

## **Question in Project:**

FReDA-W2b - Questions on the topics of women's fertility, affective touching behavior, sexual orientation, and transnational families (English Version)

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## **Question Topic:**

Society & social affairs/ Family & parenting

## **Construct:**

Estimated probabilities of pregnancies

## **Question Text:**

In your opinion, what is the probability that a woman aged 40 to 45 will become pregnant if she has unprotected sex for one year?

## **Instruction:**

Please give a percentage value from 0-100.

## **Answer Categories:**

### **Version 1**

0 percent  
1 to 19 percent  
20 to 39 percent  
40 to 59 percent  
60 to 79 percent  
80 to 100 percent

### **Version 2**

0 to 9 percent  
10 to 29 percent  
30 to 49 percent  
50 to 69 percent  
70 to 89 percent  
90 to 100 percent

**Version 3**  
open answer

## **Cognitive Techniques:**

Comprehension Probing, Category Selection Probing, Difficulty Probing

## **Findings for Answer Categories:**

### **Experimental variation and cognitive follow-up questions:**

As part of the cognitive pretest, in addition to the question version developed by FReDA (version 1), two other variations were tested that differed in the design of the response categories (version 2) or contained no response categories (version 3).

The draft question developed by the principals (version 1) used closed response categories and contained a "0 percent" response category and five additional ascending categories in increments of 20 or 21. Responses that were correct according to the client were either at the low end of a response category (Question 1: approximately 80 percent, category: "80 to 100 percent"; Question 2: approximately 40 percent, category: "40 to 59 percent") or at the high end of a response category (Question 3: approximately 15 percent, category: "1 to 19 percent").

Question version 2 used an alternative closed-response format that did not include a "0 percent" category and in which the correct answer was in the middle of an indicated probability range in each case (Question 1: "70 to 89 percent"; Question 2: "30 to 49 percent"; Question 3: "10 to 19 percent").

### **Findings:**

Detailed results on the experimental variation of the response format are presented on pages 12 to 21 in the results report (see downloads).

In summary, respondents generally overestimated the likelihood that a woman aged 40 to 45 would become pregnant after infertility treatments. In addition, it appeared that respondents were strongly oriented toward the answer categories, presumably because they did not know the correct answer. In version 1 with the few response categories, respondents tended to choose the middle categories. Version 2 with the higher number of response categories resulted in a multimodal distribution, and Version 3 had respondents overestimating the probability the most. In addition, respondents differed in whether they thought the probability of a woman aged 40 to 45 becoming pregnant was higher in the general formulation of question 2 or after fertility treatments (question 3). This difference in response behavior could indicate that the knowledge question is too difficult to answer, or that the question has other cognitive hurdles. For example, in

question 3, some respondents might refer to the population of all women aged 40 to 45, while others might refer only to those who did not become pregnant naturally.

## Recommendations for Answer Categories:

Although answering the open question (question version 3) was perceived as more difficult than answering the closed question versions, this did not lead to item nonresponse in the cognitive pretest. Since an open question offers more analysis possibilities due to the metric scaling, we recommend asking the questions openly. If other questionnaire-related considerations speak against an open question, we recommend the closed question of version 2, since here the correct answer does not lie at the border between two answer options.

## Findings for Question:

### Response explanation

Almost two-thirds of the respondents (63.1%) referred exclusively to the age range listed in the question (40 to 45 years) in the reasons for their selected or stated percentages and argued that women's fertility decreases with age:

- *"Many women are already in menopause at this age, or the number of ovulations decreases and with it the chance of getting pregnant."* (T156, response to version 2: 10 to 29 percent)
- *"Because many women at that age are approaching menopause and older women are less likely to get pregnant."* (TP200, response to version 2: 30 to 49 percent)
- *"Fertility does decrease with age, but unprotected intercourse certainly still has a high pregnancy rate at this age. But probably less likely than younger women."* (TP257, response version 1: 40 to 59 percent)
- *"Because as you get older, the possibility of getting pregnant decreases."* (TP268, response to version 3: 60 percent)

Occasionally, respondents referred exclusively to the period of unprotected intercourse mentioned in the question, or to both the woman's age and the period mentioned:

- *"Because it is likely to happen if you have sex for that long."* (TP688, response to version 2: 90 to 100 percent)
- *"Because at 40/45 you are still very sexually mature and if you know your cycle well, in many cases it works out with pregnancy."* (TP148, response to version 1: 60 to 79 percent)
- *"One year is a long period of time and as long as menopause has not occurred, I think there is a possibility of pregnancy."* (TP309, response to version 3: 95 percent)

Two respondents pointed out that not only the period of sexual intercourse had an impact on the likelihood of becoming pregnant, but also the frequency of sexual intercourse. However, mentioning the time span of one year had no apparent influence on the answer to the question here (in contrast to question 1):

- *"I think that a woman at this age still has a very high probability of becoming pregnant. With regular sexual intercourse, at least once a week." (TP361, response to version 1: 40 to 59 percent)*
- *"I think at this age the probability of getting pregnant is rather low. Which also depends on the amount/frequency of intercourse." (TP692, response to version 3: 40 percent)*

### **Perceived difficulty of questions:**

When asked how easy or difficult it was for the respondents to answer question 2, a good third of the respondents (n = 30) answered that it was "rather" or "very" difficult for them. As with Question 1, more respondents found it difficult to answer Question Version 3 (n = 15) than Question Versions 1 (n = 6) or 2 (n = 9). Most respondents explained that they had not yet dealt with the topic and therefore found it difficult to assess the likelihood of pregnancy:

- *"Because I haven't really dealt with the topic before. I just knew that fertility decreases and until about 30 fertility is highest." (TP224)*
- *"Because I haven't dealt with this topic before, I could only guess and apply my halfknowledge." (TP324)*
- *"Because it was a pure guess, I am not familiar with the subject." (TP429)*

It was noted sporadically that it was difficult to make the required generalization across all women in an age group:

- *"Everybody is different. Then various environmental influences also play a role. I personally find it difficult to define a value based on this." (TP412)*
- *" Because getting pregnant can work out quickly or very hard. It's very individual." (TP462)*

### **Recommendations:**

The results of the cognitive pretest show that the subject matter of the questions is complex and not all respondents have the appropriate knowledge to answer the questions. Nevertheless, respondents were able to select (versions 1 and 2) or fill in (version 3) an answer and justify it in a meaningful way. The questions can therefore be left in their current form.