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## **Internet-based Interventions for Postpartum Anxiety: Exploring Health Visitors' Views**

### **Abstract**

**Objective:** This study aimed to explore health visitors' (HVs) views on the acceptability and potential implementation of internet-based postpartum anxiety interventions in their practice.

**Background:** Internet-based self-help has been shown to be effective and acceptable for postpartum depression. Recently, an internet-based intervention has been developed for postpartum anxiety. Before implementing new anxiety interventions in postpartum care, it is important to determine the acceptability and ways of implementing such interventions. This study therefore explores HVs' views on this, as they are some of the key healthcare professionals supporting women postpartum. **Methods:** Semi-structured interviews were conducted with 13 HVs across the UK. Audio-recorded interviews were transcribed verbatim and analysed using thematic analysis. **Results:** Five themes emerged: suitability; benefits; concerns; importance of one-to-one support; implementation. Internet-based interventions were seen as suitable as an additional option for a sub-group of postpartum women. Identified benefits included increased availability of a treatment tool for postpartum anxiety and treatment anonymity and flexibility. Reported concerns were the women's state of mind, decreased human and professional contact, as well as IT access and literacy and language skills. HVs considered the most feasible way to implement internet-based interventions would be to have flyers for HVs to include with other information provided after birth or to hand out and discuss during their visits. The need for sufficient evidence of treatment efficacy and appropriate training was highlighted.

**Conclusion:** This study highlights the opportunities and challenges that need to be considered before implementing internet-based interventions for postpartum anxiety in the postpartum care.

Keywords: postnatal care, anxiety, internet intervention, health visitors, qualitative methods

## **Introduction**

Internet-based interventions (IBIs) allow individuals to work through interactive therapy material on a website alone or with professional support. Meta-analyses have shown the superiority of IBIs over waitlist and placebo assignments across common mental health disorders and the effects were equivalent to traditional face-to-face treatment (Andrews, Cuijpers, Craske, McEvoy, & Titov, 2010; Cuijpers et al., 2009; Reger & Gahm, 2009; Spek et al., 2007). The National Institute for Health and Care Excellence (NICE) in the UK recommends computer- and internet-based treatments for anxiety and depression, such as FearFighter, Beating the Blues and, Living Life to The Full (NICE, 2006). There are currently IBIs available for postpartum depression and their preliminary efficacy and acceptability has been demonstrated (e.g. Danaher et al., 2012, 2013; O'Mahen et al., 2014, 2015), but so far no such intervention exists for postpartum anxiety (Ashford et al., 2016). A supported self-help treatment for postpartum anxiety, called What Am I Worried About (WaWa), was developed in Australia and the evaluation suggested preliminary efficacy and acceptability (Rowe, Calcagni, Galgut, Michelmore, & Fisher, 2014). WaWa is a 7-module treatment based on cognitive-behavioural and mindfulness principles and each module is supported by a 30-minute coach call. WaWa was originally developed in paper form, but has recently been transferred into an internet-based format named iWaWa (internet-based WaWa).

Before evaluating and trying to implement new treatments, such as iWaWa, it is important to explore views from healthcare professionals about the acceptability and possible ways of implementation into standard care. A small number of recent qualitative studies have examined women's views on postpartum depression IBIs and found that women appreciate the treatments' flexibility, accessibility, and anonymity (O'Mahen et al., 2015; Pugh, Hadjistavropoulos, Hampton, Bowen, & Williams, 2015). However, little is known about the

acceptability and ways of implementing postpartum mental health IBIs in the practice of healthcare professionals, especially those caring for postpartum women.

In the UK, Health visitors (HVs) provide support for postpartum women. The Six Early Years High Impact Areas document includes maternal mental health as one of six areas in which HVs have a significant impact on improving health and wellbeing of children, families and the community (Department of Health, 2014). In relation to maternal mental health, the role of HVs is to identify women at risk of developing or experiencing mental health problems and offer listening visits or, when needed, refer to other healthcare services which offer appropriate treatment. Considering this role, HVs would be well placed to introduce or refer women to postpartum IBIs. Research has investigated the role of HVs in the management and treatment of postpartum depression (Appleby, 2003; Elliott, Gerrard, Ashton, & Cox, 2001; Morrell et al., 2009; Slade et al., 2010; Turner, Chew-Graham, Folkes, & Sharp, 2010), but there is no research focussing on the views of HVs on the potential implementation of postpartum mental health IBIs in general and anxiety in particular. Therefore, this study aimed to explore HVs' views on the usefulness of IBIs for postpartum anxiety in general and iWaWa specifically, as well as the acceptability and possible ways of implementing IBIs in their practice.

