



eISSN : 2579-8324

pISSN : 2579-8323

Alamat Korespondensi:

Ruang Redaksi Andalas Obstetrics and Gynecology Journal, Lantai 3 PPDS Obstetri dan Ginekologi Universitas Andalas, RSUP DR. M. Djamil Padang, Jl. Perintis Kemerdekaan Padang, Sumatera Barat 25127

Website:

<http://jurnalobgin.fk.unand.ac.id/index.php/JOE>

RESEARCH

Competency Evaluation of Midwives in Intrauterine Device Copper T 380A Installation Based on Their Age, Education, Experience of Installation and Duration of Practice in Padang City

Desmiwati¹, Hafni Bachtiar²

Affiliations : 1. Sub Division of Social Obstetrics and Gynecology, Obstetrics and Gynecology Department, Faculty of Medicine, Andalas University, Dr. M. Djamil Central General Hospital Padang; 2. Public Health Department, Faculty of Medicine, Andalas University Padang

Correspondence: Desmiwati, email : dr_des_spog@yahoo.com, Hp: 08126600461

Abstract

Midwives are health providers influential in helping families to choose appropriate contraception for patients. Midwives must have competence in providing midwifery services in particular IUD insertion. This study's aim was to evaluate the competency of midwives in the insertion of an intrauterine device Copper T 380A based on their age, education, experience of insertion and duration of practice in Padang City. This study was done in puskesmas and private midwifery practice in Padang from September to December 2014 using cross-sectional method on 24 samples who met the inclusion criteria and not exclusion criteria. We conducted interviews and observed how the respondents perform IUD insertion by using a check- list. From this study, there was no significant association between age ($p: 0.540, p > 0.05$), education ($p: 0.439, p > 0.05$), experience of insertion ($p: 0.472, p > 0.05$) and duration of practice ($p: 0.505, p > 0.05$) with competency of IUD insertion. Most respondents have a good competence in IUD insertion. Part of the checklist the respondents frequently missed out were counseling to the patients and prevention of infection.

Keywords: Midwives Competency, IUD insertion, Copper T-380a

INTRODUCTION

A midwife is a health worker who is very influential in improving the health of mothers and children. Midwives must be able to act professionally in providing midwifery services, not only in helping mothers and children during childbirth but also assist families in choosing appropriate contraception for their patients.¹ Each year in developing countries, one in eight women aged 15-49 years is pregnant. 40% of these pregnancies, a total of 75 million are unwanted pregnancies. This unwanted pregnancy occurs in women and couples who want to delay having children 2 years or more or who do not want to get pregnant again. This poses a risk to her health or endangers the welfare of the child and the family.²

This unwanted pregnancy can be prevented by using contraception. In 2008, of the 818 million women of reproductive age in developing countries who wanted to avoid pregnancy, 26% (215 million) did not use contraception. 603 million unwanted pregnancies use



eISSN : 2579-8324

pISSN : 2579-8323

Alamat Korespondensi:

Ruang Redaksi Andalas Obstetrics and Gynecology Journal, Lantai 3 PPDS Obstetri dan Ginekologi Universitas Andalas, RSUP DR. M. Djamil Padang, Jl. Perintis Kemerdekaan Padang, Sumatera Barat 25127

Website:

<http://jurnalobgin.fk.unand.ac.id/index.php/JOE>

contraception but they have difficulty in choosing a suitable and appropriate contraception³. If all women who want to avoid pregnancy use contraception, the number of unwanted pregnancies will decrease by 71% from 75 million to 22 million every year.⁴

The rate of contraception use of Contraceptive Prevalence Rate (CPR) shows an increase in the last 5 years. National CPR achievement in all ways increased from 49.7% in 1991 to 61.4% in 2007 and 61.9% in 2012, while in West Sumatra Province was 64.0%⁴. Meanwhile, CPR increased from 47.1% in 1991 to 57.4% in 2007 (IDHS) and injectable birth control was the most used method (32%), followed by birth control pills by 13%.⁵

