LITERATURE REVIEW

Women's experiences following obstetric anal sphincter injury

I. d'Almeida

Pelvic, Obstetric and Gynaecological Physiotherapy, Worthing Hospital, Western Sussex Hospitals NHS Foundation Trust, Worthing, West Sussex, UK

Abstract

The aims of this literature review were to examine: the quantitative and qualitative literature on the physical and emotional experience of women who sustain obstetric anal sphincter injuries (OASIs); and the impact that this condition has on their well-being in the postnatal period and beyond. There is a large body of research into the management of patients with OASIs, including evidence relating to risk factors and medical/surgical management. There are also known long-term implications for women who sustain OASIs, and existing recommendations for treatment. The focus of current research is either on how perineal trauma can be avoided, or the best method of surgical repair. It rarely takes into account the viewpoint and experiences of the women who sustain such injuries, or the impact that these have on their emotional and psychological well-being. The electronic databases searched up until April 2019 included MEDLINE, Embase, AMED, CINAHL, PsycINFO and the Cochrane Database of Systematic Reviews. The search identified five papers that specifically examined women's experiences after they had sustained OASIs. These were all qualitative studies that used either structured or semi-structured interviews or questionnaires. No quantitative papers were identified. All five papers identified similar themes, including a negative physical and psychological impact, unmet expectations, and problems within the healthcare system. More research is needed to explore this area because an understanding of women's experiences of OASIs is essential in order to improve antenatal and postnatal care.

Keywords: birth injury, obstetric anal sphincter injuries, postnatal care, vaginal birth, women's experience.

Introduction

The majority of women who give birth vaginally will sustain some degree of perineal trauma, and the overall rate of such injuries has been reported to be 85% (Albers *et al.* 2005; Bick *et al.* 2010). The UK National Health Service maternity statistics for 2017–2018 estimated that 42% of vaginal deliveries in England resulted in perineal tears (NHS 2018). With such a high percentage of women suffering perineal lacerations during childbirth, it is important to comprehend the effects that such injuries have on women so that evidence-based decisions can be

Correspondence: Isabella d'Almeida, Clinical Team Lead, Pelvic, Obstetric and Gynaecological Physiotherapy, Worthing Hospital, Western Sussex Hospitals NHS Foundation Trust, Lyndhurst Road, Worthing, West Sussex BN11 2DH, UK (e-mail: isabella.d'almeida@nhs.net).

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made in order to improve maternity services and care.

The Royal College of Obstetricians and Gynaecologists (RCOG 2015) classify perineal tears according to the system summarized in Table 1. Obstetric anal sphincter injuries (OASIs) are grade 3 or 4 perineal tears.

The rate of OASIs in England tripled from 1.8% to 5.9% between 2002 and 2012 (Gürol-Urgancı *et al.* 2013), and the overall incidence across the UK was 2.9% (Thiagamoorthy *et al.* 2014). This was not necessarily a result of poor care, but could possibly reflect increased awareness of and better training in identifying OASIs (RCOG 2015).

A large body of research has been undertaken into the management of patients with OASIs, and guidelines relating to associated risk factors

Classification	Definition				
First-degree tear	Injury to perineal skin and/or vaginal mucosa				
Second-degree tear	Injury to perineum involving perineal muscles, but not involving the anal sphincter				
Third degree tear: 3a 3b 3c	Injury to perineum involving the anal sphincter complex: < 50% of EAS thickness torn > 50% of EAS thickness torn both EAS and IAS torn				
Fourth-degree tear	Injury to perineum involving the anal sphincter complex (i.e. the EAS and IAS) and anorectal mucosa				

Table 1. Classification of perineal trauma (RCOG 2015): (EAS) external anal sphincter; and (IAS) internal anal sphincter

and medical/surgical management of OASIs have been developed (RCOG 2015). Risk factors include:

- a birthweight > 4 kg;
- shoulder dystocia;
- Asian ethnicity;
- nulliparity;
- an occipitoposterior position;
- a prolonged second stage of labour (>2 h); and
- an instrumental delivery.

There is only limited evidence to suggest that previous OASIs increase the risk of a recurrence, but Edozien et al. (2014) reported a fivefold rise at subsequent deliveries in a large retrospective cohort study. Risk factors for sustaining recurrent OASIs include a forceps delivery, Asian ethnicity and a birthweight >4 kg (Edozien et al. 2014). Although the risk factors have been well documented, it has been found that these still do not accurately predict OASIs. Therefore, a scoring system is unlikely to have any clinical benefit (Williams et al. 2005b).