## **Method**

### ***Design***

An exploratory qualitative study design using semi-structured interviews was employed. This paper reports the analysis and results of the views of HVs on the usefulness and potential implementation of postpartum anxiety IBI in their practice. Ethical approval was obtained from City University London's School of Health Science ethics committee in March 2015.

### ***Participants & Recruitment***

Eligible HVs were aged over 18, currently working as qualified HVs within the UK National Health System (NHS) and fluent in English. Using convenience sampling, recruitment took place between May and October 2015. HVs were approached through university staff email contacts, a post in the Institute of Health Visiting monthly email newsletter, posts in health visitor Facebook groups and tweets from the first author's Twitter account directed at relevant organisations (i.e. @Unite\_CPHVA). Recruitment was concluded when data saturation had been reached.

### ***Data Collection***

Interviews were face-to-face or on the phone/Skype and included a short presentation about IBIs and iWaWa before the interview started. Participants provided written or online consent. All interviews were conducted by the first author (MA), who has an MSc in Psychology with previous research interview experience. A semi-structured interview schedule using open-ended questions explored HVs views on i) the usefulness of IBIs and iWaWa and ii) implementing IBIs in their practice. Interviews were audio-recorded and then transcribed verbatim without identifying information. At the end, participants were invited to complete an optional fixed-choice socio-demographic questionnaire.

### ***Data Analysis***

Transcriptions and analyses were conducted using thematic analysis following the steps recommended by Braun and Clarke (2006) and the specialist software Quirkos® for managing the data. Analysis was inductive, as no previous hypotheses about possible themes existed. First, transcripts were read thoroughly for the identification of features that were meaningful and relevant to the research topic. Then initial codes of interest were generated

and applied. Afterwards, initial codes dealing with similar topics were grouped into bigger themes.

## **Results**

### *Sample Characteristics*

Thirteen interviews were conducted and lasted for approximately 30 minutes. One participant did not provide demographic information. Participants came from seven different English NHS trusts, were all female and between 29 and 68 years old ( $M=43.6$ ,  $SD=14.5$ ). Ten stated “White” as their ethnicity, one “White Irish” and one “Black/African/Caribbean”. HV work experience ranged from six months to 25 years ( $M=10.32$  years). Two HVs had undergone the Institute of Health Visiting perinatal mental health champion training, one was a specialist for parental mental health and two had a degree in therapeutic counselling.

### *Themes*

Overall, postpartum anxiety IBIs in general and iWaWa, were regarded as positive and useful. Table 1 displays five emerging themes and their subthemes.

[Table 1 near here]

### *Suitability*

HVs indicated that IBIs could be suitable and useful as an additional option for a specific audience.

I think it would be another useful tool. Maybe it wouldn't be for everybody, such as e-learning tools are not for everybody, you know we are all different (HV1)



It was suggested that IBIs might be more suitable for women with the following characteristics: awareness of their anxiety, openness for help, highly motivated, middle-class, educated and IT savvy, first time mothers.

Your audience may be limited or restricted to women who will seek out help and are very motivated (HV12)

I'd say probably middle class women who are very computer savvy would be very interested in getting onto something like this (HV8)

HVs felt that it would be harder to engage and less useful for younger mothers, multiparous mothers, women from a less affluent or more deprived background and those with severe anxiety symptoms.

Mums that have more serious anxiety issues maybe they would be better off being referred to a professional...if there are any risks to the baby then it would not be appropriate (HV11)

### *Benefits*

HVs stated that IBIs would be beneficial as there are currently not a lot of resources available for postpartum anxiety.

