national vvf project nigeria

evaluation report III

(January through June 1993)

reprint

Babbar Ruga Fistula Hospital
KATSINA

and

Laure Fistula Center
KANO

by

Kees WAALDIJK

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VVF-projects

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third evaluation report
VVF-projects KANO and KATSINA

introduction

Babbar Ruga Fistula Hospital is situated near KATSINA Town, the capital of Katsina State, 23,400 sq km with a population of 5-6 million people.
The majority of patients come from Katsina State, some 25-30% come from bordering Niger Republic and a minority 5-10% come from all over Northern Nigeria.
Laure Fistula Center is situated within KANO Town, the capital of KANO state, together with Jigawa State (until 2 years ago part of Kano State) some 40,000 sq km with a population of 8-10 million people.
Almost all patients come from Kano State and Jigawa State; surprisingly many patients come from within KANO metropolis.
Both states are located in the Northern parts of the federation of Nigeria, 924,000 sq km with a population of 100-110 million people.
The distance between the two hospitals is roughly 200 km. The consultant is travelling in between these centers spending 5 full days a week in Katsina and 2 full days a week in Kano.
From the experience during the last years it seems that the action radius of a special fistula center is 100-120 km serving an area of some 40.000 sq km (comparable to Holland).
The two centers combined serve an area of 70-80,000 sq km (the size of the Benelux: Belgium, Netherlands and Luxembourg combined) with a population of 15 million people.

long-term objectives

Prevention of the obstetric fistula can only be achieved by a stengthening of the secondary health care, i.e. by setting up a network of obstetric units. At the moment we cannot speed up this process (money, expertise and manpower!!), but time and especially education have to take care of this.
It will take at least 50 years before this is achieved and until that time the obstetric fistula will be a major public health problem.
The only role primary health care can play in prevention is by detecting risk factors during (ante)natal care, and to arrange as soon as possible for an immediate cesarean section if obstructed labor develops.
The only thing we can tackle now is the prevention of harmful traditional practices responsible for some 5% of the fistulas seen, and we shall concentrate on this aspect. First the traditional practices have to be studied and then an enlightment programme will be set up. For this Dr Aminu SAFANA has come back to Babbar Ruga Fistula Hospital.

short-term objectives

KATSINA

The objective of making it a **national** fistula training center for all kinds of indigenous Nigerian doctors has been achieved.

The hospital can accommodate at least 250 fistula patients with a high-quality hostel (3 blocks of 50 beds, only 2 beds per room), a low-quality hostel (2 renovated wards with 50 beds, already built in 1930!) and a high-quality postoperative ward of 38 beds (donated by the YAR'ADUA family from KATSINA) which can be extended up to 60-75 beds any time the need arises. For this the Katsina Government spent 6 million naira during 1991. The only thing left is the reliable supply of **clean** water to the hospital in stead of the present supply of water by hand from several wells on the compound. The theoretic capacity of 1,000-1,500 repairs a year seems to be sufficient for now and in the future.
The last phase of upgrading the operation theater complex, by creation of a separate sterilization room and a separate scrubbing room within the existing facilities, will be completed by the end of this year. Also an electric autoclave has been supplied by the Katsina State Government.
The **only setback**, and it is a major one, is the fact that there is only one operation table available and that table is broken down. **With a second operation table the output could be increased by 30%.** For the time being it is (almost?) impossible to acquire these expensive pieces of equipment.
Therefore the objective to perform 1,500 repairs a year by the end of 1996 will not be achieved, unless some organization (government, relief association, private person??) will provide these items.

KANO

Any organization planning to start a fistula center should study the KANO model as it is a combination of Federal Government, State Government, nongovernment organizations (National Council of Women Societies NCWS and Ford Foundation) and private persons.
The objective of making it a **national** fistula training center for all kinds of indigenous Nigerian doctors has been achieved.
Some progress has been made in developing it into an **international** training center since The National Task Force on VesicoVaginal Fistula discussed and approved the training of other doctors from (West) Africa. The problem is which doctors (only consultants?), which type of training (observation only or practical?), how long (for consultants the best is 3 training sessions of 2 weeks with an interval of 3-4 months so they can identify their own specific problems in between!, but is this feasible?) and last who is going to sponsor their training (without sponsoring no training). The only thing clear is that applications for this training should be sent to the National Task Force on VesicoVaginal Fistula.
The **first major setback** is that there are only 20 postoperative beds available with a theoretic capacity of only 10 repairs a week and 500 repairs a year which is not enough by far to attend to all the patients. Not even now and certainly not in the near future with an expected number of 800-1,000 patients a year.
Even if the capacity will be increased up to 30-40 postoperative beds, the **second major setback** is that there is only one malfunctioning operation table present whilst there is a need for two functioning ones.
If this situation continues, the objective of 1,000 repairs a year by the end of 1996 will not be reached.

