Missed Opportunities in Contraceptive Counselling: Findings from a European Survey-based Study with Simulated Patient Consultation

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Abstract

Background: Available evidence highlights unmet needs in contraceptive counselling practices. The aim of this study was to better understand current practices and clinician behaviour across Europe.

Methods: This survey-based study used a novel, online approach to simulate contraceptive counselling discussions based on three, predefined patient types, each with a hidden need. Clinicians were asked to recommend a contraceptive method for their randomly assigned patient at two time points: 1) after a simulated discussion, during which they were given a brief patient profile and the opportunity to question their patient to obtain further information; 2) after they had been presented with a full patient profile. Descriptive statistics were used to analyse the clinicians’ counselling approach, how successful clinicians were at uncovering the hidden needs of their patients, and whether an understanding of these needs would cause clinicians to change their contraceptive recommendation.

Results: In total, 661 clinicians from 10 European countries participated in the study, including obstetricians/gynaecologists, midwives and general practitioners. Clinician specialty varied by nation. Most clinicians (78.8% and 70.5%, respectively) failed to uncover the hidden needs of patients X and Y, both of whom had requested prescription renewals. By contrast, 63.4% of clinicians uncovered the hidden need of patient Z, who had requested a review of her contraceptive method. Clinicians who did uncover their patients' hidden needs asked significantly more questions than those who did not (mean 5.1–7.8 vs 1.5–2.2). Clinicians were more likely to recommend a change of prescription once they had seen the full patient profile than after the simulated discussion (12.3–30.2% increase in prescription change), indicating that clinicians rely on their patients to speak up proactively about any concerns. Family planning and bleeding issues were frequently not discussed in consultations.

Conclusions: Existing counselling practices appear insufficient to capture patient needs, with opportunities for shared decision-making and discussion being missed. Clinicians and contraceptive counselling services should aim to introduce more in-depth contraceptive counselling, incorporating clear, open-ended questions, to improve patient adherence and enhance reproductive planning. Women should be empowered to actively voice both their needs and any dissatisfaction with their current contraceptive.

Background

Contraceptive advances over recent decades mean that there are now numerous options available to women, each offering different benefits. In selecting a contraceptive method, women may be influenced by many factors, including reliability, frequency of use, risk of thrombosis, bleeding profile, side-effect profile, pain relief, acne relief, hormone dose and convenience [1, 2]. However, for women to be able to assess which contraceptive method best suits their individual needs, they must rely on healthcare professionals (HCPs) correctly understanding those needs and, based on those needs, providing them with accurate information and an appropriate contraceptive recommendation [1, 3].
Current recommendations for optimal contraceptive counselling practice include an open dialogue between HCPs and women seeking contraception, with shared decision-making [1, 3–5]. In an effort to optimise this interaction between HCPs and women, numerous structured contraceptive counselling tools have been developed [6, 7]. The “Contraception: HeLping for wOmen's choicE” (CHLOE) questionnaire, for example, elicits information on the woman, any relevant health conditions, and the woman's needs and preferences, which is then shared with the HCP to facilitate choice of the most appropriate contraceptive option [7]. This tool also provides women with a brief explanation of a range of different methods, recognising that women may not be familiar with all contraceptive methods and that even if they have a specific contraceptive method in mind, they still appreciate learning about alternatives [1, 3]. Indeed, findings from the European CHOICE study, which investigated the influence of comprehensive, leaflet-based counselling on women's selection of combined hormonal contraceptives (CHCs), showed that nearly half of women who consulted their HCP about CHCs selected a different method from that originally planned after receiving counselling [8].

Recent studies have shown that there is a disconnect between women's contraceptive needs, both in terms of method attributes (e.g. reliability, safety and cost) and HCP counselling practices, and the understanding of those needs by HCPs [1, 9]. Findings from the European TANCO survey, which explored women's and HCPs' views on aspects of counselling around contraception and contraceptive use, showed that HCPs tended to underestimate women's interest in receiving information about all contraceptive methods [1]. HCPs also had different perceptions regarding the importance of different contraceptive attributes to women, compared with the women's own views [1].

