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A consensus statement on perinatal mental health during the COVID-19 pandemic and recommendations for post-pandemic recovery and re-build

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Consensus statement, COVID-19, Perinatal mental health, Women's Health, Recommendations for Policy and Practice

Abstract

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The COVID-19 pandemic posed a significant lifecourse rupture, not least to those who had specific physical vulnerabilities to the virus, but also to those who were suffering with mental ill health. Women and birthing people who were pregnant, experienced a perinatal bereavement, or were in the first postpartum year (i.e. perinatal), were exposed to a number of risk factors for mental ill health, including alterations to the way in which their perinatal care was delivered.Methods: A consensus statement was derived from a cross-disciplinary collaboration of experts, whereby evidence from collaborative work into perinatal mental health

during the COVID-19 pandemic was synthesised, and priorities were established as recommendations for research, healthcare practice, and policy.The synthesis of research focused on the effect of the COVID-19 pandemic on perinatal health outcomes and care practices led to three immediate recommendations: what to retain, what to reinstate, and what to remove from perinatal mental healthcare provision. Longer-term recommendations for action were also made, categorised as follows: Equity and Relational

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A consensus statement on perinatal mental health during the COVID-19 pandemic and recommendations for post-pandemic recovery and re-build.

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Abstract

Introduction: The COVID-19 pandemic posed a significant lifecourse rupture, not least to those who had specific physical vulnerabilities to the virus, but also to those who were suffering with mental ill health. Women and birthing people who were pregnant, experienced a perinatal bereavement, or were in the first postpartum year (i.e. perinatal), were exposed to a number of risk factors for mental ill health, including alterations to the way in which their perinatal care was delivered.

Methods: A consensus statement was derived from a cross-disciplinary collaboration of experts, whereby evidence from collaborative work into perinatal mental health during the COVID-19 pandemic was synthesised, and priorities were established as recommendations for research, healthcare practice, and policy.

Results: The synthesis of research focused on the effect of the COVID-19 pandemic on perinatal health outcomes and care practices led to three immediate recommendations: what to retain, what to reinstate, and what to remove from perinatal mental healthcare provision. Longer-term recommendations for action were also made, categorised as follows: Equity and Relational Healthcare; Parity of Esteem in Mental and Physical Healthcare with an Emphasis on Specialist Perinatal Services; and Horizon Scanning for Perinatal Mental Health Research, Policy, & Practice.

Discussion: The evidence-base on the effect of the pandemic on perinatal mental health is growing. This consensus statement synthesises said evidence and makes recommendations for post-pandemic recovery and re-build of perinatal mental health services and care provision.

Keywords: Consensus statement; COVID-19; Perinatal mental health; Women's health

1 Introduction

The COVID-19 pandemic presented an unprecedented health system shock to the world between January 2020 and May 2023. Although first detected in Wuhan, China, on 31 December 2019 (Public Health England; PHE, 2020), the virus – a respiratory disease with high mortality risk for individuals with pre-existing comorbidities (Elliott et al., 2021) – spread quickly, worldwide. Concerns about mortality and spread of the novel virus prompted a global, co-ordinated implementation of social and physical distancing restrictions. Meanwhile, research efforts turned towards vaccine development (WHO, 2021b), understanding the health system shock and the possible ramifications for short-, medium-, and long-term health, especially as the world braced for the further pandemic of mental health issues caused by the virus and associated fears, bereavements, and restrictions (Adhanom Ghebreyesus, 2020). Maternity care was significantly disrupted during Government-mandated lockdown restrictions (Jardine et al., 2020). Social and physical distancing restrictions interrupted access to routine maternity care, and adversely impacted perinatal mental health (Hessami et al., 2022; Racine et al., 2021) and child development (Benner & Mistry, 2020; Liu & Fisher, 2022). Worryingly, these restrictions saw increased instances of child neglect, child abuse, and domestic abuse risk (Thomas et al., 2020), restricted access to reproductive healthcare (including abortion services; Qaderi et al., 2023); and increase in maternal morbidity (Vousden et al., 2022) and serious adverse obstetric events such as stillbirths (Homer et al., 2021; Khalil et al., 2020). Further, the potential for maternity staff to experience work-related trauma and subsequent PTSD is likely to have been exacerbated, beyond levels already recognized as significant (Sheen et al., 2015; Sheen et al., 2022, Slade et al., 2018). The extent of longer-term impacts of the pandemic, however, are yet to be fully realised and may take years to be understood completely.

