

The impact of male reproductive health problems on conjugal satisfaction: implications on women fertility

AMOO Emmanuel Olagunju* and Ogbeide Francis

*Demography and Social Statistics, School of Social Sciences,
Covenant University, Canaanland, Ota Ogun State, Nigeria

***e-mail:** amco50amoo@gmail.com OR emma.amoo@covenantuniversity.edu.ng

Mobile: +234 8035520849

Abstract

The impact of male reproductive health challenges within the conjugal relationship and their management have not been conspicuous in the literature till date. This study examined the incidence of male sexual diseases, the influence of fertility desire and coping strategies among currently married women in Nigeria. The data for the study was extracted from a 2010 survey of 435 couples in the southwest Nigeria supported by Covenant University as part of PhD programme. Data obtained were analyzed using a combination of univariate and binary logistic. The common male reproductive health challenges identified include erectile dysfunction (10.5%), gonorrhoea (12.7%), low sperm count (0.1%), testicular cancer (6.3%), prostate (3.2%) and prostate cancer (1.6%). Where the husbands experience erectile dysfunction, prostate or gonorrhoea, the couples are 0.064, 0.898 and 0.583 times (respectively) less likely to enjoy marital satisfaction. It recommends establishment of robust specialized reproductive healthcare services to cater for health needs of men who may be experiencing sexual problems in order to engender stability in family and stable nation. The study concludes that marriage counselors, social workers and other health officials need to focus on erectile dysfunction, gonorrhoea and prostate as major determinants of sustainable marital satisfaction.

Introduction

The theory of marriage presents conjugal relationship as a market where each party tries to satisfy him/herself as much as possible over certain expected gains and that any disappointment in this regard introduces strain into the marriage (Becker, 1973; Keeley, 1974; Keeley, 1979). The proponents of this theory considered quantity of children, love, recreation, quality meal, companionship, income and health status including sexual relationship as marital gains and lubricants for enduring marital relationship (Becker, 1973). Thus, intimacy in marriage and bearing of children has remained life-long aspirations of couple especially in sub-Sahara African region (Isiugo-Abanihe, 1994 and 2003; Adewuyi & Ogunjuyigbe, 2003; Togunde & Newman, 2005; Mayer & Trommsdorff, 2010). However, the presence and nurturing of sexual diseases coupled with the preponderance of divorce, separations, barrenness and family violence among couples highlights rarity of conjugal bliss in recent times.

Nearly two million divorce cases were reported in 2010 in China and the annual rate has been 7.65 percent (Adegoke, 2010). In United States of America, the divorce rate is 5.2 percent and remains as high as 5.5 percent in Sweden and between 80 and 151 per 1000 marriages in Italy (Vignoli & Ferro, 2009). Worldwide, 32 percent of marriages are terminated before their fifth anniversary, 62 percent do so before their 10th anniversary (Martin & Bumpass, 1989; National Centre for Health Statistics, 1993; U.S. Census Bureau, 2011). Couples without children are rampant reaching 33 percent in Austria, 55 percent in Denmark and 36 percent in France (Hantrais, Philipov & Billari, 2005). Specific rates are difficult to establish for sub-Saharan African countries. Till date, Nigerians marry to have children and marriage has meaning only when a child is born and more often if the child survives. Marital fertility is thus essential, childlessness is often regarded as an aberration, and the victims are often pitied or stigmatized (Isiugo-Abanihe, 1994). There is general decline in marital stability and the number of times that people marry is increasing coupled with high rate of multiple partnerships in Nigeria like other traditional African countries (Omideyi, 1987; Isiugo-Abanihe, 1994 and 2003). In the same vein, the incidence of male reproductive health challenges is real and up to three-quarters of married men experience one form or the other Purva, 2007; Bayer Healthcare, 2008). Twenty-eight percent of men experience burning on urination and 17 percent had clinically diagnosed reproductive health problems (Purva, 2007; Bayer Healthcare, 2008; Amidu *et al*, 2011). However, there is a complete reticence in reporting or lack of knowledge about the symptoms.

