

Knowledge and perceptions of IUDs among public and private sector providers in Nepal

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Background:

Despite many years of efforts from a variety of reproductive health organizations, the use of IUDs languishes behind other methods of contraception. It is well established that increased use of the IUD is a cost-effective and sustainable way of reducing unmet need, as well as unintended pregnancy. The high reliance, among family planning users in Nepal, on short term methods result in higher rates of unintended pregnancy, due to method failure and discontinuation, than among women using the IUD[1]. Nevertheless, many health service providers, particularly nurse midwives and general practitioners, are resistant to recommending, inserting, or counseling about this form of contraception.

The Woman's Health Project (WHP) at PSI is a long term project to increase access to long-acting reversible contraception and safe abortion. Donor objectives for the project include increasing IUD supplies, and also increasing demand for IUDs by providers and patients. PSI is partnering with private providers in Nepal to improve access to IUD services. PSI has organized a group of private providers into a 'network' in which providers receive regular trainings and supportive supervision on a range of contraceptive methods. PSI is also supporting providers in the procurement of IUD commodities, and assistance with demand generation.

Data from four DHS surveys show increases in use of modern contraceptives among currently married women in the past 15 years[2]. From 1996 to 2006, modern contraceptive prevalence increased from 26% to 44%. From 2006 to 2011, there was a 1% decline in modern contraceptive prevalence. 2011 data also show 27% of currently married women have unmet need for family planning services of which 10% is for spacing and 17% for limiting births. Despite the stagnation in overall contraceptive prevalence, the use of IUDs among currently married women has increased from 0.4% in 1996, to 0.8% in 2006, to 1.3% in 2011. Despite being one of the first modern methods introduced in Nepal, it is one of the least known and least used contraceptive methods.

This study collected data regarding perceptions and knowledge of IUDs among providers in Nepal. Little is known in Nepal about the provider's perspective on IUDs, although barriers from the client side have been documented by a variety of service delivery organizations[3,4]. By analyzing the perceptions, behaviors and beliefs of providers, the services provided by PSI to the network providers may be improved to overcome some of the barriers to IUD provision.

Methods:

The study presents the first round of data collected in a longitudinal study of private sector providers within the PSI network and matched providers who do not receive PSI support. 179 'intervention' group providers were randomly selected from within a list of 300 active providers in the network, with active providers defined as those who both received training, and have inserted any IUDs in the previous 3 months. Control group providers were randomly selected from a list of providers in the same and neighboring districts where PSI network providers reside, with similar levels of training. Eligibility criteria for inclusion in the sampling frame was that providers have adequate facilities to provide IUD services, have at least an Auxiliary nurse midwife qualification, offer FP services, and have experience in pelvic examination. Control group providers were not required to be working in the private sector. 175 non-network providers consented to and responded to the survey.

Basic descriptive data analysis was conducted. Provider characteristics and responses between the two groups were compared using t-test and χ^2 tests, and where responses were not significantly different, combined results are presented. The IUD in question for the survey is the Cu T380A Copper IUD. Providers were asked 9 multiple choice and true/false questions about IUD efficacy, mechanism of action, timing of insertion, and maximum duration of use. Providers were also asked about the medical eligibility for an IUD for an otherwise healthy woman with a stated characteristic which could affect her contraceptive eligibility. Response options were 'medically eligible', 'eligible with screening' and 'not medically eligible'. The response option of 'eligible with screening' is similar to a category 2 or 3 eligibility as per the WHO. Provider perceptions with regard to who should receive an IUD was assessed by asking providers if they would recommend an IUD to an otherwise healthy woman possessing a stated 'socio-demographic' characteristic. Finally, providers were asked open ended questions about their reasons for recommending an IUD and their perceived barriers to IUD use.

Results:

Of the 354 providers surveyed, only 6 were male, evenly divided between the two groups. Providers in both groups were similarly qualified, with 78% of providers holding an Auxiliary Nurse Midwife degree. Non-network providers were significantly older than network providers (mean age 37.1 vs 29.1 years, $p < 0.001$), and were significantly more likely to have the IUD available at the time of the survey (93% vs 86%, $p = 0.038$). Network providers have been trained in IUD insertion techniques more recently than non-network providers, with the average time since their most recent IUD training at just over 11 months for network providers, versus over 4 years for non-network providers ($p < 0.001$). Network providers were significantly more likely to have inserted an IUD recently; 66% of network providers had inserted an IUD in the past month, as compared to 50% of non-network providers ($p < 0.001$). Among those who had inserted IUDs within the last 6 months, network providers insert significantly more IUDs per month than non-network providers, (5.4 IUDs per month in network vs. 4.2 per month, $p = 0.041$).

Out of 9 multiple choice and true false questions about the IUD, 60% of providers had 7 or more questions correct, without significant differences between network and non-network providers. Notably, most providers incorrectly thought that an IUD could be inserted up to 7 days post-partum. Out of 14 questions on medical eligibility, there was a significant difference in responses between network and non-network providers in only 3 of the characteristics. Overall accuracy for this question was low, with 24% of providers answering correctly on seven or more questions, with the maximum number of correct answers being 9. Providers in the two groups had significantly different responses regarding "woman with vaginal discharge" (50% correct in network, 37% correct in non-network, $p = 0.009$), "current STI patient" (40% correct in network, 26% correct in non-network, $p = 0.005$) and "iron-deficiency anemia" (27% correct in network, 38% correct in non-network, $p = 0.028$). Selected items are shown in table 1.

