

Assessment of the Contribution of Traditional Birth Attendants in Maternal and Child Health Care Delivery in the Yendi District of Ghana

Ziblim Shamsu-Deen
FACULTY OF INTEGRATED DEVELOPMENT STUDIES (IDS)
UNIVERSITY FOR DEVELOPMENT STUDIES (UDS)
WA UPPER WEST REGION, GHANA

Contact: 233244202759, Email: zshamsu@yahoo.com

Abstract

Maternal and newborn morbidity and mortality continue to be a problem with a huge disparity between developed and developing countries. About 99% of maternal and newborn deaths occur in low and middle income countries, globally amounting to about 500 000 maternal deaths and 8 million peri-neonatal deaths per year. In this settings Traditional Birth Attendants (TBAs), who are mostly women embedded in the community and its socio-cultural frame with no formal medical training and no connection to the formal health system, play a major role around childbirth. TBAs exist since centuries and still continue to be the major providers of care for families, in poor and remote areas where they assist up to 50 - 80% of deliveries. This paper therefore examine the role Traditional Birth Attendants play in maternal and child health in remote communities in the Yendi District of the Northern Region of Ghana and to come out with some policy recommendations that will help in achieving the MDGs 4 and 5.

Introduction:

Rites, special places, special caretakers and tools for childbirth can be identified back to prehistory of mankind (Beausang 2000). Nowadays Traditional Birth Attendants (TBAs), who are community members with no formal medical training, still continue to provide numerous services around childbirth all over developing countries as traditional practitioners. They are mentioned in literature back to mid 19th century (Lang 2005) and have been involved in national and international health programs since that time, with a peak of interventions in the 1970s and 1980s. The enthusiasm declined in the 1990s with a debate on their cost-effectiveness and the missing impact of TBAs training to reduce maternal mortality. By 1997, senior policy makers decided to shift priorities on the provision of "Skilled Birth Attendants" (SBA). The definition of SBA excluded TBAs and resulted in subsequent withdrawal of funding for TBA training and exclusion of TBAs in policies and programs worldwide (Kruske & Barclay 2004). Data from the World Health Organization (Proportions of births attended by a skilled health worker. WHO 2008) show, that worldwide 34% of births, i.e. 45 million births, occur at home assisted by a TBA or family member or nobody at all. This scenario we find especially in developing, poor and remote areas. In some countries (Afghanistan, Bangladesh, Chad, Ethiopia, Laos, Mali, Nepal, Niger, Timor-Leste, Yemen) around 80% and even more of all births take place outside of the medical system. At the same time, these settings account for the highest number of morbidity and mortality of mothers and newborns worldwide. The choice of mothers, not to have medical care by a SBA for herself and her newborn, might be due to cultural beliefs, transport/mobility restrictions or financial barriers (Bazzano et al. 2008; Cotter et al. 2006; Kowalewski et al. 2002; Molesworth 2007; Seljeskog et al. 2006; State of World Population UNFPA 2008; Yanagisawa et al. 2006) or simply by the fact, that access to the health system is limited because it cannot provide sufficient numbers of SBAs and services (WHO Annual report 2007, 2008; UNFPA Towards MDG 5, 2006; WHO World Health Statistics 2008, 2008). From a public health view, it might therefore be crucial to rethink about the potential of TBAs to provide care, where the public health system is not able to scale-up human resources and make services/infrastructure available in future and to identify further need for research and interventions to improve the performance of TBAs.

There is a broad spectrum of policies, descriptive literature and various analytical studies on TBA, as well as reviews and meta-analysis which are mostly about their effectiveness. However debate could not find a common ground so far and opinions and results on the impact of TBAs activities on maternal and newborn health continue to be conflicting.

The aim of this paper is to identify existing roles of TBAs in the Yendi district on maternal and child health. A special focus will be the identify the significant impact their roles have on the health of pregnant women and their newborns.

Vol.3, No.4, 2013



These systematic reviews will be analyzed by a narrative critical report, with the main goal to identify a possible need for further research, missed opportunities and possible new potentials for TBAs.

