

Association of Paediatric Chartered Physiotherapists COVID-19 Survey

Analysis: Introduction, Background and Methodological Approach

The Association of Paediatric Chartered Physiotherapists (APCP) was formed in 1973, providing a network for physiotherapists working with children (APCP). The association offered a forum for sharing ideas, provided appropriate training and gained recognition as a special interest group within the Chartered Society of Physiotherapy (CSP). The APCP is now one of the CSP's largest professional networks and continues to thrive, with a membership of over 2,300 paediatric physiotherapists (APCP 2020). The association strives to uphold the original aims set nearly half a century ago, guiding meaningful activity to support its members (APCP 2020). This has become vital during times of unprecedented change, experienced by clinicians in recent months.

The COVID-19 pandemic brought about significant changes across UK health and social care systems. Overwhelmed healthcare resources forced country-wide transformations in service delivery, shaped by redeployment of workers, altered triage and care pathways, cancellation of non-essential clinical provision and avoidance of hospital admissions (Elliott 2020). Enforcement of safety guidance, including social distancing and wider national lockdown measures brought about changes in healthcare interactions between individuals, teams and wider communities.

Healthcare professionals, including paediatric physiotherapists, were among frontline workers in the war against COVID-19, experiencing these changes first-hand. In response, the APCP National Committee identified the importance of sharing these experiences and to generate understanding of how members were affected, both personally and professionally. To achieve this, a project group was devised of 7 paediatric physiotherapists and National Committee members:

Project Group Lead:

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Project Group Members:

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Rachel Evans – *Independent Paediatric Respiratory Physiotherapist, Chair APCP Respiratory Committee.*

Anna Hebda-Boon - *Extended Scope Physiotherapist in Neurodisability, PhD Candidate, Fellow of Higher Education Academy, APCP Education Officer.*

Lucy James – *Advanced Paediatric Physiotherapist, APCP Newsletter Editor.*

Rachel Knight Lozano – *Specialist Paediatric Physiotherapist, NIHR/HEE Pre-doctoral Clinical Academic Fellow, APCP Publication Officer.*

Project Aim

The overarching aim of this project was to capture the APCP members experiences during the initial period of COVID-19 national lockdown, seeking to provoke a conversation, to share and to learn. This work will inform many aspects of APCP's activity, policies and outputs (including educational events, training provision, research bursaries and communications).

Methodology

Design

An electronic survey design was selected to explore experiences and perspectives of paediatric physiotherapists during the first 3 months of the COVID-19 pandemic in the UK. The survey combined categorical data (demographics) and open-ended questions, exploring six key domains, developed with an awareness of the array of roles and practices within the APCP membership. The domains represented the myriad of ways in which the COVID-19 pandemic affected service provision and their users - *Case-load Management (Evans 2020)*, and the extent of redeployment amongst paediatric physiotherapists, with perceived impact on their usual roles, services and practice - *Change in Role and Redeployment (Bell 2020)*. This survey also explored the rapid digitalisation of service provision and education - *Technology (McGarrity 2020)*, access to continuing professional development - *Continuing Professional Development (Hebda-Boon 2020a)* and perceived impact on members roles as educators or researchers during COVID-19 pandemic *Research and Education (Knight-Lozano 2020)*. The final two domains explored the personal impact of these unprecedented changes - *Well-being (James 2020)* and provided opportunity for sharing reflections, final comments and to voice key learning points - *Moving Forwards (Walsh 2020)*.

Respondent data was analysed using descriptive statistics and framework analysis (Ritchie 2014).

Ethics

The project was formally agreed by the APCP executive committee prior to commencement of data collection. Detailed information about the aims and outputs of the questionnaire were provided to respondents, highlighting the voluntary basis of their participation and possibility of withdrawal from the questionnaire at any point without coercion. This project was not a formative research design and so it was deemed by the executive committee to employ ethical principles but the project did not require formal ethical approval. Anonymity of the data was assured throughout data collection, analysis and discussion between members of the project team (Grinyer 2002, Ryen 2011, Wiles 2013).