Generally, marital dissatisfaction, whether due to reproductive health defect of the husband or other reason has dysfunctional and disruptive impact on the society. Stability in family will engender stable nation. What is extremely needed in sub-Saharan Africa region is the desire to forge unity among citizenry in order to ensure national or regional stability and concerted efforts should be devoted to that. While the issues related to family, marriage, divorce and female reproductive health have been exhaustively discussed in the literature, little or nothing has been said on what would happen to the wife if the husband has sexual difficulties or diseases. What happens when the couple could not produce at least a child due to reproductive health challenge experienced by the husband in a society where fertility is supreme? In reality, what will the wife do if her husband is faced with reproductive health challenges? Thus, the study aimed at

estimating the influence of male reproductive health challenges on conjugal relationship in the context of African cultural setting where there is high priority on child bearing. It is designed to identify the proportion and the characteristics of married wives with husbands that have reproductive health challenges in the study location. It is also meant to determine the coping strategies of the wives in situation where the husbands have reproductive health challenges. These are done to enhance enduring conjugal relationship irrespective of the circumstance of the husbands.

Literature Review

The male reproductive health challenges is conceptualized as a state of complete physical, mental and social well-being of a man and not merely the absence of disease or infirmity, in all matters relating to his reproductive system, their functions and processes (Caldwell, 1996; United Nations, 1994; Lamb & Siegel, 2004; Family Health International, 2009). These include the rights to be informed and to have access to safe, effective, affordable and acceptable reproductive health services (including family planning) of his choice and other methods and techniques and services that contribute to reproductive well-being of the man (Stan, 1996; Siegel, 2012). Married couple employed to designate a man and a woman who are socially sanctioned for more or less permanent relationship and are duly recognized by themselves and their community as husband and wife. They are joined together with exclusive lifetime bonds (Biddlecom & Greene, 1997; Isiugo-Abanihe, 1994).

Among couples in this part of the world, expectations are naturally high in terms of quantity of children, love, recreation, quality meal, companionship, income, health status including spontaneity of sexual relationship (Becker, 1973; Keeley, 1974; Keeley, 1979). Besides, African culture dictates reproduction of children as evidence of the fruitfulness of the marriage. In Yoruba tradition, the ethnic group where this study was conducted, like other ethnics in Africa, fertility is paramount in conjugal relationships and represents sustenance of lineage through legitimate and responsible procreation (Alaba, 2004). Also, in an attempt to perpetuate this lineage or get somebody to look after family's domestic works, marriage and parenthood are therefore supported and reverend (The African Guide, 2011). Thus, in this region, inability of

any couple to bear children could be considered as abnormal and might 'devalue' the couple in their community (Orubuloye, 2000; Kamuzora 1987; Warwick, 2006).

Components considered paramount to male reproductive health could include sexual behaviour, sexual dysfunction, Testicular Dysgenesis Syndrome (TDS), sexually transmitted diseases (STD), HIV/AIDS services, family planning, fatherhood and infertility services, to mention but few (Stan, 1996; Arduca, 2003; Siegel, 2012). Several of these components have been extensively covered but focusing on only women with little reference to men involvement. However, the fact that the majority of these components do not occur to women in isolation implies that both women and their partners are involved. Also, the dominant roles men play in many of these components make male sexual challenge dangerous to harmonious and satisfactory marital relationship.

Studies have confirmed that men with sexual reproductive challenges have lower desire for sexual activity, experience erectile dysfunction, have difficulty in achieving orgasm and several other defects that are capable of disrupting marital and sexual happiness including other damaging effects such as sterility (Rust *et al*, 1988; Arduca, 2003; Murat *et al*, 2005; Warwick, 2006). About 10-20 percent of men who are victims of testicular cancer, for example, participate less in sexual activity with concomitant challenges in their marital lives (Schover, Leslie & Eschenbach, 1985; Geidam *et al*, 2008). Other consequences of male sexual dysfunction could also include wife's separation or divorce in addition to its link with stress and anxiety in over one-quarter of the victims (Schover *et al*, 1985; Rust *et al*, 1988; Geidam *et al*, 2008). Men's sexual dysfunctions (such as impotence and premature ejaculation) are noted to be predominantly associated with marital dissatisfaction and, among women, the level of marital discord is higher when their partners have sexual challenge than when the women have sexual problem themselves (Rust *et al*, 1988; Murat *et al*, 2005).

