Why you should read this article:

- To learn about a project that aimed to support teams caring for children and young people to reflect on their experiences and the effects of the coronavirus disease 2019 (COVID-19) pandemic
- To recognise the need to ensure staff are adequately prepared to manage any future surges in respiratory illness effectively
- To be aware of the potential long-term effects of the COVID-19 pandemic on emotional health and well-being

After COVID-19: preparing staff for future surges in respiratory illness in children and improving well-being

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Abstract

The coronavirus disease 2019 (COVID-19) pandemic was a challenging experience for children and young people's services, and the workforce. The Valuing All Staff Together programme was a one-year project hosted by the North West Paediatric Critical Care, Surgery in Children, Long Term Ventilation Operational Delivery Network to support teams caring for children and young people to reflect on their experiences of the COVID-19 pandemic. Using an online survey, focus groups and interviews, it gave staff the opportunity to explore and understand the effects of the pandemic and the subsequent surge in demand, including how these affected services and the emotional health and well-being of staff. This would enable better preparation for future surges in respiratory illness in terms of learning, training and development. This article describes the programme's aim, method and findings, and the main recommendations for practice.

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Keywords

child health, coronavirus, Covid-19, morale, nurses' well-being, professional, professional issues, staff welfare, workforce

Background

The coronavirus disease 2019 (COVID-19) pandemic saw a 79% reduction in urgent referrals of children and young people by GPs to hospital care compared with pre-COVID-19 levels (Morris and Fisher 2022). At the same time, there was an expected surge in adults being admitted to hospital, particularly in critical care (NHS England and NHS Improvement 2020, Boodhun et al 2021). This meant that staff whose role was nursing children and young people were redeployed to support these services. Redeploying staff proved challenging and stressful for those involved (Royal College of Paediatrics and Child Health (RCPCH) 2020).

Furthermore, in the winter of 2021 there was a rise in demand for children and young people's services, with an increase of up to 47% in urgent referrals of children and young people by GPs to hospital care compared with pre-COVID-19 levels (Morris and Fisher 2022). This increase in acute referrals and admissions occurred alongside the predictable annual winter pressures on healthcare services and a significant increase in the number of children and young people with emotional

health and well-being concerns (RCPCH 2020, Morris and Fisher 2022).

In parallel with this increased demand for children and young people's services, there was also an increase in staff sickness and absence. This was partly due to COVID-19 infection and isolation, exhaustion and the stress of redeployment (RCPCH 2020). In the authors' clinical experience, the rise in staff sickness and absence, together with the increase in the number of patients with greater acuity, had a negative effect on staff experience. There was also uncertainty about how long these pressures would continue and what the effect on services would be in the future.

The Respiratory Surge in Children e-learning programme was launched in 2021 as a collaboration between Health Education England (HEE), NHS England, NHS Improvement, the Paediatric Critical Care Society and the London Transformation and Learning Collaborative (HEE 2021). Its aims were to support the cross-skilling of the NHS workforce to better manage:

- Existing demand in children.
- Potential future increases in demand due to respiratory syncytial virus and other respiratory illnesses in children.
- Longer-term increasing acuity and demand in children.

The North West Paediatric Critical Care, Surgery in Children, Long Term Ventilation Operational Delivery Network (northwestchildrensodnhub.nhs.uk), hereafter referred to as the ODN, sought the opportunity to link with HEE to support the Respiratory Surge in Children programme from a regional perspective. The ODN provides impartial clinical advice and expertise to all providers and commissioners across north west England, North Wales and the Isle of Man, and develops equitable and high-standard services for children and young people. The ODN works collaboratively with various stakeholders – including healthcare professionals, managers and commissioners, integrated care boards, NHS England and external bodies – to develop sustainable, affordable and high-quality services, thereby improving quality of care and reducing variations in care. The ODN had been formally established for one year at the time of the project discussed in this article and had effective engagement with all providers.

Valuing All Staff Together programme

The Valuing All Staff Together (VAST) programme (northwestchildrensodnhub.nhs.uk/the-vast-programme) was a one-year project hosted by the ODN to support teams caring for children and young people to reflect on their experiences of the COVID-19 pandemic. It ran between May 2022 and May 2023. The VAST programme gave teams the opportunity to explore and understand the effects of the pandemic and the subsequent surge in demand, including how these affected services and the emotional health and well-being of staff.