In both centers KANO and KATSINA there is an urgent need for 2 hydraulic well-functioning operation tables; so four in total
In KANO the number of postoperative beds has to be increased to cope with the increased demand
N.B. cost per operation table: US 25-30,000

activities

A nation-wide strike of all civil servants which lasted 6 weeks followed by a state-wide strike of the hospital personnel in Katsina State which lasted 3 weeks disrupted part of our programme. Many patients, disappointed as all action stopped and not even being seen, left the hospitals and it will take time before they return.

training (see Annex I)

general doctors with at least 3 yr surgical experience

With interruptions 3 doctors were trained; one doctor left the training as he changed to another field of medicine.

The sponsoring of this type of training by the Ford Foundation was coming to an end. Luckily Mrs Amina SAMBO, National Coordinator of the Task Force and member of NCWS, when visiting the United States could secure sponsoring of this training for another 2 years.

senior registrars in gynecology/obstetrics

Only one senior registrar attended, then the strikes started and then there were difficulties with sponsoring. Luckily the Carnegie Corporation agreed to extend the period of sponsoring, and training will restart in August.

visiting consultants

One consultant gynecologist from Holland visited both centers for 2 weeks in order to update his knowledge and skills in fistula surgery. He himself had worked for over 20 years in different countries in Africa.

training curriculum

The short notes on and checklist of VVF/RVF have been completed, and were handed out to all trainees and to all the nurses working in the wards and operation theaters.

surgery

Despite the multiple strikes a total of 477 repairs and related operations were performed during the first 6 months of 1993, viz. 273 in KATSINA and 204 in KANO; see Annex II. Still there are some 300 patients on the waiting list and an effort has to be made to increase the number of operations (see **short-term objectives**).

As soon as the postoperative capacity in KANO has been increased up to 30-40 beds, the consultant will change his operation rhythm into 3 full days a week in KANO and 4 full days a week in KATSINA.

The success rate at closure is roughly 90% **per operation.**

research

Since December 1992 all operation reports are computerized immediately following the repair which is a nice change from the handwork on a typewriter. A fast computer (486 processor) with a large capacity ($\geq$240 MB) is needed including the software to computerize the 250,000-300,000 parameters of the ever-growing database.

Based upon retrospective and prospective research studies (documented completely and clearly and included into the database) several articles have been prepared and sent off.

Due to the isolation of Northern Nigeria (malfunctioning telecommunication in its broadest sense) from the industrialized world, it is difficult to find the right journals to publish the results.

Part of the field research data will be presented first in these evaluation reports and then later sent off for publication.

sex/condition of the infants born (see annexes)

Though it does not seem relevant, an evaluation of the sex and condition of the infants born (when the mother developed an obstetric fistula) have been worked out in over 2,500 fistula patients. The main question is **which are the mechanisms responsible for the male:female sex ratio of 2:1??**

Anybody who thinks he has an answer and explanation is welcome to enligthen the author.

spinal anesthesia

Dr Iliyasu ZUBAIRU is preparing an article based upon a prospective study of spinal anesthesia in 250 consecutive VVF/RVF-repairs in KANO.

harmful traditional practices leading to fistula

Dr Aminu SAFANA has come back to KATSINA to perform reasearch in order to get a Ph D in public health at the University of LEEDS. His research will include the public health aspects of **yankan gishiri** in order to start an enlightment campaign for prevention; as well as the surgical aspects of the repair.

immediate surgical management; with early closure (see report)

The immediate surgical management (with early closure) of **fresh obstetric fistulas** with a less than 3-month duration constitutes a breakthrough.

