GENDER ISSUES AFFECTING THE EFFECTIVENESS OF LEPROSY CONTROL PROGRAMMES IN ANAMBRA AND EBONYI STATES OF SOUTHEAST NIGERIA.

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Abstract

Leprosy, one of the oldest diseases of mankind with unique social dimension where victims and care givers are rejected by society, has remained a public health problem in Nigeria. It is also one of the leading causes of permanent disability worldwide. Nigeria is ranked at the fifth position among 'high leprosy burden nations' in the world and second in Africa behind Republic of Congo. The National Leprosy Control Programme was established in Nigeria in 1988 to achieve leprosy elimination and eradication. This goal seems to have become a mirage. The current study describes gender issues affecting the effectiveness of leprosy control programmes in Anambra and Ebonyi states of Southeast Nigeria. It was examined in a cross-sectional sample survey. A sample size of 1116 adults, selected through a combination of cluster and random sampling methods constituted the study participants. Qualitative data were generated from persons affected by leprosy and leprosy control staff who were purposively selected. A uniform set of structured questionnaire complemented by Focus Group Discussion (FGD) and In-Depth Interview (IDI) were instruments for the study. The Statistical Package for the Social Sciences (SPSS) software was employed in analysis of data. Frequency tables, percentages, bar charts and chi-square were used for presentation, analysis and in testing the stated hypotheses. It was found that level of awareness about the disease which has several local names in the area was relatively high (89.6%). However, significant difference exists in levels of awareness about leprosy between male and female respondents. It was also observed that leprosy patients were isolated and that the effect of isolation and lack of community support was greater on males as compared to females. On the other hand, females were re-integrated fast into the community after treatment than males. It was recommended that gender differentials in access to leprosy services be dismantled. Aggressive public enlightenment through public, private and local media; incentive package for health workers; socio-economic empowerment for effective rehabilitation of patients; prohibition of socio-cultural practices that promote the spread of leprosy should all be strengthened for effective leprosy control in Anambra and Ebonyi states.

Keywords: Leprosy, Gender, Different.als, Control Programme, Eradication.

Introduction

Leprosy is one of the oldest diseases of mankind. It has a unique social dimension that often culminates in the total destabilization of the social life of its victims. From the earliest times, leprosy has been a disease set apart from others. Its victims and even their care givers are ostracised in many societies.

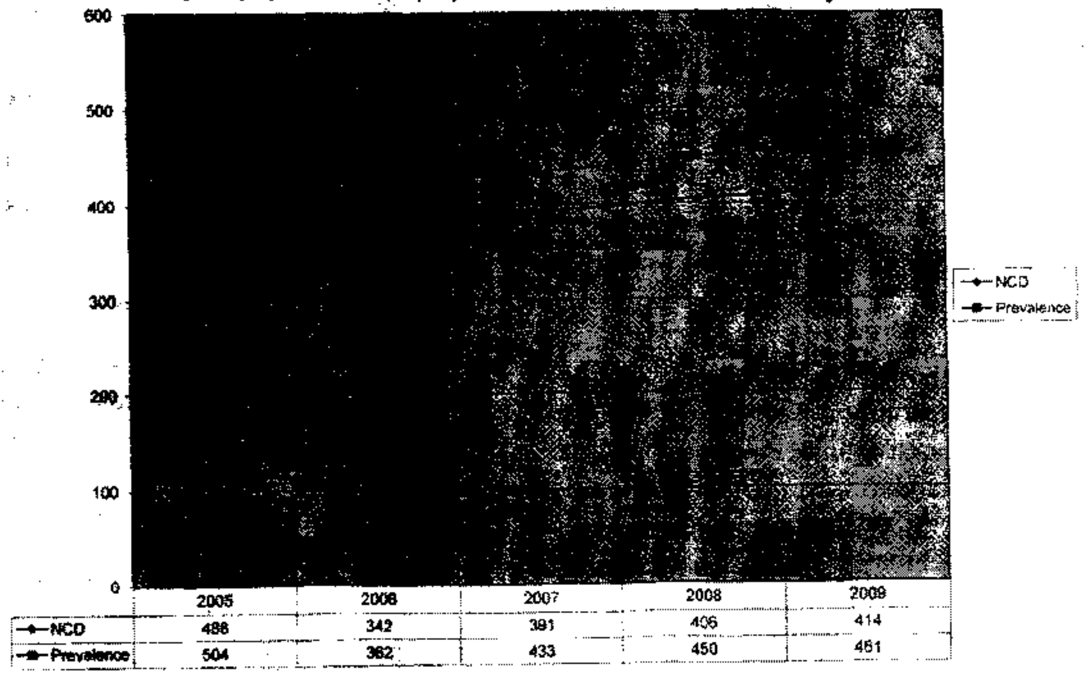
Although the disease seldom kills (Bryceson and Pfaltzgraff 1990), it remains a major public health problem and cause of morbidity especially in developing countries like Nigeria. Leprosy is one of the leading causes of permanent disability worldwide (Lockwood, 2000). The disease has over the years left a terrifying memory both in history and in human society of mutilation, rejection and social exclusion (World Health Organization, W.H.O, 1994). This is because the visible deformities caused by leprosy result in intense social stigma and discrimination against victims and their families. Thus, the social and physical consequences of leprosy are very devastating.

Interestingly, Meima, Richardus and Hebbema (2004), observed that leprosy cases detected globally each year have declined considerably since 1985. They however warned that a lot still needs to be done in order to control the threat of the disease to public health in many countries. In 1997, Nigeria's Federal Ministry of Health (FMOH, 1997), reported that over 80% of all leprosy cases were concentrated in only six countries of the world. These are India, Brazil, Bangladesh, Indonesia, Myanmar and Nigeria; listed here in the order of magnitude of reported leprosy cases.

In 2008, more than a decade from 1997, Nigeria's leprosy burden did not change much as she was ranked at the fifth position among nations with high leprosy burden in the world, and in Africa, second only to Republic of Congo (W.H.O, 2008). Nigeria's registered prevalence of leprosy as at 2002 was 5890 (FMOH, 2004). It declined to 5381 by the beginning of 2008 (W.H.O, 2008) and still further to 3913 cases at the end of 2010 (Adagba, 2011).

With specific reference to the southeast zone of Nigeria, after an initial drop from 504 registered cases in 2005, to 362 cases in 2006, there has been annual increases in both new case detection (NCD) and registered prevalence of leprosy in the zone for subsequent years of 2007, 2008 and 2009 (see fig 1 below). This raises questions about effectiveness of control measures and whether leprosy could be considered as one of the re-emerging diseases in the zone.

Fig.1: Leprosy New Case Detection(NCD) and Prevalence, 2005 - 2009 for South-east Zone of Nigeria



Source: *World Health Organisation, Southeast Zonal Office, Enugu Nigeria, (2010).*

Furthermore, the seemingly low number of cases registered annually both at the national and southeast levels do not reflect the true situation on the ground. Ezekpeazu (2000) estimates that there were high incidences of unreported cases in the country. This fact was further buttressed by Ekiti (2010) who observed that only 14% of estimated new leprosy cases in Nigeria in 2008 were actually detected, registered and commenced on treatment. On his part, Ogbeiwi (2005) put the prevalence rate of the disease in the country at 0.5 per 10,000 populations as at the end of 2003. However, the statistics was based on registered cases and did not take cognisance of hidden or unreported cases.

Nigeria's leprosy burden is also worrisome because in addition to substantial number of unregistered cases, there are also many others who though declared clinically cured, yet still suffer severe physical and social consequences of the disease (Ezekpeazu, 2000). Such consequences may include rejection by their families, significant others, community and labour market.