A training needs analysis was undertaken to identify challenges and areas of best practice and to provide recommendations for supporting the children and young people's workforce. The VAST programme was led by regional educators assigned to the project and was open to all staff involved in children and young people's services, including clinical and non-clinical staff. Its findings were shared in the region to inform training suggestions and support the workforce and services for the future.

Aim

To explore and understand the effects of the pandemic and the subsequent surge in demand, including how these affected services and staff's emotional health and well-being, with a view to preparing for future surges in respiratory illness in terms of learning, training and development.

Method

Stakeholder engagement, survey, focus groups and interviews

Extensive stakeholder engagement was crucial to the development of the VAST programme. The process of stakeholder analysis followed guidance devised by NHS England and NHS Improvement (2022a) and included multiprofessional representatives from providers and commissioners. To maintain focus and address stakeholder needs, regional educators sought input from service providers using engagement sessions about the main topics to include in a survey that formed part of the programme. The VAST programme used the Pareto principle, which states that 80% of outcomes come from 20% of causes; that is, a small percentage of causes have an outsized effect (Laoyan 2022). This principle was used as an effective way to prioritise the main topics identified by stakeholders to become the focus of a survey (NHS England and NHS Improvement 2022b).

An online survey was developed to ensure broad participation and overcome data analysis challenges associated with non-electronic formats. The survey comprised a mix of closed and open-ended questions.

Key points

- The coronavirus disease 2019 (COVID-19) pandemic was a highly challenging experience for the healthcare workforce in children and young people's services
- The Valuing All Staff Together (VAST) programme was a one-year regional project to support teams caring for children and young people to reflect on their experiences of the COVID-19 pandemic
- The VAST programme found that the COVID-19 pandemic had a significant effect on staff's emotional health and well-being, especially related to changes in service delivery
- Training disruptions during the COVID-19 pandemic have shown the need to develop contingency measures, optimise training plans and review working methods to minimise the effect on the workforce

The content validity was reviewed by the ODN leadership team and academic experts, and it was piloted in three trusts before use. The survey was open for eight weeks between August 2022 and September 2022. Regional educators distributed the survey widely through NHS trust communication teams, stakeholders and integrated care systems using survey links, QR codes and digital posters. Posters were also provided to trusts to be displayed in staff areas.

In October 2022 follow-up focus groups and interviews were conducted with people who had completed the survey and provided their contact details, to further explore the survey results. After analysis of the survey responses by the regional educators, important areas were identified for further exploration, including experiences and perceptions of being moved from usual familiar roles and settings, support received during the pandemic, training and development experiences, and staff perceptions of the current workplace.

Braun and Clarke's (2006) six-step process was used to identify and analyse qualitative data from the survey, focus groups and interviews. Each step in the process was subject to triangulation by the regional educators.

Ethical considerations

The VAST programme was regarded as a service evaluation and therefore did not require ethical approval. Confidentiality of all data was ensured by transcribing, anonymising and securely storing the content, which was later deleted after analysis and processing.

Main survey areas

Box 1 shows the main areas of focus for the survey, following the initial feedback from the service provider engagement sessions.

A total of 642 valid survey responses were received. It is not known how many surveys in total were distributed. Figures 1 and 2 show the regional and occupational breakdown of survey responses. Ten staff reported working across more than one region and three staff reported working in more than one occupation. Nurses were the single largest occupational group who responded to the survey (364/642, 57%).

A total of 12 staff attended focus groups and ten interviews were conducted. All information gathered in the focus groups and interviews was collated and added to the themes and discussions reported.