In addition to a gap in the understanding of women's needs on the part of individual HCPs, it seems that national frameworks regarding contraceptive counselling practice recommendations are lacking, with inconsistent emphasis placed on the importance of effective contraceptive counselling across Europe [10]. The recent Barometer of Women's Access to Modern Contraceptive Choice study, which assessed the quality of sexual and reproductive care across 16 European countries, found that several countries had neither a national requirement nor a recommendation for individualised counselling [10]. Furthermore, among those countries that did have nationally recognised minimum standards on individualised counselling, those standards were not always considered to be fully applied. In several countries, no appropriate training on individualised counselling existed, neither as part of the medical curriculum nor in the form of postgraduate training programmes [10]. This raises concerns both about the quality of contraceptive care and about the appropriateness of the contraceptive recommendations that women are receiving. Highlighting this concern, Lauring et al. looked at CHC use in reproductive-age women with and without contraindications to oestrogen use and found that there was no statistically significant difference between the proportion of women in each group receiving CHCs (39% with contraindications vs 47% without contraindications, $P = 0.1$) [11].

Recognising the apparent disconnect between women's needs and HCPs’ understanding of these needs, and in light of the inadequacies in certain national frameworks regarding requirements and training for individualised counselling practices, this study was conducted using a novel online approach to simulate
counselling discussions in order to better understand current contraceptive counselling practices and behaviour of HCPs across Europe.

Methods

Aim

The aim of the study was to understand the current counselling behaviour of HCPs, including how they determine and assess patient needs, and how this affects their contraceptive recommendation.

Design and data collection

This was a market research survey conducted in accordance with the EphMRA Code of Conduct. Data collection occurred from 13 November 2019 to 5 March 2020 across 10 European countries: Belgium, Finland, Germany, Italy, Netherlands, Poland, Spain, Sweden, Switzerland and UK. Country selection was performed with the aim of achieving a culturally diverse sample that included a variety of counselling landscapes (e.g. obstetrician/gynaecologist- vs general practitioner- and midwife-based counselling). Nine countries (Belgium, Finland, Italy, Netherlands, Poland, Spain, Sweden, Switzerland and UK) were selected for a more detailed country-specific analysis on current contraception utilisation and HCP-reported patient preferences, based on local need.

HCPs were asked to participate in a 40-minute online survey (with country-specific customisations), which included the following: 1) a simulation-based patient consultation, which was designed to elucidate the step-by-step decision-making process that HCPs go through when making contraceptive recommendations to their patients (Fig. 1); 2) general questions on personal (e.g. age, gender) and professional (e.g. years in practice, practice setting) characteristics; and 3) questions on HCP attitude/approach to contraceptive counselling. For a full list of questions asked in the survey, see Supplementary file 1.

Patient profiles

The simulation-based patient consultation was structured around three predefined patient types (patients X, Y and Z). At the start of the consultation, each HCP was randomly assigned a patient type and presented with a brief profile (Table 1, part A). Each patient had one key dissatisfaction with her current contraceptive method that was not mentioned in the brief profile presented to the HCP. If the HCP asked the relevant questions during the consultation, they would be able to uncover this “hidden need”; however, HCPs were otherwise unaware of the needs’ existence. Key needs for each patient type, and the questions that would most directly identify those needs, were as follows:
○ Patient X struggled with compliance (Q: “How many times did you forget to take the pill over the last 3 months?” A: “Maybe once or twice.”)

○ Patient Y suffered from headaches (Q: “With your current pill, do you experience anything you are not happy with?” A: “I have more headaches than before and I guess it may be related to the pill, but I am not sure.”)

○ Patient Z wanted to be sure she would not get pregnant and wanted to avoid hormones (Q: “What is important to you when choosing a contraceptive method?” A: “I need to be sure I will not get pregnant and I don’t want hormones. I’m convinced they are not good for my body.”)

