Providers' Information Exchange with Clients in India, Peru, and Rwanda

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Abstract

This study tested at seven locations in India, Peru, and Rwanda whether a standard pattern of information exchange with clients suggested by the literature prevails in family planning counseling worldwide. Simulated clients who supposedly needed tubal ligation or the pill in India and the pill or the DMPA injectable in Peru and Rwanda requested services from Ministry of Health clinics. As expected, at each location, the providers addressed more needs assessment topics, method option items, or use instructions than contraindications of the chosen method, action mechanisms/advantages/disadvantages, side effects/warning signs, or follow-up instructions. Also as expected, the providers' overall achievements were not even midway from the full information exchange with clients required by the Bruce quality of care model. The specific information exchanged by a majority of providers was identified. Several explanations of the limited information exchanged, including barriers to access, are discussed and solutions to each problem are proposed.

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Fifteen years ago, Bruce (1990) presented a theoretical framework that has since guided much of the family planning programmatic plans and research in regard to the quality of care. The information-given-to-clients component was defined as "the information imparted during service contact that enables clients to choose and employ contraception with satisfaction and technical competence. It includes: information about the range of methods available, their scientifically documented contraindications, advantages, and disadvantages; screening out unsafe choices for the specific client and providing details on how to use the method *selected*, its possible impacts on sexual practice, and its potential side effects; and finally, an often neglected element, explicit information about what clients can expect from service providers regarding sustained advice, support, supply, and referral to other methods and related services, if needed." (p. 64). This concept has been expanded to encompass all the counseling information exchanged with the client on these topics (Kumar, Jain, and Bruce, 1989). That is, asking is now included along with telling.

Information exchange with clients is a key aspect of the quality of care. The client may experience method failure if she has not been rigorously taught how to use her method. She may discontinue family planning use if she is not prepared to manage the method's side effects. Or her health may suffer if the provider does not screen her for contraindications to the use of her chosen method or does not provide information about warning signs. A recent literature review (RamaRao and Mohanam, 2003) and a conference on the subject (Population Council and USAID, 2004) showed that interventions designed to enhance information exchange can improve outcomes for clients, though not all do.

What do we know about the status of providers' information exchange with clients worldwide? The literature offers two sets of findings differentiated by the focus of the observations. There are studies in which the observations pertain to wide behavioral categories (e.g., "Provider tells the client how to use the method"). According to a situation analysis study in Nairobi in which direct observers accompanied providers and clients during the consultation, close to 90 percent of the providers instructed clients on how to use the chosen method (Mensch et al., 1994). In Morocco, 90 percent of the providers gave clear explanations to clients according to observations provided by simulated clients (Brown et al., 1995). In Ecuador, Uganda, and Zimbabwe, a study using direct observers of the consultations reported percentages from 70 through 100 concerning information given to the client on method use and side effects (Bessinger and Bertrand, 2001) In a study in five Latin American and Caribbean countries it was found that 10.5 percent of the clients interviewed thought that the use of the method(s) was not clearly explained to them (Williams, Schutt-Ainé, and Cuca, 2000). On the other hand, situation analysis studies conducted in 12 African countries indicated that the percentage of clients who were provided information on how to use their method and its possible side effects varied from minimal levels in Tanzania (5%) and Burkina Faso (22%) to moderately high levels in Kenya (64%) and Botswana (68%; Miller et al., 1998).

The findings entailing wide behavioral categories may lead to practical decisions. For example, reporting that 71 percent of the providers give information on side effects implies that 29 percent fail to do it and may be in need of retraining. However, this result would still be somewhat ambiguous as feedback to program administrators and trainers. It could imply that 71 percent of the providers inform the client about one side effect of the

use of the method or any other number of side effects and does not provide clues regarding which specific side effects are frequently addressed in the consultations.

More specific behavioral categories (e.g., "Provider told client to take one pill daily at the same time each day") have been used by another group of studies. An analysis of audiotapes of counseling sessions in Kenya showed that a majority of providers addressed four topics relevant to client needs assessment but gave only two use instructions to pill users; side effects were addressed by a small minority of providers; and virtually no provider mentioned warning signs (Kim, Kols, and Mucheke, 1998). The other studies relied on a technique known as the *Service Test*. In Ecuador, simulated clients trained to enact a client script according to which they had recently started using the pill and suffered headaches requested family planning services at 25 hospitals and 74 clinics. 47 percent of the providers did not tell the clients that this could be a side effect of the pill and 61 percent did not tell them that the headaches could disappear soon (León et al., 1998). In Peru, simulated clients were trained to choose depot medroxy progesterone acetate (DMPA, or Depo Provera) in a study in which 19 clinics were visited by six different simulated clients. The results revealed that the providers invested most of the consultation time in client needs assessment and offering diverse method options; consequently, the client obtained little information about the method she chose (León et al., 2001). These results were replicated in an ampler study that encompassed 24 administrative regions of the Peru Ministry of Health in which the simulated clients chose the pill and filled out a checklist that included nine observational items per behavioral area. The providers showed the expected behaviors in the areas of needs assessment (4.94 items on average), offer of method options (4.24), and giving use instructions of the

chosen method (3.12) to a greater extent than screening the client for contraindications to the use of the chosen method (1.47), giving her information on its action mechanisms/advantages (.79), giving information on its side effects/warning signs (1.57), or giving follow-up instructions (1.58; León, Ríos, and Zumarán, 2005, Table 1). Thus, the providers' achievements were not even midway from the full information exchange with clients required by the Bruce quality of care model and the clients could not be expected to employ contraception with technical competence on this basis.

