Scientific Research Publishing

Health, 2024, 16, 578-591
https://www.scirp.org/journal/health
ISSN Online: 1949-5005
ISSN Print: 1949-4998

Measuring Cognitive and Psychosocial Accessibility to Modern Contraception: A Comprehensive Framework

Lonkila Moussa Zan[1], Clémentine Rossier[2], Caroline Moreau[3]

[1]INSD/ISSP, Université Joseph KI-ZERBO, Ouagadougou, Burkina Faso
[2]IDESO, University of Geneva, Geneva, Switzerland
[3]Gates Institute, Johns Hopkins University, Baltimore, United States
Email: lonkilazan@yahoo.fr, clementine.rossier@unige.ch, cmoreau2@jhu.edu

How to cite this paper: Zan, L.M., Rossier, C. and Moreau, C. (2024) Measuring Cognitive and Psychosocial Accessibility to Modern Contraception: A Comprehensive Framework. *Health*, **16**, 578-591.
https://doi.org/10.4236/health.2024.167040

Received: April 29, 2024
Accepted: July 7, 2024
Published: July 10, 2024

Abstract

Nowadays, more than ever, the improvement of access to family planning (FP) has become an international goal. What constitutes access to FP? Current human rights-based contraceptive guidelines indicate that access begins as soon as women or couples express a desire to avoid pregnancy and their risk of unintended pregnancy is established. However, few studies have sought to define and measure cognitive and psychosocial access to contraception. To propose a comprehensive framework for the cognitive and psychosocial accessibility of contraception, we critically analyzed the literature on attitudes toward FP. The main dimensions that emerged were knowledge about FP, fear of side effects, approval of contraception, and contraceptive agency. We then identified and adjusted some questions that can capture these dimensions more comprehensively. As a result, we developed a questionnaire module comprising 15 questions, which was integrated into the 6th round of the PMA2020 survey in Burkina Faso in 2019. This research highlighted that previous studies have collected separate dimensions of contraceptive access, and the psychosocial dimension tended to be neglected. Our results demonstrate that it is possible to collect comprehensive data on cognitive and psychosocial dimensions of access to family planning.

Keywords

Cognitive Dimensions, Psychosocial Dimensions, Contraception, Intention To Use, Side Effects

1. Introduction

Nowadays, more than in the past, the improvement of access to FP has become

an international goal. Since Cairo International Conference on Population and Development (ICPD) in 1994, access to contraception has been acknowledged as a way for men and women to decide freely on the number of children they conceive and the spacing between pregnancies. However, access to FP was not mentioned in the first iteration of the Millennium Development Goals (MDGs). Moreover, MDG 5 (increasing maternal health) was among the less successful of these initiatives. To hasten progress, the London Summit in 2012 and the ensuing FP2020 initiative aimed at expanding access to family planning information, services, and supplies [1]. Sustainable Development Goals (SDGs) 3.7 and 5.6 continue to stress the importance of ensuring "universal access to sexual and reproductive health care services, including for FP" and "universal access to sexual and reproductive health and reproductive rights," respectively, by 2030 [2].

What constitutes access to FP? Current human rights-based contraceptive guidelines indicate that as soon as women or couples express a desire to avoid pregnancy and their risk of unintended pregnancy is established, health staff should aim to deliver modern methods (either medical or natural, such as lactational amenorrhea method (LAM) or cycle beads) to these individuals. Women or couples are free to choose from among these methods and to decline the services offered [3]. The accessibility of contraceptive services is measured according to the ease with which women and couples who require pregnancy avoidance support can obtain a medically approved form of contraception, whether obstacles originate from the supply side or the demand side (i.e., refusal to use). Several scholars have studied access to health care and FP services, particularly in the developing world [4]-[7]. Research findings indicate that the availability of services is an essential factor in contraceptive use [7]. The lack of physical access may induce users to rely on limited or less efficient contraceptive methods [8] [9]. However, other research indicates that many women are hindered in contraceptive use by cognitive and psychosocial (e.g., bad information, opposition, fear) obstacles [1]. Few studies have sought to understand and collect information on these obstacles in the context of sub-Saharan Africa and in other regions with low contraceptive prevalence and high unmet needs [10]. Some earlier studies have analyzed the relationship between women's empowerment and sexual and reproductive health outcomes or between autonomy, decision-making, and contraceptive use [11]-[15]. Others have focused on various forms of approval and contraceptive use [16]-[18].

