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'My face in someone else's hands': a qualitative study of medical tattooing in women with hair loss

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ABSTRACT

The psychological and social impact of hair loss and its ongoing treatment can be considerable. Medical treatments are not always successful, and alternative treatments, such as medical tattooing, are growing in popularity. The aims of this study were to explore adults' motivations, experiences, and self-perceived outcomes in relation to medical tattooing. Individual telephone interviews were conducted with 22 women from the United Kingdom aged 26–67 years who had undergone medical tattooing in the past 5 years related to hair loss. Interviews were transcribed and inductive thematic analysis was performed. Appearance concerns, loss of self-confidence/identity, and the practicalities of daily upkeep were cited as reasons for seeking a semi-permanent solution. Trust in the practitioner and the ongoing costs of tattoo maintenance were important considerations in participants' decision-making process and their overall satisfaction with treatment outcomes. Participants felt the emotional impact of hair loss and the subsequent need for appearance-restoring treatment remains unrecognised. This study provides insight into participants' perceptions of an under-researched and unregulated but widely accessible treatment. Implications for the decision-making process are discussed, and suggestions for health professionals are offered.

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Hair loss; medical tattoo; decision-making; qualitative; patient perspective

Introduction

Hair loss occurs when the body's natural hair growth cycle is interrupted, or when hair follicles become damaged. One of the common causes of hair loss is Alopecia Areata, an autoimmune condition in which hair from the scalp is typically lost in small patches (British Association of Dermatologists, 2016). Alopecia totalis or alopecia universalis is a condition in which all body hair is lost, including eyebrows and eyelashes (British Association of Dermatologists, 2016). Cicatricial alopecia is a rare form of hair loss in which inflammation destroys hair follicles and forms scar tissue, preventing hair regrowth. Included in this category is lichen planopilaris, an autoimmune condition (British Association of Dermatologists, 2019), and Frontal Fibrosing Alopecia, which

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most commonly affects postmenopausal women (British Association of Dermatologists, 2018). Hair loss is also a feature of Ectodermal Dysplasia, a rare genetic condition (Orphanet, 2012).

The psychological and social impact of hair loss and its treatment should not be underestimated. Research has demonstrated elevated levels of anxiety and depression, low self-esteem, poor body image, and an overall negative impact on quality of life in those affected (Katoulis et al., 2015; Liu et al., 2016; Montgomery et al., 2017; Rencz et al., 2016; Tucker, 2009). Qualitative studies have described a long process of adjustment, involving grief, shame, appearance-related distress, altered identity, and a disrupted work and social life (Davey et al., 2018; Hunt & McHale, 2004; Welsh & Guy, 2009). Those affected commonly report a lack of empathy from health professionals in coping with the psychological impacts of hair loss, and a lack of signposting to sources of emotional support (Davey et al., 2018; Marks et al., 2019; Tucker, 2009).

Various forms of treatment exist for hair loss, including local steroid injections, steroid creams, and steroid tablets, contact sensitisation treatment, ultraviolet light therapy, and immunosuppressants (British Association of Dermatologists, 2016). Unfortunately, evidence for these treatments is limited and many undesirable side effects may be observed (Kassira et al., 2017). In response to this limitation and in recognition of the psychological impact of hair loss, research has begun to explore the potential contribution of alternative treatments. Wigs have long been used to disguise hair loss and can improve self-confidence and body image (Montgomery et al., 2017; Rencz et al., 2016). However, the use of wigs may also lead to a fear of being negatively judged by others, and concerns of 'being found out' (Davey et al., 2018; Montgomery et al., 2017). Another treatment increasing in popularity is medical tattooing, which can provide semi-permanent camouflage of hair loss, and is commonly used to restore the look of eyebrows and increase eye definition using traditional tattoo ink or pigment (microblading). The microblading technique uses individual strokes to create the 'hair' and can therefore create a more natural look, while tattoo ink typically lasts much longer. Although tattooing seems to offer a promising method of restoring the appearance of hair loss (Betts, 2016), much of the current evidence stems from its use in nipple reconstruction following breast cancer (Clarkson et al., 2006; El-Ali et al., 2006; Goh et al., 2011; Harcourt et al., 2011; Smallman et al., 2018) and burn injuries (Yeates et al., 2018). Consequently, there is limited research focusing upon the exploration of medical tattooing for hair loss and on the motivations, expectations, and experiences of individuals seeking such treatment.