The goal of the study reported here was to broaden the diagnosis of the providers' information exchange with clients. The study sought to establish whether the pattern of *Service Test* findings observed in Peru prevails worldwide. To this end, the *Test* is applied in India and Rwanda besides Peru and the following hypotheses are tested.

- Hypothesis 1. Providers will address more than three items pertaining to each: needs assessment, method options offered, and use instructions concerning the chosen method.
- Hypothesis 2. Providers will address less than two items pertaining to each: contraindications of the chosen method, action mechanisms/advantages/ disadvantages, side effects/warning signs, and follow-up instructions.
- Hypothesis 3: Overall, providers will emit less than half of the expected information-exchange behaviors, i.e., less than 50 percent of the number of items included in the *Service Test*'s checklists.

Additionally, the study sought to identify the specific information that is exchanged by a majority of providers during the counseling sessions. We expected providers to center their attention on the essential information.

Method

Research Sites

The study encompassed considerable cultural diversity and a wide range of modern contraceptive prevalence. Ministry of Health providers were the subjects.

The site selected in India was the state of Jharkand, in which a rural population prevails (80%), poverty is endemic, and 25 percent of married women in reproductive age and in union use a modern method of contraception (International Institute for Population Sciences and ORC Macro, 2001). Within Jharkand, the Ranchi district was selected, and within it, three blocks: Burmu, Kanke, and Ormanjhi. The research sites in Peru were the provinces of Jaén in the Cajamarca department (58% urban) and Moyobamba in the San Martín department (64% urban). Modern contraceptive prevalence in Cajamarca is 41.1 and in San Martín, 57.5 (Peru INEI, 2001). The sites in Rwanda were the poverty-ridden provinces of Byumba (91% rural) and Kibungo (87% rural), wherein the prevalence of use of modern methods only is 3.3 and 5.3, respectively (Rwanda NCS, 2003).

Contraceptive Update

As part of a more encompassing research project dealing with the introduction of the Standard Days Method,[1] the providers participated in a contraceptive update workshop two to five weeks before data were collected to establish a baseline. The training addressed action mechanisms, use instructions, contraindications, side effects, and warning signs of the methods included in the family planning programs of each country. These included natural methods, condom, combined oral contraceptives (pill), IUD, and sterilization in India; these plus DMPA in Peru; and these plus implants and emergency

contraception in Rwanda. The Standard Days Method was not addressed. The workshops were structured around the standard learning objectives prevailing in each country. It lasted two days in Peru and India. In Rwanda it included five days in a classroom setting and four additional days of supervised field practice. During the field practice the participants conducted a family planning talk at an actual clinic, counseled new clients, offered the selected method, filled in service registers, and counseled returning clients, all with a mentor present. At the end of training the trainees of the three countries were asked their consent to receive visits by simulated clients.

Service Test **Tool**

The *Service Test* consists of a client script that depicts a contraceptive history, conjugal circumstances, method preferences, etc.; a trained simulated client who enacts the script as she requests services and responds to questions from a provider who believes s/he is attending a real client, and an observation checklist in a Yes-No format that the simulated client completes upon exiting the clinic. Item responses pertaining to the expected provider behaviors are scored 1 (observed) or 0 (not observed) and the item scores are summated to generate indicator scores.

The following script entailing choice of the pill was used in the three countries: "New in town. Wife of a small trader. 25 years-old, two children (3 and 2 years-old). Not breastfeeding. Mutually faithful relationship. No family violence. Healthy. Wishes children in the future. Used condom (husband disliked using it every time). Currently using condom inconsistently (not always and inadequately). Wants to change condom. Knows little or nothing about other methods. Does not trust natural family planning. Afraid of inserting anything into uterus. Would not want to be injected (fear of needles).

Will choose pill if given the option. On day 4 of her menstrual cycle. Will reject pelvic exam (ashamed). When the provider describes the pill, will ask 'How long can I use this method?' and notice whether the provider responds."

The checklist entailing information exchange that was used with this script contained 64 items encompassing expected provider behaviors and tapped seven areas: needs assessment (e.g., The provider asked whether I could be pregnant [menstruation]), relevant method options offered (e.g., Told me that the IUD is a copper device inserted into the uterus), information exchanged on contraindications to pill use (e.g., Asked whether I had heart disease), use instructions (e.g., Told me that I should continue with a new package of pills immediately after one is finished), mechanisms/advantages/ disadvantages (e.g., Told me that the pill helps regulate menstruation), side effects/ warning signs (e.g., Told me that I could experience nausea or feel dizzy), and follow up indications (e.g., Told me to return if I have any doubt or problem).. Nine items were used per topic with the exception of follow-up, that had 10 items.

The leading modern methods are the pill in Rwanda, DMPA in Peru, and female sterilization (tubal ligation) in India. A second client script entailing the choice of DMPA was used in Peru and Rwanda. An important difference with respect to the pill script pertained to the client's menstrual status. Whereas the pill script indicated the 4th day of the cycle, the DMPA script indicated the 20th day. The client had abandoned the pill because she did not trust her memory to take it every day and was using condoms inconsistently. The respective checklist collapsed use instructions and follow-up into a single category; that is, only six behavioral domains were considered.

A third client script entailing the choice of tubal ligation was implemented in

India. The script depicted an older woman on the fourth day of menstruation and the checklist encompassed six dimensions. She had abandoned the use of the pill because she did not tolerate the headaches and was using condoms inconsistently. In this case, the question that the simulated client was instructed to ask was "How long can I think it about it (the sterilization) before I make the decision?". The individual items used in the checklists appear in Table A-1 in the Appendix.