The literature has presented three main frameworks used to approach access to health care [19]-[21]. These three approaches considered six dimensions of access to contraception: "cognitive accessibility, psychosocial accessibility, geographic accessibility, service availability/quality, administrative accommodation and affordability" ([1], p. 148). These six different aspects of access can be categorized into two perspectives: demand for modern contraception and supply (in situations when women or couples wish to avoid pregnancy and are at risk

of conceiving). The demand perspective encompasses issues of cognitive and psychosocial accessibility, while the remaining four dimensions align with supply-related aspects [1]. While the supply-side dimensions have attracted considerable attention—particularly financial and logistical barriers to contraception in the international FP programs arena [22] -less is known about how individuals perceive contraception issues and how these considerations influence their decisions [23]. Indeed, cognitive, and psychosocial accessibility has received significantly less attention, despite evidence that these dimensions have contributed to a bottleneck in contraceptive access, particularly when contraceptive methods are more available [24]. Psychosocial accessibility remains largely undefined under a "cultural/social" blanket, which includes aspects as diverse as gender inequality, socially disapproved sexual activity, fears of side effects, or religious opposition to fertility regulation. Moreover, confusion surrounds the definition of these dimensions of accessibility, with terms such as "beliefs" "attitude," or "subjective costs" of fertility regulation taking a central stage, but with a variety of operationalizations. This is likely to date back to Easterlin's framework: "the costs of fertility regulation include subjective costs ("attitudes")" as well as the time and money necessary to learn about and use specific techniques ("[other problem of] access")" [25].

In what follows, we propose to advance the definition and measurement of cognitive and psychosocial access by first detailing the concepts of attitude and belief as used in the literature on contraception. We will then propose a new, more comprehensive framework for the cognitive and psychosocial dimensions of accessibility, including several subdimensions, before reviewing questions that have been used to capture them in data collection to date.

2. Constructing a New Framework

The main frameworks we used to understand the concept of attitude are those developed by [26]-[29]. The review of this concept leads us to identify four subdimensions of cognitive and psychosocial accessibility

2.1. The Concept of Attitude and Its Subdimensions

Kothandapani tested the hypothesis that three dimensions compose the concept of attitude and influence the use of contraception: an affective component that concerns the subject's feelings about the object, a cognitive dimension that involves beliefs about the object, and a behavioral dimension about the intention to act. He used four different measures constructed using the following methods: the Thurstone scale (method of equal-appearing intervals), the Likert scale (method of summed ratings), the Guttman scale (scalogram analysis), and the Gulljord self-rating scale. Kothandapani confirmed the tripartite classification of attitude in the three dimensions above and concluded that the "intention to act" is the best predictor [26].

The Fishbein's approach, which dates to the 1960 s but had been little applied

in FP research, has been adopted by Paul B. K. in 1990 who distinguishes between intention concerning contraception in general and intention toward specific contraceptive methods [27]. However, unlike the approach used by Kothandapani, according to which the intention to act formed part of the attitude, attitude is here seen as a determinant of intention. Paul noticed that "attitude toward contraception, in general, global motivation, and method-specific attitude were the three important determinants of the intention to use birth control pills in the area" [27]. Here, the "*attitude toward contraception in general*" was measured by three variables: sexual morals, feeling guilty, and removal of worries about becoming pregnant. The "global motivation" is measured through the approval of the husband, friends, and religion. The "method-specific attitude" concerns fear of side effects, method reliability, and convenience of use [27].

Ajzen defined attitude as "*a disposition to respond favorably or unfavorably to an object, person, institution, or event*" [27]. He also noted that attitude is a hypothetical construct that cannot be directly observed and must be inferred from measurable responses. Based on research by various authors, including [30]-[32], Ajzen identifies three categories of attitude measures: cognition (belief about the object), affect (feelings toward the object), and conation (behavioral intentions), which are documented using verbal and non-verbal responses [27]. According to his definition of attitude, we found that the three dimensions coincide with those tested by Kothandapani [26]. The theory of planned behavior, based on Ajzen's model, has since been used to study reproductive behaviors [33]. This model stipulates that intention toward a behavior is based on three elements: the person's attitude toward that behavior, the attitude of those around them (subjective norm), and the person's perception of their ability to implement it (perceived behavioral control). In this iteration of the model, affects and beliefs have been relegated to the sidelines, but motivation is more detailed, as this dimension is captured not only by intention (to use contraception) but also by self-assessed ability to succeed (which we call "contraceptive agency").

Other frameworks relate to attitudes, intentions, and behaviors toward contraception. In a study conducted in Kenya and Nigeria, Babalola and colleaguesused Kincaid's framework that presents a strategic model used for behavior change communication [34]. They described attitudes as resulting from beliefs and values (operationalized together as myths and rumors). In this model, attitudes are thus composed of cognition/knowledge/beliefs as well as of approval/norms/values which-in combination with other social (other people's attitudes) and emotional factors-cause intention, which in turn drives behavior [34].

In sum, the umbrella concept of attitude covers at least four dimensions: "knowledge" (beliefs, cognitive elaboration linked to socially shared representations which may be modified by scientifically based knowledge), "affect" (emotional, fears), "approval" (positive or negative valuation, linked to shared social norms and values), and "contraceptive agency" (perceived ability to do so). We

retained these subdimensions of cognitive and psychosocial access in our framework, which we detail below.

