



Deposited via The University of Sheffield.

White Rose Research Online URL for this paper:

<https://eprints.whiterose.ac.uk/id/eprint/214148/>

Version: Published Version

---

**Article:**

Wood, E., King, R., Robertson, S. et al. (2024) Advanced nurse practitioner well-being: A 4- year cohort mixed methods study. *Nursing Open*, 11 (7). ISSN: 2054-1058

<https://doi.org/10.1002/nop2.2218>

---

**Reuse**

This article is distributed under the terms of the Creative Commons Attribution-NonCommercial (CC BY-NC) licence. This licence allows you to remix, tweak, and build upon this work non-commercially, and any new works must also acknowledge the authors and be non-commercial. You don't have to license any derivative works on the same terms. More information and the full terms of the licence here:

<https://creativecommons.org/licenses/>

**Takedown**

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing [eprints@whiterose.ac.uk](mailto:eprints@whiterose.ac.uk) including the URL of the record and the reason for the withdrawal request.

## REVIEW ARTICLE

# Advanced nurse practitioner well-being: A 4-year cohort mixed methods study

Emily Wood<sup>1</sup>  | Rachel King<sup>2</sup>  | Steve Robertson<sup>2,3,4</sup>  | Angela Tod<sup>2</sup> |  
Michaela Senek<sup>1</sup>  | Beth Taylor<sup>2</sup>  | Tony Ryan<sup>2</sup> 

<sup>1</sup>The School of Medicine and Population Health, The University of Sheffield, Regent Court, Sheffield, UK

<sup>2</sup>Division of Nursing and Midwifery, The School of Allied Health Professionals, Nursing and Midwifery, University of Sheffield, Sheffield, UK

<sup>3</sup>Leeds Beckett University, Leeds, UK

<sup>4</sup>Waterford Institute of Technology, Waterford City, Ireland

## Correspondence

Emily Wood, The School of Medicine and Population Health, The University of Sheffield, Regent Court, Regent Street, Sheffield S1 4DA, UK.  
Email: [e.f.wood@sheffield.ac.uk](mailto:e.f.wood@sheffield.ac.uk)

## Funding information

Royal College of Nursing

## Abstract

**Aims:** To examine changes in advanced nurse practitioner (ANP) well-being, satisfaction and motivation over a four-year period.

**Design:** Longitudinal Cohort study.

**Methods:** Surveys were carried out each year from 2019 to 2022 with the same cohort of ANPs in the United Kingdom (UK). The survey consisted of demographics, questions on contemporary issues in advanced practice, National Health Service (NHS) staff survey questions and validated questionnaires. A core set of questions were asked every year with some changes in response to the COVID-19 pandemic.

**Results:** Response rate ranged from 40% to 59% and appeared to be affected by COVID-19. Staff satisfaction with pay and the well-being score were stable throughout. Other questions on well-being, job satisfaction and motivation saw statistically significant reductions after 4 years. Open-ended questions about ongoing well-being concerns show participants are concerned about exhaustion levels caused by workload, staffing issues, abuse from patients and colleagues' mental health.

**Conclusion:** The findings highlight a decline in ANP well-being, job satisfaction and motivation post-COVID-19. Reasons for this, explored in the qualitative data, show that ANPs have faced extremely difficult working conditions. Urgent action is required to prevent a workforce retention crisis as many nursing staff are close to retirement and may not be motivated to remain in post.

**Impact:** This study has followed ANPs through the most challenging years the NHS has ever seen. Job satisfaction, motivation and enjoyment of the job all significantly reduced over time. In many areas, the ANP role has been used to fill medical workforce gaps, and this will become harder to do if ANPs are dissatisfied, disaffected and struggling with stress and burnout. Addressing these issues should be a priority for policymakers and managers.

**Patient or public contribution:** None as this study focussed on staff. Staff stakeholders involved in the design and conduct of the study.

This is an open access article under the terms of the [Creative Commons Attribution-NonCommercial](https://creativecommons.org/licenses/by-nc/4.0/) License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited and is not used for commercial purposes.

© 2024 The Author(s). *Nursing Open* published by John Wiley & Sons Ltd.

## KEYWORDS

advanced nurse practitioner, ANP, COVID-19, nursing, stress, well-being

## 1 | INTRODUCTION

Advanced nursing practice has been introduced in a wide range of health and social care settings internationally (Schober et al., 2020). In the UK, a range of professions have developed advanced practice in addition to nurses, such as pharmacists, physiotherapists and paramedics, each requiring specific training in clinical practice, education, research and leadership usually at master's level (Health Education England, 2017). Advanced practitioners have an expert knowledge base, complex decision-making skills and specific clinical competencies (although these vary between specialities) (Schober et al., 2020). They work across a range of different healthcare settings (Kennedy & Catton, 2020) and are considered a stable part of the workforce (Adams et al., 2021). In the UK, advanced practice is not specifically licenced or regulated; therefore, the scope varies across healthcare providers. It has been difficult to ascertain how many ANPs there are in the UK and whether they are working at the same level in comparison to each other or in comparison to other countries (Fothergill et al., 2022). This study was designed to investigate the specific experiences of ANPs across a range of healthcare settings in the four UK nations, to address this lack of knowledge. During the study, the COVID-19 pandemic began, enabling the exploration of how this impacted the well-being of ANPs across the UK. Due to the global nature of the pandemic and the global implementation of advanced practice, the findings will have international relevance and relevance to advanced practitioners from professional backgrounds other than nursing.