Further information about each patient could be uncovered by the HCP through questioning to give a full patient profile (Table 1, part B).
<table>
<thead>
<tr>
<th>A) Brief patient profile</th>
<th>Patient X</th>
<th>Patient Y</th>
<th>Patient Z</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reason for consultation</strong></td>
<td>“I come today for a regular check-up and to renew my contraceptive prescription”</td>
<td>“I come today for a regular check-up and to renew my contraceptive prescription”</td>
<td>“I come today for a regular check-up and also want to re-evaluate my contraceptive options”</td>
</tr>
<tr>
<td><strong>Age (years)</strong></td>
<td>23</td>
<td>24</td>
<td>28</td>
</tr>
<tr>
<td><strong>Relationship status</strong></td>
<td>Stable relationship</td>
<td>Stable relationship</td>
<td>Stable relationship</td>
</tr>
<tr>
<td><strong>Parity status</strong></td>
<td>No child</td>
<td>No child</td>
<td>No child</td>
</tr>
<tr>
<td><strong>Occupation</strong></td>
<td>First job after college</td>
<td>First job after college</td>
<td>Sales person</td>
</tr>
<tr>
<td><strong>Contraceptive eligibility</strong></td>
<td>Eligible for all methods</td>
<td>Eligible for all methods</td>
<td>Eligible for all methods</td>
</tr>
<tr>
<td><strong>Contraceptive history</strong></td>
<td>Started COCs at 17 years old and has used the same pill (EE/LNG, 21/7-day regimen) for the past 3 years</td>
<td>Started COCs at 20 years old and has used the same pill (EE/LNG, 21/7-day regimen) for the past 2 years. Previously using condoms</td>
<td>Started COCs at 18 years old and has used the same pill (EE/LNG, 21/7-day regimen) for the past 6 years</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B) Full patient profile</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Family planning</strong></td>
<td>“If you want to become pregnant, when do you plan to become pregnant?”</td>
<td>Definitely not before I am 30 years old</td>
<td>Maybe in 6 years...but it's not that fixed in my mind. I just see myself still doing a lot of other things before becoming a mother</td>
</tr>
<tr>
<td></td>
<td>“How important is it not to become pregnant until then?”</td>
<td>Very important, I don't even want to think about that happening</td>
<td>Very important, I don't even want to think about that happening</td>
</tr>
<tr>
<td><strong>Menstrual experience</strong></td>
<td>“Do you experience any pain alongside menstruation?”</td>
<td>Not too much, just the usual, I guess...</td>
<td>I have more headaches than before and I guess it may be related to the pill, but I am not sure. Besides that, I sometimes</td>
</tr>
</tbody>
</table>
experience a bit of pelvic pain