Out of the 170 consecutive patients treated by this procedure during the 10 month period August 1992 through May 1993, **the fistula has been closed in 156 (91.8%)** with preliminary incontinence in 15 (9.6%). Only 2 patients had serious incontinence; the mild stress incontinence in the other 13 will improve within the next months.

Its main advantage is not only its high success rate, but especially the prevention of the girl/woman from being ostracized out of her own society.

conclusion

The activities and the progress made sofar are more or less in line with the objectives of the project documents.

The establishment of the two national training centers in KANO and KATSINA has been completed.

The training of indigenous Nigerian doctors is going like planned with some minor problems.

The number of patients operated is large but less than wished; responsible factors have been indicated.

A proper database with some 250,000-300,000 parameters has been established which provides valuable epidemiologic and clinical baseline data.

The field research seems to be better than expected. The biggest achievement is the development of an immediate active surgical strategy in fresh obstetric fistulas.

P.S.

what about the rest of the 1,5-2 million VVF-patients in Africa?

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KANO

30th of June 1993

annex I

list of trainees

general doctors with at least 3 yr surgical experience

Dr Abdu ADO	Katsina State
Dr Said AHMED	Jigawa State
Dr Yusha'u ARMIYA'U	Katsina State
Dr Shehu BALA	Katsina State
Dr Umaru DIKKO	Kano State
Dr Benedict ISHAKU	Plateau State
Dr Momoh Omuya KADIR	Kogi State
Dr Hassan LADAN	Kebbi State
Dr Gamaliel Chris MONDAY	Plateau State
Dr Aminu SAFANA	Katsina State
Dr (Mrs) Yalwa USMAN	Kano State
Dr Munkaila YUSUF	Kano State
Dr Iliyasu ZUBAIRU	Adamawa State

senior registrars

Dr Yomi AJAYI	IBADAN
Dr Nosa AMIENGHEME	ILE-IFE
Dr Lydia AUDU	SOKOTO
Dr Nestor INIMGBA	PORTHARCOURT
Dr Jesse Yafi OBED	MAIDUGURI
Dr Dapo SOTILOYE	ILORIN
Dr Emmanuel UDOEYOP	JOS

visiting consultants

Prof Dr Shafiq AHMAD	PESHAWAR, Pakistan
Dr Frits DRIESSEN	NIJMEGEN, Holland
Prof Dr Jelte DE HAAN	MAASTRICHT, Holland
Dr Vivian HIRDMAN	STOCKHOLM, Sweden
Dr Oladosu OJENGBEDE	IBADAN, Nigeria
Dr Ulrich WENDEL	MAIDUGURI, Nigeria

annex II

VVF/RVF-repairs in Babbar Ruga and Laure Fistula Centers

	KANO		KATSINA		grand total
	VVF	RVF	VVF	RVF	
1984	-	-	83	6	89
1985	-	-	196	20	216
1986	-	-	260	18	278
1987	-	-	318	7	325
1988	-	-	353	31	384
1989	-	-	464	21	485
1990	222	25	416	29	692
1991*	248	17	195	4	464*
1992	348	27	529	34	938
1993 1st half	193	11	245	28	477
total	1,011	80	3,059	198	**4,348**

total VVF-repairs and related operations: **4,070**

total RVF-repairs and related operations**:** **278**

total: 4,348

success rate at **VVF** closure roughly **90%** per operation

success rate at **RVF** closure roughly **70%** per operation

* sabbatical leave consultant for 6 mth

duration of leakage at operation

general

the duration of leakage at time of operation tells something about the (non)availability of a VVF-service, the quality/quantity of an existing VVF-service, the awareness of the general public (and patient) that something can be done, and the duration of a VVF-service; of course, it also gives an indication of how long these girls/women have been suffering

there is a patient's delay in coming and a treatment's delay due to the nonavailability of expertise and facilities

once a successful repair has been performed in a specific hospital, many more patients are coming

the better the expertise and the more facilities, the more patients come

the number of postoperative beds is a limiting factor for the number of operations which can be performed

a hostel where patients can stay preoperatively is important for a smooth organization of the VVF-service; also they can stay there when they come for postoperative check-up

the normal intensive action radius of a functioning VVF-center seems to be 100 to 120 km; then it is declining rapidly

once a center gets a certain "fame" also patients are coming from far away (exceptionally more than 1,000 km) for treatment