### 1.1 | Background

Workforce challenges have plagued global healthcare systems for many years, there are many local, national and international reasons for this but in almost all cases increasing training has not kept up with increasing populations (Drennan & Ross, 2019). This has offered opportunities for innovative roles and advanced practice for many professions including nursing (Schober et al., 2020). Advanced nurse practitioners (ANPs) are often in senior clinical roles within health services. Many have organisational and clinical responsibilities (Health Education England, 2017), whilst this can lead to a degree of autonomy, which is positive for professional well-being, it can also lead to additional workload and stress. It has been estimated that the number of ANPs in the United States (US) more than doubled between 2010 and 2020 (American Association of Nurse Practitioners, 2022) with similar growth in many other countries (Maier et al., 2016). Despite this, many studies of ANPs have

included small numbers of participants and limited consideration of organisational factors (Hoff et al., 2019).

Nurse well-being has far-reaching consequences (NASEM, 2021). It impacts on patients and how they perceive the quality of care they receive (McClelland et al., 2018), and it affects the organisation they work for. Professional well-being links to job satisfaction and ultimately decisions about remaining in nursing (Doble & Santha, 2008); however, some healthcare organisations do not always promote nurse well-being (Phiri et al., 2014). Although nurses may be knowledgeable about self-care strategies, these may not translate into self-care (Ross et al., 2017). Improved work environments can lead to improved retention (Van den Heede et al., 2013). Specifically, ANPs have noted feelings of being exposed, workplace marginalisation and the notion of being between two roles as statistically significant in impacting upon workplace well-being (Jangland et al., 2016; Wood et al., 2021). Steinke et al. (2018) highlight a range of factors, including employment conditions and workplace relationships as key sources of workplace dissatisfaction and threats to well-being for ANPs (Steinke et al., 2018). Furthermore, large-scale studies have noted elevated levels of burnout within the ANP population (Kapu et al., 2021).

COVID-19 emerged in late 2019 and was a major public health emergency in Europe by March 2020. In the UK measures to help the health service deal with the crisis included building of temporary hospitals, halting routine surgery and large-scale redeployment of staff to key areas (Goyal et al., 2021). As ANPs are highly trained and experienced staff in senior roles, many were redeployed to areas of need or to new services like testing and later vaccination centres (Wood et al., 2021). Although there were often sound strategic reasons for redeployment, this does not take away from the human cost to the staff involved, who, in a time of extreme stress, were moved away from their support networks to areas they may not have worked in for many years, if ever (Kennedy et al., 2022). This and other issues, such as shortage of protective equipment, colleague sickness and concern for family members, have affected staff well-being and the way they view their work (Wood et al., 2021). Two other papers (Rogers, Lamarche et al., 2022; Rogers, Windle et al., 2022) highlight low levels of ANP well-being during COVID for UK-based ANPs, especially relative to US and Canadian counterparts. Furthermore, the authors suggest that the working conditions and experiences of ANPs during this period contributed to high levels of burden and threats to resilience. Previous studies have used cross-sectional designs to explore ANP well-being. This study aims to provide an important longitudinal perspective of ANP well-being, job satisfaction and motivation, capturing changes during the COVID pandemic, and providing in-depth qualitative findings.

## 2 | THE STUDY

### 2.1 | Aims

This research aims to examine ANP workplace experiences and well-being over a 4-year period.

### 2.2 | Objectives

- To gather demographic data.
- To measure any changes in well-being and job satisfaction over 4 years.
- To identify any changes in motivation over 4 years.
- To explore particular concerns in more depth using free text responses.

### 2.3 | Design

A four-year longitudinal mixed methods cohort study of advanced nurse practitioner well-being in the United Kingdom.

### 2.4 | Participants

Registered nurses who identified as ANPs and worked in the UK were eligible to join the cohort. They were recruited via nurse networks and social media. There was no target sample size as there is no reliable estimate of actual numbers of ANPs in the UK. Details of their identification and recruitment in year one (2019) have been described before (Wood et al., 2020). A second round of recruitment took place in spring 2020 (pre-pandemic), using the same recruitment methods. This resulted in a total cohort of size of 247.

### 2.5 | Data collection

An online questionnaire, using open and closed questions, was sent to all members of the cohort in February–March every year for 4 years (2019–2022), resulting in 2 years of 'pre-COVID-19' data and 2 years of 'during COVID-19' data. The core data set has been described before (Wood et al., 2020) but the dataset begins with questions about the nurse, their role (title, pay band, specialty, evaluation, teaching, leadership and research), their organisation (management structures, supervision, peer networks, accessibility of training and development) and views about credentialing. Demographic questions (age, gender, ethnic background, sexuality, disability and work-related stress) were also included.

