AWARENESS, PERCEPTION AND ACCEPTABILITY OF CHILD FOSTERING AND ADOPTION AMONG INFERTILE WOMEN IN A NIGERIAN TERTIARY HEALTH CENTRE

*Abubakar A. Panti, Asmau M. Nasir, Abdulhadi D. Saidu, Jamila A. Garba, Karima A. Tunau and Rukayya Ibrahim

Department of Obstetrics and Gynaecology, Usmanu Danfodiyo University Teaching Hospital Sokoto.

Corresponding Author: Prof. Abubakar A. Panti

Department of Obstetrics and Gynaecology, Usmanu Danfodiyo University Teaching Hospital Sokoto.

ABSTRACT
Background: Infertility is a worldwide problem that has devastating social and psychological consequences on the affected couples, especially in Africa. However, the role of child adoption or fostering in the management of infertile couples has not been extensively evaluated in this part of the world. This study aimed to determine the awareness, perception and acceptability of child fostering and child adoption among infertile women attending gynaecological clinic of UDUTH Sokoto and also to determine the factors associated with knowledge and acceptability of child fostering and adoption. **Methodology:** The study was a cross-sectional study involving 146 infertile women seen at the Gynaecological clinic of Usmanu Danfodiyo University Teaching Hospital Sokoto. **Results:** Majority 106(72.6%) had knowledge of fostering and 98 (67.1%) had knowledge of child adoption. Majority of the respondents 98(67.1%) perceived child fostering and adoption as good options for infertility management. However, 88(60.3%) would accept child fostering as an option for their infertility management, while 67(45.9%) would accept adoption. The number of living children, tribe, occupation and educational status were significantly associated with knowledge of child fostering while Age, tribe and occupation were associated with knowledge of adoption. The number of living children, duration of infertility, tribe, occupation and educational status were associated with acceptance of fostering while parity, number of living children, duration of infertility, age and occupation were associated with acceptability of child adoption. **Conclusion:** The knowledge of child fostering and adoption was high and good number of women would accept fostering but acceptability of adoption was lower. Continuous education of women and the community is necessary to improve their knowledge of child adoption and fostering which are viable and fulfilling options of fertility management.

KEYWORDS: Infertility, fostering, adoption, Sokoto, Nigeria.

INTRODUCTION
Having children is an essential part of life for most people and in many cultures, and not having children on the other hand, is frequently considered a personal tragedy and a curse, impacting on the entire family and even the local community.[1] There are also negative psychosocial consequences.[1] In developing countries, where child-bearing is often highly valued, infertile couples are faced with problems ranging from overt ostracism or divorce to more subtle forms of social stigma leading to isolation and mental distress.[2-4] Moreover, in most developing countries where there is no social security system, older people are completely dependent on their children.

Infertility is a worldwide problem that has devastating social and psychological consequences on the affected couples, especially in Africa.[5-10] Although there are many management options for infertile couples, the outcome of the treatment depends on the etiological factors, available diagnostics tools, skills of the attending physician, and above all, the financial status of the couple. Adoption and fostering are the alternative strategies in the management of infertility, aimed at bringing succour to the affected couple.

Child fostering is the process of providing care and nurture in a family setting for children who cannot be cared for by their own families. While adoption is the social, emotional and legal process that creates a family for a child when the biological family is unable or unwilling to parent.[11,12] Foster care describes the temporary acquisition of guardianship rights in relation to a child.[13] The term foster care is often used when a child is waiting to be adopted or the courts are considering an adoption order. Adoption is also referred as the permanent transfer of legal rights in relation to the parental responsibility of a child.[13,14]

Under the United Nations Convention on the Rights of the Child 1989, adoption is recognized as one of the forms of alternative care for children who have been temporarily or permanently deprived of their family environment, and also for children who are unable to remain in their family environment.[15] Adoption has influence on the adopted child's status; hence, it affects his/her legal rights, welfare, and obligations.[15] Today, adoption involves not only traditional adoption of children but also gametes or embryos.[16] Infertility is the main reason that the parents seek to adopt children they are not related to, with one study showing that this accounted for 80% of infant adoptions. Attitudes and laws guiding adoption vary greatly. Whereas all cultures make arrangements whereby children whose own parents are unavailable to rear them are brought up by others, not all cultures and religions share the same concept of adoption.[17]

