Evaluation of a digital FP chatbot in Côte d'Ivoire:

Qualitative codebook

Introduction

This codebook describes the process and themes used to encode the qualitative data collected and transcribed as part of this study. The codes/themes were mainly defined on the basis of the study objectives and the interview guide used for data collection. After reading some of the transcripts, certain emerging themes were also added.

Encoding rules

Encoding involves reading the interview transcripts line by line and applying the corresponding theme to each piece of text. During the encoding process, we are more interested in the respondent's answers than in the questions asked. The respondent's answers are not always directly related to the questions asked, but they are not without interest, as they may contain important themes that have been retained for this study.
The encoding process must follow the following rules:

- Encode all text portions corresponding to the respondent's answers. When a passage does not refer to a predefined theme, apply node 0 (No node).
- Select a large enough section of text to understand the idea being developed. If the answers are too short and do not allow you to understand the idea developed by the respondent, also select the question that was asked.
- A code can be applied as many times as it appears in the text.
- The same portion of text may contain more than one theme. apply all codes concerned.

Socio-demographic characteristics of respondents

1. Age
2. Number of children
3. Place of residence:
    - Urban
    - Rural
4. Level of education
    - No schooling
    - Primary
    - Secondary
    - Tertiary and higher
5. Marital status
    - Married/engaged in a relationship, living together
    - Married/engaged in a relationship, living separately
    - Not married or in a committed relationship

The table below summarizes the themes and sub-themes for encoding, specifying the portions of text corresponding to each sub-theme.

Themes	Sub-themes 1 (codes)	Sub-themes 2 (codes)	Description
0. No nodes			Encode all text passages that do not refer to any theme or sub-theme
1. Discovery and visit of the chatbot	1.1 Discovering the chatbot		Parent code - use only if other codes (subtopics) do not apply
		1.1.1 Recommended by an acquaintance	Encode all passages in the text mentioning that the chatbot was advised by an acquaintance
		1.1.2 Advertising on social networks	Encode all the passages in the text mentioning that the chatbot was discovered on the RS
	1.2 Reasons for accessing Chabot	Parent code - use only if other codes (subtopics) do not apply	
		1.2.1 About FP	Encode all the passages in the text mentioning that the respondents were looking for information on FP in the chatbot.
		1.2.2 Rules information	Encode all the passages in the text mentioning that the respondents were looking for information on the periods in the chatbot.
		1.2.3 Curiosity	Encode all the passages in the text mentioning that the respondents connected to the chatbot out of curiosity.
	1.3 Chatbot sections visited	1.3.1 ''All methods'' section	Encode all text passages specifying that respondents have visited the "All methods" section of the Chabot.
		1.3.2 ''Periods'' section	Encode all text passages specifying that respondents visited the "Periods" section of the Chabot.
		1.3.3 ''Recommended methods'' section	Encode all text passages specifying that respondents visited the "Recommended methods" section of the Chabot.
		1.3.4 Most useful section	Encode all portions of the text describing the section of the Chatbot that was most useful to the respondent.

2. Chabot user-friendliness	2.1 Ease of use		Encode all the passages in the text that describe the aspects that make chatbot use easier
	2.2 Advantages of the chatbot		Encode all the passages in the text describing the advantages of using the chatbot.
	2.3 Assessment of information presentation	Parent code - use only if other codes (subtopics) do not apply	
		2.3.1 Positive assessment of the presentation	Encode the portions of the text that describe a positive appreciation of the presentation of information in the chatbot.
		2.3.2 Neutral assessment of the presentation	Encode the portions of the text that describe a neutral appreciation of the presentation of information in the chatbot.
		2.3.3 Negative assessment of the presentation	Encode the portions of the text that describe a negative assessment of the presentation of information in the chatbot.
3. Barriers to chatbot use	3.1 Difficulties in use	Parent code - use only if other codes (subtopics) do not apply	
		3.1.1 Difficulties with the language used	Encode all the passages in the text describing the difficulties in understanding the language used by the chabot to respond to users' concerns.
		3.1.2 Technical difficulties	Encode all text passages describing any technical difficulties encountered by respondents when using the chabot (internet connection, inability to access certain pages, etc.).
	3.2 Third-party intervention for operation		Encode all text specifying whether or not respondents needed help from a third party to use the chatbot.
	3.3 Confidentiality issues	Parent code - use only if other codes (subtopics) do not apply	
		3.3.1 Online privacy issues	Encode all portions of the text specifying whether respondents encountered a confidentiality problem with the information given online during or after use of the chabot