The survey includes the short Warwick and Edinburgh Mental Well-being Scale (SWEMWBS) scale (Ruth et al., 2007) which is a validated measure of well-being, for which clinical and population

norms have been published. SWEMWBS total score must be converted for comparison with other research but conversion tables have been published by the scale's authors (Stewart-Brown et al., 2009). It will be possible to see not only how the cohort's well-being changes over time but also, where appropriate, to make comparisons with other populations. Permission to include the SWEMWBS scale was received from the University of Warwick.

The WEMWBS tool was developed by the Universities of Warwick and Edinburgh to measure well-being in the Scottish population, which has subsequently been used widely to measure well-being in nursing research both nationally and internationally (Oates et al., 2017; Rogers, Lamarche et al., 2022).

The dataset also includes some questions from the NHS staff survey. Questions were included that comprised nine of the nationally reported Key Findings (Picker Institute, 2017), see Table 1. Permission to use the questions from the NHS staff survey was received from the Picker Institute.

In the final 2 years, there were modifications made to the core dataset to cover the emerging issue of COVID-19, changes to the NHS staff survey (Picker Institute, 2021) and increasing concerns about staff retention, both in general (The King's Fund, 2019) and due to COVID-19 (Kim et al., 2020).

Once participants had completed the consent form, they were sent the survey in an online format. Paper formats were available on request. The data set consisted of a survey containing questions about their role, organisation, experiences, well-being and demographics. Completion of this survey allowed participants to opt-in to a prize draw to win a voucher (there was a separate draw each year).

Cohort participants were sent an initial email and then two follow-ups if they did not complete the questionnaire. Reasons for non-response were not recorded due to the nature of the data collection.

TABLE 1 National Health Service staff survey key finding domains included in the core dataset for the cohort study.

Key finding code	Key finding descriptor
1	Staff recommendation of the organisation as a place to work or receive treatment
2	Staff satisfaction with the quality of work and care they are able to deliver
4	Staff motivation at work
7	Percentage of staff able to contribute to improvements at work
8	Staff satisfaction with the level of responsibility and involvement
9	Effective team working
14	Staff satisfaction with resourcing and support
17	Percentage of staff feeling unwell due to work-related stress in the last 12 months
32	Effective use of patient/service user feedback

## 2.6 | Ethical considerations

This research was reviewed by the Institutional research ethics committee and given approval on Sept 3rd 2018 (ref number Redacted), with amendments approved in 2019 and 2020. Informed consent to participate was received from all participants. This research was carried out in accordance with the principles of the Helsinki Declaration.

## 2.7 | Data analysis

Closed-question data for each year were described. The response rate for each year was calculated as the percentage of people who completed the survey out of all those who agreed to be on the cohort. Cohort studies use a group-level analysis. The same group was sent the survey each year. Means for the final year were compared with the previous year using a *t*-test, this was a clinically relevant comparison – the acute phase of the pandemic versus the chronic phase. Means for the final year were compared with the first year using a *t* test (the whole cohort period). We did not compare all time points as this would have made the chance of a false positive likely. Due to the large number of tests performed, statistical significance was assumed at  $p < 0.01$ . Data were managed using SPSS Statistics 26©.

We collected data that is aligned to a small number of questions asked within the NHS Staff Survey. The NHS Staff Survey is carried out annually and aims to provide insight into a number of important aspects of day to day working experience. The survey is articulated via what is called key findings, collections of responses to individual questions. We have used the term key findings here, and they are the same as those asked within the NHS staff survey from 2017 (Picker Institute, 2017).

Open-question data related to staff concerns were imported into Quirkos© software and analysed thematically at the semantic and latent level (Braun & Clarke, 2006). Three researchers (EW, RK and SR) contributed to the analysis. All are registered nurses with experience in qualitative data analysis. Initial coding was undertaken by EW. Codes were then grouped into categories by EW. These categories were then integrated and collapsed to form subthemes that were grouped into final, overarching themes. This process was completed by EW and TR and final themes sense-checked by all team members.

A further level of analysis, integrating the closed- and open-question data, took place during the preparation of this paper. This involved linking both sets of data to previous empirical work and the outcomes of this integration are presented in the discussion section.

## 3 | RESULTS

We recruited 143 ANPs in the first year, 52% from primary care (Wood et al., 2020) and an additional 104 in year two. The total cohort size was 247. However, by year four some participants were no

longer contactable, 9% were lost to follow up. Table 1 shows the number (*n*) and response rate for each year and some of the key well-being and satisfaction findings. Study participants were 87% female ( $N = 119$ ), 96% white British ( $N = 131$ ). Eighteen per cent of participants were in the 31–40 age bracket ( $N = 25$ ), 45% 41–50 ( $N = 61$ ), 35% 51–66 ( $N = 48$ ) and 2% over 66 ( $N = 3$ ). The fact that it went back up in the final year suggests 2021 was unusually low. This was March 2021 and the end of the first winter with COVID-19 in the UK, which we believe accounts for this response rate.

Satisfaction with pay has remained stable with between 50% and 60% of participants being satisfied with the pay they receive across all 4 years (see Table 1). The well-being score (SWEMWBS) is also stable and not significantly different from the UK average (Ng Fat et al., 2017). Table 2 indicates responses to five key items related to well-being. These data demonstrate stability across each item, with the exception of 2021. During 2021, there is an increase in the proportion of respondents who reported leaving their job (although non-significant). There is also a statistically significant increase in those experiencing work-related stress.