...something that is specifically aimed at women with anxiety because at the moment we tend to have a lot of things aimed at depression, but not anxiety (HV10)

HVs also talked about IBIs offering postpartum women anonymity if they feel uncomfortable disclosing their anxieties.

...the whole stigma of mental health and anxieties it would just take that pressure of getting them to go to the GP, so they haven't got to own up, it's something they can start on their own (HV4)

Other mentioned benefits were that IBIs could be accessed flexibly in a comfortable place and allow women to self-educate and self-manage their anxiety.

I think it is really good for working mums because they can obviously do it any time they want without having to take time off work (HV11)

### *Concerns*

HVs were worried that women with postpartum anxiety may not be in the emotional state and therefore not find the motivation to access or focus on IBIs. HVs were also worried about reduced human and professional contact.

...they are already overwhelmed with everything around. I don't think it will help them...because they are already in the state of mind...they are anxious...I don't think they can process it and understand (HV2)

I think the danger with anything like this is that if online self-help would replace services offered face-to-face that would be further disadvantage people that we know are the most vulnerable in the first place (HV5)

HVs were concerned that it might be difficult to know if women have actually accessed the treatment or are not coping well during the treatment. HVs therefore suggested to include a feedback mechanism in the intervention to inform them whether or not the intervention was accessed.

I guess the worry is that if it is not working and mums aren't coping very well, you wouldn't particularly realise (HV11)

HVs were also concerned that women, especially in deprived areas, have no or reduced access to or are unfamiliar with technology and the internet. Language issues were also described as an access barrier.

...those who are not you know comfortable using online technology and not everyone has an internet connection in their home or has a smartphone (HV5)

A lot of the clients that I might see from a bit more deprived backgrounds English may not be their first language and then they don't have access to the internet (HV13)

However, HVs also stated that the majority of women have access to internet-enabled smartphones and use the internet a lot for motherhood-related information.

There is a whole new generation of women now that are on the internet...they get a lot of their knowledge and learning from the internet, so I think that would be right up their street (HV12)

We have a very mixed population...and everybody seems to have internet on their phones so I mean in terms of accessibility that would be okay (HV9)

### *Importance of one-to-one Support*

HVs felt that one-to-one support could be beneficial for women in terms of helping with feelings of isolation, answering questions about intervention modules, making sense of their feelings and supporting the practice of learned techniques. It was also mentioned that support calls could be a way of tracking women's well-being. Some HVs felt that support would need to come from a mental health expert.

I think that would be useful and for them to have therapist support because obviously we are not specialists in mental health (HV3)

Other participants suggested that HVs could take up this role, but raised the issue of feasibility within their workload and the need for additional training to be able to assist with anxieties that are not baby care related.

### *Implementation*

HVs indicated that IBIs could be introduced as a standard to every woman, starting at the initial visit, so all women would be aware of and access the service if required.

I think that would be real positive if it could be advertised or offered at a universal level... I think that would be a way of catching some of the women who we know experience mental health needs who don't report it (HV5)

It was also suggested that the uptake could be increased by having HVs assist women to get started on the computer program.

Maybe sometimes you have to sit with people and go into it and show ...I think I am just aware that telling people about it isn't enough (HV1)

It was also mentioned that IBIs could be used as an additional tool for listening visits and could be implemented in partnership with community organisations or GPs.

In relation to promotion, HVs suggested to use posters and flyers in clinics and leaflets to hand out or to add to the new-born information pack, as well as briefly discussing it during their visit. The six-week check was considered an appropriate time to discuss IBIs.

Offering it to mums at the six-week post-delivery check would probably be the most effective way because at that point usually their partners have gone back to work...so that's the period that we kind of pick up on a lot of mums who are really anxious and worried (HV11)

Concerning implementation in practice, HVs stated the importance of available evidence of treatment efficacy and technical security, as well as the need for treatment specific training.

We need to know the content because of course we'll get questions about it...ethically we couldn't promote something we don't know anything about so there probably would have to be some training (HV12)

However, HVs were concerned about additional workload, especially training. However, most stated that it would be feasible if implementation only involved referring women or talking about IBIs during their regular visits.