The current evidence for the use of episiotomies for the prevention of OASIs is contradictory (RCOG 2015). The National Institute for Health and Care Excellence (NICE, formerly the National Institute for Health and Clinical Excellence) recommend a mediolateral episiotomy, angled 45-60° away from the midline, because this has been shown to reduce the incidence of OASIs, but NICE also reports that this angle is difficult to achieve when the perineum is stretched (NICE 2014). A study by Kalis et al. (2011) found that, in practice, an episiotomy performed on a fully stretched perineum at 40° was only 22° after delivery, which is much closer to the midline than intended.

The same guideline found that "hands poised" or "hands on" the perineum made no difference in terms of the prevention of perineal tearing, but recommended this approach over "hands off" in order to protect the perineum and potentially reduce the risk of OASIs (NICE 2014).

The surgical management of OASIs should be performed by an appropriately trained clinician, who should use adequate analgesia and appropriate instruments in a theatre with good lighting (RCOG 2015). The best method of repair and choice of suture materials (i.e. all 3a and some 3b cases, end-to-end technique, and full thickness, overlapping or end to end) are based on high-level evidence (Fernando et al. 2013). The postoperative management of OASIs includes the recommendation of laxatives since constipation or the evacuation of hard stools may be detrimental to the repair (Sultan et al. 1999).

To date, there have been no randomized controlled trials or systematic reviews of the best method of follow-up after OASIs. However, the guidelines suggest that all women should be reviewed 6-12 weeks postnatally; those who complain of pain, or bladder or bowel incontinence should be referred to a colorectal surgeon or specialist gynaecologist (RCOG 2015).

Obstetric anal sphincter injury has been reported to be the predominant cause of anal incontinence in women, with between 15% and 60% describing symptoms following primary repair (Dudding 2008). Anal incontinence is known to have a negative impact on an individual's quality of life, increasing isolation, financial stresses, embarrassment, fear, sexual dysfunction, low self-esteem, anxiety and depression (Keighley et al. 2016). There are also associated financial implications for healthcare services because this condition can lead to an increase in the demand for hospital or community services.

Another financial consideration is the rise in negligence claims relating to OASIs in recent years. It is estimated that approximately £31.2 million has been claimed, and the reasons cited include: failure to perform a Caesarean section; failure to perform or extend an episiotomy; and failure to diagnose or repair the

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injury adequately (NHS Litigation Authority 2012). Arguably, poor patient satisfaction may contribute to individuals pursuing medicolegal advice, and play a role in them seeking financial compensation when their needs were not met by medical services or healthcare professionals.

The focus of most current research is on either how perineal trauma can be avoided, or the best method of surgical repair. It rarely takes into account the viewpoint and experiences of the women who sustain such injuries, or the impact that these have on their emotional and psychological well-being. The present literature review was considered necessary because recommendations can be made on the basis of women's reports of their experiences of OASIs. These perspectives are pivotal in the development of improvements in antenatal and postnatal care.

Materials and methods

A literature search was undertaken using the following databases: MEDLINE, Embase, AMED, CINAHL, PsycINFO and the Cochrane Database of Systematic Reviews. The inclusion period was limited to the past 20 years (i.e. 1999– 2019), and only English-language publications were considered.

The following search terms or combinations of the keywords were used:

- "obstetric anal sphincter injury" OR "OASI";
- "perineal tear" OR "perineal care" OR "perineal lacerations";
- "grade 3" OR "third degree" OR "grade 4" OR "grade four" OR "severe" OR "grade III" OR "grade IV" OR "3rd degree" OR "4th degree";
- "women's experience" OR "attitude" OR "beliefs" OR "perception" OR "decision" OR "thoughts concerns" OR "qualitative" OR "interview"; and
- "obstetric" OR "birth" OR "childbirth" OR "labour" OR "labor" OR "postpartum" OR "postnatal" OR "post-partum" OR "post-natal".

The literature search identified 37 papers, and after applying the inclusion and exclusion criteria (i.e. only papers written in English published in the past 20 years relating to OASIs), five key qualitative studies were deemed to be the most relevant for the present review (Salmon 1999; Williams *et al.* 2005a; Priddis *et al.* 2014; Lindqvist *et al.* 2018, 2019).

Since there is some debate about the best way to assess qualitative research, three quality appraisal checklists were considered in order to ensure that each paper was critically assessed for quality and risk of bias. These included the NICE quality appraisal checklist for qualitative studies (NICE 2012, "Appendix H"), the Critical Appraisal Skills Programme checklist and the Mixed Methods Appraisal Tool (MMAT, Version 2011). All three were very similar in terms of how the checklists addressed the issues to be considered; for example, the validity of the results, the appropriateness of the methods and data collection, and an adequate discussion of findings, including examining any potential for bias. It was decided to use the NICE appraisal checklist since this was the most detailed and covered the most questions (see "Appendix 1").

