Trauma in fathers following complicated childbirth: the need for intervention

It is well known that the mental health of both parents, especially in the early post-partum period, can have a significant negative impact on the psychological wellbeing of an infant. There is growing evidence that fathers can experience trauma, potentially resulting in post-traumatic stress disorder (PTSD) following the complicated delivery of their child. Currently there is little research that has been conducted on the prevalence of PTSD in these fathers, or the need for them to be treated accordingly. An extensive literature review was conducted to assess the current status of the research in this field; the clinical implications of these findings are discussed.

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Key points

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1. Fathers' traumatic reactions to complicated childbirth are an important health issue in their own right.
2. Study into trauma in these fathers must be developed further.
3. Fathers suffering from trauma need to be identified. Trauma and referral pathways need to be developed.

PTSD

PTSD is a complex psychiatric disorder unique in that it has a known etiological feature, composed of a single trauma or a repeated series of threatening experiences. Initiating experiences can transform a healthy individual into one with a cluster of debilitating symptoms, such as intense intrusive memories and re-experiencing of the trauma, hypervigilance and negative alterations in mood and cognitions. It is now recognised that an array of distressing events can initiate PTSD, including traumatic childbirth.[1]

Childbirth is a complex event that encompasses a variety of psychological responses, both positive and negative. Traditionally, maternity services have concentrated on the mother and her baby, thus the very nature of this area has been woman-centred.[2] However, with the evolution of our society, the expectation for fathers to have an integral role throughout their partner's pregnancy, labour and childbirth is now prevalent.[3]

While some may consider childbirth to be both routine and safe, there are many instances where complications arise. Consequently, for some fathers, criterion A for a clinical diagnosis of PTSD under the *Diagnostic and Statistical Manual of Mental Disorders Fifth Edition* (DSM-V) is met.[4] This criterion states that an individual must have experienced or witnessed (as fathers do) a trauma in which they experienced actual or threatened death, serious injury or a threat to the physical integrity of self or others – in this instance their partner or baby. Research has begun to evidence the existence of PTSD in fathers following childbirth. Van Ee et al[5] reviewed 72 studies, finding decreased parental sensitivity, impaired parent-child relationships and decreased emotional availability in parents with PTSD compared to parents without PTSD. This finding suggests the significance of the issue, however, there are currently no screening programmes and no referral pathways that lead to any sort of intervention for fathers. This warrants further research for many reasons.

It is known that PTSD symptoms will persist and worsen until treated.[6] It is also well known that sufferers of PTSD are likely to utilise negative coping strategies such as substance abuse in an attempt to subdue their distress.[7] In the presence of a newborn child this brings huge implications for risk. The negative impact that mental health issues have on a child's subsequent development is momentous[8] and relationship disharmony has been evidenced in PTSD, which has implications for new parents.[9]

It is well established in the literature that males tend to under report mental health issues,[10] suggesting that paternal PTSD may go unrecognised and untreated in many ways. Clinicians do not screen for it, fathers may not report their suffering – and even if they did, at present there exist no maternity referral pathways to signpost sufferers to access treatment.

The literature review

Databases searched included Psychinfo, Medline, Scopus, Science Direct, PubMed and Published Internal Literature of Traumatic Stress. Thirteen articles were included in this review and studies were included on the following grounds:

1. The studies focussed on fathers that experienced trauma or PTSD following complicated childbirth.
2. PTSD symptoms were assessed.
3. Risk implications of paternal PTSD were reported.
4. Screening for PTSD symptoms following childbirth was explored.

The literature solely focuses on successful childbirth.

PTSD in fathers following childbirth

The literature was examined to search for evidence for or against the existence of trauma symptoms, ie subclinical PTSD or clinical level PTSD in fathers following a complicated or traumatic childbirth.

Quantitative studies

Lefkowitz et al[11] conducted a study central to this review. The researchers included 60 mothers and 25 fathers who shared their experiences and responses to a traumatic event, which in this case was their infant's admission. At 30 days or more after birth, parents completed the PTSD symptom checklist.[12] The authors found that 8% of fathers met full clinical criteria for a diagnosis of PTSD. Additionally, 4% of fathers presented with subclinical PTSD at the same time point. Given that we know that PTSD symptoms may worsen if not treated,[6] it could be surmised that the 4% that did not quite meet the clinical criteria at 30 days could develop clinical level symptoms in future if neglected. This research also found that PTSD symptoms in fathers were not associated with either physician or parent-rated infant medical severity, ie how ill their child was at the time of scoring. Neither was PTSD severity related to whether the infant was discharged or remaining in hospital at the time of assessment. This is an unusual result but one that is replicated in a similar study that examined the prevalence rates of PTSD in parents of hospitalised neonates.[13]

Both studies suggest that the fathers' PTSD severity was not moderated by the severity of a child's illness. This may suggest that it may not necessarily be the objective factors that contribute most to PTSD symptoms, but the subjective factors of negative childbirth that weigh the most. Examples of these are prolonged uncertainty, lack of information and alterations in expectations. In summary, the findings by both studies[11,13] support an earlier study by Beck,[14] concluding that: "Birth trauma is in the eye of the beholder".