Findings

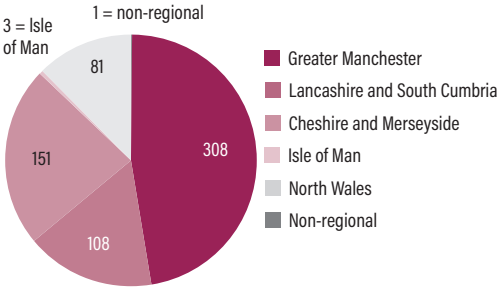
Training needs and access

It was identified that the COVID-19 pandemic had a considerable effect on staff's experiences of training, with 70% (*n*=449) of respondents reporting their training had been affected in some way. Box 2 outlines the most commonly reported changes to training and access. However, there was variation in

Box 1. Main areas of focus for the survey

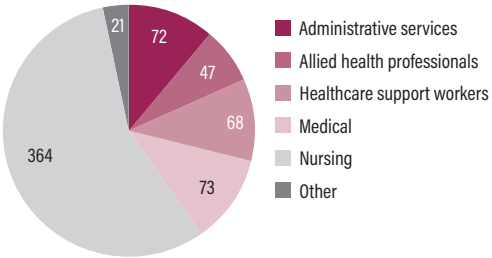
- Training needs and access
- Digital technology
- Increased acuity of patients (emotional health and well-being)
- Increased acuity of patients (physical health)
- Working outside of usual settings
- Staff absence
- Staff emotional health, well-being and morale

Figure 1. Regional breakdown of survey responses (*n*=652*)



*Ten staff reported working across more than one region

Figure 2. Occupational breakdown of survey responses (*n*=645*)



*Three staff reported working in more than one occupation

Box 2. Most commonly reported changes to training and access

- Most training moved online
- Non-essential training cancelled
- More remote training
- Reduced numbers at face-to-face training due to restrictions
- Unable to attend training opportunities due to workplace pressures
- Suitable training venues often unavailable

staff's perceptions of how the pandemic had affected training.

Half of the respondents (50%, *n*=321) reported unmet training needs in a variety of areas (Box 3). Staff also indicated that they were expected to complete training outside work and online. Significant variability was reported between trusts about the standards of training and its effects on staff, which reinforced the need for a skills passport with clear expectations outlined.

Digital technology

The COVID-19 pandemic resulted in increased use of digital technology, including virtual meetings and paperless systems. Most of the respondents (86%, *n*=552) had witnessed digital technology changes in their workplaces, with 52% (*n*=334) seeing an effect on services and patient care. Themes identified related to accessibility, communication, education, effects on patients, staff well-being, technology challenges and virtual tools. Variations in the effects of digital technology were evident. Staff who received training had a more positive perception of digital technology, but many experienced no formal training and the lack of adequate support on information technology caused concern.

There were mixed feelings about digital technology among the respondents, with reports of unnecessary meetings and a negative effect on work-life balance. However, staff across occupational groups and settings found digital technology beneficial for accessibility, enabling remote work, flexibility and easier access to meetings and colleagues. Respondents appreciated the reduction in travel time and increased clinical hours facilitated by this mode of communication, although the lack of face-to-face interaction was challenging. However, this was resolved through online colleague support. It was also reported that a lack of equipment and unreliable technology created barriers for staff, with insufficient devices meaning they often relied on their own personal equipment. Some inpatient areas reported improved communication and collaboration using digital technology, leading to increased referral and review of patients. This provided the opportunity for improving the quality of record-keeping, facilitating meeting arrangements, clearer communication, and access to education and the acquisition of new skills.

The use of digital technology in clinical settings raised concerns, since some patients who did not have the necessary devices were at a disadvantage and could not experience virtual consultations. Virtual clinical assessment of patients posed challenges and affected diagnosis and treatment. However, outpatient settings reported that digital technology had a positive effect, improving patient access, empowering families and enhancing the patient experience, particularly for those with social difficulties. Many of the respondents felt that using digital technology in the future would be a positive change for services.

Box 3. Unmet training needs

- Use of personal protective equipment
- Basic life support
- Advanced clinical skills
- Clinical patient escalation
- Leadership and management
- Adult critical care
- Paediatric acute care
- Conflict resolution
- Health and safety

Increased acuity of patients (emotional health and well-being)

During and after the pandemic, 78% (*n*=501) of respondents reported an increase in the number of patients presenting with emotional health and well-being needs. Only 22% (*n*=141) reported that they felt adequately prepared to care for these patients and families. Themes were identified about the increased acuity of children and young people with emotional health and well-being needs and the effects on the emotional health and well-being of staff, due to the increased number of patients and the lack of training to support patients.