However, while it is possible to endure these circumstances, the pressure from the extended family members or the exigency of traditional expectation of bearing of children could exert negative influences on the marital relationship. Although, extended families have existed in many cultures throughout the world for a long time but it is more entrenched in Africa

particularly in the sub-Saharan region. Despite the diffusion of western culture and industrialization which has emphasize individualism over collectivism and has weakened extended family grouping in several regions, the bond of extended family is still strong in sub-Saharan Africa (Barnes, 1970; Isiugo-Abanihe, 2004; The African Guide, 2011). In modern society, a conjugal family is considered as consisting of only the husband and wife, with or without children. It is expected that the adaptation of this kind of family structure would imply relationship among the adult partners and their children either by birth or adoption thereby making the spouses and their children prime important. In African culture, this relationship is entwined principally to the extended relatives of both adult partners that have culminated into patrilineal traditional families (Barnes, 1970; Stephens, 1982). Nigeria, being a patriarchal society, the eldest man thus enjoys supremacy over decision-making on crucial issues such as childbearing, number of children, mediation in quarrel or disagreement between spouses and intimate relationship between them (Wusu & Isiugo-Abanihe, 2003).

Besides, studies have confirmed that emotional support from extended family can positively or negatively influence relationship satisfaction for both married and cohabiting couples (Pimentel, 2000; Ubesekeera & Jiaojiang, 2008). In Nigeria, like other regions of sub-Saharan Africa, the benefits of extended families are overwhelming especially in terms of income, employment and other social-intergenerational transfers are crucial mechanisms for coping socially and financially by their children. They specifically play dominant roles in financial input, companionship, security in terms of their living arrangement (where many adults live together). They also render assistance in times of illness, stress and participate in domestic chores, looking after younger grand children while the parents work and provide love, comfort and stability to them (Barnes, 1970; Stephens, 1982). In returns, grandparents are appreciated for their wisdom and advice due to their experiences. Thus, their views and opinion have become obligations for the children irrespective of their marital statuses. Besides, the consanguine kin group or bloodline, where line of descent is traced through the male members of the family (Abekhale, 2010) has paved way for patriarchy and the patrilineal system. In this system, the eldest especially the one with the most dominant social status have supreme authority over the clan (Barnes, 1970; Stephens, 1982) and controls the affairs of both his /her immediate family and

that of the whole clan or kinship. Thus, the influence of extended family on fertility or other reproductive issues becomes crucial in the analysis of male reproductive health challenges.

In another perspective, the general attitudes of Africans towards parenthood and childlessness presents parenthood as a fulfillment of life and that those that live without children emptier and considered less rewarded by nature. This, therefore, makes reproductive health a crucial issue of concern to both the immediate family and the extended families. Thus, childlessness or inability of any daughter-in-law to give birth to a living child is considered abnormal (Isiugo-Abanihe, 1994; Ombelet *et al*, 2008). In this regard, as a member of the same community, the wife becomes naturally uncomfortable if she experiences infertility either through her husband's or through her own reproductive health challenges. Reproductive health challenges reduce fertility or cause infertility and could as well impacts on child spacing and paternal mortality (Warwick, 2006, Siegel, 2012). The consequences of these challenges are threats to the conjugal relationship. Thus, the need for critical appraisal of male reproductive health challenges within conjugal relationship.

Research Design

The data for the study was extracted from a 2010 survey on 435 couples collated for a doctoral programme in Covenant University, Nigeria. The experimental group while the control respondents were selected among those whose husbands have no reproductive health problems. Respondents consist of husbands and wives whose husbands have reproductive health challenges. They were selected following a “key-informant-leading approach” where the informants (mostly health personnel from modern and orthodox health facilities) led the group to the respondent having secured the latter consent. All respondents were selected from the 16 wards of two local government areas in the two states with similar ethnic profile. The states were purposively selected among the six states in the south-west geopolitical zone of Nigeria. Frequency distribution was used to present background information about the subject while binary logistic regression was employed to estimates the effects of male reproductive diseases and coping strategies on conjugal satisfaction. The results are presented in tables.

Results and Discussion

The demographic profile of the respondents is presented in Table 1. In the analysis, the file is split between respondents with husbands that have reproductive health challenges and the control group. The descriptive analysis covers the two groups while the multivariate analysis centers on the experimental group where husbands have reproductive health problems. The general age characteristics revealed that the majority of the population are in their prime age of life characterized with a mean age of 28 years. Specifically, respondents in age groups 15-24 years and 25-34 years represent 32.9, 45.5 percent respectively of the total sample as indicated in Table 1. Out of 435 wives captured, only 136 respondents (33.1 percent) have husbands with reproductive challenges. Among this group, wives in the youngest age group (15-24 years) constitute 14.7 percent while the next older age group accounts for 44.1 percent of the total population. Out of 31.3 percent with husbands that have reproductive health challenges, 41.2 and 36.0 percent have attained primary and secondary education respectively. Only 12.5 percent have not attended any regular school among the wives where husbands have reproductive health problems.

