Experiences of OOH task-shifting from GPs: Systematic review of qualitative studies

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Abstract

Background.
The current GP workforce is insufficient to manage rising demand in patient care within the out-of-hours (OOH) primary care services. To meet this challenge, non-medical practitioners (NMPs) are employed to fulfil tasks traditionally carried out by GPs. It is important to learn from experiences of task-shifting in this setting to inform optimal delivery of care.

Aim.
To synthesise qualitative evidence of experiences of task-shifting in the OOH primary care setting.

Design and setting.
Systematic review of qualitative studies and thematic synthesis

Methods.
Electronic searches were conducted across CINAHL, PsychInfo, Cochrane, Medline, Embase, and OpenGrey for qualitative studies of urgent or OOH primary care services, utilising task-shifting or role delegation. Included articles were quality appraised and key findings collated through thematic synthesis.

Results
2497 studies were screened, six met the inclusion criteria. These included interviews with 15 Advanced Nurse Practitioners, 3 Physician Assistants, 2 paramedics, and a focus group of 22 GPs and focus groups with 33 nurses. Key findings highlight the importance of clearly defining and communicating the scope of practice of NMPs and of building their confidence by appropriate training, support and mentoring.

Conclusions
Whilst NMPs may have the potential to make a substantial contribution to OOH primary care services, there has been very little research on experiences of task-shifting. Evidence to date highlights the need for further training specific to OOH services. Mentorship and support to manage the sometimes-challenging cases presenting to OOH could enable more effective OOH services and better patient care.

Keywords:
Primary care, OOH, task-shifting,
How this fits in?

Demand for out-of-hours (OOH) GP services is increasing but the existing GP workforce is insufficient to meet this need. Government policy proposes a greater skill-mix of non-medical practitioners (NMPs) in the workforce to shift tasks away from GPs. Early studies suggest that NMPs deliver safe and effective care; however, there is limited evidence specific to the OOH setting. In some settings, NMPs have a defined scope of practice, which excludes certain patient groups. If this is clearly communicated, GPs will focus on more complex patients, which NMPs cannot see. This may increase GP workload within shifts but the involvement of NMPs reduces the number of shifts that GPs need to work. If the NMPs’ scope of practice is not clearly defined, communicated or recognised, the service will run less efficiently, giving rise to negative team perceptions and poor inter-professional relationships. Building confidence of NMPs to work autonomously takes dedicated training, support and mentoring, and is critical to efficient running of OOH services.

Background

Out-of-hours (OOH) primary care services deliver “urgent care” outside normal working hours. The UK Department of Health defines urgent care as ‘the range of responses that healthcare services provide to people who require urgent advice and treatment’1,2. Demand for OOH services is increasing in the UK: in 2019, they received 8.6 million calls and completed 6.8 million assessments; 2.9 million via telephone, 0.9 million home visits and 3 million face-to-face consultations, contributing to a cost of £400 million. Historically it has been challenging to establish data for comparison due to variation in recording, changing definitions of OOH and different methodologies of collecting this data3. However, it is expected that demand will continue to rise due to increasing levels of multi-morbidity, complex health needs and changes in service utilisation behaviour4,5. The existing GP workforce is insufficient to meet OOH demand. In response, the Government has proposed the development of a greater skill-mix of non-medical practitioners (NMPs). NMPs include advanced practitioners who are employed to undertake roles traditionally filled by GPs and can therefore shift tasks away from
GPs. Although it is likely that task-shifting is not a novel practice, it is difficult to ascertain the current picture of task-shifting in OOH care in England due to the wide variety in NMP roles (a recent unpublished study found over 500 different job titles for advance practice roles in healthcare) and care pathway organisation. The skill-mix of NMPs working in OOH has historically comprised advanced practitioners from a variety of clinical backgrounds, including primary and emergency services. The effectiveness of task-shifting from GPs to NMPs is still debated, particularly concerning managing complexity. Earlier studies suggest that NMPs are able to deliver safe and effective care with positive patient-reported outcomes, high satisfaction, and decreased costs. However, there is limited OOH specific evidence. One UK trial compared in-hours management of same-day requested assessments, including home visits, between GPs and Advanced Nurse Practitioners (ANPs) and found equivalent outcomes. A Dutch quasi-experimental study examining task-shifting from GPs to nurses in OOH found similar consultation numbers, but a higher medical complexity in patients treated by GPs. Along with the acutely unwell and children under five, there is evidence that more potentially complex patient groups, such as adults over 65 and those with chronic diseases from socioeconomically deprived, areas are accessing care in the evenings. Whilst this may partly be due to barriers to daytime access, there is also a growing culture of 24-hour service demand contributing to OOH service utilisation behaviour. Furthermore, because of the variety of practitioners in OOH, there is a lack of clarity around NMP role definition and competency expectations. This uncertainty has led to negative team perceptions and poor inter-professional relationships with less effective service delivery. In turn, there are challenges recruiting NMPs to OOH settings.

