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INFORMATION PROVISION AND DEMAND-SIDE BARRIERS TO HEALTHCARE INNOVATION: EXPERIMENTAL EVIDENCE ON SHARED MEDICAL APPOINTMENTS IN MENOPAUSE CARE

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Information Provision and Demand-Side Barriers to Healthcare Innovation: Experimental Evidence on Shared Medical Appointments in Menopause Care

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ABSTRACT

Alternative care delivery models may offer benefits to patients and providers, but adoption often remains low. We study whether brief narrative testimonials shift willingness to attend virtual shared medical appointments (SMAs), a relatively little-used care format in which 5-15 patients with a shared non-urgent health condition meet simultaneously with a clinician. Using a pre-registered field experiment with over 4,000 women aged 45–60 in the UK, we randomly assigned participants to view only standard descriptive information about menopause appointment options (the control group) or to receive testimonials about SMAs from either previous patients or a clinician (treatment groups). Testimonials more than doubled the share of women choosing an SMA: when appointments were offered with a 6-8 week wait, 11% of the control group chose an SMA compared to 26% in the peer testimonials arm and 24% in the clinician testimonials arm. Shorter waiting times further increase uptake. When the SMA wait was reduced to one week, the share of women ever choosing an SMA rose by 14-19 percentage points across arms, reaching nearly 40% in the testimonial groups. Treatment effects are systematically larger among women with greater information-processing capacity: university education, higher baseline menopause knowledge, and broader information-seeking. Our findings suggest that women's reluctance to choose SMAs is driven primarily by demand-side barriers, including unfamiliarity and uncertainty about their benefits, rather than deep-seated aversion to group-based care. Testimonials appear sufficient to meaningfully reduce these barriers.

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1 Introduction

Primary care systems face persistent capacity constraints, and demand for outpatient care continues to grow. One response is to reorganize delivery in ways that economize on scarce clinician time. Shared medical appointments (SMAs), where five to fifteen individuals with the same non-urgent condition meet with a care provider as a group and receive individualised attention in the presence of others (Hayhoe et al., 2017), are a prominent example. Although SMA sessions last longer than individual appointments, they make more efficient use of clinician time by delivering common guidance once to the group, and can translate into lower healthcare costs, increased access to care, and shorter waiting times. Furthermore, SMAs have been shown to improve patient knowledge, satisfaction and health outcomes (Jones et al., 2019). Despite these potential benefits, adoption of SMAs has been limited.[1]

This paper examines the role of demand-side informational and behavioral frictions in depressing SMA adoption. These frictions may be especially powerful for adoption of a novel healthcare delivery mode, where patients face significant uncertainty about how well their needs will be met. Because health care is a credence good (Dulleck and Kerschbamer, 2006), patients cannot easily assess quality ex ante and may default to familiar formats. If low adoption derives in part from these frictions, and not exclusively from patient discomfort with the SMA environment or deep-seated concerns about privacy,[2] it may be possible to overcome them with light-touch interventions. On the supply side, survey evidence suggests that cost factors, such as additional scheduling resources needed to manage the complexity of implementing SMAs, contribute to low availability. Nevertheless, a primary deterrent identified by practitioners is the anticipated patient resistance to group settings due to privacy preferences and the tendency to default to the familiar individual appointment option (Graham et al., 2021). This suggests a potential coordination problem in which providers are reluctant to invest in an appointment format they expect patients to reject, while patients avoid a format they know little about. Understanding the extent and depth of patient-side barriers to SMA adoption is therefore central to increasing their uptake.

We propose a light-touch intervention to address low patient uptake of SMAs. We focus on testimonials, messages that convey others' direct experience with an innovation, as a channel to reduce patient-side uncertainty and increase uptake. We test this approach in a field experiment with more than 4,000 women aged 45-60 in the UK, examining whether low-cost information can increase willingness to attend SMAs for menopause. Participants were randomly assigned to treatment groups that received testimonials, either from previous patients or from a clinician, or to a control group that only received standard descriptive information about the two appointment options, SMAs and individual appointments. Testimonial content was selected through a pre-test in which over 1,000 women rated the decision relevance of candidate state-

[1] SMAs have been implemented across a range of clinical settings, with perinatal and neonatal care representing one of the largest historical areas of adoption, while applications to chronic pain and diabetes management have expanded more recently. These are among the conditions to see the largest increase in patient volume in UK primary and community care (Health Foundation, 2026), reinforcing the practical relevance to understanding why SMA adoption remains low.

[2] For more on the importance of privacy concerns in the diffusion of new healthcare technologies, see, for example, Miller and Tucker (2009, 2011, 2018).

ments, thus ensuring that treatments addressed the specific dimensions of the SMA experience that prospective patients consider important. We also examine the role of waiting-time costs by progressively reducing the SMA time-to-appointment relative to the individual appointment option, which allows us to evaluate whether informational frictions and access costs operate along separate margins of adoption. We focus on menopause care as our clinical context, as it provides a particularly demanding test of whether such interventions can shift demand: symptoms are common yet often under-discussed, stigma and privacy concerns are heightened, and access to specialist care is frequently cited as inadequate (Hickey et al., 2024; Delanerolle et al., 2025). The economic stakes are also consequential, with menopause-related symptom burdens documented to affect labor market outcomes (Conti et al., 2025). If testimonials can shift demand in this sensitive context, they are likely to be effective more broadly.

We find that testimonials more than double SMA uptake: when appointments are offered with a 6-8 week wait, 11% of the control group choose an SMA compared to 26% in the peer testimonials arm and 24% in the clinician testimonials arm, with no statistically significant difference between the two testimonial types. Shorter waiting times generate further gains. When the SMA time-to-appointment was reduced to one week, keeping time-to-individual-appointment fixed at 6-8 weeks, the share of women ever choosing an SMA rose by 14-19 percentage points across arms, reaching nearly 40% in the testimonial groups. Our findings indicate that while barriers exist, they are not deeply held: both testimonial-based interventions and shorter waiting times are sufficient to shift a substantial share of stated choices toward SMAs, pointing to significant latent demand that current delivery arrangements fail to capture.

The testimonial treatments combine multiple potential channels, most notably the provision of information about SMA benefits and source-based recommendation signals. While the experimental design allows us to vary the source of the testimonial (clinician versus peer), it does not allow us to separately identify the information content from the persuasive component within each message. The similarity in effects between the clinician and peer testimonials suggests that source-specific mechanisms, such as authority versus "social proof" (MacCoun, 2012), are unlikely to be the primary driver. Testimonial exposure significantly improved participants' self-reported knowledge of appointment benefits and their clarity about which benefits matter most to them, consistent with an information-updating channel operating alongside persuasion. The heterogeneity results further suggest that responsiveness to testimonials is stronger among women with greater prior knowledge and broader information-seeking, a pattern more consistent with updating on credible signals than with persuasion operating uniformly across individuals.

Our paper contributes to three strands of literature. First, we add to the emerging evidence on alternative care models that involve group-based delivery, such as group counseling for the general population (Barker et al., 2022) and shared medical appointments. Existing work documents SMA productivity gains as large as three-fold relative to individual appointments, reduced waiting times, avoidance of downtime due to no-shows, and improvements in patient knowledge, satisfaction, adherence to medication, and clinical outcomes (Noffsinger, 2009; Jones et al., 2019; Edelman et al., 2015; Sönmez et al., 2023; Lewis and Ickovics, 2024). Prior research also documents more questions asked and more patient-focused discussion in SMAs (Buell et al., 2024). Despite this evidence, SMA adoption remains limited, and little is

known about how to stimulate patient-side demand. Interventions aimed at informing patients about the benefits of group-based care have been proposed as a way to overcome adoption barriers (Ramdas and Darzi, 2017), and testimonials have occasionally been used to encourage enrollment but typically as part of the implementation rather than as an object of study (Ritchie et al., 2020). We provide experimental evidence that directly evaluates testimonial-based information as a demand-side intervention for this care format, addressing a gap identified in the SMA implementation literature (Graham et al., 2021).

Second, we contribute to the literature on light-touch behavioral interventions in healthcare. While much of this work has largely focused on reminders, financial incentives, and nudges aimed at improving care use, medication adherence, and preventive care uptake (Bronchetti et al., 2015; Patel et al., 2018; Marcus et al., 2024; Barron et al., 2026), a growing body of work uses information experiments to study individual choices that affect health outcomes, including diet, safety, and sexual behaviors (Haaland et al., 2023). Interventions that operate primarily through informational content have varying effects, and their effectiveness can depend crucially on the message content and delivery form (Cohen and Saran, 2018), as well as the information source (Alsan and Eichmeyer, 2024; Alatas et al., 2024). Our testimonial content was informed by a pre-test identifying which aspects of the SMA experience women found most decision-relevant, enabling the intervention to target likely informational gaps directly. We also build on Alsan and Eichmeyer (2024)'s finding of differential effects of expert and non-expert messages (in the case of vaccination take-up) by separately examining responses to both information sources. We extend this literature by studying an information intervention aimed at increasing adoption of a novel healthcare delivery model, rather than changing health behaviors or utilization.[3]

Third, our findings speak to the economics of persuasion and information provision (DellaVigna and Gentzkow, 2010; Thaler et al., 2024). More broadly, Cason and Gangadharan (2002) suggest, in an experimental setting, that the provision of "green goods" might increase only if product claims are certified by a third party, similar to our 'expert' testimonials. In settings characterized by uncertainty and credence attributes (Dulleck and Kerschbamer, 2006), individuals may default to familiar options even when other alternatives would better serve their needs (Madrian and Shea, 2001). We provide causal evidence that testimonials can substantially shift stated demand for an unfamiliar care format. They do so while improving self-reported knowledge, clarity and adequacy of advice about the factors relevant to the demand decision, yet reducing certainty. Our heterogeneity results further suggest that the returns to such interventions are increasing in recipients' prior knowledge stocks (Cutler and Lleras-Muney, 2010), pointing to information-processing capacity as an important moderator of demand-side interventions in healthcare.