There were several questions (see Table 3) on motivation, satisfaction and well-being in the survey. Many of these had a statistically significant reduction by the end of the cohort period. Notable is the reduction in the proportion of respondents who 'look forward to work', who are 'enthusiastic about my job', who feel 'able to do my job to a standard I am personally pleased with'. Two items relate specifically to the quality of care, again the proportion of respondents confident that they are able to provide good quality of care diminishes during the length of the longitudinal study. In the case of two items this change is statistically significant.

This was reflected in a statistically significant reduction for Key Finding 4: staff motivation (NHS staff survey key findings) (see Table 4). Despite a statistically significant reduction in the question

TABLE 2 Participant numbers and their well-being and satisfaction for each year of the cohort.

	2019	2020	2021	2022
<i>n</i>	86	137	97	108
Response rate (%)	59	56	40	48
% considering leaving job	<sup>a</sup>	43 <sup>b</sup>	60	54
% considering leaving nursing	<sup>a</sup>	25 <sup>b</sup>	25	18.6
% work-related stress	44.2	41	51*	43.5
SWEMWBS (SD)	22.96 (3.1)	24.11 (3.7)	22.45 (3.6)	22.97 (3.6)
% of respondents who are satisfied with their pay	59.3	52.6	58.8	56.6

<sup>a</sup>Question not asked in 2019.

<sup>b</sup>Question asked as part of the COVID-19-specific survey in June 2020 (Authors., 2021).

\*Statistically significantly higher than the other 3 years;  $p < 0.001$ .

TABLE 3 Annual responses to individual survey questions about motivation and satisfaction.

Question	Calculation of results reported	2019	2020	2021	2022
I look forward to going to work	% of staff selecting 'Often'/'Always'	77.9	73.0	77.0	61.1 <sup>a,b</sup>
I am enthusiastic about my job	% of staff selecting 'Often'/'Always'	91.9	82.9	81.4	81.1 <sup>b</sup>
I am able to do my job to a standard I am personally pleased with	% of staff selecting 'Agree'/'Strongly Agree'	84.9	81.8	73.2	72.2 <sup>b</sup>
I am satisfied with the quality of care I give to patients / service users	% of staff selecting 'Agree'/'Strongly Agree'	91.9	92.0	92.8	88.0
I am able to deliver the care I aspire to	% of staff selecting 'Agree'/'Strongly Agree'	72.1	80.7	80.4	67.6 <sup>a</sup>

<sup>a</sup>Statistically significantly different from the previous year.

<sup>b</sup>Statistically significantly different from the first year.

TABLE 4 The cohort's yearly responses to key findings about motivation and satisfaction.

Key finding	2017 UK NHS staff survey nurses mean	Cohort mean 2019 (SD)	Cohort mean 2020 (SD)	Cohort mean 2021 (SD)	Cohort mean 2022 (SD)
KF2 Staff satisfaction with the quality of work and care they are able to deliver	3.79	4.03 (0.76)	4.15 (0.69)	4.13 (0.79)	3.92 (0.77)
KF4 Staff motivation at work	3.99	4.21 (0.52)	4.21 (0.56)	4.12 (0.65)	4.01 (0.61) <sup>a</sup>

<sup>a</sup>Statistically significantly different from the first year.

'I am able to deliver the care I aspire to', this did not lead to an overall statistically significant reduction in Key Finding 2: 'staff satisfaction with quality of work and care they are able to deliver'.

### 3.1 | Qualitative results

Asking categorical and Likert questions about well-being, in the 2022 survey we also asked some open-ended questions to further explore the impact of the COVID-19 pandemic on ANP well-being. 'Do you have ongoing safety/wellbeing concerns for staff in your area of work (please describe what is happening in your area)?'. All participants entered an answer, 33% had no concerns, and 67% did express concerns. Data fell into two broad categories, reasons for well-being concerns and the impact on well-being.

#### 3.1.1 | Reasons for well-being concerns

Several participants described factors which impacted staff well-being in their workplaces. Key concerns related to excessive workloads, low staffing levels, tensions related to a decline in public opinion of healthcare services and concerns about the impact of COVID-19 on patient care.

Work pressures and sickness were often described as circular; that is, high workload led to stress amongst staff who then took sick leave, leading to higher workload for those who remained working. High workload was often linked to increasing patient acuity or complexity. There were no reports of lack of personal protective equipment as a safety or well-being concern in 2022 unlike 2020, but there were continuing concerns over staffing levels (Wood et al., 2021):

We are seeing an increasing number of referrals.  
(ANP 42)

We are short staffed – we have lost several members of staff due to feeling exhausted; this is putting additional strain on the staff that remain.  
(ANP 38)

A further factor impacting staff well-being was a decline in the relationship between patients and healthcare teams, felt by some to be exacerbated by media coverage of the pandemic:

Our reception staff are dealing with patient abuse of some sort every day, patients with unrealistic expectations, angry at struggling to get appointments. Clinicians report anger from patients too on a regular basis. The media's slating of General Practice has exacerbated this and although we have NEVER closed and have all worked through the pandemic, doing extra sessions to undertake flu and COVID vaccination campaigns on top of our usual work, many of our patients still ask us when we will be open and seeing them (often even when they are physically in the consulting room with us!)  
(ANP 28)

An increase in numbers of patients and duration of consultations also impacted participant well-being. Furthermore, there were concerns about the increased risk related to remote consultations, and anxieties when seriously unwell patients chose not to follow clinical advice due to a fear of infection.