2.2. Framework for Measuring Cognitive and Psychosocial Accessibility

Our framework (see Figure 1) states that formal knowledge (scientific, globalized) about contraception penetrates individuals' networks and social environments following efforts from contraceptive supply actors in the country. However, local sociocultural representations of reproduction (shared visions of fertility, gender relations, medicine, etc.) tend to inform a local morality toward FP (measured as community approval to use contraception for birth spacing and limiting) along with local meanings (rumors, informal knowledge) assigned to contraception [35]. Those four contextual (meso-level) dimensions interact to shape the cognitive and psychosocial accessibility of contraception at the individual level. Classically (dimension 5 in [1]), the "cognitive" dimension of contraceptive accessibility refers to individuals' access to knowledge and includes individuals' awareness of contraceptive methods, their sources of supply, their side effects, and how to deal with side effects as learned in their environment from formal sources. This dimension is also influenced by local knowledge that comes in the form of information received from informal sources. Therefore, the "knowledge" component of psychosocial accessibility reflects both formal contraceptive information and local information. The other three subdimensions of attitude—"fears/emotions," "approval," and "contraceptive agency"—are similarly shaped by both local meanings and norms as well as by national and globalized knowledge and models of conduct.

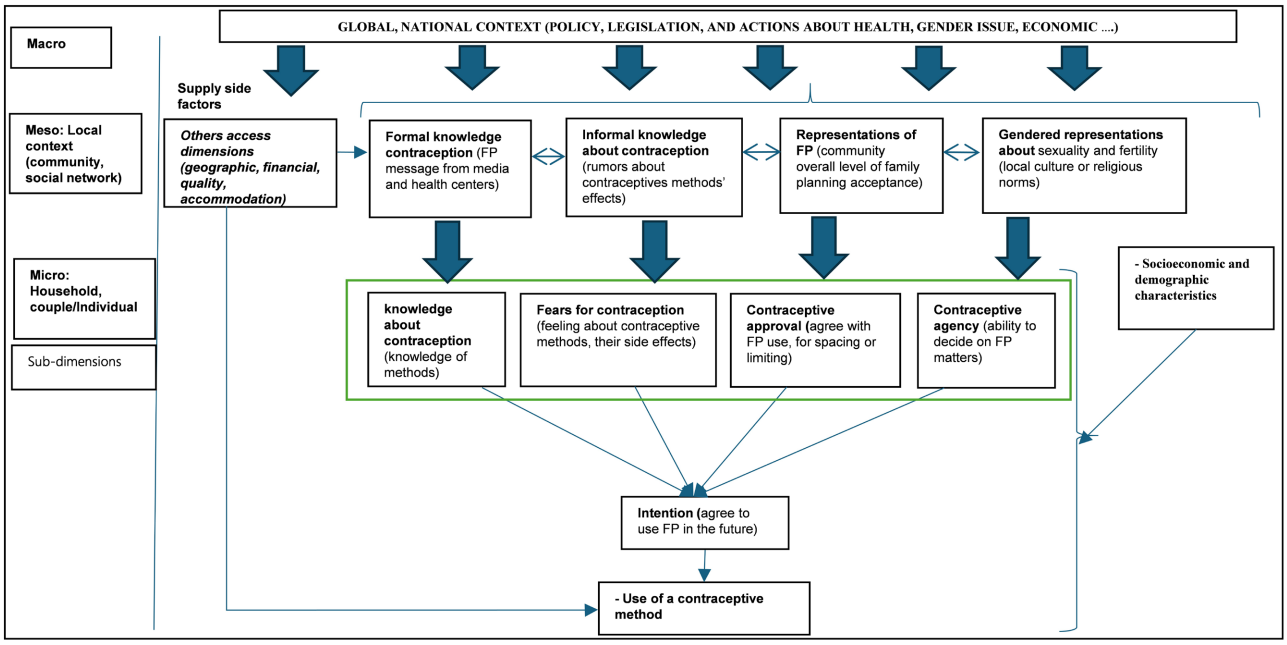

Figure 1. Conceptual framework cognitive and psychosocial accessibility to contraception (at-risk people with a demand for pregnancy avoidance).

2.3. Measuring the Four Dimensions of Individual-Level Cognitive and Psychosocial Access

In the sections that follow, we examine how each of these four dimensions has been measured in existing surveys to date, particularly in recent contraceptive survey questionnaires. We focus on two surveys that collect contraceptive data on the international level: the DHS and the PMA2020 survey. When identifying gaps in these questionnaires with respect to measuring our dimensions, we searched for other past surveys that have attempted to measure them (**Table 1**). With the help of our researchers involved in those surveys, we obtained questionnaires from the survey "Hope Niger" 2014 [36], and from women and girls empowerment study in Nigeria (WGE-Nigeria) [37], as well as Round 6 of PMA2020/Uganda, which were used to extract relevant questions to complete the measurement of cognitive and psychosocial dimensions. In doing so, we wished to use already-tested questions.