Our findings also carry practical implications. By experimentally isolating patient-side responses using incentivized appointment choices, we shed light on whether low SMA adoption reflects deep-seated aversion to group-based care or to informational barriers. Our results point to the latter: relatively low-cost informational interventions can substantially shift demand toward group-based care in settings where patients face uncertainty about unfamiliar formats

[3]This is similar in spirit to Alsan et al. (2026)'s study of informational treatments with testimonials and endorsements to inform survey participants about a low-adoption type of non-legal firearm, also examining both stated and incentive-compatible, consequential outcomes.

and may experience heightened privacy concerns. While our sample is drawn from an online population, the results highlight the potential importance of patient-side frictions in shaping the uptake of healthcare delivery innovations, even among digitally engaged populations.

The remainder of this paper is organized as follows. Section 2 describes the experimental design. Section 3 presents the data, sample characteristics, and balance checks. Section 4 reports the main results on SMA uptake, the effects of waiting-time reductions, heterogeneous treatment effects, and decision quality measures. Section 5 concludes.

2 Experimental Design

To examine whether testimonials increase uptake of shared medical appointments, we implemented an online survey-based experiment. Participants were recruited between March 27-31, 2024, via two online platforms: Prolific Academic and Cloud Research, including its Prime Panels (Litman et al., 2017). Participants received an average payment of £4 for completing a 15-20 minute survey.

The experiment used a three-arm design with equal allocation across the control group and the two treatment groups, implemented using block randomization in Qualtrics. All participants first viewed a standard description of two appointment options: a 90-minute virtual shared medical appointment (SMA) for menopause (5-10 participants) and a 20-minute virtual individual appointment. Participants were then randomly assigned to one of three groups: (i) a control group receiving no additional information, (ii) a peer testimonials treatment group viewing five testimonials from patients who had attended such appointments, and (iii) a clinician testimonials treatment group viewing five testimonials from a healthcare practitioner endorsing them. Participants were not informed of the existence of alternative treatment arms. This design isolates the effect of testimonial exposure on outcomes.

After viewing the information provided to their assigned group, participants were asked if they would like to enroll in an SMA, an individual appointment, or neither. This decision was consequential, as only participants who selected one of the two appointment types were given a chance to receive an appointment of that type from our partner, the Experience Led Care (ELC) Programme, thereby ensuring incentive compatibility.

Eligibility was restricted to women aged 45-60 residing in the UK. These inclusion criteria were enforced through pre-screening filters on the recruitment platforms. Participants were excluded if they had participated in a prior pre-test that informed the intervention design. This exclusion was enforced through the platform settings.

The 45-60 age restriction was chosen to target women around the menopause transition, a group for whom menopause-related symptoms are common and often persist beyond the cessation of menstruation (Avis et al., 2015). As a result, many participants face ongoing symptom management decisions and have a plausible demand for medical consultation.

The experiment was pre-registered with ISRCTN (51562508). No changes were made to the pre-registered design after data collection began. The study received ethical approval from the [blinded for submission] Ethics Committee (REC No. REC928-23022027).

2.1 Development of Information Treatments

To select testimonial content, we conducted a pre-test on March 12, 2024, with over 1,000 women meeting the same eligibility criteria as for the main experiment. Participants rated how helpful they found 28 statements in deciding whether to attend a virtual SMA on menopause. These statements covered three broad thematic areas identified in earlier reviews of shared medical appointments (Kirsh et al., 2017; Wadsworth et al., 2019): knowledge exchange (e.g., learning from questions and experiences of other participants), sense of community (e.g., feeling less alone knowing that others struggle with similar issues), and time value related benefits of SMA format (e.g., ease of booking appointments or more time with the clinician).

Statements related to knowledge exchange and community were rated most helpful, precisely the dimensions of SMA quality that are least observable prior to attendance and that patients cannot evaluate without direct experience or credible information from others.

Based on these findings, we drew testimonial material from publicly available patient and clinician videos produced by the ELC Programme (Experience Led Care, 2024) and Moatfield Surgery (Moatfield Surgery, 2024), providers of shared medical appointments, including for menopause care. We transcribed these videos and extracted content consistent with the knowledge and community themes identified in the pre-test.

The three treatments are:

Control: Participants received a standard description outlining the structure of both appointment options (the shared medical appointment and the individual appointment).

Peer testimonials Treatment: Participants received the same standard description, plus five additional infographic-style testimonials presented as quotes from patients who had attended menopause shared medical appointments. Two testimonials emphasised community and peer support, two addressed knowledge exchange, and one highlighted the amount of time spent with the healthcare practitioner.

Clinician testimonials Treatment: Participants received the same standard description, plus five infographic-style messages delivered by a healthcare practitioner referencing similar themes.

All interventions were presented in fixed order in Qualtrics, with participants self-advancing from page to page. The full text and visual design of each intervention are provided in Fig. A1–A3 in the Appendix.

2.2 Survey Design and Measures

The survey proceeded in the following sequence. After reading an information sheet and providing informed consent, participants reported their age and menopause-related characteristics, including menopause status measured using a validated self-report instrument (Yap et al., 2022), current symptoms assessed with the Greene Climacteric Scale (Greene, 2008), and hormone replacement therapy (HRT) use. Factual knowledge about menopause was measured using a nine-item multiple-choice quiz (University of Rochester Medical Center, 2024) (see Appendix B for the full instrument), and we recorded participants' information-seeking behavior and prior

experience with shared medical appointments.

Participants were then randomly assigned to treatment. Following exposure to the assigned treatment, participants completed a four-item decisional conflict scale (SURE) (Légaré et al., 2010), measuring certainty, knowledge, clarity and perceived advice sufficiency regarding their appointment choices. Participants then stated their preferred appointment choice.

To assess sensitivity to waiting times, participants who initially chose the individual appointment were presented with a sequence of binary choices in which the SMA was offered with progressively shorter waiting times (5, 4, 3, 2, and 1 weeks), while the individual appointment remained at 6-8 weeks. At each step, participants could maintain their original choice or switch to the shared medical appointment. Participants who initially chose neither appointment were asked a single question: whether they would be interested in attending an online group clinic if it were offered sooner than 6–8 weeks from now.

To introduce real incentives, participants selecting either appointment type were entered into a lottery to receive their chosen appointment, arranged through our partner, the ELC Programme.

Finally, participants reported sociodemographic characteristics, including marital status, ethnicity, region, education, and employment status. Appendix Fig. A4 provides an overview of the study procedure.[4]

2.3 Outcomes

The primary outcome is appointment choice (shared medical appointment, individual appointment, or none), measured by the question: "If you had the option to attend one of the following online appointments, on the same day, 6-8 weeks from now, which would you choose?" Participants who initially selected the individual appointment were then presented with the stepwise trade-off (5 to 1 weeks). Participants who initially chose neither appointment were asked only whether they would attend an SMA if offered sooner than 6-8 weeks.

Secondary outcomes measure decisional conflict using the four-item SURE scale. We analyze the four components separately: *certainty* ("Do you feel sure which of these options is the best choice for you?"), *knowledge* ("Do you feel you know the benefits of each option?"), *clarity* ("Are you clear about which benefits matter most to you?"), and *advice* ("Do you feel you have enough advice to make a choice?").

Appointment attendance and other appointment-related measures were pre-registered as exploratory outcomes. However, the number of participants who ultimately booked and attended an appointment was too small to support meaningful comparisons across treatment arms (63 total attendees across both appointment types), reflecting the limited number of appointment slots available within the project's funding window. We therefore do not report appointment-level outcomes. The observed attendances are nonetheless consistent with participants' stated choices reflecting genuine willingness to attend offered appointments rather than purely hypothetical responses.

[4]No survey-related adverse events or data-security incidents were recorded.

3 Data and Sample Characteristics

3.1 Sample

We recruited 5,113 participants. From this initial pool, we excluded 574 participants who did not meet age eligibility criteria (45-60 years), 279 with duplicated IP addresses, and 53 who exited the survey before treatment exposure. This yielded 4,207 participants who were randomized across the three treatment arms: 1,404 to control, 1,399 to peer testimonials, and 1,404 to clinician testimonials.

Attrition was low: 33 participants (0.8%) withdrew after treatment exposure but before completing the primary outcome measure, resulting in a final analytical sample of 4,174 participants. Withdrawal rates were similar across arms: 11 in the control (0.8%), 9 in peer testimonials (0.6%) and 13 in clinician testimonials (0.9%). Fig. A5 in the Appendix illustrates participant flow and exclusions.

3.2 Baseline Characteristics and Balance

Participants had a mean age of 52.1 (SD: 4.6). Most were married (65%) and predominantly identified as White (91%). Fifty-three percent had completed secondary education, and 44% held a university degree or higher. About 45% were working full-time, 28% part-time, and 17% resided in London.

Roughly 48% of participants have already experienced menopause. The mean menopause knowledge score was 4.5 out of a maximum of 9 correct answers, and the average symptom score was 23.6 (SD: 12.2) out of 63, indicating substantial variation in symptom severity. Forty-one percent had discussed menopause with a clinician, 30% had used HRT, and 13% had prior experience with shared medical appointments (Table A1).

The sample is skewed towards White and more educated women, and towards individuals with digital access and sufficient digital literacy to participate in an online survey. The results should therefore be interpreted within this population.

Baseline characteristics are broadly balanced across treatment arms (Table 1). Differences across groups are small and not systematic. In particular, there are no meaningful differences in age, regional distribution, menopause status, symptom severity, or knowledge scores. Some modest differences are observed in prior consultation with a clinician and HRT use, with slightly higher rates in the treatment arms. As a robustness check, we control for these baseline characteristics in regression specifications. Results remain consistent with unconditional estimates reported in the next section. The full set of baseline characteristics by treatment arm and recruitment platform is reported in Table A2.