Results

Five studies were included in the present literature review because these specifically related to women's experiences following OASIs (Table 2).

The papers involved a variety of sample sizes, methods of data collection and measurement tools. Lindqvist et al. (2018, 2019) obtained large sample sizes (1248 and 625, respectively) of women who had sustained a third- or fourthdegree tear. Their qualitative studies used data from a section of the Swedish National Quality Register for Gynaecological Surgery called the Perineal Laceration Registry (PLR). The PLR collates information on women who suffer complications and offers them follow-up support. This enables national comparisons and research into factors that influence patient-reported outcome measures (PROMs) (Lindqvist et al. 2018). Data for the PLR are extracted from medical records and documents containing obstetric information relating to postpartum suturing or injury to the perineal muscles resulting in surgery. In addition to this, women are sent postal or Web-based questionnaires after delivery, and 2 months and 1 year postnatally. These surveys explore areas related to continence, abdominal pain, vaginal function, suturing, and any other complications in the antenatal and postnatal period (Lindqvist et al. 2018).

Lindqvist *et al.* (2018) analysed open-ended responses from women over a 2-year period. Differences and similarities in responses were highlighted using inductive qualitative content analysis, a method of assessing data previously reported by Graneheim & Lundman (2004). The information extracted was read by all the above authors, thereby minimizing interpreter bias and

Table 2. Summary of	the papers included in th	ne present literature re	view: (OASIs) obstetric anal	Table 2. Summary of the papers included in the present literature review: (OASIs) obstetric anal sphincter injuries; and (HCP) healthcare professional	ofessional
Reference	Study design	Sample	Measurement tools	Results/themes identified	Conclusion/recommendations
Lindqvist <i>et al.</i> (2018)	Qualitative study, 2 months post 0ASIs	1248 Swedish women with grade 3 or 4 OASIs	Open-ended written questionnaire	Facing daily physical and psychological limitations Living with crushed expectations Navigating healthcare	"Worse nightmare than expected" Improved patient information regarding pain, sexual function, psychological and personal aspects, and subsequent mode of delivery needed
Lindqvist <i>et al.</i> (2019)	Qualitative study, 1 year post OASIs	625 Swedish women with grade 3 or 4 OASIs	Open-ended written questionnaire	No satisfying sexual life Feel used and broken Worry about future health conditions Moved on with life despite everything	"Struggling to settle with a damaged body" Still struggling 1-year post OASIs, physical and psychological problems persist, support from HCP and partners crucial for recovery, clear healthcare pathways that address physical and
Priddis <i>et al.</i> (2014)	Qualitative study, between 7 weeks and 12 years postpartum	12 Australian women	Semi-structured face- to-face interview with open-ended questions	Vulnerable, disempowered and exposed throughout labour, birth, suturing and postpartum period Contrast between expectations and reality of birth, and the impact on ability to care for the baby and sexual relationships with partner Emotional pathway and new sense of self post OASIs	psychological aspects needed Models of care and levels of compassion impact how women reflect upon and deal with OASIs Further research examining women's experience of OASIs is required Access to appropriate healthcare services should be provided in the immediate postnatal period Recommendations for future practice
Salmon (1999)	Qualitative study, up to 5 years postpartum	6 British women (degree of tear unspecified)	Unstructured interviews, answers based on experiences during the first month after delivery	Interpersonal relationships during suturing Perineal healing: pain, dismissive HCP Re-forming identities: feelings of loss, fear and anxiety surrounding future pregnancies	mcludes dedicated permeal care clinics Importance of pain relief through suturing and the practitioners' attitude Importance of interpersonal skills in HCPs, as well as adequate training and skills HCPs need to listen to women
Williams <i>et al.</i> (2005a)	Qualitative study, patients attending a dedicated specialist clinic	10 British women with grade 3 or 4 OASIs	90-min focus group interview	Feelings not being understood by HCFs Physical impact, and apprehension in relation to subsequent births Lack of Information, poor communication and perceived lack of knowledge from HCPs Feelings of isolation Incontinence, pain and negative impact on sexual relations	Correct training of all HCPs involved needed The issues of timings and amount of information given need to be addressed Women's unmet needs include support from HCP and significant others Dedicated perineal clinics should be the necessary minimum standard

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increasing the reliability of analysis. Relevant information was condensed and coded, and comparisons then made. Lindqvist *et al.* (2018) identified the main themes, and the categories and sub-categories that emerged were then discussed in a focus group. This confirmed the findings, thereby increasing the reliability of the study.