Drawing upon literature concerned more broadly with the camouflage of appearance-altering conditions, it is clear that temporary cosmetic changes may not always meet the individuals' expectations or result in broader improvements to psychological wellbeing (Kent, 2002; Maskell et al., 2014). Further, little guidance is currently in place to ensure optimal outcomes for individuals undergoing these procedures (Kluger & de Cuyper, 2018).

The aims of this qualitative study were to explore adults' motivations, experiences, and self-perceived outcomes in relation to medical tattooing, with a view to informing clinical practice.

Materials and methods

Ethical approval to conduct the study was obtained from the Faculty Research Ethics Committee at the University of the West of England.

The study utilised a qualitative semi-structured interview design situated within a critical realist approach (Maxwell, 2012). Interviews were conducted over the telephone to facilitate UK-wide participation in a manner convenient for participants.

To be eligible for participation in the study and to limit the heterogeneity of treatment experiences, men and women had to be aged 18 years or above, be living in the United Kingdom (UK), and to have undergone medical tattooing within the last 5 years. The study was advertised online (websites, social media, e-newsletters) in collaboration with UK-based charitable organisations that support those with appearance-altering conditions. Potential participants were asked to complete a brief online survey to express their interest and ensure eligibility. Eligible participants were then contacted directly by email by the first author with additional details about what the study would entail. A mutually convenient time for an interview was arranged with those who decided to take part. At the start of the conversation, the interviewer took time to build rapport, communicate key details about the study, and give participants the opportunity to ask any questions. Oral informed consent from participants for the interview to be audio-recorded and used for research purposes was collected. Participation was voluntary and interviewees were not compensated.

The interview schedule was designed by the first and last authors, based on current medical decision-making literature and prior research experience, with additional input from the wider research team. The schedule included the participant's condition and treatment history, reasons for pursuing medical tattooing, the decision-making process, experiences of the procedure, perceptions of the immediate and long-term results, and any ways in which the overall experience could be improved.

All interviews were conducted by the first author – a senior researcher with a background in health psychology, trained in qualitative methodology. To ensure the quality of the data, the first and third authors met part way through the data collection phase to discuss the content of the interviews to date and to reflect upon the interview process. Interviews were conducted until both authors were confident that no new information was being collected, the principles of data saturation had been met, and the accounts of participants demonstrated common essential characteristics (Morse, 2005).

A total of 22 women aged 26–65 years ($M = 47$ years) participated. All participants identified as White British or White European, except one who identified as White Brazilian. Participants were located across the UK, indicating good geographical coverage, and were all employed at the time of interview, except one who had recently retired. The majority of participants were married or in a long-term relationship ($n = 20$). Most reported a diagnosis of Alopecia Universalis ($n = 16$). Other diagnoses included Alopecia Areata ($n = 2$), Lichen Planopilaris ($n = 2$), Frontal Fibrosing Alopecia ($n = 1$), and congenital Ectodermal Dysplasia ($n = 1$). Thirteen participants had been diagnosed with Alopecia Areata at a young age, while others had experienced a later onset ($n = 9$), often attributed by the participants to extreme stress. At the time of interview, all participants had lost most or all the hair on their head, as

well as their eyebrows. Some had also lost their eyelashes. Participants had learned about medical tattooing through a friend ($n = 12$) or via an online forum ($n = 10$). Eleven had undergone microblading, while seven had chosen to have brow tattoos. The remaining four women had tried both approaches. Nine participants also had eyeliner tattoos. Two had attended an appointment at a high street beauty salon, 12 had opted for a more specialist private clinic and 7 had experience of both settings. One woman had visited a high street tattoo artist. All participants were recruited through one of two charitable organisations (Alopecia UK, Ectodermal Dysplasia Society). Interviews were performed during September and October 2019 and lasted 39 minutes on average.