Definition, activities and status of TBAs

"A traditional Birth Attendant (TBA) is a person who assists the mother during childbirth and initially acquired her skills by delivering babies herself or through apprenticeship to other traditional birth attendants. A family TBA is a TBA who has been designated by an extended family to attend births in the family. A trained TBA is a TBA or a family TBA who has received a short course of training through the modern health care sector to upgrade her skills". (WHO Traditional birth attendants 1992). In 1997 with the policy shift on SBA, an important differentiation took place: "They (the TBAs) do not meet the criteria of a skilled birth attendant, which is defined as an accredited health professional – such as a midwife, doctor or nurse – who has been educated and trained to proficiency in the skills needed to manage normal (uncomplicated) pregnancies, childbirth and the immediate postnatal period, and in the identification management and referral of complications in women and newborns" (WHO Skilled birth attendants 2008).

As TBAs are not a homogenous group and as their profile varies considerably in societies, the defined category of a TBA might be difficult to apply in general, even though there might be some universally acknowledged attributes (Diaz Ortiz 2006; Fleming 1994; Solomon 1989). The concept of "traditional birth attendant" is also seen as an artificial construct made by the biomedical-system (Davis-Floyd 2008), to make them fit in international health development policies with a focus on delivery care (Pigg 1995; Pigg 1997). Many authors, especially during the 1980s, use the term "traditional midwife", which expresses the broad work field of a TBA in assisting women, not only restricted to pure birth assistance, in a much better way (Anderson & Straugard 1988).

Traditional Birth Attendants and Health Delivery in Ghana

TBAs are part of the birthing process through the developing world, assisting in the births of substantial proportion of the world's newborns. Usually self thought or informally trained. TBAs also provide advice and practical help in cleaning, caring for the households of pregnant women and new mothers. Because TBAs generally hold a position of respect and influence within the communities they are uniquely equipped to inform and assist women and their families for deliveries.

Although the Maternal and Neonatal Health programme advocates that every pregnant woman seek care from skilled provider it is also acknowledge the important role of TBAs in providing additional services such as: practical help, education and counseling to women. It is true that TBAs cannot substitute for skilled provider; they can contribute to the survival of mothers and newborns by facilitating access to needed information, clinical service and support. They also serve as a link between the women the hinterland and the modern health delivery by referring complications to the modern facilities.

The role of TBAs started to be taking seriously in the early 1950s when high maternal mortality became a concern in many developing countries. A number of studies, surveys and reviews generated international interest in the traditional health care provider, and several countries started training TBAs in clean and home delivery and some other health care- related roles. For more than twenty-five years, bilateral and international donor agencies and nongovernmental and local organizations poured resources into TBAs training programmes, with the expectation that TBAs would contribute to the reductions in maternal mortality

Studies of effectiveness of these training programmes, however, showed that reductions in maternal mortality occurred only in the area where the TBAs had skilled background support. The studies also found the majority of programmes were ineffective because TBAs did not have sufficient literacy or general knowledge when they started their training. Without supervision and background support, they tended to slide back into old ways and were not able to prevent death when life- threatening complications arose during childbirth. Although training programmes for TBAs have not contributed directly to the reduction in maternal mortality, they do appear to improve TBAs effectiveness in other areas. TBAs training programmes have contribute to TBAs effectiveness in reducing neonatal tetanus, increasing the use and provision of antenatal care and enhanced timely referrals of complications.

Methodology

The paper uses data from a survey of Traditional birth attendants in the Yendi District in the Northern Region of Ghana that was conducted during the first quarter of 2012 in the Yendi District. Quantitative methodologies are complemented with qualitative work, including in-depth interviews with TBAs, medical professionals, NGOs and opinion leaders. Some focus group discussions were also organized among women who were attended to by TBAs on their views on the work of TBAs. Key informants interviews were also adopted.



Result and Discussions

The Role of TBA in maternal and Child delivery in Yendi district

TBAs in Yendi are responsible for delivering pregnant women in the localities in which they find themselves and beyond. The traditional role of this people has mainly been child delivery. After child birth they are responsible for bathing the child for at least a month and thereafter the nursing mother takes over. (Household survey 2008)

The contemporary TBAs are required to serve as health intermediaries between their community members and the orthodox health sector with responsibility of educating women on breast feeding, family planning & Maternal Care and identification of mothers at risk during labor and arrangement for referral to health facilities. This study points to the fact that TBAs play three basic roles in health delivery system. These include antepartum, partum and postpartum.