The percentage of fertile aged couples as active family planning participants using contraception in Indonesia in 2011 was 75.96%⁵. Whereas in the Province of West Sumatra in 2012, the number of fertile age couples were 723,518 with active family planning participants as many as 575,859 (79.6%), using a contraceptive device in the womb (AKDR) 9.6%, implants 10.6% and the most was injections as much as 51.8%.⁶

The prevalence of contraceptive use plays an important role in reducing unwanted pregnancies. The 2002-2003 SDKI showed that unmet need for contraceptive use was still high, at 9% and has not experienced much change since 1997. While in 2010 it increased to 19.3 percent.⁴

Distribution of AKDR use is not evenly distributed throughout the world. This is most significant in East and Central Asia, several countries in Europe and the Middle East and several in Latin America. The AKDR dominates contraception in the Democratic People's Republic of Korea, where AKDR is used by 78% of all female contraceptives, Central Asian Republic 63% to 76% of contraceptive users, and in several countries in Europe and the Middle East (Egypt 63%, Cuba 59%; Belarus 58%; Moldova 55%)⁷. Whereas, in Indonesia the use of AKDR contraception is only 11.28%⁸. The AKDR prevalence is lowest in sub-Saharan Africa and in North America at under 2% among women of reproductive age.⁷

A midwife today is required to have competence in providing midwifery services. This can all be realized if a midwife is able to master the basic concepts of midwifery. Additional skills and development are also able to be professional in accordance with a predetermined code of ethics. Midwives are one of the health workers who act as providers and front-line health services who are required to possess professional competence in responding to community demands in midwifery services related to pregnancy planning such as determining appropriate contraception. Midwives are expected to be able to support efforts to improve the degree of public health, through improving professional and competent quality.⁹

Midwives in providing midwifery services to the community must be competent, lack of midwives' knowledge and skills can cause things that often cause increased maternal morbidity, including those who do not have the ability and skills to installing AKDR. Therefore, the competency of a midwife has a major influence on the quality of midwifery services provided.⁹



eISSN : 2579-8324

pISSN : 2579-8323

Alamat Korespondensi:

Ruang Redaksi Andalas Obstetrics and Gynecology Journal, Lantai 3 PPDS Obstetri dan Ginekologi Universitas Andalas, RSUP DR. M. Djamil Padang, Jl. Perintis Kemerdekaan Padang, Sumatera Barat 25127

Website:

<http://jurnalobgin.fk.unand.ac.id/index.php/JOE>

Recognizing that midwives in Indonesia are products of several different educational institutions and areas, the compilation of midwives' competencies is very useful for bringing together perceptions of the knowledge and skills that midwives must have in Indonesia. Based on these competencies, midwives can apply their knowledge and skills in providing midwifery care according to the needs of the client/ patient.

Every use of contraceptives has side effects, including the use of AKDR. One complication on the use of AKDR is expulsion. The time and method of installation and the ability of staff (Doctors and Midwives) influence the success of the AKDR installation. The rate of expulsion to AKDR is around 2-8 per 100 women in the first year after installation. The incidence of expulsion after post partum is also high, in the installation after the placenta is released the incidence of expulsion is lower than installation performed at intervals¹⁰. To that end, the researcher wanted to try to examine the evaluation of midwife competencies in the installation of contraceptives in the womb of T Cu 380 based on age, education, experience of installation AKDR and length of practice in Padang City.

METHOD

This research was conducted with a cross sectional study design at Puskesmas and private practice midwives in Padang City from September to December 2014. The sample consists of 24 midwives. Viewing midwife competencies in AKDR installation based on age, education, experience of installation and length of practice using a checklist. The statistical analysis is using chi-square with computer program.

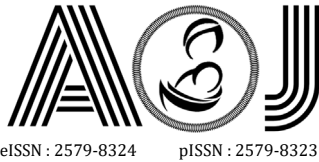
RESULTS

Research was conducted in September to December 2014 on midwives in Padang City. This study looks at the competence of midwives in the installation of AKDR using a checklist. A total of of all 24 samples were taken by consecutive sampling taken from puskesmas and private practice midwives in Padang city. 2 people were not included in the study sample because the patient had vaginal discharge.