4 Results

4.1 The Effect of Testimonials on SMA Demand

Our main finding is that the testimonial interventions significantly increased willingness to attend shared medical appointments. Fig. 1a shows that 11.1% of women in the control group

Table 1. Baseline Characteristics by Treatment Arm

	n (%) or mean (SD)			Diff. p-value	
	Control	Peer Testimonials	Clinician Testimonials	Peer vs. Control	Clinician vs. Control
Age (years)	52.08 (4.55)	52.00 (4.50)	52.36 (4.61)	0.62	0.11
Married	891 (64.19)	891 (64.52)	929 (66.93)	0.86	0.13
White	1275 (91.79)	1247 (90.17)	1268 (91.49)	0.14	0.77
English as first language	1286 (92.65)	1282 (92.83)	1288 (92.80)	0.86	0.88
Education					
Primary education	42 (3.04)	20 (1.45)	28 (2.03)	0.00	0.09
Secondary education	749 (54.16)	734 (53.27)	731 (52.89)	0.64	0.51
University or more	592 (42.81)	624 (45.28)	623 (45.08)	0.19	0.23
Work status					
Full-time worker	609 (43.88)	624 (45.18)	638 (45.97)	0.49	0.27
Part-time worker	413 (29.76)	410 (29.69)	359 (25.86)	0.97	0.02
Other	366 (26.37)	347 (25.13)	391 (28.17)	0.45	0.29
Region					
East Midlands	83 (6.36)	89 (6.81)	92 (7.10)	0.64	0.45
East of England	99 (7.58)	116 (8.88)	110 (8.49)	0.23	0.39
London	247 (18.91)	223 (17.06)	212 (16.36)	0.22	0.09
North East	56 (4.29)	47 (3.60)	46 (3.55)	0.36	0.33
North West	157 (12.02)	145 (11.09)	149 (11.50)	0.46	0.68
South East	158 (12.10)	173 (13.24)	182 (14.04)	0.38	0.14
South West	99 (7.58)	107 (8.19)	102 (7.87)	0.57	0.78
West Midlands	120 (9.19)	122 (9.33)	119 (9.18)	0.90	1.00
Yorkshire and the Humber	120 (9.19)	98 (7.50)	105 (8.10)	0.12	0.32
Rest of UK	167 (12.79)	187 (14.31)	179 (13.81)	0.26	0.44
Menopause					
Has experienced menopause	655 (47.02)	649 (46.76)	685 (49.17)	0.89	0.26
Symptoms score	23.71 (11.99)	23.32 (12.29)	23.64 (12.39)	0.40	0.89
Knowledge score	4.59 (1.63)	4.52 (1.64)	4.54 (1.62)	0.21	0.42
Discussed w/clinician	531 (38.12)	578 (41.64)	605 (43.43)	0.06	0.00
Has used HRT	389 (27.93)	433 (31.20)	432 (31.01)	0.06	0.07
SMA					
Has SMA experience	187 (13.47)	189 (13.69)	167 (12.03)	0.87	0.26

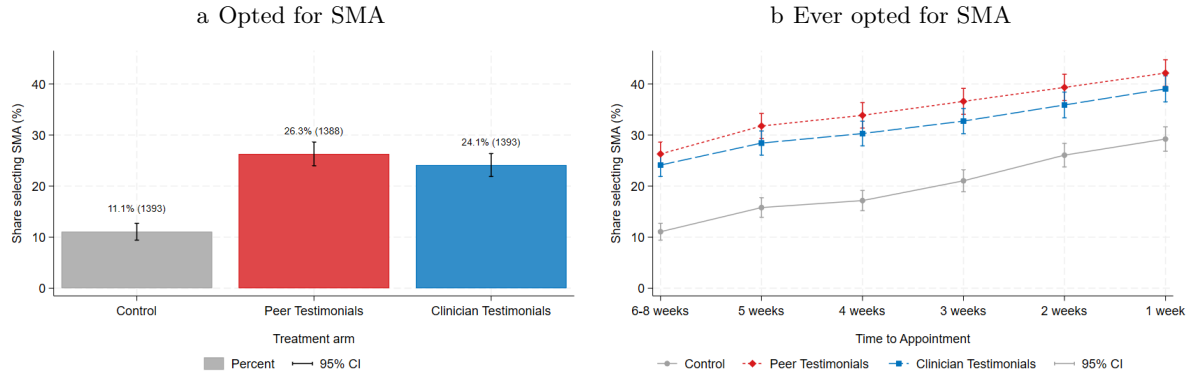
Notes: Columns (1)-(3) report participant demographics by trial arm, pooled across recruitment platforms. Continuous variables are presented as mean (SD); binary and categorical variables are presented as n (%). Columns (4)-(5) present p-values from two-sided tests of equality of means between treatment and control groups. HRT denotes hormone replacement therapy. The menopause symptom score is based on the Greene Climacteric Scale, a validated, self-administered questionnaire specifically designed to assess the range and severity of symptoms experienced during perimenopause. It comprises 21 items, each rated on a Likert scale from 0 ("Not at all") to 3 ("Extremely"). The menopause knowledge score is the proportion of menopause-related questions answered correctly (out of 9).

selected an SMA when both appointment types were offered with identical 6–8 week waiting times, alongside the option of neither appointment.[5] This share increases to 26.3% in the peer testimonials group and to 24.1% in the clinician testimonials group, corresponding to increases of 15.2 and 13.0 percentage points, respectively.

We also find that offering shorter waiting times for shared medical appointments induced additional uptake. Fig. 1b reports cumulative uptake within the subgroup of women who

[5]Notably, even among women who have already completed the menopause transition (n=1989), 73% still opted for some form of appointment in the control arm, suggesting demand for menopause-related care extends beyond the transition period itself. The shares are 70% and 69% in the peer and clinician testimonials arms, respectively.

Figure 1. Treatment Effects on Shared Medical Appointment Demand



Notes: Fig. 1a shows the proportion of respondents in each treatment arm who opted for virtual SMA, over an individual appointment or no appointment, with equal 6-8 week waits for both options. Error bars represent 95% confidence intervals. Numbers in parentheses indicate sample sizes. Fig. 1b shows cumulative uptake as SMA wait times decrease, restricted to participants who initially chose an individual appointment (i.e., excluding those who selected 'neither,' who were not exposed to the stepwise trade-off).

initially chose the individual appointment and were therefore exposed to the stepwise waiting-time trade-off. Uptake rose progressively as the waiting time was shortened, following similar patterns across treatment arms. When the SMA wait is reduced to 1 week, cumulative uptake reaches 30.0% in the control group, 43.0% in the peer testimonials group, and 39.8% in the clinician testimonials group. Because waiting times are elicited sequentially and conditional on prior choices, these patterns should be interpreted as reflecting behavioral thresholds in willingness to attend rather than as a fully orthogonal treatment variation alongside testimonial exposure.[6]

Appendix Table A3 shows that the share of participants selecting neither appointment is roughly constant across arms (20.7% in the controls, 23.3% in the peer testimonials, and 23.0% in the clinician testimonials arm), suggesting that testimonials primarily shifted demand from individual appointments to SMAs, rather than substantially expanding participation among those with no initial demand. Among the 932 participants who initially declined both options, only 33 (3.5%) indicated they would attend an SMA if offered at a sooner date, consistent with those participants having lower perceived need for menopause treatment. By contrast, 28.6% of women who initially selected the individual appointment ultimately switched to the SMA as its waiting time decreased.

The similar response to wait-time reductions across treatment arms suggests that informational frictions and waiting times operate along distinct margins shaping uptake. Testimonials increase baseline willingness to attend shared medical appointments, while shorter waiting times further increase uptake, independently of testimonial exposure. This pattern is consistent with information and access constraints acting as distinct (but complementary) barriers to SMA adoption.

To formalize these effects, we estimate the following linear probability model, with results

[6] An ideal design to separately identify informational and access cost channels would require independent randomization of testimonial exposure and waiting times. In our setting, waiting times are elicited sequentially and conditional on prior choices.

reported in Table 2:

$$y_i = \alpha + \beta_1 Peer_i + \beta_2 Clinician_i + \Gamma' X_i + \lambda_{p(i)} + \epsilon_i, \tag{1}$$

where y_i is an indicator denoting either (i) SMA uptake when both appointment options were presented with 6-8 week waiting times, alongside the option of neither appointment, or (ii) ever choosing an SMA when shorter waiting times are offered (cumulative uptake). While Fig. 1b focuses on participants who initially chose the individual appointment, the cumulative uptake measure used in the regression analysis additionally incorporates responses from participants who initially selected neither option. This measure equals one if the respondent ever chooses an SMA, including those who switch from an individual appointment when shorter waiting times are offered, as well as those who initially selected neither option but later indicate willingness to attend an SMA if available sooner. $Peer_i$ and $Clinician_i$ are indicators for assignment to the peer and clinician testimonials arms respectively. X_i is a vector of baseline covariates and $\lambda_{p(i)}$ denotes recruitment platform fixed effects. All models use robust standard errors.

Table 2. Regression Estimates of Treatment Effects on Shared Medical Appointment Demand

	SMA uptake		Cumulative SMA uptake	
	(1)	(2)	(3)	(4)
Peer Testimonials	0.152***	0.149***	0.130***	0.126***
	(0.015)	(0.015)	(0.018)	(0.019)
Clinician Testimonials	0.131***	0.128***	0.098***	0.098***
	(0.014)	(0.015)	(0.018)	(0.018)
Observations	4174	3884	4171	3884
Mean (control)	0.11	0.11	0.30	0.30
Controls		✓		✓
Platform FEs		✓		✓
p-value: $\beta_1 = \beta_2$	0.186	0.210	0.085	0.135

Notes: Estimates are from linear probability models. In columns (1)-(2), the dependent variable equals one if the respondent chose a SMA when both appointment options were offered with identical 6-8 week waiting times, alongside the option of neither appointment. In columns (3)-(4), the dependent variable equals one if the respondent ever chose a SMA, including those who switched when shorter waiting times were offered, as well as those who initially chose neither but later expressed willingness to attend an SMA if offered sooner. Robust standard errors in parenthesis. * p< 0.1; ** p< 0.05; *** p< 0.01.