<table>
<thead>
<tr>
<th><strong>“How intense and how long are your periods?”</strong></th>
<th>Quite regular. Normal, I guess</th>
<th>Quite regular. Normal, I guess</th>
<th>Thanks to the pill, my cycle was regular and my bleeding was reduced</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>“How many days does your period last in total?”</strong></td>
<td>About 4-5 days</td>
<td>About 4-5 days</td>
<td>About 4-5 days</td>
</tr>
<tr>
<td><strong>“Does the duration/intensity or amount of bleeding during your menstruation disturb you and your routine?”</strong></td>
<td>No. It is normal</td>
<td>No. It is normal</td>
<td>No. It is normal</td>
</tr>
<tr>
<td><strong>“Would you prefer to have less or less intense menstruation?”</strong></td>
<td>Yes, that would be great</td>
<td>Yes, that would be great</td>
<td>Yes, that would be great</td>
</tr>
<tr>
<td><strong>“Would it be acceptable to have longer, more intense menstruation?”</strong></td>
<td>Definitely not!</td>
<td>Definitely not!</td>
<td>Definitely not!</td>
</tr>
<tr>
<td><strong>“Would you be ok not having your period every month?”</strong></td>
<td>Yes. But how would I know I am not pregnant then?</td>
<td>I know that if I take my pill the right way I should not get pregnant</td>
<td>Yes. But how would I know I am not pregnant then?</td>
</tr>
<tr>
<td><strong>Lifestyle and awareness</strong></td>
<td><strong>“Would you say your daily routines allow for regular and timely intake of a pill?”</strong></td>
<td>I guess so...</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>“Which methods are you aware of?”</strong></td>
<td>Pill, condom, ring, but most of my friends use the pill</td>
<td>Pill, condom, injection and IUD</td>
<td>IUD, condom, pill, ring, temperature method, natural cycles app, diaphragm...</td>
</tr>
<tr>
<td><strong>“Have you ever heard about long-acting methods which do not require having to take anything?”</strong></td>
<td>Now that you mention it. But all my friends use the pill. I have</td>
<td>Yes, I have. But all my friends use the pill. I have honestly never considered any other option besides that</td>
<td>Yes, I know there are several ones, and the long protection sounds</td>
</tr>
<tr>
<td>Question</td>
<td>Response 1</td>
<td>Response 2</td>
<td>Response 3</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------</td>
<td>----------------------------------------------------------------</td>
<td>----------------------------------------------------------------</td>
</tr>
<tr>
<td>think about it every day?</td>
<td>honestly never considered any option besides that</td>
<td>interesting as I don't want to be pregnant within the next years</td>
<td></td>
</tr>
<tr>
<td>Would it be a critical issue for you if the option available to meet your need is not reimbursed or has a higher cost to you?</td>
<td>Well, I'm happy with what I've got, but I'm open to suggestions if you think there's something better for me</td>
<td>I obviously don't want to pay a ton of money for my contraception, but if a hormone-free option costs a bit more, I would be willing to pay that for better health</td>
<td></td>
</tr>
<tr>
<td>Do you want to change your current contraceptive method for any reason?</td>
<td>No, I am fine</td>
<td>I think I am fine with my current method</td>
<td>Yes, after exposing my body to hormones for 10 years, I think it's time to change to a hormone-free option</td>
</tr>
<tr>
<td>Is it difficult for you to use oral contraception?</td>
<td>It is not hard</td>
<td>No! It's OK.</td>
<td>The daily intake is no problem whatsoever, but the daily hormones? I don't really know how tough that is on my body...</td>
</tr>
<tr>
<td>How many times did you forget to take the pill over the last 3 months?</td>
<td>Maybe once or twice...*</td>
<td>Not that often</td>
<td>Not very often, perhaps once or twice per year</td>
</tr>
<tr>
<td>How concerned have you been, when you forgot to take the pill?</td>
<td>I was very concerned, but thankfully my period came eventually</td>
<td>It does not happen that often, so not very</td>
<td>Not that concerned</td>
</tr>
<tr>
<td>Are you OK with your pill?</td>
<td>It's OK. It has done its job so far</td>
<td>It's OK. It has done its job so far</td>
<td>No, I want to stop it</td>
</tr>
<tr>
<td>With your current method</td>
<td>No</td>
<td>I have more headaches</td>
<td>Only that I</td>
</tr>
<tr>
<td><strong>Contraceptive preference</strong></td>
<td><strong>“What is important to you when choosing a contraceptive method?”</strong></td>
<td><strong>Efficacy. I am not a fan of hormones, but it’s more important to me that I do not get pregnant</strong></td>
<td><strong>I absolutely need to be sure I will not get pregnant. Aside from that it is also important to me not to have side effects and risk thrombosis</strong></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>“Do you have already any idea what would be a good contraceptive option and method for you?”</strong></td>
<td><strong>I am OK with my current one</strong></td>
<td><strong>I am OK with my current one. My concerns are more about its side effects and the risk of thrombosis</strong></td>
<td><strong>A non-hormonal option</strong></td>
</tr>
<tr>
<td><strong>“What are concrete and specific concerns you have about hormonal contraception?”</strong></td>
<td><strong>I have never had any issues, but I hear a lot about the risks, and that sounds quite scary to be honest</strong></td>
<td><strong>You mean besides the usual side effects of it and the risk of thrombosis? I hear a lot of other things, but I am not sure if it really causes cancer or something like that. And supposedly there may be an impact on my libido... I would prefer to avoid that if I can</strong></td>
<td><strong>I heard that hormones are bad for you. I don’t want to take something every day that messes with my body!</strong></td>
</tr>
<tr>
<td><strong>“What exactly bothers you about ‘taking hormones’?”</strong></td>
<td><strong>I may not want to have kids now, but definitely later. I don’t want these hormones to get in the way of that</strong></td>
<td><strong>I am concerned that taking it may cause side effects and that it is impacting my general well-being</strong></td>
<td><strong>I don’t know... Exposing your body to this many hormones on a daily basis, it just cannot be good for you, right, doctor?</strong></td>
</tr>
<tr>
<td><strong>“Would you prefer a daily or non-daily method? OR do you prefer a specific intake regimen (daily, weekly, monthly, 3 years, 5 years)?”</strong></td>
<td><strong>All of my friends use the pill. I have never considered any other options besides that to be honest</strong></td>
<td><strong>Actually I prefer daily intake to be in control</strong></td>
<td><strong>As long as it’s good for my wellbeing and a convenient option, I guess it doesn’t really matter</strong></td>
</tr>
<tr>
<td><strong>“Do you have any additional need or expect any specific positive</strong></td>
<td><strong>No</strong></td>
<td><strong>No</strong></td>
<td><strong>No</strong></td>
</tr>
</tbody>
</table>
Simulation-based patient consultation

HCPs were randomly assigned a patient type at the start of the patient consultation. The consultation was structured in two parts: 1) simulated discussion and 2) complete information (Fig. 1). At the end of the second part of the consultation, the entire process was repeated, and the HCP was presented with a second, predefined, randomly assigned patient type.

Part 1: simulated discussion

A full, annotated breakdown of the simulated discussion is shown in Fig. 1. The simulated discussion was designed to focus on how each HCP interacted with their patient based on the information that was available in the brief patient profile, and what the HCP recommended as a result of that discussion. The open-ended questioning at the start of the discussion gave an insight into the types of question typically asked by HCPs in a consultation, and how those questions differed according to the patient type. The aided questioning that followed used a predefined question list (Table 1, part B) and enabled the number, type and sequence of questions asked for each patient type to be analysed. After each question from the list was asked, the patient’s response was shown (Table 1, part B), and the HCP was given the option of either recommending a contraceptive or continuing with the questioning (until all questions had been exhausted) to obtain more information. The simulated discussion finished once the HCP had made a contraceptive recommendation and specified which patient characteristics had influenced their decision.

