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

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Supplementary Table S1 - Example search strategy

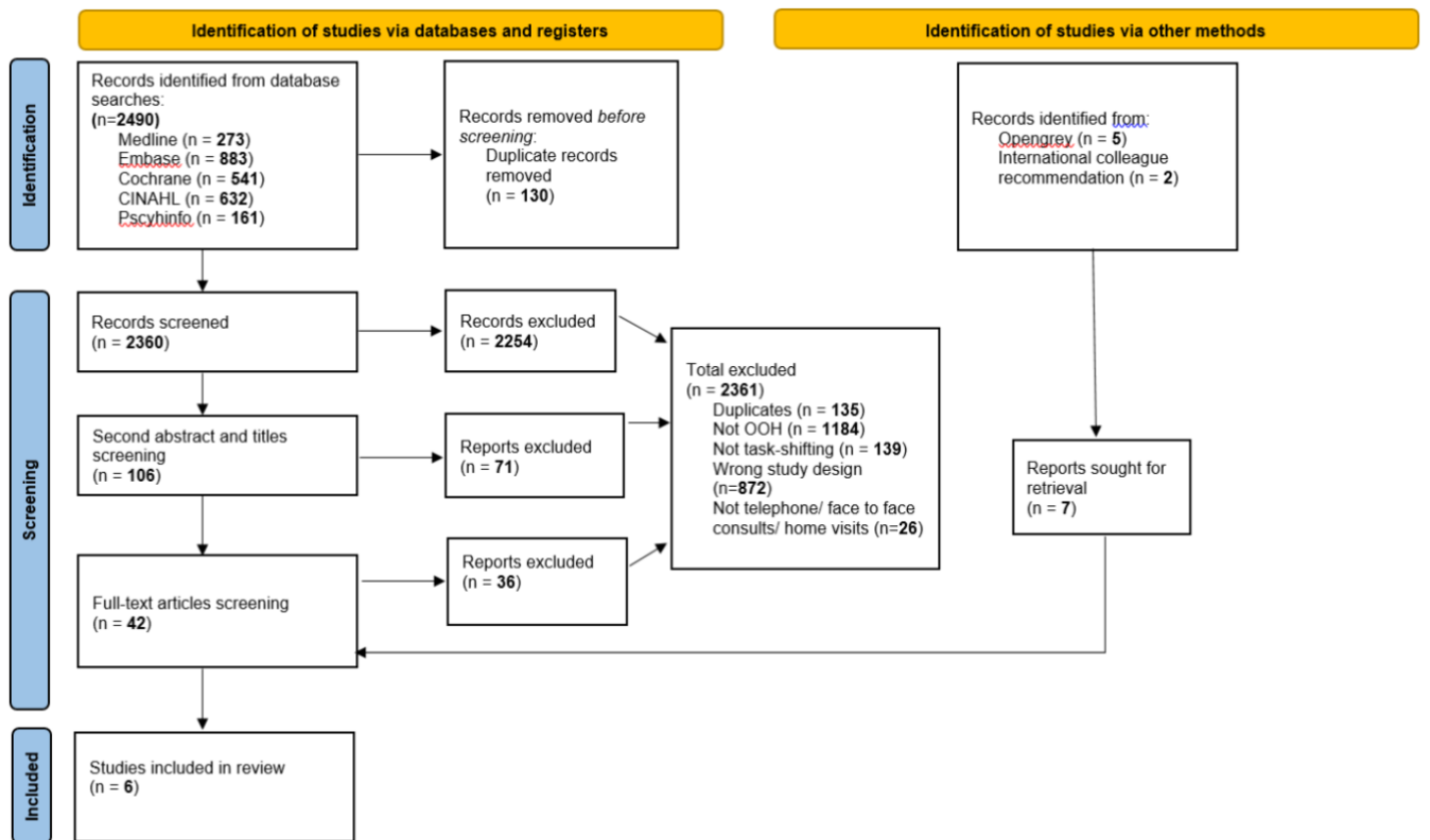Search Name: **FINAL VERSION COCHRANE**
Date Run: 19/10/2020 13:11:43
Comment:

ID Search   Hits
#1 MeSH descriptor: [Nursing] explode all trees   3263
#2 MeSH descriptor: [Nurse Practitioners] explode all trees   299
#3 MeSH descriptor: [Allied Health Personnel] explode all trees 1162
#4 MeSH descriptor: [Community Health Nursing] explode all trees   345
#5 "nurse*" OR "nurse practitioner*" 19661
#6 "Allied health personnel" OR "pharmacist*" OR "paramedic*" OR "physician assistant*" 5038
#7 "Community health nursing":ti,ab 34
#8 MeSH descriptor: [Nurse's Role] explode all trees   318
#9 MeSH descriptor: [Delegation, Professional] explode all trees 4
#10   "Nurse led" or "nurse managed" or "nurse management" or "nurse run" or "nurse delivered":ti,ab   2251
#11   ("Role" OR "competence" OR "performance" OR "skill*") near nurs* 2068
#12   "Substitut*" or "delegat*" or "task shift" or "task-shift" or "task-shifting" and "nurse" or "nurses":ti,ab 12686
#13   #1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12   33498
#14   MeSH descriptor: [General Practitioners] explode all trees   271
#15   MeSH descriptor: [Physicians, Primary Care] explode all trees   152
#16   MeSH descriptor: [Primary Health Care] explode all trees   7209
#17   MeSH descriptor: [Family Practice] explode all trees   1971
#18   MeSH descriptor: [Community Medicine] explode all trees   37
#19   MeSH descriptor: [Home Care Services] explode all trees   2413
#20   "General next practitioner*" OR "GP*" OR "family next practitioner*" 10277
#21   "family practice"   4148
#22   "Primary care" OR "primary healthcare" OR "primary health care" OR "primary next practice*" OR "general next practice*" OR "community care*" OR "community next health*" OR "community medicine*"   27047
#23   #14 or #15 or #16 or #17 or #18 or #19 or #20 or #21 or #22 42511
#24   MeSH descriptor: [After-Hours Care] explode all trees 30

#25   MeSH descriptor: [Ambulatory Care] explode all trees 3623

#26   "Out of hours near care" OR "out of hours" OR "out-of-hours" OR "OOH" OR "After hours near care" OR "after-hours near care" OR "Ambulatory care" OR "Urgent care" OR "unscheduled care" OR "telephone consultation*" OR "home visit"   7187

#27   #24 or #25 or #26   7653

#28   MeSH descriptor: [Qualitative Research] explode all trees   1040

#29   MeSH descriptor: [Interview] explode all trees   7

#30   MeSH descriptor: [Systematic Reviews as Topic] explode all trees   17

#31   MeSH descriptor: [Randomized Controlled Trials as Topic] explode all trees   14512

#32   MeSH descriptor: [Narrative Medicine] explode all trees   5

#33   MeSH descriptor: [Meta-Analysis as Topic] explode all trees 308

#34   MeSH descriptor: [Evidence-Based Practice] explode all trees   1224

#35   MeSH descriptor: [Observational Studies as Topic] explode all trees 49

#36   MeSH descriptor: [Comparative Effectiveness Research] explode all trees 281

#37   "qualitative systematic review*" OR "systematic review and qualitative" OR "evidence synthesis" OR "realist synthesis" OR "realist review" OR "qualitative and synthesis" OR "meta-synthesis*" OR "meta synthesis*" OR "metasynthesis" OR "meta-ethnograph*" OR "metaethnograph*" OR "meta ethnograph*" OR "meta-study" OR "meta study" OR "meta study" OR "systematic review*" OR "qualitative research"   18637

#38   "grounded theory" OR "*interviews as topic" OR "focus groups" OR "narration" OR "personal narratives as topic" OR "qualitative" OR "interview*" OR "participant observation" OR "observational method" OR "story" OR "stories" OR "grounded theory" OR "ethnography" OR "phenomenolog*" OR "thematic" OR "content" OR "conversation*" OR "discourse" near "analysis" OR "mixed method" OR "constant comparative method"   1694261