Developing the survey

An electronic survey design was developed in three stages. In the first stage, shared experiences within the APCP working group informed in-depth discussion to establish priorities of professional experience during the COVID-19 pandemic. This included agreement of key survey domains: professional role, caseload management, technology, continuous professional development, research and education and wellbeing. These domains represented both the domains of the survey and the *a priori* framework for analysis. Initial questions were proposed, drafted, and agreed by all team members.

The second stage focused on optimising face and content validity (Taherdoost, 2016). The initial questions underwent review by two independent health professionals experienced in survey design. Minor changes were implemented, including language, grammatical structure and order of questions, to form the pilot survey.

In the final stage, the pilot survey was distributed to 12 paediatric physiotherapists from various subspecialties across experience levels. Initial analysis of responses resulted with further questionnaire re-design. The pilot responses were not included in the final data analysis.

Data Collection

The final survey questionnaire included 8 sections and 31 questions and was expected to take 10-15 minutes to complete.

The *Background* section included questions with predetermined categories (single answer, drop-down options) to gather information about respondents' demographics, gender, specialism, work setting, UK region. Further sections, *Change in Role and Redeployment*, *Caseload management*, *Technology*, *continuing professional development*, *Research and education*, *Well-being and Moving forwards* included open-ended questions about changes, challenges and opportunities that have been experienced by respondents during the first 3 months of COVID-19 pandemic (Appendix 1).

A final version of the survey was administered on-line via the Jot-Form platform from June 4th to June 17th 2020. The survey was distributed via an APCP members mailing list and newsletter, also shared on social media groups, including Facebook and Twitter.

Due to the qualitative nature of this project, the team members held frequent virtual meetings to discuss the findings, processes and ensure reflective analysis (Korstjens and Moser 2018, Hebda-Boon and Poole 2019).

Sample

All APCP members were invited to participate in the survey. The APCP currently has approximately 2300 active members. A total of 472 members completed the survey, accounting for approximately 20% of the APCP membership.

Data Analysis

Quantitative background data analysis has been completed using descriptive statistics.

The Framework Analysis approach was employed to analyse the open question data qualitatively. Framework analysis involves a staged process, supporting key steps of data management, abstraction and interpretation (Ritchie 2014). This design promotes an inductive ethos appropriate for synthesising qualitative data whilst maintaining a rigorous and transparent process of analysis (Hebda-Boon and Poole 2019). All team members had access to all responses across all domains, however due to the large dataset and the volume of information collected, each survey domain was assigned to subgroups for analysis. Each subgroup met independently during the process and shared findings with the whole project team during weekly meetings.

The active familiarisation stage aimed to systematically review the raw textual data, in order to immerse in data, to extract arising codes/labels and organise these into the coding matrix (separate for each domain) in Microsoft Excel (Poole and Hebda-Boon 2019). The data triangulation has been employed by the group members, who were coding independently then meeting to compare and discuss the codes to ensure rigour and transparency (Patton 2002, Braun and Clarke 2013).

Codes were sorted into initial frameworks of emergent themes and subthemes. Findings were presented during project meetings, employing peer review and in-depth discussion with the remaining authors before final conceptualisation of themes. This was followed by the phase of indexing of the raw data under appropriate set of themes/subthemes (separate for each domain). Two teams have utilised the NVivo 12 software to support data synthesis: *Research and Education* (Knight-Lozano 2020) and *Caseload domain* (Evans 2020). Findings of each domain are presented in Chapter 2-7 of this series.

Through sharing of findings and reflective discussions, the domains, themes and subthemes were brought together to enter the final stage – exploratory analysis in order to detect patterns of association and to develop explanations that represent the whole data-set via construction of the final conceptual model (Hebda-Boon 2020b).

Methodological Limitations

An online survey methodology was considered the safest and most feasible method to reach nation-wide perspectives of paediatric physiotherapists during the COVID-19 pandemic. However, the method itself introduces sampling bias. Digital distribution of the survey may have inadvertently skewed sample attributes towards a population with sufficient online access and experience (Evans and Mathur 2018). To minimise this impact, efforts were made to utilise a wide variety of well-established APCP communication channels, including the newsletter and email bulletins.

The sample represented members from all UK regions, paediatric specialities, settings, employers and bandings, yet the cohort may still differ from the wider paediatric physiotherapy population on a variety of other characteristics. Furthermore, the method introduces a self-selection systematic bias, inhibiting generalisation about study findings to the wider population (Bethlehem 2010).