Maternal and Child Health in Yendi district in Northern Ghana is consisting of the following services. Their activities include safe delivery, the welfare of the child after delivery and other activities that will help in promoting the health of the mother and child.

- i. Maternal Health
- ii. Health Education
- iii. Family Planning
- iv. Immunization
- v. Weighing of children under one year
- vi. Nutrition(including growth monitoring and maternal nutrition)
- vii. Environmental Hygiene
- viii. Provision of bed nets

All the services mentioned above are provided by health personnel in both districts but the Yendi district has other services that they their clients which are lacking district. An interview with the mothers in both districts with regards to antenatal care revealed the following as shown in table 1 and 2 below

Table 1: Percentage distribution of women who had live births in the years preceding the survey by antenatal care providers during pregnancy for most recent birth, according to the background characteristics, Yendi district 2010

Background	Doctor	Nurse/Mid wife/ Auxiliary Midwife	TBAs	No One	Total	Number of women
Age at Birth						
>20	15.5	34.8	42.6	3.5	100.0	7
20-34	14.3	27.4	50.2	8.1	100.0	85
35-49	10.7	21.5	58.6	9.2	100.0	58
Birth order						
0-1	9.6	28.3	57.1	5.0	100.0	
2-3	18.2	30.6	42.2	9.0	`100.0	
4-5	20.0	35.4	40.6	4.0	100.0	
Residence						
Urban	18.2	30.6	42.2	9.0	100.0	20
Rural	10.6	31.0	48.6	9.8	100.0	130
Education						
None	11.0	33.2	48.6	8.2	100.0	115
Primary	16.6	28.3	50.1	5.0	100.0	26
Middle/JSS	18.2	30.6	42.2	9.0	100.0	7
Secondary+	20.0	35.4	40.6	4.0	100.0	2

Source: Field survey, 2011

From table 1: it is clear that about 78% of the women interviewed delivered their babies at home with the assistance of TBAs. This is a result of the inadequacy of medical staff and the high illiteracy rate among women of child bearing age in the districts. The women in the Yendi district are more accessible to health personnel. This has to do with factors such as women education, availability of health personnel and health facilities as well as the belief system of the people. From table 1, the Yendi district has recorded 15% of the women who delivered with



the assistance of a medical doctor because of the presence of the Yendi district hospital and a doctor in the hospital do assist pregnant women in times of difficulties and complications.

The District Health Management Team has put in place weekly outreach programme of which some of the staff in the Maternal and Child Health units in the hospital and clinics move to the communities to examine health of children under five(5) years and pregnant women and to give them health education. The staff therefore sees to it that Maternal and Child Health services are brought to the door steps of people in the area. This has given the pregnant women who in one way or the other fail to visit the health facilities for their health need the opportunity to be able to access the services. The staff also helps to educate the people in issues like exclusive breast feeding, immunizing the children against the six killer diseases among others

The Yendi District Health Management Team with the assistance of the Catholic Relief Services (CRS), a Christian Non Governmental Organization helps in the provision of food stuff to nursing mothers to enable them give their children a nutritious diets that will make them healthy and enable them to grow well.

1.2 Maternal and pre-school child dietary habits

Pregnant women and children under five (5) years in the Yendi district do not have a special diet. Maternal and Child dietary habit did not diverge much from the routine household dietary pattern. Mother whether pregnant or lactating subsisted on what other member of the household ate. They did not eat a special diet. One thing that was significantly different was that, in the child dietary pattern, children up to the age of three (3) month were fed almost exclusively on breast milk with the exception of about 14% who give the children water to drink. The longest observed breast feeding period was one and half year. But from the third month onwards new babies were introduced to porridge. The solid food like rice, yam and Tuo Zaafi (TZ) were given to children varied. In normal cases, all six month and above fed on TZ.

Who is a Traditional Birth Attendant in Yendi District?