Part 2: complete information

The full breakdown for the complete information part of the consultation is shown in Fig. 1. This part of the consultation was designed to examine whether the HCP’s recommendation changed once they had been presented with the full patient profile (i.e. with all the additional information that could have been obtained through questioning). Having viewed the patient profile, the HCP was asked again what contraceptive they would like to prescribe to the patient, to determine whether having more information

| effect from your contraceptive? |

The brief patient profile (part A) was presented to the HCPs at the start of the simulated discussion. HCPs could access all the information presented in the full patient profile (part B) during the simulated discussion by asking the relevant questions. HCPs were able to continue to question their patient until they were satisfied that they had sufficient information to make an informed recommendation. The full list of questions and answers was presented to HCPs at the end of the simulated discussion.

*Indicates the most direct way of uncovering the hidden need for each patient.

COC, combined oral contraceptive; EE, ethinylestradiol; HCP, healthcare professional; IUD, intrauterine device; LNG, levonorgestrel.
would make the HCP re-evaluate their original decision. This part of the consultation finished once the
HCP had chosen either to stick with their original recommendation or to make a new contraceptive
recommendation (stating what the new recommendation would be) and specified which patient
characteristics had influenced their decision.

Statistical analysis

Results were analysed using descriptive statistical methods, mainly measures of central tendency (e.g.
means, medians) as well as distribution (proportions of respondents who selected specific responses). In
cases where results are presented by respondent groups, the statistical significance of the differences
between data was determined at the 95% confidence level. SPSS® and Microsoft Excel were used to
conduct the analysis.

Results

HCP demographics/characteristics

HCP demographics and characteristics are shown in Table 2. In total, 661 HCPs participated in the
research, including obstetricians/gynaecologists, general practitioners and midwives. HCP specialty
differed by country, with the majority being obstetricians/gynaecologists: the only non-
obstetrician/gynaecologist respondents came from the Netherlands, Sweden and the UK. In 70% of
countries, more respondents were female than male.
Table 2
HCP demographics/characteristics.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>BEL (n = 40)</th>
<th>CHE (n = 40)</th>
<th>DEU (n = 100)</th>
<th>ESP (n = 100)</th>
<th>FIN (n = 26)</th>
<th>ITA (n = 100)</th>
<th>NLD (n = 75)</th>
<th>POL (n = 50)</th>
<th>SWE (n = 30)</th>
<th>UK (n = 100)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender, %</strong></td>
<td></td>
<td></td>
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<tr>
<td>Male</td>
<td>30</td>
<td>40</td>
<td>53</td>
<td>42</td>
<td>15</td>
<td>51</td>
<td>49</td>
<td>54</td>
<td>0</td>
<td>19*</td>
</tr>
<tr>
<td>Female</td>
<td>70</td>
<td>60</td>
<td>47</td>
<td>58</td>
<td>85</td>
<td>49</td>
<td>51</td>
<td>46</td>
<td>100</td>
<td>80*</td>
</tr>
<tr>
<td><strong>Specialty, %</strong></td>
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<tr>
<td>OB/GYN</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
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<tr>
<td>GP</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>84</td>
<td>0</td>
<td>0</td>
<td>100</td>
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<td>Midwife</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>16</td>
<td>0</td>
<td>100</td>
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<tr>
<td><strong>Years practicing medicine†</strong></td>
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<td>3–10</td>
<td>18</td>
<td>8</td>
<td>4</td>
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<td>11–20</td>
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<td>41</td>
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<td>31</td>
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<td>41</td>
<td>36</td>
<td>64</td>
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<tr>
<td>21–30</td>
<td>25</td>
<td>33</td>
<td>47</td>
<td>33</td>
<td>31</td>
<td>26</td>
<td>33</td>
<td>22</td>
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<td>17</td>
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<td>31–35</td>
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<td>13</td>
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<td>2</td>
<td>23</td>
<td>12</td>
<td>6</td>
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<td>10</td>
<td>3</td>
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<tr>
<td><strong>Setting, %†</strong></td>
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<tr>
<td>Hospital</td>
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<td>41</td>
<td>12</td>
<td>56</td>
<td>54</td>
<td>55</td>
<td>4</td>
<td>27</td>
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*One HCP did not identify as either male or female. †Percentages may not total 100 owing to rounding.
BEL, Belgium; CHE, Switzerland; DEU, Germany; ESP, Spain; FIN, Finland; GP, general practitioner; HCP, healthcare professional; ITA, Italy; NLD, Netherlands; OB/GYN, obstetrician/gynaecologist; POL, Poland; Rx, prescription; SWE, Sweden; UK, United Kingdom; WoRA, women of reproductive age.
Patient X was assigned to 438 HCPs, patient Y to 444 HCPs and patient Z to 440 HCPs.