These findings resonate with much of the qualitative research echoing accounts from fathers experiencing a lack of control, information and support.[15] Paying attention to fathers is a neglected area and highlights the importance of targeted interventions for them.[11,13]

Iles et al[16] conducted a purely quantitative study with the main aim of finding out whether post-traumatic stress symptoms (PTSS) were related in couples following childbirth. This study involved 212 couples who completed the post-traumatic stress questionnaire (PTSD-Q)[17] alongside the impact of events scale (IES)[18] at three time points: T1 = first seven days after birth; T2 = six weeks after birth, and T3 = three months after birth.

Symptoms of post-traumatic stress (PTS) were found to be significantly related between couples, where fathers' symptoms were associated with their partner's symptoms across time points.

Men who had previously consulted their GP for anxiety symptoms reported higher levels of PTS, suggesting that a positive psychiatric history could be a risk factor for fathers' development of PTSD. Additionally, higher severity of PTS was found in first-time fathers in comparison to men who had previous children.

These results are of particular interest to this review in suggesting that fathers with pre-morbid anxiety and those who are first-time fathers may be at particular risk of PTS. Healthcare professionals (HCPs) should be vigilant of high pre-morbid anxiety levels in fathers, as well as first-time fathers throughout meetings.

There were no significant associations between mode of delivery and fathers' levels of PTSD. This result is consistent with other studies.[11,13] It has been suggested that factors such as loss of control and lack of information and support contribute most to PTS symptoms rather than the objective factors of the event itself.[15,19] This may provide an explanation as to why there was no direct association between mode of delivery and PTS symptoms.

Preterm birth is often traumatic and a large source of distress for both parents. However, Ghorbani et al[20] contradict findings of Hinton et al,[21] with no significant differences in PTSD symptoms between fathers of premature and term infants, although they did not measure PTSD symptoms as a direct result of childbirth, but instead measured this as a result of the fathers' most traumatic experienced event.

Stamrood and colleagues[22] investigated the prevalence and risk factors for PTSD in partners of pregnant women with either early pre-eclampsia (PE) or preterm premature rupture of membranes (PPROM). Given their medical conditions, childbirth for these women would not be straightforward. Of 187 eligible partners, 66 completed the post-traumatic stress scale self-report questionnaire (PSS-SR) at T1 (38 weeks of pregnancy) and T2 (six weeks' post-partum). The duration criterion for a diagnosis of PTSD under the DSM-V was thus met. At T2, the PSS-SR measured PTSD symptoms that were specifically related to the perinatal period. Partners also rated the extent to which they had experienced fear, helplessness and horror on visual analogue scales.

Partners of patients who dropped out of the research at T1 had more PTSD symptoms on average than those fathers who participated at both times. It could be surmised that fathers with PTSD declined further participation because reflecting on the experience of the birth of their child was too difficult for them. This finding has important implications for the conclusions of this review in that intervention for fathers with PTSD may be difficult due to the aetiology of PTSD with regards to avoidance.

Qualitative interview studies

Hinton et al[21] conducted a small (n=46) but in-depth study focusing on the impact of 'near miss' events in childbirth on partners. Through semi-structured interviewing, many fathers expressed that they had experienced intrusive symptoms (flashbacks), while some fathers were diagnosed with full criterion PTSD in the months or years since the emergency. Avoidance symptoms were also apparent whereby it was reported that one male had even had a vasectomy to make sure that he and his partner never had to go through childbirth again. Some fathers also described the breakdown of relationships and employment problems following traumatic childbirth.

The sections of interview transcripts provide rich evidence that PTSD symptoms in partners after birth trauma can be significant and have a long-term impact financially, practically and emotionally. Some fathers had difficulty bonding with their baby, and led them to question 'what sort of a man/father am I?' On compiling transcript evidence, the authors concluded that support from maternity staff would be beneficial, and that males voiced that they may have attended counselling services if it had been offered to them. Importantly though, the authors do conclude that professionals must be aware that partners experiencing mental health issues may not necessarily seek help.