This article presents a consensus statement on amassed evidence from research and syntheses on perinatal mental health undertaken during the COVID-19 pandemic. We suggest recommendations in the form of what healthcare policy, services, and professionals should retain, reinstate, and remove from their care provision in the immediate period of post-pandemic recovery and re-build. We also provide guidance on longer-term recommendations for practice.

2 Methods

This consensus statement was originally conceived by a collective of cross-disciplinary researchers (Psychologists, Psychiatrists, Sociologists, Anthropologists, Midwives, Obstetricians, Obstetric Physicians, Physiologists, and Patient Advocates; mainly based in London and Liverpool, UK) who, in late-2020/early-2021 wanted to synthesise evidence from research they had conducted during the

early stages of the pandemic about how it had affected perinatal mental health outcomes, services, and care. They secured funding from the Society for Reproductive and Infant Psychology – via a Research Development Workshop Grant (ref:- SRIP/DWA/01) – to do so, which contributed to the second origin – a policy-oriented research dissemination event held at The Royal Society of Medicine [The RSM] in London on 22 September 22. The RSM event was hosted by PIVOT-AL: a national collaborative in the UK of over 60 researchers, academics, policy makers, and members of third sector organisations from more than 25 institutions (see *Figure 1*). During the pandemic, the collaborative undertook research focused on the impact of the pandemic on maternal, child, and family health, healthcare professionals, and service provision. A formal synthesis of this evidence on perinatal mental health was presented as a key part of the programme at The RSM event. This consensus statement provides a summary of this evidence and identifies priorities for future research, policy, and healthcare practice.

A recognised approach for deriving consensus statements is usually to construct a panel of experts amongst whom ideas are shared with a focus on establishing priorities for research, healthcare practice, and policy (Manera et al., 2019). Discussions at this event were based on the expert knowledge of attendees and enhanced by patient and public involvement and engagement [PPIE] at both the event and in writing the statement. The cross-disciplinary nature of the group allowed for a breadth and depth of perspectives to be represented. The authors recognise that whilst this synthesis is extensive, it is not exhaustive of all the research efforts which took place in perinatal mental health services across the UK during the COVID-19 pandemic. Neither does it reach into global literature – which is equally important, but would be inappropriate to incorporate as part of an assessment into UK policy and practice. Therefore, this statement does not aim to provide a comprehensive nor systematic review of the literature-base, but rather represents an overview of issues and priorities discussed by attendees at the dissemination event. Indeed, the statement presents the consensus reached by academics and clinical experts who authored the literature included in the synthesis and by those present at the dissemination event.

Figure 1: The PIVOT-AL Logo

3 Available Evidence

The perinatal mental health research captured by The PIVOT-AL National Collaborative primarily focused on postpartum mental health and the transition into new motherhood during the COVID-19 pandemic. However, extensive efforts have also spanned psycho-social experiences of pregnancy and childbirth, incidences of domestic abuse and violence, support requirements of perinatal mental health staff and services during mandated social and physical distancing restrictions.

One of the earliest PIVOT-AL investigative efforts was The Pregnancy and Motherhood Study (PRaM; Fallon et al., 2021). A large, on-line, national survey was distributed to pregnant and postpartum women during initial mandated lockdown restrictions (UK Government, 2020a), during the initial easing of social distancing restrictions (UK Government, 2020b), and post-'Freedom Day' (defined as the easing of all legal restrictions on social contact; UK Government, 2021). The PRaM Study involved the distribution of a battery of psychometric measures (Fallon et al., 2021; Silverio et al., 2021), with nested qualitative interviews in accordance with the corresponding mandated lockdown restrictions (Jackson et al., 2021; 2023).

Quantitative findings indicated 43% and 61% of postpartum women were experiencing clinically relevant levels of depression and anxiety symptoms, respectively (Fallon et al., 2021). Perceived psychological change, resulting from the introduction of social distancing measures, predicted unique variance in the risk of clinically relevant maternal depression (30%) and anxiety symptoms (33%), respectively (Fallon et al., 2021). These data were consistent with UK-data found in global comparisons of perinatal mental health data as reported by a consortium of the RISEUP-PPD Network, where the UK consistently ranked highly amongst reports of increased symptoms of perinatal anxiety and depression (Mateus et al., 2022). The PRaM Study also rapidly developed and validated a research short form of the Postpartum Specific Anxiety Scale for use in global crises (PSAS-RSF-C; Silverio et al., 2021). This short-form was translated into Chinese, Dutch, French, Italian, and Spanish (Silverio et al., 2021), and validations are underway including in Persian (PSAS-IR-RSF-C; Mashayekh-Amiri et al., 2023).

