the questions ($n = 0$ in 2012, $n = 33$ in 2022), 359 and 362 respondents were included in the analysis for 2012 and 2022, respectively. There was a 11% overlap between the two groups of respondents, meaning that 39 individuals took part in both surveys. Both surveys had predominantly female participants ($p = .794$ t-test), with 89.7% and 90.3% of respondents being female in 2012 and 2022, respectively (as presented in Table 1). The average age of the participants in the 2022 survey was higher than that of the 2012 survey, with mean ages of 48.8 in 2022 and 46.9 in 2012 ($p = .019$, t-test). The increasing average age might be related to the fact that the Dutch nursing workforce is ageing (Centraal Bureau voor de Statistiek, 2020). Additionally, a greater proportion of respondents in the 2022 survey were RNs with a bachelor's degree, while fewer had a vocational qualification ($p < .001$, Chi-square test). The distribution of respondents across the two work settings differed between the two years ($p < .001$, Chi-square test). In 2022, there was a higher proportion of individuals working in home care (57.5%) than in hospital care (42.5%), while the opposite was observed in the 2012 survey participants.

TABLE 1 Demographic characteristics of respondents in 2012 and 2022.

	2012	2022	*p*-value
Total *n* for analysis	359	362	
Respondents in both 2012 and 2022 surveys (% of total per survey)	10.9%	10.7%	
Female	89.7%	90.3%	.794
Mean (range) age in years	46.9 (22.7–65.1)	48.8 (22–70)	.019
Educational level			.000*
• Secondary vocational qualification	64.9%	38.4%	
• Bachelor's degree	35.1%	61.6%	
Respondents' work setting			.000*
• Hospitals	69.4%	42.5%	
• Home care	30.6%	57.5%	

*$p < .001$.

3.2 | Task execution

Table 2 presents the proportions of RNs in nursing teams performing medical tasks as indicated by respondents in the total response group, working in hospitals and working in home care, in 2012 and 2022. The task that was performed by a significantly higher percentage of RNs in 2022 than in 2012 was "prescribe over-the-counter medication". This percentage was significantly higher in 2022 (29.6%) than in 2012 (3.9%) ($p < .001$, logistic regression).

The percentage of nurses performing a task for each work setting reveals that this increase was strong for both RNs working in hospitals and in home care, with the percentage rising from 3.9% in 2012 for RNs working in the hospital to 29.6% in 2011. In 2012, no RNs in home care reported that they or their team members prescribed over-the-counter medication, whereas 20.4% did so in 2022.

Both nurses working in hospitals and home care performed some tasks more often in 2022 than in 2012 and other tasks less often. For example, a decline was reported in the proportion of home care RNs administering "increased doses of epidural pain medication" in 2022 (21.4%) compared to 2012 (36.8%). In contrast, a higher percentage of home care nurses indicated that RNs in their team sometimes "inserted a drip" in 2022 (37.8%) compared to 2012 (23.6%).

For the 39 individuals who took part in both surveys, we found a significant within-group change between 2012 and 2022 only for prescribing over-the-counter medication ($p < .001$, Fisher's exact).

3.3 | Task shifting in relation to perceived quality of care

Table 3 displays the perceptions of responding RNs regarding the impact of task shifting on the quality of care, comparing the results for 2012 to those for 2022. There were no significant changes in RNs' overall perceptions of the impact of task shifting on quality of care. Slightly more respondents agreed that task shifting results in quality improvement (59.4%) in 2022 compared to (57.3% in) 2012. For the complexness of care (66.9%) and the endangerment of patient safety (6.7%), slightly less respondents believed this is a result of task shifting compared to 2012. In 2022, 43.6% agreed that task shifting creates more time and attention for the patient, but this question was not asked in 2012.

3.4 | Task shifting in relation to the attractiveness of nursing practice

As shown in Table 4, no significant changes are found between 2012 and 2022 in respondents' experiences regarding the impact of task shifting on the attractiveness of the nursing practice. In general, respondents were fairly positive about task shifting and agreed in 2022 that task shifting increased their autonomy in (79.8%) and responsibilities (96.2%), made the profession more interesting (82.7%), made the work more diverse (89.5%) and increased the professional status of nurses (76.8%). Respondents also agreed task shifting increased their workload (72.7%). Except for the diversity of work, all items scored slightly higher in 2022 compared to 2012.