Eboh (1999) traced the history of leprosy control in Nigeria and identified three major periods. They are the pre-Dapsone era (1900-1947) when there was no organised treatment programme; the Dapsone era (1948-1985) when Dapsone was the drug of choice; and the Mult-Drug Therapy era (1986 till date).

The need to address her leprosy problems pursuant to the 44th World Health Assembly's (WHA) Leprosy Elimination Goal culminated in Nigeria's establishment of a National Tuberculosis and Leprosy Control Programme (NTBLCP) in 1988. The programme was however formally launched by President Ibrahim Babangida in 1991. From inception; the programme was anchored on primary healthcare approach to ensure widest coverage and affordability. The package involved a co-ordinated, time-bound and goal-oriented plan of action for leprosy control through- out Nigeria.

Ogbeiwi (2005) summed up the aims of the National Leprosy Control Programme as follows:

i. To reduce leprosy prevalence to a level where it is no longer a public health problem;

ii. To detect leprosy patients in early stages of the disease and provide comprehensive care to them.

iii. To provide multi-drug therapy (MDT) for all patients as provided by World Health Organization (WHO).

iv. To prevent disabilities associated with leprosy; and

v. To reduce social and psychological stigma associated with the disease.

Following its establishment, the National Leprosy Control Programme secured the support of stake holders like World Health Organization (WHO), International Federation of Anti-Leprosy Associations (ILEP), other development partners and voluntary associations for effective implementation (FMOH, 2004). Additionally, the three tiers of government, corporate bodies and communities as major stake holders were equally sensitized by programme officers. However, local governments became the operational unit or what Osakwe (2004) called 'the main theatre of action' for leprosy control in Nigeria. Due to their relative closeness to the grassroots, local governments were charged with the responsibility for case detection and rehabilitation of persons affected by leprosy (FMOH, 2004).

Despite existence of leprosy control organs in many countries, (W.H.O, 1999) frowns at persistence of serious problems that confront control programmes and victims of leprosy in many countries .While

Sofola (1999) expresses concern at poor funding of leprosy control activities in Nigeria, Lockwood (2000) laments that the much orchestrated lowered incidence of the disease globally has not resulted in significant change of physical characteristics, disability types and magnitude of social problems associated with it across several nations.

In Nigeria, there is an enormous problem of policy inconsistency in the area of leprosy control. The initial emphasis of control activities was on isolation of victims at Leprosaria where specialist health staffs attend to them. The gains of this original focus were as yet not fully tapped when a shift in policy was initiated. According to Eboh (1999), the old arrangement contributed to the difficulty in achieving the present policy thrust of integrating leprosy control programme with general primary health care. It could also be said to have resulted in the failure of newer measures to attain optimal results, since most people still adhere to the old practices.

Particularly disturbing is the data on page 2 from WHO Southeast of Nigeria Office (2010), which shows that the Southeast zone of Nigeria has consistently recorded increases (rather than decreases) in both new case detection and prevalence of leprosy since 2006-2009. This raises fundamental questions about the potency of leprosy control programme and whether leprosy should be classified as a re-emerging disease in the area and for what reasons.

Furthermore, poor leprosy control outcomes has persisted to the extent that a former World Health Organization's Country Representative in Nigeria, Dr Peter Ekiti lamented that in 2008; only 14% of the estimated new leprosy cases in Nigeria were actually detected and enrolled for treatment (Ekiti, 2010). Similarly, Adagba (2011) was very critical that prevalence of leprosy among children in Nigeria is still high and unacceptable.

The above situation appears to be compounded by enormous fear of leprosy among the Nigerian populace (Ogoegbulem, 2000). In many parts of Nigeria, despite the existence of leprosy control activities since the pre-Dapsone era of 1900-1947, the fear and stigma of leprosy remains high and separates persons affected by leprosy (PAL) from their fellows. Nicholls (2000) had similarly observed that in both Eastern and Western cultures, fear of leprosy has existed from ancient times.

On the other hand, Osakwe (2004) regretted that community participation which is a crucial element in leprosy control has remained weak in Nigeria. Consequently, community response or behaviour toward those suffering from leprosy is characterized by avoidance, insult and rejection of victims. Even discharged leprosy ex-patients are not spared of these actions that also constitute violation of human rights.

Nicholls (2000) further observes that leprosy more than any other disease has caused individuals to leave their families and communities and be forced to live as outcasts in separate colonies and settlements. Some of such colonies or settlements are still operating at Okija and Otolo Nnewi/Amichi in Anambra state; and at Mile Four Abakaliki and Uburu communities at Ebonyi state. There are others at other parts of Nigeria. Their continued operation is an evidence of the failure of the National Leprosy Control Programme to implement home based or ambulatory care arrangement where most patients access treatment from their homes, except those who are in critical conditions and require hospitalization. The advantage of home based care in reducing segregation and facilitating the new thrust toward Community Based Rehabilitation (CBR) cannot be over-emphasized.

Also problematic is the fact that at such colonies, inmates live in dilapidated structures surrounded by bushes in more or less inhuman conditions. An integrated and effective leprosy control programme has a responsibility to provide conducive living and treatment environment to persons affected by leprosy. It should indeed address their bio-medical, social and economic needs.

Accordingly, Smith (2000) notes that Social and Economic Rehabilitation (SER) is a major priority in any leprosy control effort. This emphasis according to W.H.O (1999) is aimed at addressing problems of stigmatization, inability to work, social isolation and economic dependency. However, Ogbeiwi (2005) reports that the SER component of Nigeria's National Leprosy Control Programme does not reflect the priority it deserves; hence it is yet to make any appreciable impact. Persons affected by leprosy in Southeast region and other parts of Nigeria are already burdened by medical and bio-physical challenges posed by the disease. Their having to further contend with very serious social, economic and psychological problems arising from societal perception and consequent reactions to their predicament are weighty. Ogoegbulem (2000), reports that they often encounter severe loss of dignifying self concept and social recognition. They are not usually welcome at public functions. On rare occasions where these patients or ex-patients force themselves unto a gathering, this might result either in an abrupt dismissal of participants or in avoidance of any form of physical contact with them. Sofola (1999) maintains that generally, people in Nigeria are afraid to sit near persons affected by leprosy at churches, markets, vehicles; village squares and so on. They are also reluctant to marry from families of known leprosy patients (Ogoegbulem, 2000). The lack of friendship and other forms of association as well as divorce or threats of divorce from spouses constitute part of the numerous social problems faced by persons affected by leprosy. The control programme in Nigeria ought to have found answers to these myriad of problems.

In another development, the value of the use of economic empowerment as a tool of leprosy control has been extensively documented by scholars. Examples of these are Nash (2001); Federal Ministry of Health (FMOH, 1997); Macaden (1996); Pearson (1988). However, Ogbeiwi (2005) notes that the approach is yet to be adequately exploited in Nigeria. This is despite the fact that the disease is widely known to have devastating effect on the economic life of its victims. For instance, Rafferty (2005), notes that leprosy destroys productivity of victims through series of disablement or lack of physical function which it engenders. The situation is complicated by the fact that societies avoid goods and services offered by persons affected by leprosy. Such poor patronage tends to de-motivate the victims as it forces them to abandon their trades.

In the light of the above and given the absence of economic support package from the control programme, persons affected by leprosy often resort to begging on the streets as means of self-sustenance. Consequently, markets, bus-stops, motor-parks, entrances to churches, banks and offices are littered with these destitute. This constitutes a threat to public health. It also generates public outcry about the welfare of persons affected by leprosy which the control programme has a responsibility to protect.