METHODOLOGY
The study was conducted at the Gynaecological Clinic of Usmanu Danfodiyo University Teaching Hospital (UDUTH) Sokoto, Nigeria. It was a cross-sectional study. The Study population were women with infertility attending Gynaecological Clinic of Usmanu Danfodiyo University Teaching Hospital, Sokoto during the study period. Respondents were selected during each gynaecological clinic day by simple random sampling (balloting). A pool of 292 ballot papers were made, 146 labelled 'Yes' and '146' labelled 'No'. Women who presented to the gynaecological clinic due to infertility were counselled on the study and those who gave consent were asked to pick a ballot paper. Those women who chose 'yes' were enrolled into the study and women who selected 'No' were not recruited. A structured interviewer administered questionnaire was used to obtain socio-demographic characteristics and reproductive profile of the participants. Knowledge, perception and acceptability of child fostering and child adoption were also assessed.

Knowledge of the participants on fostering and adoption was assessed with 4 questions each and the score of 50% was good while score of less than 50% was poor. The respondents were also asked of their perception and acceptability of child fostering and adoption after they were educated on the two.

The information obtained was analyzed using SPSS version 21. Absolute numbers and simple percentages were used to describe categorical variables, while quantitative variables were described using mean and standard deviation.

RESULTS
One hundred and forty six respondents were interviewed during the two months period of the study. The socio-demographic characteristics of the respondents were shown on table 1. The age ranged from 15-49 years with a mean of 27 +/- 6 years. The respondents were predominantly married and only 4 (2.7%) were not married. Majority were Hausa/Fulani ethnic group 123(84.3%) and Muslims 135(92.5%). Most of the clients had secondary level of education 52(35.6%). Majority had Primary infertility 102(69.9%).

Table 1: Socio-demographic characteristics of respondents (n=146).

Characteristics	N	%
Age		
<20	16	11.0
20-29	76	52.1
30-39	46	31.5
40-49	8	5.5
Tribe		
Fulani	23	15.8
Hausa	100	68.5
Igbo	15	10.3
Yoruba	4	2.7
Others	4	2.7
Religion		
Islam	135	92.5
Christianity	11	7.5
Occupation		
Housewife	87	59.6
Civil servant	16	11.0
Petty trader	19	13.0
Artisan	16	11.0
Student	8	5.5
Marital status		
Married	142	97.3
Divorced	4	2.7
Educational status		
Informal	35	24.0
Primary	12	8.2
Secondary	52	35.6
Tertiary	47	32.2
Educational status of husband		
Informal	8	5.5
Primary	24	16.4
Secondary	11	7.5
Tertiary	103	70.5
Occupation of husband		
Artisan	20	13.6
Business	47	32.2
Civil servant	60	41.9
Petty trader	19	13.0

Majority 106(72.6%) had knowledge of fostering and 98 (67.1%) had knowledge of child adoption. Majority of the respondents 98(67.1%) perceived child fostering and adoption as good options for infertility management. However, 88(60.3%) would accept child fostering as an option for their infertility management, while 67(45.9%) would accept adoption. Table 2.

Table 2: Knowledge, Perception and Acceptance of Fostering and Adoption.

	Knowledge	Perception	Acceptability
Fostering	106 (72.6%)	98 (67.1)	88 (60.3%)
Adoption	98 (67.1%)	98 (67.1)	67 (45.9)

Tribe, occupation and educational status were significantly associated with knowledge of child fostering (p =.0001, 0.0001, 0.0001). Table 3

Table 3: Socio-demographic factors associated with knowledge on child fostering.