		3.3.2 Difficulty in visiting the chatbot confidentially	Encode all text specifying whether respondents find it difficult to keep their visit to the chabot confidential due to the use of a shared device, being seen by a third party or any other reason.
4. Content perspective	4.1 Type of information received	Parent code - use only if other codes (subtopics) do not apply	
		4.1.1 Information received about the periods	Encode all passages of the text describing the information on periods that the respondents received from the chatbot.
		4.1.2 Information received about FP	Encode all passages of the text describing the information on FP that the respondents received from the chatbot.
	4.2 New information learned		Parent code - use only if other codes (subtopics) do not apply
		4.2.1 New information on FP	Encode all text passages specifying any new information learned about contraceptive methods from the chatbot.
		4.2.2 New period information	Encode all text passages specifying any new information learned about periods/menstruation from the chatbot
	4.3 Usefulness/relevance of information		Parent code - use only if other codes (subtopics) do not apply
		4.3.1 Useful/relevant information	Encode all passages in the text where respondents describe how the chatbot's information is useful/relevant (corresponds to their needs) to them.
		4.3.2 Non-useful/relevant information	Encode all passages in the text where respondents describe why the chatbot's information is not useful/relevant (does not meet their needs) to them.
	4.4 Additional information required	Parent code - use only if other codes (subtopics) do not apply	
		4.4.1 Additional information on FP	Encode the portions of the text where respondents specified additional information about the contraceptive methods they would like to see in the chatbot.
		4.4.2 Additional information about periods	Encode the portions of the text where respondents have specified additional information about the periods/ menstruation they would like to see in the chatbot.

		4.4.3 Desired information on sexual and reproductive health	Encode the portions of the text where respondents have specified additional information on sexual and reproductive health in general (STDs, infection...) that they would like to see.
	4.5 Suggestions for improving the chatbot's performance	Parent code - use only if other codes (subtopics) do not apply	
		4.5.1 Suggestions for content	Encode all portions of the text that correspond to the suggestions made to improve the chatbot's content.
		4.5.2 Suggestions for ease of use	Encode all portions of the text that correspond to a suggestion made by respondents to facilitate the use of the chatbot.
	4.6 Main chatbot targets		Encode all the passages in the text that specify the people targeted by the chatbot.
5. Perceived self-efficacy and behavioral intention	5.1 Ability to discuss FP with others	Parent code - use only if other codes (subtopics) do not apply	
		5.1.1 Ability to discuss with a service provider	Encode all text passages where respondents describe their ability to discuss FP with a provider after interacting with the chatbot.
		5.1.2 Ability to discuss with a spouse or partner	Encode all text passages where respondents describe their ability to discuss FP with a spouse after interacting with the chatbot.
	5.2 Influence of the chatbot on decision-making	Parent code - use only if other codes (subtopics) do not apply	
		5.2.1 Influence on intention to use an FP method	Encode all passages that describe how the interaction with the chatbot influenced their decision to use a FP method.
		5.2.2 Influence on intention to change method	Encode all text passages where respondents describe how interaction with the chatbot influenced their decision to change their FP method.
		5.2.3 No influence	Encode all the passages in the text where the respondents describe why the interaction with the chatbot had no influence on their decision-making.
	5.3 Sources of information on FP		Encode all text describing sources of information for respondents who need to discuss contraceptive methods

	5.4 Source of FP supply		Encode all text describing sources of supply for respondents who need to obtain a method.
6. Actions taken or to be taken	6.1 Discussion/ Gabi's recommendation to others		Encode all passages in the text that relate to Gabi's discussion or recommendation to others
	6.2 Changes following interaction with the chatbot	Parent code - use only if other codes (subtopics) do not apply	
		6.2.1 Choosing a method (for a current non-user)	Encode all the passages that show that the respondent actually chose and adopted a method after interacting with the chatbot.
		6.2.2 Change in the way a method is used	Encode all the passages in the text describing the changes brought about by the use of the chatbot in their way of using a method
		6.2.3 Change of method	Encode all the passages in the text that show that the respondents changed their methods after interacting with the chatbot.
	6.3 Assessment/relevance of the recommendation received from the chatbot (for those to whom Gabi has suggested FP methods)	Parent code - use only if other codes (subtopics) do not apply	
		6.3.1 Recommendation appreciated/relevant	Encode all portions of text that show that Gabi's recommendation is appreciated by the respondent and/or corresponds to her needs.
		6.3.2 Unappreciated/relevant recommendation	Encode all text that shows that Gabi's recommendation is not appreciated by the respondent and/or does not correspond to her needs.
	6.4 Using the QR code voucher	6.4.1 Reason for voucher use	Encode portions of the text detailing the reasons why respondents who received a QR code used it
		6.4.2 Reasons for not using the voucher	Encode portions of the text detailing the reasons why respondents who received a QR code did not use it

7. Experience with service providers	7.1 Type of service provider consulted		Encode all text in which respondents describe the type of provider they consulted after interacting with the chatbot.
	7.2 Discussing sculpin with the service provider	Parent code - use only if other codes (subtopics) do not apply	
		7.2.1 Discussion of information received	Encode all the passages in the text where the respondents summarize their discussion with a provider about the information they got from interacting with the chatbot.
		7.2.2 Additional explanations or information from the service provider	Encode all text portions that summarize explanations/additional information received from the provider
		7.2.3 Confidence level during discussion	Encode all the passages in the text where the respondents describe how the information they received from the chatbot made it easier for them to talk to the provider.
	7.3 Reasons for choosing the method	Parent code - use only if other codes (subtopics) do not apply	
		7.3.1 Reasons for Gabi's recommended choice	Encode portions of text detailing the reasons for choosing a method recommended by Gabi
		7.3.2 Reason for a choice other than that recommended by Gabi	Encode text sections detailing the reasons for choosing a method other than the one recommended by Gabi