The lukewarm attitude of health workers toward leprosy control activities (Adagba, 2011) is also a major challenge facing the control programme Poor allowances, negative cultural reactions towards leprosy and fear of contracting the disease negatively affect the disposition of health workers to committed service. Consequently, the workers have not prosecuted aspects such as public health education and ulcer dressing in leprosy with sufficient zeal and enthusiasm. Because of this, individuals and groups have expressed deep concerns about poorly maintained leprosy ulcers often exuding odorous discharges and attracting flies which have become a regular feature of persons affected by leprosy. Leprosy victims endure the pains of such ulcers as they move about to solicit for alms. These patients are also unsightly and degrade the aesthetic beauty of neighbourhoods by their low level of personal and environmental hygiene.

The gender dimension and social stratification implications of leprosy are other areas which the control programme is yet to adequately address. The gender dimension of leprosy is such that women encounter the severest forms of social, economic and psychological consequences compared to their male counterparts upon diagnosis of leprosy (Kaur and Rameshi 1994; Grand 1997; Rao, Garole and Walawalker 1996). Women do not also occupy important positions in self help groups formed by patients in their colonies. This is especially so in a highly patriarchal society like the South-eastern part of Nigeria where subservient position and economic dependence of women on men are culturally defined. Sofola (1999), observes that in many leprosy colonies in Nigeria, women affected by leprosy get smaller portions of land for cultivation compared to the males. Observation of current situation suggests that equality of the sexes in accessing rights and privileges accruable from leprosy control programme remains defective in Nigeria.

Valsa (1999) examined social acceptance and social stratification implications of leprosy. He found that those affected could lose their position in the social ranking of society. They could be barred from taking important titles or occupying positions of authority and honour. They are not allowed to officiate important occasions or to perform important rites associated with such occasions even when it is their right by birth in the community to do so (Kaufman, Neville and Miriam, 1993; Ogoegbulem, 2000). Expectations that leprosy control programme in Nigeria would reverse the trend so far remains a mirage.

Above all, although WHO introduced Multiple Drug Therapy (MDT) since 1985 as drug of choice for leprosy (FMOH, 2008), it appears that treatment component of leprosy control programmes have failed to respond to the needs of persons affected by leprosy for cure or full recovery without any deformity. The situation is such that it is often difficult to distinguish between victims who accessed treatment services from those who did not due to permanent disabilities. Also, their social and economic predicaments are similar in most respects thus indicating that rehabilitation process of those who accessed treatment services was not successful. Ogoegbulem (2000) observes that victims of leprosy who have completed treatment in parts of Nigeria are not fully reunited and reintegrated into the society and generally lack means of sustenance.

Worried by accomplishments which have remained below set targets, Mgbenwelu, (1999) wondered what the leprosy control programme in Nigeria and their international partners were up to, since problems associated with the disease have continued over the years. The seemingly resilient nature of leprosy and its associated problems in Nigeria generate doubts about the sincerity and commitment of National Leprosy Control Programmes toward global eradication of leprosy by

2015 World Health Organization's target date.

It is against the backdrop of afore-mentioned problems that the research was undertaken to investigate the gender issues affecting the effectiveness of leprosy control programmes in Anambra and Ebonyi states of Southeast Nigeria.

Overview of Gender Issues in the Control of Leprosy across Societies

Both sexes are affected by leprosy, but in most parts of the world there are more males than females, roughly in the ratio 2:1 (FMOH, 1997). Women however experience greater social, economic, psychological and physical consequences of the disease when compared to their male counterparts (Kaur and Ramesh 1994; Grand 1997; Rao, Garole and Walawalker 1996).

Valencia (1989) observes that diagnosis of leprosy results in premature social death of patients whose roles in the family and society are consequently constrained and restricted. In this impasse, Kaur and Ramesh (1994) consider women as more socially vulnerable, given circumstances of low social status and subservient roles they usually play especially in patriarchal societies.

Nwankwo (2006) observes that in patriarchal societies of Africa, beliefs and practices, symbols, public policies, socio-economic and political systems are situated within patriarchal definition. According to her, this has far reaching implications for the socio-economic status of women, their awareness and involvement in health decisions that affect them including those related to leprosy control. They also influence their perception in terms of availability; cost and convenience of leprosy control services. All these she notes, in the final analysis, affect the outcome of such services.

Grand (1997), observes that in India women were more affected by leprosy in the following areas:

- Women were more isolated from all activities than men.
- Rejection by spouses', children and relatives were strong.
- They were completely denied their domestic roles which generate a self image of being a less valued member of the family.
- Leprosy compounds gender inequality problems between men and females in many regards.

The above submissions amplify Egbue's (2010) position that gender represents a significant form of social stratification across social groups. According to her, men's enduring dominance over women at the household level as well as at the macro-level income earning sphere has resulted in unequal positions in terms of power, prestige and wealth. She further argues that women generally have less material resources and lower status sustained by various forms of subordination and injustice. These observations are strongly applicable to the field of leprosy as Grand's (1997) study in India, cited above has shown.

With respect to types of leprosy common to each gender, Brycesson and Pfaltzgraph (1990), reported that in Africa, men are more prone to lepromatous leprosy. This could be attributable to the fact that men in Africa engage in greater toils for family upkeep and consequently develop weakened immunity on account of stress. Brycesson and Pfalzgraph (1990) also reported that men in Africa are more forward in seeking treatment and more compliant to treatment instructions. This is explained by the devastating form of lepromatous leprosy which leaves those affected with no choice than to stick religiously to instructions of treatment institutions for possible relief. Women on the other hand tend to be less compliant than men to treatment plans.

An equally important gender issue in leprosy is the observation by Leprosy Mission International (1999) that women involved in leprosy control activities get better results than their male counterparts. They assert that the use of young graduate girls as Leprosy Control Assistants in Bangladesh and other Asian countries proved the point.

Khulmann (2009) warns that gender inequality has moved away from being a 'women's problem' towards being a societal concern. The WHO (2002), for instance, advises its member states to implement gender mainstreaming in all its programmes. She acknowledges that gender mainstreaming in healthcare systems is assigned a double perspective: as an approach to reduce social inequalities in access to health and at the same time, improve the quality and efficiency of healthcare. It also provides new opportunities to address women's healthcare needs in all areas including leprosy. Khulmann (2009) asserts that gender mainstreaming opens up new possibilities to address diversity and differences in groups of women and men, thus emphasizing, and making it possible to analyse, gender relations in all context including leprosy.

Aside from gender divides in access to opportunities and challenges generated by leprosy, Ogoegbulem (2000) reported that male and female patients especially at the colonies often cultivate deep, intimate relationships. Such relationships usually fill emotional gaps created by withdrawal of ties by family and friends from the wider society. According to him, marriages and children are known to have resulted from such relationships over the years.

The gender dimension and social stratification implications of leprosy are other areas which the control programme is yet to adequately address. The gender dimension of leprosy is such that women encounter the severest forms of social, economic and psychological consequences compared to their male counterparts upon diagnosis of leprosy (Kaur and Rameshi 1994; Grand 1997; Rao, Garole and Walawalker 1996).

Women do not also occupy important positions in self help groups formed by patients in their colonies. This is especially so in a highly patriarchal society like the South-eastern part of Nigeria where subservient position and economic dependence of women on men are culturally defined. Sofola (1999), observes that in many leprosy colonies in Nigeria, women affected by leprosy get smaller portions of land for cultivation compared to the males. Observation of current situation suggests that equality of the sexes in accessing rights and privileges accruable from leprosy control programme remains defective in Nigeria.

There are also cases of gender biases in social relationships and other mechanisms that cushion effects of isolation on leprosy patients. Although community based rehabilitation is a principal strategy for cushioning the effects of isolation on persons affected by leprosy (see Nash 2001, Macaden 1996), other scholars have documented other forms of social relationships and strategies by which patients themselves attempt to address the problem of isolation and to recreate.