Parity level shows that majority of the respondents (46.3 percent) whose husbands have reproductive health challenges have zero parity. The general pattern revealed lower parity level among those who have husbands with reproductive health challenges compared with the control group whose husband have no reproductive health challenges as shown in Table 1. Similar observation was made in terms of desired family size. Almost two-third (69.8 percent) desired 1-4 children among those with husbands with reproductive health challenges coupled while 19.9 percent desired higher fertility level (5 children and above). Where the challenges do not exist, 67.3 percent desires 1-4 children and 27.8 percent would prefer up to five children and above while a total of 35 (8 percent) wives refused to answer the question.

The specific male reproductive health challenges identified include erectile dysfunction (10.5%), gonorrhea (12.7%), low sperm count (0.1%), testicular cancer (6.3%), prostate (3.2%) and prostate cancer (1.6%). Overall, more than one-third of wives whose husbands have reproductive health challenges have lower rate of sexual intercourse with their spouses.

Table 1. Distribution of wives by presence or absence of male reproductive health challenges

Selected Variables	Where Husbands have Sexual health disease		Husbands have no Sexual health disease		Total	
	No	%	No	%	No	%
Age Group					Mean age = 28 years	
15-24 years	20	14.7	123	41.1	143	32.9
25-34 years	60	44.1	138	46.2	198	45.5
35 years and above	56	41.2	38	12.7	94	21.6
Total	136	100	299	100	435	100
Religious Affiliation						
Christianity	61	44.9	167	55.9	228	52.4
Islam	50	36.8	99	33.1	149	34.3
Traditional	25	18.4	33	11.0	58	13.3
Occupational Status						
Executive Level	9	6.6	25	8.4	34	7.8
Clerical Officer	44	32.4	84	28.1	128	29.4
Artisan/Skilled/Unskilled	63	46.3	119	39.8	182	41.8
Housewife/Unemployed	20	14.7	71	23.7	91	20.9
Total	136	100	299	100	435	100
Educational Attainment						
No Schooling	17	12.5	34	11.4	51	11.7
Primary Education	56	41.2	55	18.4	111	25.5
Education	49	36.0	114	38.1	163	37.5
Tertiary Education	14	10.3	96	32.1	110	25.3
Total	136	100	299	100	435	100
Children Ever Born (CEB)						
Zero Parity	63	46.3	36	12.0	99	22.8
1-2 children	51	37.5	62	20.7	113	26.0
3-4 Children	15	11.0	99	33.1	114	26.2
5 children and above	3	2.2	63	21.1	66	15.2
No Response	4	2.9	39	13.0	43	9.9
Total	136	100	299	100	435	100
Duration of Marriage						
Less than 5 years	66	48.5	115	38.5	181	41.6
5-9 years	62	45.6	110	36.8	172	39.5
10-15 years	8	5.9	74	24.7	82	18.9
Total	136	100	299	100	435	100
Desired Family size						
1-2	7	5.1	153	51.2	160	36.8
3-4	88	64.7	48	16.1	136	31.3
5 and above	27	19.9	83	27.8	110	25.3
No Response	14	10.3	15	5.0	29	6.7
Total	136	100	299	100	435	100
Frequency of Intercourse/month						
Once	60	44.1	94	31.4	154	35.4
Twice or more	26	19.1	132	44.1	158	36.3
Seldom	16	11.8	26	8.7	42	9.7
No Response	34	25.0	47	15.7	81	18.6
Total	136	100	299	100	435	100

Source: Field survey 2010

The result also revealed that almost four-fifth (79.1 percent) of the total respondents were working as at the time of the survey while the remaining one-fifth were are either full time housewives, full time students or are currently unemployed. This is in consonance with the 19.8 percent unemployment rate indicated for the nation (Bureau of Statistics (NBS), 2009; National Population Commission (NPC), 2009; Onuba, 2010). The group of respondents identified as executive officers, chief executives of organizations is only 7.8 percent (Table 1). 29.4 percent belongs to the clerical cadre while the artisans, skilled and unskilled workers constitute 41.8 percent.