Contraceptive knowledge

DHS and PMA2020 Burkina currently measure contraceptive knowledge by asking questions about respondents' knowledge of specific contraceptive methods. Contraceptive knowledge goes beyond having heard of specific contraceptive methods and should include knowledge/awareness of the side effects attached to each method. Therefore, in addition to the PMA2020's core questions about knowledge of modern methods, we asked questions about knowledge of some specific types of side effects. These new questions come from Round 6 of PMA2020 Uganda (**Table 2**).

Fear of side effects

While DHS and PMA2020 Burkina do not directly collect information about fear of side effects, the question about reasons for non-use often reveals that some respondents are not using contraception owing to fears of side effects. This question concerns non-users and cannot measure this dimension well, as it is not possible to assess the level of fear or the fear of specific side effects. Therefore, following the questions asked about knowledge of side effects, we asked women if they were concerned with the side effects of which they were aware.

Approval of contraception

The last Burkina Faso DHS (in 2010) only asked about the partner's approval of FP, while the previous one (in 2003) had also asked about the respondent's own approval. The Burkina PMA2020 survey did not ask about contraceptive approval. Consequently, we included five questions to measure approval by distinguishing between different life situations, before marriage, to space or to limit births [18].

Contraceptive agency

Our definition of contraceptive agency herein concerns a woman's ability to decide, negotiate, and act alone or jointly (negotiation) with others towards contraceptive behavior. The questions used to measure this dimension were not included in the Burkina DHS and PMA2020 core survey questionnaires. Indeed, the DHS questionnaire asked some questions about women's general empowerment in household decision-making, violence perception, and discussion about

FP. The HIV/AIDS section of the Burkina DHS female questionnaire included two questions concerning the respondent's ability to refuse sex or to ask her husband/partner to use a condom if she wishes. These questions relate to HIV prevention and are not suitable for measuring contraceptive agency.

In the following table, we summarize how these dimensions have been influenced by recent contraceptive data sources. We then highlight the remaining gaps, which we tried to address.

To help overcome the limitations of current surveys in measuring cognitive and psychosocial accessibility, we propose the following table of questions. We have slightly modified some of the questions for the purposes of our survey. These modifications largely concerned response categories and some reformulation.

Table 1. State of the four dimensions in current contraceptive data sources.

Dimensions	Type of data collected by DHS female questionnaire	PMA2020BF core female questionnaire	Limitations
Contraception knowledge	To all women: Type of contraceptives known	To all women: Type of contraceptives known	- No question about awareness of side effects,
Fear of side effects	To nonusers: the response category "Interferes with body's normal processes," "inconvenient to use" and "Side effects/health concerns" of the question on reasons for non-use.	To nonusers: the response category "Interferes with body's normal processes," "inconvenient to use" and "Side effects/health concerns" of the question on reasons for non-use.	- There is no question for users about fear of side effects. - It is not possible to know the exact side effects feared by women
Approval of contraception	To all women - About her partner approval in 2010 and about respondent and partner in 2003.	No question on contraceptive approval.	Do not allow to know: - No question about respondent's own approval, - No question about respondent's approval in different situations like spacing, limiting, or use by non-married people
Contraceptive agency	There is a question addressed: - to all women: discussion about family planning with a partner about empowerment and autonomy in general. - to users: main responsible for the choice of the methods used.	There is a question addressed: - to all women about discussion on family planning with a partner - to users about main responsible for the choice of the methods used.	No specific question about ability to decide in family planning matters (ability to discuss, negotiate and decide on childbearing and PF)

Table 2. Questions and items of the four psychosocial dimensions.

Dimensions and questions	Target population	Sources of the question	Number of items
Contraceptive knowledge			
1. Have you ever heard of female sterilization?	All women	PMA2020 core female questionnaire	16 Yes-no responses
2. Have you ever heard of male sterilization?			
3. Have you ever heard of the contraceptive implant?			
4. Have you ever heard of the IUD?			

