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Frederico Leon – Job Aids and Reproductive Health: Improving Worker Performance
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Job Aids and Reproductive Health: Improving Worker Performance
By Frederico León, Population Council

Ed Kelly: Our next presenter is Dr. Frederico León, with the Population Council. He has his Ph.D. in organizational psychology from our own University of Maryland. He has worked in Peru since 1987 and has been in charge of Frontiers Peru since 1998. As I was just mentioning to Bart Burkhalter, the day Frederico kindly agreed to be on our panel was also the day we received a copy of *Family Planning Perspectives* with his nice, most recent article published there, so it made me look like a genius.

He has worked in Peru, Bolivia, Paraguay, Ecuador, Colombia, Brazil, and Guatemala. Most recently he has been focusing on empirically based reformulation of the family planning counseling paradigm.

Dr. León?

Dr. Frederico León: I hope you'll applaud at the end. I'll try to share with you the process of creation of job aids, but in the context of population research.

Operations research is a process that tries to improve programs through controlling agents. It applies social science models to this end. The process typically consists of several steps: first you identify the problem, then you propose a solution— I am going to present as a solution some job aids— then you test, scientifically, the effectiveness of your solution, disseminate the results, and hope that the solution is utilized by the program.

In the article Ed mentioned, we reported on the results of a diagnostic study in Peru in which simulated clients visited 19 clinics of the Ministry of Health. Six different simulated clients, on different dates, visited each of the 19 clinics, so we have over 100 observations. We found three basic problems in individual family planning counseling.

First, the providers of the family planning service didn't ask some key questions to diagnose the family planning needs of the client. For instance, they didn't ask about the reproductive intentions of the client. They just assumed that the client wanted to somehow control her fertility, but didn't attempt to make a distinction between those who wanted to postpone pregnancy and those who wanted to terminate their reproductive capacity. They didn't ask about partner relations or partner attitudes toward family planning. They focused their questions on strictly medical issues, some of which are very important, for instance, date of last menstruation. This way they can discuss pregnancy and move ahead. But they also asked other medical questions, and attempted to start screening the client for contraindications for a method that the client hasn't chosen yet. So they spent their time inefficiently.

Secondly, they gave excessive information on method choice. The Ministry of Health offers 11 different contraceptives to clients. Health providers tended to talk about each of the 11 contraceptive methods regardless of clients' needs. In several, or perhaps most cases, the provider used a flip chart. However, the provider was controlled by the flip chart, and went from the first to the last page, one by one, repeating what was in the flip chart and talking about the 11 methods.

Finally, the provider would run out of time and didn't focus on the method chosen by the client. So the client didn't know about the chosen method, perhaps, as much as they may have known about reliable methods. These results show considerable improvements compared to what the provision of family planning methods was 10 or 15 years ago.

We concluded that the providers didn't have clear goals for this phase of counseling of mid-diagnosis. They were following a counseling model that defines several steps: first, establish a warm relationship with the client, then determine her needs, then assist the client or respond to the needs of the client, and make sure that the client comprehends all information communicated.

The second step, consisting of the mid-diagnosis, appeared to diverge from the following steps. Secondly, when the providers talk about several different methods, maybe they are overloading the capacity of the client to process that information. Herbert Fineman is an economist with the heart of a psychologist who earned the Nobel Prize in Economics by discovering that people don't make economic decisions (purchasing decisions, etc.) by comparing the different alternatives and rationally considering each attribute of the alternatives.

Occasionally, health care workers may have situations that deal with partner attitude. Perhaps a client feels that "I have to do my family planning by myself because my partner doesn't agree with this method." In that case, the health care worker is not going to talk about the condom that requires partner cooperation, or about the rhythm method. Through a simple process, you are discarding methods and discharging the client of the problem of information overload.

Then, you start the third step, method choice. Now the client faces only a few cards on the table and examines the four attributes and compares. The provider can group the different methods on the table according to their effectiveness, and the client makes a choice.

To move to the next phase we have to focus on the method chosen, and here we also have the potential problem of information overload, because by telling the client about all that we know about the method, we run into a problem. We decided to construct a second set of job aids, method pamphlets so that the provider chooses a method pamphlet corresponding to the method chosen by the woman and we designed 11, one per method, to be used as a job aid by the provider. The provider can take the method pamphlets and tell the woman, I'm going to give you this so you can consult it at home whenever you need it to refresh your memory, but now I want to make sure that I explain everything to you.

The provider is using that method pamphlet as a checklist, as a job aid, but without all the humiliation associated with the use of job aids in counseling. The client accepts this. It has a section on contraindications so that the provider screens the client for contraindications with respect to the method chosen rather than with respect to all the methods.