Columns (1) and (3) in Table 2 present unadjusted treatment effects, while columns (2) and (4) add baseline covariates and platform fixed effects.[7] Adjusting for baseline covariates leaves estimates largely unchanged: peer testimonials increase SMA uptake by 14.9 percentage points and clinician testimonials by 12.8 percentage points (column 2). For cumulative uptake, the corresponding adjusted estimates are 12.6 and 9.8 percentage points (column 4). The stability of estimates across specifications confirms that the imbalances in prior menopause-related clinician consultation and HRT use documented in Table 1 do not drive our findings. The difference between testimonial types remains statistically insignificant across all specifications.

[7]The reduction in the number of observations in columns (2) and (4) reflects missing values in some baseline covariates (primarily UK region); estimates are robust to excluding these controls.

4.2 Heterogeneity by Knowledge, Information and Symptoms

After establishing our main overall findings, we next examine variation in the effects of the two treatments across different groups of participants. We test for treatment effect heterogeneity across four baseline moderators that capture variation in receptiveness to new information and unmet demand for menopause care: university education, menopause knowledge, information-seeking breadth, and symptom severity. The first three moderators are related to participants' capacity to process and act on new health-related information, while symptom severity relates to underlying demand for care.[8] We implement this analysis by extending Eq. (1) to incorporate treatment-moderator interactions:

$$y_i = \alpha + \beta_1 Peer_i + \beta_2 Clinician_i + \gamma Z_i + \delta_1 (Peer_i \times Z_i) + \delta_2 (Clinician_i \times Z_i) + \Gamma' X_i + \lambda_{p(i)} + \epsilon_i, \quad (2)$$

where Z_i represents the moderator of interest, and δ_1 and δ_2 capture how testimonials' effects vary with Z_i. All other terms are as defined in Eq. (1).[9]

As shown in Table 3, which reports heterogeneous treatment effects by baseline moderator, we find consistent evidence that testimonial effects are amplified among women with greater baseline capacity to process health information. Results are similar across Panel A (initial SMA uptake at 6-8 week wait) and Panel B (cumulative uptake), and we focus on Panel A unless otherwise noted.

For university education (column 1), interaction coefficients are positive and statistically significant for both testimonial arms, indicating that treatment effects are approximately 5-6 percentage points larger among university-educated women relative to those with secondary education or below. For the menopause knowledge score (column 2), both interaction terms are positive and significant at the 1% level: each additional correct answer on the nine-item knowledge quiz increases the treatment effect by approximately 3 percentage points for both peer and clinician testimonials. Information breadth (column 3), which is a measure of the number of distinct information sources consulted at baseline to learn about menopause (ranging from 0 to 14, sample mean 3.1), shows the same pattern, with each additional source increasing treatment responsiveness by approximately 1.6-1.7 percentage points.[10] We also explored heterogeneity by type of baseline information source, distinguishing professional sources from social or general media, but found no robust evidence that source type moderates treatment effects (Table A5).

These three moderators (university education, menopause knowledge score and information breadth) are only weakly correlated with one another (pairwise correlations between 0.13 and 0.22), yet each independently amplifies responsiveness to testimonials. This pattern suggests that they capture distinct dimensions of individuals' prior knowledge stocks and information-processing capacity and are consistent with models in which the returns to new information are increasing in receivers' prior knowledge and belief-updating capacity (Cutler and Lleras-Muney, 2010; DellaVigna and Gentzkow, 2010). Results in Panel B confirm that cumulative

[8] This heterogeneity analysis was not pre-specified in our trial registration and should be interpreted as exploratory.

[9] Main effect coefficients β_1 and β_2 represent estimated treatment effects at $Z = 0$. Treatment effects at the sample mean are recovered as $\beta_j + \delta_j \times \bar{Z}$ and closely match the unconditional estimates reported in Section 4.1.

[10] Table A4 reports results incorporating the other moderators as additional controls and yields similar conclusions.

Table 3. Heterogeneous Effects by Knowledge, Information and Symptom Severity

	University (1)	Knowledge Score (2)	Information Breadth (3)	Symptoms Scale (4)
		Panel A: SMA uptake (6–8 week wait)		
Peer	0.122***	0.013	0.096***	0.152***
	(0.019)	(0.044)	(0.026)	(0.032)
Clinician	0.104***	-0.021	0.079***	0.102***
	(0.018)	(0.044)	(0.024)	(0.031)
Z	-0.006	-0.015***	0.007	-0.000
	(0.018)	(0.006)	(0.005)	(0.001)
Peer × Z	0.059*	0.030***	0.017**	-0.000
	(0.031)	(0.009)	(0.007)	(0.001)
Clinician × Z	0.054*	0.032***	0.016**	0.001
	(0.030)	(0.009)	(0.007)	(0.001)
Observations	3884	3895	3895	3895
Mean (control)	0.11	0.11	0.11	0.11
Mean Z	0.43	4.55	3.12	23.63
Controls	✓	✓	✓	✓
Platform FEs	✓	✓	✓	✓
p-value: $\delta_1 = \delta_2$	0.88	0.78	0.88	0.36
		Panel B. Cumulative SMA uptake		
Peer	0.091***	0.005	0.046	0.076*
	(0.024)	(0.055)	(0.032)	(0.039)
Clinician	0.065***	-0.015	0.019	0.038
	(0.024)	(0.055)	(0.031)	(0.039)
Z	-0.015	-0.019**	0.013**	0.001
	(0.026)	(0.008)	(0.006)	(0.001)
Peer × Z	0.079**	0.026**	0.026***	0.002
	(0.038)	(0.011)	(0.009)	(0.001)
Clinician × Z	0.073**	0.024**	0.026***	0.002*
	(0.037)	(0.011)	(0.009)	(0.001)
Observations	3884	3895	3895	3895
Mean (control)	0.30	0.29	0.29	0.29
Mean Z	0.43	4.55	3.12	23.63
Controls	✓	✓	✓	✓
Platform FEs	✓	✓	✓	✓
p-value: $\delta_1 = \delta_2$	0.89	0.87	0.95	0.82

Notes: Estimates are from linear probability models. In Panel A, the dependent variable equals one if the respondent chose a SMA when both appointment options were offered with identical 6-8 week waiting times, alongside the option of neither appointment. In Panel B, the dependent variable equals one if the respondent ever chose a SMA, including those who switched when shorter waiting times were offered. Robust standard errors in parentheses. * p< 0.1; ** p< 0.05; *** p< 0.01.

uptake follows the same pattern as initial uptake for all three absorptive capacity moderators, with interaction coefficients of similar magnitude and significance. These moderators may also capture broader traits such as baseline engagement with healthcare, trust in medical information, or general responsiveness to our interventions. The information-processing interpretation should be, therefore, read as plausible.

In contrast, we find no evidence that symptom severity moderates responsiveness to testimonials when both appointment options involve identical waiting times (Panel A, column 4).

For cumulative uptake (Panel B, column 4), higher symptom severity is associated with an increase in the impact of the clinician testimonial on the likelihood of eventually choosing an SMA when shorter waiting times are offered. The estimated effect of 0.002 implies that a standard deviation increase in the symptoms score (about 12 points) increases SMA selection by 2.4 additional percentage points (or about 22 percent of the baseline) among participants exposed to the clinician testimonial. This is consistent with stronger underlying demand for menopause care driving greater openness to shift to an SMA in exchange for an earlier appointment time among more symptomatic women. The point estimate is identical for the interacted effect on the peer testimonial, but that interaction is not statistically significant.

4.3 Decision Quality Measures

In addition to studying SMA demand outcomes, our survey design allows us to look inside the decision-making process to study effects of our information treatments on self-reported measures of decision quality. We measure these outcomes with the four components of the SURE scale, an instrument used to study how individuals assess aspects of their medical decision-making under uncertainty.

In Fig. 2 we present pairwise comparisons between each treatment arm and the control group. The intervention increased participants' self-reported knowledge of the benefits of each appointment option by approximately 7 percentage points. It improved perceived clarity about which benefits matter most by 4 percentage points. It also increased the likelihood of the participant reporting having received sufficient advice to make an informed choice by 6.5 percentage points.

These improvements in knowledge, clarity, and advice are consistent with testimonials reducing patient-side uncertainty about the SMA format, the key mechanism through which the intervention is expected to operate. At the same time, we cannot rule out that testimonials also affect choices through source-based recommendation effects independently of information updating.[11] Overall, the evidence provides suggestive support for information frictions as a primary channel through which the intervention operates.

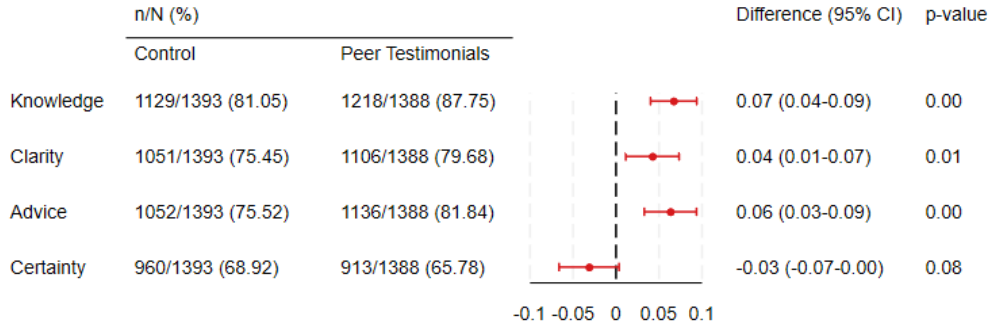
In Table 4 we report regression estimates of these effects based on Eq. (1), pooling all treatment arms in a single specification. Estimates are shown both without controls and with the inclusion of baseline covariates and platform fixed effects. Compared to the pairwise comparisons in Fig. 2, this specification estimates all treatment effects jointly.