Continued

5. Have you ever heard of injectable?			
6. Have you ever heard of the (birth control) pill?			
7. Have you ever heard of emergency contraception?			
8. Have you ever heard of condoms?			
9. Have you ever heard of female condoms?			
10. Have you ever heard of the diaphragm?			
11. Have you ever heard of foam or jelly as a contraceptive method?			
12. Have you ever heard of the standard day method or Cycle Beads?			
13. Have you ever heard of the Lactational Amenorrhea Method or LAM?			
14. Have you ever heard of the rhythm method?			
15. Have you ever heard of the withdrawal method?			
16. Have you ever heard of any other ways or methods that women or men can use to avoid pregnancy?			
Fear of side effects			
- What side effects did you experience (or heard about)? (multiple-choice response) 1. Less bleeding or no bleeding; 2. Heavier bleeding; 3. Irregular bleeding; 4. Spotting; 5. Uterine cramping/Lower abdominal pain; 6. Weight gain; 7. Weight loss; 8. Facial spotting; 9. Headaches; 10. Infection; 11. Nausea/vomiting; 12. Increased menstrual cramping; 13. Delayed return to fertility; 14. Lowered sex drive; 15. Vaginal dryness; 16. Infertility/sterility; 17. Method gets lost inside the body; 18. General body weakness; 19. Diarrhea; 20. Other	All women who have you experienced (or heard about) any side effects of a contraceptive method.	Adapted from PMA2020 Uganda Round 6	20 Multiple choice categories
What side effects are you concerned about? (multiple-choice response: List of side effects: The possible response categories were those selected in the previous question)	All women who have you experienced (or heard about) any side effects of a contraceptive method.	Adapted from PMA2020 Uganda Round 6	Multiple choice categories
Approval			
AC1. Do you agree with couples who use a method to avoid a pregnancy? (R: Strongly disagree, disagree, Indifferent, agree, strongly agree)	All women who know FP	Adapted from 2003 DHSBF	1 Likert-scale response
AC2. Does your partner/husband agree with couples who use a method to avoid a pregnancy?	All women who know FP and are in a union	Adapted from 2010 DHSBF	1 Likert-scale response
AC3. Do you agree with a "single" man or a woman who use contraception to avoid a pregnancy?	All women who know FP	Adapted from 2014 Hope survey in Niger	1 Likert-scale response
AC4. Do you agree with a couple who use contraception to try to space the births of their children?	All women who know FP	Adapted from 2014 Hope survey in Niger	1 Likert-scale response
AC5. Do you agree with a couple who use contraception to try to limit the number of children they will have?	All women who know FP	Adapted from 2014 Hope survey in Niger	1 Likert-scale response

Continued

Contraceptive agency			
AFC1. You cannot (could not) delay or stop having children even if you wanted to, as this would deteriorate your relationship with your husband/partner.	Women in union	PMA2020-WGE Nigeria	1 Likert-scale response
AFC2. You feel (would feel) safe to discuss with your husband/partner about when to start having children/another child.	Women in union	PMA2020-WGE Nigeria	1 Likert-scale response
AFC3. Once you have a second child, you can decide when to have another one.	All women	PMA2020-WGE Nigeria	1 Likert-scale response
AFC4. You are (would be) able to negotiate with your husband/partner when to stop having children.	All women	PMA2020-WGE Nigeria	1 Likert-scale response
AFC5. You are (would be) able to choose what to do about family planning without taking into account what your husband/partner tells you to do.	Women in union	PMA2020-WGE Nigeria	1 Likert-scale response
AFC6. There would be (could be) a conflict in your relationship if you used family planning.	Women in union	PMA2020-WGE Nigeria	1 Likert-scale response
AFC7. You feel (would feel) safe discussing family planning with your husband/partner.	Women in union	PMA2020-WGE Nigeria	1 Likert-scale response

PMA: Performance monitoring and accountability; DHS: demographic and health survey; WGE: Women and Girls Sexual and Reproductive Health Empowerment. Hope Survey: Hope Consulting 2014 Survey in Niger

3. Testing the questionnaire

We added the selected questions to the 6th round of PMA2020 [38] questionnaire in Burkina Faso. These data were collected on the PMA2020 platform in Burkina Faso during December 2018 and January 2019. We interviewed 2,763 households (98.4% response rate) and 3,329 women (97.7% response rate) in 83 enumeration areas [39] [40]. The specific data collected to measure cognitive and psychosocial dimension of access have been already used in many papers [40]-[42].

4. Discussion

The literature review of the concept of access reveals that the six meanings linked to this concept go well beyond the supply-side factors and more importantly, the demand-side dimension of access to contraception (cognitive and psychosocial). However, we found only a few studies that focused on the dimensions of cognitive and psychosocial access. Unlike those studies, our goal was to compile a comprehensive picture of all subdimensions of demand-related accessibility.

To identify these subdimensions, we detailed the different facets of the concept of "attitudes" with which research on demand-side obstacles to contraceptive use had begun, following Easterlin's framework [25]; this concept has continued to frame the (small) stream of studies into the 2000s [43] [44]. We identified four subdimensions that various studies and frameworks had tackled under

the umbrella concept of attitude: knowledge, fears, approval, and agency. Some questions from the DHS and the PMA2020 female questionnaire attempted to capture subdimensions such as contraceptive knowledge, approval, and reproductive agency. However, its attempt is only partially done for some subdimensions, including the partner's approval and agency that is attained only through discussion with one's partner. Besides, the subdimension relating to fears is not really included. Indeed, apart from the response category "fears of side effects" for the question on reasons for non-use, no other data concerning that concept were included. Using questions already tested in the DHS and PMA2020 questionnaires complemented by questions from two recent reproductive and health surveys the authors have been involved in, we developed a complete set of questions to measure these four dimensions (n = 15 questions, of which 1 was already in DHS or PMA). We added two questions about side effects: the first concerns the knowledge of side effects, which was used to adjust the data collected for the second, which concerned the fear of side effects. By asking all respondents questions about their fears of side effects, we went further than most earlier studies by revealing the type and the level of fear experienced by the respondents based on their contraceptive use status. We also added specific questions to capture the level of contraceptive approval when used by non-married respondents, for spacing, and for limiting pregnancy. We considered seven questions relating to women's ability to discuss, negotiate, and make decisions about childbearing and contraceptive use.