**Women’s needs are often not identified**

In the aided questioning, the majority of HCPs did not ask their patient about her plans regarding pregnancy and children, although they were more likely to do so if the patient actively requested a review of her contraceptive choice (asked by 28%, 27% and 43% of HCPs for patients X, Y and Z, respectively). Three-quarters of HCPs (74–77%) did not specifically ask their patient if there was anything she was unhappy with in relation to her current contraception, < 20% asked about compliance, and 2–15% asked about current/preferred bleeding intensity.

The majority of HCPs (78.8% and 70.5%, respectively) assigned to patients X and Y, who had requested prescription renewals, failed to uncover the hidden needs of their patient (poor compliance and headaches, respectively). By contrast, for patient Z, who had actively requested a review of her contraceptive method, 63.4% of clinicians uncovered the hidden need (desire for a hormone-free option) (Fig. 2).

HCPs who uncovered hidden needs were more likely to be younger, female, ask more questions during counselling and switch the patient from her current contraceptive (Fig. 2).

**HCPs rely on women to speak up proactively**

HCPs were more likely to recommend a change of prescription once they had been presented with the full patient profile than they were at the end of the first part of the consultation, after the simulated discussion (Fig. 3). More HCPs changed the prescription of patient Z, who actively requested a review of her contraceptive method, than they did for patients X and Y, who simply requested a prescription renewal.

For patients Y and Z, when comparing HCPs who did and did not uncover their patient's hidden need during the simulated discussion, HCPs who did not uncover the hidden needs were more likely to change their patient’s prescription once they had seen the full patient profile (Fig. S1, Supplementary file 2). For all patient profiles, HCPs who uncovered their patient's hidden need during the simulated discussion recommended a change in prescription at an earlier point in the consultation than those HCPs who did not identify their patient’s hidden need. By contrast, HCPs who did not uncover their patient’s hidden need were more likely to keep the patient on her current prescription compared with HCPs who did uncover their patient's hidden need (Fig. S1, Supplementary file 2).

Consultations with patients X and Y, who did not actively request a review of their prescription, were shorter than those with patient Z (Fig. 4). Less than half of HCPs asked patients X and Y three or more
questions (48% and 46%, respectively) compared with 57% for patient Z. In total, 41% of HCPs felt that women would state clearly if they had any issues with their current contraceptive method.

**HCPs do not follow a structured counselling approach**

The open-ended questioning during the simulated discussion revealed that patients X and Y, who had not requested a review of their contraceptive, were more likely to be asked high-level questions about satisfaction than patient Z, whereas patient Z was more likely to be asked about family planning/pregnancy timing than patients X and Y (Table S1, Supplementary file 3).

In the aided questioning, the sequence of questions asked was highly variable across HCPs. Questions asked tended to have a closed nature, requiring only a “yes” or “no” answer, e.g. for both patients X and Y, the majority of HCPs opened the consultation by asking: “Are you OK with your pill?”

**Attitudes of HCPs regarding current counselling behaviour**

Although few HCPs uncovered their patient’s hidden needs in the simulated consultation, most HCPs felt that, in general, they have enough time for counselling. The majority of HCPs (72%) felt that it is their responsibility to guide the patient’s decision on what best suits her needs; however, HCPs also generally felt that the ultimate decision lies with the patient.

**Country-specific insights**

Data on prescription landscape by country, including contraceptive status of patients seen in the last month and split between long-acting reversible contraception (LARC) and non-LARC prescriptions, are shown in the supplementary information (Table S2, Supplementary file 4).

HCP-reported patient preferences were similar across all nine countries included in the country-specific analysis. A quarter or more of HCPs from all countries except Switzerland noted an increasing preference for LARCs among their patients, although this increasing preference did not detract from the popularity of oral contraceptives.