Qualitatively, The PRaM Study found postpartum women continued to experience distress throughout the pandemic, despite the easing of social distancing restrictions (Jackson et al., 2021). Lack of support for the schooling of older children was particularly inflammatory to maternal mental health and wellbeing disturbance (Jackson et al., 2021). Antenatally, respondents were consistent across timepoints in feeling their pregnancy was overshadowed by uncertainties pertaining to the pandemic, which left respondents grieving for the loss of the kind of transition to motherhood which they would have had in the absence of mandated lockdown restrictions (Jackson et al., 2023).

Echoing these findings, an analysis of qualitative data from women recruited to The King's Together Fund Changing Maternity Care Study identified tensions between good and poor practices, which affected perinatal psycho-social wellbeing (Montgomery et al., 2023). Results included dyadic pairs of experiences as women struggled to navigate the uncertainties of the pandemic and pregnancy, alone. Dyadic pairs included: 'lack of relational care vs. good practice persisting during the pandemic'; 'denying the embodied experience of pregnancy and birth vs. trying to keep everyone safe'; and 'removed from support network vs. importance of being at home as a family' (Montgomery et al., 2023). Consistent with other PIVOT-AL works, the realities of maternity care were disappointing compared to expectations and experiences before the pandemic, which exacerbated distress (Montgomery et al., 2023). Lack of access to relational care, introduction of telemedicine and reliance on virtual appointments, and the exclusion of partners from routine care were particularly challenging for emotional well-being. This was despite acknowledgement of the pressures placed on healthcare professionals and on NHS services during the unprecedented times of the pandemic (Montgomery et al., 2023). Lack of access to emergency and gynaecological care has also been flagged as being detrimental to the care of early pregnancy loss and later perinatal deaths (Rimmer et al., 2020; Silverio, Easter, et al., 2021).

A critical review and mapping of service provision suggested perinatal distress had increased, which was attributable to the increasing inaccessibility of support services (Bridle et al., 2022). However, this was occasionally countered by services providing reconfigured and/or extended perinatal mental health services. As healthcare transitioned from pandemic to para-pandemic circumstances, it was imperative to provide support for perinatal mental health professionals within the context of developing new post-pandemic services (Bridle et al., 2022). Some women struggled to engage with virtual mental health assessments in perinatal mental health services (Wilson et al., 2021). This was especially concerning for circumstances whereby virtual appointments prevented disclosure of urgent needs and risks e.g., in cases of domestic abuse (Wilson et al., 2021). However, for women who struggled with the practicalities of attending face-to-face consultations e.g., due to travel time, virtual appointments offered a flexible and well-received alternative (Wilson et al., 2021).

Maintaining perinatal mental health services was found to be challenging for ethnic minority women, who experienced many difficulties and disruptions to accessing perinatal mental health care, which exacerbated pre-existing challenges such as living in insecure social housing and experiencing financial hardship (Pilav, Easter, et al., 2022). Most had a strong preference for face-to-face consultations, and experienced high levels of social isolation and heightened anxiety as the pandemic continued (Pilav, Easter, et al., 2022). A large study was also conducted which utilised linked maternity

and mental health records held within the Early Life Cross-Linkage in Research (eLIXIR) database (Carson et al., 2020). Data from three NHS Foundation Trusts (including one Mental Health Trust) in South London comprise the eLIXIR database (Carson et al., 2020; Hildersley et al., 2022). Research using an interrupted time series study design found that recording of domestic abuse and violence during national lockdown restrictions reduced by 78% in mental healthcare settings. There was also an increased prevalence of positive screening on the Whooley depression screening measure, by 40%, in the same period (Hildersley et al., 2022).

A large body of international work investigating the effects of the pandemic on new, expectant and bereaved parents (COCOON; Loughnan et al., 2022) is underway, complete with a nested qualitative study (PUDDLES; Silverio, Easter, et al., 2021) which focuses on the experiences of women bereaved by pregnancy loss (e.g. early elective abortion, pregnancy of unknown location, miscarriage, ectopic pregnancy, molar pregnancy, or termination of pregnancy due to foetal anomaly) or perinatal death (stillbirth and neonatal death). Results specifically linked to the mental health outcomes are pending, but will provide important insight into another aspect of perinatal mental health, not otherwise covered by the information synthesised above.