Ogoegbulem (2000), reports that in parts of Nigeria, persons affected by leprosy organise themselves into primary groups with specific rules, goals and benefits. He observes that there is a strong feeling of oneness and solidarity in such groups, but is generally headed by males as women occupy subservient positions. However, members peacefully share donations from the public, distribute farmlands at Leprosaria among themselves, and harvest and sell proceeds of economic trees in the area without much rancour. He further notes that communal life especially at leprosaria, and marriages among inmates give some measure of relief to persons affected by leprosy and help them to forget the fact of their social distance from the rest of society.

Adagba (2011) dates the formation of Association of Persons Affected by Leprosy in Kaduna, Northern Nigeria to about 32 years ago. He notes that similar bodies exist at other parts of Nigeria and that male patients are usually the leaders.

At the global level, Lockwood (2000) reported that associations of persons affected by leprosy are being formed. He affirms that such associations have helped to focus more attention to leprosy related issues like isolation and the use of suitable terms to address patients. They have also been very visible in pursuit of rights of persons affected by leprosy.

On his part, Chukwu (2004) observes that control programmes now engage treatment 'helpers', 'facilitators', 'supporters', or 'proxy supervisors. According to him, these concepts refer to individuals in the community who are favourably disposed, and willing to assist persons affected by leprosy in their treatment process. He argues that by their level of closeness to patients, such persons cushion their isolation and form supportive bonds of relationships that are socially rewarding. In his opinion, such relationships often grow and surpass primordial ties in the life of a patient. However, males have dominated such supportive roles across societies.

The researcher notes that equity is central to success in the health sector. Leprosy projects should address gender differentials in social reactions to leprosy through packages of health education and social re-orientation. The treatment process should also be devoid of discriminatory gender biased policies.

Research Questions

The following research questions guided the study

i. What is the level of public awareness about leprosy across gender in Anambra and Ebonyi states of Southeast Nigeria?

ii. How does gender affect prompt (early) detection of persons affected by leprosy in Anambra and Ebonyi states of Southeast Nigeria?

iii. What are the perceived effects of gender on compliance to treatment by persons affected by leprosy in Anambra and Ebonyi states?

iv. Which gender (among persons affected by leprosy in Anambra and Ebonyi states) suffers greater negative impact of leprosy disease in their personal, family and social/community life?

v. In what ways does gender affect re-integration into the community of persons affected by leprosy after treatment in the two states?

Hypotheses

i. Male respondents are more likely to accept religious and cultural belief systems of their community on leprosy than female respondents.

ii. There is a significant difference in the level of awareness about leprosy between male and female gender.

Theoretical Framework

Two complementary theories are considered most relevant in explaining the problem of leprosy in the study area. They are Marxian and Labeling theories.

The Marxian perspective is useful in explaining the very poor social and physical environments that engenders leprosy. It is also relevant in appreciating the higher prevalence of the disease among the lower class. The concentration of persons affected by leprosy in sub-Saharan Africa and other third world nations (WHO, 2008) can also be understood from economic handicaps encountered in the region. Furthermore, the apparent lack of political will by government especially in sub-Saharan Africa to deal with leprosy, particularly the rehabilitation of its victims may not be unconnected to the fact that political elites who will prosecute such policies of intervention belong to the upper class whose resources and privileged position in the social strata are less likely to predispose them to leprosy. They are thus non-challant to the problems of leprosy. The argument of the Marxian perspective that deprivation and socio-economic disadvantage are accompanied by increased frequency of diseases (leprosy inclusive) is applicable in the context of this study.

Labelling theory was also adopted as theoretical platform because its basic postulations explicitly relate to the process of social definition and stigma surrounding leprosy. These are central issues to leprosy problem in society. Labeling theory is particularly useful in the analysis of the qualitative data because of its emphasis on social constructionism.

Negative cultural imaging of leprosy, and the manner in which societies through the instrument of language defined leprosy as curse from gods, or as disease of the unclean, have adverse consequences for its control. People are reluctant to be associated with the disease whether as patients or health workers because of the stigma attached to it. It is therefore not surprising that despite its long history and availability of free and effective drugs (FMOH, 2004), leprosy remains a public health problem in our environment.

Adverse religious perspectives on leprosy have also done much to intensify leprosy stigma and worsen problems arising from leprosy in our society. Awofeso (2005) notes that biblical references like Leviticus 13:45; Numbers 5:2; and 2 Kings 26:21 create an impression that leprosy is a dreaded disease associated with sinners. He observes also that Buddhist teaching on Karma make it acceptable for believers to frame leprosy sufferers as sinners in their past incarnation. These conceptions compounded by low level of education, constitute major obstacles to leprosy control.

Labeling also offers adequate explanation to why persons affected by leprosy try to cover up their disease and fail to avail themselves of early treatment. The situation results in severe deformities and complications. The theory also accounts for the lack of enthusiasm of health workers to leprosy work, and for low level of integration of patients into their community.

Materials and methods

The study which adopted cross-sectional survey method was located in Anambra and Ebonyi States in the South- eastern part of Nigeria. The Southeast zone of Nigeria was purposively selected. The choice was informed by the need to understand gender factors contributory to steady increases (rather than decrease) in number of leprosy cases registered annually in the zone. Such increase witnessed during 2006 - 2009 is a typical example.

The five states in the Southeast were grouped into two using their leprosy situation for the period 2006-2009 (see Table 2 below). The groups were those who ever registered above 100 cases (considered as high incidence) in any particular year (namely Abia and Ebonyi states); and those who consistently registered below 100 cases (considered as low incidence) which consist of Anambra, Enugu and Imo states. Anambra and Ebonyi States were randomly selected from the two groups for study. The choice of states with low and high incidence of leprosy was informed by the need to appreciate the role of gender in differential levels of incidence.

.**Table 2:** *Distribution of Leprosy cases according to States in the Southeast Zone of Nigeria during the period 2006-2009*

State	Registered cases of leprosy				Total per state from 2006-2009
	2006	**2007**	**2008**	**2009**	
Abia	99	112	127	74	**412**
Anambra	13	46	27	27	**113**
Ebonyi	148	175	204	279	**806**
Enugu	73	67	66	51	**257**
Imo	29	33	26	30	**118**
Total for the zone per year	**362**	**433**	**450**	**461**	

Source: World Health Organisation, Southeast Zonal Office, Enugu - Nigeria, (2010)*Leprosy New Case Detection, Case Detection Rate and Prevalence Rate for Southeast Zone, 2006-2009.*

The indigenous ethnic group in the two states is the Igbo of whom Ifemesia (1979) observes that their territory covers an area of over 15,800 square miles. Nwala (1985) circumscribed the area between 6° and 8½° East longitude and 4½° and 7½° North latitude. He noted that Igbo land is very densely populated which is true of Anambra and Ebonyi states whose population as at 2006 were 4,177,828 and 2,176,947 respectively (National Population Commission, NPC 2006).

Anambra state was created on 27th August 1991 by President Ibrahim Babangida. The state which has 21 local governments and 77 autonomous communities derived her name from Anambra River that traverses her area. She has her capital at Awka. Anambra state is bounded by Delta and Edo states to the West; Imo and Rivers states to the South, Enugu state to the East and Kogi state to the North. Anambra state covers an area of 4,416 sq km. She has typical semi-tropical rain forest vegetation, a humid climate with a mean temperature of about 87oF and a rainfall of 152 – 203cm (Egbe, 2004).

Ebonyi state on her part was carved out of Enugu and Abia states on October 1, 1996. The state lies between 7.3N longitudes, 5.4E and has a land mass of approximately 5,932 square kilometres. She has 13 local governments and 77 development centres. Her name was derived from Ebonyi River. Her capital is at Abakaliki. Ebonyi state is bounded by Benue state to the North; Cross River state to her East; Enugu state to her West, while Abia and parts of Cross River are at her Southern boundary. The state has similar vegetation, climate, and rainfall features with Anambra State.