Interviews were transcribed verbatim by an external transcriptionist. Transcripts were evenly and randomly divided between the first and third authors and inductive thematic analysis was performed using the guidance provided by Braun and Clarke (2006). Given that little research on this topic currently exists, a data-driven, exploratory approach was utilised, and data were analysed at the semantic level. First, data were read and re-read to establish an overall picture, and initial ideas were noted. Initial codes were then systematically generated, representing interesting features across the whole dataset. Next, codes were collected into potential themes. At this point, the first and third authors discussed their findings, checking for any inconsistencies and reviewing potential themes. Themes were then discussed with the second author; an experienced qualitative researcher with greater experience of the topic under scrutiny; to gain additional feedback and to consider the significance of the findings in relation to relevant literature and current practice. Themes were named and defined, and quotes deemed to be representative of each theme were identified. All three authors involved in the analytic and interpretative process kept notes throughout. Themes were also discussed with the fourth and fifth authors, both of whom have worked with this patient group professionally. A lay summary of the preliminary findings was sent to all participants, inviting them to provide critical feedback if they wished.

Results

The current study was open to people with any kind of appearance-altering condition; however, the overwhelming majority of participants reported conditions that resulted in hair loss. As a consequence, the authors chose to focus on these experiences for the purpose of the current paper. Four key themes were identified: (1) treating hair loss: enduring helplessness, endangerment, and abandonment; (2) concealing hair loss: restoring appearance and recovering confidence; (3) seeking treatment: benefitting from the guidance of proficient practitioners; and (4) being cared for: unmet protection, regulation, and information needs. Themes are outlined in more detail below, alongside illustrative quotes presented in [Table 1](#). Participants have been given pseudonyms to maintain anonymity.

Table 1. Qualitative codes and exemplar quotes.

Theme	Code	Exemplar Quotes
1. Treating Hair Loss: Enduring Helplessness, Endangerment, and Abandonment	Experience of initial hair loss	The eyebrows and eyelashes were worse than the hair on my head ... The hair is a massive loss but ... I had time to adjust. The eyebrows give your face definition, and the eyelashes ... it's the last of your femininity ... I just felt my face was empty, I was devastated' – Poppy
	Experience of medical treatments to stimulate hair regrowth	I had various dermatology appointments where we tried lots of different treatments ... but they hardly ever work ... Even when I did have some regrowth you can't have those treatments forever, so once you stop it just falls out again, which can be more traumatic than losing it in the first place' – Margot
2. Concealing Hair Loss: Restoring Appearance and Regaining Confidence	Feeling of being abandoned by health professionals	Some of the treatments are quite aggressive ... I had to stop in the end because I was risking my health' – Darcy
	Hopes of regaining a 'normal' appearance	I remember the doctor saying 'that's it, they [eyebrows] aren't going to come back, there's nothing we can do' ... and being ushered out of the room ... I was absolutely distraught' – Elsa 'A face without eyebrows isn't really a face ... You look featureless ... I didn't want to be judged as being weird, or ill, or frail anymore' – Victoria 'You look alien ... like some kind of robot ... I just wanted to look human again' – Julia 'It was about regaining something I'd lost ... trying to make myself blend in' – Felicity 'If I didn't get up and do my make-up first thing, I'd feel self-conscious about answering the door ... I wanted to get my confidence back' – Cassie 'I couldn't bear to look in the mirror because what I saw just wasn't me ... I wanted to be able to look in the mirror and think "OK, I can still see me in there somewhere"' – Elsa 'As someone who'd never really worn make-up, I wasn't very good at doing it ... I found it quite exasperating' – Florence 'To get them [eyebrows] even ... and to look realistic ... it's incredibly time-consuming' – Amelia
	Reclaiming a sense of identity	
	The inconvenience of using make-up to manage hair loss	
	Hopes that tattooing might reduce the burden of daily maintenance	I wanted to save time in the morning ... to go swimming without the worry of them [eyebrows] coming off ... To make sure I wouldn't wipe the brow with the back of my hand and make my eyebrows suddenly disappear' – Julia

(Continued)



Table 1. (Continued).