Variations between checklists occurred in all of the dimensions. These were minimal or inexistent for needs assessment and maximal in other areas. For example, use instructions for using the pill are not the same as those for tubal ligation. In the three checklists, the items were formulated considering the World Health Organization's guidelines (WHO, 2004a and 2004b). Hindi was used in India, Spanish in Peru, and French in Rwanda.

Recruitment and Training of Simulated Clients

To assure adequate cognitive abilities in data collectors, we recruited personnel with high school education and pre-selected a group on the basis of interviews and psychological tests. In Peru, all of the simulated clients were recruited locally (in Moyobamba and Jaén) and most were university students. They had the same ethnic appearance as most clients of the health services and went to the field dressed in the manner of the typical client. The Rwandan clients were recruited in the capital city of Kigali and mostly were nurses, i.e., of a social standing similar to the average client of the clinics of Byumba and Kibungo. They were not working for the Ministry of Health. In India, village health workers identified women of the Ranchi district from the same socioeconomic status as typical government service clients who could convincingly play the client scripts in Burmu,

Kanke, and Ormanjhi.

Training of simulated clients lasted five days. The first three days were dedicated to introductory presentations and role-playing exercises in the classroom using the client scripts and checklists. Each candidate was trained on only one script/checklist. The simulated clients were to approach the clinics asking for family planning services; they were instructed to avoid volunteering information and just respond to the provider's questions. The role-playing exercises followed a planned pattern. Written instructions to trainers who played the role of providers specified various levels of information exchange, and each candidate to client conducted role plays at each level and received feedback. The exercises were repeated until the simulated clients showed no errors filling out the *Service Test* checklists. The other two days were dedicated to realistic practices in the field; i.e., supervised visits to facilities. At the end of training, the highest ranked candidates were selected.

Data Collection

Data collection was conducted in October-December 2004. Three simulated clients were selected in India (one per block), two in Peru (one per province), and two in Rwanda (one per province to be visited) to enact the pill script. Similar numbers were involved in the implementation of the DMPA and sterilization scripts. Two or three supervised two-person teams (one simulated client per script) operated in each province or block. Each Peruvian and Rwandan clinic received the successive visit of a pill client and a DMPA client in random order. In India, the clinics received the visit of a pill client and a sterilization client.

The simulated clients visited whichever person provided family planning services

at each facility. (Following-up with individual providers would have been obtrusive.) Observational bias was controlled within each Peruvian and Rwandan province by having one of the teams first visit half the facilities in the province and then cross to the other province to visit those that had not been covered by the parallel team. A similar pattern was employed in India. In urban areas, the simulated clients found their way to the assigned clinic under the supervision of a monitor who stayed close to the facility. In rural settings, the simulated clients had to be dropped off far from the clinic and in some cases walk several kilometers in order to avoid detection. Nonetheless, comments from Peruvian providers suggested that a few simulated clients were discovered in rural areas.

In most cases, the clinic had only one provider that received the two visits. In a number of instances, the simulated clients encountered clinics that could not attend them: the provider was absent because he/she was visiting communities as part of a health campaign or because of personal or other reasons. In these cases, the simulated client returned to the clinic on a different day. In India, some simulated clients did not receive services because the provider offered no family planning methods; in these cases the *Service Test* was not considered in the analyses. In Peru and Rwanda, most providers refused to provide DMPA to the client and asked her to return at the onset of her menses. In these cases, a consultation took place and the simulated clients completed the *Test*.

Results

Pill Script/Checklist

Hypothesis 1 stated that providers would address more than three items pertaining to each: needs assessment, method options offered, and use instructions concerning the

--- Insert Table 1 about here ---

chosen method. Table 1 presents the average summated score for each information exchange dimension based on the pill script/checklist. The mean over locations was consistent with the three predictions. However, a more rigorous test requires that the criterion be met in each location to attain statistical significance according to the binomial test (Siegel, 1956). The predictions concerning needs assessment and method options were met ($p < .01$, one-tailed, $n = 7$, each) but the prediction regarding use instructions had one exception and only approached significance ($p < .07$, one-tailed, $n = 7$).

Hypothesis 2 predicted less than two items addressed by the providers for each: contraindications screening, action mechanisms/advantages/disadvantages, side effects/warning signs, and follow-up. The mean over locations was consistent with the hypothesis only in the case of action mechanisms/advantages/disadvantages and side effects/warning signs. In the more rigorous test, all areas presented exceptions: contraindications, three ($p < .50$, one-tailed, $n = 7$); action mechanisms/advantages/ disadvantages, three ($p < .50$, one-tailed, $n = 7$); side effects/warning signs, three ($p < .50$, one-tailed, $n = 7$); and follow-up, six ($p = .99$, one-tailed, $n = 7$). That is, the results were better than those anticipated on the basis of the León, Ríos, and Zumarán (2005) findings.

A more integral testing of hypotheses 1 and 2 entails the pattern of findings. That is, it considers whether the average for the first set of items is greater than the average for the second set. This prediction was met in the seven locations, a significant finding according to the sign test (Siegel, 1956; $p < .01$, one-tailed, $n = 7$).

Hypothesis 3 stated that less than half of the expected behaviors would be emitted by the providers. The rightmost column of Table 1 shows that a total of 20.89 items were

exchanged on average, which represents one third of the items in the checklist. Less than 32 were exchanged at each location ($p < .01$, one-tailed, $n = 7$).