The model formulated tested the impact of demographic characteristics and coping strategies (employed by the wives) on conjugal satisfaction using binary logistic regression analysis. The outcome, among others, shows that all occupational categories have significant negative relationships with conjugal satisfaction where the husbands have sexual health problems (Table 2). This implies that occupation or occupation categories are not key determinants of marital satisfaction where sexual health problem exist. Similarly, higher educational attainment is found to be negatively associated with couple's satisfaction among those whose husbands have sexual health challenges. The common coping strategies identified among the wives range from "resignation to fate", "seek support", "confrontational attitude", "consulting family doctors/spiritual heads" and "personal therapy". The logistic regression indicated that all approaches employed by the wives are negatively associated with marital satisfaction except "consultation with family's doctor/spiritual heads" (p-value = 0.000) as shown in Table 2. This could be true because the family doctor is mostly adjudged a confidant in family matters especially when it is concerns with fertility/infertility and sexual problems (Hahn *et al*, 1988; Yahi, 2004). Evidences from the hypothesis tested shows that, where the husbands experience erectile dysfunction, gonorrhoea, prostate or prostate cancer, the couples are 0.064, 0.583 and 0.898 times (respectively) less likely to enjoy marital satisfaction (see Table 2). However, only erectile dysfunction and low sperm count are statistically significant at p-values of 0.005 and 0.053 respectively (Table 2).

Table 2. Logistic Regression estimates of the effects experience of male reproductive diseases, demographic characteristics, coping strategies and on conjugal harmony

Selected Variables	B	S.E.	Wald	df	Sig.	Exp(B)
Age group						
35 years and above	RC					
15-24 years	3.323	.461	51.908	1	0.000	27.733
25-34 years	1.699	.392	18.799	1	0.000	5.467
Religious affiliation						
Traditional	RC					
Christianity	2.974	.906	10.783	1	0.001	19.567
Islam	2.153	.909	5.616	1	0.018	8.611
Occupation						
Housewife/unemployed	RC					
Senior Executive Officer	-5.762	1.234	21.802	1	0.000	.003
Middle/Manager/Officer	-4.392	1.230	12.752	1	0.000	.012
Clerical Staff/Other Officer	-5.100	1.109	21.147	1	0.000	.006
Artisan/Skilled labourer	-4.468	1.056	17.908	1	0.000	.011
Unskilled/Shop Asst	-3.674	1.054	12.144	1	0.000	.025
Education						
No Schooling	RC					
Up to Primary School	1.561	0.423	13.650	1	0.000	0.210
Up to secondary school	-2.274	0.351	42.061	1	0.000	0.103
Up to University	-1.284	0.327	15.409	1	0.000	0.277
Reproductive Diseases						
Experienced Testicular Cancer	0.364	0.579	0.395	1	0.530	1.439
Experienced Prostate Cancer	-0.107	1.353	0.006	1	0.937	0.898
Experienced Andropause	0.446	0.697	0.409	1	0.522	1.562
Experienced Erectile dysfunction	-2.747	1.038	7.004	1	0.008	0.064
Experienced Gonorrhoea	-0.540	0.461	1.374	1	0.241	0.583
Low Sperm Count	1.106	0.577	3.676	1	0.053	3.023
Other STIs	0.645	0.684	0.889	1	0.346	1.905
Coping Strategies						
Self blame	RC					
Resigned to fate / Self-controlling	-0.060	0.545	0.012	1	0.913	0.942
Invite Relations/Seek support	-0.957	0.602	2.527	1	0.112	0.384
Consult Doctor/ Spiritual heads	2.818	0.765	13.560	1	0.000	16.742
Plan separation /Detachment	-0.765	0.708	1.166	1	0.280	0.465
Fight seriously / Confrontational	-19.520	11.335	0.000	1	0.999	0.000
Try other sexual partners	-0.154	0.719	0.046	1	0.830	0.857
... Therapy	1.075	0.727	2.189	1	0.139	2.930
Constant	4.652	1.130	16.956	1	0.000	104.772
-2 Log likelihood = 344.911			Cox & Snell R Square = 0.380			
Nagelkerke R Square = 0.527			Overall Percentage = 81.9			
Source: Field survey 2010			RC = Reference Category			