The regression results confirm the patterns observed in Fig. 2. Testimonials significantly increase knowledge, clarity, and perceived advice sufficiency, and these effects are stable across specifications. In contrast, testimonials reduce reported decision certainty. The reduction in reported certainty is already marginally significant in the pairwise comparison in Fig. 2 (p=0.08 for peer, p=0.06 for clinician) and remains so in the pooled regression estimates in Table 4. One interpretation is that exposure to testimonials broadens the set of considered options, prompting some participants to reconsider previously held preferences and leading to lower reported certainty despite improved understanding of the trade-offs.

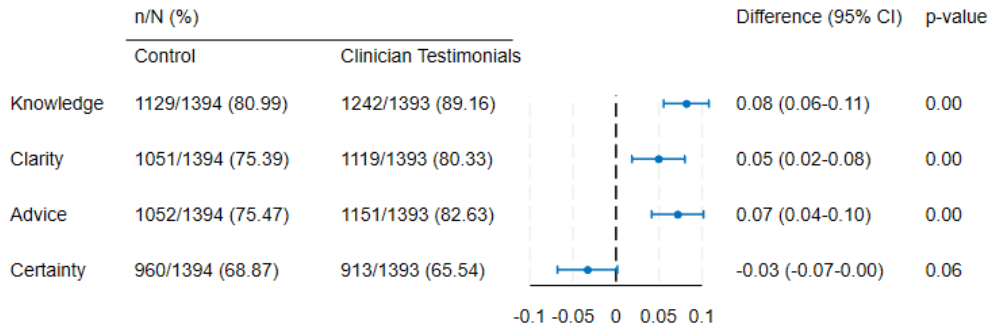
[11] In addition, note that these measures are self-reported and collected immediately after treatment exposure, and they capture perceived rather than verified knowledge change.

Figure 2. Effects of Peer and Clinician Testimonials on Decisional Quality Measures

a Peer testimonials vs. control



b Clinician testimonials vs. control



Notes: Values shown are n/N (%) or mean difference (95% CI). Each point estimate corresponds to a separate regression for the decisional conflict item listed on the left. Outcomes are binary indicators (1 = Yes). Estimates reflect differences in the proportion of "Yes" responses between the treatment and control groups and are obtained from a linear probability model with robust standard errors. Fig. 2a reports effects for peer testimonials relative to the control group. Fig. 2b reports effects of clinician testimonials relative to the same control group.

Table 4. Regression Estimates of Treatment Effects on Decisional Quality Measures

	Knowledge		Clarity		Advice		Certainty	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Peer Testimonials	0.067***	0.057***	0.042***	0.039**	0.063***	0.059***	-0.031*	-0.033*
	(0.014)	(0.014)	(0.016)	(0.016)	(0.015)	(0.016)	(0.018)	(0.018)
Clinician Testimonials	0.081***	0.070***	0.049***	0.044***	0.071***	0.066***	-0.034*	-0.030*
	(0.013)	(0.014)	(0.016)	(0.016)	(0.015)	(0.016)	(0.018)	(0.018)
Observations	4174	3884	4174	3884	4174	3884	4174	3884
Mean (control)	0.81	0.81	0.75	0.75	0.76	0.76	0.69	0.69
Controls		✓		✓		✓		✓
Platform FEs		✓		✓		✓		✓
p-value: $\beta_1 = \beta_2$	0.245	0.269	0.670	0.716	0.589	0.608	0.896	0.866

Notes: Estimates are from linear probability models. The dependent variable are binary indicators corresponding to the four components of SURE scale: knowledge of benefits, clarity of preferences, sufficiency of advice, and certainty regarding the decision. Columns (1), (3), (5), and (7) report unadjusted estimates; columns (2), (4), (6), and (8) add baseline covariates and platform fixed effects. Robust standard errors in parentheses. * p< 0.1; ** p< 0.05; *** p< 0.01.

5 Conclusion

In a large-scale information experiment on over 4,000 UK women aged 45-60, we find that light-touch informational interventions, in the form of testimonials from peers or a clinician, produce substantial increases in participants' stated willingness to attend a shared medical appointment

for menopause care. Regardless of the source, testimonials more than double the take-up rate for SMAs, relative to the baseline of 11% in the control group.

These large and consistent effects across messages from experts and non-experts indicate a high prevalence of informational and behavioral frictions that are suppressing latent demand that would result in more widespread adoption of SMAs for menopause care. If healthcare systems respond to this latent demand by expanding SMA provision, they could increase capacity to support women experiencing physical and psychological symptoms associated with the menopause transition. Furthermore, the fact that a light-touch intervention was effective in this setting, in which patient privacy concerns and stigma around menopause symptoms could have produced deep-seated preferences for individual appointments, suggests that similar information interventions may be effective at increasing uptake of SMAs in other settings as well, and possibly for other types of novel healthcare services.

Within our analysis of the SMA decision margin, we are able to use our survey data to study the mechanism through which the interventions increased SMA selection. We find that participants exposed to both types of testimonials reported significantly higher subjective assessments of their own knowledge of the relevant costs and benefits associated with SMAs, their clarity about which benefits matter most to them, and the belief that they have received sufficient advice to make the decision. This supports a key role for information provision as the channel, which may also entail elements of persuasion or reassurance by demystifying and normalizing the SMA experience. Despite increasing knowledge and clarity, we find that the interventions reduce self-reported certainty about the decisions. This indicates that testimonials are not simply confirming women's prior beliefs, but are instead causing them to consider, and sometimes select, new and uncertain options.

In our examination of heterogeneous treatment effects, we find that the main source of variation is related to participants' knowledge and capacity to absorb additional information, rather than their motivation, as indicated by the severity of their menopause symptoms. Participants with more education and background knowledge about menopause, as well as those who seek menopause information from a broad range of sources, each respond significantly more to both clinician- and peer-information treatments, along both outcome margins (SMA selection with equal waiting and any SMA selection when including shorter wait times). By contrast, we find greater symptom severity is only significantly related to a larger treatment effect size for the clinician testimonial's impact on the outcome that includes earlier SMA timing.

The finding of larger effects on university-educated women, which is itself only weakly correlated with menopause knowledge and breadth of information seeking, is important for showing that behavioral and informational frictions around SMAs are not concentrated among less-educated women. Rather, they appear to be prevalent across the population. The heterogeneity we observe is instead consistent with a behavioral model in which agents with similar decision-making challenges differ in their capacity to overcome those frictions by incorporating additional information into their decision-making process. While it is encouraging that the interventions also have sizable and significant positive effects for less-educated women, the fact that the effects are 50% larger for more educated women suggests that attention should be paid to the potential distributional impact of information interventions for menopause care. The finding of significant

effects across education groups suggests that this may be addressed with greater targeting of the lower-education group or more extensive interventions to close the gap. Because of capacity constraints in healthcare delivery, it is also possible that some efficiency benefits from greater SMA adoption will spill over to non-adopting women in the form of reduced waiting times for individual appointments.

The main limitation of the study is the lack of data on subsequent outcomes after appointment type selection. Because of timing and capacity constraints, we were only able to conduct virtual appointments (SMA and individual) for menopause with a small number of women in the study and are not able to empirically estimate differences in perceived quality, treatment and knowledge outcomes, or cost-effectiveness between the appointment types or to estimate the effect of the informational intervention on these follow-on outcomes. These would be interesting avenues for future work.

Competing interests

All authors declare no competing interests.

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Supplementary Appendix

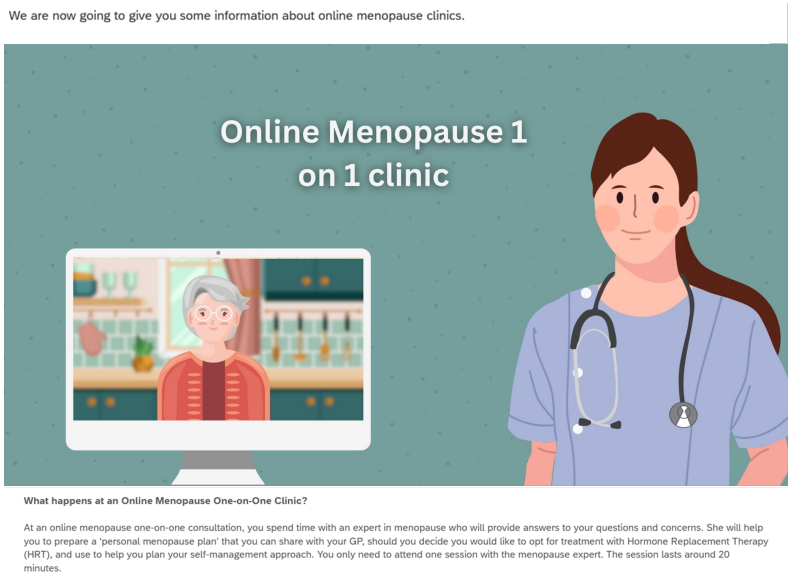
A Study Arms Infographics

The treatments involved exposing participants to an infographic containing a standard description of menopause-related virtual appointments (control), followed by a second infographic with testimonial content – either from previous SMA participants (peer testimonials) or from a clinician expert (clinician testimonials). The following figures reproduce exactly the infographics participants viewed during the intervention.

Control Arm: The standard description was presented as an infographic outlining the structure and purpose of both one-on-one and shared medical appointments. The text was developed by The Experience Led Care (ELC) Programme.