Factors	Good knowledge No(%)	Poor knowledge No(%)	χ^2/Fischer exact	*P* value
Age				
<20	12((75.0)	4(25.0)		
20-29	56(73.7)	20(26.3)	2.20	0.553
30-39	34(73.9)	12(26.1)		
40-49	4(50.0)	4(50.0)		
Tribe				
Fulani	23(100)	0		
Hausa	68(68.0)	32(32.0)		
Igbo	7(46.7)	8(53.3)	19.12	0.0001
Yoruba	4(100)	0		
Others	4(100)	0		
Occupation				
Housewife	71(81.6)	16(18.4)		
Civil servant	12(75.0)	4(25.0)		
Petty trader	11(57.9)	8(42.1)	26.9	0.0001
Artisan	12(75.0)	4(25.0)		
Student	0	4(100)		
Educational status				
Informal	23(65.7)	12(34.3)		
Primary	4(33.3)	8(66.7)		
Secondary	48(92.3)	4(7.7)	22.12	0.0001
Tertiary	31(66.0)	16(34.0)		

The number of living children is associated with knowledge of child fostering (p =0.005). Table 4

Table 4: Association between reproductive history and knowledge on child fostering.

Reproductive characteristics	Good knowledge n(%)	Poor knowledge n(%)	χ^2/Fisher exact	*P* value
Parity				
Para 0	64 (70.3)	27 (29.7)		
Para 1	19 (70.4)	8 (29.6)		
Para 2	12 (75.0)	4 (25.0)	3.40	0.48
Para 3	8 (100.0)	0 (0.0)		
Para 4	3 (75.0	1 (25.0)		
Number of living children				
None	73 (72.3)	28 (27.7)		
1 child	16 (80.0)	4 (20.0)	12.70	0.005
2 children	5 (38.5)	8 (61.5)		
3 children	12 (100)	0 (0.0)		
Duration of infertility				
Less than 5 years	70 (74.5)	24 (25.5)		
5-9 years	28 (77.8)	8 (22.2)	4.75	0.09
10 years and above	8 (50.0)	8 (50.0)		

Age, tribe, occupation were significantly associated with knowledge of child adoption (*p* =0.003, 0.0001, 0.004). Table 5.

Table 5: Socio-demographic factors associated with knowledge on child adoption.

Factors	Good knowledge No(%)	Poor knowledge No(%)	χ^2/Fisher exact	*p* value
Age				
<20	16((100)	0		
20-29	52(68.4)	24(31.6)	13.24	0.003
30-39	26(56.5)	20(43.5)		
40-49	4(50.0)	4(50.0)		
Tribe				
Fulani	23(100)	0		
Hausa	60(60.0)	40(40.0)		
Igbo	11(73.3)	4(26.7)	23.95	0.0001
Yoruba	0	4(100)		
Others	4(100)	0		
Occupation				
Housewife	67(77.0)	20(23.0)		
Civil servant	8(50.0)	8(50.0)		
Petty trader	7(36.8)	12(63.2)	14.93	0.004
Artisan	12(75.0)	4(25.0)		
Student	4(50.0)	4(50.0)		
Educational status				
Informal	23(65.7)	12(34.3)		
Primary	4(33.3)	8(66.7)		
Secondary	40(76.9)	12(23.1)	8.094	0.42
Tertiary	31(66.0)	16(34.0)		

The number of living children is significantly associated with knowledge of child adoption (p< 0.001). Table 6.

Table 6: Association between reproductive history and knowledge on child adoption.

Reproductive characteristics	Good knowledge n(%)	Poor knowledge n(%)	χ^2/Fisher exact	*P* value
Parity				
Para 0	60 (65.9)	31 (34.1)		
Para 1	19 (70.4)	8 (29.6)		
Para 2	8 (50.0)	8 (50.0)	6.43	0.152
Para 3	8 (100.0)	0 (0.0)		
Para 4	8 (75.0)	1 (25.0)		
Number of living children				
None	78 (77.2)	23 (22.8)		
1 child	8 (40.0)	12 (60.0)	19.12	<0.001
2 children	4 (30.8)	9 (69.2)		
3 children	8 (66.7)	4 (33.3)		
Duration of infertility				
Less than 5 years	66 (70.2)	28 (29.8)		
5-9 years	24 (66.7)	12 (33.3)	2.53	0.28
10 years and above	8 (50.0)	8 (50.0)		

Tribe, occupation and educational status were significantly associated with acceptability of child fostering (p =0.0001, 0.0001, 0.005). Table 7

Table 7: Socio-demographic factors associated with acceptability of child fostering.