--- Insert Table 2 about here ---

Table 2 presents the proportion of occurrence or average of the expected provider behaviors for the items that prevailed in a majority of cases at least in two countries. Out of the 64 items in the checklist, 17 met this criterion, none involving contraindications, action mechanisms/advantages/disadvantages, or side effects/warning signs. Only eight items were addressed by a majority of providers in the three countries. Important country differences are shown. In contrast with Peru and Rwanda, virtually no Indian provider asked the client whether she had a method in mind, talked to her about DMPA, or screened her for hypertension, and at least 39 percent of the visits ended with the client not receiving the pill.

DMPA and Sterilization Scripts/Checklists

Table 3 contains results pertaining to the sterilization checklist in India and the DMPA checklist in Peru and Rwanda. The sterilization checklist did not have a section on side effects; one from surgery was encompassed among action mechanisms/advantages/ disadvantages. The DMPA checklist did not have a section on use instructions; it included one item on use instructions as part of follow-up. Hence, the testing of the hypothesis is less straightforward here than was the case of the pill script/checklist. Parentheses are used in the table for the results encompassing dimensions not addressed by the checklists.

The mean observed over locations was consistent with Hypothesis 1 (more than three items addressed for needs assessment, method options, and use instructions). However, only the first prediction was significantly supported over locations ($p < .01$,

one-tailed, $n = 7$). Method options only approached significance ($p < .07$, one-tailed, $n = 7$). The prediction regarding use instructions could not be tested due to the small number of cases ($n = 3$), though it already had one exception in Ormanjhi.

--- Insert Table 3 about here ---

With respect to Hypothesis 2, the means over locations for contraindications and action mechanisms/advantages/disadvantages were under two. In the testing over locations, exceptions were noticed in all cases: contraindications ($p = .07$, one-tailed, $n = 7$), action mechanisms/advantages/disadvantages ($p < .50$, one-tailed, $n = 7$), side effects/warning signs (no test), and follow-up ($p < .50$, one-tailed, $n = 7$). That is, the results were better than expected. On the other hand, the more integral testing of hypotheses 1 and 2 as a pattern of findings produced positive results. That is, the average for the first set of items was greater than the average for the second set of items at each location ($p < .01$, one-tailed, $n = 7$). Hypothesis 3, too, was supported: a total of 16.87 items were exchanged on average, which represented close to one third of the total number of items in the checklists. In each location the number of items addressed was under 26.5 or 27 ($p < .01$, one-tailed, $n = 7$).

--- Insert Table 4 about here ---

Table 4, concerned with the DMPA checklist, includes the items that achieved averages above .50 in Peru and Rwanda. Out of the 54 items in the checklist, only 10 met this criterion, none involving contraindications or action mechanisms/advantages/ disadvantages. Very few providers made preparations to inject the simulated clients. 81 percent in Peru and 62 percent in Rwanda told the client that she would have to wait until her next period to obtain her first injection. Others simply told her to return at the onset of

her menses. The reason was that the simulated clients' script indicated a woman that was in the 20th day of her cycle and, hence, pregnancy could not be discarded with certainty.

--- Insert Table 5 about here ---

Table 5, concerned with the sterilization checklist, includes the items that achieved averages above .50 in India. 16 of the 53 items in the checklist met this criterion. It can be noted that most providers did the essential things to assure a basic quality of care. They did not try to convince the client to choose a specific method and asked her if she was sure she did not want to have more children. A minority of providers, on the other hand, did the opposite.

Overall Effectiveness and Efficiency

A summary information exchange score was computed for each checklist over the full set of information exchange items. This score indicates the degree of provider effectiveness counseling a client. The effectiveness was significantly greater in Rwanda and Peru than in India in reference to the pill script but did not differ significantly between Peru and Rwanda, either on the basis of the pill or DMPA scripts (see Table 6). The management of the DMPA client was less effective than that of the pill client both in Rwanda ($t = 3.61$, $p <$ 001, two-tailed) and Peru ($t = 6.57$, $p < .001$, two-tailed), which can be attributed to the larger number of items in the pill ($i = 64$) than in the DMPA checklist ($i = 54$). Nonetheless, the average score per dimension was 3.58 for the pill script and 2.80 for the DMPA script, i.e., a greater number of pill items was addressed regardless of number of dimensions in the checklists.

--- Insert Table 6 about here ---

Session length varied from very short consultations in India through lengthy consultations in Rwanda. The information-exchange score, divided by the length of the counseling session in minutes, yields an efficiency index that expresses the number of information-exchange behaviors emitted per minute of consultation. Rwanda presented the poorest efficiency and India the greatest efficiency. The management of the DMPA client was less efficient than that of the pill client, both in Rwanda ($t = 2.36$, $p < .05$, two-tailed) and Peru ($t = 4.10$, $p < .001$, two-tailed).

Discussion

The empirical evidence generated in this study, confirming previous findings in the family planning literature (Kim, Kols, and Mucheke, 1998; León, Ríos, and Zumarán, 2005), indicated that providers working in India, Peru, and Rwanda address more than three needs assessment topics as well as more than three method options items, on average, while counseling clients instructed to choose the pill. The results concerning use instructions of the chosen method also suggested that more than three items are addressed by providers in this respect, though only approached statistical significance. Overall, the results concerning the DMPA and sterilization clients were only slightly less positive.