Working wives, irrespective of positions they occupy, would less likely enjoy marital satisfaction where the husbands have reproductive health challenges. This revelation could be true because the problems of prostate cancer, low sperm count and gonorrhoea directly affect sexual activity and fecundability of the wife which is the ultimate priority as far as the marriage is concerned (Warwick, 2006). This suffices to conjecture that, in a culture where infertility is decorated with stigma or regarded as a curse (Isiugo-Abanihe, 2003; Warwick, 2006), it is logical that the couple especially the wife would not be comfortable with husband's sexual challenge. Sexual intercourse is considered as the cement that binds conjugal relationship together and that failure of the husband (in this regard) introduces strain, worries and frustrations into the marriage (Burnett, 2006; Bayer Healthcare, 2008; Amidu, *et al*, 2011). Thus, sexual dysfunction or problem in sexual health of the husband portends great danger to couple's marital satisfaction.

Conclusion and Recommendations

The study concludes that education, occupation and intervention of family doctors/spiritual heads are vital to enduring marital satisfaction among the couples where the husbands have sexual problems. Stability in family will engender stable nation. Conjugal dissatisfaction affects the entire family which is the most elementary fabric of the society. If the family is in disarray, it is unlikely that the individuals and collectivities which are themselves products of such institution will possess the moral, intellectual and necessary oneness and enablement to accomplish the national developmental goals. Thus, it is paramount for marriage counselors, social workers and other health officials to focus on erectile dysfunction and low sperm count as major determinants of sustainable marriage and marital happiness. Governments and other stakeholders should focus on massive public awareness on male sexual diseases in order to promote enduring conjugal relationship. The author therefore suggests robust specialized reproductive healthcare services for effective servicing of the health needs of men who may be experiencing any sexual problem. Finally, the prevalence of these challenges in the study locations should be seen as window of opportunity for therapists to find solutions.

References

- Abekhale, Samson Olorunda (2010). Psychosocial effects of divorce on family offspring in Gboko Local Government Area of Benue State: Counseling Intervention Strategies. *Journal of Research in National Development*, Vol. 8, No 1, June, 2010. Transcampus Interdisciplinary Research, Nigeria. 2010
- Adegoke, T.O. (2010). Socio-cultural Factors as Determinants of Divorce Rates among Women of Reproductive Age in Ibadan Metropolis, Nigeria. *Studies in Tribes and Tribals*. Vol. 8, No. 2, 2010. Kamla-Raj 2010. pp107-114
- Adewuyi, A. & Ogunjuyigbe P. (2003). The Role of Men in Family Planning: An examination of men's knowledge and attitude to contraceptive use among the Yorubas. *African Population Studies*, Vol. 18, No. 1, 2003. pp P35-49.
- Amidu, Nafiu, Owiredu William K.B.A, Gyasi-Sarpong Christian K, Woode Eric & Quaye Lawrence (2011). Sexual dysfunction among married couples living in Kumasi metropolis, Ghana. *BMC Urology*, Vol. 11, No 3, 2011. BioMed Central Ltd. www.biomedcentral.com/1471-2490/11/3.
- Arduca, P. (2003). Erectile dysfunction: A guide to diagnosis and management. *Australian Family Physician*, Vol. 32, No 6, 2003. Pp 414-420.
- Barnes, J.A. (1970). Marriage in a Changing Society: a Study in Structural Change among the Fort Jameson Ngoni, The Rhodes-Livingstone Papers, Manchester University Press, Manchester. 1970.
- Bayer Healthcare (2008). Sex and the Modern Woman: Report Findings. *Bayer Healthcare*, June 2008, Bayer Healthcare. Pp 1-20
- Becker, Gary S. (1973). A Theory of Marriage: Part I. *The Journal of Political Economy*, Vol. 81, No. 4. 1973. University of Chicago Press. Jul. - Aug. 1973, pp813-846.
- Becker, Gary Stanley (1976). The Economic Approach to Human Behaviour. Chicago. University of Chicago Press, 1976.
- Biddlecom, E. Ann & Greene, E. Margaret (1997). Absent and Problematic Men: Demographic Accounts of Male Reproductive Roles. Policy Research Division, Population Council. New York. Doc No. 103, 1997.
- Burnett, A.L (2006). Erectile Dysfunction. *Journal of Urology*. 2006; 175(3 Pt 2): S25-31.
- Caldwell, John C. (1996). The International Conference on Population and Development, Cairo, 1994. Is its Plan of Action important, desirable and feasible? Health Transition Centre, Australian National University, Canberra, Australia. *Health Transition Review* 6, 1996. pp71-122
- Central Intelligence Agency (CIA) (2010). Nigeria Economy 2010. *CIA World FactBook*. Jan 2010. http://www.theodora.com/wfbcurrent/nigeria/nigeria_economy.html.
- Family Health International, FHI (2009). Male Responsibility for Reproductive Health. Family Health International 2009.
- Geidam, A. D, Yawe K D. T., Adebayo A E A, Idrisa A (2008). Hormonal profile of men investigated for infertility at the University of Maiduguri in northern Nigeria. *Singapore Medical Journal*, Vol. 49, No 7, 2008. pp538
- Hahn, S.R, Feiner J.S. & Bellin E.H. (1998). Doctor-Family-Patient Relationship: A Compensatory Alliance. U.S National Library of Medicine, National Institutes of Health. Vol. 109, No. 11, 1998. pp884-889.
- Hantrais, Linda, Philipov Dimiter & Billari, Francesco C. (2006). Policy implications of changing family formation. Study prepared for the European Population Conference 2005. *Population*