#39   #28 or #29 or #30 or #31 or #32 or #33 or #34 or #35 or #36 or #37 or #38 1694269

#40   #13 and #23 and #27 and #39   **(576)**

Supplementary Figure S1 – PRISMA Diagram

Identification of studies via databases and registers

Identification of studies via other methods

Identification

Records identified from database searches:
(n=2490)
Medline (n = 273)
Embase (n = 883)
Cochrane (n = 541)
CINAHL (n = 632)
Pscyhinfo (n = 161)

Records removed *before screening*:
Duplicate records removed
(n = 130)

Records identified from:
Opengrey (n = 5)
International colleague recommendation (n = 2)

Screening

Records screened
(n = 2360)

Records excluded
(n = 2254)

Second abstract and titles screening
(n = 106)

Reports excluded
(n = 71)

Full-text articles screening
(n = 42)

Reports excluded
(n = 36)

Total excluded
(n = 2361)
Duplicates (n = 135)
Not OOH (n = 1184)
Not task-shifting (n = 139)
Wrong study design (n=872)
Not telephone/ face to face consults/ home visits (n=26)

Reports sought for retrieval
(n = 7)

Included

Studies included in review
(n = 6)

Supplementary Table S2 – Characteristics of studies

Reference	Country	OOH service	OOH tasks	Participants in individual interviews	Participants in focus groups	Research questions
Collins 2019	England	Cumbria Health On Call	Home visits	6 ANPs	8 GPs	To understand the perceptions of the ANP home visit role amongst the ANPs themselves and the GPs working alongside them.
Farmer 2011	Scotland	Four NHS boards	Face to face consultations	3 PAs working in OOH	*Unspecified*	To evaluate the impact and contribution made by PAs to delivering effective health care
Moule 2018	England	Brisdoc Healthcare services	Telephone triage and face to face assessment	2 paramedic students and 1 medical director	0	To explore expectations and experiences of the paramedic training programme
Lindberg 2021	Norway	Several out-of-hours cooperatives	Telephone triage	0	22 nurses	To explore how nurses assess callers with mild-to-moderate symptoms of respiratory tract infections and their views and experiences on triaging and counselling these callers.
van der Biezen, 2017	The Netherlands	One GP cooperative	Face to face consultations at the health centre	14 GPs, 4 NPs, 5 medical assistants, 4 receptionists	11 NPs	To identify the factors influencing collaboration between GPs and NPs in out-of-hours teams.
Yuill 2018	England	Brisdoc Healthcare Services	Not specified	5 ANPs	0	To explore the role and experiences of ANPs working OOH to support service improvement and to develop