Anambra and Ebonyi states are rich in natural resources and arable soil. Land cultivation, trading, arts and crafts, animal husbandry and civil service positions are major economic activities in the two states. However, people of Anambra state are more involved in entrepreneurship and commerce whereas Ebonyi state is notable for her agricultural prowess (Uzozie 2002; Onokala 2002).

Despite intrusion of modernization factors and the presence of elected civilian government in Anambra and Ebonyi states, many intricate socio-political structures and pressure groups that characterize Igbo traditional societies have remained visible and unsubmerged. As such gerontocracy, village assembly, titled men, women groups etc are still relevant to grass root administration in both states. Similarly, Christianity enjoys greater follower ship in the area but exists side by side with traditional religion which still has many adherents.

The populations of Anambra and Ebonyi states were 4,177,828 and 2,176,947 respectively as at 2006 national population and housing census (National Population Commission, 2006). Hence, the total population for the two states was 6,354,775 made up of 3,182,140 males and 3,172,791 females. However, the study population consisted of only adults, defined as persons aged 18 years and above in the area of study. They were considered capable of articulating issues related to the subject under investigation. The 2006 population of adults in Anambra state was 2,391,193 which represented 57.2% of her total population. On the other hand, the 2006 population of adults in Ebonyi state was 1,124,177 which represented 51.6% of her total population. These figures formed our study population.

A sample size of 1116 members of the public constituting 0.32% of the study population was used to generate quantitative data via the questionnaire. These study participants were drawn from both states on the basis of equality of states in a federation (i.e. 558 from each state). The sample size took cognisance of geographical spread and rural-urban bias at the ratio of 2:1. The sample size was informed by its adequacy to accommodate applicable statistical tests.

The cluster (multistage) sampling approach was adopted for selection of study participants. The two states were broken into component local governments areas (LGAs) which were thereafter grouped on the basis of urban and rural characteristics. Then through simple random sampling technique, one urban and two rural LGAs were selected per state. A total of 3 LGAs were thus selected per state from where one community/ village and 62 compounds bearing odd numbers were drawn.

A uniform set of close ended questionnaires with two sections (duly pretested outside the study areas) were other administered by the researcher and five field assistants in vernacular or English language (depending on preference or level of literacy of respondent) on three (3) adult members/occupants in randomly selected 62 houses/compounds per village. Same sex administration of questionnaire was carried out to prevent any cultural barriers and permit free discussion/responses to questionnaire items. No gender was discriminated in the process. Compounds that lacked three adult members were skipped but those who had one or two adults were complemented from subsequent compounds. The process was continued until the required numbers were achieved. The list of LGAs, communities and villages or streets used in the study is shown in Table 3 below.

Table 3: *List of LGAs, Communities and Villages used in the study*

States	LGAs	Communities	Villages/ Streets	Compounds Visited	No of Respondents
ANAMBRA	Nnewi North (Urban)	Otolo	Orizu Road	62	186
	Idemili South (Rural)	Alor	Ifite village	62	186
	Awka North (Rural)	Achalla	Umudiana village	62	186
EBONYI	Abakaliki (Urban)	Abakaliki	Ibibio Street	62	186
	Ohaozara (Rural)	Okposi	Okposi-ukwu	62	186
	Ohaukwu (Rural)	Efiom	Akparata village	62	186
Total	**6 LGAs**	**6 Communities**	**6 Villages/ Streets.**	**372**	**1116**

Source: *Field Survey, 2010.*

Two qualitative instruments focus group discussion (FGD) and in-depth interview (IDI) complemented quantitative tool. Respondents for the qualitative instruments were 64 in number. They include 52 persons affected by leprosy (26 from each state) participated in four sessions of focus group discussion segmented on the basis of sex. Twelve (12) participants were interviewed. They include 6 LGA leprosy supervisors (3 from Anambra and 3 from Ebonyi on the basis of one supervisor per selected LGA in each state); 4 officers from Leprosy Control Units of Ministry of Health in the two states (2 from each state); and one official each from Donor Agency supporting leprosy control and World Health Organization. All respondents to the qualitative instruments were purposively selected.

The in- depth interviews were conducted by the researcher and two of the assistants at the offices of the stated officials. Tape recorder and field note book were used to record responses from interviewees. The interview schedule which addressed the objectives of the study guided the interview. English language was used for the interviews due to respondents' preference and literacy level.

The FGD sessions were conducted at the premises of Mile Four

Hospital Abakaliki and Fr Damian Tuberculosis and Leprosy Referral Hospital Nnewi, both of which were accepted and convenient to the patients. Each session held on leprosy clinic day which are usually market free days in the area of study. The moderator of the FGD was of the same sex with their FGD group and worked with the co-operation of leprosy control staff on duty. There were also two assistants for each FGD session. The language of administration was vernacular (Igbo). A tape recorder and field notebook was used to record proceedings. One assistant took notes in the course of each session while the other served as Tape Recorder Operator. Each FGD session, for males or females had 6- 12 persons affected by leprosy as participants

Participants in both FGD and in-depth interview did not respond to the questionnaire but were restricted to distinct unstructured schedules, one used strictly for FGD and the other for in-depth interview.

Quantitative data gathered in the course of research were analysed with the help of the Statistical Package for the Social Sciences (SPSS) soft ware. Descriptive statistics like frequency distribution tables, mean, median, percentages and bar-charts were used to interpret data collected from field study. The chi-square correlation analysis was employed to test research hypotheses.

On the other hand, qualitative data generated through Focus Group Discussions (FGD) and In-Depth Interviews (IDI) were transcribed and organised under different aspects of the discussion and used to explain quantitative data where applicable. In particular, phrases or statements with contextual or special connotations were noted and pulled out as illustrative quote to complement statistical data.

Findings

After careful coding and cleaning/ editing all validly completed and returned questionnaires, a total of one thousand, one hundred and four (1104) were used for analysis out of 1116 administered on study subjects. Of the number, 549 questionnaires were those administered in Anambra state while 555 were administered at Ebonyi state.

Also included in the analysis were qualitative data collected through four Focus Group Discussion (FGD) sessions (two in each state) with persons affected by leprosy (PAL) segmented along gender (i.e. male and female groups of leprosy patients). Similarly, qualitative data collected through In-depth Interviews (IDI) with Leprosy Supervisors at Local Government Areas (LGAs), Leprosy Control Staff at Ministry of Health Headquarters in both States, and officials of the Donor Agency and World Health Organization were also included in analysis. The qualitative data were principally used to support and elucidate the quantitative data.

The presentation of the results and their analysis followed a definite sequence to make for easy comprehension. The sequence which is related to research questions/ study objectives has five (5) thematic issues.

(a) Socio-Demographic Characteristics of Respondents (Personal Data of Respondents)

The socio-demographic profile of the respondents relating to age, sex, marital status, religious affiliation, highest educational attainment, occupation etc is presented in Table 4 below.