- Studies, No 49. 2006.* Council of European Publishing. Council of Europe. January, 2006. ISBN 92-871-5885-1
- Isiugo-Abanihe, Uche C. (1994). Nuptiality Patterns, Sexual Activity and Fertility in Nigeria. DHS Working Paper No 16. Macro International Inc. Maryland, USA. p1-32
- Isiugo-Abanihe, Uche C. (2003). Male Role and Responsibility in Fertility and Reproductive Health in Nigeria. Centre for Population Activities and Education for Development (CEPAED) Nigeria. 2003
- Kamuzora, C. Lwechungura (1987). Survival Strategy: The Historical and Economic Roots of an African High Fertility Culture." *The Proceedings of the Ife Conference on the Cultural Roots of African Fertility Regimes*. Ile-Ife, Nigerian and Philadelphia, USA: Department of Demography and Social Statistics, Obafemi Awolowo University and Population Studies Center, University of Pennsylvania. pp307-329.
- Keeley, M. C. (1974). A Model of Marital Formation: The Determinants of the Optimal Age at First Marriage, Unpublished Ph.D. Dissertation, University of Chicago. 1974.
- Keeley, Michael C. (1979). Analysis of the Age Pattern of First Marriage. International Economic Review, Vol. 20, No. 2, June 1979. Blackwell Publishing, Economics Department, University of Pennsylvania and Institute of Social and Economic Research, Osaka University. pp527-544.
- Lamb, L Von & Siegel S. Jacob (2004). Health Demography In The Methods and Materials of Demography, Second Edition (Eds.) Siegel S. Jacob and Swanson A. David (2004). *The Methods and Materials of Demography, Second Edition*, Elsevier Academic Press, United Kingdom, 2004. pp341-370
- Martin, T. C. & Bumpass L.L (1989). Recent trends in marital disruption. *Demography*, Vol. 26, 1989. Pp37-51.
- Murat, Gülsün, Hamdullah Aydin & Zeynep Gülçat (2005). A Study on Marital Relationship and Male Reproductive Health Dysfunction. *Turkiye'de Psikiyatri*, 2005, Vol. 7 No 3, 2005. pp98-102.
- National Bureau of Statistics. (2010). Statistical News: Labor Force Statistics No. 476. Abuja: The NBS Publication. 2010.
- National Centre for Health Statistics (1993). Births, marriages, divorces and deaths for 1992. Monthly Vital Statistics Report 4, May 19, 1993.
- National Population Commission (NPC), (2009). 2006 Population and Housing Census of Federal Republic of Nigeria. Housing Characteristics and Amenities Priority Tables. Vol. 1. National Population Commission. August, 2009
- Ombelet, Willem, Cooke, Ian, Dyer, Silke, Serour Gamal & Devroey Paul (2008). Infertility and the provision of infertility medical services in developing countries. *Human Reproduction Update*, Vol. 14, No. 6, 2008. The European Society of Human Reproduction and Embryology, Oxford University Press. P605-621. Doi:10.1093/humupd/dmn042
- Omideyi, Adekunbi K. (1987). Status, Cultural Beliefs and Fertility Behaviour among Yoruba Women. in *The Proceedings of the Ife Conference on the Cultural Roots of African Fertility Regimes*. Ile-Ife, Nigerian and Philadelphia, USA. Department of Demography and Social Statistics, Obafemi Awolowo University and Population Studies Center, University of Pennsylvania. pp151-169.
- Onuba, Ifeanyi (2010). Why unemployment persists in Nigeria In *The Punch Newspaper*, Monday 19, July 2010.
- Orubuloye, I.O, Caldwell J & Caldwell P (2000). Perceived male sexual needs and male sexual behaviour in Southwest Nigeria. Orubuloye, I.O, Caldwell J, Caldwell P (eds.) *Towards the*