Theme	Code	Exemplar Quotes
3. Seeking Treatment: Benefiting from the Guidance of Proficient Practitioners	Carrying out extensive research	1 spent a couple of years thinking about it ... researching various practitioners and getting recommendations' – Olivia
	Concerns about the procedure and outcomes	'I'm terrified of needles ... and knowing it's going to be painful' – Sophia 1 didn't want these big slugs on my face ... I wanted to look normal and natural ... Was I going to be left with something worse than having nothing?' – Felicity
	Factors that improved decision-making	1 had a full consultation ... I showed them pictures of what my eyebrows used to be like ... and they showed me photos of previous clients ... They explained the process to me, the aftercare ... and explained that the colour could fade a bit, so I was prepared for that' – Zoe '[The practitioner] spent a lot of time making sure the shape was right and I was happy with it ... I didn't feel rushed or pressured ... We did an allergy test ... It was clear they were taking it very seriously' – Margot
	Appreciation for trustworthy and experienced practitioners	'[The practitioner] used to go into the hospital and provide free nipple tattoos for women who'd had breast cancer ... You got the feeling that ... her primary drive was to make women feel better about themselves ... She is very professional and ... very calm and ... competence ... She's even tattooed other women with alopecia, so she was knowledgeable about the condition as well' – Emily
4. Being Cared For: Unmet Protection, Regulation, and Information Needs	Satisfaction with the outcome	'It's the best thing I've ever done in terms of [my alopecia] ... I really believe it could benefit more people' – Mia 'It definitely achieved what I wanted it to ... I would recommend it wholeheartedly, 100%' – Megan
	Dissatisfaction with the outcome	'They didn't do a fantastic job ... Before the treatment we agreed a colour, but they changed their mind mid-way, so I ended up with this blue tint ... But also the shape of it ... and it was really painful because they went too deep ... In the end I had to have four sittings with someone else to get it removed' – Darcy
	Medical tattooing should be regulated	You hear a lot of horror stories where people have ... found a deal on Groupon [a website offering daily deals on local services] ... or gone to inexperienced practitioners who don't understand that in alopecia the skin reacts differently ... I'd also like to see some definition between the cosmetic industry and having it done for medical reasons' – Olivia 1 wouldn't like to think of anyone learning how to do it overnight and I have heard there are people practising who perhaps shouldn't be. I feel very strongly that there should be clear regulations in place' – Poppy
	GPs and Dermatologists could be better informed The emotional impact of hair loss is undervalued	'People can take advantage of you, because you are desperate for a solution and that makes you vulnerable' – Lydia Perhaps if the GP, right at the beginning, had explained there's not a lot of effective treatments, but there are coping mechanisms ... giving information on what's available, so the person can ... explore it if they want to' – Olivia It's not a life-threatening condition but it is life-changing ... It really impacts on ... how you feel about yourself and I think that side of it is really underestimated' – Robyn 'It's a big financial burden ... the cost initially and the commitment to having them redone every year ... I understand the NHS can't afford to fund it all, but perhaps they could ... send someone for a consultation to see if it's right for them' – Poppy

Theme 1: Treating Hair Loss: Enduring Helplessness, Endangerment and Abandonment

This first theme encompasses the distress participants experienced in connection with their hair loss and the sense that there were few effective treatments available. Irrespective of when they had received their diagnosis, participants had found the loss of their eyebrows and eyelashes particularly distressing. All participants had engaged in treatment aiming to stimulate hair regrowth. Unfortunately, for the women in this study, these treatments had either failed to work, only produced temporary results, and/or evoked a range of undesirable side effects. Participants described feeling 'abandoned' by medical professionals once treatment options had been exhausted.