The timeframe of the survey limits experiences to the initial 3 months following the original peak of COVID-19 in the UK and does not reflect experiences beyond the closure of the survey in June 2020. However, this period captures professional and personal reactions to unprecedented transformations in healthcare and social care, including 'lockdown' measures, closure of non-essential children and young people services and virtual provision of clinical, educational and research activity.

Within the data analysis, an inherent limitation arises from qualitative data collection that it cannot be tested for validity using quantitative measures (Johnson 2004). However, the credibility and transferability of findings has been established by demonstrating methodological rigour, with triangulation methods used at several stages and assuring an auditability of processes.

This is the largest survey the APCP has conducted with a 20% response rate. Fincham 2008 suggests that 60% or more should be the goal of survey research. The authors are aware there is a non-response bias of 80%. However, this has been considered in conjunction with the short time frame that this survey was open to members for completion. Furthermore, the authors believe that the demographics of the respondents are representative from across the UK with a range of specialisms and banding represented and as such can provide useful information for the wider APCP membership. It has also previously been highlighted that this project was not a research project.

Finally, authors are paediatric physiotherapists and therefore have been directly affected by the COVID-19 pandemic. To overcome the risk of author bias and ensure the trustworthiness, findings were frequently shared within the working group for collective critical examination, peer discussion and de-brief meetings.

Membership Responses

472 respondents completed the online survey, representing 20% of the membership. The regional representation, banding and respondent's specialisms/areas of work are represented in Figs 1,2 and 3 below, representing a diverse cohort of paediatric physiotherapists. The majority of respondents were employed by the NHS (78%), although representation from independent/private sectors (13%), charity sectors (5%), and other fields 2% were noted. More than half of respondents worked in primary and community settings (64%), with the remainder of respondents split between secondary (13%), tertiary (16%) and other settings (5%). A wide breadth, inclusive of 11 geographical regions throughout England, Wales, Scotland and Northern Ireland were represented (figure 1).

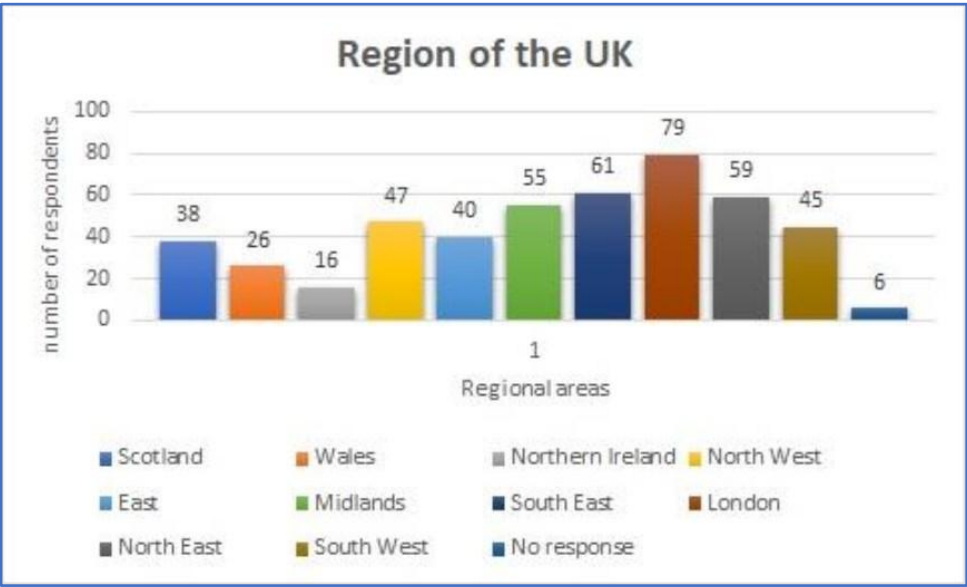


Figure 1.

