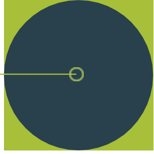


January 2023

Reproductive Empowerment Scale

To strengthen the measurement of reproductive empowerment among women in sub-Saharan Africa, Data for Impact—funded by the United States Agency for International Development—developed and validated a multidimensional scale that can be incorporated into survey instruments. The Reproductive Empowerment Scale consists of five short subscales that measure women's: (1) communication with healthcare providers, (2) communication with partners, (3) reproductive health (RH) decision making, (4) social support for RH, and (5) social norms related to women's RH and fertility.

Development of the Scale

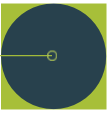
We developed the Reproductive Empowerment Scale through a literature review and focus group discussions. The literature review identified documented domains, subdomains, and related measures of reproductive empowerment, with a focus on family planning and reproductive health outcomes. The review included both standalone measures and subscales or survey items within broader measures. The Scale was also informed by 14 focus group discussions—10 with women and four with men with a total of 109 participants in Zambia. The groups explored the meanings of the identified domains and subdomains and explored new domains that did not emerge from the literature. The findings from the literature review and focus group discussions were used to develop an initial draft Scale that included 44 survey items across five domains: communication and decision making, partner communication, social support, social norms around RH, and critical consciousness.

Photo credit: Images of Empowerment

Validation of the Scale

Cognitive Interviews

We tested and refined the draft Scale through cognitive interviews with 72 women ages 15–49 in two geographic areas—Machakos (rural) and Nairobi (urban)—in Kenya. Respondents were identified through universities, churches, markets, beauty parlors, and other common meeting places. The interviews, which were conducted in English and Swahili, were designed to understand how women interpreted the meaning of each survey item, focusing on both the item as a whole and specific phrases and words used in each item. Based on an iterative process of analyzing the results from the cognitive interviews and revisiting the literature on RH and empowerment measures, we adjusted the draft Scale to include a new domain



on healthcare provider communication. We also altered the wording of many items to improve clarity or to more closely measure the intended domain. The resulting prototypical Scale included 29 items that measured six domains: healthcare provider communication, partner communication, decision making, social support, social norms, and critical consciousness.

Psychometric Validation

We tested the prototypical Scale by embedding it into the Masculinity, Faith, and Peace Intervention evaluation[1] led by the Institute of Reproductive Health, Georgetown University. The evaluation collected data at two time points (baseline and endline) from a panel of women ages 18–35 years who were part of 20 religious congregations (10 churches and 10 mosques) in Nigeria. We used confirmatory factor analysis at baseline and examined internal reliability of the Scale and subscales to further refine and finalize the Scale. We repeated the confirmatory factor analysis and examination of internal reliability at endline and found the Scale to have acceptable reliability across both rounds (see Tables 1 & 2). We also used a series of logistic regressions, first at baseline and then with the panel data, to assess the extent to which the Scale was associated with key family planning and reproductive health outcomes. We found that as reproductive empowerment increased over time, women were more likely to do something to prevent pregnancy; more likely to use a modern method of contraception; and, among those not using a modern method, more likely to report that they would use a modern method in the future (see Figure 1).

Table 1. Fit statistics from confirmatory factor analysis at baseline and endline

Fit Statistics	Cutoff for good fit[2]	Baseline	Endline
Model Chi-Square, p-value	>.05	<.0001	<.0001
Root Mean Square Error of Approximation (RMSEA)	<.08	.0608	.0790
Bentler Comparative Fit Index	≥.90	.9014	.918
Standardized Root Mean Square Residual (SRMR)	<.09	.0816	.092

[1] Institute for Reproductive Health. 2021. Project Results from Masculinities, Faith, and Peace in Nigeria. Available at: https://www.irh.org/resource-library/mfp-project-results/

[2] Cornell University Cornell Statistical Consulting Unit. Fit Statistics commonly reported for CFA and SEM. Available at: https://www.hrstud.unizg.hr/_download/repository/SEM_fit.pdf

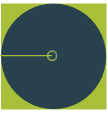
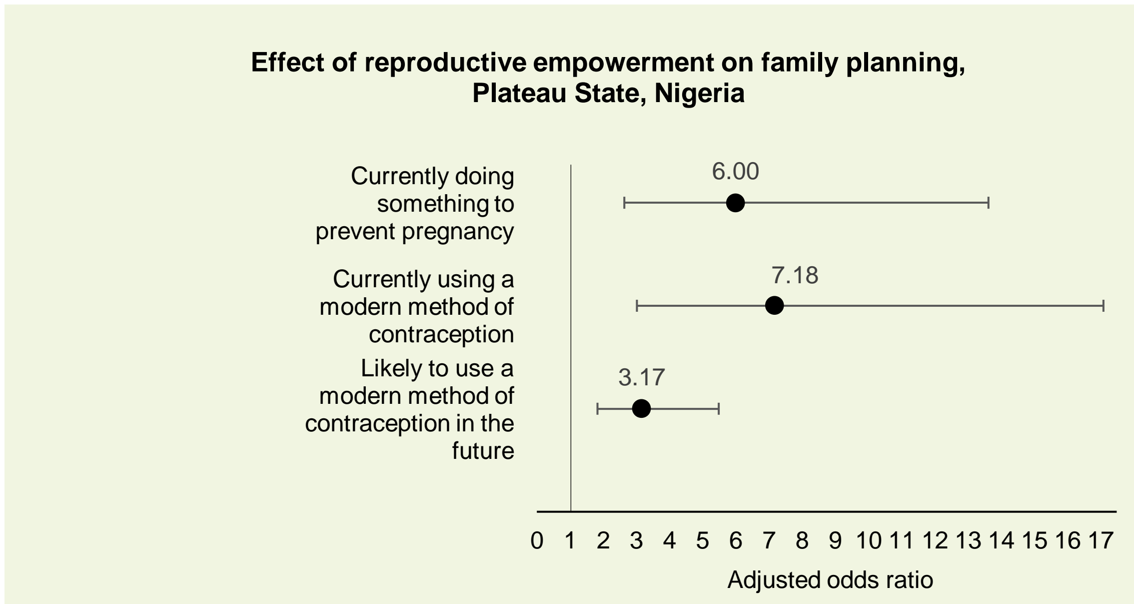
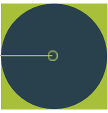