3.5 | Task shifting in relation to the nurse-physician relationship

Respondents' perceptions of the impact of task shifting on the nurse-physician relationship did not change significantly between 2012 and 2022; see Table 5. In 2022, 85.7% agreed that task shifting increases the need for consultation between physicians and nurses, this is slightly lower compared to 2012 (87.9%). In contrast, a higher proportion of respondents believed that task shifting could lead to conflict in care teams, with 20.9% agreeing or totally agreeing in 2022 compared to 14.7% in 2012. Furthermore, a higher proportion believed that task shifting may cause physicians to feeling threatened, with 32.8% agreeing or totally agreeing in 2022 compared to 29.9% in 2012.

TABLE 2 Percentages of RNs in hospitals and home care reporting that RNs in their team perform medical tasks, in 2012 and 2022.

Nurses in my team do this sometimes	All nurses			Hospital		Home care	
	2012 (%)	2022 (%)	*p*-value[a]	2012 (%)	2022 (%)	2012 (%)	2022 (%)
a. administer medication through an epidural catheter	41.3	36.5	1.0	46.8	42.3	29.0	23.1
b. increase doses of epidural pain medication	42.9	34.5	1.0	45.6	40.5	36.8	21.4
c. insert a drip	63.4	70.4	1.0	81.1	85.6	23.6	37.8
d. replace gastric feeding tube/ percutaneous endoscopic gastrostomy (PEG)	24.4	24.7	1.0	14.5	16.1	46.3	43.4
e. perform venepunctures	47.4	57.0	.690	64.2	74.1	10.2	18.8
f. give injections	97.7	98.0	–	97.1	97.7	99.1	98.8
g. bladder catheterisation	87.9	88.1	1.0	83.8	83.7	97.1	97.7
h. replace suprapubic catheter	39.8	48.3	1.0	20.5	26.7	84.8	94.0
i. perform endoscopies	2.8	3.4	–	3.7	4.9	0.9	0.0
j. perform planned cardioversion	11.9	15.6	1.0	16.8	22.8	0.9	0.0
k. apply defibrillation	22.6	32.7	.834	32.4	44.4	0.9	6.1
l. take a patient's medical history, including physical examination	13.3	16.9	1.0	16.4	18.1	6.4	14.4
m. assess electrocardiogram (ECG) or cardiotocography (CTG) and take appropriate action independently	17.6	27.2	.150	24.7	37.4	1.8	4.7
n. assess laboratory results and take appropriate action independently	26.6	27.9	1.0	37.0	39.9	3.6	1.3
o. make a medical diagnosis	9.6	6.8	1.0	11.8	8.4	4.6	3.2
p. prescribe over-the-counter medication	3.9	29.6	.000*	5.6	33.5	0.0	20.4
q. prescribe medication for which a prescription is required	13.7	12.0	1.0	18.5	16.1	2.7	2.5

Note: –, Not tested, since the data did not meet assumptions for statistical testing. Standard errors are corrected for clustering at the respondent level. (%) percentage of RNs who answered 'yes' to the question (weighted to match 2012 sample population). $N = 621–637$ nurses in the total population, 351–364 nurses in the hospital setting and 268–273 nurses in home care. (%) percentage of RNs who answered 'yes' to the question (weighted to match 2012 sample population).

[a]Significance levels are from logistic regression analyses corrected with the Holm-Bonferroni method. The data were controlled for differences between years in educational level and healthcare sector by weighting to match the 2012 sample population.

*$p < .05$.

4 | DISCUSSION

In this study, we compared the results of a survey held in 2012 and repeated in 2022 on the execution of medical tasks by registered nurses in Dutch hospital teams and home care teams. Few changes over time were found, although a statistically significant increase was found regarding one task: prescribing over-the-counter medication.

There were no statistically significant changes in RNs' overall perceptions of the effects of task shifting on the quality of care, the consequences of task shifting for the attractiveness of the nursing profession and the nurse–physician relationship.

Prescription of over-the-counter medication in the Netherlands increased between 2012 and 2022. This finding suggests that, in the last decade, RNs are being entrusted with greater autonomy in advising on over-the-counter medication. A review of nurse prescribing found that improving nurse prescribing in practice encompasses collaborative teamwork, supportive peers and physicians, and an accessible and encouraging environment for nurse prescribing (Creedon et al., 2015). Since 2014, there have been significant changes in the laws governing nurse prescribing, enabling certain specialized nurses to prescribe medications. Although we did not see an increase in prescribing medication for which a prescription is required, we believe this change in

the legislation has resulted in a transformed environment for prescribing over-the-counter medication resulting in nurses gaining jurisdictional control and autonomy in this domain (Centraal Bureau voor de Statistiek, 2020; De Veer, 2007; Scholten et al., 1999).