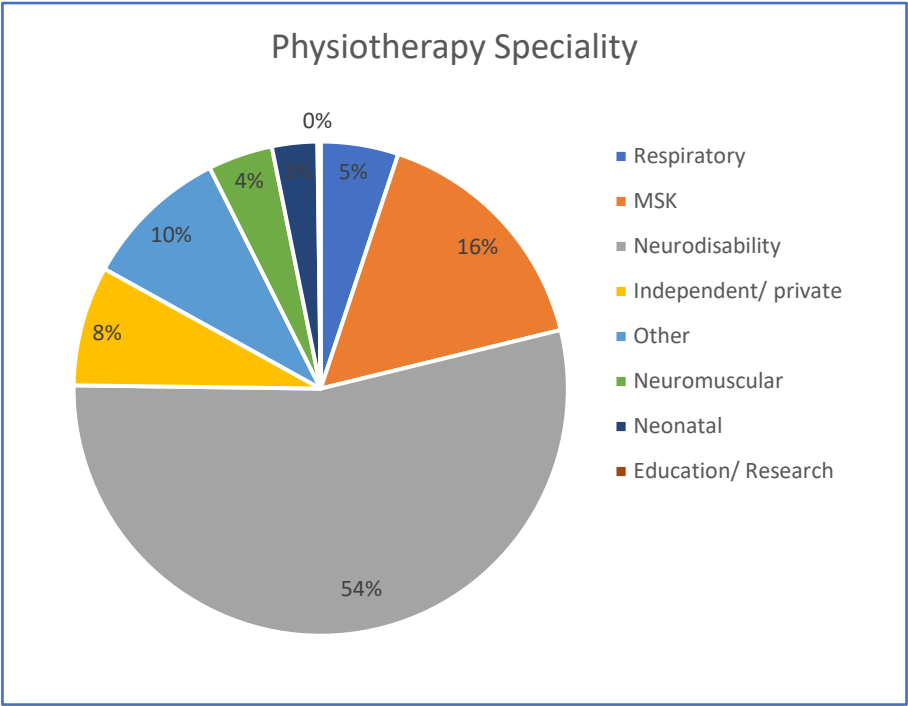


Figure 2

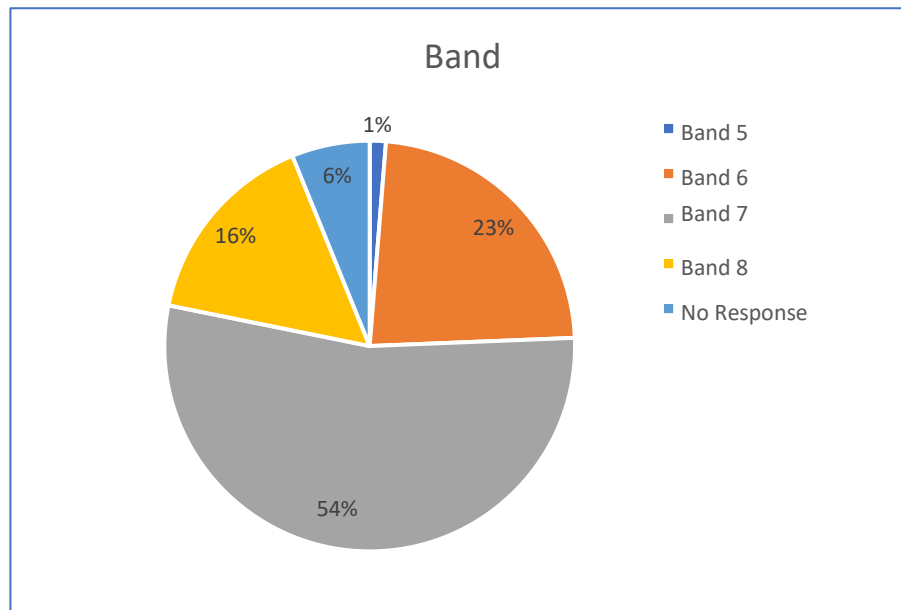


Figure 3

Conclusion

The response rate for this survey exceeded the initial expectations of the project group. By applying a rigorous analysis and robust methodological approach, it is hoped that the collective experience of respondents has been given due diligence. The aim of capturing APCP paediatric physiotherapists members experiences during the initial period of national COVID-19 lockdown has been achieved. It is intended that this series of articles shares the real breadth of information from our membership so that future discourse, consultation, and learning can be affected.

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