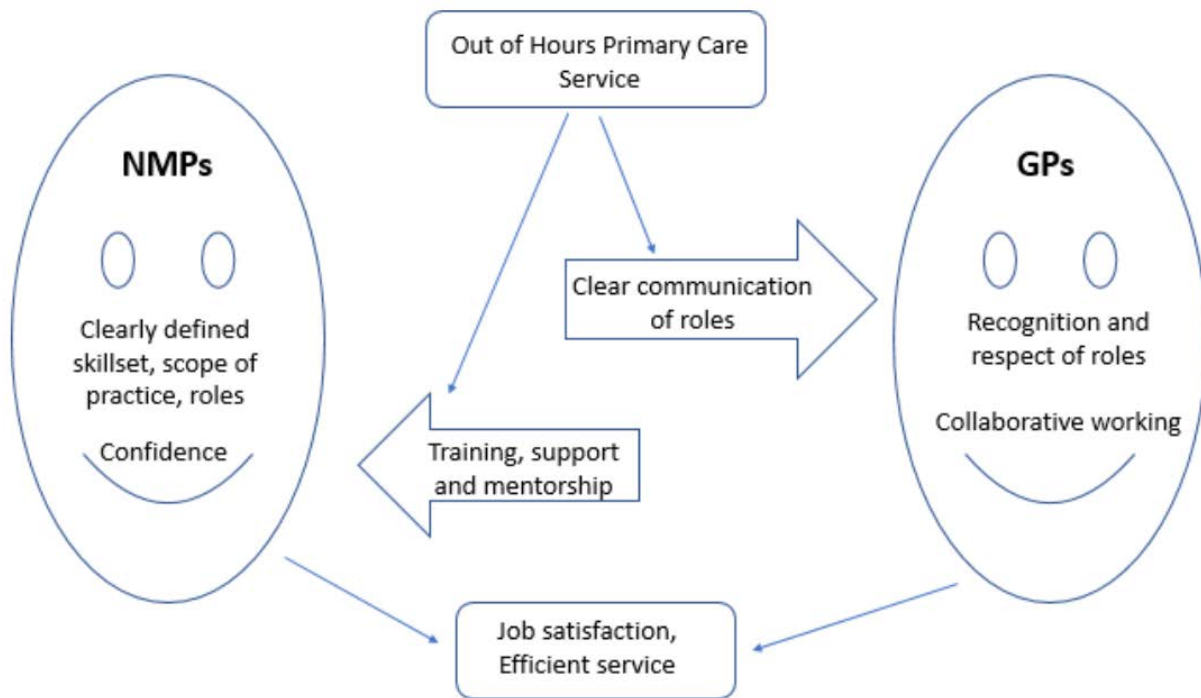|						support and education for ANPs working in this field

Supplementary Table S3 – CASP assessment of studies

Q	CASP Medline Questions	Collins 2019	Farmer 2011	Moule 2018	Yuill 2018	Van der Biezen 2017	Linberg 2021
1	Was there a clear statement of the aims of the research?	YES	YES	YES	YES	YES	YES
2	Is a qualitative methodology appropriate?	YES	YES	YES	YES	YES	YES
3	Was the research design appropriate to address the aims of the research?	YES	YES	YES	YES	YES	YES
4	Was the recruitment strategy appropriate to the aims of the research?	YES	CAN'T TELL	CAN'T TELL	CAN'T TELL	YES	YES
5	Was the data collected in a way that addressed the research issue?	YES	NO	YES	YES	YES	YES
6	Has the relationship between researcher and participants been adequately considered?	YES	NO	NO	CAN'T TELL	CAN'T TELL	YES
7	Have ethical issues been taken into consideration?	YES	YES	YES	YES	YES	NO
8	Was the data analysis sufficiently rigorous?	YES	NO	CAN'T TELL	CAN'T TELL	YES	YES
9	Is there a clear statement of findings?	YES	YES	YES	YES	YES	YES

Question 10 – How valuable is the research?					
Collins 2019	Farmer 2011	Moule 2018	Yuill 2018	Van der Biezen 2017	Linberg 2021
There is discussion about the contribution the study makes to the existing understanding about ANPs successful at task-shifting. Implications for practice are suggested. Further research suggestions and policy and practice guidelines	There is discussion about the contribution the study makes to the existing understanding about PAs in task-shifting roles. Recommendations for the future employment role of PAs are made. Suggestions made for future practice that ANPs could also fulfil this role	There is discussion about the contribution the study makes to the existing knowledge of training paramedics in OOH. The training was declared a success and a valuable learning contribution to OOH organisations Limited discussion of findings in relation to current	There is discussion about the contribution the study makes to the existing knowledge of ANP OOH training. Relevant literature is discussed but there is minimal recommendations for further research	There is discussion about the contribution the study makes to the existing understanding of ANPs within the OOH team. Relevant literature is discussed, as is the transferability of the results.	There is discussion about the contribution the study to the understanding of ANP triage and relevant to existing literature. Recommendations are made for organisational aspects of Nurse triage in OOH No further research recommendations made, Transferability implied.

| suggestions are made. | | literature, policy and practice No suggested research areas highlighted. | | Minimal recommendations made for further research. | |

