ORIGINAL ARTICLE

Patient-doctor relationship: The practice orientation of doctors in Kano

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Abstract

Background and Objectives: Attitude and orientation of doctors to the doctor-patient relationship has a direct influence on delivery of high quality health- care. No study to the knowledge of these researchers has so far examined the practice orientation of doctors in Nigeria to this phenomenon. The aims of this study were to determine the orientation of Kano doctors to the practice of doctor-patient relationship and physicians' related-factors.

Materials and Methods: Participants were doctors working in four major hospitals (i.e., two federal-owned and two state-owned) servicing Kano State and its environs. The Patient-Practitioner Orientation Scale (PPOS) and a socio-demographic questionnaire were completed by the 214 participants. The PPOS has 18 items and measures three parameters of a total score and two dimension of "sharing" and "caring".

Results: The mean age of participants was 31.72 years (standard deviation = 0.87), with 22% being females, 40.7% have been practicing for ≥6 years and about two-third working in federal-owned health institution. The Cronbach's alpha of total PPOS scores was 0.733 and that of two sub-scale scores of "sharing" and "caring" were 0.659 and 0.546 respectively. Most of the doctors' orientation (92.5%) was towards doctor-centered (i.e., paternalistic) care, majority (75.2%) upheld the view of not sharing much information and control with patients, and showing little interest in psychosocial concerns of patients (i.e., 'caring'=93.0%). Respondents' characteristics that were significantly associated with high doctor 'caring' relationship orientation were being ≥30-year-old and practicing for ≥6 years. Working in State-owned hospitals was also significantly associated with high doctor "sharing" orientation.

Conclusion: This paper demonstrated why patient-centered medical interviewing should be given top priority in medical training in Nigeria, and particularly for federal health institutions saddled with production of new doctors and further training for practicing doctors.

Key words: Doctor-patient relationship, Kano doctors, practice orientation, patient-centered care

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Introduction

The doctor-patient relationship is a central concern of both medical ethics and practice as it stresses how the interaction between the doctor and patient ought to be nurtured.[1] By definition, it is that interface where patient's data are gathered, diagnoses and plans are made, compliance is accomplished, and healing, patient activation, and support are provided.[2] Beyond the consulting rooms, for instance in the hospital ward, the doctor-patient relationship is much more complex as it is beyond just two individuals interacting, as many other people are involved when somebody is ill. These include patient's relatives and neighbors, rescue specialists, nurses, technical personnel, social workers and others such as hospital administrators, insurance company/ health management organizations and government. Core to the satisfaction of all those involved in this curative process

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has been referred to by Balint as the drug "doctor" that has effects and side effects.[3]

The effectiveness of doctors in the proper conduct of doctor-patient relationship has been linked with the beliefs, attitudes and orientations they brought into this encounter.[4-6] Physicians' attitudes broadly influence their professional duties as they govern the use of professional knowledge that is employed in the doctor-patient encounters.[7] Attitudes color the type of orientation styles doctors can bring in to the doctor-patient interactions.[5,6] It is the typical doctors' orientation toward their patients that determines if the practiced relationship is doctor-centered (paternalistic)[8,9] or patient-centered.[9] When the doctors' practice orientation is the latter, studies had shown that it did not only increase the depth of patients' satisfaction with the encounter,[5,6] but that will also lead to the delivery of high-quality health care in the diagnosis and treatment of disease. It further promotes patient's compliance and adherence to the treatment process,[10] strengthens their trust in physicians,[10] and consequently improves the "hospital-image" in a significant and relevant manner.[11]

Most of the previous Nigerian studies on the doctor-patient relationship borders mainly on patients' satisfaction[12-16] from either the patients' or their relations' perspectives and not from the orientations the physicians brought into the encounters. The latter has been the focus of many studies in western countries.[4-7,10] These studies argued for why the physician practice orientation to the doctor-patient relationship is very important in the proper conduct of health care delivery. This is because the doctor is seen first as a service provider and the patient, a consumer.[17]

In other words, the doctor-patient relationship means many things or all, to both the patients and their doctors from the waiting room to: Consultation, diagnosis, treatments and compliance/adherence, improved patient and physician satisfaction, better patient compliance, improved health outcomes, better-informed medical decisions, reduced costs of care and reduced malpractice suits/litigations when it go sour. And in this era of consumership, one of the ways to limit the bad image hospitals are being giving in Nigeria, as in a media publication referring to workers in a federal health institution located in Kano as ritualists,[18] is the proper practice of the doctor-patient relationship by the doctors, and other health-workers. Beyond the hospital image issue, there is also need to limit and/or prevent litigation against doctors through the proper process of doctor-patient relationship as it is "the legal predicate to the recognition of a professional duty of care owed to a patient".[19] With this background in mind, the practice orientation of doctors in Kano to this phenomenon is highly timely.