- Containment of the AIDS Epidemic: Social and Behavioural Research) *Health Transition Review* 1-20.
- Pimentel, E. E. (2000). Just How Do I love thee? Marital relations in urban China. *Journal of Marriage and the Family*, Vol. 62, No 1, 2000. pp32-47.
- Purva, Mewar (2007). Sexual Intercourse and other risk factors of prostate cancer. *Cancer*, July, 2007. www.healthoma.com
- Rust, John, Golombok Susan & Collier John (1988). Marital Problems and Sexual Dysfunction: How Are They Related? *British Journal of Psychiatry* Vol. 152, 1988. pp629-631.
- Schover, Leslie R & Eschenbach Andrew C. von (1985). Sexual and marital relationships after treatment for nonseminomatous testicular cancer. *Urology*, Volume 25, Issue 3, March 1985. pp251-255.
- Siegel, Jacob S. (2012). Reproductive Health. The Demography and Epidemiology of Human Health and Aging. Springer, Netherlands. 2012. pp469-531
- Stan, Becker (1996). Couples and Reproductive Health: A Review of Couple Studies. *Studies in Family Planning*. Vol. 27 No 6, Nov/Dec 1996. pp291-293
- Stephens, William N (1982). The Family in Cross-Cultural Perspective. University Press of America, New York. 1982
- Takashi, Yamano & T. S. Jayne (2002). Tegemeo Working Paper 5, October, 2002. Tegemeo Institute of Agricultural Policy and Development, Nairobi, Kenya, October 2002
- The African Guide (2011). African People and Culture. The African Guide. 2011
- Togunde, Dimeji & Newman Samantha (2005). Value of Children, Child Labor and Fertility Preferences in Urban Nigeria. *West Africa Review, Issue 7, 2005*. Africa Resource Center, Inc. 2006. ISSN: 1525-4488
- U.S. Census Bureau (2011). The 2012 Statistical Abstract. The National Data Book. United States Censuses
- Ubesekeera D. M. & Jiaojiang Luo (2008). Marriage and Family Life Satisfaction: A Literature Review. *Sabaramuwa University Journal*, Vol. 8, No 1, December 2008. Pp1-17. ISSN 1391-3166
- United Nations (1994). International Conference on Population and Development Programme of Action. Report of the International Conference on Population and Development. Cairo, Egypt, 5–13 September 1994. United Nations, New York, 1994
- Vignoli, Daniele & Ferro Irene (2009). Descriptive Findings: Rising Marital Disruption in Italy and its Correlates. *Demographic Research*. Vol. 20, Article 4, January 2009. pp11-36. Max Planck Institute for Demographic Research. Rostock, Germany, 2009. <http://www.demographic-research.org/Volumes/Vol20/4/>. DOI: 10.4054/DemRes.2009.20.4
- Warwick, Carter (2006). Making Babies: A Guide to Fertility and Conception. Hinkler Home Medical, Hinkler Books Pty Ltd, Australia.
- Wusu, O. & Isiugo-Abanihe, U. C. (2003). Family Structure and Reproductive Health Decision-Making among the Ogu of southwestern Nigeria: A Qualitative Study. *African Population Studies*, Vol. 18, No 2. 2003. pp27-45.
- Wusu, Onipede & Isiugo-Abanihe, Uche C. (2006). Interconnections among changing family structure, childrearing and fertility behaviour among the Ogu, Southwestern Nigeria: A qualitative study. *Demographic Research*, Vol. 14, Article 8, February, 2006. Max-Planck-Gesellschaft. Pp139-156. DOI: 10.4054/DemRes.2006.14.8.
- Yahi, Cong (2004). Doctor-Family-Patient Relationship: the Chinese Paradigm of informed consent. *The Journal of Medicine and Philosophy*. Vol. 29, No. 20. Pp 149-178.