The study revealed that, TBAs in general have the following as features;

- They are mostly women
- Most of them are widows
- They have long working experience (passed on by mothers or grandmothers)
- ❖ They have very low levels of formal education or not at all in most cases
- ❖ Low income level as they are paid for the work they do
- ❖ In the Yendi district, they are predominately Christians

A survey of hundred (100) TBAs in six (6) communities in the district revealed the following

Table 2: Trained and Untrained TBAs in Yendi District

TBAs	Number	Percentage
Trained	35	35
Untrained	65	65

Field survey 2011

From the table above, Yendi has a number of 35 Traditional Birth Attendants (TBA) being trained and 65 TBAs not trained. This is because, the training of TBAs in the Eastern Corridor of Northern region was conducted in the Yendi district hence the 35% trained TBAs. The Yendi government hospital also played a major role in the training of TBAs in their outreach programmes. The DHMT is still facing a number of challenges such as inadequate health staff accommodation for offices and staff accommodation.

Table 3: Marital Status of TBAs

Marital status	Total number of respondents	Total percentages
Single	5	2.55
Married	21	10.71
Divorced	16	8.16
Widowed	58	29.60
	100	

Field survey, 2011

On marital status, it was established that, 21 of TBAs forming 10.71% in the Yendi district are still with their Husbands. This is as a result of the 1993-1994 Konkomba-Dagomba ethic conflict in Yendi District and the 2002 Andani and Abudu conflict among the Dagombas in the Yendi district of which most women lost their husbands. The numerous ethnic conflicts in the Yendi district have led to higher of widowed. It is evident that the widows constitute a greater number in the districts due to the fact that TBAs are mostly old women whose husbands have died because females have higher live expectancy rate than that of their male counterparts. About 28 women constituting 14.28% of TBAs interviewed were divorced with the simple fact some community member branded them witches.



Vol.3, No.4, 2013

Transcribed Interview

I have been a TBA for the past thirty (30) years. I can boost of delivering over six hundred (600) children and I know all over northern Region as a result of my activity as a TBA. As I specialize in the work of delivering pregnant women people from the other part of the district do referred their cases to me most especially when it has to do with a spiritual dimension. I thank God that any referral that comes to me the women delivered without much problem.

When asked where she acquired the skills? She has this to say 'I inherited the skills from my mothers. It is an indigenous knowledge handed over to me by my mother. Also when people got to know about me the modern health staff came and picked me for training. That is why I can boost of been a trained TBA. At the training I was given a tool that would help me determine the position of the baby in the mother's stomach (foetal stethoscope) and also I have 'neli' a spiritual eye which I use to see the sex of the unborn baby.

What do you do when a woman is over bleeding during delivery? She lamented hmm! You want to know my secret! But she said that, she first of all consult the oracles to guide me through that, will enable me to determine to determine if I can assist the woman. If the result is that her I can deliver her it will show and I give her 'Kagligu Tim" as first aid to drink and use 'takara' mixed it with tobacco leaves to smear on the abdomen. God willing the bleeding will stop immediately. But it fail to stop, I refer her to the clinic.

When asked where she acquired the 'kaguligu Tim' and the 'Takara'? She said her late father who was a herbalist handed them over to her to assist in her activities as a TBA. He also handed to me some secret to treat infertility which I combine with my work as a TBA but for the fear of been call a witch, I asked my brother to be treating the infertility so I now work hand in hand with my brother. When asked about the problem of she encounters she said 'I have a lot of problems because I am not paid for the job and I do not get time to get additional income. Also because of the patronage of my activity as a TBA I put up two(20 rooms purposely for delivering pregnant women but no money for renovation and maintenance of the rooms. Also I lack beds in the room for examination and for delivering of pregnant women. Some NGO came and gave me one bed that is what am currently using but when I am to attend to more than one person at the same time, some I force to lie on the floor which the nurses who trained me said it is not good and that it can lead to sickness but where do I get the beds?

I thank my community members because they mobilsed last year and roofed my rooms for me. I also lack gloves for my activities because the clients only come with washing soap and Dettol which I use to wash my hands and rooms. But for the glove I buy them. It was the Assemblyman who sometimes help but now he is no more helping with the gloves.

For the problems, the earlier I stop the better, because, you are not the first person to ask of my problems but nothing came out of that.

Source: Abiba Sayibu (Trained TBA in Yendi)

Conclusions

There are still many communities in Northern part of Ghana where a large proportion of the population does not have access to modern health services, relying on TBAs (and Traditional Healers) to meet their Maternal & Child Health Care needs. In these communities, TBAs who have been trained can contribute to improving Maternal and Child Health, as they offer the only means by which women in rural communities have access to a clean delivery. Valuation findings identified critical aspects where TBA programmes need to be improved. To increase their effectiveness, programmes should be part of the broader national strategy to improve reproductive health. They should not focus solely on a training component and should include adequate supervision, transport and provision of supplies.