Whilst there has been much evidence to support worsening conditions for perinatal mental health care and support during the pandemic, the ending of the global health crises allows a period of reflection and re-set for recovery and re-build out of the health system shock. What follows are recommendations for immediate action, followed by longer-term recommendations for policy, service provision and research.

4 Discussion of Recommendations

4.1 Immediate Action

4.1.1 What to Retain

Access to essential reproductive services such as contraception and abortion (Baxter et al., 2023; Romanis & Parsons, 2020), ensuring high levels of relational care are prioritised in healthcare service and delivery (Bridle et al., 2022; Montgomery et al., 2023), and redoubling efforts to ensure perinatal and infant mental health are given the parity of esteem of physical health concerns (House of Commons, 2023) are recommended for retention in line with other calls for prioritisation of specialist women's mental health care (Alderdice, 2020; Howard & Khalifeh, 2020; Department of Health & Social Care, 2022). Communication of health messaging to families should continue to be clear, concise, and consistent, and the option for remote care provision should be maintained (Pilav, Easter,

et al., 2022; Wilson et al., 2021). However, this should be offered in-line with clinical decision-making around safety and appropriateness for individual women and birthing people.

4.1.2 What to Reinstate

At a system level, reinstating time for processing and reflection on new directives for service delivery as well as including healthcare professionals' and service user voice, is important across all aspects of healthcare serving perinatal women (Silverio et al., 2023). This will enable teams to consider how best to implement new service provisions. Bi-directional communication between central NHS management, individual Trusts, and healthcare professionals is recommended to optimise satisfaction with care and workplace satisfaction for staff (Bridle et al., 2022). Within this, the voices of perinatal women and birthing people must also be heard and their perspectives on prospective changes must be sought. Recommendations are also made to reinstate healthcare professionals' autonomy and professional judgement in providing empathic, evidence-based care; including professional judgement on when to use remote versus in-person care (Silverio et al., 2023; Wilson et al., 2021).

During the pandemic, a large proportion of healthcare professionals were displaced within their services to provide support to COVID-19 wards (Montgomery et al., 2023) and early pregnancy and/or gynaecological services were dramatically rationalised (Rimmer et al., 2020). Maternity care was consequently stripped of vital service provision by specialist midwives for mental health and bereavement care (Bridle et al., 2022). Evidence from the PIVOT-AL collaborative highlights the importance of protecting healthcare professionals across all aspects of perinatal care services from re-deployment to ensure a full complement of staff is available to perinatal women/people, their babies, and their families (Bridle et al., 2022). This also requires recognising the importance of quality, holistic, postpartum care, specifically in the community (Pilav, Easter, et al., 2022). To re-establish these priorities, face-to-face care and support should be reinstated (Hildersley et al., 2022; Jackson et al., 2021, 2023), and should remain the dominant form of care provision.

Finally, re-introducing consented partners, family members, and/or other trusted support (e.g. friends, Doulas, etc.), should be prioritised across all interactions across the perinatal period (Bridle et al., 2022; Montgomery et al., 2023; Silverio, Easter et al., 2021). Importantly, this form of support should be seen as part of the caregiving team and not simply visitors, and should be regarded as a basic birthing right, never again to be removed.

4.1.3 What to Remove

Firstly, recommendations are made to cease blanket or 'one size fits all' policies from being rolled-out across all services, without consideration of variation in demographic need or accessibility to essential support services (Pilav, Easter, et al., 2022), as this would lead to inequitable health services. During the pandemic, ethical, moral, and relational care was replaced by priorities of infection control (Bridle et al., 2022; Montgomery et al., 2023) – thereby swapping a broad notion of safety which encompassed women's psychological safety, for one bearing a narrow definition focused on the notion that safety was synonymous with not spreading the infection, and prioritising prevention of COVID-deaths above other serious and potentially fatal risks, such as severe mental health episodes, domestic abuse and violence, and suicide.

At this time, personalised care was often deprioritised (Jackson et al., 2021; 2023). Considering these findings, recommendations are made to cease the provision of exclusively virtual or remote care (Montgomery et al., 2023), and the exclusion of wanted birth partners (Bridle et al., 2022). Furthermore, confusing and conflicting messaging between Government organisations, the Royal Colleges, individual Trusts, and other Learned Academies, has been a consistent issue (Montgomery et al., 2023). When national public health messaging is necessary, disinformation and/or conflicting information must be stopped as a matter of utmost importance (Jackson et al., 2021; 2023). Messaging must be consistent from policy to practice, and policy makers and healthcare professionals must be agile enough to interpret and implement change in a uniform way.