The three main categories that were identified were: the physical and psychological impact following OASIs; "crushed expectations"; and difficulties navigating the healthcare system in the postnatal period. The women who participated in the study reported negative experiences such as pain, incontinence, mental distress and feelings of isolation. These had an effect on their perceived ability to succeed in their role as a mother and a partner.

Using the same method of recruitment and data collection, Lindqvist et al. (2019) reviewed 625 women with OASIs 1 year later. Many of the problems identified in the previous paper persisted. In addition to worries about future health conditions, the physical and psychological problems remained an issue. While "struggling to settle with a damaged body" (Lindqvist et al. 2019, p. 37), women highlighted that support from healthcare professionals (HCPs), healthcare services and partners was crucial for recovery, but not always available (Lindqvist et al. 2019). Another main category identified was an unsatisfying sex life. This classification was further subdivided into a loss of sexual desire as a result of an increase in pain, and symptoms associated with the genital area such as prolapse or incontinence.

The three other papers reviewed had smaller sample sizes as a result of the authors' chosen methodologies, i.e. focus group interviews or face-to-face interviews. Williams et al. (2005a) recruited participants from a dedicated specialist perineal clinic, and a non-random purposive sampling strategy was employed to capture the exact patient population needed to conduct the study. The sample size of 10 women with OASIs was determined by the number required to reach saturation, i.e. the continuation of focus groups until no new data became apparent (Williams et al. 2005a). The participants attended one of two small focus groups that lasted no more than 90 min. The authors acknowledged that women may find it difficult to discuss their experiences of OASIs. Therefore, they chose small focus groups in the hope that these: might encourage women to freely discuss their experiences; and also, reduce their feelings of isolation by talking

with other women who had sustained similar injuries (Williams *et al.* 2005a).

As with the previous two papers discussed above, to minimize interpreter bias, Williams *et al.* (2005a) used more than one researcher to collate the themes, which were then discussed before the final ones were agreed upon. These were sent to the participants for review to further increase validity.

The themes that emerged once again included the participants' difficulties in dealing with pain, the impact on their sexual relations and their feelings of isolation. Williams *et al.* (2005a, p. 131) also found that the women reported concerns about future pregnancies and the mode of delivery:

"I felt very apprehensive because one midwife actually said to me you are having an elephant!... So he was a lot bigger, and when I got told that I remember going home crying because I just thought the problems I had with him, how am I going to manage? They won't be able to get it out, I was petrified."

The studies by Priddis *et al.* (2014) and Salmon (1999) used individual face-to-face interviews with small samples of women who had sustained perineal tears.

Priddis et al. (2014) employed semi-structured interviews with open-ended questions, and recruited 12 women who had sustained OASIs between 7 weeks and 12 years postnatally. With such a large inclusion timeframe from delivery to participating in the study, it is important to consider the effect that the lapsed time may have had on memory recall. The participants were recruited via a flyer or social media (i.e. Facebook), and the authors also used snowball sampling to further recruit via existing participants' recommendations. One potential limitation of using snowball sampling in research is the creation of a biased population by recruiting participants who have experienced similar situations, or hold the same views. However, for the purpose of this study, such a method of recruitment was argued to be appropriate.

The same snowball sampling method was used by Salmon (1999) to recruit six women with perineal injuries. Unfortunately, the grade of tear was not specified.

Both of these papers employed individual interviews conducted by the lead researcher. This method has the potential for the researcher having an influence on the participants through his or her interaction with them, and also bias in

the interpretation of the data. However, in order to ensure maximum objectivity, the transcripts, themes and categories were discussed and reviewed with the co-authors in both studies (Salmon 1999; Priddis et al. 2014).

Common themes that were present in all the papers reviewed were: reports of persistent pain; an inability for participants to succeed in their role as a mother and partner; feelings of isolation; a lack of information or education about OASIs; sexual relationships being affected; longterm adaptations being needed while forming a new identity; embarrassment as a result of incontinence problems; unmet expectations; and difficulties communicating with HCPs.