TBA programmes should increase efforts to ensure the availability of supplies to conduct a clean delivery since this is essential for TBA's to follow aseptic procedures. In this regard, locally produced TBA kits seem practical and sustainable.

The quality of TBA training can be improved through an assessment of communities' Health beliefs and practices so as to ensure the following:

- Ensure appropriateness of training content
- ❖ Ensure TBA and community acceptance if new tasks are to be added.

Training of Trainers (TOT) in pedagogic techniques for illiterate adult learners should also be considered as a critical element of the programme.

Vol.3, No.4, 2013



Recommendations

Partnership and Co-operation

There must be the need for sharpening and intensify the partnership of TBA and the personnel of the orthodox health delivery sector with a platform for recognition of each group by one other as playing complementary role. It is interesting to note that much as the orthodox health workers have information to share with Traditional Midwives such as education on nutrition, on signs and symptoms of common ailment during pregnancy, on when to refer cases how to prevent tetanus etc; the traditional midwife have experiences and insights from many years of attending to child births, how to respond to common questions on concerns of pregnant women in terms of the local culture and language, knowledge of local beliefs and traditions relating to childbirth, absence of which makes rural women feel uncomfortable each time they visit health facilities. Discussions on topics of this nature can only be achieved through co-operation.

Traditional maternity rooms should be created in the health facilities so women can freely attend and air their views without fear of being ridiculed. These maternity rooms would be manned by TBAs.

Community mobilization

In meeting the requirements of Primary Health Care to the latter, community members for whose benefits TBAs work should be mobilized and conscientised to work together towards sacrificing the crucial needs of Community Health Workers (CHW) including the TBAs. This enables them to give their best in times of needs. Members of the community could come together to suggest how to pay for any delivery a TBA handles. They could establish community farms as well as build structures in various localities for the purpose of child delivery.

Free Maternal Health Care Package

Health personnel should go into the hinterland to educate people on Free Maternal Health Care Package so that those who are not aware of it will get the chance to knowing of it there by benefiting from it.

Recognition and support

To ensure effective role of TBAs, it is important to put measures in place for their support whether financially, psychologically and materially. Members of rural communities should mobilse and committees be formed to oversee the extent to which financial support could be made through some form off revolving fund either by contribution or proceeds from community owned resources such a community farm products or animals. At best, the National Health Insurance should be discussed as length to incorporate financial support for TBAs and other Community Health Workers who are notably doing effective work in health delivery. Throughout discussion with TBAs and mothers, it is noted that TBAs need recognition and that; the orthodox health workers should see them as partners in the health delivery system and not just local practitioners as they viewed them. The community members should recognize their role and respect them and avoid them as witches.

Provision of logistics

Equipment's such as scissors, gloves, antiseptics and other detergents should be in regular supply. In a similar vain it is recommended that, an ambulance service should be stationed in the hinterland for easy referral of cases. Some TBAs offer services without regards to HIV/AIDS menace. The provision of the gloves may protect them from mishaps

The National food and Drug board

The national food and drugs Board should find out the health implications of the herbs TBAs use in preventing over bleeding of women during delivering and the materials used in cutting the umbical cord of the new born baby.

Training

Regular training is very important to enhance the work of TBA. This is in view of the fact that, new diseases whether general or specific to child bearing continue to unfold in several ways. Regular in-service training will keep TBAs inform about the types and nature of diseases and they will be in position to address them.

Sustaining the work of TBAs will mean to train young ones to go into the field as the old give way. Judging from the survey conducted it was realized that, about 91% of the TBAs are old with only 9% who are in their late forties (40s). the young girls who are engaged in the National Youth Employment Scheme should therefore be encouraged to go into Maternal Health Care and be motivated to go into the rural areas.

Capacity Building of TBAs

TBAs in all societies are mostly women who by their nature are recessive in bringing about the fast needed change in developing their area of activity especially those in the rural areas. In this regard, District Assemblies and NGOs should help build the capacities of TBAs to enable them work in association with health authorities and other organisations to enhance their performance. With their capacities built, TBAs will in the position to channel grievances about their needs to the appropriate authorities for redress.