Theme 2: Concealing Hair Loss: Restoring Appearance and Regaining Confidence

This theme draws upon the impact of hair loss, and particularly facial hair loss, on participants' appearance and the bearing this had upon their confidence and sense of self. Some participants stated their 'whole face had changed'. Consequently, participants hoped they could regain a 'normal' appearance through medical tattooing. Participants also described the impact their hair loss had on their self-confidence and sense of identity. Participants were therefore motivated to find a solution that would make them 'feel like "me" again'. Further, participants talked about the inconvenience of using make-up to manage their hair loss and therefore felt tattooing could reduce the burden of daily maintenance.

Theme 3: Seeking Treatment: Benefitting from the Guidance of Proficient Practitioners

This theme encompasses the aspects of the consultation and the characteristics of the practitioner that enabled participants to reach a decision about treatment. Participants had learned of the option of medical tattooing primarily as a function of chance and, once aware, then invested considerable time and energies in exploring the possibility. Participants did not take the decision to undergo medical tattooing lightly and reported a number of concerns, including procedural anxiety and worries about the quality of the outcome. Participants therefore described several features of the consultation that aided the decision-making process and ensured that the treatment satisfied their requirements and expectations. Participants also described the qualities in a practitioner that evoked trust and made them feel confident in their decision. Notably, previous experience with individuals impacted by hair loss was deemed particularly important. Most participants were pleased with the outcome and stated they would recommend medical tattooing to others.

Theme 4: Being Cared For: Unmet Protection, Regulation and Information Needs

The final theme refers to aspects of medical tattooing that some participants felt could be improved, including the context within which medical tattoos are provided. Some of those who reported less desirable results and experiences attributed their dissatisfaction

to having chosen the wrong practitioner. As a result, several participants felt that medical tattooing should be better regulated. Participants also felt that GPs and dermatologists could be better informed about alternative treatment options for people with hair loss. Others believed that the emotional impact of hair loss was undervalued and felt the National Health Service (NHS) could do more to support those affected.

Discussion

This qualitative study aimed to explore adults' motivations, experiences, and self-perceived outcomes in relation to medical tattooing. The findings provide insight into women participants' perceptions of the potential costs, benefits, and consequences of an under-researched and unregulated but widely accessible treatment.

When giving an account of their history, participants described a long process of adjustment to losing the hair on their scalp, as has been reported in previous literature (Davey et al., 2018; Hunt & McHale, 2004; Welsh & Guy, 2009). However, the subsequent and rapid loss of their eyebrows and eyelashes was depicted as particularly upsetting. Participants had therefore sought treatment to address not only their medical needs but also to allay their emotional distress. Unfortunately, participants had experienced little success with medical treatments intended to promote hair regrowth. Particularly when participants felt their experiences had been handled poorly by health professionals, these prior medical treatments ultimately evoked further distress and often preceded the decision to cease such treatment altogether (Davey et al., 2018; Liu et al., 2016; Welsh & Guy, 2009).

Participants described the loss of their eyebrows and eyelashes as having a considerable impact on their appearance, including a lack of facial definition, a loss of femininity, a feeling of looking 'alien', and being seen as ill or frail by others. This change in appearance also affected their self-confidence and sense of identity and led to the daily burden of concealment through the use of make-up. Previous studies have illustrated a comparable experience in relation to the use of wigs. Described as the 'lesser of two evils', women with alopecia may use wigs as a strategy to cope with symptoms of depression, appearance dissatisfaction, and social anxiety (Montgomery et al., 2017). However, a large proportion of women also report concerns that others may notice they are wearing a wig and/or that their wig may unexpectedly come off, resulting in their 'secret' being revealed to others (Davey et al., 2018; Montgomery et al., 2017). Similarly, participants in the current study highlighted that making their eyebrows look realistic was difficult and that their make-up could be smudged or removed throughout the day. In addition, participants described struggling to look in the mirror if they were not wearing make-up. A similar tendency for women with hair loss to critically appraise their appearance when not wearing their wig has been raised in previous research (Montgomery et al., 2017). Consequently, participants in the present study saw medical tattooing as a more permanent way to alleviate both private and public appearance concerns, while also improving self-confidence and restoring their sense of identity.