Pain

"Having pain as a constant follower" was identified as a subcategory in the study by Lindqvist et al. (2018, p. 24). The 1248 women who sustained a third- or fourth-degree tear reported different kinds of pain:

"Now, I have pain in my genitals. I have a hard time sitting, standing, walking, laying down and going to the toilet." (Lindqvist et al. 2018, p. 24)

Because these authors focused on experiences in the first 2 months after OASIs in problematic recoveries, it could be argued that it is unsurprising that the subject of pain features so prominently since the time period covers the earlier stages of healing. However, this was also echoed in the other studies reviewed. Salmon (1999), Williams et al. (2005a) and Lindqvist et al. (2019) all reported that dealing with pain and the associated problems had an ongoing negative psychological impact because it served as a constant reminder of the trauma experienced at delivery. This also led to concerns regarding future pregnancies and deliveries:

"I cannot stop thinking about if I were to become pregnant and have to give birth again. Right now, it feels unthinkable and I have panic just thinking about having to go through this again..." (Lindqvist et al. 2018, p. 24)

Priddis et al. (2014, p. 5) described the experience of having to deal with pain in the subtheme entitled "The broken body". Here, women reported unexpected levels of pain, and an inability to perform basic parenting duties:

"I mean I couldn't even sit properly on the lounge. I couldn't get on the floor and do

things with him, like I couldn't sit on the floor and change a nappy."

Similarly, Lindqvist et al. (2018, p. 25) also described the problems that women encountered while caring for their newborn as a result of pain:

"It was impossible to sit and breastfeed because of the pain. If I'd known from the start that I could lie down and breastfeed, it would have saved me lots of tears and feelings of being insufficient."

Inability to carry out the role of a mother

Pain was not the only barrier to women's perceived ability to carry out the role of a mother. As a direct result of OASIs, participants described "crushed expectations" in relation to childbirth and becoming a new mother (Lindqvist et al. 2018, p. 25):

"Everything went badly from the start when we came home. You want to be the mother you've expected; it is very stressful not being able to really be present, to not be able to start our family the way I had imagined. Everything was just broken. For many weeks, the infant remined me of something that was so traumatic. I cried and could not attach to him though I wanted to. I was ashamed."

Priddis et al. (2014, p. 37) also described the contrast between expectations and the reality of the birth, and the impact that it has on the new family, in the theme entitled "The fractured fairy tale":

"You have this fairy tale where you have your baby and you take it home and everything's wonderful and then you go round and show it off to everybody. For me it was an effort. It was like I'm too uncomfortable, I can't be bothered going anywhere."

Isolation

As reported by Priddis et al. (2014), factors other than pain that contributed to feelings of isolation and/or low self-esteem included having to cope with incontinence or constipation. Women felt "dirty" or "hideous", and often kept silent about their symptoms through fear of embarrassment or in the belief that it was inappropriate to talk about such things (Priddis et al. 2014, p. 5–6):

"Like when you're a kid if you pooh your pants, there's this kind of stigma that you're dirty and lazy. And even when you're an

adult every time it happened I was just like – oh this is filthy, I'm in my twenties and I can't control myself. I didn't want to talk to anybody about it, I didn't even want to talk to the doctor about it."

Lindqvist *et al.* (2018, p. 24) also reported that women who suffered from continence problems would prefer to stay at home, where they felt less vulnerable:

"Since I cannot move normally, I am very bound to the home and cannot live a normal life with activities, normal daily tasks and meeting other people, which has a negative impact on me."

Williams *et al.* (2005a, p. 132) found that women also expressed feelings of isolation:

"I felt like I needed a bit more support after it. I felt like, you know, what's happened has happened, and at the end of the day get on with it, but then I felt like I was alone, and I didn't know anyone else who had had one."

Lack of information, education and communication

Feelings of isolation were also connected to comments regarding information provided to the women about OASIs. Williams *et al.* (2005a, p. 131) found that all the participants in their study commented on the information that they received on OASIs, and the timing of the information given:

"Even 3 days later I didn't know I had had a third-degree tear until 3 days later when the midwife come and told me."

Priddis *et al.* (2014, p. 4) reported that the amount and type of information that was offered to women had a direct influence on their feelings of abandonment:

"[...] I'm trying to think when they actually told me it was a third degree tear. Yeah, I don't think anyone ever volunteered that information. And if they said a third degree I would have said 'well what's that?' you know. Not knowing about the different levels..."

Lindqvist *et al.* (2018, p. 25) found that women sought information despite feeling physically and emotionally drained:

"I had to contact the clinic myself. I felt so bad then and still had to find the energy for that too... And the printed information they gave me... it didn't describe how it really

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would feel afterwards. I would have liked a phone call at least. . ."