From Mma Abiba's contribution, it is observed that the gender characteristics of TBA being mostly female are having a bearing on the way people in authority response to their plights. Even though health personnel and officials of the Ministry Of Health and the Ghana Health Services know how they worth, they do little to help them because the TBAs claimed they are women. TBAs should be seen as important people, unique in the society and should be involved in decision making process despite their feminine status.

REFERENCES:

- 1. Adams V, Miller S, Chertow J, Crag S, Samen A, Varner M. Having a ,Safe Delivery,;: conflicting views from Tibet. Health Care for Women International, 2005; 26(9):821-51
- 2. Aggarwal A, Pandey A, Bhattacharya BN. Risk factors for maternal mortality in Delhi slums: A community-based case-control study. Indian Journal of Medical Sciences, 2007; 61(9):517-26
- 3. Ali A, Howden-Chapamn P. Maternity services and the role of the traditional birth attendant, bidan kampung, in rural Malaysia. Journal of Public Health Management and Practice, 2007; 13(3):278-86
- 4. Allotey P. Where there's no tradition of traditional birth attendants: Kassena Nankana District, Northern Ghana. In: Safe Motherhood Initiatives: critical issues, 1999:147-54, edited by Berer M, Ravindran S, Blackwell Science, Oxford/UK
- 5. Alto WA, Albu RE, Irabo G. An alternative to unattended delivery a training programme for village midwives in Papua New Guinea. Social Science and Medicine, 1991; 32(5):613-18
- 6. Anderson S, Staugard F. Traditional midwives in Botswana: strengthening links between women. Health Policy and Planning, 1988; 3(1):40-47
- 7. Bazzano AN, Kirkwood B, Tawah-Agyemang C, Owusu-Agyei S, Adongo P. Social costs of skilled attendance at birth in rural Ghana. International Journal of Gynecology and Obstetrics, 2008; 102(1):91-94
- 8. Beausang E. Childbirth in prehistory: An introduction. European Journal of Archaeology, 2000;3:69-87
- 9. Davis-Floyd R. Daughter of time: the postmodern midwife (part 2). Revista da Escola Enfermagem da USP, 2008; 42(1):168-72
- 10. Diaz Ortiz DA. We are all midwives. Midwifery Today, 2006; 80
- 11. Kruske S, Barclay L. Effect of shifting policies on traditional birth attendant training. Journal of Midwifery and Women's Health, 2004; 49: 306-311
- **12.** Lang S. Drop the demon dai: Maternal mortality and the state in Colonial Madras, 1840-1875. Social History of Medicine, 2005; 18(3):357-78
- **13.** Pigg SL. Acronyms and effacement: Traditional medical practitioners (TMP) in international health development. Social Science and Medicine, 1995; 41(1): 47-68
- 14. Pigg SL. Authority in translation. Finding, knowing, naming, and training "Traditional Birth Attendants" in Nepal. In: Childbirth and Authoritative Knowledge, Cross-Cultural Perspectives, 1997: 233-62, University of California Press, Berkley/USA
- 15. WHO. Annual Report 2007, Department of Making Pregnancy Safer. WHO, 2008, Geneva/Switzerland
- 16. WHO. Traditional birth attendants A joint WHO/UNFPA/MCH statement. WHO, 1992, Geneva
- **17.** WHO/MOH/UNICEF/UNFPA.Maternal, Child and Reproductive Health Strategy in Iraq, 2005-2008. Workshop Paper WHO/MOH/UNICEF/UNFPA, June2-7, 2004

This academic article was published by The International Institute for Science, Technology and Education (IISTE). The IISTE is a pioneer in the Open Access Publishing service based in the U.S. and Europe. The aim of the institute is Accelerating Global Knowledge Sharing.

More information about the publisher can be found in the IISTE's homepage: http://www.iiste.org

CALL FOR PAPERS

The IISTE is currently hosting more than 30 peer-reviewed academic journals and collaborating with academic institutions around the world. There's no deadline for submission. **Prospective authors of IISTE journals can find the submission instruction on the following page:** http://www.iiste.org/Journals/

The IISTE editorial team promises to the review and publish all the qualified submissions in a **fast** manner. All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Printed version of the journals is also available upon request of readers and authors.

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digtial Library, NewJour, Google Scholar

