From the percentages of hospital RNs and home care RNs performing a task, we observed hospital RNs are more involved in executing tasks related to monitoring vital signs compared to their counterparts in home care. The patient population and the types of care provided by hospital nurses might explain these differences in responsibilities compared to home care nurses. Our findings align with previous research that has demonstrated significant variability in nursing roles and responsibilities across different healthcare sectors (Norful et al., 2017). This consistency with existing literature emphasizes the importance of recognizing the nuanced ways in which nursing responsibilities evolve within distinct healthcare environments.

Nurses' perceptions of the relationship between task shifting and the impact on the quality of patient care remained stable, as the study revealed no significant changes in their overall views. This suggests that despite changes in tasks or roles, nurses expressed confidence in their ability to adapt to evolving healthcare practices while maintaining a commitment to high-quality care. Similar results are found for the consequences of task shifting for the nursing profession. RNs agree in that task shifting increases their autonomy and responsibility, and makes their profession more interesting. This finding is consistent with previous research that has shown that task shifting can lead to increased autonomy and responsibility among RNs, which could have positive implications not only for patient care, but for nurses themselves as well (Armstrong et al., 2021; Auerbach et al., 2013; Freund et al., 2015; Lukewich et al., 2022; Maier et al., 2018; Rao et al., 2017). A study in primary care in the UK found that non-medical prescribing leads to an increase in perceived autonomy and higher job satisfaction among RNs (Armstrong et al., 2021). Also other research established that task shifting enhances nurses' professional autonomy and can make working as a nurse more attractive (Maier & Aiken, 2016a). Moreover, our findings related to nurses' perceived autonomy indicate that there are no severe discussions anymore in practice between medical and nursing professionals about jurisdictional control over shifted medical tasks.

However, not all findings point to a positive impact of task shifts. RNs in our study acknowledge in both 2012 and 2022 that task shifts increased their workload and could lead to conflicts in care teams. This finding is in line with studies highlighting the potential negative consequences of task shifting (Armstrong et al., 2021;

TABLE 3 Level of agreement on items regarding the consequences of task shifting on the quality of care in 2012 and 2022.

Task shifting…	Weighted mean score (% (totally) agree) 2012	2022	*p*-value[+]
d. Makes care more complex	3.8 (69.3)	3.8 (66.9)	1.0
e. Results in quality improvement	3.6 (57.3)	3.7 (59.4)	.721
j. Endangers patient safety	2.4 (9.9)	2.3 (6.7)	1.0
n. Creates more time and attention for the patient		3.2 (43.6)	

Note: (%) percentage of RNs who answered 'agree' or 'totally agree' to the question (weighted to match 2012 sample population).

[+]Significance levels are from linear regression analyses corrected with the Holm-Bonferroni method. Data were controlled for educational level and healthcare sector by weighting to match the 2012 sample population. Mean scores and percentages are weighted the same way. Standard errors were corrected for clustering at the respondent level. Scores on the items ranged from 1 (totally disagree) to 5 (totally agree).

TABLE 4 Level of agreement on items regarding the consequences of task shifting for the attractiveness of nursing practice in 2012 and 2022.

Task shifting…	Weighted mean score (% (totally) agree) 2012	2022	*p*-value[+]
a. Increases nurses' autonomy	3.8 (76.6)	4.0 (79.8)	.170
b. Increases nurses' workload	3.8 (70.5)	3.9 (72.7)	1.0
c. Increases nurses' responsibilities	4.3 (95.5)	4.4 (96.2)	.520
i. Makes the profession more interesting for nurses	3.9 (79.9)	4.0 (82.7)	.721
l. Increases the diversity within the work of nurses	4.0 (92.1)	4.0 (89.5)	1.0
o. Increases the professional status of nurses		3.9 (76.8)	

Note: (%) percentage of RNs who answered 'agree' or 'totally agree' to the question (weighted to match 2012 sample population).

[+]Significance levels are from linear regression analyses corrected with the Holm-Bonferroni method. Data were controlled for educational level and healthcare sector by weighting to match the 2012 sample population. Mean scores and percentages are weighted the same way. Standard errors were corrected for clustering at the respondent level. Scores on the items ranged from 1 (totally disagree) to 5 (totally agree).