Table 4: *Distribution of Respondents by Socio-Demographic Characteristics*

Socio – Demographic Characteristics (Items 1 – 11)	Frequency (N = 1104)	Percentage (%)
Sex		
Male	505	45.7
Female	599	54.3
Age Group		
18 – 27	246	22.3
28 – 37	206	18.7
38 – 47	326	29.5
48 – 57	201	18.2
58 – 67	78	7.1
68 and above	47	4.3
Marital Status		
Married	499	45.2
Single	363	32.9
Divorced	51	4.6
Separated	62	5.6
Widowed	129	11.7
Religious Affiliation		
Christianity	890	80.6
Islam	21	1.9
Traditional Religion	189	17.1
Others	4	.4
Highest formal Educational Attainment		
No Formal Education	145	13.1
Primary School Certificate	142	12.9
Secondary School Certificate	414	37.5
Vocational/Technical School Certificate	168	15.2
Tertiary	235	21.3
Occupation		
Civil/Public Servant	239	21.6
Trader/Business man	243	22.0
Farmer	260	23.6
Student	119	10.8

Apprentice	85	7.7
Artisan	80	7.2
Unemployed	74	6.7
Others	4	.4
Nature of Income Per Month		
Regular	239	21.6
Periodic	634	57.4
No Income	231	20.9
Income Per Quarter of a year (every 3 months period)		
None	232	21
Below N30,000	147	13.3
N31,000 – N50,000	141	12.8
N51,000 – N70,000	123	11.1
N71,000 – N90,000	149	13.5
N91,000 – N110,000	124	11.2
N111,000 – N130,000	93	8.4
Above N131,000	95	8.6
Family Type		
Monogamous	560	50.7
Polygamous	540	49.3
Family Size		
Small (1 -3 persons)	232	21
Medium (4-5 persons)	384	38.8
Large (above 5 persons)	488	44.2

Table 4 shows the distribution of respondents by sex, age, marital status, religious affiliation, highest formal educational attainment, and occupation, nature of income, income per quarter, family type, family size and place of residence. The table shows that females constituted 54.3% of the total respondents, while the males constituted 45.7%. Many of the respondents (29.5%) fall within the age bracket of 38 – 47 years. The least number of respondents (4.3%) came from the age – group of 45 years and above. However, **the modal and median** ages were **41 and 45 years** respectively. Also, the **mean age** of respondents was **40.33 years** with a **standard deviation** of **13.45**.

With regard to the marital status of the respondents, 45.2% were married while 32.9% are single. The widowed, separated and divorced respondents were very few (11.7%, 5.6% and 4.6% respectively). The large number of married respondents illuminates the high premium placed on marriage and family institution in the area. Similarly, divorce is low probably because the value system abhors it. Being married and having stable marriage are accorded high esteem and social honour among Igbo people.

With respect to religious affiliation, the table clearly shows that more than three-quarter of the respondents (80.6%) were Christians.

A few of the respondents belong to other religious groups including Islam (1.9%), traditional religion (17.1%) and other unspecified groups (.4%).

In terms of highest formal educational attainment, those who possess secondary school certificate constituted 37.5% of the respondents. Other categories of educational attainment/ certification were tertiary (21.3%), vocational/technical school (15.2%), and primary school certificate holders (12.9%). With only 13.1% of the respondents without any form of formal education, the literacy level in the area is relatively high. However, more respondents from Anambra state (27.7%) had tertiary education than those from Ebonyi state where only 15% had tertiary education.

The respondents were almost equally divided across three major occupations. These are farmers (23.6%), traders (22%), and civil/public servants (21.6%). Students, apprentices, artisans and the unemployed were few. They constituted 10.8%, 7.7%, 7.2%, and 6.7% respectively.

The occupational distribution of the respondents highlighted above mirrors the popular description of Ebonyi state as food basket (major agricultural zone) of the nation, and Anambra state as center for commerce and other entrepreneurial activities. The predominance of farmers and traders in the area of study is therefore not a major surprise. However, the nature of income reveals that most of the respondents (57.4%) earn periodic income; 21.6% earn regular income on monthly basis, while 20.9% earn no income at all.

In terms of actual income earned per quarter (every three months), many of the respondents (21%) earn no income. These include students, apprentices, some artisans and the unemployed. More than two-thirds of these respondents that earn no income are from Anambra state. Furthermore, 13.5% of the respondents earn below N30, 000 per quarter, and only 8.6% earn above N131, 000 per quarter. This shows that income status of individuals within the area of study is generally low. The **mean income** per quarter of the respondents is about **N59, 033 with a standard deviation of N45, 933. The median income** stood at about **N55, 378**.

Most respondents (44.2%) have large family size containing more than five (5) persons who eat from the same pot. This is likely to compound socio-economic problems arising from poor income. Only 21% of the respondents have small family size where 1-3 persons form a household that eat from the same pot.

The respondents were almost equally distributed across family types to which they belonged. Those from monogamous family arrangement constituted 50.7%, while the remaining 49.3% were from polygamous family units. This indicates that the two family types are culturally acceptable and enjoy similar measure of importance in the area of study.

The respondents in the study were from urban and rural localities. About two-third (66.1%) were from rural communities while the remaining one-third (33.4%) were from urban towns

(b) Analysis of Substantive Research Issues

(i) Awareness of Leprosy by Gender

Awareness was measured using three variables. These were first, how informed or aware they were of the health problem called leprosy and secondly, knowing its local name. The third factor is haven seen case(s) of the disease. Table 5 below shows the distribution of their responses.

Table 5: *Distribution of Respondents by their Awareness of Leprosy*

Response	Frequency			Percent
	Male	Female	Total	
Yes	440	549	989	89.6
No	17	18	35	3.2
Don't know	48	32	80	7.2
Total	**505**	**599**	**1104**	**100**

Source: *Field Survey, 2010.*

Table 5 above shows that more than three-quarter (89.6%) of the respondents were aware of leprosy as health problem. However 3.2% were not aware, while 7.2% claimed they were uncertain. On the other hand, about 92 3% of the respondents have seen between 1-5 or more cases of leprosy in their lifetime. Only 7.7% said they have never seen a case of leprosy. These results were corroborated by IDI results in which most of the participants observed that public awareness on leprosy had steadily improved. The IDI respondents said that they were aware of leprosy prior to their involvement in leprosy control. Such initial awareness they said has been enhanced by their present positions in control programme.

Similarly, more than three-quarter of FGD participants said they were aware of leprosy. They maintained that they had seen cases in the past and heard about the disease through friends and radio, before they were later diagnosed of it. A male FGD participant at Mile 4 Hospital summarized his awareness of leprosy in these words- *I know about leprosy before I was diagnosed. It is called 'ekpenta' in my community. I have also seen some of the victims in the past but*

I don't know how and why the disease came to me. None of my close relations have it.

Awareness level as a function of gender indicates that well over four-fifths of the males (87.1%) and slightly above nine-tenth of the female respondents (91.7%) are aware of leprosy.

(ii) **Table 6:** *Distribution of Respondents by their Opinion Profile on Gender Issues in Leprosy Control using 6-point Criteria.*

6-Point Opinion Profile on Gender & Leprosy	**Frequency (n = 1104)**			**Total %**
Gender & Early Detection of Leprosy In which gender is early detection of leprosy before emergence of complications commonest?	Male	Female	Don't know	
	246 (27.7%)	811 (73.5%)	47 (4.2%)	
Gender and Mode of Detection of Leprosy Which gender's regular clinic attendance for other purposes enhances opportunity for voluntary report as mode of leprosy detection?	254 (23%)	843 (76.4%)	7 (0.63%)	100
Gender and Incidence/Exposure to Leprosy Gender roles expose which sex to leprosy?	678 (61.4%)	367 (32.2%)	59 (5.3%)	100
Gender mostly affected by leprosy in the area Which gender is most affected by leprosy?	742 (67.2%)	342 (31%)	20 (1.8%)	100
Awareness of Leprosy by Gender Which gender is more aware of the health problem called leprosy?	521 (47.2%)	570 (51.6%)	13 (1.2%)	100
Gender & Community Support in Leprosy Which gender on being infected by leprosy enjoys greater community support?	412 (37.3%)	644 (58.3%)	58 (5.3%)	100
Gender and Gravity of Impact of Negative Social Reactions Which gender experiences greater impact of negative social reactions due to leprosy?	754 (68.3%)	311 (28.2%)	39 (3.5%)	100