The framework has already been used to collect data on multiple occasions. Initially developed during my PhD studies, the data collected through the framework's dimensions have also been used to validate these dimensions. This validation process involved computing and analyzing Cronbach's alpha for each dimension to confirm the extent to which they fit as a dimension [40]. Another paper utilized the four dimensions and studied their relationship with contraceptive use and intention to use through structural equation modeling [41]. A subsequent paper specifically focused on the agency dimension to analyze its relationship with contraceptive demand [40]. All these papers have been published in national and international journals, ensuring that the data collected through the framework are valuable for the scientific domain.

The construction the framework and the testing of the questionnaire faced several limitations, mainly related to formulating question on agency dimension. In fact, this dimension, most of the time, do not concern all the sample, and so selection effects may influence some of the relationships. Moreover, when collecting and using such data, we should be cautious in interpreting some relationships that may be bi-directional: contraceptive use and approval may influence one another. Social desirability bias may also make users more likely to say that they approve of FP. The same logic can be applied to non-users, who may be more tempted to say that they are unaware of any methods or side effects. Besides, including the level of knowledge about methods and side effects would have improved the measurement of that dimension. However, the information

we collected on side effects awareness should be used to adjust the measurement of fear around side effects [40].

5. Conclusions

The literature, synthesizing decades of work on contraceptive accessibility, recently highlighted six dimensions of contraceptive accessibility, among which two dimensions concern contraceptive demand-side factors. These two dimensions—cognitive and psychosocial accessibility—were the least informed in older and more recent studies, even though their current relevance has been stressed, as supply-side obstacles have gradually been removed in countries with low contraceptive prevalence. To bridge the gap, we began with the concept of "attitudes" used in this area of research and conceived a comprehensive framework that details "cognitive and psychosocial obstacles to contraception" into four subdimensions. We also identified questions used in large international surveys over the years to measure them, modified or completed at minima to live up to the underlying conceptual constructs. We then proceeded to collect data using this complete set of questions on cognitive and psychosocial obstacles to contraceptive use in Round 6 of PMA2020 in Burkina Faso and we were able to validate this module after further minimal simplification to obtain a set of 40 items.

Despite some conceptual and data limitations, the application of this framework in the context of Burkina Faso has enabled the production and publication of relevant scientific papers. This confirms the importance and replicability of this framework for other settings. However, our conclusion does not exhaust the issue, and further research is needed to deepen the understanding of cognitive and psychosocial dimensions of access to contraception.

Acknowledgements

This research, conducted as part of a Ph.D. study, received support from the Swiss Confederation under Grant 2017.750. The collection and analysis of cognitive and psychosocial data were supported by the West African Health Organization (WAHO) through the grant with reference number FM/TEND/AP/PROGRAMME DEMSAN/2018/009/bk.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

[1] Choi, Y., Fabic, M.S. and Adetunji, J. (2016) Measuring Access to Family Planning: Conceptual Frameworks and DHS Data. *Studies in Family Planning*, **47**, 145-161. https://doi.org/10.1111/j.1728-4465.2016.00059.x

[2] United Nations (2017) Transforming Our World: The 2030 Agenda for Sustainable Development. In: William, R., Ed., *A New Era in Global Health*, Springer Publishing Company, 530-568.

[3] WHO (2014) Framework for Ensuring Human Rights in the Provision of Contraceptive Information and Services. WHO, 24 p.

[4] Cates, W. and Burris, H. (2010) The Global Roadmap to Universal Access to Family Planning: From Cairo to Kampala. *African Journal of Reproductive Health*, **14**, 13-15.