Initially in primary care it was quieter however now it is much busier, and it takes much longer to do things, for example having to clean the room between patients, patients tend to take longer to deal with over the phone and the risk and uncertainty management is much higher when we do things remotely.

(ANP 16)

Things done remotely where face to face would have been ideal in a normal situation but it's a case of balancing the risks.

(ANP 2)

Difficulties when trying to refer for routine appointments/investigations etc. needing to follow up patients more frequently. Patients trying to stay out of hospital which had an impact when trying to get them admitted for concerning symptoms. I had at least two patients who refused to be admitted for potentially life-threatening symptoms because they were scared of contracting COVID-19.

(ANP 29)

ANPs in this study described the challenges faced when providing care in the community, with scarce resources and limited access to medical support.

I work in community palliative care - more people have been dying at home and not wanting admission to hospital or hospice. Limited support from GPs who won't do face to face visits. A lot more prescribing and also at times shortage of some of medications we use at end of life.

(ANP 42)

Very difficult to refer patients onto other services following assessment as they were closed. very little services were working during the pandemic

(ANP 3)

Increases in workload were also associated with staff redeployment and sickness:

50% depletion of my heart failure specialist nursing team as redeployed to critical care - thus often working a 50-hour week

(ANP 105)

My team's re-deployment to ICU has massively increased workload,

(ANP 10)

The minority of responses revealed how the pandemic improved their workload and care provision due to a reduced number of patients:

Feel standard as good if not better. Lower contacts mean more thorough and more time for patient more serious complaints

(ANP 13)

I think care provided has been better as there has been no exit block problems and enough staff to look after patients quickly and safely

(ANP 30)

### 3.1.2 | Impact on well-being

These issues had a personal impact on the well-being of participants including stress, exhaustion, burnout and triggering pre-existing common mental health conditions such as depression and anxiety. The continued concern over the welfare of staff was predominantly related to stress, overwork and abuse rather than to the direct effects of catching COVID-19.

[There is a] Definite culture of burnout and exhaustion among all staff/disciplines

(ANP 98)

Despite these reported impacts, there was some frustration expressed that this wasn't taken as seriously as it should be.

Staff [are] struggling, [but] GP partners unwilling to acknowledge - staff wellbeing described last week as 'the fluffy stuff'.

(ANP 103)

## 4 | DISCUSSION

This study has explored advanced nurse practitioner (ANP) well-being, satisfaction, and motivation over a four-year period using a survey design. Motivation and satisfaction scores have decreased across all associated questions in this study, with most of that decline coming in the final year (2022), rather than at the height of the pandemic crisis (2021) and then slowly rebounding as the crisis abated in 2022 as might have been expected. This could indicate a lasting and ongoing toll of the pandemic which could remain an issue for health service retention for some time. Others have noted the impact of the pandemic upon the nursing profession more broadly (Stelnicki et al., 2020), and threats to well-being have been noted as a consequence of pandemic conditions (Ryan et al., 2022). Furthermore, Peck and Sonney (2021) highlight what they term '*cataclysmic effects.... across personal, clinical, education,*

and research domains (p422)' of the COVID-19 pandemic for a large cohort of paediatric ANPs in the USA (Peck & Sonney, 2021). Rogers, Windle et al. (2022) highlight elevated levels of poor well-being amongst UK ANPs compared with US and Canada counterparts during the COVID pandemic, citing organisational pressures, inability to provide competent care following redeployment and extended working hours as potential sources of burden (Rogers, Windle et al., 2022).

The qualitative findings on concerns related to well-being and safety provide important insights into the statistically significant increase in work-related stress reported by participants in the survey post the start of the pandemic. Our data have a distinct advantage in that it tracks well-being and other outcomes across a 4-year time period. Prior to the pandemic, advanced clinical practitioners reported a range of challenges related to their role, such as lack of clear governance structures, variability in training and lack of clear career pathway, with calls for standardisation of these areas to improve retention (Fothergill et al., 2022). The pandemic has further contributed to the demands and unease they experience. Intention to leave and work-related stress spiked in 2021 but, unlike motivation, appear to have returned to almost pre-pandemic levels by March 2022. This appears contradictory. However, it is possible to theorize that the initial shock of the pandemic led to despair and stress and although that has to some degree passed, staff continued to work but with a lower motivation and satisfaction. Further research will be needed to understand if this is the new normal or will return to pre-pandemic levels over time. Although it is consistent with a review of pandemic nursing which found despite the increased support from team colleagues, nurses had to juggle depleting resources and compensate for organisational failures when experiencing pandemic conditions (Ryan et al., 2022).