Source: *Field Survey, 2010.*

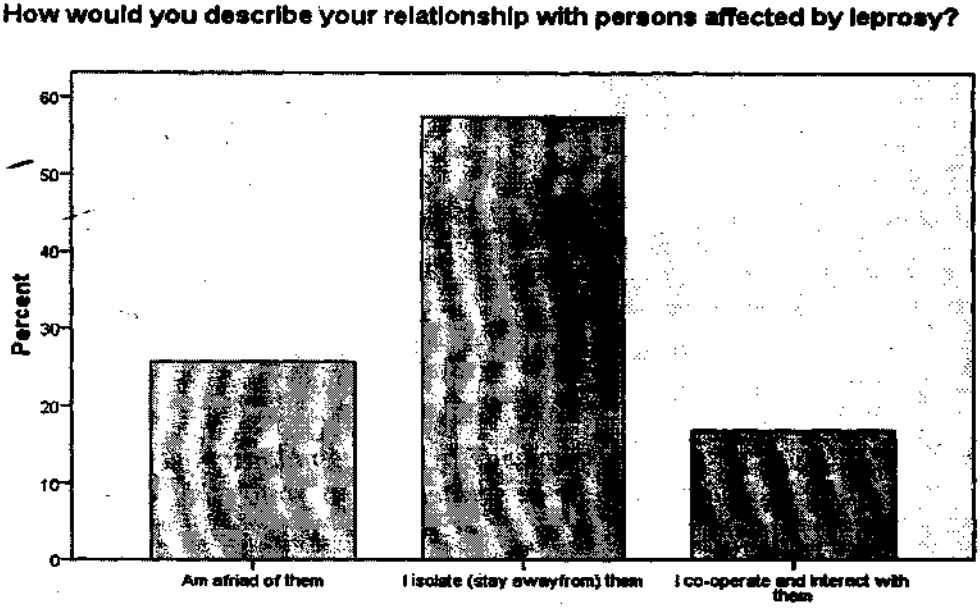
Table 6 shows that majority of respondents believe that early detection of leprosy is commonest to female patients who are also most likely to voluntarily report to clinic. More respondents also subscribe to the view that gender roles of men expose them to leprosy; hence they opine that more males are affected by leprosy in the area than females. Furthermore,

more respondents believe that female patients enjoy greater community support.

(iii) Level of Isolation of Persons affected by Leprosy

The level of isolation of persons affected by leprosy is high. About 57.4% of the respondents acknowledged that they personally isolate or stay away from persons affected by leprosy **(see figure 2 below).**

Figure 2: *Respondents Description of their Relationship with Persons Affected by Leprosy*



The problem of community rejection/isolation of persons affected by leprosy appears to be more severe in Anambra state where 64.3% of respondents identified it as a problem. At Ebonyi state, only 23.6% of the respondents considered it a problem.

Commenting on socio-cultural factors and problems affecting leprosy control, an interviewee from WHO Southeast Zonal Office at Enugu noted that *"what society call leprosy is 'deformity'. If deformity is avoided, social isolation and erroneous belief systems will cease".* Another interviewee from Anambra State reported that at Amansea community, an isolated PAL felt so angry and frustrated about his situation that he went about contaminating cassava soaked at the stream for fermentation by villagers with his leprosy sore. Some male FGD participants at Fr.

Damian TB and Leprosy Hospital Nnewi/Amichi expressed their problems and agonies these ways:

- *'The community asked me to move away from their midst until I am fully cured. But I have completed treatment, yet they cannot accept me back because of my shortened toes and fingers. I am all alone now. I depend on charity'*
- *'Once a leprosy patient has sores or wounds, the family and community avoid the person completely'.*
- *'Health workers do not attend clinic again. No doctor comes here. It is up to five months since they last attended. They are afraid of getting leprosy from us'.*

The above facts suggest that 'disposition to leprosy' in the areas studied was generally poor. This is to be expected given high level of stigma about the disease and discrimination/social isolation across gender which its victims encounter.

(iv) Gender and Re-Acceptance /Re-Integration after Treatment

Research Question IV: In what ways does gender affect re-integration into the community of persons affected by leprosy after treatment in the two states?

Research Question IV interrogated the relationship between gender and post-treatment re-acceptance/re-integration into the community. The findings are shown in Table 6 below.

Table 7: *Distribution of Respondents by their opinion about which Gender is Re-accepted and Re-integrated faster into the Community after Treatment*

Response	Frequency	Percent
Male	339	30.7
Female	641	58.1
Don't know	124	11.2
Total	**1104**	**100**

Source: *Field Survey, 2010.*

Table 7 shows that slightly below two-thirds of the respondents (58.1%) stated that females were re-accepted and re-integrated faster than their male counterparts. The major reason advanced for this differential treatment was the belief that men afflicted with leprosy were considered to be in dispute with the ancestors and gods of their land and cannot therefore, commune with the people even after treatment.

(v) Gender and Compliance to anti-leprosy Treatment

Table 8: *Distribution of Respondents by their opinion on gender role that most likely affect clinic attendance of persons affected by leprosy in the Control Programme*

Response	**Frequency**	**Percent**
Men as breadwinners	670	52.4
Patriarchal social engagements	262	23.7
Domestic chores of women	79	7.2
Don't know	93	8.4
Total	**1104**	**100**

Source: Field Survey, 2010.

On the issue of clinic attendance, many respondents (52.4%) were of the view that gender role of men as bread winners could negatively affect their clinic attendance. This implies that men were perceived to default from anti-leprosy treatment more than females due to their busy socio-economic schedules/roles.

The above findings contradict the submissions of Kaur and Ramesh (1994), Grand (1997), and Garole and Walawalker (1996) who in their separate studies held that women suffer the severest forms of social and economic deprivation on account of leprosy. Most IDI respondents in the two states also attested that males encounter greatest discrimination on account of leprosy at the communities they serve. However, one IDI respondent from a donor agency supporting leprosy control differed from others. He contended that *'success of integration of persons affected by leprosy into their community depends on degree of disability and has little or nothing to do with gender'*.

Test of Hypotheses

Hypothesis 1: There is significant difference in the level of awareness about leprosy between male and female gender.

Table 9: *Distribution of Respondents according to Gender and their level of Awareness about Leprosy*

Socio – Demographic Variable	**Awareness of Leprosy**			**Total**	**Statistics**
	Yes	**No**	**Don't know**		
Gender					
Male	440 (87.1%)	17 (3.4%)	48 (9.5%)	505 (100%)	$X^2 = 7.291$, df 2, p =.026
Female	549 (91.7%)	18 (3.0%)	32 (5.3%)	599 (100%)	
Total	**989 (89.5%)**	**35 (3.2%)**	**80 (7.3%)**	**1104 (100%)**	

Table 9 confirms that there is a significant difference ($p < 0.05$) in the level of awareness about leprosy between male and female gender since the calculated value of chi-square is greater than the table value ($X^2 = 7.291$, df = 2, p = 0.026).

Hypothesis 2: Male respondents are more likely to accept religious and cultural belief systems of their community on leprosy than female respondents.

To test this hypothesis, a cross-tabulation between gender and acceptance of belief systems on leprosy was carried out (Table 10).