We aimed to understand the experiences of OOH staff in addressing these issues, to understand how task-shifting can be implemented to optimise service effectiveness and patient care. Therefore, we conducted a systematic review of qualitative studies on experiences of task-shifting to NMPs from GPs in OOH primary care services.

**Methods**

ENTREQ guidelines were followed and the study was registered with PROSPERO (Reference: CRD42020218866)
Search strategy, inclusion and exclusion criteria

We performed a pre-planned systematic literature search (database inception to October 2020) across CINAHL, PsychInfo, Cochrane, Medline, Embase and OpenGrey. No restrictions on publication date, country or language were used. In addition to the electronic database search, references of included studies were manually searched for relevant articles. The detailed search strategy is provided in Supplementary Table 1. We also contacted experts in eight countries (Austria, Denmark, Germany, The Netherlands, Norway, Sweden, UK, and USA) to ask whether they knew of any relevant studies, in April 2021. Inclusion criteria were empirical studies with qualitative methods or mixed methods with a qualitative component reporting on task-shifting from GPs to NMPs (including nurses, paramedics and physician assistants) within the OOH primary care setting (outside of routine opening hours).

Study selection and data extraction

All titles and abstracts were initially screened by a single author, then two authors independently screened a 10% sample. Full text versions of potentially eligible articles were reviewed in duplicate and any ambiguity resolved by team discussion (Supplementary Figure 1). Data was extracted from the results sections of included papers using NVIVO V1.3 in preparation for thematic synthesis.

Results synthesis

Thematic synthesis was undertaken as outlined by Thomas and Harden including coding of text line by line followed by the development of descriptive themes, and then generation of analytical themes. Each paper was initially read and relevant qualitative data highlighted to produce a conceptual framework. This allowed iterative formation of codes relating to experiences of OOH task-shifting. Line by line examination of the data allowed inductive exploration and identification of recurring patterns describing individual experiences and perspectives. Common themes were identified in team discussion, which built upon the framework. Findings were then summarised using a narrative approach and were drafted into a summary by one author, then commented on by the other authors. Through several rounds of discussions, an iterative process of hierarchical ordering of themes was repeated until analytical themes describing and/or explaining initial descriptive themes were present, and team consensus reached. This ordering of themes enabled a deeper
understanding of the unifying concepts to explain experiences of task-shifting in OOH.

Risk of bias
The CASP assessment tool for qualitative research\textsuperscript{26,27} was used by two researchers to independently appraise the studies; disagreements were resolved by discussion. This assessment was not used to judge weight of findings, or exclude studies, but to highlight potential bias in the results of included studies.

Results
Study selection
The search identified 2497 papers (Supplementary Figure 1). After removal of duplicates and screening, 42 articles were selected for full text screening. Team discussion excluded a further 36 papers because they were not about OOH activities such as home visits or consultations. Six papers were included in the review. Study characteristics are summarised in Supplementary Table 2. Four were small UK-based, mixed-methods studies with qualitative components, published between 2011 and 2019. Two reported experiences of ANPs conducting home visits in Bristol and Cumbria\textsuperscript{9,17}, one reported a pilot of integrating USA-trained physician assistants (PA) into an OOH service in Scotland\textsuperscript{28}, and one reported the evaluation of a programme to train paramedics to work in OOH in Bristol\textsuperscript{29}. One study in Norway investigated the experiences of nurses triaging patients presenting with respiratory symptoms\textsuperscript{30} and one study in the Netherlands explored the views of GPs and NPs taking part in a quasi-experimental study into optimal skill-mix in OOH primary care\textsuperscript{31}.