They say to us make every contact count, so every time we have a contact we talk about emotional health any way and then just a little bit longer speaking about web-based support, I don't think that that would not at all be too onerous (HV7)

*iWaWa*

Specific views on iWaWa were broadly positive. HVs stated that the targeted anxieties are common and relevant to postpartum women.

I would say a lot of those topics are very common themes that mums seem to be worried or anxious about (HV 7)

The use of short chapters, examples, exercises and 30-minute phone calls, as well as the variety of covered topics was described as positive.

It looks very positive, it offers lots of information and guidance for women and there is homework for them to do and they are able to look at the different anxieties (HV 10)

## **Discussion**

This study aimed to examine HVs' views about the usefulness and possible implementation of postpartum anxiety IBIs into their practice. Overall, HVs' views on IBIs and iWaWa were positive and considered a useful additional treatment option for a sub-group of postpartum women. Three major benefits and three major concerns were identified. HVs highlighted importance of including one-to-one support. Several methods of implementation, associated needs and concerns were outlined.

## ***Suitability***

HVs perceived postpartum anxiety IBIs as useful for a specific audience only. HVs suggested that women who might be interested would be aware of their symptoms, highly motivated or open for help. In terms of sociodemographics, HVs felt that first-time, IT literate, middle class, or well-educated women would most likely be interested. This is consistent with sociodemographic characteristics found in studies which assessed women's interest in postpartum depression IBIs (Maloni, Przeworski, & Damato, 2013) and recruited women for a postpartum depression IBI through self-referral (O'Mahen et al., 2013, 2014). This suggests

that mental health IBIs may not be useful for all postpartum women, but that there might be a subgroup of interested women.

### ***Benefits***

HVs identified a lack of treatments and care options for postpartum anxiety and therefore felt that postpartum anxiety IBIs could be useful. This is consistent with the current literature where research on postpartum anxiety treatments is sparse (Austin et al., 2008; Barnett & Parker, 1985; Misri & Kendrick, 2007). This indicates that a postpartum anxiety IBI could be welcomed as a treatment option.

HVs described anonymity and flexibility as benefits of postpartum IBIs. Consistent with this, women experiencing postpartum anxiety have stated being too busy, being too embarrassed and having no one to talk to as reasons for not seeking help (Woolhouse, Brown, Krastev, Perlen, & Gunn, 2009). Similarly, women with postpartum depression have reported that the internet-based approach fits with their postpartum circumstances due to the treatment flexibility and anonymity (O'Mahen et al., 2015) and the majority of new mothers find online resources useful when feeling isolated or restricted by their baby's schedule (McDaniel, Coyne, & Holmes, 2012). This suggests that IBIs might help postpartum women to overcome barriers such as stigma and time-management.

### ***Concerns***

Many participants were concerned that postpartum women are overwhelmed by anxiety, which would limit their ability to find motivation to access the treatment regularly and being able to focus on it. A study exploring women's experiences of factors affecting treatment engagement and adherence in IBIs for postpartum depression found that women who felt overwhelmed were less likely to continue treatment (O'Mahen et al., 2015). In this study women suggested that interventions should be interactive, individualised, with support to

help with the feeling of being overwhelmed. This is also in line with research showing that individuals with severe anxiety have a preference for non-IBIs (Gun, Titov, & Andrews, 2011) and currently the NICE does not endorse IBIs for severe conditions (NICE, 2006). This further indicates that IBIs may be suitable for women with mild to moderate symptoms, but not for more severe symptoms. It is therefore also important to have a good initial symptom assessment.

HVs also described that women, especially in more deprived areas, may not have access to computers or the internet and often do not know how to use them. This is consistent with a recent report on adults' media use in the UK reporting that a quarter of adults from lower socio-economic groups do not use the internet at all and compared to all UK adults are less likely to use most types of technological device to go online (Ofcom, 2015). However, a review showed that the majority of today's parents search online for both information and social support (Plantin & Daneback, 2009). Hence, this study suggests that there might be an inequality in access to online technologies such as IBIs in the postpartum population. English as a second language was also identified as a potential access barrier. To make such treatments more inclusive, it might be important to develop them in a variety of languages and culturally sensitive.