Patrician et al. (2022) propose a model of nurse well-being that is relevant here in seeking to further interpret our findings. Although not used to guide our study at the outset, they identify both individual and organisational factors that mitigate the impact of workplace stress, and interestingly their work is situated in a COVID-19 context. Individual antecedents include confidence, trust and security, and we would expect ANPs to be well-placed in these regards, due to their (generally) more senior and autonomous roles. However, they also cite access to resources and a sense of belonging as key organisational antecedents and these sit alongside access to networks and teamwork as organisational attributes that relate to well-being (Patrician et al., 2022). Our qualitative data appear to authenticate the importance of those human resources identified by Patrician et al. (2022). It might be argued that these are the very conditions that are threatened during the course of our study as a consequence of COVID-19 and are those that had a statistically significant impact on well-being. This also mirrors findings from the ICON (Impact of COVID on the Nursing and Midwifery workforce) study that found what nurses wanted more of in the early stages of the pandemic included PPE, testing and isolation and improved support for staff (Ball et al., 2022).

Nurses make a large contribution during pandemics but with serious implications for themselves and their families (Ryan et al., 2022).

Motivation and satisfaction of ANPs should be monitored, as continued decreases, or even failure to return to pre-pandemic levels could offer long-term retention concerns. Organisations should explore strategies to enhance the working environment including well-being initiatives in order to improve workforce retention (Doble & Santha, 2008; Stevenson & Farmer, 2017; Van den Heede et al., 2013).

Although overall well-being does not appear to have changed there are some differences noted in different settings. The data revealed that two-thirds of participants reported serious concerns about staff well-being. This does not only have an adverse impact on individuals and teams but also the patients they care for (McClelland et al., 2018). In June 2020, we asked about well-being worries and it was almost exclusively about a lack of PPE, fear of catching COVID-19 and a fear of passing it on to vulnerable family, friends, and patients (Wood et al., 2021), similar to the findings of other COVID-19 era surveys of nurses (Ball et al., 2022). By March 2022, this fear was not mentioned but ongoing concerns remain around staff levels, workload and abuse from patients and the public.

#### 4.1 | Limitations

Cohort studies are observational so causation cannot be proven from the data. However, trends in the experiences of nurses are still useful and can highlight key issues.

The COVID-19 pandemic started 1 year after the cohort was created and did not have a major impact on UK health systems until after the year two survey was completed. As such, some questions that would have been useful to have as a baseline in 2019 were not asked. The cohort study was always intended to consider well-being and safety, but these became far more prominent than originally anticipated.

Recruitment was a challenge, as it is not currently known how many ANPs are working in the UK; therefore, we recruited from a variety of sources, including social media and national online forums (Wood et al., 2020).

#### 5 | CONCLUSIONS

Motivation and job satisfaction for ANPs decreased significantly over the last 4 years. The pandemic is likely to be at least partially responsible but cannot be completely extricated from other long-term issues for health services. However, regardless of the cause, strategies must focus on improving the work experiences and well-being of ANPs and the wider multi-professional advanced practice workforce. Without this, it is only likely to continue to decline and could exacerbate the existing retention crisis in health settings.

#### AUTHOR CONTRIBUTIONS

All people entitled to be authors have been included. EW drafted the paper, collected and analysed the data and contributed to the

survey and protocol development. TR assisted with the data collection and analysis. RK, SR, MS, AT and TR contributed to the survey and protocol development. All authors read and approved the final manuscript.

## ACKNOWLEDGEMENTS

The team would like to thank all the nurses on the cohort who took time to complete questionnaires over 4 years.

## FUNDING INFORMATION

The project was funded by the Royal College of Nursing (RCN) as part of the Strategic Research Alliance between the RCN and the University of Sheffield. The views expressed are those of the author(s) and not necessarily those of the RCN or University of Sheffield. The RCN expressed an interest in the credentialing of the ANP role and offered peer review to the study protocol. They also aided recruitment by sending recruitment emails to their mailing list of credentialed ANPs. They had no input into the analysis and interpretation of data, writing the report or decision to publish.

## CONFLICT OF INTEREST STATEMENT

No conflict of interest has been declared by the authors.

## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author, EW, upon reasonable request. All requests must include protocol and research ethics committee approval before data will be released.