Quality of included studies (Supplementary table 3)
The CASP quality assessment identified weaknesses in the reporting of recruitment strategy by three studies\textsuperscript{17,28,29}. Farmer 2011 did not specify how many PAs were included in focus groups nor how they were recruited, but an appropriately broad sample was described. Farmer 2011 also omitted reporting of the interview method, data management and analysis approach which limits appraisal of whether this data addressed the research question. Moule 2018 provided limited description of the thematic approach used to analyse the responses of the three interviews carried out. Yuill 2018 did not state the qualitative analysis technique employed. The reflexivity of the research team was not reported by four studies\textsuperscript{17,28,29,31}. Ethical issues were not fully explored by Lindberg 2021.
Summary of themes

Two main factors were identified which influenced both job satisfaction and efficiency of NMPs in OOH services: (1) a clearly defined skillset, scope of practice and role, and (2) confidence (Supplementary figure 2). These could be enhanced by clear communication of the roles, recognition and collaborative working by GPs, and by training, support and mentorship from GPs. Additional illustrative quotes are available in Supplementary Table 4.

Theme 1 - Clearly defined skillset, scope of practice and role of NMPs

1.1 Defining scope of practice and role

Some OOH services appeared to expect NMPs to function as GPs, although they do not have the same breadth and depth of knowledge and skills. Therefore, it is not surprising that they felt unprepared for certain patients and sometimes avoided them if possible.

“We tend to see them all as equal, but they do have different experiences and abilities (GPs talking about ANP home visiting). (Collins 2019)

[ANPs] mentioned that certain groups of patients are more complex than others and their experience had not always prepared them for this. Common areas included palliative, children’s and mental health care, providing telephone advice, managing co-morbidities and wider prescribing. … [they] would avoid specific patient groups, including children and people with mental health issues, but they would see such patients if they were the only clinician on the shift. (Yuill 2018)

Rather than expecting NMPs to see all patients, the GP cooperative studied in the Netherlands specifically defined certain patient groups as outside the scope of practice of NMPs: patients younger than one year, patients suffering psychiatric complaints, abdominal pain, chest pain, a neck ailment, headache, or dizziness. This enabled the service to run efficiently as long as GPs accepted and collaborated by focussing their work on patients that NMPs could not see.

“If there are two [A]NPs we have to check all patients on the presentation list, not only their urgency level, but also their
complaint. If it’s, for example, an ear infection, I take the next patient and leave the ear infection to the [A]NP.” (GP in OOH cooperative) (van der Biezen 2017)

This study described a clear trade-off in terms of the impact on GP workload of employing more ANPs. When ANPs worked more shifts, GPs’ workload was reduced in terms of the number of shifts they were required to work; however, during shifts with more ANPs, GPs’ workload was increased in terms of longer consultations with more complex cases. On the other hand, NMPs brought some unique skills, which in some cases enabled them to work more efficiently than GPs:

“NPs ask less often for support from the medical assistant compared to GPs; for example, regarding putting on bandages after suturing” (van der Biezen, 2017)

1.2 Recognition of non-medical practitioners’ skillset and role

It is important that colleagues recognise the unique skills offered by NMPs and their role. Greater appreciation of different NMP training backgrounds could avoid potential misunderstandings that occur when roles are viewed as equivalent. In some cases, GPs did not understand the scope of practice of ANPs. ANPs described needing to gain the trust of colleagues in primary and secondary care, who were uncertain about the NMPs’ role. They had some negative experiences of patient contact, especially if clinical triage had first been carried out by a GP.

A lack of understanding about the ANP title and competencies, by patients and other members of the public as well as colleagues including GPs, nurses and other primary and secondary care staff….this is exacerbated by the wide variety of people calling themselves advanced practitioners or nurse practitioners who do not necessarily have the requisite experience or qualifications to undertake the role. (Yuill 2018)

Greater clarity of role expectation enabled NMPs to feel valued and satisfied in their jobs, and clearer communication is needed to ensure the whole team is informed.
PAs reported working most effectively and were most satisfied where there was a distinct gap in a team that they could fill; for example, in the OOH clinic they worked like a supporting GP to a lead GP. (Farmer 2011)

At the start of the shift, I say, “I don’t treat those patients...” then you start doing consultations. Making agreements with the GP who starts later isn’t really working, you’re either busy yourself, or the door of the GP is already closed. (ANP in OOH cooperative) (van der Biezen 2017).

Understanding the scope of practice and limitations of NMPs was emphasised as critical to avoid inappropriate task allocation and to ensure the service runs efficiently.

Some shifts run perfectly, others you think “I wish there was a third GP now.” Especially when there are GPs who pick out patients with skin complaints from the presentation list. You get delay if more patients with abdominal pain show up. (Medical assistant in OOH cooperative) (van der Biezen 2017).