specific

since a hostel was opened where the patients could stay preoperatively, most patients stayed there until their turn; before that time they were given a date to return, but many did not stick to their appointment and sometimes came back years later claiming they had difficulties at home

since a start was made in 1992 to immediately close the fistula as soon as the slough had gone, especially in the big town KANO more patients were referred almost immediately after labor and this seemed to be another incentive for the patients to come forward early for treatment

as catheter treatment was indicated in patients leaking up to 3 months the duration of leakage was very short in these groups

as normally the RVF was operated after the VVF had healed, the duration tended to be longer in these groups

interpretation

the figures do not give straightforward information, but should be interpreted taking into account all the factors involved

duration of leakage in years

patients	<1	1	2	3	4	5	6-10	11-20	21-30	>30	yr
katsina-vvf											
1-100	26	17	17	14	9	9	4	4	5	6	
101-200	29	18	17	8	7	4	15	2			
201-300	20	23	10	14	10	6	13	4			
301-400	21	10	14	15	11	3	24	2			
401-500	39	10	17	9	3	4	16	2			
501-600	37	16	9	6	6	7	13	3	2	1	
601-700	46	11	7	6	5	3	17	4	1		
701-800	30	11	8	15	11	10	9	3	2	1	
801-900	36	16	4	6	7	8	18	5			
901-1000	50	7	11	7	5	8	9	2	1		
1001-1100	54	8	7	4	4	3	13	7			
1101-1200	28	15	6	8	5	4	28	5	1		
1201-1300	45	16	6	8	1	2	15	6	1		
1301-1400	57	14	7	1	4	1	10	6			
1401-1500	46	15	12	5	4		9	6	3		
1501-1600	42	10	12	7	6	5	9	8	1		
1601-1700	54	8	8	2	3	4	12	6	3		
kano-vvf											
1-100	18	14	22	7	4	5	25	5			
101-200	52	7	9	3	2	4	19	3	1		
201-300	57	11	4		5	4	15	4			
301-400	50	15	10	4	4	1	11	5			
katsina-catheter											
1-100	90	4	1	2	1		1	1			
101-200	96	1	1	1			1				
kano-catheter											
1-100	97		2			1					
katsina-rvf											
1-100	27	11	20	8	10		15	3			

duration of leakage in years
total figures per center

total	<1	1	2	3	4	5	6-10	11-20	21-30	>30	yr
katsina-vvf											
1702	661	225	173	135	101	81	234	75	14	3	
in %	**38.8**	**13.2**	**10.2**	**7.9**	**5.9**	**4.8**	**13.7**	**4.4**	**0.8**	**0.2**	**%**
kano-vvf											
424	195	49	45	14	16	14	73	17	1		
in %	**46.0**	**11.6**	**10.6**	**3.3**	**3.8**	**3.3**	**17.2**	**4.0**	**0.2**		**%**
katsina-catheter											
292	274	7	3	3	1	1	2	1			
in %	**93.8**	**2.4**	**1.0**	**1.0**	**0.3**	**0.3**	**0.7**	**0.3**			**%**
kano-catheter											
133	128		2				2		1		
in %	**96.2**		**1.5**				**1.5**		**0.8**		**%**
katsina-rvf											
137	39	13	29	9	11	7	23	5	1		
in %	**28.4**	**9.5**	**21.2**	**6.6**	**8.0**	**5.1**	**16.8**	**3.6**	**0.7**		**%**
kano-rvf											
45	11	7	9	3	3	2	9	1			
in %	**24.4**	**15.6**	**20.0**	**6.7**	**6.7**	**4.4**	**20.0**	**2.2**			**%**

duration of leakage in years
total figures for VVF-repair, VVF-catheter and RVF-repair

total	<1	1	2	3	4	5	6-10	11-20	21-30	>30	yr
vvf-repair											
2126	856	274	218	149	117	95	307	92	15	3	
in %	**40.3**	**12.9**	**10.3**	**7.0**	**5.5**	**4.5**	**14.4**	**4.3**	**0.7**	**0.1**	**%**
vvf-catheter											
425	402	7	5	3	1	1	4	1	1		
in %	**94.6**	**1.6**	**1.2**	**0.7**	**0.2**	**0.2**	**0.9**	**0.2**	**0.2**		**%**
rvf-repair											
182	50	20	38	12	14	9	32	6	1		
in %	**27.4**	**11.0**	**20.9**	**6.6**	**7.7**	**4.9**	**17.6**	**3.3**	**0.5**		**%**