Basic Characteristics of Research Subjects

Table 1. Distribution of respondent characteristics

Characteristics	F	%
Age (year)		
>40	8	33.3
25-40	16	67.7
Education		
D3	20	83.3
S1	4	16.7



eISSN : 2579-8324

pISSN : 2579-8323

Alamat Korespondensi:

Ruang Redaksi Andalas Obstetrics and Gynecology Journal, Lantai 3 PPDS Obstetri dan Ginekologi Universitas Andalas, RSUP DR. M. Djamil Padang, Jl. Perintis Kemerdekaan Padang, Sumatera Barat 25127

Website:

<http://jurnalobgin.fk.unand.ac.id/index.php/JOE>

Based on table 1, it was found that most respondents were at the age of 25-40 years (67.7%) and most respondents had Diploma 3 education (83.3%).

Table 2. Frequency distribution of AKDR installation experience

Experience of installation	F	%
< 5	10	41.7
5-10	4	16.7
>10	10	41.7
Total	24	100

Based on table 2, the highest percentage of AKDR installation experience by respondents in the <5 and > 10 groups was 41.7%.

Table 3. Frequency distribution on the length of practices of being a midwife

Length of practice (years)	F	%
< 5	6	25.0
5-10	1	4.2
>10	17	70.8
Total	24	100

Based on table 3, the highest percentage of practice length being a midwife was in groups > 10 that is 70.8%.

Table 4. Distribusi frekuensi kompetensi bidan dalam pemasangan AKDR

Competence	F	%
Good	16	67.7
Not good	8	33.3
Total	24	100

Based on table 4 most of the respondents have good competencies (67.7%)

Relationship between age and AKDR installation competency**Table 5.** Relationship between age and AKDR installation competency

Age Group	Competence				Total		P
	Good		Bad		f	%	
	f	%	f	%	f	%	
>40	6	75	2	25	8	100	0.540
25-40	10	62.5	6	37.5	16	100	
Total	16	66.7	8	33.3	24	100	



eISSN : 2579-8324

pISSN : 2579-8323

Alamat Korespondensi:

Ruang Redaksi Andalas Obstetrics and Gynecology Journal, Lantai 3 PPDS Obstetri dan Ginekologi Universitas Andalas, RSUP DR. M. Djamil Padang, Jl. Perintis Kemerdekaan Padang, Sumatera Barat 25127

Website:<http://jurnalobgin.fk.unand.ac.id/index.php/JOE>

From table 5, the percentage of respondents' good competence was higher in the > 40 group compared to the 25-40 group (75% : 62.5%). Statistically this difference was not significant ($p > 0.05$).

The relationship between education and competence in installing AKDR**Table 6.** The relationship between education and competence in installing AKDR

Level of education	Competence				Total		P
	Good		Bad		f	%	
	f	%	f	%			
D3	14	70	6	30	20	100	0.439
S1	2	50	2	50	4	100	
Total	16	67.7	8	33.3	24	100	

From table 6, obtained a percentage of the respondents' competency better in group D-3 compared to group S1 (70% - 50%). Statistically, the difference was significant ($p > 0,05$).

The relationship between installing AKDR and competence in installing AKDR**Table 7.** The relationship between installing AKDR and competence in installing AKDR

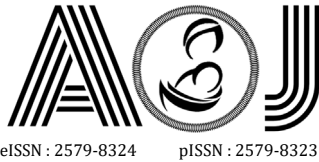
Experience in installing	Competence				Total		P
	Good		Bad		f	%	
	f	%	f	%			
<5	6	60.0	4	40.0	10	100	0.472
5-10	2	50	2	50	4	100	
>10	8	80.0	2	20.0	10	100	
Total	16	67.7	8	33.3	24	100	

From table 7 obtained a percentage of the respondents' competency the highest in respondents with AKDR installation experience >10 (80%). Statistically the difference was significant ($p > 0,05$).