On the other hand, the findings of the study did not uphold the hypothesis that providers would address less than two items concerning contraindications of the chosen method, action mechanisms/advantages/disadvantages, side effects/warning signs, or follow-up indications. The results in these areas presented wide variations between locations. For example, providers in Kanke and Burmu addressed 0.17 and 0.22 contraindications to the use of the pill, respectively, in contrast with the 6.35

contraindications addressed in Byumba and 5.20 in Kibungo. The exceptionally high attention paid to the contraindications of the pill in Rwanda may have reflected an emphasis of the 9-day contraceptive update that was held in this country.

Nonetheless, the pattern of findings that emerged was similar to that previously found in Kenya (Kim, Kols, and Muchecke, 1998) and Peru (León, Ríos, and Zumarán, 2005): providers exchanged more information on needs assessment, method options, and use instructions of the chosen method, on average, than on contraindications of the chosen method, action mechanisms/advantages/disadvantages, side effects/warning signs, and follow-up instructions, on average. This pattern was found in each of the seven locations regardless of whether the providers received the visit of a simulated client that chose the pill in the three countries or DMPA in Peru and Rwanda and tubal ligation in India. This is a notable consistency given that the management of the DMPA and sterilization clients entailed a smaller number of items addressed than the pill client. Moreover, important national differences were transcended: the Indian providers counseled their clients using less than nine minutes per session whereas the Rwandan providers utilized more than 27 minutes regardless of script/checklist. Dense client populations for a variety of health services prevailed in the Indian clinics. The overcrowding of the clinics explains the shorter consultation times invested by the Indian providers per family planning client and the consequent more limited information exchanged with clients. To cope with the client overload, the Indian providers appear to have developed an ability to be more efficient in terms of number of information items exchanged per minute. Yet, the same pattern of information exchange was replicated in India and Rwanda. Thus, the findings suggest that the strengths and weaknesses of family

planning counseling are similar in different parts of the world despite the systematic country differences that were documented. Providers concentrate their attention in assessing the client's needs, offering them diverse method options, and providing use instructions for the chosen method. Other aspects of the chosen method receive significantly less attention.

The results were better than expected in that important empirical exceptions were found with respect to the hypothesis that the providers would address less than two contraindications of the chosen method, action mechanisms/advantages/disadvantages, side effects/warning signs, and follow-up indications. This can be interpreted as an expression of the success of the recent contraceptive update received by the providers. Despite the contraceptive update, however, the data were consistent with the third hypothesis of the study, that stated that providers would emit less than half of the expected information-exchange behaviors, i.e., less than 50 percent of the number of items included in the *Service Test* checklists. This hypothesis received empirical support over the seven locations regardless of script/checklist used, since only one third of the items were addressed on average, which leads to the question, Why do providers, in this and other studies, exchange limited information with clients? We outline below six explanatory hypotheses, along with their respective possible solutions.

1. One possibility is that providers do not have access to the technical information on contraception. This was not the case, however, in the present study because a contraceptive update was given to the providers before evaluating their quality of care.

2. Another possibility is that the providers do not have the time needed to invest in family planning counseling: improving quality of care demands additional investments in

session length (León, Ríos, and Zumarán, 2005; León et al., 2005). This may have been the case in India in this study, but was not the case of the Rwandan providers, who offered lengthy consultations. Yet, the Rwandan providers showed important shortcomings, too, as they gave information to clients. Hence, providers' decisions to invest limited time in the consultations could only in part explain the limited information exchanged. The solution of the time problem is a matter of program priorities and resources.

3. Another hypothesis posits that protocols which mandate a rigid counseling strategy are responsible for this type of results (León et al., 2001). Under this scenario, providers tend to dedicate most of the counseling time to two ends: assessing client needs to be able to fill out a medical history and offering a number of method options to assure adequate method choice. In this situation, the client is given as much information about the method she has chosen as about the other methods; consequently, limited information per method is conveyed. A solution to this problem is proposed by the Balanced Counseling Strategy, which reorganizes the consultation around a process of elimination of methods, freeing time to address the chosen method. "At the outset, needs assessment works as a process for discarding those methods that the client and the provider identify as inappropriate in her case (for example, sterilization, if the client wishes to have children later). In the choice phase, the provider describes only the relevant methods and conveys information that is essential for a preliminary choice. Then the provider and client focus on the chosen method." (León et al., 2005, pp. 117-118).

4. The provider may have difficulty remembering all the technical details concerning the various contraceptive methods that may be relevant to responding to the

needs of a heterogeneous clientele. Various counseling models recur to the use of job aids to solve this problem. The Balanced Counseling Strategy offers two sets of job aids purported to enhance providers' counseling skills and their feeling of self-efficacy. "One set includes … hand-sized cards, one for each method offered by the family planning program, which the provider displays on the table. When a method is identified as inappropriate for the client, the provider asks the client's consent to discard that card, telling her why the method would not be suitable. The provider reads the remaining cards aloud…, detailing four fundamental attributes per method, and asks her to make a choice. The second set of aids consists of pamphlets for the clients, one for each method, which incorporate the method's contraindications, instructions for use, side effects, alarm signs, and follow-up indications… Once the client makes a choice, the provider uses the corresponding pamphlet to evaluate contraindications and give her detailed information on the method she has chosen." (León et al., 2005, p. 118).