**Discussion**

This European survey-based study used a novel, simulation-based patient consultation to understand the current counselling behaviour of HCPs. The results of the study highlight a clear need for more in-depth contraceptive counselling in clinical practice and suggest that existing counselling practices are insufficient to capture patient needs, with opportunities for shared decision-making and discussion being missed.
A key focus of contraceptive counselling sessions should be on family planning, in terms of desire (or lack of desire) for future pregnancy, and the associated timelines [9, 12]. While this discussion is central to the choice of contraceptive (e.g. LARC versus non-LARC), it also provides HCPs with the opportunity to help women to fully prepare for their reproductive choice and to establish rapport and understanding with the patient. It is well acknowledged that patients value having a shared understanding with their HCP [9, 13, 14] and that by establishing this relationship with their patients, HCPs can help to improve clinical outcomes, e.g. through increased patient adherence [13–15]. The present study showed that family planning and bleeding patterns were infrequently discussed with all patient types, although family planning gained higher priority when the patient was actively looking to re-evaluate her contraceptive options.

An additional benefit of establishing a close patient–HCP relationship is that it is likely to encourage patients to speak up proactively about their needs and concerns. The present study found that the hidden need of patients X and Y was not uncovered by the majority of HCPs, indicating that HCPs rely on women to actively state if they have any concerns with their choice of contraception. Furthermore, nearly half of HCPs commented that they would expect their patients to clearly specify if they were experiencing any problems with their contraceptive method. However, evidence shows that this is an unrealistic expectation, with many women not knowing that the menstrual and other symptoms they experience could be improved with a different choice of contraceptive and some women feeling too embarrassed to discuss certain side effects, e.g. combined oral contraceptive-related loss of libido, with their HCP [16–20]. It is therefore important both for HCPs to ask their patients open-ended questions, to help trigger a discussion, and, perhaps more importantly, for patients to be actively encouraged to speak up during consultations.

In the present study, the proactive approach of patient Z triggered a counselling “discussion” that led to the majority of HCPs identifying her hidden need. By contrast, the passive approach of patients X and Y failed to stimulate an in-depth discussion, which, in most cases, resulted in the patients’ hidden needs remaining unidentified. By personally reflecting on their contraceptive and family planning needs and determining any symptoms that may be related to their current contraceptive method, patients increase their chances of being prescribed the most appropriate contraceptive and any issues being identified and resolved. To enable this, and to adequately prepare them for discussions with their HCP, patients should be provided with sufficient information on the different contraceptive methods and their potential effects on important aspects of daily life. Empowering women in this way would additionally enable HCPs to start a targeted counselling discussion on issues relevant to the individual patient, thus reducing the time needed for the consultation.

It is worth noting that in the present study, identification of the hidden needs of the patient led to significant changes in the pattern of methods being prescribed by the HCP, indicating that HCPs are adept at meeting patient needs once those needs have been identified.
A key point in the current COVID-19 era is how to ensure a high quality of care can be maintained when direct human interaction is limited and the majority of appointments are carried out virtually. While the pandemic itself will recede, it is likely that there will be a lasting impact in terms of how healthcare services, including contraceptive counselling, are delivered, with a maintained focus on telehealth [14]. HCPs must therefore learn how to establish relationships and build rapport with their patients without the aid of nonverbal behavioural cues and with a diminished sense of personal interaction. In this climate, the need for clear, open-ended questions will be paramount [14].

Across Europe, there are regional variations in contraceptive use, both in terms of reliance on any form of contraception and the availability of/preference for specific contraceptive methods [1, 21, 22]. While regional differences were not notable in the present study, they should still be taken into account in contraceptive counselling practice. All contraceptive counselling should aim to dispel any misperceptions that may be preventing contraceptive use and to educate patients on the non-contraceptive benefits of the different contraceptive methods [22, 23], but this is particularly important in those regions where women may be reluctant to engage with any form of contraception. By proactively providing relevant information and enhancing women's all-round understanding of the potential benefits of contraceptive methods – including improvements in quality of life, menstrual symptoms and heavy menstrual bleeding [15, 20, 24] – women will be able to better actively contribute to the contraceptive decision-making process and choose a contraceptive method that best meets their individual needs.