Figure A1. Baseline information on menopause appointments

a Individual Appointment



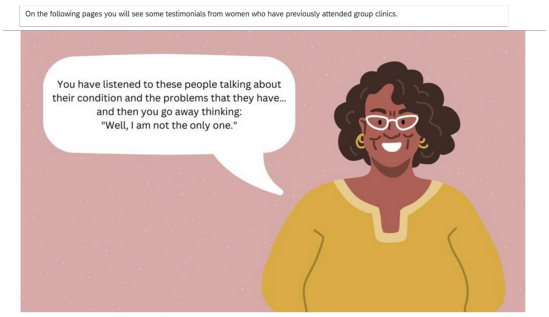
b Shared Medical Appointment



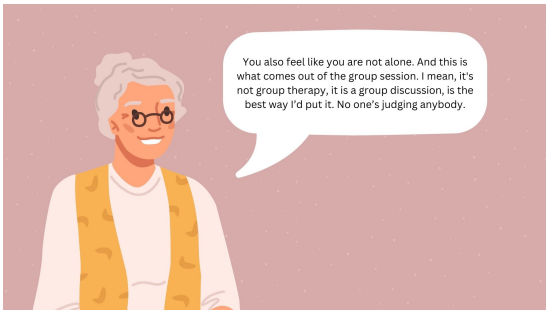
Peer Testimonials: Participants in this arm received the baseline informational infographic describing one-on-one and shared medical appointments, followed by a series of infographic testimonials featuring quotes and experiences from previous SMA participants.

Figure A2. Peer Infographics

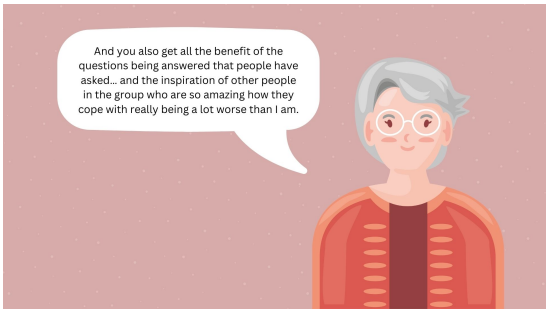
a



b



c



d



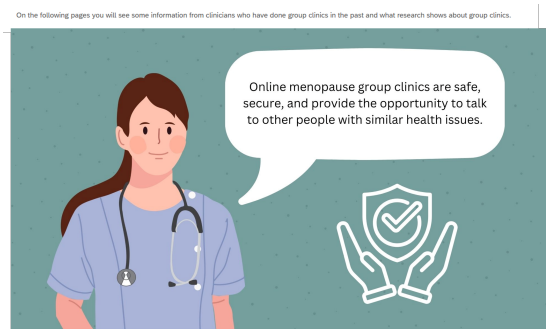
e



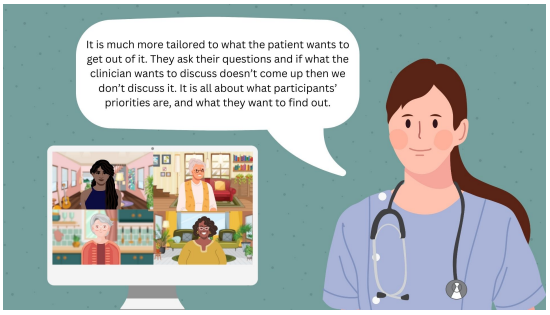
Clinician Testimonials: Participants in this arm received the baseline informational infographic describing one-on-one and shared medical appointments, followed by a series of infographic testimonials featuring information and guidance from a clinician expert.

Figure A3. Clinician expert infographics

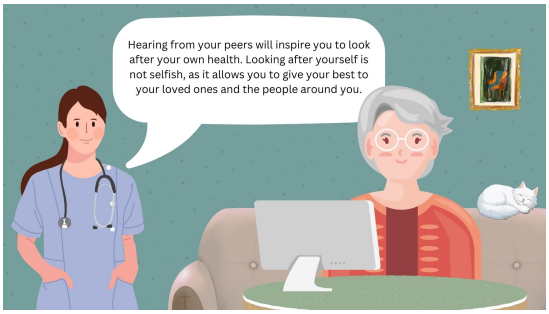
a



b



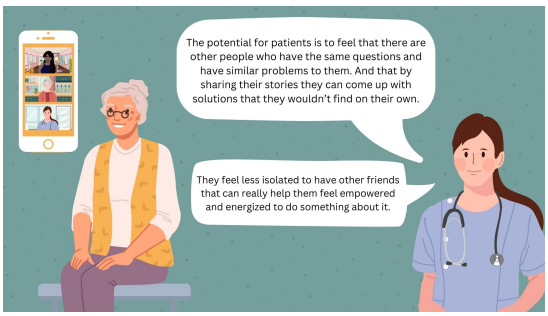
c



d



e



B Menopause Knowledge Questions

The following nine questions were adapted from a publicly available educational quiz published by the University of Rochester Medical Center (URMC).[12] These items were included in the survey instrument to assess general knowledge about menopause.

1. At about what age does menopause typically begin?

   A. 40

   B. 45

[12]University of Rochester Medical Center. Menopause Quiz. Available at: https://www.urmc.rochester.edu/encyclopedia/content?contentid=MenopauseQuiz&contenttypeid=40. Accessed January 2024.

C. 51

D. 55

2. A person is considered to be in menopause after they have missed how many menstrual cycles?

   A. 3

   B. 6

   C. 9

   D. 12

3. What factors can cause premature menopause?

   A. Smoking

   B. Autoimmune disorders

   C. Your birth parent had early menopause

   D. All of the above

4. Hot flushes are symptoms of the perimenopausal stage. How many perimenopausal people have them?

   A. 100%

   B. 75%

   C. 50%

   D. 30%

5. A blood test can confirm if you are beginning menopause. The test measures the level of which of these?

   A. Follicle-stimulating hormone

   B. Estrogen

   C. Progesterone

   D. Cholesterol

6. What is the most serious negative effect of menopause?

   A. Hot flashes

   B. Osteoporosis

   C. Heart disease

   D. B and C

7. How much bone loss does a person have in the first 5 years of menopause?

   A. 10% over the 5-year period

B. 5% over the 5-year period

C. About 20% over 5 to 7 years

D. 1% to 2% a year

8. Hormone therapy eases some of the negative effects of menopause. Which of these hormones is used?

   A. Estrogen

   B. Estrogen and progesterone

   C. Testosterone

   D. Prostaglandin

9. If a person goes through menopause after age 50, how long should they keep using some form of birth control?

   A. They don't have to use birth control

   B. 3 months

   C. 6 months

   D. 12 months

Correct answers for scoring were: Q1=C, Q2=D, Q3=D, Q4=B, Q5=A, Q6=D, Q7=C, Q8=B, Q9=D. Each correct response was assigned a value of 1, and incorrect responses were assigned a value of 0. The raw score ranged from 0 to 9 and was rescaled to a percentage score (0–100) by dividing the total number of correct responses by 9 and multiplying by 100. Participants who did not answer any of the nine questions were excluded from the score calculation.

C Study Design

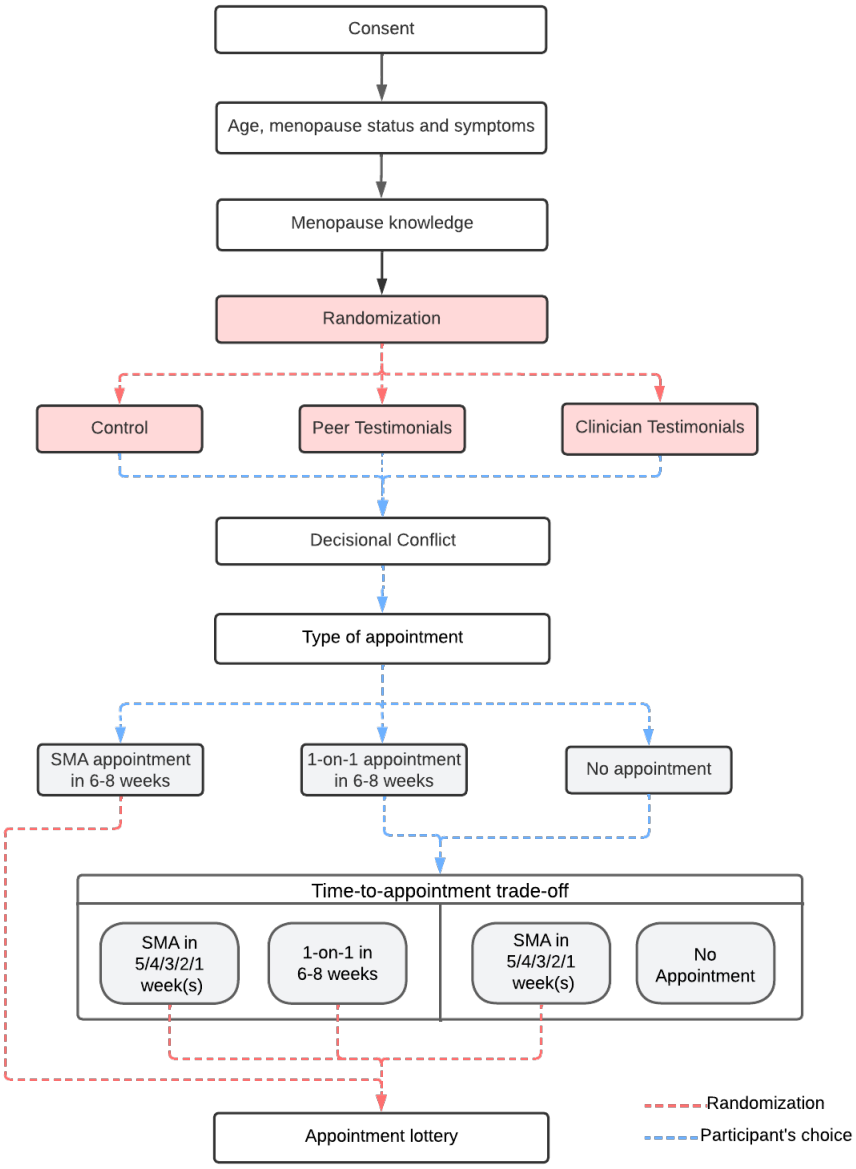
The following figure provides an overview of the study procedure. After providing informed consent, participants completed a baseline assessment covering menopause knowledge and status. They were then randomised (1:1:1) into one of three groups: control (standard information), peer testimonials, or clinician testimonials.