4.2 Longer-Term Recommendations

4.2.1 Equity and Relational Healthcare

Equitable, relational care should be offered to all in the perinatal community (House of Commons, 2023), with special consideration made for populations who struggle to access healthcare (e.g., women from ethnic and sexual minority groups or those living with high levels of social complexity or in areas with high levels of social deprivation), who may be particularly avoidant of using perinatal mental health services (Pilav, Easter, et al., 2022). Support for women, birthing people, and their families should be curated, based on personalised needs assessments in circumstances of high physical, mental, or social risk (Jackson et al., 2021; 2023). It would be prudent also to maintain focus not just on the health of women and birthing people, but also to attend to the established relationship between parental, child health, and wider family health; acknowledging the reciprocal nature of the caregiver-infant mental health outcomes (Landoni et al., 2022) and ensuring healthcare professionals are working holistically (Bridle et al., 2022) and with the whole family to be proactive and intervene before families

reach crisis point (Hogg & Mayes, 2022). We must also give greater energy and focus to those families who find care hard to access (Fernandez Turienzo et al., 2021); experience high levels of social complexity, inequality, and deprivation (Khan et al., 2023); may have a rooted distrust for the NHS and wider social care systems (Silverio, Varman, et al., 2023); or are generally underserved by the health and care system (Pilav, De Backer, et al., 2022). In doing so, we must integrate psychological support across the healthcare systems linked to maternal and child health, especially for families who experience pregnancy losses (George-Carey et al., 2024), those whose babies are born premature or become ill (Worrall et al., 2023), or whose babies die (Silverio, Easter, et al., 2021; deMontigny et al., 2023); as these parents and families require additional psychological support as they access other parts of the healthcare system such as Neonatal Intensive Care Units [NICU; Silverio, Easter, et al., 2021] or perinatal bereavement care services (Silverio, Memtsa et al., 2022).

4.2.2 Parity of Esteem in Mental and Physical Healthcare with an Emphasis on Specialist Perinatal Services

Protecting healthcare professionals' emotional well-being and capacity, protecting against redeployment, and arguing for greater representation of minoritized staff, is recommended across perinatal mental health services (Bridle et al., 2022; Wilson et al., 2021), echoing broader calls across all maternity and children's healthcare services (Silverio et al., 2022). Better integration of physical and mental health care is also required (House of Commons, 2023), whilst retaining and improving specialist perinatal mental health services (Howard & Khalifeh, 2020). Community, educative, and public health engagement needs targeting to better support marginalised and disadvantaged communities suffering with perinatal mental health problems (Hildersley et al., 2022; Pilav, Easter, et al., 2022). New and evolving information about the potential negative effects on perinatal mental health, transmitted from leading experts should be concise, credible, and transparent (Jackson et al., 2021; 2023).

4.2.3 Horizon Scanning for Perinatal Mental Health Research, Policy, & Practice

Perinatal mental health research covers a broad expanse of time (preconception to postpartum), engages women and their families, and involves many aspects of the healthcare system. The ability to mobilise research using innovative methods and having prompt access to accurate, identifiable routine data is imperative for rapid-response research. The effects of the pandemic on mental health during preconception (Balachandren et al., 2022), after an early elective abortion or termination of pregnancy due to foetal anomaly, or following an early pregnancy loss or late perinatal death (Loughnan et al.,

2022; Silverio, Easter et al., 2021), are yet to be fully understood and should remain areas of priority. Global data may also be useful to understanding best practice in aspects of perinatal mental health care which could be applied to the UK NHS context.

5 Conclusion

Postpartum distress was elevated during mandated social distancing restrictions (Fallon et al., 2021; Mateus et al., 2022). Qualitative and critical review literature contextualised these findings. Specifically, perinatal women struggled to navigate scaled-back maternity care and felt their experience of maternity had been overshadowed by uncertainties and health anxiety pertaining to the COVID-19 pandemic (Bridle et al., 2022; Jackson et al., 2021; 2023; Montgomery et al., 2023; Pilav, Easter, et al., 2022). For families facing additional adversities (e.g., those experiencing domestic abuse and violence), the depletion of face-to-face care proved a particularly grievous threat to wellbeing (Hildersley et al., 2022). Finally, The Postpartum Specific Anxiety Scale – Research Short Form was produced and validated in English for use in global crises (Silverio et al., 2021), allowing for a rapid assessment of postpartum anxiety in future global health crises.