Only 2 of 13 statements regarding recommendation of IUD when the woman possessed stated socio-demographic characteristics had a significant difference in responses between network and non-network providers. Total number of correct responses ranged from 3-11, with 65% of providers having 9 or more correct responses. Providers in the two groups had significantly different responses regarding "a woman who has more than one sexual partner" (32% correct in network, 47% correct in non-network, $p = 0.004$) and "a woman who has 4 children" (99% correct in network, 95% correct in non-network, $p = 0.028$). Items with high percentage of incorrect answers are shown in table 1:

Table1: Proportion of providers responding correctly to questions regarding if the IUD is recommended for women with stated characteristics

Statement	Correct response	Percent correct
Currently breastfeeding	Medically eligible	57%
HIV positive	Eligible with screening	35%
History of ectopic pregnancy	Medically eligible	1.40%
Vaginal discharge	Eligible with screening	44%
Iron deficiency anemia	Medically eligible	32%
Less than 48 hours post-partum	Medically eligible	31%
A woman who has more than one sexual partner	Not recommend	40%
A woman whose sexual partner is not monogamous	Not recommend	28%
A woman who is nulliparous	Recommend	47%
A woman who is not married	Recommend	46%

The top three side effects listed by providers with regard to IUDs were irregular bleeding and spotting, excessive bleeding, and cramping/abdominal pain. 50% of providers reporting excessive bleeding as a side effect (n=246) found it to be unacceptable, preventing them from recommending the copper IUD.

Finally providers reported on promotive and prohibitive factors with regard to providing the IUD – factors which are not necessarily bio-medical. The top three characteristics freely listed by providers which lead them to recommend and provide IUDs were that it is a long term method (n=344), it is hormone free (n=297) and it does not have many side effects (n=240). The top three freely mentioned characteristics which prevent providers from recommending or providing IUDs were that it could be expelled (n=88), there is a possibility of uterus perforation during insertion (n=73) and clients are afraid to use the IUD (n=61).

Discussion:

At the time of the first round of data collection, providers receiving the PSI intervention and providers who do not receive the intervention are fairly similar with regard to their knowledge, attitude and perceptions regarding the IUD. Furthermore, availability of the IUD, for these trained providers who were purposively selected to have adequate facilities to provide the IUD, was high (avg=90%) Providers have a fairly accurate knowledge about how the IUD works, and the timing with which it can be inserted, but are less knowledgeable about who can use the IUD. Incorrect ideas regarding eligibility for women who are breastfeeding, have vaginal discharge, or iron deficiency anemia likely affect a significant group of women who have a contraceptive need. Medical representatives and clinically trained supervisors should take the opportunity to educate providers within the network on these criteria, and could work to educate other providers through conferences and medical societies. Furthermore, the curriculum for training and refresher training could be updated to reinforce information on medical eligibility.

Incorrect ideas regarding the eligibility of a nulliparous woman or a woman who is immediately post-partum create the potential for missed opportunities. A woman who is nulliparous by choice and/or seeking to delay her first pregnancy could be a good candidate for a method which does not rely upon user adherence. Similarly, the IUD can be promoted for birth spacing among women who are post-partum and breastfeeding. In an environment where health care providers and service delivery organizations are working to promote a method already fraught with misconceptions, the active participation of the health care provider is required.

The fact that providers freely listed the known benefits of IUDs as reasons they would promote it is encouraging news for service delivery organizations. Providers are concerned about expulsion, but not as much as was originally thought by trainers in informal discussion. With the reinforcement provided by refresher training and through increased experience with the IUD, providers may be less concerned with expulsion. The continuation of the network intervention will be followed with another study among the same group of providers, to determine if participation in the network, with its supportive supervision, quality assurance and other components affect provider knowledge and attitudes regarding IUDs.

References:

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3. University of Southampton and Marie Stopes International. Barriers to Intrauterine Contraception in Nepal. 20 September 2012. <<http://www.socstats.soton.ac.uk/choices/Opp&Choices%20Factsheet%2018.pdf>>
4. Paudel M, Houvras I. 2009. Identifying drivers of use of intrauterine contraceptive devices (IUCDs) among married women in urban and peri-urban Nepal. *Populations Services International*, Washington, D.C. Accessed at: <http://www.psi.org/resources/research-metrics/publications/foqus-qualitative-segmentation/drivers-and-barriers-iud-use>

Short abstract (150 words):

In light of a multi-year donor supported project to increase access to long-acting reversible contraceptives and safe abortion, PSI/Nepal undertook a quantitative study to understand the perceptions and knowledge of providers in Nepal with regard to IUDs. 354 providers, stratified into those participating in the PSI network intervention and similarly profiled controls, were interviewed in 2012 in the first round of a longitudinal study. Out of 9 multiple choice and true false questions about the IUD, 60% of providers had 7 or more questions correct, without significant differences between network and non-network providers. Overall accuracy on questions regarding medical eligibility for the IUD was low, with 24% of providers answering correctly on seven or more questions, with the maximum number of correct answers being 9. PSI supervisors can work with providers to reinforce medical eligibility, and address other barriers to IUD provision.