

# Experience and severity of menopause symptoms and effects on health-seeking behaviours: A cross-sectional online survey of community dwelling adults in the United Kingdom

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**Abstract**

**Objective**

**Design**

**Setting**

**Participants**

**Methods**

**Main outcome measures**

**Results**

**Conclusions**

This study highlighted a strong willingness of women aged 35–70 to participate in group consultations for menopause, with motivation being strongest amongst premenopausal women. Low awareness of self-management and lifestyle interventions to manage the symptoms of menopause highlight the need for greater outreach, research and interventions to build knowledge and confidence in the general population at scale. Future studies should focus on investigating the effectiveness and economic impact of menopause group consultations and the lived experience of individuals participating in group consultations.

## **Introduction**

The use of group consultations has seen increasing popularity in the UK, USA, Australia and India, and especially since the advent of the COVID-19 pandemic where healthcare resources have become increasingly strained. Group consultations have been successfully used to manage an increasing variety of conditions, including diabetes [16] and post-op orthopaedic care [17], leading to improved patient outcomes and satisfaction rates in that same order [18]. Various models of group consultations have been developed that improve access and continuity of care including antenatal group care [19]. Perinatal care offers the most compelling evidence for group healthcare as demonstrated by the popularity of National Childbirth Trust courses in the UK, and the American College of Obstetricians and Gynaecologists' joint opinion that patients have better prenatal knowledge, initiate breastfeeding more often and are more satisfied with their care [20]. Group consultations can improve patient outcomes relative to individualised patient care and are not usually associated with adverse outcomes [21]. They also offer a special opportunity to deliver more effective care at lower cost. Realising group consultations can bring 300-400% efficiency gains over traditional care models, the NHS is actively investigating how best to embed group consultations into routine practice [22]. This may be especially beneficial during menopause when timely access to knowledgeable HCPs and quality assured health literacy information is difficult to find and remains inaccessible to many.

Only 54% of women seek medical input for menopausal symptoms, despite >80% experiencing some combination of symptoms associated with oestrogenic deficiency [23]. Few studies have investigated the influencing factors that trigger women to seek medical care. The aim of this study was to investigate the prevailing needs and motivations of women when seeking health information around menopause, and to establish their willingness to participate in group-based healthcare, education, and support.

## **Methods**

### **Study design**

stage whilst underlining the potential collective benefits of taking part in terms of shaping our understanding of what the general population thinks about menopause care and how we can design better services in future. Participants were also given the opportunity to provide their contact details on the occasion that they were interested to be interviewed. The data collected were stored on the Imperial College London secure database and only members of the study team could access the eSurvey results.

The survey comprised a total of 28 questions displayed on one page and was accessible using a personal computer or smartphone. Participants could review their answers before submitting them. Questions regarding demographic characteristics of the users included information on assigned sex at birth, gender, age, ethnicity, educational level, marital status, the name of town or city they lived in and employment status. If participants did not select 'female' as their assigned sex at birth, they were automatically excluded. Rather than using the general term of "woman", the assigned sex at birth allows a greater inclusivity since trans men, nonbinary and other gender nonconforming individuals can experience menopause. All data collected through the survey were anonymised and not personally identifiable. The online survey was piloted with a small group of individuals to ensure technical functionality and usability before being published.

Menopausal phase was assessed through questions regarding menopausal symptoms and frequency of or date of last menstrual period. Respondents were categorised into premenopause, perimenopause and postmenopause according to the STRAW +10 Staging System [24,25]. The STRAW system categorises women into menopausal stages based on when they had their last period and the variability of their menstrual cycle, as menopause is clinically defined as having occurred 12 months after the final menstrual period. Respondents who indicated they had surgically induced menopause were categorised as surgical menopause.

To investigate menopausal symptoms experienced and the symptoms that acted as triggers for seeking help, the Menopause-Specific Quality Of Life (MENQOL) questionnaire was adapted into a list of 18 symptoms [26,27]. Self-care behaviours were investigated using a series of questions regarding the respondent's preferred sources of menopause information and advice, personal triggers and barriers for seeking advice and experiences with HCPs. The demand for group consultations was evaluated using a number of statements where participants were asked to indicate level of agreement. The Checklist for Reporting Results of Internet E-Surveys (CHERRIES) [28] was used to guide the development and reporting of the eSurvey.