Recommendations for immediate action were suggested under aspects of care to retain, reintroduce, and to remove. Protecting access to essential reproductive and perinatal health services (Baxter et al., 2023; Romanis & Parsons, 2020), ensuring quality healthcare delivery (Bridle et al., 2022; Montgomery et al., 2023; Pilav, Easter, et al., 2022), and giving perinatal mental health parity of esteem with physical health concerns (House of Commons, 2023) as well as providing specialist, tailored services for perinatal women (Alderdice, 2020; Howard & Khalifeh, 2020; Department of Health & Social Care, 2022) is recommended for retention as we recover and re-build services after the pandemic. Remote care should be retained (Pilav, Easter, et al., 2022; Wilson et al., 2021), but not at the expense of face-to-face consultation (Hildersley et al., 2022; Jackson et al., 2021; 2023), and nor should it be the dominant provision. Partners and family members, who women and birthing people want to be present should be prioritised in healthcare settings (Bridle et al., 2022; Montgomery et al., 2023). Reinstating trust in the professional judgement of healthcare staff (Wilson et al., 2021), ensuring adequate and timely communication between central NHS management, individual Trusts, and healthcare professionals (Bridle et al., 2022), and protecting staff from unnecessary re-deployment (Bridle et al., 2022; Montgomery et al., 2023), are recommended for reinstation; whilst recognizing the importance of social care being able to visit families rather than offering remote assessments and follow-up. Blanket policies made without considering demographic and accessibility variation should be ceased (Greenfield, 2022; Pilav, Easter, et al., 2022; Silverio, Easter, et al., 2021). Efforts should

be made to investigate the longer-term impacts of the COVID-19 pandemic on women, birthing people, and their families.

It is envisioned that this statement will provide the foundation for future research, policy implications, and service provision and care practices in perinatal mental health as we emerge from the pandemic, recover our healthcare systems and services, and build back a better provision for perinatal mental health care in the future. The services of the future must be resilient, adaptable, tensile, and plastic enough to weather future health system shocks when they inevitably arise – in order to provide the safest, most up-to-date, and best possible perinatal mental health care in the future.

6 Conflict of Interest

Sergio A. Silverio (King's College London) is in receipt of a Personal Doctoral Fellowship from the NIHR ARC South London Capacity Building Theme [NIHR-INF-2170]. Kaat De Backer (King's College London) is in receipt of an NIHR Doctoral Research Fellowship [NIHR302565]. Claire A. Wilson (King's College London) is supported by the NIHR as an Academic Clinical Lecturer. Mary Newburn and Jane Sandall (King's College London) are currently supported by the National Institute for Health Research Applied Research Collaboration South London [NIHR ARC South London] at King's College Hospital NHS Foundation Trust. The views expressed are those of the authors and not necessarily those of the NIHR or the Department of Health and Social Care. Claire Storey (The International Stillbirth Alliance) is a Trustee for Mothers for Mothers, a perinatal mental health charity. Victoria Fallon (University of Liverpool) and Kayleigh S. Sheen (University of the West of England Bristol) are currently serving Society for Reproductive & Infant Psychology committee members, with Victoria Fallon being a core officer (Treasurer) and Kayleigh S. Sheen being the Communications Officer and one of the co-ordinators for the Research Development Workshop Grant scheme.

7 Author Contributions

Conceptualisation: [SAS]; Methodology: [SAS, LJ, MG]; Validation: [SAS, MG]; Formal Analysis: [SAS, LJ]; Investigation: [LJ, MG, KB, JMH, MN, MO, CS, SMD, KDB, FEK-N, SP, SW, LB, NK, DR, LEC, LDP, VF, EM, CAW, JAH, LMH, JS, LAM, KSS, SAS]; Resources: [SAS, MG]; Data Curation: [LJ, SAS]; Writing – Original Draft: [LJ, SAS]; Writing – Review & Editing: [MG, EP, KB, JMH, MN, MO, CS, SMD, KDB, FEK-N, SP, SW, LB, NK, DR, LEC, LDP, VF, EM, CAW, JAH, LMH, JS, LAM, KSS]; Visualization: [LJ, SAS]; Supervision: [SAS]; Project Administration: [SAS, EP]; Funding acquisition: [SAS, VF, MG, KDB, LEC, SP, SMD, LJ, DR, NK, JMH, CAW, LDP, EM, CS, MN, JAH, JS, LMH, LAM].

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10 Data Availability Statement

Not applicable.

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Figure 1.JPEG