None of the participants had learned about medical tattooing through a health professional or other formal avenue; rather they had received recommendations from friends or while browsing online forums. Participants expressed some apprehension at whether the process would be worthwhile, and many took considerable time to research their options.

Ultimately, participants' trust in their medical tattooing practitioner was crucial to the decision-making process and appeared to be connected with their outcome satisfaction. Participants described being reassured if they felt the consultation was taken seriously, and with safety considerations, the procedure itself, and aftercare explained in full. Additionally, participants wanted practitioners to take time to understand their individual needs and expectations. Practitioners were particularly valued if they had previous experience of tattooing others with hair loss and/or other health conditions and were seen to be driven by altruist motivations. Participants had sought treatment at a range of venues, including high street beauty salons, specialist private clinics, and high street tattoo studios, all of which require a different level of specialism, professional qualifications and referral processes. Interestingly, participant satisfaction did not seem dependent upon the environment within which they received their treatment, but were more connected to the perceived individual qualities of the practitioner and the care provided.

These findings suggest that information to support decision-making would be beneficial and highlight the central importance of the practitioners' ability to interact with individuals in a reassuring, compassionate, and professional manner. Some participants, however, felt strongly that tattooing for medical purposes should be distinguished from the beauty industry, since they were seeking to reclaim their former identity which had been affected by their condition, rather than pursuing cosmetic enhancement. Consequently, most participants argued that medical tattooing should be given appropriate recognition and financial support by the NHS. Previous research has highlighted the ongoing financial burden of wigs, the 'priority' given to patients with cancer, and the 'postcode lottery' of the financial support available in the UK (Davey et al., 2018; Marks et al., 2019; Montgomery et al., 2017). The present findings also indicate the potential for care inequality, and echo recent research describing how patients' emotional distress can lead to a level of vulnerability that could be exploited (Davey et al., 2018). Many participants felt that medical tattooing should be better regulated, with practitioners having to undergo certified training and audit. Finally, participants felt that health professionals, such as GPs and dermatologists, had a responsibility to signpost patients experiencing hair loss to alternative forms of treatment and sources of support, particularly if medical options had been exhausted (see Table 2).

A number of methodological issues should be considered. First, the study was advertised to both men and women aged 18 and over, yet only women opted to participate. Although hair loss has a negative psychological impact on men as well as women, men remain underrepresented in this area of research (Marks et al., 2019). Future research specifically focused on men's needs may encourage more men affected by hair loss to come forward. Second, some conditions are better represented in the data than others.

Table 2. Recommendations and resources for health professionals.

Recommendations for Health Professionals	Suggested Resources
Become familiar with the psychological and social impacts of hair loss	Davey et al., 2018; Montgomery et al., 2017; Hunt & McHale, 2004
Consider the emotional impact of hair loss when speaking with patients and provide options for support	Alopecia UK: www.alopecia.org.uk ED Society: www.edsociety.co.uk
Signpost patients to trusted information on alternative treatments	Alopecia UK: www.alopecia.org.uk British Association of Dermatologists: www.skinhealthinfo.org.uk

Although findings were comparable across all conditions and thus considered suitable for inclusion, it cannot be assumed that participants' experiences are generalisable. Finally, this paper presents only one perspective on this increasingly popular treatment option. Future research could consider examining the views of practitioners offering medical tattooing, health professionals such as GPs and dermatologists, and/or charitable organisations offering advice and support to those experiencing hair loss, to produce a broader understanding. Future research could also employ standardised questionnaires to explore decision-making, psychological wellbeing, and treatment satisfaction pre- and post-medical tattooing.

This study examined the motivations, experiences, and self-perceived outcomes of women who have undergone medical tattooing for the cosmetic restoration of hair loss. Findings indicate the potential positive impact of medical tattooing on appearance concerns and self-confidence, yet also highlight the importance of providing evidence-based information to patients to help achieve optimal outcomes.

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