Factors	Accept No(%)	Will not accept No(%)	χ^2/Fisher exact	*p* value
Age				
<20	12((75.0)	4(25.0)		
20-29	48(63.2)	28(31.6)	3.32	0.342
30-39	24(52.2)	22(47.8)		
40-49	4(50.0)	4(50.0)		
Tribe				
Fulani	8(34.8)	15(65.2)	21.73	0.0001
Hausa	64(64.0)	36(36.0)		

Igbo	12(80.0)	3(20.0)		
Yoruba	0	4(100)		
Others	4(100)	0		
Occupation				
Housewife	60(69.0)	27(31.0)		
Civil servant	8(50.0)	8(50.0)	21.63	0.0001
Petty trader	4(21.1)	15(78.9)		
Artisan	8(50.0)	8(50.0)		
Student	8(100.)	0		
Educational status				
Informal	16(45.7)	19(54.3)		
Primary	4(33.3)	8(66.7)	12.80	0.005
Secondary	40(76.9)	12(23.1)		
Tertiary	28(59.6)	19(40.4)		

The number of living children and the duration of infertility were significantly associated with acceptance of child fostering (p<0.001). Table 8

Table 8: Association between reproductive history and acceptability of child fostering.

Reproductive characteristics	Good knowledge n(%)	Poor knowledge n(%)	χ^2/Fisher exact	*P* value
Parity				
Para 0	58 (63.7)	33 (36.3)		
Para 1	16 (59.3)	11 (40.7)		
Para 2	8 (50)	8 (50.0)	2.02	9.76
Para 3	4 (50)	4 (50.0)		
Para 4	2 (50)	2 (50.0)		
Number of living children				
None	67 (66.3)	34 (33.7)		
1 child	4 (20.0)	16 (80.0)	27.30	< 0.001
2 children	13 (100)	0 (0.0)		
3 children	4 (33.3)	8 (66.7)		
Duration of infertility				
Less than 5 years	60 (63.8)	34 (36.2)		
5-9 years	12 (33.3)	24 (66.7)	21.95	< 0.001
10 years and above	16 (100)	0 (0.0)		

Age and occupation were significantly associated with acceptance of child adoption (p =0.01, 0.042). Table 9

Table 9: Socio-demographic factors associated with acceptability of child adoption.

Factors	Accept No(%)	Will not accept No(%)	χ^2/Fisher exact	*p* value
Age				
<20	8((50.0)	8(50.0)		
20-29	32(42.1)	44(57.9)	10.89	0.01
30-39	27(58.7)	19(41.3)		
40-49	0	8(100)		
Tribe				
Fulani	12(52.2)	11(47.8)		
Hausa	44(44.0)	56(56.0)	8.05	0.72
Igbo	7(46.7)	8(53.3)		
Yoruba	0	4(100)		
Others	4(100)	0		
Occupation				
Housewife	44(50.6)	43(49.4)		
Civil servant	4(25.0)	12(75.0)		
Petty trader	7(36.8)	12(63.2)	4.84	0.042
Artisan	12(75.0)	4(25.0)		
Student	0	8(100)		
Educational status				
Informal	16(45.7)	19(54.3)		
Primary	8(66.7)	4(33.3)	2.61	0.463
Secondary	24(46.2)	28(53.8)		
Tertiary	19(40.4)	28(59.6)		

Parity (p =0.001), number of living children (p =0.002) and duration of infertility (p =0.008) were significantly associated with acceptance of adoption.

Table 10: Association between reproductive history and acceptability of child adoption

Reproductive characteristics	Good knowledge n(%)	Poor knowledge n(%)	χ^2/Fisher exact	*P* value
Parity				
Para 0	44 (48.4)	47 (51.6)		
Para 1	8 (29.6)	19 (70.4)	17.04	0.001
Para 2	12 (75.0)	4 (25.0)		
Para 3	0 (0.0)	8 (100.0)		
Para 4	3 (75.0)	1 (25.0)		
Number of living children				
None	55 (54.5)	46 (45.5)		
1 child	8 (40.0)	12 (60.0)	14.63	0.002
2 children	4 (30.8)	9 (69.2)		
3 children	0 (0.0)	12 (100)		
Duration of infertility				
Less than 5 years	35 (37.2)	59 (62.8)		
5-9 years	20 (55.6)	16 (44.4)	9.65	0.008
10 years and above	12 (75.0)	4 (25.0)		

DISCUSSION

Majority of the patients were young adults in their twenties, which was similar to what was found in Kano[14] and Zaria.[18] The ethnic and religious distribution of the clients reflects a typical composition of Sokoto city where majority of the indigenes are Muslims and also Hausa/Fulani. The study was conducted in a teaching hospital and it's not surprising that most of the respondents had secondary or tertiary level of education.