Aim

The aim of this study is to determine the practice orientation of Kano doctors to the practice of doctor-patient relationship as well as associated physicians' socio-demographic factors that may influence this.

Materials and Methods

Place of study

The city of Kano is one of the largest cities in Nigeria and is the capital of the northwestern state of Kano in northern Nigeria, at latitudes 10.3°N, 13°S and longitudes 7.43°E, 10.9°W. It is a cosmopolitan city with a population of over 3 million (2007 estimate).[20] It is provided with health services by four major hospitals, two are state owned and the others are federal. The former are Murtala Mohammed Specialist Hospital and Muhammed Abdullahi Wase Specialist Hospital, and the latter: Aminu Kano Teaching Hospital and National Orthopedic Hospital, Dala. All these hospitals provide not only general out-patient and in-patient services, but also specialized care which varies from one facility to another.

Instrument of study

Patient-practitioner orientation scale

The doctors' practice orientation to the doctor-patient relationship was assessed using the patient-practitioner orientation scale (PPOS) developed by Krupat *et al*.[6] These are relatively stable sets of personal beliefs and preferences that the doctors or patients held about how the doctor-patient relationship should be conducted.[4,6] The PPOS has 18 items and measures three parameters of a total score and two sub-scores. The total score measure a range from patient-centered to doctor-centered while the two sub-scores do the followings: The first nine-item sub-scale, 'Sharing', reflects the extent to which the physician or patient believes that patients desire information and should be part of the decision making process along a shared control–doctor control continuum. The second nine-item sub-scale, 'Caring', reflects the extent to which the doctor or patient sees the patient's expectations, feelings, and life circumstances as critical elements in the treatment process[6]. The study administered the instrument to doctors only and the patients were omitted. This is due mainly to limited resources which can not cover the four hospitals used in the study.

The doctors were invited to indicate how they "strongly agree" and "strongly disagree" with each 18 statement on a six point Likert scale. The mean scores for the participants were ranked according to the Krupat *et al*.[6] categorization of high (i.e., patient-centered with a mean score ≥ 5.00) moderate (i.e., between >4.57 and <5.00) and low (i.e., doctor-centered with a mean score of ≤ 4.75).

Lower scores reflect an orientation toward a more 'doctor-centered' relationship (high doctor control, focus on biomedical issues and a compliant passive patient i.e., the paternalistic medical practice) whereas higher scores indicate preferences for a more 'patient-centered' relationship (sharing control and focusing on the whole person).[6,8] Previous research outside Nigeria has shown that the PPOS has good reliability (α = 0.75-0.88) and validity.[4,6,21] However a South African validation study among medical students reported a low reliability score (α = 0.41, 0.57 and 0.51 for caring, sharing and total PPOS scores respectively).[22]

Study participants and procedures

Before the commencement of the study, ethical clearance and permission to conduct the study was obtained from the Ethical and Scientific Committee of Aminu Kano Teaching Hospital, Kano. The participants were doctors working in the four major hospitals in Kano, who had consented to the administration of the instrument. The doctors were told the questionnaire measures coordination of the doctor-patient relationship to reduce participants' bias. They were also told that the instrument was new in Nigeria, and so the study was aimed at testing the applicability of the instrument in Nigeria. Those who accepted to participate after consenting filled the PPOS and a socio-demographic questionnaire including information on the duration of practice as a medical doctor and their health institution of service. All the doctors working in these four hospitals (estimated to be 330, as at the time of data collection) were invited to participate. The minimum sample size was 178 as determined by from Raosoft Inc online sample size calculator[23], assuming a 330 population size at 50% distribution and 95% confidence interval. Of the 330 doctors approached to participate, 216 (65.5%) agreed to participate and 214 (64.8%) had complete data. Fifty-three of these doctors work in Murtala Mohammed Specialist Hospital, 25 in Muhammed Abdullahi Wase Specialist Hospital, 113 in Aminu Kano Teaching Hospital and 25 in National Orthopedic Hospital, Dala. The response rate was 64.8% among the participants.

Statistical analysis

The results were coded and analyzed using Statistical Package for Social Sciences version 16. The analysis was carried out using descriptive statistics with means, differences and Student *t*-test determined as appropriate. Cronbach's alpha was used to determine the internal consistency of the PPOS. All statistical evaluations were at two-tailed tests and $P < 0.05$ was considered as significant.

Results

Table 1 shows the socio-demographic characteristics of the 214 of the 330 doctors invited to participate in the study. Nearly 22% (47) of the 214 doctors were females, 67.8% (145) were aged 30 years and above, and 59.3% were married. Less than half (87/40.7%) of the participants have been practicing for more than 5 years and about two-third of all participants (138; 64.5%) were working in federally owned health institution. The mean age of all participants was 31.72 years (standard deviation = 0.87).