Comments about how information was relayed to women and communication from HCPs were recurrent themes in all the papers. Participants reported feeling vulnerable, exposed and uncomfortable, especially in the period around suturing. Priddis *et al.* (2014, p. 4) reported that some women felt invisible, and that HCPs communicated with each other, but not them:

"I'm kind of insignificant in this whole, you know – I remember these conversations going on around me, I don't remember anyone physically having a conversation with me."

Williams *et al.* (2005a, p. 131) found that women often felt that their questions and concerns were not addressed by those caring for them:

"Well, all the midwives seemed, they just seemed so busy, it's just as if they need to double up the amount of staff because they were just so busy and they haven't really got time to sit with you and discuss things, and I just think there was a serious lack of communication."

The same study also reported that there was a perceived lack of knowledge with HCPs (Williams *et al.* 2005a, p. 132):

"With everyone I asked – midwives, doctors – it was almost like they don't want to commit themselves to facts or, you know, all very vague. I was wanting information and help, and no one ever really seemed to know."

However, it appears that different maternity models of care have different outcomes because Priddis *et al.* (2014, p. 4) found that some women reported a positive experience:

"...[M]y midwife had been with me the whole time and yep she explained like when it happened that I had torn really badly. And then it was later that day when I was feeling a bit better that my midwife had come back in to check as part of the program there and she went through it all with me again, she was really great, she went all over it with me that day."

Lindqvist *et al.* (2018, p. 26) also found that participants who felt that HCPs were more understanding reported being "relieved of their burden" (Lindqvist *et al.* 2019, p. 40):

"Finally, I got hold of this fantastic midwife who not only understood my situation, but could give adapted advice on how to feel better. At last, I felt that someone did believe in me."

In a study of follow-up treatment 1 year after OASIs, Lindqvist *et al.* (2019) reported that women had struggled to find access to appropriate healthcare services, which led to feelings of scepticism about healthcare providers and HCPs. Help and support from healthcare services was often difficult to identify or access (Lindqvist *et al.* 2018, p. 25):

"So many questions and I was left all alone and no follow-up or contact from you. I felt that was difficult."

Sexual relationships

All five studies found that women who had sustained OASIs felt that the injury had had a direct effect on sexual relationships, which contributed to their feelings of being unable to fulfil the role expected of them. Lindqvist *et al.* (2018, p. 25) reported that some women associated this with pain:

"I can't have sex! We have tried many times, but it hurts so much that I cry!! It's been eight weeks since the delivery now and I want to be able to be with my husband. But it just isn't possible. It hurts so much that I want to scream!!"

Furthermore, in their study of women 1 year after OASIs, Lindqvist *et al.* (2019, p. 38) found that some participants reported a loss of sexual desire as a result of their condition:

"The feeling of sex has completely changed, everything feels different, it's as if I'm numb down there."

In the same study, some women reported that they were trapped in a cycle of feeling unattractive because of the injury and pain, which resulted in a diminished sex drive and the avoidance of becoming intimate as a result of their fear of the pain (Lindqvist *et al.* 2019, p. 38):

"I simply have no desire to have sex any longer; I do not have the same sex drive as before. It sort of disappeared during the first period (after childbirth) when I dealt with surviving the pain down there and caring for my daughter." Williams *et al.* (2005a) also found that sexual relationships were affected. They reported that women avoided sexual contact or intimacy with their partners either through fear of experiencing pain or worry that sensation would have been lost as a result of the injury. These authors also reported that any concern expressed by partners changed sexual chemistry and further reduced sexual desire.

The sense of fear surrounding intercourse was also highlighted by Priddis *et al.* (2014, p. 6), who also reported that women felt that having sex was an important component of their relationship and their "duty" as a partner:

"Six weeks without sex that's the little magic number you hear, but to still be eighteen months down the track and it's very rare that we can achieve intercourse... [s]o it certainly has impacted on our relationship because you know he thought things would be back to normal by now."

Some women longed for sexual intimacy with their partners, and described taking pain medication in an attempt to make it endurable (Priddis *et al.* 2014, p. 6):

"I used to have to have pain relief to have sex, so you know a couple of [P]anadeine, or something stronger if I could find it – [N]urofen [P]lus was good. [Laughs.] Isn't it terrible? I mean it's easier now, I don't usually take it now before, but after."