## ORCID

Emily Wood  <https://orcid.org/0000-0002-1910-6230>

Rachel King  <https://orcid.org/0000-0003-4012-0202>

Steve Robertson  <https://orcid.org/0000-0002-5683-363X>

Michaela Senek  <https://orcid.org/0000-0003-4226-2220>

Beth Taylor  <https://orcid.org/0000-0003-4090-3047>

Tony Ryan  <https://orcid.org/0000-0002-8549-3101>

## REFERENCES

- Adams, R., Ryan, T., & Wood, E. (2021). Understanding the factors that affect retention within the mental health nursing workforce: A systematic review and thematic synthesis. *International Journal of Mental Health Nursing*, 30(6), 1476–1497. <https://doi.org/10.1111/INM.12904>
- American Association of Nurse Practitioners. (2022). NP fact sheet. <https://www.aanp.org/about/all-about-nps/np-fact-sheet>
- Ball, J., Anstee, S., Couper, K., Maben, J., Blake, H., Anderson, J. E., Kelly, D., Harris, R., & Conolly, A. (2022). The impact of COVID-19 on nurses (ICON) survey: Nurses' accounts of what would have helped to improve their working lives. *Journal of Advanced Nursing*, 79, 343–357. <https://doi.org/10.1111/JAN.15442>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp0630a>
- Doble, S. E., & Santha, J. C. (2008). Occupational well-being: Rethinking occupational therapy outcomes. *Canadian Journal of Occupational Therapy*, 75(3), 184–190. <https://doi.org/10.1177/000841740807500310>
- Drennan, V. M., & Ross, F. (2019). Global nurse shortages—The facts, the impact and action for change. *British Medical Bulletin*, 130(1), 25–37. <https://doi.org/10.1093/bmb/ldz014>
- Fothergill, L., Al-Oraibi, A., Houdmont, J., Conway, J., Evans, C., Timmons, S., Pearce, R., & Blake, H. (2022). Nationwide evaluation of the advanced clinical practitioner role in England: A cross-sectional survey. *BMJ Open*, 12, 55475. <https://doi.org/10.1136/bmjopen-2021-055475>
- Goyal, D. K., Mansab, F., Naasan, A. P., Iqbal, A., Millar, C., Franklin, G., Thomas, S., McFadden, J., Burke, D., & Lasserson, D. (2021). Restricted access to the NHS during the COVID-19 pandemic: Is it time to move away from the rationed clinical response? *The Lancet Regional Health - Europe*, 8, 100201. <https://doi.org/10.1016/J.LANEPE.2021.100201>
- Health Education England. (2017). *Multi-professional framework for advanced clinical practice in England*. Health Education England.
- Hoff, T., Carabetta, S., & Collinson, G. E. (2019). Satisfaction, burnout, and turnover among nurse practitioners and physician assistants: A review of the empirical literature. *Medical Care Research and Review*, 76(1), 3–31. <https://doi.org/10.1177/1077558717730157>
- Jangland, E., Yngman Uhlin, P., & Arakelian, E. (2016). Between two roles – Experiences of newly trained nurse practitioners in surgical care in Sweden: A qualitative study using repeated interviews. *Nurse Education in Practice*, 21, 93–99. <https://doi.org/10.1016/j.nepr.2016.10.005>
- Kapu, A. N., Borg Card, E., Jackson, H., Kleinpell, R., Kendall, J., Lupear, B. K., Lebar, K., Dietrich, M. S., Araya, W. A., Delle, J., Payne, K., Ford, J., & Dubree, M. (2021). Assessing and addressing practitioner burnout: Results from an advanced practice registered nurse health and well-being study. *Journal of the American Association of Nurse Practitioners*, 33(1), 38–48. <https://doi.org/10.1097/JXX.0000000000000324>
- Kennedy, A., & Catton, H. (2020). Foreword to ICN APN report. In *Guidelines on advance practice nursing* (p. 7).
- Kennedy, E., Kennedy, P., Hernandez, J., Shakoor, K., & Munyan, K. (2022). Understanding redeployment during the COVID-19 pandemic: A qualitative analysis of nurse reported experiences. *SAGE Open Nursing*, 8, 237796082211149. <https://doi.org/10.1177/23779608221114985>
- Kim, Y. J., Lee, S. Y., & Cho, J. H. (2020). A study on the job retention intention of nurses based on social support in the COVID-19 situation. *Sustainability*, 12(18), 7276. <https://doi.org/10.3390/SU12187276>
- Maier, C. B., Barnes, H., Aiken, L. H., & Busse, R. (2016). Descriptive, cross-country analysis of the nurse practitioner workforce in six countries: Size, growth, physician substitution potential. *BMJ Open*, 6(9), e011901. <https://doi.org/10.1136/bmjopen-2016-011901>
- McClelland, L. E., Gabriel, A. S., & Depuccio, M. J. (2018). Compassion practices, nurse well-being, and ambulatory patient experience ratings. *Medical Care*, 56(1), 4–10. <https://doi.org/10.1097/MLR.0000000000000834>
- NASEM. (2021). Supporting the health and professional well-being of nurses. In M. K. Wakefield, D. R. Williams, S. Le Menestrel, & J. L. Flaubert (Eds.), *The future of nursing 2020–2030: Charting a path to achieve health equity*. National Academies Press. <https://doi.org/10.17226/25982>
- Ng Fat, L., Scholes, S., Boniface, S., Mindell, J., & Stewart-Brown, S. (2017). Evaluating and establishing national norms for mental well-being using the short Warwick-Edinburgh mental well-being scale (SWEMWBS): Findings from the health survey for England. *Quality of Life Research*, 26(5), 1129–1144. <https://doi.org/10.1007/s11136-016-1454-8>
- Oates, J., Jones, J., & Drey, N. (2017). Subjective well-being of mental health nurses in the United Kingdom: Results of an online survey.