cause of fistula

since the establishment of a functioning obstetric network in the industrialized world, there has been a shift there from obstetric fistulas to other types of fistula; if encountered it constitutes a rarity nowadays

in the developing world, especially in Africa, where there is no network of functioning obstetric units, obstructed labor remains the main cause of VVF and RVF

the obstetric fistula still accounts for over 85-90% of all the 2 million fistulas world-wide

it has nothing to do with age, parity, religion, education, tribe, social status or whatsoever, but only with the fact if the obstructed labor can be relieved in time by a cesarean section, i.e. is an obstetric unit available and is it used in time

there is not only obstruction of labor but also obstruction at any level of labor management such as obstruction at antenatal care, obstruction at diagnosis, obstruction at decision taking what to do with the woman, obstruction in getting money to pay for transport and medical care, obstruction at transport, and obstruction at secondary and eventually at tertiary health care level to organize for a cesarean section.

theoretically the solution is very simple, to provide an easy access to a proper obstetric unit for any woman who needs it; if this is achieved then to change sociocultural patterns sothat any woman who needs it also goes to this unit

this has happened in the industrialized world; but how can this be achieved in the developing world?

for the inhabited parts of Africa (some three fifths of 30,244 million sq km) a total network of 75,000 obstetric clinics are needed each serving an area of 320 sq km; each clinic has to be fully equipped (operation table, instruments, autoclave, blood bank etc) and needs higly specialized personnel (surgeon, anesthetist, theater nurses and anesthetic nurses etc)

any fistula which developed as a result of labor was classified as obstetric including those due to harmful traditional practices during labor and those due to cesarean section (harmful medical practices?).

cause of fistula

patients	obstetric	nonobstetric
katsina-vvf		
1-100	97	3
101-200	91	9
201-300	97	3
301-400	94	6
401-500	91	9
501-600	97	3
601-700	96	4
701-800	94	6
801-900	95	5
901-1000	95	5
1001-1100	95	5
1101-1200	88	12
1201-1300	97	3
1301-1400	96	4
1401-1500	96	4
1501-1600	94	6
1601-1700	95	5
kano-vvf		
1-100	88	12
101-200	95	5
201-300	90	10
301-400	96	4
katsina-catheter		
1-100	96	4
101-200	97	3
kano-catheter		
1-100	95	5
katsina-rvf		
1-100	95	5

cause of fistula
total figures per center

total patients	obstetric	nonobstetric
katsina-vvf		
1702	1610	92
in %	**94.6%**	**5.4%**
kano-vvf		
424	391	33
in %	**92.2%**	**7.8%**
katsina-catheter		
292	283	9
in %	**96.9%**	**3.1%**
kano-catheter		
133	127	6
in %	**95.5%**	**4.5%**
katsina-rvf		
137	128	9
in %	**93.4%**	**6.6%**
kano-rvf		
1-45	42	3
in %	**93.3%**	**6.7%**

cause of fistula
total figures per VVF-repair, VVF-catheter and RVF-repair

total patients	obstetric	nonobstetric
vvf-repair		
2126	2001	125
in %	**94.1%**	**5.9%**
vvf-catheter		
425	410	15
in %	**96.5%**	**3.5%**
rvf-repair		
182	170	12
in %	**93.4%**	**6.6%**

acknowledgment

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Federal Government of Nigeria

Kano State Government

Katsina State Government

Ford Foundation, LAGOS

Kiwani Club, ALPHEN a/d RIJN

Kiwani Club, TIEL

National Council of Women's Societies, KANO

Netherlands Leprosy Relief Association, AMSTERDAM

Schumacher-Kramer Stichting, AMSTERDAM

Stichting van Tiel tot Tropen, TIEL

YAR'ADUA family, KATSINA

Wereldwinkel, MAASTRICHT

Staff of Babbar Ruga Fistula Hospital, KATSINA

Staff of Laure Fistula Center, KANO

Staff of Kwalli Hostel, KANO

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