Long-term adaptations and reforming identities Long-term adaptations had to made by those women whose difficulties persisted beyond the immediate postnatal period, which had an effect on their sense of identity (Priddis et al. 2014). They reported that the process of coming to terms with the injury and their experience of OASIs led to changes in how they perceived themselves, and the development of a new sense of self (Priddis et al. 2014). Adaptations to lifestyle were also reported by Lindqvist et al. (2019), but these authors described some degree of acceptance over time. In the theme "Moved on with life despite everything", these authors reported how some women developed an inner determination to overcome obstacles, and refused to let the consequences of OASIs define them (Lindqvist et al. 2019). It was reported that the best recoveries in women took approximately 6-9 months, and after this, women reported feeling proud of their body and its ability

to repair, some even feeling stronger than before (Lindqvist *et al.* 2019).

Discussion

Although the sample size in some of the studies reviewed was small, similar themes emerged in all the papers. This suggests that OASIs have a negative impact not only on the physical, but also the emotional and psychological well-being of women. All the factors described appear to be highly interconnected, and therefore, caution should be applied when considering the independent effects of these issues.

The qualitative studies were able to gather data on how women perceived their treatment and experiences following OASIs through interviews and focus groups. This method allowed the participants to speak freely, and interact with women who had had similar injuries. However, the potential problems associated with group dynamics should be considered. Some women may have felt unable to articulate their views if these differed from those of others, fearing that they would be perceived in a negative light. Although whether participants withhold or alter their opinions to conform with the group is a matter for debate, Williams *et al.* (2005a) reported no such issues.

The studies with the largest sample sizes (Lindqvist *et al.* 2018, 2019) used questionnaires with space for open-ended written comments in order to collect more information. One limitation of this data collection method is that it does not provide an opportunity to ask further questions in response to answers. Therefore, a deeper understanding of what women experienced may have been missed, or potentially, their comments on the written form could have been misinterpreted.

As midwives, urologists or gynaecologists, the researchers involved in all the studies reviewed had pre-existing knowledge or clinical experience of OASIs. This may be considered a strength because it allows for better comprehension and understanding of comments, or equally, a weakness since it may contribute to interpretation bias as a result of preconceived understandings (Lindqvist *et al.* 2018).

In three of the studies (Salmon 1999; Williams *et al.* 2005a; Priddis *et al.* 2014), the participants recruited had had problematic recoveries, and therefore, selection bias may have occurred: women who did not suffer difficulties postnatally might have provided different perspectives on their experience of OASIs. However, for the

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purpose of providing an insight into how to improve care and influence clinical practice, it is important to examine negative experiences and consider suggestions from women, and therefore, the method of selection for these papers was deemed to be appropriate.

The key findings of the five studies reviewed, and the similarities in the themes and comments reported by the participants, suggest that OASIs can have a negative and long-lasting impact on health and emotional well-being.

The areas that seemed to be the most distressing or had the potential to improve were related to pain, sexual function, feelings of isolation, communication and interaction with HCPs.

The women's accounts indicated that they were often unprepared for the level of physical pain caused by an OASI, and the complications that are associated with it. Those who suffered from incontinence reported that this compounded problems, and contributed to feelings of increasing isolation. Pain and incontinence following OASIs have already been well documented in the existing literature (Herron-Marx *et al.* 2007; Kumar *et al.* 2012; Priddis *et al.* 2013), and have been found to be factors that contribute to feelings of low self-esteem.

The survey participants also reported that suffering pain and incontinence had a negative effect on their sexual function and relationships with their partners, a finding that is also supported by the literature (Andrews *et al.* 2008; Fodstad *et al.* 2016; O'Shea *et al.* 2018).

Recommendations for future practice

The descriptions of women's experiences with HCPs following OASIs suggest that improvements could be with regard to communication and access to services. Two of the surveys were conducted in Sweden (Lindqvist *et al.* 2018, 2019), where models of maternity care may differ to those in the UK and internationally. In the UK, guidelines on the classification and surgical repair of OASIs, and subsequent postnatal care have been published (RCOG 2015). However, it cannot be assumed that these have been implemented nationwide because of the vagaries in funding and differences in service provision.

In order to improve the management and clinical care of women with OASIs, it is important to consider the themes identified by current research, and to continue to explore this area.

Previous research in the UK has indicated that the ability of HCPs to identify OASIs has

improved (RCOG 2105), but other areas such as communication and access to services still need to be addressed. It is the responsibility of all HCPs who are involved in the care of these women (i.e. midwives, physiotherapists and doctors) to be adequately trained in order to provide appropriate information, which should be conveyed at the correct time and repeated, if necessary. This may help to minimize women's feelings of isolation since they will have a deeper understanding of what has happened to them, and it will also address any future concerns. Dedicated perineal tear clinics could be the ideal place to provide consistent and collaborative care for women with OASIs by standardizing treatment and providing the levels of support needed.