Furthermore, another factor that constitutes 'complicated childbirth' is when problems in delivery mean that a baby has to be resuscitated. As a consequence of the large number of men now attending birth, more will also be present at the resuscitation of their child.[19] A qualitative study with a small sample (n=20) of fathers who had been witness to this event found that none of the sample felt supported by HCPs at this time, with fathers reporting nightmares and flashbacks of the event.[23] Other fathers stated that they were not given information about what was happening at the time, which caused them significant distress and made fathers feel unimportant. Father 19 describes while the resuscitation was taking place that he was left out when he felt he should be participating: "I didn't feel as if I was allowed to go across, although I would have liked to have done. I mean I would've liked to have gone across but I didn't feel as if I could."

Similarly, a qualitative study regarding fathers' experiences of complicated childbirth found many fathers expressed experiencing intense fear and helplessness throughout a child's birth.[24] Fathers reported that these fears may have been exacerbated through not receiving information, updates or support on the well-being of their partner and unborn baby.

Risk factors

The literature was then examined to see what risk factors were found to be associated with higher PTSD symptoms in fathers following complicated childbirth, findings included demographics, perceived stress, lack of support and inclusion, lower gestational age at delivery and when the partner was also suffering from PTSD.

What seemed to matter most to fathers were not so much the objective factors of childbirth (emergency caesarean, infant resuscitation or infant admission to the neonatal unit); it was the lack of information, support and being 'side lined' that contributed most to their experiences of trauma. Fathers expressed that had they known or were educated about the potential risks of childbirth they would not have been quite so distressed and shocked. [15,21,24]

Risk implications if fathers are not treated

The literature was then studied to see what effect a father's PTSD may have on the mother, the child and the family unit. Parfitt et al[25] examined the impact of parental mental health (covering anxiety, depression, PTSD) on parent-baby interaction. Results showed that higher scores of PTSD symptom severity predicted lower levels of infant passivity and higher levels of infant difficulty.

Sotskova and Woodin[9] conducted longitudinal research examining how PTSD symptoms related to relationship satisfaction in new, high-risk parents in the context of harmful drinking. PTSD symptoms in fathers were significantly related to relationship dissatisfaction, and for fathers, PTSD symptoms interacted with harmful drinking to predict even lower relationship satisfaction.

Intervention

The majority of the literature so far has concluded that fathers suffering from trauma symptoms or PTSD should warrant intervention. Intervention may take the form of prevention methods, ie education, screening, monitoring and psychological treatment if necessary. Unsurprisingly, there was no literature found that had explored any of these aspects of intervention for postnatal PTSD in fathers. Therefore, we discuss treatment suggestions from the studies examined.

Education

Many fathers expressed the wish to have been educated or better informed of what could go wrong in childbirth. When thrown into the midst of an emergency, many studies suggest that fathers were not aware this could be a possibility, increasing distress.[15,21,24] Poh et al[26] described these needs through interviews with fathers. When asked what improvements could be made, the review of antenatal classes arose as a suggestion, alongside more professional support and information regarding risks in childbirth; managing emotion and postnatal care. They also propose separate antenatal education for fathers and this is echoed in the conclusions of several studies.

Screening

The vast majority of studies in this review have expressed the need for screening, referral and treatment for PTSD in fathers when necessary. Hynan et al[27] advocate screening for both mothers and fathers following complicated childbirth, although the authors highlight the increased risk of false positives with early screening. However, an initial positive screen may not require a referral to a professional; clinical judgement here is vital and would determine the next course of action.

Discussion

There appears to be growing evidence for the existence of both sub-clinical and full criterion PTSD in fathers following complicated childbirth with this review suggesting a need for its treatment. A common theme throughout this review is, what HCPs would define as a traumatic birth was not always consistent with what fathers perceived as traumatic.

A strength of most of the studies is that their time of symptom measurement met the DSM-V criteria of 30 days or more, although some instruments used are in question. What also must be regarded with caution is that individual's answers to questions measuring criterion E – marked alterations in arousal and reactivity – may be influenced by having a newborn baby, due to lack of sleep. Irritable behaviour may also be related, therefore a specific trauma scale for the post-partum period is necessary.

The review aimed to examine four key areas of evidence:

1. evidence for PTSD in fathers
2. evidence for its risk factors
3. evidence for risk implications
4. evidence for screening and treatment.