About 72.6% of the respondents had good knowledge of fostering and 67.1% had knowledge of adoption. A previous study from the same centre revealed that 74.8% had knowledge of adoption.[14] In Kano North-Western Nigeria, 59.2% of the respondents had good knowledge of both fostering and adoption.[9] In a study conducted in Zaria also in North-West Nigeria, 89.4% of the respondents were aware of child adoption.[13] The study done in Lagos, South-West Nigeria showed that 85.7% were aware of adoption while 59.3% knew the correct meaning of adoption.[15] While in Enugu South-East Nigeria 86.4% were aware of child adoption but only 27.3% knew the correct meaning.[16] The differences observed in the various studies are likely due to the scoring methods for the knowledge or awareness level.

Majority (67.1%) of the respondents had good perception of fostering and adoption in our study. It is expected that perception on fostering should be better due to the ethnic and religious background of the majority of the respondent. This may have been nullified by the effect of high level of education of the patients seen in the centre of the study which is a tertiary hospital. In the Kano study 80% had good perception on child fostering while 70.4% had good perception on adoption.[9] In the Zaria study 77% agreed that adoption was a good practice.[13]

Likewise in Edo South-South Nigeria 80% of the respondents felt that the idea of adoption was good.[17]

In our study, 60.3% of respondents would accept fostering while 45.5% would accept child adoption. This finding may be explained by the cultural environment of Sokoto where the study was conducted, and the religion of most of the respondents is Islam, which favours child fostering over child adoption. A previous study on child adoption in Sokoto showed that willingness to adopt was 27.2%.[14] The difference in the questionnaire is like responsible for the difference. In our study the question was 'would accept' while in the previous study it is 'willing'. From the study conducted in Kano only 35% were willing to adopt a child and less than 40% were willing to foster a child.[14] In the Lagos[15] study 33.7% were willing to adopt a child while 30.7% were willing to adopt in the study conducted in Enugu.[16] It was observed that 62% of respondents were favourably disposed to the idea of adoption in study by Aluyor and Salami.[17]

We assessed associations of socio-demographic/ reproductive history of the respondents with knowledge/acceptability of fostering and adoption. The number of living children, tribe, occupation and educational status were significantly associated with knowledge of child fostering while Age, tribe and occupation were associated with knowledge of adoption. The number of living children, duration of infertility, tribe, occupation and educational status were associated with acceptance of fostering while parity, number of living children, duration of infertility, age and occupation were associated with adoption. In the study from Kano, none of the social factors considered had significant association with fostering.[9] However the religion of the respondents was significantly associated with adoption. In the Zaria study there was strong association between

number of living children and the willingness to adopt a child.[13] The factors that were favourable towards adoption in the Lagos study were tribe (Igbo), age above 40 years, duration of infertility above 15 years and knowledge of adoption.[15] The number of living child (no living child), duration of infertility (>5years), knowledge of adoption, age (>35 years), previous orthodox treatment, tubal factor were associated with favourable attitude towards adoption in the study done in Enugu.[16]

CONCLUSION
The knowledge of fostering and adoption was high and good number of women would accept child fostering but acceptability of adoption was lower. The number of living children, tribe, occupation and educational status were significantly associated with knowledge of child fostering while Age, tribe and occupation were associated with knowledge of adoption. The number of living children, duration of infertility, tribe, occupation and educational status were associated with acceptability of fostering while parity, number of living children, duration of infertility, age and occupation were associated with acceptability of child adoption.

Continuous education of women and the community is necessary to improve their knowledge of adoption and fostering which are viable and fulfilling options of fertility management.

CONFLICT OF INTEREST
We declare no conflict of interest.

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