Supplementary Figure S2 – Theme configuration

Supplementary Table S4 – Additional illustrative quotes

Theme/ Sub-theme	Quote	Reference
Theme 1 - Clearly defined skillset, scope of practice and role of NMPs		
1.1 Defining scope of practice and role	"It's important to be very specific to GPs about what patients we don't treat. Often they say 'Oh yeah, I know,' but turns out they don't know it at all." (ANPs in OOH cooperative)	van der Biezen 2017
	There were restrictions to patient conditions seen by the [A]NPs, including no children, limited mental illness, no confirmation of death and no pregnancy-related problems. (GP talking about ANP home visiting)	Collins 2019
	Current UK legislation prohibits PA prescribing…this was reported as more of a hindrance in the out of hours clinic compared to other settings.	Farmer 2011
	Several participants [ANPs] highlighted perceptions about ANPs' competency compared with that of GPs. For example, they experienced difficulties making referrals to secondary care and were asked if a GP had assessed patients before admission. There was a sense that ANPs needed to be more assertive about their abilities when making referrals.	Yuill 2018

1.2 Recognition of non-medical practitioners' skillset and role	Often, these GPs expressed misconceptions about [A]NPs' education and legislation governing NP scope of practice. (GP in OOH cooperative).	van der Biezen 2017
	Most interviewees reported PAs working at a 'mid-level', similar to a nurse practitioner or a doctor in training. Level of working depended on whether there were gaps in the team [and] the extent to which the PA could extend their practice.	Farmer 2011
	Like having another doctor but they also bring all the nursing side". "We tend to see them all as equal, but they do have different experiences and abilities (GP talking about ANP home visiting).	Collins 2019
	The ANPs felt that, although they were replacing GPs in the home visits, as nurses they brought a "caring perspective" and saw things from "a wider viewpoint" than some doctors. Their creative, patient, family-inclusive decision making, and communication skills were also mentioned as key to their role. (GP talking about ANP home visiting).	Collins 2019

Theme 2 – NMP confidence

2.1 NMP confidence is critical for an efficient service	Some of the informants described a constant uncertainty concerning their own assessment of callers. This feeling of uncertainty could remain for hours after their shift ended. They feared having missed symptoms indicating grave disease or they feared an unexpected and serious infection. Their previous experiences with the unpredictable and abrupt progress of disease contributed to this fear ([A]NP doing telephone triage).	Lindberg 2021
	I think we [ANPs} are more anxious about making mistakes, due to the vulnerable position of NPs in a relatively new profession. (ANP in OOH cooperative)	van der Biezen 2017
	Both [paramedic students] felt their ability to respond to a wide range of conditions might be compromised by gaps in their knowledge, and having access to GPs to verify decisions was reassuring.	Moule 2018
2.2 Training, clinical support and mentorship help to build confidence and autonomy	Further learning and knowledge is required to work OOH…there is a 'big gap of learning for nurses and paramedics when you start in the acute setting'	Yuill 2018
	GPs stated a need for "the development of telephone triage for the ANPs [as] one important area of training" within Urgent Treatment Centres. (GP talking about ANP home visiting).	Collins 2019
	Initial hostility to PAs by team members quickly gave way to expressions of their value to teams. Informative induction and presentations about PAs were crucial to their assimilation. Team members thought PAs provided continuity and acted as an educational resource for staff in training.	Farmer 2011
	We are different, but we work the same, but I do feel that it is nice knowing there is someone back at base that you can contact for support. [ANPs about home visits]	Collins 2019
	Participants also said shifts were often very busy with little time for quality supervision and that this can cause stress…they suggested the provision of protected time away from the working environment. An ANP working in an UTC reported positive experiences when "the same GP on every shift guided and helped.	Yuill 2018

	When discussing autonomy, participants said they "enjoy the autonomy and not having to refer to anyone. Can examine, treat and discharge without other involvement", and that "there is support and colleagues around, but many decisions have to be made by you. We are sat in our own room with little resource, just you and the patient".	Yuill 2018