[5] Dennis, A. and Grossman, D. (2012) Barriers to Contraception and Interest in Over-the-Counter Access among Low-Income Women: A Qualitative Study. *Perspectives on Sexual and Reproductive Health*, **44**, 84-91. https://doi.org/10.1363/4408412

[6] Sundari Ravindran, T. and Fonn, S. (2011) Are Social Franchises Contributing to Universal Access to Reproductive Health Services in Low-Income Countries? *Reproductive Health Matters*, **19**, 85-101. https://doi.org/10.1016/s0968-8080(11)38581-3

[7] Skiles, M.P., *et al.* (2015) The Effect of Access to Contraceptive Services on Injectable Use and Demand for Family Planning in Malawi. *International Perspectives on Sexual and Reproductive Health*, **41**, 20-30. https://doi.org/10.1363/4102015

[8] Jacobstein, R. and Stanley, H. (2013) Contraceptive Implants: Providing Better Choice to Meet Growing Family Planning Demand. *Global Health*: *Science and Practice*, **1**, 11-17. https://doi.org/10.9745/ghsp-d-12-00003

[9] Tibaijuka, L., Odongo, R., Welikhe, E., Mukisa, W., Kugonza, L., Busingye, I., *et al.* (2017) Factors Influencing Use of Long-Acting versus Short-Acting Contraceptive Methods among Reproductive-Age Women in a Resource-Limited Setting. *BMC Women's Health*, **17**, Article No. 25. https://doi.org/10.1186/s12905-017-0382-2

[10] Wood, S.N., Karp, C., Tsui, A., Kibira, S.P.S., Desta, S., Galadanci, H., *et al.* (2020) A Sexual and Reproductive Empowerment Framework to Explore Volitional Sex in Sub-Saharan Africa. *Culture, Health & Sexuality*, **23**, 804-821. https://doi.org/10.1080/13691058.2020.1733667

[11] Crissman, H.P., Adanu, R.M. and Harlow, S.D. (2012) Women's Sexual Empowerment and Contraceptive Use in Ghana. *Studies in Family Planning*, **43**, 201-212. https://doi.org/10.1111/j.1728-4465.2012.00318.x

[12] Sedlander, E., Bingenheimer, J.B., Thiongo, M., Gichangi, P., Rimal, R.N., Edberg, M., *et al.* (2018) "They Destroy the Reproductive System": Exploring the Belief That Modern Contraceptive Use Causes Infertility. *Studies in Family Planning*, **49**, 345-365. https://doi.org/10.1111/sifp.12076

[13] Al Riyami, A., Afifi, M. and Mabry, R.M. (2004) Women's Autonomy, Education and Employment in Oman and Their Influence on Contraceptive Use. *Reproductive Health Matters*, **12**, 144-154. https://doi.org/10.1016/s0968-8080(04)23113-5

[14] Bamiwuye, S.O., De Wet, N. and Adedini, S.A. (2013) Linkages between Autonomy, Poverty and Contraceptive Use in Two Sub-Saharan African Countries. *African Population Studies*, **27**, 164-173. https://doi.org/10.11564/27-2-438

[15] Ghose, B., Feng, D., Tang, S., Yaya, S., He, Z., Udenigwe, O., *et al.* (2017) Women's Decision-Making Autonomy and Utilisation of Maternal Healthcare Services: Results from the Bangladesh Demographic and Health Survey. *BMJ Open*, **7**, e017142. https://doi.org/10.1136/bmjopen-2017-017142

[16] Anguzu, R., Tweheyo, R., Sekandi, J.N., Zalwango, V., Muhumuza, C., Tusiime, S., *et al.* (2014) Knowledge and Attitudes towards Use of Long Acting Reversible Contraceptives among Women of Reproductive Age in Lubaga Division, Kampala District, Uganda. *BMC Research Notes*, **7**, Article No. 153. https://doi.org/10.1186/1756-0500-7-153

[17] Armstrong, J.L., Reid, M. and Bigrigg, A. (1995) Scare over Oral Contraceptives. Effect on Behaviour of Women Attending a Family Planning Clinic. *BMJ*, **311**, 1637-1637. https://doi.org/10.1136/bmj.311.7020.1637

[18] Rossier, C. (2007) Attitudes towards Abortion and Contraception in Rural and Urban Burkina Faso. *Demographic Research*, **17**, 23-58. https://doi.org/10.4054/demres.2007.17.2

[19] Bertrand, J.T., Hardee, K., Magnani, R.J. and Angle, M.A. (1995) Access, Quality of Care and Medical Barriers in Family Planning Programs. *International Family Planning Perspectives*, **21**, 64-69+74. https://doi.org/10.2307/2133525

[20] Penchansky, R. and Thomas, J.W. (1981) The Concept of Access: Definition and Relationship to Consumer Satisfaction. *Medical Care*, **19**, 127-140. https://doi.org/10.1097/00005650-198102000-00001

[21] UNCESCR (2000) CESCR General Comment No. 14: The Right to the Highest Attainable Standard of Health (Art. 12).

[22] Seiber, E.E. (2002) Access as a Factor in Differential Contraceptive Use between Mayans and Ladinos in Guatemala. *Health Policy and Planning*, **17**, 167-177. https://doi.org/10.1093/heapol/17.2.167

[23] Dehlendorf, C., Fox, E., Sharma, A.E., Zhang, J., Yang, S. and Centola, D. (2020) Birth Control Connect: A Randomized Trial of an Online Group to Disseminate Contraceptive Information. *Contraception*, **101**, 376-383. https://doi.org/10.1016/j.contraception.2020.01.014

[24] Lesthaeghe, R. and Vanderhoeft, C. (2001). Ready, Willing and Able: A Conceptualization of Transitions to New Behavioral Forms. In: Casterline, J.B., Ed., *Diffusion Processes and Fertility Transition*: *Selected Perspectives*, National Academies Press, 240-264.