After exposure to the information provided in their assigned intervention arm, participants completed a series of questions assessing their confidence, clarity, and how well-informed they felt about the available appointment options. They were then presented with an appointment choice task, in which they selected either a shared medical appointment (also known as group clinic in the UK), a one-on-one appointment, or none.

Participants who initially indicated a preference for a one-on-one appointment or no appointment were subsequently presented with a trade-off task. Both the shared medical appointment and one-on-one appointments were initially described as having equivalent waiting times (6–8 weeks). Participants were then offered the option to switch to a SMA with progressively shorter waiting times, beginning at 5 weeks and decreasing stepwise to as little as 1 week. At each step,

they needed to indicate whether they would maintain their original preference or switch to the shared medical appointment.

Figure A4. Overview of the study procedure

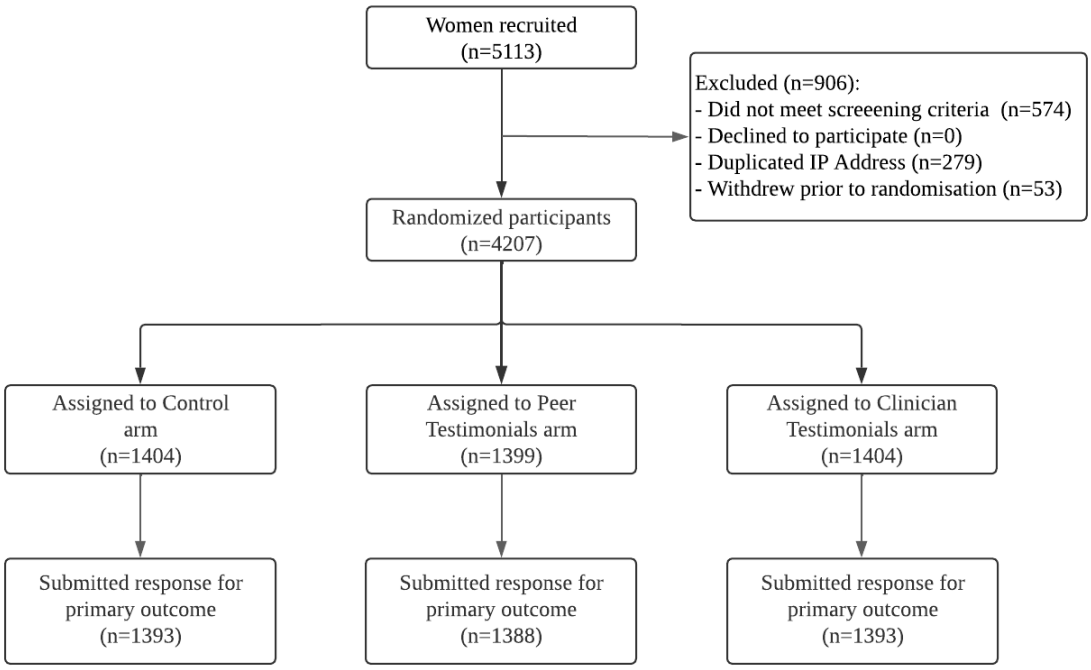


Finally, participants who indicated a preference for either a SMA or a one-on-one appointment were entered into a random draw to get a real virtual menopause appointment.

All phases of the study were completed in the same online session. The intervention was delivered through Qualtrics.

D Sample Screening and Attrition

Figure A5. Flowchart of study participants



Notes: This figure presents the participant flow and sample composition, outlining the total number of participants recruited, the total number of participants excluded from the analysis, and the total number of participants randomised into each condition and included in the analysis. Participants were excluded from the analysis if they did not submit a response to our primary outcome.

E Baseline Characteristics

Table A1. Full Baseline Characteristics

	Count	Mean	SD	Min	Max
	(1)	(2)	(3)	(4)	(5)
Demographics					
Age (years)	4174	52.15	4.55	45	60
Married	4157	0.65	0.48	0	1
White	4158	0.91	0.28	0	1
English as first language	4157	0.93	0.26	0	1
Education					
Primary education	4143	0.02	0.15	0	1
Secondary education	4143	0.53	0.50	0	1
University or more	4143	0.44	0.50	0	1
Work status					
Full-time worker	4157	0.45	0.50	0	1
Part-time worker	4157	0.28	0.45	0	1
Other	4157	0.27	0.44	0	1
Region					
East Midlands	3909	0.07	0.25	0	1
East of England	3909	0.08	0.28	0	1
London	3909	0.17	0.38	0	1
North East	3909	0.04	0.19	0	1
North West	3909	0.12	0.32	0	1
South East	3909	0.13	0.34	0	1
South West	3909	0.08	0.27	0	1
West Midlands	3909	0.09	0.29	0	1
Yorkshire and the Humber	3909	0.08	0.28	0	1
Rest of UK	3909	0.14	0.34	0	1
Menopause					
Has experienced menopause	4174	0.48	0.50	0	1
Symptoms score	4174	23.56	12.22	0	63
Discussed w/clinician	4174	0.41	0.49	0	1
Has used HRT	4174	0.30	0.46	0	1
Knowledge of beneficial vitamins	4174	0.17	0.38	0	1
Awareness HRT benefits and risks	4174	0.60	0.49	0	1
Awareness HRT options	4174	0.37	0.48	0	1
Awareness wellness strategies	4174	0.44	0.50	0	1
Knowledge score	4174	4.55	1.63	0	9
Source of Information					
Professional	4170	0.63	0.48	0	1
Social	4170	0.67	0.47	0	1
Media	4174	0.71	0.46	0	1
SMA					
Has SMA experience	4157	0.13	0.34	0	1

Notes: This table shows the baseline characteristics of participating women, pooled across treatment arms. HRT, menopause symptom score, and knowledge score are defined in the notes to Table 1.

Table A2. Baseline Characteristics Across Platforms and Trial Arms

	Cloud Panel					Prolific				
	n (%) or mean (SD)			Diff. p value		n (%) or mean (SD)			Diff. p value	
	Control	Peer Testimonials	Clinician Testimonials	Peer vs. Control	Clinician vs. Control	Control	Peer Testimonials	Clinician Testimonials	Peer vs. Control	Clinician vs. Control
Age (years)	52.00 (4.50)	51.96 (4.61)	52.54 (4.63)	0.88	0.03	52.17 (4.60)	52.04 (4.38)	52.18 (4.58)	0.58	0.96
Married	417 (59.66)	407 (58.14)	460 (65.71)	0.57	0.02	474 (68.80)	484 (71.07)	469 (68.17)	0.36	0.80
White	641 (91.31)	631 (89.89)	634 (90.57)	0.36	0.63	634 (92.29)	616 (90.46)	634 (92.42)	0.23	0.93
English as first language	647 (92.56)	636 (90.86)	643 (91.86)	0.25	0.62	639 (92.74)	646 (94.86)	645 (93.75)	0.10	0.46
Education										
Primary education	36 (5.18)	17 (2.44)	23 (3.31)	0.01	0.08	6 (0.87)	3 (0.44)	5 (0.73)	0.32	0.76
Secondary education	442 (63.60)	458 (65.62)	417 (60.00)	0.43	0.17	307 (44.62)	276 (40.59)	314 (45.71)	0.13	0.69
University or more	217 (31.22)	223 (31.95)	255 (36.69)	0.77	0.03	375 (54.51)	401 (58.97)	368 (53.57)	0.10	0.73
Work status										
Full-time worker	291 (41.63)	301 (43.00)	302 (43.14)	0.60	0.57	318 (46.15)	323 (47.43)	336 (48.84)	0.64	0.32
Part-time worker	192 (27.47)	199 (28.43)	173 (24.71)	0.69	0.24	221 (32.08)	211 (30.98)	186 (27.03)	0.66	0.04
Other	216 (30.90)	200 (28.57)	225 (32.14)	0.34	0.62	150 (21.77)	147 (21.59)	166 (24.13)	0.93	0.30
Region										
East Midlands	48 (6.97)	42 (6.09)	44 (6.36)	0.51	0.65	35 (5.67)	47 (7.62)	48 (7.95)	0.17	0.12
East of England	49 (7.11)	57 (8.26)	58 (8.38)	0.42	0.38	50 (8.10)	59 (9.56)	52 (8.61)	0.37	0.75
London	143 (20.75)	138 (20.00)	132 (19.08)	0.73	0.43	104 (16.86)	85 (13.78)	80 (13.25)	0.13	0.08
North East	38 (5.52)	22 (3.19)	23 (3.32)	0.03	0.05	18 (2.92)	25 (4.05)	23 (3.81)	0.28	0.39
North West	86 (12.48)	84 (12.17)	80 (11.56)	0.86	0.60	71 (11.51)	61 (9.89)	69 (11.42)	0.36	0.96
South East	84 (12.19)	76 (11.01)	83 (11.99)	0.50	0.91	74 (11.99)	97 (15.72)	99 (16.39)	0.06	0.03
South West	48 (6.97)	53 (7.68)	54 (7.80)	0.61	0.55	51 (8.27)	54 (8.75)	48 (7.95)	0.76	0.84
West Midlands	65 (9.43)	65 (9.42)	69 (9.97)	0.99	0.74	55 (8.91)	57 (9.24)	50 (8.28)	0.84	0.69
Yorkshire and the Humber	43 (6.24)	52 (7.54)	57 (8.24)	0.34	0.15	77 (12.48)	46 (7.46)	48 (7.95)	0.00	0.01
Rest of UK	85 (12.34)	101 (14.64)	92 (13.29)	0.21	0.59	82 (13.29)	86 (13.94)	87 (14.40)	0.74	0.57
Menopause symptoms, knowledge, and awareness										
Has experienced menopause	356 (50.57)	348 (49.36)	370 (52.48)	0.65	0.47	299 (43.40)	301 (44.07)	315 (45.78)	0.80	0.37
Symptoms score	25.46 (12.68)	25.44 (13.28)	26.04 (12.68)	0.97	0.39	21.91 (10.96)	21.14 (10.77)	21.19 (11.60)	0.19	0.24
Knowledge score	4.31 (1.71)	4.22 (1.69)	4.27 (1.64)	0.31	0.64	4.89 (1.48)	4.83 (1.54)	4.83 (1.54)	0.47	0.49
Endorsing menopause	240 (34.09)	221 (31.35)	231 (32.77)	0.27	0.60	206 (29.90)	195 (28.55)	184 (26.74)	0.58	0.19
Discussed w/clinician	230 (32.67)	278 (39.43)	279 (39.57)	0.01	0.01	301 (43.69)	300 (43.92)	326 (47.38)	0.93	0.17
Has used HRT	195 (27.70)	213 (30.21)	197 (27.94)	0.30	0.92	194 (28.16)	220 (32.21)	235 (34.16)	0.10	0.02
Informed about treatment options	300 (42.61)	304 (43.12)	318 (45.11)	0.85	0.35	264 (38.32)	263 (38.51)	282 (40.99)	0.94	0.31
Knowledge of beneficial vitamins	124 (17.61)	127 (18.01)	129 (18.30)	0.84	0.74	114 (16.55)	107 (15.67)	119 (17.30)	0.66	0.71
Awareness HRT benefits and risks	381 (54.12)	394 (55.89)	401 (56.88)	0.51	0.30	439 (63.72)	443 (64.86)	452 (65.70)	0.66	0.44
Awareness HRT options	233 (33.10)	249 (35.32)	249 (35.32)	0.38	0.38	277 (40.20)	266 (38.95)	274 (39.83)	0.63	0.89
Awareness wellness strategies	266 (37.78)	286 (40.57)	288 (40.85)	0.28	0.24	327 (47.46)	312 (45.68)	337 (48.98)	0.51	0.57
Source of Information										
Professional	387 (54.97)	413 (58.58)	428 (60.71)	0.17	0.03	457 (66.52)	458 (67.16)	466 (67.83)	0.80	0.61
Social	428 (60.80)	424 (60.14)	426 (60.43)	0.80	0.89	495 (72.05)	504 (73.90)	509 (74.09)	0.44	0.39
Media	453 (64.35)	438 (62.13)	470 (66.67)	0.39	0.36	526 (76.34)	547 (80.09)	518 (75.29)	0.09	0.65
SMA										
Has SMA experience	79 (11.30)	90 (12.86)	84 (12.00)	0.37	0.68	108 (15.67)	99 (14.54)	83 (12.06)	0.56	0.05