5. Providers and trainers may question whether it is reasonable to embark on an exhaustive information exchange with clients. *Any* client might have difficulty coping with the information overload and consequent confusion brought about in counseling if a provider delivered to her all the information-exchange items of any of the checklists used in this study. Therefore, the majority of providers participating in this study may have been on target by just exchanging the most important information with the client instead of following too literally Bruce's proposal of full information exchange. Yet, a policy of limiting information exchange with the client is not the only possible solution to the information overload problem. A better alternative is to abandon the goal of full information exchange *during counseling* and rely more on the Balanced Counseling

Strategy's pamphlet for the client. That is, recognize the implausibility of the client being able to code and store all the relevant technical information on the chosen method during the consultation and just give her the essential information, as the majority of providers of this study did. Then the client would take home the job aid and use it for consultation at relevant moments, on her own if she is literate or with the help of others if she is illiterate. In this manner, client information overload would be avoided and still full information exchange with her would be sought.

6. Finally, shortages of contraceptives at the facilities and other barriers to access may contribute to explaining the findings. Kahn et al. (1999) found in the Indian state of Uttar Pradesh that one third of the facilities lacked pills, and at least 39 percent of the Indian clinics in our study failed to deliver this method to the simulated clients that supposedly needed this method. Given the shortages, the providers may have found useless to seek full information exchange with clients on the pill. As for DMPA, the providers exchanged less information with simulated clients that sought this method than with pill clients, regardless of the number of items in the checklists. Both the Rwandan and Peruvian providers rigidly adhered to their national reproductive health guidelines as they dealt with the simulated clients who enacted the DMPA script, according to which they were on the 20th day of their menstrual cycle. Virtually all the providers denied the method to the client and asked her to return at the onset of her menses. Denial of hormonal methods to amenorrheic clients has been reported in Ghana, Kenya, Cameroon, Jamaica (Stanback et al., 1997), and Tanzania (Speizer et al., 2000). It has been noted that "some women may be so discouraged by such encounters that they abandon their plans to use contraceptives. Others may become pregnant while awaiting their menses…"

(Stanback et al., 1997, p. 245). Completing the counseling on DMPA, and on how to properly use the condom until the client's return of her menses, were the expected provider behaviors of the *Service Test*. Using a checklist to assess the risk of pregnancy and providing the method to clients with no risk would have been an even better solution, yet would have contradicted the national norms. Improvement of the logistics of contraceptive supply and changes in the national reproductive health guidelines are obvious solutions to these problems.

Notes

[1] This is a natural family planning method that makes intensive use of a visual aid (see Arévalo, Jennings, and Sinai, 2002).

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Table 1. Average summated score for each information exchange dimension, per location, *Service Test* pill script. India, Peru, and Rwanda, 2004

Location [a]	Information Exchange Dimensions and Combinations									
	Needs Assess-ment	Method Options Offered	Use Ins-tructions	Mean Over Three Dimen-sions	Contrain-dications	Action Mechan-isms/ Advan-tages/ Disad-vantages	Side Effects/ Warning Signs	Follow-Up	Mean Over Four Dimen-sions	Total Number of Items Ad-dressed
Burmu (n = 18)	3.94	3.22	3.72	3.63	0.22	2.17	1.39	2.78	1.64	17.45
Kanke (n = 29)	3.93	3.24	3.45	3.54	0.17	1.86	0.90	2.48	1.35	16.02
Ormanjhi (n = 23)	3.87	3.10	3.35	3.44	0.27	1.78	0.76	1.78	1.15	14.92
Jaén (n = 32)	4.63	4.78	3.84	4.42	1.72	1.97	2.37	2.34	2.10	21.66
Moyobamba (n = 30)	4.57	4.57	4.10	4.41	2.37	3.00	2.77	3.73	2.97	25.11
Byumba (n = 20)	6.35	5.45	3.10	4.97	6.35	2.30	2.85	2.55	3.51	28.95
Kibungo (n = 20)	6.05	3.55	2.60	4.07	5.20	0.70	1.60	2.35	2.46	22.05
Mean over locations [b]	4.76	3.99	3.45	4.07	2.33	1.98	1.81	2.57	2.17	20.89

[a] n is the number of visits made by the simulated clients.
[b] Ignores differences in sample size.

Table 2. Averages for *Service Test* items associated with the pill script that achieved more than .50 at least in two countries, per country. India, Peru, and Rwanda, 2004

Emitted in majority of visits in the three countries	Item	Item Average		
		India (N = 70)	Peru (N = 62)	Rwanda (N = 40)
Needs Assessment				
*	The provider asked whether I had children	.84	.84	.95
	The age of the last child	.63	.34	.92
	If I wanted to have more children	.56	.22	.85
	If I was using a contraceptive method	.40	.91	.88
	If I had a specific method in mind	.03	.62	.67
*	Whether I could be pregnant/menstruation	.63	.91	.97
Method Options				
*	Told me that the pill is effective if taken every day	.80	.94	.55
	That the injectable is effective if injected every 3 months.	.06	.84	.78
*	Asked me to choose a method	.69	.94	.95
*	Did not try to convince me to choose a specific method**	.71	.91	.90
Contraindications				
	Asked about my blood pressure or measured it (or someone else did)	.03	.63	.65
Use Instructions				
	Told me to initiate use of the pill on days 1-5 of menstruation	.69	.56	.30
*	That I would need to take the pill every day	.80	.94	.83
	That taking the pill at a fixed hour is preferred	.47	.84	.75
*	To start a new package the day after finishing the previous one	.66	.75	.73
	To take one white pill as soon as I remember if I forget one	.54	.72	.15
Follow-Up				
*	The provider gave me pills or told me that the clinic was out of pills and told me where to get them	.61	.81	.95

**Opposite wording in original checklist, recoded.

Table 3. Average summated score for each information exchange dimension, per location, *Service Test* sterilization and DMPA scripts/checklists. India, Peru, and Rwanda, 2004

