Digital Health and Care (PhD) case study

A web-based perinatal bladder health promotion programme
A mixed methods research study

BACKGROUND

- Female urinary incontinence (UI) is an stigmatising condition caused, in great measure, by pregnancy and childbirth.
- It constitutes a population health issue, seriously affecting women's physical, psychological and social well-being, including a profound impact on families and on quality of life.
- The embarrassment felt by women prevents them from volunteering the disclosure of symptoms.
- Women and professionals lack awareness and knowledge on bladder health and urinary incontinence promotes its normalisation.
- Great variations of prevalence in the literature: embarrassment, normalisation, believes about lack of treatment.
- The first-line treatment is pelvic floor muscle training, which is safe, effective and can be completed without health care personnel supervision.
- Existing deficits in women's knowledge regarding basic female pelvic anatomy.

25-75%
of women are incontinent in pregnancy and 9-68% after the first year post birth.

UI is likely to be chronic if women are incontinent at
9-12 MONTHS post birth

10 YEARS
is the average time lapse for seeking help.

£233 MILLION PER YEAR
The estimated cost to the NHS.

Current recommendations

- NHS Long Term Plan (2019): improve the prevention, identification and treatment of pelvic floor dysfunction.
- NICE guidelines on pelvic floor dysfunction: prevention and non-surgical management (2021): it aims to raise awareness and help women to reduce their risk of pelvic floor dysfunction.

CHALLENGE

To develop and pilot a web-based bladder health promotion programme to promote bladder health during and after pregnancy and to determine whether this programme:
1. Raises their awareness on bladder health, the physiology of the pelvic floor, risk factors and common symptoms as well as when and where to seek help.
2. Improves reports of UI.
3. Promotes self-diagnosis and self-management of UI during and after pregnancy.

SOLUTIONS

To create a web-based perinatal bladder health promotion programme to track bladder health throughout pregnancy and after giving birth. The programme will include educational resources to promote bladder health and inform and empower women about the pelvic floor anatomy and physiology during and after pregnancy, regular self- risk assessments, recognition of symptoms, self-diagnosis and access to resources to self-manage UI. This web-based programme will also serve as a database to collect and provide accurate real-life data regarding the incidence and prevalence of perinatal urinary incontinence. This data will support future research studies.

STRENGTHS

Accessibility

Digital tools have the potential to assist with self-management of UI, not only by offering lifestyle education and/or providing an intervention as an adjunct to the primary medical treatment, but also by allowing access to these resources regardless of the time and day [1].
EHealth tools are suitable for the collection of real-world data, and facilitate recruitment and data collection [2].

Digital health promotion

Digital tools for UI have the potential to reduce barriers to treatment and increase both awareness and adherence to treatment while reducing health care costs[3]. It also has a demonstrated benefit on symptom severity and quality of life [4], and could increase access to care for individuals with limited access or for those unwilling to seek ordinary health care [5] due to personal reasons, such as embarrassment or cultural factors. Mobile technologies are deemed cost-effective for treating UI [6].

WEAKNESSES

Adherence could be low in the absence of face-to-face contact [7] and long-term usage and retention could be compromised [8].
Potential contribution to health inequalities since it is known that highly educated people use health apps more [9] and ethnic minoritised people have lower health-related technology use [10]- digital determinants of health.
The Covid-19 pandemic and the ongoing digital health transformation could potentially have an undesired impact on healthcare users (technostress) [11].

Improving the digital technology

To improve long-term usage of eHealth tools by following principles of behaviour change theories and by partnering with existing digital maternity notes.
Co-create the digital tool with service users from different ethnic and socio-economic backgrounds to develop a tailored, inclusive and culturally sensitive digital tool.

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