Although the present study provides useful insights into counselling practices across Europe, it nonetheless has some limitations. Firstly, the simulated discussion was designed to mimic a real consultation as closely as was possible; however, the artificial and computer-generated nature of the patient responses meant that the discussion did not truly reflect HCP behaviour in terms of rapport and relationship-building, and there was no pre-existent relationship between the HCP and the patient. Secondly, it was necessary to avoid over-exposing the HCPs to the study method to prevent them from second-guessing the desired/expected outcomes and asking questions for the sake of asking questions. This limited the design of patient type that could be presented to the HCPs: it had to be wide enough to capture a multitude of existing patient profiles yet narrow enough not to interfere with the simulation of a true conversation. Thirdly, the breadth of data gathered, e.g. from counselling practice insights to specific method and brand adoption parameters, fragmented the focus of the analysis, which would not have been the case with a more limited scope. However, this research is only a starting point and can be built upon in future studies with greater statistical power, including with the addition of new patient types. Finally, it is worth noting that, although there are similarities in practice across Europe, caution should be applied if extrapolating these results to countries not included in the survey, due to variations in sociocultural backgrounds and healthcare systems.

Conclusions

Existing counselling practices appear insufficient to capture patient needs, with opportunities for shared decision-making and discussion being missed. HCPs and contraceptive counselling services should
make efforts to introduce more in-depth contraceptive counselling, incorporating clear, open-ended questions, to improve patient adherence and enhance reproductive planning. Additionally, women should be empowered to actively voice their needs and any dissatisfaction with their current contraceptive method. This can be achieved through the development of easily understandable, patient-oriented tools that provide information on contraceptive methods and allow women to reflect on and identify their own individual contraceptive needs. Such an approach would also make contraceptive counselling easier and less time-consuming for HCPs.

**Abbreviations**

CHC, combined hormonal contraceptive.

HCP, healthcare professional.

LARC, long-acting reversible contraception.

**Declarations**

**Ethical approval and consent to participate**

This market research survey was conducted in accordance with the EphMRA Code of Conduct. All survey respondents provided written voluntary and informed consent to, and confirmed awareness of, data collection and use as part of completing the online survey. Institutional Review Board (IRB)/Ethics Committee decided approval was not required for this study.

**Consent for publication**

Not applicable.

**Availability of data and materials**

The datasets used and/or analysed during the current study, where not included in this published article and its supplementary information files, are available from the corresponding author on reasonable request.

**Competing interests**

Rossella Nappi: Past financial relationships (lecturer, member of advisory boards and/or consultant) with Boehringer Ingelheim, Ely Lilly, Endoceutics, Gedeon Richter, HRA Pharma, Procter & Gamble Co, TEVA Women's Health Inc and Zambon SpA. At present, she has an ongoing relationship with Astellas, Bayer
HealthCare AG, Exceltis, Fidia, Merck Sharpe & Dohme, Novo Nordisk, Palatin Technologies, Pfizer Inc, Shionogi Limited and Theramex.

Nicky Vermuyten: Employee at Bayer.

Ralf Bannemerschult: Employee at Bayer.

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**Authors’ contributions**

REN, NV and RB contributed to the study design. REN, NV and RB contributed to the data analysis and data interpretation. REN, NV and RB provided input into the drafting and revision of this manuscript, and all read and approved the final manuscript.

**Acknowledgements**

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**References**


Figures

Figure 1

Annotated schematic showing each step in the counselling simulation. The simulation was designed to elucidate the step-by-step decision-making process HCPs go through when making contraceptive...
recommendations to their patients. *Please see Table 1 for the list of predefined questions. HCP, healthcare professional; IUD, intrauterine device; IUS, intrauterine system; OC, oral contraceptive.

Figure 2

Identification of women’s needs during contraceptive counselling. A) Proportion of HCPs who identified their patient’s hidden need during contraceptive counselling.* Women’s needs were often not identified but were more likely to be identified when the patient actively requested a review of her contraceptive method. B) Identification of patient hidden needs according to HCP age. C) Identification of patient hidden needs according to HCP gender. D) Mean number of questions asked by HCPs. HCPs who uncovered hidden needs were more likely to be younger (B), female (C) and ask more questions (D) than those who did not. *N values represent the number of HCPs who were assigned that patient’s profile. †Significantly higher than “Did not uncover” at 95% CI. ‡Significantly higher than “Uncovered” at 95% CI. §Females accounted for 46–100% of respondents per country; in 7/10 countries, more respondents were female than male. CI, confidence interval; HCP, healthcare professional.
Figure 3

Proportion of HCPs recommending a prescription change before and after seeing the full patient profile. HCPs were more likely to recommend a change in prescription after obtaining a better understanding of their patients’ needs. HCP, healthcare professional.
Figure 4

Number of questions asked during the simulated discussion, according to patient type. In total, 438, 444 and 440 HCPs were assigned to patients X (A), Y (B) and Z (C), respectively. HCP, healthcare professional.

Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- Supplementaryfile1.pdf
- Supplementaryfile2.pdf
- Supplementaryfile3.pdf
- Supplementaryfile4.pdf