The Cronbach's alpha of the total PPOS scores was 0.733 and that of the two sub-scale scores of "sharing" and "caring" were 0.659 and 0.546 respectively. Table 2 shows the mean scores of the PPOS as 3.98 (standard deviation = 0.57), 4.25 (standard deviation = 0.70) and 3.71 (standard deviation = 0.61) for the total, 'sharing' and 'caring' scales' scores respectively. Table 3 classifies the doctors according to their PPOS scores. More than 75% of the doctors scored low on the total and the two-subscale scores of the PPOS. Thus the most of the doctors' orientation was toward the doctor-patient relationship (198; 92.5%) as they were doctor-centered (i.e., paternalistic), and the majority do upheld the view of not sharing much information and control with patients (i.e., 161; 75.2%), as well as showing little interest in the psychosocial concerns of patients (i.e., 'caring' =199; 93.0%).

Table 1: Sociodemographic distribution of respondents (*N*=214)

	Frequency (%)
Age group (years)	
<30	69 (32.2)
≥30	145 (67.8)
Mean (standard deviation)	31.72 (0.87)
Range	20-54 years
Sex	
Male	167 (78.0)
Female	47 (22.0)
Marital status	
Single	87 (40.7)
Married	127 (59.3)
Religion	
Islam	141 (65.9)
Christianity	70 (32.7)
Others	3 (1.4)
Duration of practice (years)	
<6 years	127 (59.3)
≥6 years	87 (40.7)
Mean (standard deviation)	5.64 (5.18)
Range	1.5-29 years
Affiliated health institutions	
State-owned	76 (35.5)
Federal-owned	138 (64.5)

Table 2: Mean patient-practitioners orientation scale characteristics of respondents

Variable	Mean scores (standard deviation)
Total	3.98 (0.57)
Sharing	4.25 (0.70)
Caring	3.71 (0.61)

Table 4 shows the respondents' characteristics and how they influenced the doctors' attitude to the doctors-patients relationship. Doctors aged 30 years and above and also those who have been practicing for >5 years had significantly higher mean scores on the "caring" domain of the PPOS compared with their counterparts ($P < 0.05$). The female doctors had higher mean scores on all the domains of PPOS compared with their male counterpart. This was however not statistically significant. Similar non-significant higher mean scores were observed among married doctors and non-Muslim doctors in their PPOS total, "sharing" and "caring" domains compared to their unmarried and Muslim colleagues, respectively. The state-owned health institutions' doctors had higher mean scores in the total and "sharing" sub-scale scores of PPOS when compared with doctors working in the federal health institutions. Conversely, doctors working in the federally owned hospitals had higher mean score on the "caring" subscale compared with the state-owned health institutions. These differences in total, "sharing" and "caring" subscales score of PPOS when compared to doctors' place of work was only statistically significant in the "sharing" domain and in favor of physicians working in the state-owned hospitals.

Table 3: Respondents distribution according to patient-practitioners orientation scale scores

PPOS scores	Frequency (%)
Total	
High	12 (5.6)
Moderate	4 (1.9)
Low	198 (92.5)
Sharing	
High	30 (14.0)
Moderate	23 (10.7)
Low	161 (75.2)
Caring	
High	9 (5.6)
Moderate	6 (2.8)
Low	199 (93.0)

PPOS=Patient-practitioners orientation scale

Discussions

This study aimed to assess the attitude of Kano doctors to the doctor-patient relationship and associated demographic factors. Majority of the doctors that participated in this study were doctor-centered in their practice orientation. This is the typical traditional paternalistic role orientation of doctors described by Parsons[8] as "an asymmetrical relationship in which the doctor occupies the dominant position by virtue of his or her specialist knowledge and the patient merely cooperates". This may be the case as most doctors in Nigeria and particularly in our areas of studies are deeply rooted in physician paternalism. Reasons for these are similar to that suggested by Ishiwata and Sakai[24] as the lack of the practice of informed consent, the practice of patient entrusting his/her care to the family and physician assuming that they will make the most beneficial decision on the patient behalf. This perhaps may contribute to some of the explanation of the bad publicity