All occupational groups identified the increase in children and young people presenting with emotional health and well-being concerns. This affected staff, who felt underprepared and exhausted and required more preparation, training and support. Respondents also reported a lack of available resources and that hospital environments were unsuitable for these patients. Box 4 details the preparation required for staff to support children and young people with emotional health and well-being needs.

Increased acuity of patients (physical health)

Half of respondents (50%, *n*=321) reported an increase in the severity of physical illness in children and young people, and 16% (*n*=103) felt unprepared to care for these patients. Themes of increased acuity and lack of preparedness emerged. Staff from inpatient

areas reported a rise in acuity with patients' physical health, leading to challenges in care delivery. They identified that insufficient staffing ratios, longer waiting times for patient reviews and increased workloads left them feeling unable to provide optimal care. Several staff reported a lack of equipment, including oxygen saturation monitors and continuous positive airway pressure machines, and felt they were not trained to care for higher-acuity children and young people.

Box 5 details the preparation required to care for higher-acuity patients.

Working outside of usual settings

One third (33%, *n*=214) of respondents reported that they worked outside of their usual settings during the pandemic. This included 32% (*n*=205) of inpatient staff and 50% (*n*=321) of community/outpatient staff. Of these, 45% (*n*=290) reported feeling supported when they moved to a new setting.

Across the ODN, the three most common areas to be moved to were adult general wards, adult critical care and children's inpatients (general wards). Only a minority of staff who were moved to adult services reported feeling prepared, and nurses and healthcare support workers were the largest proportion of staff feeling 'very unprepared'. Preparation to care for adult patients ranged from half a day of training to two weeks of training with opportunities to shadow staff. However, some staff stated that they were already trained to care for adults. The following themes were identified: adult care, logistics, new setting, and staff emotional health and well-being.

Staff perceived working outside their usual setting as a negative experience because of unclear expectations, inadequate training and assignment of inappropriate responsibilities.

Box 4. Preparation required for staff to support children and young people with emotional health and well-being needs

- Basic or essential emotional health and well-being training
- Specialist emotional health and well-being support
- Escalation and de-escalation management training
- How to access and navigate services
- Eating disorders training
- Awareness of signposting for support
- Communication training
- Easier access to emotional health and well-being services
- Face-to-face emotional health and well-being training
- Increased resources
- Training and support from mental health nurses

Lack of support from their own team and the new setting further exacerbated the challenges. The experience of working outside their usual setting was also associated with increased staff absence. Non-clinical staff reported lack of choice in being moved to other locations, as well as increased anxiety about contracting COVID-19 and the effect on their emotional health and well-being. Staff identified some positive experiences, for example where they received support, supernumerary periods and displays of appreciation.

Staff absence

Across the ODN, 76% (*n*=488) of respondents reported observing a significant increase in staff absence, 80% (*n*=390) of whom said that this had a negative effect on their workplace. There were differences in how respondents perceived workplaces to have handled staff absences and staff groups. Two themes were identified in relation to staff absence: the effects of staff absence and perceptions of staff.

Staff absence had numerous negative effects, including services being understaffed and increased pressure and workload. Clinical staff in inpatient areas found it challenging to cover shifts, and this led to some service disruptions. Skill mix was affected as experienced staff left or were absent, particularly in non-clinical, inpatient and acute settings. Delays in care, long waiting times and decreased efficiency were reported by medical and nursing staff.

Respondents perceived that, at times, patient care was compromised and patient safety was at risk when staffing levels fell below safe limits. Staff experienced increased stress, low morale, burnout and emotional health issues. Working outside of their usual clinical setting contributed to staff absences. Lack of support and supervision was reported by many respondents, and teams experienced breakdowns and loss of resilience.

Box 5. Preparation required to care for higher-acuity patients

- Sufficient equipment and resources
- Equipment training
- Management of paediatric inflammatory multisystem syndrome temporally associated with COVID-19 (PIMS-TS)
- Intubation and ventilation management training
- Non-invasive respiratory support training that includes high-flow nasal cannula and non-invasive ventilation
- Safe staff numbers
- More skilled and experienced staff
- Training to care for paediatric patients
- Level 2 critical care training

Clinical staff experienced expectations to work beyond contracted hours, affecting their personal lives. Some concerns were raised about staff absence and staff reported exhaustion on many occasions. Medical staff attributed sickness absence to a lack of motivation and passion for the job.