The relationship between lengths of practice with the AKDR installation competency**Table 8.** The relationship between length of practice with the AKDR installation competency

Length of practice	Competence				Total		P
	Good		Bad		f	%	
	f	%	f	%			
<5	3	50.0	3	50.0	6	100	0.505
5-10	1	100	0	0.0	1	100	
>10	12	70.6	5	29.4	17	100	
Total	16	67.7	8	33.3	24	100	

From table 8, obtained a percentage of the respondents' competency the highest in the 5-10 years old practice group (100%). Statistically this difference was not significant ($p > 0.05$).



eISSN : 2579-8324

pISSN : 2579-8323

Alamat Korespondensi:

Ruang Redaksi Andalas Obstetrics and Gynecology Journal, Lantai 3 PPDS Obstetri dan Ginekologi Universitas Andalas, RSUP DR. M. Djamil Padang, Jl. Perintis Kemerdekaan Padang, Sumatera Barat 25127

Website:

<http://jurnalobgin.fk.unand.ac.id/index.php/JOE>

DISCUSSION

Research has been conducted with the number of research samples in total of 24 people consisting of midwives in the neighborhood health center and private practice in the city of Padang. 2 people could not be included in the study sample because after examination, vaginal discharge was found to be contraindicated from AKDR installation. After an explanation was given, the respondent was willing to show its work in the installation of AKDR T Cu 380 which will then be assessed by the midwife's competency using a checklist.

Characteristics of mostly young respondents were 25-40 years (67.7%). According to the level of education most of the respondents was Diploma 3 (83.3%).

Diploma III midwifery education graduates, are implementing midwives who have the competence to carry out their practice both in service institutions and individual practices. While midwifery education graduates at the level of Diploma IV/ S1 are professional midwives, who have the competence to carry out their practice both in service institutions and individual practices. They can act as service providers, managers and educators¹¹.

The highest percentage of AKDR installation experience by respondents in the <5 and > 10 groups was 41.7% and the highest percentage of respondents with the length of practice being midwives in the > 10 group was 70.8%.

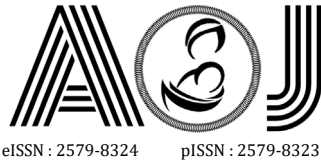
Respondents who have good competence were 67.7% while not good competence was 33.3%. Based on the data above, it is found that most respondents have good competence.

From the least point performed by the subject of the study was list number 5 (46%), list number 7 (4%), list number 16 (42%), and list number 31 (38%) and list number 34 (54%).

Checklist number 5 is to explain what will be done and invite the client to ask questions. More than 50% of the respondents did not counsel the patient and gave the patient time to ask about what to do before the AKDR is installed.

Checklist number 16 explains the AKDR installation process and how it will feel. More than 50% of respondents did not explain the stages of AKDR installation. It showed the speculum, tenaculum, AKDR and inserter in a sterile package. Also note that there may be a slight pain when the AKDR is inserted into the uterine cavity. But this does not cause serious interference because almost all clients can go through this procedure properly. And instructed the client to inform the staff if pain or discomfort occurs during installation. This was largely abandoned by respondents. This could be because respondents felt it was not important by the patient and without them giving an explanation to the patient, the AKDR remained attached. In fact, by notifying the stages of the AKDR insertion, it is expected that patients will understand what will happen to them during the installation procedure.

Checklist number 7 was washing hands with water and soap, dry with a clean cloth. More than 90% of respondents did not wash their hands. Washing hands is one way to prevent infection. The effort to prevent infection in family planning services was to minimize infections caused by microorganisms.



eISSN : 2579-8324

pISSN : 2579-8323

Alamat Korespondensi:

Ruang Redaksi Andalas Obstetrics and Gynecology Journal, Lantai 3 PPDS Obstetri dan Ginekologi Universitas Andalas, RSUP DR. M. Djamil Padang, Jl. Perintis Kemerdekaan Padang, Sumatera Barat 25127

Website:

<http://jurnalobgin.fk.unand.ac.id/index.php/JOE>

Infection prevention is an important component in the procedure of insertion or use of contraception for family planning programs. This effort must be applied correctly in every step or procedure for installing various types of contraception so that the client or user is protected from side effects or unwanted problems¹².