## **Statistical analysis**

**Ethics**

**Patient and Public Involvement**

**Results**

**Demographic profile of respondents**

**Symptoms experienced by respondents**

**Sources of menopause advice**

Forty four percent of respondents who saw HCPs were prompted to do this to understand whether HRT was a suitable option. For 71.1% of women, the support provided by their HCP was prescription medication. Transdermal HRT was prescribed to 31.8%, oral HRT to 29.3% and local oestrogen to 18.1%. Only 6.2% of respondents who saw a doctor were prescribed testosterone. Lifestyle changes were proposed to 22.9% of those who saw HCPs, either as standalone (7.6%) or in combination with prescribed medication (15.3%).

Seventy percent of respondents indicated that they had implemented lifestyle changes to help them self-care for their menopause symptoms; 37.8% reduced their alcohol intake, 35.6% started a new exercise regime, 27.4% reduced caffeine intake, 6.7% started cognitive behavioural therapy and 4.2% stopped smoking. Of those respondents, 82% indicated that these lifestyle changes were moderately effective for symptom relief. Less than half (40.5%) of respondents identified taking supplements such as black cohosh, evening primrose oil or magnesium to help them manage, with 75% of those respondents indicating they had some effectiveness for symptom relief.

Excluding HCPs, the most popular sources of advice or information about menopause were health websites (55.4%) and friends (45.1%). However, of those respondents who visited HCP, only 11.5% were prompted to do so by online research or articles and 7.2% by friends. Only 5.2% of women sought advice from pharmacists. The remaining 43.5% of participants who did not seek advice from HCP reported that their symptoms were not severe, or they could manage or cope on their own. One hundred and ninety-five respondents (52.4%) of those who did not seek advice from HCP felt that menopause was not a valid enough reason to be seeking support (i.e. they did not think it menopause was an appropriate reason to get medical advice and/or they did not think HCP could help them and/or that the symptoms they were experiencing warranted HCP time and support). Eighteen respondents (1.8%) described reasons that would fit into the category of not trusting HCP to help them - either due to a fear of misdiagnosis, not being taken seriously by HCPs, or the perception that HCPs lacked specialist menopause knowledge and training.

## **Acceptability of group consultations**

## **Univariable and multivariable association of menopause status with acceptability of group consultations**

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Table 1  
Participant characteristics

	Pre-menopausal (n = 27)	Peri-menopausal (n = 390)	Menopausal (n = 410)	Post-menopausal (n = 102)	Surgical menopause (n = 35)	P-value
Age						< 0.001
Ethnicity, n (%)						0.01
Education, n (%)						0.49
Employment, n (%)						0.05



	Pre-menopausal (n = 27)	Peri-menopausal (n = 390)	Menopausal (n = 410)	Post-menopausal (n = 102)	Surgical menopause (n = 35)	P-value
<b>Marital status</b>						0.07
<b>What triggered you to seek professional advice for your menopause?</b>						
						< 0.001
						0.04
						0.001
						< 0.001
						0.72
						0.65
						0.94
						0.73
						0.61
						0.51
						0.01

Table 2  
 Association of menopause status with acceptability of group consultations

Stage	Univariable			Multivariable*		
	OR	95% CI	P-value	aOR	95% CI	P-value

## Discussion

### Summary of key findings

symptoms of low libido. There are currently no available licensed testosterone preparations for women in the UK, which could explain the low levels of prescription.

One of the top sources of advice reported here is the use of health websites, suggesting that over the past decade, the popularity of the internet as an advice source for menopause has skyrocketed.

## **Need for greater awareness**

## **Implications for policy and practice**

of menopause training for doctors. Group consultations are an opportunity to educate patients and better utilise HCPs that have been trained.

## **Study strengths and limitations**

## **Further research**

## **Conclusion**

## **Declarations**

### **Patient and Public Involvement**

No patients were involved as research participants. The study protocol and online survey were developed in collaboration with Bia Health Ltd, which included input from PPI group and lay members. Preliminary surveys were conducted with approximately 200 women to gauge their attitudes towards group healthcare and experiences of menopause care. The Survey was reviewed by eight menopausal women as part of beta testing on usability and wording of questions.

#### **Author Contributors:**

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#### **Declarations**

#### **Competing Interests**

#### **Data sharing statement**

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## Supplementary Files

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