Staff emotional health, well-being and morale

The COVID-19 pandemic had a marked effect on staff morale, with 57% (*n*=366) of respondents reporting that staff morale in their area was lower post-pandemic. Some workplaces had taken steps to improve staff morale, as reported by 43% (*n*=275) of respondents. The most common approaches taken to improve staff morale are outlined in Table 1. Box 6 shows factors perceived by staff as being most effective to improve well-being and reduce stress.

Just over half (53%, *n*=340) of respondents who identified that their emotional health and well-being had been adversely affected during the pandemic reported that they had sought support. More than one third (38%, *n*=245) said they had consulted their line manager, while a small number (12%, *n*=80) accessed occupational health, a healthcare professional, psychological support or other support from friends, colleagues or family. Most respondents (70%, *n*=450) stated that they had easy and confidential access to emotional health and well-being support in their workplace.

Respondents identified several themes related to the effect of the pandemic on staff emotional health and well-being. These included COVID-19 risk, support and recognition, team effect and working outside of their usual setting. During the pandemic there was a significant negative effect on emotional health and well-being, but respondents reported an improvement post-pandemic.

Table 1. Most common approaches taken to improve staff morale

Approaches taken in areas with lowest reported morale	Approaches taken in areas with highest reported morale
» Team meetings and briefings » Well-being champions and team building » Recruitment	» Awards and recognition » Supportive management and leadership » Team initiatives » Team meetings and briefings » Team building

Respondents across all areas reported experiencing fear or anxiety about COVID-19 risk, with anxiety being exacerbated by changes to COVID-19 guidelines and wearing personal protective equipment for long periods. Long-term physical and emotional effects of COVID-19 were reported by all respondents, leading to a perceived lack of resilience and challenges in coping in general. Stress, low morale and isolation were prevalent across all settings, affecting job satisfaction. Respondents felt that in workplaces where recruitment, teamwork, education and training were prioritised, this had a positive effect on staff emotional health and well-being. Remote working was valued for its flexibility and preserving mental health.

Support for staff in the workplace was variable and was often reported to be insufficient, especially the lack of emotional health and well-being support. Some non-clinical staff reported feeling guilty about accessing support because it was perceived that clinical staff had a worse experience. Token gestures were deemed meaningless, and staff felt undervalued and frustrated by a lack of consideration. Positive support was reported in the form of supervision, meetings with managers, team briefings, psychological counselling and informal peer-to-peer help. Efforts to raise morale and support the team were also identified.

Limitations

There were several limitations of the VAST programme due to restricted access to staff and services which may have influenced engagement levels, and uncertainty about the workforce. Challenges included difficulties in contacting all staff directly, and the incomplete identification of staff roles and which services were involved.

Some areas were hesitant to participate which affected staff engagement. How accurately the respondents reflected the entire children and young people's workforce during the pandemic could not be determined due to unavailable data.

Box 6. Factors perceived by staff as being most effective to improve well-being and reduce stress

- Peer-to-peer support
- Free parking
- Supportive management or leaders
- Regular team meetings for communication
- Offered/complimentary refreshments
- Supportive multidisciplinary team

The funding for the VAST programme was also limited to one year, meaning there were time constraints to its completion.

Recommendations for practice

Based on the findings of the VAST programme, the authors of this article have made seven main recommendations in preparation for future surge events:

- To support the provision of care for acutely unwell children across the ODN, with appropriately skilled staff who can make optimal use of available resources, the ODN should:
  - Work with local educators, particularly with children and respiratory support, through the development of an ODN education team.
  - Work with partner agencies to promote the standardised care of acutely unwell children and young people. This should include the pooling of resources through a shared repository of training and guidelines.
- Staff across the children and young people's workforce should have the knowledge and skills to care effectively for children and young people with emotional health and well-being needs. Organisations should:
  - Provide training to all patient-facing staff on the essentials of care for children and young people with emotional health and well-being needs.
  - Ensure staff have clear processes for accessing advice and support from specialist emotional health and well-being professionals, as well as information on how to navigate services.
- Systems should be in place that enable staff to continue accessing service-essential training and development, especially during potential disruptions. Organisations should:
  - Review training processes to ensure that alternative methods are considered.
  - Review the availability of online training and support staff in accessing this.
- The benefits offered by digital technology should be realised effectively. Organisations should:
  - Prioritise improvements in the digital technology capability of their workforce.
  - Provide training on the fundamentals of digital technology literacy for all staff.
- To support staff to have the confidence to provide care outside of their usual setting, if necessary, organisations should:
  - Develop clear systems for support and supervision for any staff who may work in an area outside of their usual setting.
  - Consider what guidance may be required to support redeployed staff on a temporary basis to different work environments.
- Staff, particularly leaders and managers, should have the skills and confidence needed to support and maintain colleagues' emotional health and well-being positively. Organisations should:
  - Make emotional health and well-being first aid or similar training available to staff.
  - Ensure that leaders and managers are trained in the recognition of staff's emotional health and well-being needs, along with how to access and provide appropriate support.
- Staff should receive recognition and support that enables them to feel cared about and valued. Organisations should:
  - Review their processes and methods of support and recognition, particularly team support.
  - Ensure that leaders and managers are aware of any opportunities and processes for support and recognition for staff in their organisation.

Conclusion

The COVID-19 pandemic was a challenging experience for the healthcare workforce in children and young people's services. The VAST programme provided an opportunity to gain a broader understanding of the challenges they experienced. It recognised the need to understand the effects of the pandemic to ensure adequate preparation to manage effectively any future surges in respiratory illness in children.

The pandemic had a negative effect on staff emotional health and well-being, especially about changes in service delivery, so effective support from managers and leaders is crucial to prevent staff burnout and absences. Clear guidance, skill development and support for staff transitioning to different settings can also address these issues.

The increased acuity of children with emotional health and well-being needs requires staff to be prepared and have access to specialist support. Furthermore, addressing digital technology literacy is essential for efficient patient care. There is also a need to develop contingency measures, optimise current training plans and review working methods, training and learning needs to navigate better any future surges in respiratory illness in children and minimise the effects on the workforce.

References

Boodhun N, Jay N, Carzedda D et al (2021) Prioritising paediatric staff and space so every child has access to care. Archives of Disease in Childhood. 106, 6, 622-623 doi: 10.1136/archdischild-2020-320565

Braun V, Clarke V (2006) Using thematic analysis in psychology. Qualitative Research in Psychology. 3, 2, 77-101. doi: 10.1191/1478088706qp063oa

Health Education England (2021) Respiratory Surge in Children: Enhancing Capability in the Care of the Unwell Child. e-lfh.org.uk/programmes/respiratory_surge_in_children (Last accessed: 14 February 2024.)

Laoyan S (2022) Understanding the Pareto Principle (The 80/20 Rule). asana.com/resources/pareto-principle-80-20-rule (Last accessed: 14 February 2024.)

Morris J, Fisher E (2022) Growing Problems, In Depth: The Impact of COVID-19 on Health Care for Children and Young People in England. nuffieldtrust.org.uk/resource/growing-problems-in-detail-covid-19-s-impact-on-health-care-for-children-and-young-people-in-england (Last accessed: 14 February 2024.)

NHS England, NHS Improvement (2020) Clinical Guide for the Management of Surge During the Coronavirus Pandemic: Rapid Learning. Version 2. england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/03/C0167-specialty-guide-surge-based-on-current-hospital-experience-v2.pdf (Last accessed: 14 February 2024.)

NHS England, NHS Improvement (2022a) Online Library of Quality, Service Improvement and Redesign Tools: Stakeholder Analysis. ewww.aqua.nhs.uk/wp-content/uploads/2023/07/qsir-stakeholder-analysis.pdf (Last accessed: 5 April 2024.)

NHS England, NHS Improvement (2022b) Online Library of Quality, Service Improvement and Redesign Tools: Pareto. www.nccmt.ca/uploads/media/media/0001/03/d10588549853c2eba1e5840cad49d7ebd5d629fc.pdf (Last accessed: 5 April 2024.)

Royal College of Paediatrics and Child Health (2020) Impact of COVID-19 on Child Health Services Between April and July 2020 – Report. RCPCH, London.