Efforts to prevent infection can prevent microorganisms from moving from one individual to another (clients, families, officers) or efforts to break the chain of spread of infection¹². The process of washing hands here was largely abandoned by respondents because most facilities where the AKDR was installed did not have a sink to wash hands so respondents must go to the toilet to wash their hands and that is quite troublesome.

Checklist number 31 was to teach clients how to check the AKDR thread themselves and when to do it. More than 60% of respondents did not teach how to check their AKDR threads. In fact patients can control their own AKDR whether it is still installed without having to see a doctor. And patients can be taught when to check their own AKDR. It is also useful to avoid pregnancy due to the loss of AKDR.

Checklist number 34 was to make sure that the client can request that the AKDR be revoked at any time. More than 40% of respondents did not do the checklist. Each AKDR varied in the active period, depending on the type of AKDR itself. AKDR is a contraceptive that can be removed at any time.

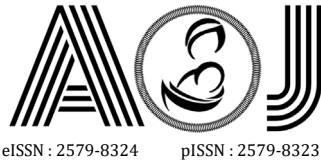
In the checklist most of the respondents did not do good counseling on patients. Counseling is the process of exchanging information and positive interactions between client-officers to help clients recognize their needs, choose the best solution and make decisions that are most appropriate to the conditions being faced.

Counseling is a very important aspect of family planning services. Quality counseling between client and provider (medical personnel) is one of the most decisive indicators for the success of the family planning program. Information is part of the service that is very influential for the user acceptor to know whether the chosen contraception is appropriate and know the steps to be taken, how to check the AKDR by herself and when the AKDR can be released.

Good competency was higher in the age group > 40 years compared to 25-40 years (62.5%). Statistically the difference was not significant ($p > 0.05$).

In this study, although good competence was higher in the age group > 40 years, the difference was not significant. This could be due to the age group > 40 years as many as 8 people (33.3%).

Age influences one's comprehension and mindset. As you get older you will also develop your catching power and mindset thus the knowledge you get is getting better. At middle age, individuals will be more active in society and social life and will prepare more for successful adaptation to old age. Two traditional attitudes regarding the course of life development where the older the wiser the more things are done so as to increase knowledge and not be



eISSN : 2579-8324

pISSN : 2579-8323

Alamat Korespondensi:

Ruang Redaksi Andalas Obstetrics and Gynecology Journal, Lantai 3 PPDS Obstetri dan Ginekologi Universitas Andalas, RSUP DR. M. Djamil Padang, Jl. Perintis Kemerdekaan Padang, Sumatera Barat 25127

Website:

<http://jurnalobgin.fk.unand.ac.id/index.php/JOE>

able to do new intelligence to people who are old because experiencing setbacks both physically and mentally.¹³

Good competency was higher at D3 education level compared to S1 education (70%). Statistically the difference was not significant ($p > 0.05$)

Education broadly covers the entire process of individual life from the swing to the grave, in the form of individual interaction with the environment, both formally and informally the process of educational activities basically involves individual and group behavior. Formal and informal education activities focus on the teaching process, with the aim that behavior change occurs ie from not knowing to knowing, from not understanding to understanding.¹³

According to Siagian, education can affect one's competence because the higher a person's education, the greater his desire to utilize his knowledge and skills in carrying out his duties.¹⁴

However, in this study, education did not affect midwife competence in installing AKDR. It can be seen from the high percentage of competence both in the D3 education group compared to S1. D3 and S1 midwife competencies should be the same because it is in accordance with the midwifery curriculum where D3 and S1 must have competence in the AKDR installation. In this study respondents with S1 education totaled 4 people thus the differences in AKDR insertion competencies were found to be insignificant. Here there were a number of things that greatly affect the competence of midwives in carrying out their duties in addition to education, knowledge, years of service and training.