TABLE 5 Level of agreement on items regarding the consequences of task shifting on the relationship between nurses and physicians in 2012 and 2012.

Task shifting…	Weighted mean score (% (totally) agree) 2012	2022	*p*-value[+]
f. Increases the need for consultation between physician and nurse	4.1 (87.9)	4.1 (85.7)	1.0
k. Will lead to conflicts within care teams	2.6 (14.7)	2.8 (20.9)	.055
m. May cause physicians to feel threatened	2.9 (29.9)	3.1 (32.8)	.243

Note: (%) percentage of RNs who answered 'agree' or 'totally agree' with the question (weighted to match 2012 sample population).

[+]Significance levels are from linear regression analyses corrected with the Holm-Bonferroni method. Data were controlled for educational level and healthcare sector by weighting to match the 2012 sample population. Mean scores and percentages are weighted the same way. Standard errors were corrected for clustering at the respondent level. Scores on the items ranged from 1 (totally disagree) to 5 (totally agree).

Freund et al., 2015; Kieft et al., 2014). More than one-third of the RNs reported that task shifting increased their workload (79.8% in 2022 and 76.6% in 2012). This may have implications for the proportion of nurses leaving their profession, in a time with already increasing shortages of nursing personnel (Liu et al., 2017; World Health Organization, 2016). It is worrying that in 10 years, these perceived negative impact on workload did not change in a favourable direction. This indicates a persistent challenge to mitigate the adverse effects of task shifting on nursing professionals' perceived workload. This also emphasizes the need for a close examination of how task shifting practices affect the distribution of responsibilities among healthcare professions. The ongoing challenges also indicate the importance of a balanced task distribution between the medical and nursing professions and within nursing teams.

This research performed in the Netherlands is an addition to previous research on perceptions of RNs on task shifting: most studies have been performed on the perception of RNs on task shifting in African countries, little recent research can be found on the views of RNs in Western countries (Agyapong et al., 2015; Aifah et al., 2020; Spies et al., 2016). To further increase knowledge about perceptions of task shifting, future research could focus on including RNs working in different healthcare settings and the perception of physicians on this topic.

4.1 | Strengths and limitations

A strength of this study was that it was conducted over two time periods, allowing a repeated cross-sectional analysis of the execution of medical tasks and the examination of changes in RNs' attitudes towards task shifting. Therefore, our results are more valid compared to retrospectively asking about task shifting (and perceptions of task shifting). Although the study examined changes over a 10-year period, a more comprehensive repeated cross-sectional analysis with multiple data points could provide a more accurate understanding of the execution of medical tasks and their impact on the quality of care, the attractiveness of the nursing practice and nurses' relationship with physicians. Another limitation of this study concerns the generalisability because this study focusses solely on Dutch hospital nurses and home care nurses. Although the study's focus on Dutch hospital and home care nurses limits generalizability, the findings will be relevant to European or other Western countries with similar healthcare structures. Variations in healthcare systems, nursing practices and regulatory frameworks among countries should be considered when extending the study's conclusions to broader contexts. However, an international comparison of professional competency frameworks for registered nurses showed nurses in these countries are generally required to have similar competencies (Wit et al., 2023). Considering this would propose the current study about task shifting to be generalisable to nurses working in other countries.

4.2 | Conclusions

Overall, we found a significant increase in the execution of medical tasks by RNs, as indicated by the nurses who took part in our surveys in 2012 and 2022, for prescribing over-the-counter medicines. Nurses' overall perceptions of the consequences of task shifting for quality of care remained stable, as did their perceptions related to the attractiveness of nursing practice and the nurse–physician relationship. Although nurses are generally positive about the effects of task shifting, their perceptions on the negative aspects also did not change. Further research is needed to better understand the potential benefits and drawbacks of task shifting in healthcare and to identify strategies for minimizing the negative consequences of task shifting.

AUTHOR CONTRIBUTIONS

RW, ADV, KDG, RB, AF: Made substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data. RW, ADV, KDG, RB, AF: Involved in drafting the manuscript or revising it critically for important intellectual content. RW, ADV, KDG, RB, AF: Given final approval of the version to be published. Each author should have participated sufficiently in the work to take public responsibility for appropriate portions of the content. RW, ADV, KDG, RB, AF: Agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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CONFLICT OF INTEREST STATEMENT

The authors have no conflicts of interest to disclose.

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DATA AVAILABILITY STATEMENT

Data available upon reasonable request.

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