[25] Easterlin, R.A. (1975) An Economic Framework for Fertility Analysis. *Studies in Family Planning*, **6**, 54-63. https://doi.org/10.2307/1964934

[26] Kothandapani, V. (1971) Validation of Feeling, Belief, and Intention to Act as Three Components of Attitude and Their Contribution to Prediction of Contraceptive Behavior. *Journal of Personality and Social Psychology*, **19**, 321-333. https://doi.org/10.1037/h0031448

[27] Paul, B.K. (1990) Contraceptive Intention Behavior in Rural Bangladesh: Factors in the Diffusion of an Innovation. *Economic Geography*, **66**, 123-139. https://doi.org/10.2307/143742

[28] Ajzen, I. (2005) Attitudes, Personality, and Behavior. Open University Press, 166, 178.

[29] Kincaid, D.L. (2000) Mass Media, Ideation, and Behavior: A Longitudinal Analysis of Contraceptive Change in the Philippines. *Communication Research*, **27**, 723-763. https://doi.org/10.1177/009365000027006003

[30] Allport, G. (1954) The Nature of Prejudice. Addison-Wesley.

[31] McGuire, W.J. (1969) An Information-Processing Model of Advertising Effectiveness. In: Davis, H.L. and Silk, A.J., Eds., *Behavioral and Management Science in Marketing*, Ronald Press, 156-180.

[32] Hilgard, E.R. (1980) The Trilogy of Mind: Cognition, Affection, and Conation. *Journal of the History of the Behavioral Sciences*, **16**, 107-117. https://doi.org/10.1002/1520-6696(198004)16:2<107::aid-jhbs2300160202>3.0.co;2-y

[33] Rossier, C. and Bernardi, L. (2009) Social Interaction Effects on Fertility: Intentions and Behaviors. *European Journal of Population*, **25**, 467-485.

https://doi.org/10.1007/s10680-009-9203-0

[34] Babalola, S., John, N., Ajao, B. and Speizer, I. (2015) Ideation and Intention to Use Contraceptives in Kenya and Nigeria. *Demographic Research*, **33**, 211-238. https://doi.org/10.4054/demres.2015.33.8

[35] Rutenberg, N. and Watkins, S.C. (1997) The Buzz Outside the Clinics: Conversations and Contraception in Nyanza Province, Kenya. *Studies in Family Planning*, **28**, 290-307. https://doi.org/10.2307/2137860

[36] Peytrignet, M.-C. (2019) Fertility Regulation in Sub-Saharan Africa: The Role of Marital Sexual Inactivity. PhD Thesis, University of Geneva.

[37] Moreau, K., *et al.* (2020) Reconceptualizing Women's and Girls' Empowerment: A Cross-Cultural Index for Measuring Progress toward Improved Sexual and Reproductive Health. *International Perspectives on Sexual and Reproductive Health*, **46**, 187-198. https://doi.org/10.1363/46e9920

[38] Zimmerman, L., Olson, H., Tsui, A. and Radloff, S. (2017) PMA2020: Rapid Turn-Around Survey Data to Monitor Family Planning Service and Practice in Ten Countries. *Studies in Family Planning*, **48**, 293-303. https://doi.org/10.1111/sifp.12031

[39] PMA2019/Burkina Faso Round 6 Indicators|PMA Data (2019).

[40] Zan, L.M. and Rossier, C. (2023) Cognitive and Psychosocial Accessibility to Modern Contraception: Subscales Validation. *Health*, **15**, 746-757. https://doi.org/10.4236/health.2023.157047

[41] Zan, L.M. and Rossier, C. (2024) Psychosocial Dimensions of Access and Their Association with Contraceptive Use and Intention to Use. *BMC Women's Health*, **24**, Article No. 2. https://doi.org/10.1186/s12905-023-02841-y

[42] Zan, L.M., Onadja, Y., Guiella, G., Bazié, F. and Silga, D. (2023) L'agentivité en matière de planificationfamiliale et demande contraceptive au Burkina Faso. *Revue LES TISONS*, **2**, 121-146.

[43] Campbell, M., Sahin-Hodoglugil, N.N. and Potts, M. (2006) Barriers to Fertility Regulation: A Review of the Literature. *Studies in Family Planning*, **37**, 87-98. https://doi.org/10.1111/j.1728-4465.2006.00088.x

[44] Rossier, C. and Corker, J. (2017) Contemporary Use of Traditional Contraception in Sub-Saharan Africa. *Population and Development Review*, **43**, 192-215. https://doi.org/10.1111/padr.12008