Theme 2 – NMP confidence

2.1 NMP confidence is critical for an efficient service

Lack of confidence was commonly reported by NMPs, leading to anxiety and inefficiencies in the service. Nurses conducting telephone triage reported offering GP appointments to some patients who didn’t need them, because they were worried about missing serious illness, and lacked the confidence to reassure patients and their parents over the phone. This led both to slower triage (as the nurses felt the need to document the history in detail) and to excessive numbers of GP appointments.

“You never sit in that chair and feel confident”. (ANP doing telephone triage) (Lindberg 2021)

Lack of confidence was also given as a reason for NMPs working more slowly in face-to-face consultations: 
“I must say a patient with, for example, a sore, I finish those consultations within a minute and I feel confident to do that. I think NPs are more careful and still take a full history just to be sure they do their work properly.” (GP in OOH cooperative) (van der Biezen 2017)

Some nurses also described lacking confidence in making referrals to secondary care.

“For nurses, having the confidence to talk to doctors about complex presentations and diagnoses can be very challenging, but once you get used to it, it becomes easier...” (Yuill 2018)

Inadequate preparation could exacerbate challenges faced by NMPs and contribute to a feeling of isolation when commencing roles in OOH teams.

“Daytime [practice has] more protection and barriers…the step into OOH was a big one…unknown… no exposure to what is being seen [with] more acute unwell patients” (ANP home visiting). (Collins 2019).

2.2 Training, clinical support and mentorship help to build confidence and autonomy

Individualised training and support were suggested as key for NMPs who may be less experienced in traditional GP-tasks particularly at the beginning of a career. However, it was recognised that the need decreased with time as NMPs gained experience. Investing in role-specific training, particularly at induction could minimise potential role uncertainty and help NMPs feel valued as part of the professional team.

Working autonomously in home visits, ANPs reported “when you start in an organisation, you don’t know who to go to...as you learn, you know who you can go to for support”. There was consensus among the interviewees that having some protected time for learning on- and off-shift would be beneficial...“makes them feel valued and
NMPs viewed the clinical training required to undertake their roles as an opportunity for career development, whilst maintaining clinical practice. Practitioners who are trained to specified professional standards are able to take more clinical responsibilities, which facilitates task-shifting.

It was felt that providing training on a sliding scale would be useful for different healthcare practitioners. A nurse experienced in independent practice in another environment may only need 8 weeks training to achieve the competencies; however, paramedics may need 16 weeks to achieve the competencies. (Moule 2018)

Professional dialogue, case discussion and peer learning within the OOH team could minimise professional hierarchy, especially within the nurse-doctor relationships.

Peer support was mentioned as positive... participants talked about learning from clinical colleagues, sharing experiences...one [ANP] mentioned that “nurses always think hierarchically, that GPs are better than you is the thought/perception, but when you are learning together...you realise that they don’t know things, so you are like them, which breaks down the barriers”. (Yuill 2018).

Clinical mentorship was flagged as an effective way to support NMPs in a different way to clinical training. This should be regular, consistent, and accessible particularly in the first year of practice but also throughout their professional career development.

ANPs acknowledged that the knowledge and support of the GPs was important, although with time this was only required occasionally. (ANP home visiting) (Collins 2019).

GPs and ANPs suggested, “a structured ANP home-visiting induction...needs to be developed to include typical home-visit scenarios, shadow shifts, and a mentorship programme...the opportunity for clinical supervision, case-review discussion, ongoing audit of cases, and a forum to debrief”. (Collins 2019).
Specific support from a designated GP was considered beneficial in ensuring NMP confidence. This may promote job satisfaction and reduce anxiety for those who lack confidence even to approach a GP to ask for support.

**[Paramedic] students recommended concentrated time spent with one allocated mentor and that GP support is increased. (Moule 2018).**

NMPs wanted to practice autonomously and found this to be an attractive aspect of their role; however, it could also provoke stress. Therefore, having access to GP support was still necessary to provide reassurance, validation of clinical decisions and so to build confidence and autonomous practice.

**[Anxiety] about working alone, knowing that support, often by phone, was available but not always immediately contributed to a feeling of isolation and stress as they experienced the need for autonomous decision making. (Yuill 2018).**

Some [ANPs] said one of the most enjoyable aspects was being able to make decisions “knowing your ‘own sphere of competence’, treating patients within this and referring on as appropriate were important”. (Yuill 2018)

Discussion

Summary of evidence

There have been very few qualitative studies on experiences of task-shifting from GPs to NMPs in the OOH primary care setting. This study highlights the importance of clearly defining of NMPs’ roles and scope of practice and providing training, support and mentoring in order to develop their confidence to practice autonomously and efficiently.