Location [a]	Information Exchange Dimensions and Combinations									
	Needs Assess-ment	Method Options Offered	Use Ins-tructions	Mean Over Three or Two Dimen-sions	Contrain-dications	Action Mechan-isms/ Advan-tages/ Disad-vantages	Side Effects/ Warning Signs	Follow-Up	Mean Over Three or Four Dimen-sions	Total Number of Items Ad-dressed
Burmu (n = 18) [b]	4.81	3.12	3.78	3.90	0.89	2.94	-	1.22	(1.68)	16.76
Kanke (n = 28) [b]	4.57	2.79	3.68	3.68	1.07	3.43	-	1.71	(2.07)	17.25
Ormanjhi (n = 23) [b]	4.87	3.09	2.91	3.62	1.00	3.52	-	1.83	(2.12)	17.22
Jaén (n = 32) [c]	4.81	3.47	-	(4.14)	0.97	0.56	3.16	2.78	1.87	15.75
Moyobamba (n = 30) [c]	4.20	3.07	-	(3.63)	0.97	1.10	2.73	3.17	2.00	15.23
Byumba (n = 20) [c]	5.15	5.25	-	(5.20)	4.65	1.40	3.50	3.40	3.24	23.35
Kibungo (n = 20) [c]	4.30	3.05	-	(3.67)	1.25	0.55	1.70	1.70	1.30	12.55
Mean over locations [d]	4.67	3.41	(3.46)	(3.98)	1.54	1.93	(2.77)	2.72	(2.04)	16.87

Note. Parentheses are used for the results encompassing dimensions not addressed by the checklists.

[a] n is the number of visits made by simulated clients.

[b] Sterilization script/checklist.

[c] DMPA script/checklist.

[d] Ignores differences in sample size.

Table 4. Average for *Service Test* items associated with the DMPA script that achieved more than .50 in the two countries, per country. Peru and Rwanda, 2004

Items	Item Average	
	Peru (N = 62)	Rwanda (N = 40)
Needs Assessment		
The provider asked whether I had children	.71	.72
Asked if I was using a contraceptive method	.89	.70
About methods used in the past	.79	.58
If I already had a specific method in mind	.52	.60
Whether I could be pregnant (menstruation, others)	.92	.88
Method Options		
Told me that the injectable is effective if injected every 3 months.	.71	.85
Asked me to choose a method	.73	.67
Did not try to convince me to choose a specific method*	.73	.80
Side Effects		
Told me that I could have total or partial absence of menstruation	.65	.53
Follow-Up		
That I had to wait until my next period to get my first injection	.81	.62

Table 5. Average for *Service Test* items associated with the sterilization script that achieved more than .50. India, 2004.

Item	Item Average (N = 69)
Needs Assessment	
The provider asked how many children I had	.93
If I wanted to have more children	.83
If I was using a contraceptive method	.55
About methods I used in the past	.62
Whether I could be pregnant (menstruation, others)	.64
Method Options	
Told me hat the IUD prevents pregnancy for up to 10 years	.57
That tubal ligation is a small surgical intervention for women	.58
Did not try to convince me to choose a specific method*	.61
Contraindications	
Asked me if I was sure I did not want to have more children	.84
Action Mechanisms/Advantages/Disadvantages	
Explained that I would never be able to have children	.61
That the operation might have some risks	.54
That the operation would take place at a hospital or primary health center	.90
Use Instructions	
Told me what hospital or primary health center I should go to	.84
Gave a referral to the hospital or primary health center	.62
Told me that I would have to take it easy for a few days after the operations	.64
Follow-Up	
That I would have to avoid strenuous exercise for a few days after the operation	.61

* Opposite wording in original checklist, recoded.

Table 6. Average information-exchange score, session length in minutes (m) and seconds (s), and efficiency index, per country and client script/checklist

Country and Script/Checklist	Information Exchange	Session Length	Efficiency Index
India/Pill (*n* = 70)	16.48	8m38s	1.91
Peru/Pill (*n* = 62)	23.32	17m14s	1.35
Rwanda/Pill (*n* = 40)	25.50	28m33s	0.89
Peru/DMPA (*n* = 62)	15.50	16m28s	0.94
Rwanda/DMPA (*n* = 40)	18.25	27m22s	0.67
India/Sterilization (*n* = 69)	17.11	8m38s	1.98

Appendix

Table A1. *Service Test* items used in the pill, DMPA, and sterilization checklists

Pill	DMPA	Sterilization
	Needs Assessment	
Asked whether I had children, The age of the last child, If I wanted to have more children, If I was using a contraceptive method, About methods used in the past, Why I wanted to stop using the condom, If I had a specific method in mind, Whether I could be pregnant/ menstruation, Whether husband cooperated in family planning	*Same as in pill checklist*	*Same as in pill and DMPA checklists, except that* Asked the age of the last child *is excluded and* If my husband wanted to have more children *is included*
	Method Options	
Told me that the pill is effective if taken every day, That the IUD is a copper device inserted in uterus, That the IUD prevents pregnancy for up to 10 years, That the injectable is effective if injected every 3 months, That the injectable may alter menstruation, That the SDM* requires abstaining or using condoms in days 8-19, That SDM* users rely on a visual aid to identify the fertile days, Asked me to choose a method, Tried to convince me to choose a specific method	*Same as in pill checklist except that* Told me that the pill is effective if taken every day *is excluded and* Told me that the condom is the only method that prevents STIs *is included*	Told me that the IUD prevents pregnancy for up to 10 years, That the injection is taken every three months, That the SDM* requires abstinence or condom use on fertile days, That vasectomy is a small surgical intervention for men, That tubal ligation is a small surgical intervention for women, That vasectomy and tubal ligation are permanent methods, That the condom is the only method that prevents STIs, Asked me to choose a method, Tried to convince me to choose a specific method
	Contraindications	