We designed a study in Peru covering practically all the territory and with as much rigor as possible. We had a pretest, an intervention and a post-test for the experimental group consisting of 12 health areas. We also had the same for the control group, consisting of all 12 areas, randomly assigned to these conditions.

We worked with experienced consultants. We negotiated the counseling strategy with the Ministry of Health so as to reformulate the five-step process including all our innovations, but the Ministry didn't replace their method pamphlets that lacked information. We decided not to use method pamphlets, but instead devised a checklist with all the effects of the typical job aids, to be used in the final step of counseling, to focus on the method. We performed our evaluation with the method cards, but instead of using the method pamphlets, we used a checklist.

This is how the results look in the pretest comparing the experimental and control groups with respect to each of these important areas of counseling. The post-test looked like this—small but consistent improvements. In this case, the simulated client is instructed to choose the pill, I mean combined oral contraceptives, if given the option. There are significant improvements with respect to the use instructions for the pill, the advantages of the pill, information about side effects, and so on.

When you compare the global performance of the experimental and control groups in your pretest and your post-test, you have these results. Forget the numbers, just concentrate on the curve. You can see that experimental growth, which is in red, improved performance from pretest to post-test. However, the control group goes down from pretest to post-test in quality of care. In the number of items checked by a simulated client concerning very specific behaviors of the providers in each of the rest of the counseling, method assessment, giving method options, providing instructions about the method chosen, talking about side effects.

All these items had good results. These are significant findings statistically, not only in terms of the significance of the difference but also the size of the effect. And we used the standard concept of effect size, to describe our achievements and, in this case, the effect size is equal to 1.32 standard deviations, which means we improved performance by 1.32 standard deviations, which is a lot.

But why did the control group go down? The numbers on there refer to the session length. You can see that in the post-test, the session length for experimental and control groups, is identical. It is almost 15 minutes, it's 14 minutes and 54 seconds in the experimental group and 14 minutes and 56 seconds, a two-second difference between the groups. In the pretest, both the experimental and control groups dedicated more time to counseling, and we have a hypothesis. At the start of the study we have to enroll the providers in the research and to satisfy a number of ethical requirements of the state of New York. We have to inform them of everything that we are going to do in the next 24 months, including that simulated clients will visit the provider, but not telling them who the simulated clients are. The provider, in the first days, believed that each client was a simulated client and gave his or her best performance. And we used the time, the counseling session length, as an indicator of the provider's motivation to give his or her best performance. Our conclusion was that in the pretest, the providers gave their best performance and in the post-test the providers, five months later, after they have forgotten about simulated clients gave their typical performance.

We also found that only 44 percent of the providers in the experimental group actually used the job aids in counseling, less than half. Nevertheless, it was sufficient that the group as a whole presented a superior quality of care. You can see in the first column you have the performance of the control group, which didn't use job aids because they weren't trained to use job aids. But in the second column, you have the providers of the experimental groups. They were trained and given the job aids but didn't use them during the counseling, and their performance is practically identical to those of the control group, so that all the training received, which was a two-day training, was useless. However, those providers who used the job aids improved performance to a considerable extent.

What were the problems? Well, we also sent observers to monitor the training in the experimental group. They reported that our consultants spent too much time on general questions; the training was too short, only two days, and providers didn't feel comfortable enough handling the job aids; there was a factor of humiliation in using job aids. Given how much they didn't know about their jobs, the checklist is awful, so we understand why the job aids weren't used. The intervention perhaps wasn't legitimate enough because these consultants had worked for years with the Ministry of Health, but perhaps were not known by the individual providers. So they came as strange people talking about these things, but they didn't have authority and we didn't consider supervision.

We disseminated the results anyway and overcame all these problems in our next intervention. We have completed a second intervention with considerable improvement, and we are going to start the post-test for a second intervention. The results of the first intervention have already been used in a number of places. In Peru, the Ministry of Health has already decided to rewrite its counseling manual, including all of these concepts of sequential presentation of information and so on. They have already budgeted the printing of the method cards and the method pamphlets. We didn't show any results to the ministry from the method pamphlets, but it was evident that they should be printed. Finally, the ministry has also budgeted for training of trainers of counseling, including all counseling of patients.

In Guatemala, the Ministry of Health and the Institute of Social Security are starting an operations research project introducing and testing these interventions. I attended a meeting of the workers organization and the experts from Johns Hopkins University and Inter Prime, who had developed a flip chart that was presented and discussed. They paid attention to what we had to say about flip charts and alternatives like ours.

A participant in that meeting who came from India but was providing assistance in Yemen asked me for authorization to adopt the method cards for us in Yemen and the project hasn't yet been completed. I think that in this case job aids proved to be useful and we expect more important improvements on the basis of the second intervention.