Clear pathways are needed within maternity care models so that access to relevant healthcare services can be easily arranged. These should include services that address both the physical and psychological impact following OASIs, including sexual dysfunction. According to the NICE (2007) guidelines, women with OASIs have a high risk of developing faecal incontinence, and referral to a specialist service for management is recommended. Access to physiotherapy treatments such as pelvic floor muscle training, bowel retraining, biofeedback and electrical stimulation should be readily available for women with OASIs.

Lindqvist *et al.* (2018, p. 25) reported that some women also felt ill equipped to deal with OASIs because they had to deal with "crushed expectations", or had not expected this type of injury to happen to them. Once again, this echoes the findings of previous studies (Heron-Marx *et al.* 2007; Priddis *et al.* 2013), and highlights the need to provide appropriate information about OASIs and what to expect. This could possibly be addressed by making improvements to education and information provided during the antenatal period; for example, when discussing deliveries and offering pelvic floor advice.

Conclusion

The available qualitative studies show that women who have sustained OASIs can experience significant physical, psychological and emotional effects. These can result in long-term complications that affect their quality of life. Struggles to deal with pain, sexual dysfunction, feelings of isolation, incontinence, lack of communication and difficulty in accessing services were reported in all five papers under discussion. This is an under-researched area. As shown by the present literature review, there are very few published qualitative studies that explore women's experiences following OASIs. No quantitative papers were identified. A qualitative approach is appropriate for this area of research, and the authors of the five papers reviewed were clear about what they aimed to do. Although the sample sizes of some of the studies were small, the data analysis was sufficiently rigorous, and the findings and conclusions were reliable and clear.

Further high-quality research is needed that takes into account: the impact of OASIs on the overall experience of birth; the emotional and psychological well-being of women following OASIs; and their overall experience, including their satisfaction with the care that they receive. In addition, studies that clearly identify the grade of tear, to allow comparison between groups, would be beneficial. These would contribute to our understanding of the correlation between symptom severity and degree of tear, and whether or not these factors can be used to predict longterm pain and symptoms. This would allow recommendations to be made, and guidelines could be developed in order to improve the provision of maternity services and postnatal care.

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Isabella d'Almeida graduated with a BSc Hons from St George's Hospital Medical School, London, UK, in 2004. She has specialized in pelvic, obstetric and gynaecological physiotherapy since 2006, and completed the postgraduate certificate in Continence for Physiotherapists at the University of Bradford, Bradford, UK, in 2010. Isabella currently works at Western Sussex Hospitals NHS Foundation Trust, where she has

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been the Pelvic, Obstetric and Gynaecological Physiotherapy clinical lead for the past 7 years. She has a special interest in research, and was awarded a 1-year clinical academic scholarship within the trust in 2018–2019. During this time, Isabella wrote this literature review as

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part of the Writing for Publication module at the University of Chichester, where she did the Advanced Professional Practice MSc. Having completed her Master's degree, she intends to continue her studies and research in the area of obstetric anal sphincter injuries.

Appendix 1

Table 3. Quality appraisal checklist for qualitative studies (NICE 2012, "Appendix H")

	Reference						
	Lindqvist <i>et al.</i> (2018)	Lindqvist <i>et al.</i> (2019)	Priddis <i>et al.</i> (2014)	Salmon (1999)	Williams <i>et al.</i> (2005a)		
Is a qualitative approach appropriate?	Yes	Yes	Yes	Yes	Yes		
Is the study clear in what it seeks to do?	Yes	Yes	Yes	Yes	Yes		
Is the research design/ methodology defensible/ rigorous?	Yes	Yes	Yes	Not clear	Yes		
Was the data collection carried out well?	Yes	Yes	Yes	Yes	Yes		
Is the role of the researcher clearly described?	Yes	Yes	Yes	Not clear	Yes		
Is the context clearly described?	Yes	Yes	Yes	Yes	Yes		
Were the methods reliable?	Yes	Yes	Yes	Not clear	Yes		
Is the data analysis sufficiently rigorous	Yes	Yes	Not clear	Not clear	Yes		
Are the data "rich"?	Yes	Yes	Yes	Yes	Yes		
Is the analysis reliable?	Yes	Yes	Yes	Yes	Yes		
Are the findings convincing?	Yes	Yes	Yes	Yes	Yes		
Are the findings relevant to the aims of the study?	Yes	Yes	Yes	Yes	Yes		
Are the conclusions adequate?	Yes	Yes	Yes	Yes	Yes		
Are the reporting of ethics clear and coherent?	Yes	Yes	Yes	Yes	Yes		