- International Journal of Mental Health Nursing*, 26(4), 391–401. <https://doi.org/10.1111/INM.12263>
- Patrician, P. A., Bakerjian, D., Billings, R., Chenot, T., Hooper, V., Johnson, C. S., & Sables-Baus, S. (2022). Nurse well-being: A concept analysis. *Nursing Outlook*, 70(4), 639–650. <https://doi.org/10.1016/J.OUTLOOK.2022.03.014>
- Peck, J. L., & Sonney, J. (2021). Exhausted and burned out: COVID-19 emerging impacts threaten the health of the pediatric advanced practice registered nursing workforce. *Journal of Pediatric Health Care*, 35(4), 414–424. <https://doi.org/10.1016/J.PEDHC.2021.04.012>
- Phiri, L. P., Draper, C. E., Lambert, E. V., & Kolbe-Alexander, T. L. (2014). Nurses' lifestyle behaviours, health priorities and barriers to living a healthy lifestyle: A qualitative descriptive study. *BMC Nursing*, 13(1), 38. <https://doi.org/10.1186/S12912-014-0038-6>
- Picker Institute. (2017). *Making sense of your staff survey data 2017*. Picker Institute.
- Picker Institute. (2021). NHS staff survey 2020. <https://www.nhsstaffsurveyresults.com/>
- Rogers, M., Lamarche, K., Miller, M., Moore, K. S., Spies, L. A., Taylor, J., & Staempfli, S. (2022). Global emotional and spiritual well-being and resilience of advanced practice nurses during the COVID-19 pandemic: A cross-sectional study. *Journal of Advanced Nursing*, 78(5), 1483–1492. <https://doi.org/10.1111/JAN.15161>
- Rogers, M., Windle, A., Wu, L., Taylor, V., & Bale, C. (2022). Emotional and spiritual wellbeing and resilience of advanced clinical practitioners in the United Kingdom during COVID-19. *Journal of Nursing Management*, 30, 883–891. <https://doi.org/10.1111/jonm.13577>
- Ross, A., Bevans, M., Brooks, A. T., Gibbons, S., & Wallen, G. R. (2017). Nurses and health-promoting behaviors: Knowledge may not translate into self-care. *AORN Journal*, 105(3), 267–275. <https://doi.org/10.1016/J.AORN.2016.12.018>
- Ruth, T., Louise, H., Ruth, F., Stephen, P., Stephen, J., Scott, W., Jane, P., Jenny, S., & Stewart-Brown, S. (2007). The Warwick-Edinburgh mental well-being scale (WEMWBS): Development and UK validation. *Health and Quality of Life Outcomes*, 5, 63. <https://doi.org/10.1186/1477-7525-5-63>
- Ryan, T., Talpur, A. A., & Robertson, S. (2022). Nurses' contribution during pandemic conditions: A synthesis of qualitative literature. *Journal of Clinical Nursing*, 32, 1738–1747. <https://doi.org/10.1111/JOCN.16203>
- Schober, M., Lehwaldt, D., Rogers, M., Steinke, M., Turale, S., Pulcini, J., Roussel, J., & Stewart, D. (2020). *Guidelines on advanced practice nursing 2020*. International Council of Nurses.
- Steinke, M. K., Rogers, M., Lehwaldt, D., & Lamarche, K. (2018). An examination of advanced practice nurses' job satisfaction internationally. *International Nursing Review*, 65(2), 162–172. <https://doi.org/10.1111/INR.12389>
- Stelnicki, A. M., Carleton, R. N., & Reichert, C. (2020). Nurses' mental health and well-being: COVID-19 impacts. *The Canadian Journal of Nursing Research*, 52(3), 237–239. <https://doi.org/10.1177/0844562120931623>
- Stevenson, D., & Farmer, P. (2017). Thriving at work: The independent review of mental health and employers.
- Stewart-Brown, S., Tennant, A., Tennant, R., Platt, S., Parkinson, J., & Weich, S. (2009). Internal construct validity of the Warwick-Edinburgh mental well-being scale (WEMWBS): A Rasch analysis using data from the Scottish health education population survey. *Health and Quality of Life Outcomes*, 7, 1–8.
- The King's Fund. (2019). *Primary care networks and mental health*. The King's Fund.
- Van den Heede, K., Florquin, M., Bruyneel, L., Aiken, L., Diya, L., Lesaffre, E., & Sermeus, W. (2013). Effective strategies for nurse retention in acute hospitals: A mixed method study. *International Journal of Nursing Studies*, 50(2), 185–194. <https://doi.org/10.1016/J.IJNURSTU.2011.12.001>
- Wood, E., King, R., Robertson, S., Allmark, P., Senek, M., Tod, A., & Ryan, T. (2020). Baseline demographics and data from advanced nurse practitioners recruited to a cohort study. *Journal of Nursing Management*, 28(4), 959–967.
- Wood, E., King, R., Senek, M., Robertson, S., Taylor, B., Tod, A., & Ryan, A. (2021). UK advanced practice nurses' experiences of the COVID-19 pandemic: A mixed-methods cross-sectional study. *BMJ Open*, 11(3), 44139. <https://doi.org/10.1136/bmjopen-2020-044139>

**How to cite this article:** Wood, E., King, R., Robertson, S., Tod, A., Senek, M., Taylor, B., & Ryan, T. (2024). Advanced nurse practitioner well-being: A 4-year cohort mixed methods study. *Nursing Open*, 11, e2218. <https://doi.org/10.1002/nop2.2218>