The percentage of good competence was higher in respondents with experience of AKDR installation > 10 (80%) compared to IUD insertion of 5-10 (50%). Statistically the difference was not significant ($p > 0.05$). It appears that the more AKDR are installed, the better the competency of the respondents.

Good competency was higher in respondents with long tenure of 5-10 years (100%) compared with those who had served < 5 years (50.0%). Statistically this difference was not significant ($p > 0.05$).

Work period is the period of time that people have worked (in one office, agency and so on). The longer a person works, the more skilled and more experienced in carrying out work. The length of work is an individual factor that is related to individual behavior and perceptions that affect individual competencies, for example someone who has worked longer will be considered first in terms of promotion. This is closely related to what is called seniority¹⁴. However, in this study, a work period of > 10 years did not affect the good competence of midwives in installing AKDR.



eISSN : 2579-8324

pISSN : 2579-8323

Alamat Korespondensi:

Ruang Redaksi Andalas Obstetrics and Gynecology Journal, Lantai 3 PPDS Obstetri dan Ginekologi Universitas Andalas, RSUP DR. M. Djamil Padang, Jl. Perintis Kemerdekaan Padang, Sumatera Barat 25127

Website:

<http://jurnalobgin.fk.unand.ac.id/index.php/JOE>

CONCLUSION

Most respondents have good competence in the AKDR installation. The checklist that many do not do by respondents is regarding counseling to patients and prevention efforts for infection. There is no relationship between age, education, installation experience, and length of practice with the AKDR installation competency.

REFERENCES

1. Menteri Kesehatan Republik Indonesia. Peraturan Menteri Kesehatan Republik Indonesia Nomor 1464/MENKES/PER/X/2010 tentang izin dan Penyelenggaraan Praktek Bidan. Menteri Kesehatan Republik Indonesia. Jakarta. 2010.
2. Jaqueline E Darroch et al. In Contraceptive Technology : Responding to women Need. Guttmacher Institute. New York. 2011.
3. Cates W et al. "Family Planning and Millenium Development Goals." Science. 2010: 329(5999) : 1603.
4. Pusdatin. Pusat data dan Informasi Kementerian Kesehatan Republik Indonesia. Jakarta, 2012.
5. Kemenkes. In Buku Panduan Hari Kesehatan Nasional, by Kementerian Kesehatan Republik Indonesia. Jakarta. 2012.
6. Dinas Kesehatan Provinsi Sumatera Barat. Profil Kesehatan Provinsi Sumatera Barat tahun 2012. Dinas Kesehatan Provinsi Sumatera Barat,. Padang. 2013.
7. Catherine d'Arcangues. "Worldwide use of intrauterine devices for contraception." Elsevier, 2007: (75) S2-S7.
8. —. Profil Data Kesehatan Indonesia tahun 2011. Kementerian Kesehatan Republik Indonesia. Jakarta. 2012.
9. PP IBI. 50 Tahun Ikatan Bidan Indonesia, Bidan Menyongsong Masa Depan. Jakarta. 2004.
10. Hatcher RA et al. 19. Contraceptive Technology. Ardent Media. New York 2007.
11. Permenkes Nomor 369/Menkes/SK/III/. Tentang Standar Kompetensi Profesi Bidan. Menteri Kesehatan Republik Indonesia. Jakarta 2007.
12. Jaringan Nasional Pelatihan Klinik- Kesehatan Reproduksi. In Buku Acuan Pelatihan Klinik Teknologi Kontrasepsi Terkini (Contraceptive Technology Update) bagi Profesional Kesehatan. Perkumpulan Obstetri-Ginekologi Indonesia. 2012.
13. Notoatmodjo. Pengantar pendidikan kesehatan dan ilmu perilaku kesehatan. Rineke Cipta. Jakarta. 2003.
14. Siagian SP. Teori dan Praktik Kepemimpinan. PT. Rineke Cipta. Jakarta. 2000.