Table 2. Reliability of Reproductive Empowerment Scale and subscales

	Cronbach's Alpha at baseline	Cronbach's Alpha at endline
Full Reproductive Empowerment Scale	.87	.87
Health care provider communication subscale	.92	.95
Partner communication subscale	.74	.84
Decision making subscale	.51	.53
Social support subscale	.77	.79
Social norms subscale	.65	.75

Figure 1. Results of multivariate logistic regression models with random effects





Final Reproductive Empowerment Scale

RH Health Care Provider Communication

For each statement, please state if you "strongly agree," "agree," "disagree," or "strongly disagree."

1. You and your health care provider talk about using contraception.
2. You can initiate conversations about using contraception with your health care providers.
3. You can ask your health care provider questions about using contraception.
4. You can share your opinions about using contraception with your health care providers.
5. When discussing contraception with your health care provider, s/he pays attention to what you have to say

RH Partner Communication

For each statement, please state if you "strongly agree," "agree," "disagree," or "strongly disagree."

6. You can initiate conversations about using contraception with your partner.
7. You can share your opinions about using contraception with your partner.
8. You can share your opinions about how many children you want to have with your partner
9. You can tell your partner that you don't feel like having sex without him getting angry, violent, or threatening to leave.
10. When having conversations about sex and sexual reproductive health with your partner, he pays attention to what you have to say.

RH Decision Making

For each statement, please state if you "strongly agree," "agree," "disagree," or "strongly disagree."

11. You can use contraception even if your partner doesn't want you to.
12. You can refuse sex with your partner if you don't want to have sex.

Please answer with one of the following options: "Myself," "My partner," "My partner and myself jointly," "My parents," "My partner's parents," "Another family member," "Healthcare provider," "Other (specify)," or "Don't know"

13. Who makes the final decision about whether or not you use contraception?
14. Who do you want to make the final decision about whether or not you use contraception?

RH Social Support

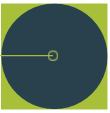
For each statement, please state if you "strongly agree," "agree," "disagree," or "strongly disagree."

15. If your partner did not want you to use contraception, you have a friend or family member who could help you convince your partner that you should use contraception.
16. If your partner did not want you to use contraception, you could go to people in your community who know about contraception and could help you convince your partner that you should use contraception.
17. If your partner did not want you to use contraception, you have friends or family who would support you getting contraception anyway.

RH Social Norms

For each statement, please state if you "strongly agree," "agree," "disagree," or "strongly disagree."

18. Friends or family members you are close to can decide when they want to use contraception.
19. Friends or family members you are close to use contraception even when their partner does not want them to.
20. Friends or family members you are close to think you should be able to decide when to use contraception.



Scoring the Reproductive Empowerment Scale

Most items in the Reproductive Empowerment Scale have four-level Likert response options (strongly disagree, disagree, agree, and strongly agree). We recommend that the Scale, and/or each subscale, be scored by summing the coded responses to each scale item (whole numbers from one to four) and then dividing the total score by the number of items in the subscale(s). To ensure that all higher scored items represent greater empowerment, the following scoring rubric should be used for all items except item numbers 13 and 14: 1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree.

The scoring of item numbers 13 and 14 depends on the culture and context where the Scale will be implemented. In contexts where joint decision making is considered most empowering and decision making by nonpartners is considered least empowering, one option for scoring is: 4=My partner and myself jointly, 3=Myself, 2=My partner, 1=All other options.

Limitations

Quantitative scales cannot fully measure the level of empowerment women may experience from communicating with service providers and partners about RH, decision making about RH, and social support and social norms. The quality and nuances of these processes and concepts, respectively, are not comprehensively captured by quantitative measures. Additionally, gender norms and dynamics are contextually specific, in both time and place. When possible, this Scale should be used in conjunction with qualitative data to provide meaning and context to the scores.

For more information

D4I supports countries to realize the power of data as actionable evidence that can improve programs, policies, and—ultimately—health outcomes. We strengthen the technical and organizational capacity of local partners to collect, analyze, and use data to support their sustainable development. For more information, visit https://www.data4impactproject.org/

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