Evidence for PTSD in fathers

Consistency in study results was at its highest in this particular section and supports the notion that PTSD in fathers does exist. Although there exists a lack of research, the research so far has given a

thorough understanding that a variety of different events constituting a complicated childbirth may lead to PTSD in fathers. These include:

- infant admission to the neonatal unit[11,13]
- neonate resuscitation[15]
- disorders of pregnancy such as PE and PPROM[22]
- 'near miss' events[21]
- preterm birth.[20]

The handful of qualitative studies that were examined complement the quantitative studies by providing rich, in-depth accounts of father's experiences in relation to complicated childbirth. Most studies interviewed the fathers months or years after the event,[15,21,24] therefore reflective accounts may be open to bias.

In summary, the most important finding of this section of the review is that although prevalence rates are undetermined, they do exist. Meaning, there are a proportion of fathers that feel traumatised by their birth experience and warrant treatment.

Evidence for risk factors

Findings differed remarkably between studies with regards to risk factors for fathers developing PTSD after a complicated childbirth. Results for demographic risk factors varied hugely with higher paternal age being associated with increased PTSD symptoms, and therefore being suggested as a risk factor,[22] while other studies suggested it was younger age that increased PTSD symptoms,[16] or found age was not a significant factor.[13] An explanation of such mixed results could be very simple – PTSD in fathers is still an emerging research area with much more research to yet be conducted. Although, indeed, there are always pre-morbid risk factors, the very nature of PTSD is that it may cultivate in anyone.

Whether or not it is a father's first child could warrant further investigation, given the common theme is of fathers simply 'not knowing' and, as a consequence, being unprepared for the issues that may accompany childbirth. Some may argue that knowing the risks of something does not make adversity easier – on examining transcripts, fathers expressed their distress at not having been told what could potentially happen and guilt at not finding out for themselves because they believed it would have helped them.[15,21,24]

The cognitive model of PTSD may partially explain why lack of information and preparation seems to be the largest risk factor. Fathers may believe and expect, that in the 21st century childbirth is safe and routine, meaning this belief is shattered. It has been well established that when pre-existing schemas are violated, this can contribute to the commencement and maintenance of PTSD.[28]

Furthermore, another risk factor shown for paternal PTSD was positive psychiatric history and that paternal PTSD is strongly correlated with maternal PTSD.[16] This is unsurprising given that high concordance rates are known to exist within couples in many aspects of psychological literature. It is, however, of vital importance to services because it overthrows the traditional view of looking at the mother and baby alone.

Evidence for risk implications

Risk implications were examined to show what could happen without intervention.[25] Results suggested that paternal PTSD significantly impedes father-infant interaction; 20% of father-infant interactions were inept in a 'low-risk' sample. Sotskova and Woodin[9] show that PTSD alongside alcohol use in new fathers predicts lower relationship satisfaction raising concern about the atmosphere in which to raise a new child.

Clinical implications

Unlike other post-partum psychopathy, the primary causes of post-partum PTSD in fathers seem to centre themselves on life-threatening labour experiences and a lack of preparation before/information and support during the event. It can therefore be proposed that this is an area that has clear potential to prevent or minimise post-partum PTSD through changing maternity care and services. As a discipline, psychology is able to work alongside maternity services and has much skill and knowledge to offer regarding service development to prevent the onset of PTSD.

In summary, the subsequent psychosocial approach is recommended.

1. Primary prevention should involve the preparation of all fathers-to-be as well as mothers in a realistic form for childbirth. In future, primary prevention could include the identification of those who are most vulnerable.
2. Secondary prevention may include screening fathers early on following complicated childbirth for severe stress responses. Although it has controversial findings, postnatal debriefing could be considered for fathers given that it is used for mothers currently in 78% of maternity services in the UK.[29] According to cognitive models of PTSD,[30] discussion allows for successful cognitive processing and re-alignment of information following a traumatic event.
3. Symptoms of PTSD should be monitored throughout the early post-partum period, given that diagnosis cannot be made until one month after birth.
4. If symptoms persist longer than one month, psychological treatment should be offered in order to prevent escalation.

Future recommendations and conclusions

All studies examined support the notion that PTSD can develop in a proportion of fathers as a result of complicated childbirth. Studies have also shown that there are implications for risk if symptoms are not treated.

The evolution of our society holds an expectation for fathers to be involved throughout pregnancy, childbirth and to be a stable presence during their child's life. Alongside this should be an evolution of services accordingly to meet fathers' needs, view a mother, father and baby as a triad, and advance from an outdated view of mother and baby alone. Paternal PTSD constitutes a serious mental health issue, warranting further interest from researchers in the field of maternity care and psychological trauma to develop prevention and treatment following complicated childbirth. The impact of a traumatic birth on the father's psychological wellbeing must not continue to be neglected.

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