### ***Importance of one-to-one support***

All participants mentioned the importance of one-to-one support. This is consistent with studies exploring women's views of IBIs for postpartum mental health problems which report that many women want the opportunity to Skype or chat with a mental health expert (Maloni et al., 2013), feel unable to complete the treatment course without a professional source (O'Mahen et al., 2015) and that treatment could be improved by adding the option of chatting with a healthcare professional (Haga, Drozd, Brendryen, & Slinning, 2013). It has also been

demonstrated that support from a therapist was enjoyed and valued (Pugh et al., 2015). This highlights the importance of including professional support in postpartum IBIs.

### ***Implementation***

Despite concerns about additional workload, training and evidence about treatment efficacy, HVs felt that it would be feasible for them to promote IBIs by adding a leaflet to the new-born package and discussing IBIs during their visits. Some HVs felt that treatment uptake could be increased by having HVs helping women to get started with the intervention. The six-week check was identified as an appropriate time to discuss the intervention. This is consistent with studies finding that anxiety increases during the first postpartum month and that symptoms may not occur until later in the postpartum period (Breitkopf et al., 2006; Britton, 2008). As in previous studies, the importance of appropriate training was also highlighted (Jomeen, Glover, Jones, Garg, & Marshall, 2013). Including information leaflets in the new-born pack or as a hand-out to discuss during their visits seems most feasible, however, the feasibility of this is practitioner and time dependent. It is also important to provide sufficient treatment efficacy evidence and appropriate training for the HVs.

### ***Strengths and Limitations***

This is a small exploratory qualitative study specific to a UK context and the health visiting practice, hence findings may not be generalisable. The range of views are limited by the self-selected sample, however, using a variety of recruitment strategies allowed for a diverse sample of HVs which was drawn from different trusts across the UK, as well as varying levels of work experience and perinatal mental health training. Considering that HVs were only given a short presentation about iWaWa's characteristics, no definite conclusions can be drawn about iWaWa. However, the purpose of this study was to explore views on IBIs using iWaWa as an example. Interviews, compared to focus groups, yield less in-depth interactive



information, but one-on-one interviews nonetheless allowed in-depth accounts of HVs' views and recruit from a greater variety of trusts. Due to the interviewer's involvement in the development and evaluation of iWaWa, a potential interviewer bias has to be considered. This was addressed by reminding interviewees that every opinion is valued and that they can refuse to answer any questions without being disadvantaged. Even though the study focus was on postpartum anxiety IBIs, relatively little information emerged for anxiety specifically. This might have to do with the novelty of the intervention and that HVs were often not aware of the difference between depression and anxiety. However, this might make the results more applicable to IBIs for postpartum mental health in general. One strength of this study is that it explored healthcare professional's perceptions of IBIs before implementing it and previous studies have focussed on women rather than healthcare professionals.

### ***Conclusion***

This study identified a range of HVs' views on the usefulness and potential implementation of postpartum anxiety IBIs. HVs felt that IBIs and iWaWa could be useful as an additional treatment option for a sub-group of postpartum women. Several benefits, barriers, and implementation needs related to IBIs in their practice were identified. These findings contribute to the understanding of opportunities and challenges in the implementation of IBIs in the health visiting postpartum care. Addressing opportunities, needs and concerns perceived by HVs in advance may facilitate future intervention acceptability and feasibility within their practice. Findings from this study may also help inform intervention developers and care providers trying to implement mental health IBIs in postpartum care.

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## Tables

Table 1. Themes and subthemes of HV views

Table 1	
Themes and subthemes of HV views	
1. Suitability	1.1. Additional resource 1.2. Restricted audience
2. Benefits	2.1. Tool for postpartum anxiety 2.2. Anonymity 2.3. Flexibility
3. Concerns	3.1. Women's state of mind 3.2. Reduced personal contact 3.3. Accessibility
4. Importance of one-to-one support	4.1. Benefits of support 4.2. Ways of support
5. Implementation	5.1. Modes of implementations 5.2. Implementation needs 4.3. Ways and timing of promoting 4.4. Feasibility
6. iWawa	