Asked if I had severe headaches with blurred vision, If I had ever had liver disease (or yellow skin, eyes), If I take medicines for convulsions or tuberculosis, If I have diabetes/20 years or with damage to vision or kidneys, If I smoke more than 15 cigarettes per day, About my blood pressure or measured it (or someone else did it), If I had heart disease, About breast cancer/breast lumps, About venous thrombosis or family history of it	Asked if I had observed vaginal bleeding other than menstruation, If I had or have had in the past liver disease (or yellow skin, eyes), If I had heart disease, If I had hypertension, If I had ever had a stroke, If I had deep thrombosis of the leg, If I had migraines, If I had diabetes for 20 years or with damage to vision or kidneys, If I had or had ever had breast cancer	Asked if I was sure I did not want to have more children, Whether I had a stable relationship with my husband, If I had a vaginal infection, If I had had any genital cancer, If I had had a stroke, If I had symptoms of heart disease, If I had coagulation problems, If I had inflammatory pelvic infection, If I had diabetes
Action Mechanisms/Advantages/Disadvantages		
Provider explained how the method functions, Said that the method does not interfere with intercourse, That some persons forget to take the pill every day, That the pill helps regulate menstruation, That the pill reduces menstrual cramps, That the pill prevents pelvic inflammation, That the method may reduce anemia, That the method does not cause cancer, That the condom is the only method that prevents STIs	Provider explained how the method functions (one mechanism), Explained how the method functions (two or more mechanisms), Said that the injectable does not interfere with intercourse, That the method does not require daily action to be effective, That one of its advantages is privacy, That it may reduce anemia, That it does not cause cancer, That it may prevent some forms of cancer, That it prevents ectopic pregnancies	Provider explained how the method functions (tubal ligation), That the uterus would not be removed, That I would never be able to have children, That the sterlization would not alter sexual desire, That the sterilization would not interfere with daily activities, That I would continue menstruating, That the operation might have some risks, That the operation would take place at a hospital or primary health center
Use Instructions		
Told me to initiate use of the pill on days 1-5 of menstruation, That I would need to take the pill every day, That taking the pill at a fixed hour is preferred, To start a new package the day after finishing the previous one, To take one white pill as soon as I remember if I forget one, To stop taking pills if I forget to take two or more white pills and use alternative protection until 7th day of new package, To do nothing special if I forget to take brown pills, To stop use two weeks before/after major surgical event, To use alternative protection for 7 days if I have diarrhea and/or vomiting during 2 days	----	That it was better if I go when I am menstruating, That I might have to wait for an appointment after I was examined by a doctor, What hospital or primary health center I should go to, That I would have to bring a relative or husband, That both (I and the relative) would have to sign an informed consent form, The provider gave a referral to the hospital or primary health center, Told me that I could change my mind at any time before the operation, That I would have to take it easy for a few days after the operations

	Side Effects/Warning Signs	
That I could experience headaches, That I could experience nausea or feel dizzy, That I could experience breast tenderness, That these side effects are not dangerous and usually disappear, To return to the clinic right away if the side effects do not disappear in next 3 months, If I have severe headaches and/or blurry vision, If I have severe breast pain or severe respiratory problems, If my skin or eyes turn yellow, If my legs ache	That I could experience headaches, I may have bleeding or spotting between menstruations, I could have total or partial absence of menstruation, My weight could increase or decrease, These side effects are not dangerous, After using the method, the return of fertility could be delayed for 6 to 9 months after stopping use, I should return to the clinic if I have severe headaches, If my eyes or skin turn yellow, If I was late for my injection	---
	Follow-Up**	
The provider gave me pills or told me that the clinic was out of pills and told me where to get them, Told me to return if I had any questions or concerns, To return if I want to switch methods, To return if I suspect pregnancy or if menstruation stops > 2 months, The provider explained how to open the package and remove the condom, How to place the condom on the penis, Told me that the condom must be placed on the penis before entering vagina, That the penis must be withdrawn while still erect and holding the condom, That I should use one new condom in each coitus, Verified that I understood what he/she had explained to me.	Told me that I had to wait until my next period to get my first injection, That I should use condoms until my first injection, Explained how to open the package and remove the condom, How to place the condom on the penis, Said that the condom must be placed on penis before entering vagina, That the penis must be withdrawn while still erect and holding the condom, That I should use a new condom each coitus, That I should return if I had any questions or concerns, That I should return if I would like to switch methods, The provider made sure that I understood what he/she had explained to me	The provider instructed me to continue using a condom until the operation, Told me how to open the package and remove the condom, Explained to me how to place the condom on the penis, Said that the condom must be placed on penis before entering vagina, That the penis must be withdrawn while still erect and holding the condom, That I should use one new condom in each coitus, That I would have to avoid strenuous exercise for a few days after the operation, That I would have to avoid sex for a few days after the operation, Asked if I had any questions, Verified that I understood what he/she had explained to me

* Standard Days Method.

** Follow-up includes items on condom use considering that 1. the pill user may need back up to face special situations, such as when she forgets to take the pill more than two days, 2. the DMPA user will need a waiting method until she can receive her first injection, 3. the sterilization user will need a waiting method until she receives surgery, and 4. the condom is the only contraceptive that prevents sexually transmitted infections.