Notes: Columns (1)-(3) and (6)-(8) report participant demographics by trial arm. Continuous variables are presented as mean (SD); binary and categorical variables are presented as n (%). Columns (4)-(5) and (9)-(10) present p-values from two-sided tests of equality of means between treatment and control groups. HRT, menopause symptom score, and knowledge score are defined in the notes to Table 1.

Table A3. Distribution of Initial Appointment Choices By Treatment Arm and Subsequent Switching

	Testimonial Treatment						Total		Ever Opted for SMA			
	Control		Peer		Clinician				No		Yes	
	N	%	N	%	N	%	N	%	N	%	N	%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Individual App.	950	68.2	700	50.4	737	52.9	2387	57.2	1703	71.4	681	28.6
SMA	154	11.1	365	26.3	336	24.1	855	20.5				
Neither	289	20.7	323	23.3	320	23.0	932	22.3	899	96.5	33	3.5
Total	1393	100.0	1388	100.0	1393	100.0	4174	100.0				

Notes: Columns (1)-(8) report counts and column percentages. Columns (9)-(12) report counts and row percentages. Columns (1)-(8) present women's initial appointment choice when appointment options were presented with identical 6–8 week waiting times. Columns (9)-(12) show the distribution of switching outcomes (no/yes) from an individual appointment or neither option when SMA was offered earlier.

F Further Results

Table A4. Heterogeneous Treatment Effects by Menopause Knowledge and Symptom Severity

	University	Knowledge Score	Information Breadth	Symptoms Scale
	(1)	(2)	(3)	(4)
		Panel A: SMA uptake (6–8 week wait)		
Peer	0.123***	0.012	0.094***	0.152***
	(0.019)	(0.044)	(0.026)	(0.032)
Clinician	0.104***	-0.025	0.077***	0.102***
	(0.018)	(0.044)	(0.024)	(0.031)
Z	-0.007	-0.017***	0.005	-0.000
	(0.018)	(0.006)	(0.005)	(0.001)
Peer × Z	0.059*	0.030***	0.018**	-0.000
	(0.031)	(0.009)	(0.007)	(0.001)
Clinician × Z	0.054*	0.033***	0.016**	0.001
	(0.030)	(0.009)	(0.007)	(0.001)
Observations	3884	3884	3884	3884
Mean (control)	0.11	0.11	0.11	0.11
Mean Z	0.43	4.55	3.12	23.62
Controls	✓	✓	✓	✓
Platform FEs	✓	✓	✓	✓
p-value: $\delta_1 = \delta_2$	0.90	0.74	0.87	0.36
		Panel B. Cumulative SMA uptake		
Peer	0.093***	0.009	0.043	0.075*
	(0.024)	(0.054)	(0.032)	(0.039)
Clinician	0.066***	-0.016	0.018	0.038
	(0.024)	(0.055)	(0.031)	(0.039)
Z	-0.007	-0.020**	0.011*	0.001
	(0.027)	(0.008)	(0.006)	(0.001)
Peer × Z	0.077**	0.025**	0.027***	0.002
	(0.038)	(0.011)	(0.009)	(0.001)
Clinician × Z	0.074**	0.025**	0.026***	0.002*
	(0.037)	(0.011)	(0.009)	(0.001)
Observations	3884	3884	3884	3884
Mean (control)	0.30	0.30	0.30	0.30
Mean Z	0.43	4.55	3.12	23.62
Controls	✓	✓	✓	✓
Platform FEs	✓	✓	✓	✓
p-value: $\delta_1 = \delta_2$	0.94	0.95	0.93	0.80

Notes: Estimates are from linear probability models. In columns (1)-(2), the dependent variable equals one if the respondent chose a SMA when both appointment options were offered with identical 6-8 week waiting times, alongside the option of neither appointment. In columns (3)-(4), the dependent variable equals one if the respondent ever chose a SMA, including those who switched when shorter waiting times were offered. All regressions control for age, marital status, ethnicity (White), native language (English), education level (secondary and university), employment status (full-time and part-time), prior SMA experience, whether the participant had contacted a clinician to discuss menopause, ever use of hormone replacement therapy (HRT), menopause status, menopause knowledge score, Greene Climacteric Scale score, and platform fixed effects.. Robust standard errors in parentheses. * p< 0.1; ** p< 0.05; *** p< 0.01.

Table A5. Heterogeneous Treatment Effects by Baseline Information-Seeking Behavior

	Professional		Social		Media		Professional, no social		Social, no Professional	
	Opted for SMA	Ever opted for SMA	Opted for SMA	Ever opted for SMA	Opted for SMA	Ever opted for SMA	Opted for SMA	Ever opted for SMA	Opted for SMA	Ever opted for SMA
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Peer	0.116***	0.098***	0.129***	0.098***	0.127***	0.101***	0.147***	0.126***	0.154***	0.128***
	(0.023)	(0.029)	(0.024)	(0.031)	(0.026)	(0.033)	(0.017)	(0.021)	(0.017)	(0.022)
Clinician	0.086***	0.071**	0.100***	0.052*	0.116***	0.088***	0.124***	0.097***	0.133***	0.091***
	(0.022)	(0.028)	(0.023)	(0.030)	(0.025)	(0.033)	(0.016)	(0.020)	(0.017)	(0.021)
Z	-0.004	0.053*	0.013	0.020	0.012	0.028	-0.029	-0.018	0.011	-0.033
	(0.020)	(0.028)	(0.018)	(0.027)	(0.019)	(0.028)	(0.021)	(0.034)	(0.021)	(0.030)
Peer × Z	0.052*	0.044	0.029	0.041	0.030	0.034	0.009	-0.007	-0.025	-0.012
	(0.030)	(0.037)	(0.031)	(0.039)	(0.031)	(0.040)	(0.037)	(0.048)	(0.035)	(0.043)
Clinician × Z	0.067**	0.040	0.040	0.066*	0.015	0.013	0.018	-0.002	-0.024	0.028
	(0.029)	(0.037)	(0.030)	(0.038)	(0.031)	(0.040)	(0.036)	(0.047)	(0.034)	(0.043)
Observations	3884	3884	3884	3884	3884	3884	3884	3884	3884	3884
Mean (control)	0.11	0.30	0.11	0.30	0.11	0.30	0.11	0.30	0.11	0.30
Mean Z	0.62	0.62	0.66	0.66	0.70	0.70	0.19	0.19	0.23	0.23
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Platform FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
p-value: $\delta_1 = \delta_2$	0.67	0.92	0.75	0.52	0.67	0.61	0.83	0.91	0.96	0.37

Notes: Estimates are from linear probability models. *Opted for SMA* equals one if the respondent chose a SMA when both appointment options were offered with identical 6-8 week waiting times, alongside the option of neither appointment. *Ever opted for SMA* equals one if the respondent ever chose a SMA, including those who switched when shorter waiting times were offered. *Professional* sources include health professionals, official medical or institutional websites (e.g. British Menopause Society), and scientific literature. *Social* sources include friends, social media platforms, and YouTube. *Media* sources include books, newspapers, documentaries, films/TV programs, podcasts, and non-official websites. *Professional, no social* identifies respondents who reported using at least one professional source and no social sources. *Social, no professional* identifies respondents who reported using at least one social source and no professional sources. Categories are not mutually exclusive; respondents may report multiple sources. All regressions control for age, marital status, ethnicity (White), native language (English), education level (secondary and university), employment status (full-time and part-time), region, prior SMA experience, whether the participant had contacted a clinician to discuss menopause, ever use of hormone replacement therapy (HRT), menopause status, and platform fixed effects. Robust standard errors in parentheses. * p< 0.1; ** p< 0.05; *** p< 0.01.