Strengths and Limitations

We conducted a comprehensive electronic search of the literature, complemented by grey literature, manual searching and contacting experts. Although 2497 papers were screened, only six matched the inclusion criteria, from only three European countries. The system of OOH primary care varies in different countries so it is
possible that task-shifting activities to NMPs have long existed in many countries and is therefore not novel, resulting in minimal clinical research published in this area\textsuperscript{32}. The low numbers of participants included in the studies raises the possibility of recruitment bias and limits transferability of these findings, even within the UK. Additionally, not all qualitative studies included were of high quality, particularly those that were part of a mixed methods approach. However, this reflects the available literature and emphasises the need for more research around NMPs and OOH task-shifting.

The review team included GPs with experience of OOH work. Whilst this provides strength to the analytical approach and contextual understanding of the subject, it may have affected interpretation of findings through assumptions we make based on our own experiences; however, we attempted to guard against this by strictly limiting ourselves to what was reported in the included studies.

**Comparison with existing literature**

NMPs can deliver safe and effective in-hours primary care, positive patient-reported outcomes and decreased organisational costs, but there is limited data on long-term outcomes for medical complexity and multi-morbidity. Our findings suggest appropriate training, mentorship and inter-professional collaboration can enable NMPs to feel supported in the management of a wider variety of cases in OOH, which promotes job-satisfaction, professional development and efficiency of the service. These findings are consistent with the recognition that NMPs, specifically nurses, desire collaboration to mitigate potential imbalances in workload and dissatisfaction that can occur when working in a subsidiary role. The concept of complexity itself is a continuum dependent on the clinical presentation, and there is evidence that ANPs may be more likely to manage those socially complex cases\textsuperscript{33}, whilst GPs focus on medically complex patients. Thus, a collaborative approach is likely to be useful and relevant to the OOH population.

Much of the evidence for NMP task-shifting comes from non-urgent care such as nurse led chronic care\textsuperscript{22,34-37}. The Royal College of General Practitioners and Health Education England have designed a Capabilities Framework for Advanced Practice in Primary Care. This brings into alignment nursing professionals in primary care. Although not specific to OOH, there is overlap. This framework could reduce uncertainty about NMP role definition and scope of practice.
However, for those NMPs already in the OOH workforce, there remains some confusion about professional identity, and respect for clinical autonomy. Professional identity not only encompasses clinical autonomy, but also confidence and aspiration in professional development. The literature examining role-transfer to advanced practitioners supports the importance of mentorship and supervision. This is likely to be vital in encouraging retention of NMPs and encouraging professional development into leadership roles, thus contributing to the sustainability of the OOH workforce\textsuperscript{20,22,36,38}.

**Implications for research and practice**

NMPs have the potential to support growing OOH workloads through task-shifting. Additional support must include context-specific role preparation, clinical mentoring and a collaborative approach to sharing the caseload efficiently. Standardised core competency frameworks incorporated into current training would engender uniformity and trust in the advanced practitioner role in OOH primary care, and would be relevant to other healthcare settings where NMPs share tasks. However, more research is needed to better understand the optimal team composition, taking into account the trade-off between decreasing the number of GP shifts and increasing the workload for GPs during shifts when more NMPs are working. Where scope of practice has been defined by some OOH services, this is not consistent and appears somewhat arbitrary. Better evidence is needed to underpin decisions and definitions regarding scope of practice for NMPs in OOH services. Further qualitative research is needed into the experiences of NMPs (especially paramedics and physician assistants) in a wider range of OOH services in different countries. It is important to improve understanding of the barriers and enablers to service efficiency and NMP job satisfaction in a range of roles including not only home visits but also face-to-face and telephone triage consultations.

**Conclusions**

Whilst NMPs have the potential to make a substantial contribution to the OOH setting, understanding the experiences of those involved in task-shifting and addressing their specific professional training needs is vital to prepare NMPs for the OOH setting. Clear definition and communication of roles, coupled with mentorship and support could improve efficiency of OOH services and patient care. More
evidence is needed to fully understand the experiences of OOH staff undertaking task-shifting in OOH primary care and how this can be improved.

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Ethics approval was not required for this review. An exemption was obtained from the University of Southampton Ethics committee ERGO reference: 58095.

Contributions of authors
EL contributed towards the data analysis, drafting the first iteration and critically revising the paper. JP contributed to the study methods, led the analysis, and revised the paper. MW contributed towards the study design, analysis and revising the paper. HDM conceived the idea for this study, contributed towards the study design, analysis and revised the paper.

Declaration of any competing interest
None to declare

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