Table 10: *Distribution of Respondents according to Gender and their Acceptance of Belief Systems on Leprosy.*

Gender	**Acceptance of Communal Belief System on Leprosy as correct**			
	Yes	**No**	**Don't know**	**Total**
Male	350 (52%)	135 (35.7%)	20 (37.7%)	505 (45.7%)
Female	323 (48%)	243 (64.3%)	33 (62.3%)	599 (54.3%)
Total	**673 (100%)**	**378 (100%)**	**53 (100%)**	**1104 (100%)**

$X^2 = 27.323$, df = 2, p = 0.000

The computed value of chi-square is 27.323. The tabulated value of chi-square at 0.05 level of significance with a degree of freedom (df) of 2 is 5.991. Having observed that the calculated value of chi-square is greater than the table value the researcher consequently accepted the alternative hypothesis. This implies that there is a significant relationship between gender and acceptance of community belief system on leprosy.

Discussions /Conclusions

The study uncovered several interesting difference between the sexes at both patient and community levels which could impact negatively on leprosy control. First, majority of respondents submitted that early detection of leprosy is commonest to female patients who are also most likely to voluntarily report to clinic. Such situation could contribute to complicated forms of leprosy in males.

The female gender was found to be more aware of leprosy than their male counterparts. Higher levels of awareness among the female gender could be explained by absence of restrictive traditions against women such as 'purdah' which is practiced by the Moslems. This enabled women in Southeast Nigeria to encounter almost similar social environment with equal opportunities for information acquisition and socialization with the men folk. Regular visits to health institutions for maternal and child health service also provide women with additional avenue for acquisition of health information like those related to leprosy. Such visits also provide opportunity for leprosy screening/diagnosis or voluntary reporting of suspicious signs. Men lack such privileges; hence very few of them may be detected by self /voluntary reporting. Nonetheless, the mechanism of self/voluntary report should be fully explored by both sexes if leprosy must be eradicated in the area.

Gender differentials in social and economic roles were identified as key factors that contribute to differentials in exposure to leprosy between males and females with males having an upper hand. More respondents subscribed to the view that gender roles of men expose them to leprosy; hence they opined that more males are affected by leprosy in the area than females. In this regard, majority of respondents stated that more men have leprosy because their roles as bread winners expose them to leprosy. Such roles also have negative implications for their compliance to treatment. This finding agrees with the position of Brycesson and Pfaltzgraph (1990) who reported that in Africa, men are more prone to lepromatous leprosy. This could be attributable to the fact that men in Africa engage in greater toils for family upkeep and consequently develop weakened immunity on account of stress. However, Brycesson and Pfalzgraph (1990) also reported that men in Africa are more forward in seeking treatment and more compliant to treatment instructions. This second position was not supported by data from the current study and requires further interrogation by scholars. Our data tilt towards the position that women tend to be more compliant than men to treatment plans.

Due to much superstitions and association of leprosy to sins against the gods and breaches of local taboos, community support to patients was rated low. However, the female gender encounters minimal problems of such low support. More respondents believe that female patients enjoy greater community support. They also have an advantage in post-treatment integration when compared to their male counterparts. This is surprising given male dominance and patriarchal arrangement that characterize Anambra and Ebonyi States. The finding also contradicts earlier position by Kaur and Ramesh (1994), Grand (1997), Garole and Walawalker (1996) and Grand (1997) who in their separate studies held that male patients encountered less severe social and economic discrimination during and after treatment. The explanation to this result is found within the context of relatively high ranking of males in the social strata of Igbo society. With such ranking, it is considered abominable for males to be afflicted by leprosy (which is attributed to anger of the gods). In view of the above, males afflicted by leprosy encounter extreme difficulties at full re-integration into their society because their repair of relations with the gods (after fall from an exalted position of honour) remains doubtful.

There is need to address these gender differentials related to leprosy for the control programme to make the desired impact. Eliminating gender differentials in leprosy will aiso stimulate positive response from both sexes towards leprosy control.

Recommendations

Based on the findings from the present study, the following recommendations can be made:

1. In view of differential levels of awareness across respondents with different socio-demographic background and the prevalent low level of knowledge about leprosy, government and private media houses in the two states should be involved in a comprehensive health education and public enlightenment package. The programme should preferably use local dialect to disseminate correct information about leprosy and interventions in place for its control. This is to counter erroneous local/ religious beliefs about the disease and to improve the ability of individuals in the community to recognise its early danger signs and take appropriate health seeking solutions. By so doing, the spread of leprosy and the development of deformity due to late detection and late commencement of treatment would be minimized
2. Since all gender differentials in leprosy either mirror unequal access to resources for its control or are products of socio-cultural interpretations and responsibilities assigned to gender groups, such differentials should be dismantled to enable both males and females to contribute optimally to

leprosy control programme for greater success.

3. The use of traditional media like town criers and such other fora as effective tools for sensitizing community members about leprosy should be adopted. This will complement the efforts of the western form of media and ensure a more extensive coverage of the area with appropriate leprosy related informatioion.

4. The support of traditional and religious institutions must be sought and won. To this end, there should be extensive advocacy visits by leprosy control staff to traditional rulers, religious leaders and other opinion leaders in the communities that make-up the two states. This is to improve their understanding of issues related to leprosy and to enable them to be at the fore-front of the crusade to change people's perception about leprosy.

5. There is immense need to improve the level of community involvement, ownership and participation in the programme which is currently very low. The involvement of community leaders is a laudable step in this direction. In addition, the role of social groups like age-grades, women groups, clubs and faith-based associations will positively affect decisions toward ameliorating the effects of socio-cultural factors on leprosy control programme.

6. With the support and participation of the community, socio-cultural practices and beliefs that negatively affect leprosy control should be abolished /prohibited.

7. There is need for a holistic leprosy control programme which should include crucial components like public health education, case identification, treatment, social and economic rehabilitation and reintegration of persons affected by leprosy into their communities. Such a holistic package will ensure that persons affected by leprosy are properly treated. It will also ensure that they are economically empowered and remained socio-politically relevant despite their disease experience.

8. Existing legislations should be enforced and new ones enacted to adequately protect persons affected by leprosy from all forms of stigmatization, discrimination, and violations of their fundamental human rights. Such measure of protection will encourage them to live normal lives devoid of social seclusion or withdrawal and to positively respond to their problem.

9. There is immense need for inter-agency collaboration to meet the goals of leprosy control. The programme should liaise with National Poverty Alleviation/ Eradication Programme and the Social Welfare Department etc to address issues of poverty, welfare and social integration as they affect leprosy patients. The Ministry of Education at the three tiers of government should also be involved with a view to including leprosy as a subject of study in the curricula of schools. This is sequel to the finding

that formal education generally has positive impact on leprosy control.

10. Government at all levels should demonstrate strong political will and commitment toward leprosy control. This should be done through adequate funding, prompt release of budgeted sums, provision of infrastructure, logistics, training and motivation of leprosy control staff through prompt payment of entitlement and allowances.

11. In view of the perception that leprosy affects principally the low income group; and that low education is correlated to poor treatment compliance and tendency to isolate/discriminate against persons affected by leprosy; there is need for social support package to cushion the effects of poverty and improve literacy level in the community. In this regard, interest free loans, free education and adult education classes will be very helpful.

12. There should be regular conduct of seminars for traditional healers to enable them suspect and appropriately refer leprosy cases. This seminar is important given the fact this study found that the dominant choice for anti-leprosy treatment were toward traditional healers. They thus need to be enlightened about the proper thing to do when such cases come to them.

13. There should also be a synergy between donor agencies, non-governmental organizations, development partners and government departments involved in leprosy control. All channels of energy leakage, wasteful duplication of functions and confrontations should be blocked.

14. Because of observed negative impact of socio-cultural factors like belief system on leprosy control, there is immense need to enhance the capacity of health workers to understand socio-cultural factors related to leprosy. This could be achieved through on the job trainings to equip them about behaviour change techniques. Furthermore, social scientists that are likely to better understand and plan interventions against such socio-cultural dimensions should be part of leprosy control teams in the spirit of inter-disciplinary co-operation and better results.

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