Table 4: Relationship of respondents' characteristics with orientation

Variable	Patient-practitioner orientation scale scores					
	Total		Sharing		Caring	
	Mean	*t* value	Mean	*t* value	Mean	*t* value
Sex						
Male	3.97 (0.60)	−0.757	4.23 (0.73)	−1.153	3.71 (0.63)	−0.095
Female	4.04 (0.43)		4.36 (0.57)		3.72 (0.51)	
Marital status						
Single	3.89 (0.53)	−1.924	4.16 (0.68)	−1.569	3.62 (0.59)	−1.778
Married	4.05 (0.58)		4.32 (0.70)		3.77 (0.61)	
Age group						
<30 years	3.91 (0.47)	−1.366	4.25 (0.67)	−0.123	3.57 (0.52)	−2.418*
≥30 years	4.02 (0.60)		4.26 (0.71)		3.78 (0.63)	
Religion						
Islam	3.95 (0.54)	−1.377	4.21 (0.66)	−1.069	3.67 (0.58)	−1.331
Christianity+others	4.06 (0.60)		4.33 (0.77)		3.77 (0.66)	
Health institution						
State	4.04 (0.61)	1.163	4.40 (0.71)	2.216*	3.69 (0.67)	−0.376
Federal	3.95 (0.54)		4.18 (0.68)		3.72 (0.57)	
Duration of practice						
<6 years	3.95 (0.53)	−1.053	4.26 (0.67)	0.015	3.64 (0.57)	−2.010*
≥6 years	4.03 (0.61)		4.25 (0.72)		3.81 (0.65)	

Note* = $P<0.05$

that has haunted the image of the government-owned hospital in Kano.[18]

This finding is contrary to two previous studies using similar instruments to assess their physicians' orientations. One of the study is in American primary care (4.80)[6] and the other, a Malaysian specialist care for oncology patients (4.97)[5] where the mean scores of their doctor-participants' orientation falls within the moderate range by Krupat's designation[6] compared with the present study mean scores falling in the low range. This implies that doctors working in these two settings may have made more improvement in shifting their attitudinal orientation toward patient-centered care rather than the practice of most doctors from our place of study. Despite the differences observed, our study however came from a diverse clinical setting with participants coming from all cadres of doctors working either in primary care or several specialist care settings (e.g., surgery, obstetrics and gynecology, internal medicine, psychiatry, to mention but a few). Also, the large number of patients seen by the Kano doctors may be another contributory factor as the doctor-patient ratio in Kano in 2010 is 1:125,000[25] compared to the American (1:300 in 2004)[26] and Malaysian (1:940 in 2010)[27] ratios. Thus, high patient load per doctor is the typical experience of doctors working in our area of study. For example, in the general out-patient clinic of Aminu Kano Teaching Hospital, the typical number of patients seen per doctor on a daily basis is officially 25 but this is usually topped by additional 10 or more patients for each doctor.

The Kano doctors practice orientation mean scores to the power and decision making ("sharing" scores), and their attention to emotion and lifestyle ("caring" scores) of their patients both fell into the low range. This implied that most of the Kano doctors were oriented respectively towards not sharing most of the information that occur in the doctor-patient encounter with their patients, being over-controlling in such encounter, and showing little warmth, support and interest to the psychosocial needs of the patients. These findings differ from the American primary care[6] and Malaysian specialist care[5] studies both reporting mean scores in the moderately low for "sharing" and moderate-high range in "caring" dimensions of PPOS. The high patients' load and the varied clinical settings of our study participants compared with these two countries may also account for these differences.

The findings that being older and having longer practice years to be significantly associated with doctors being moderately low on their doctor-centered orientation do seem to contradict the understanding that newer doctors were more patient-centered[6] than older ones[6] and those with longer years of practice.[6] This study do therefore suggests that increase in age and years of practice tend to move the practice orientation of Kano doctors towards being more patient-centered. This however, agrees with the American study[6] reporting moderate mean doctor-centered scores and high patient-satisfaction scores among doctors who are in their second decade of practice. Thus the longer the years of practice of doctors in to the second decade, the more patient-centered the doctors' orientation do appears to become.

Female doctors in this study have higher mean scores than male in the overall scores and the two dimensions of "sharing" and "caring". This has been attributed to female doctors' utilization of more patient-centered communication characterized by use of more positive talk, increased use of emotional talk and active solicitation of patient input.[28] Furthermore, this may explain why there is less litigation against female doctors globally.[29] This finding is in agreement with previous studies findings,[6,28] even though in the present study female doctors scored lower on all the three scores of PPOS compared to these previous studies.[6,28]

Married doctors from the present study were less doctor-centered than the unmarried ones. This may be attributed to the married doctors experiencing less job-stress and depression than unmarried ones as observed by Whitley *et al*.[30] However, the Whitley study did not specifically look out for impact of marital status on doctor patient relationship, but do report less depression for emergency doctors who were married. Subsequent studies may specifically look out for the effect of marital status among doctors on their practice orientation to the doctor-patient relationship.

Religious devotion or otherwise of doctors has been argued by Hall and Curlin[31] to shapen the practice of the doctor-patient relationship. This study finds lower mean scores on all the domains of PPOS among the Muslim doctors compared to their non-Muslim colleagues. However, the non-significant finding of the type of religious affiliation of doctors in this study to this special relationship shows that perhaps, other variables like the societal traditions and cultures may provide more insights to the present findings. Thus, research from other regions of Nigeria may help provide more insights into this phenomenon.

Physicians working in the state-owned hospitals are significantly more on the mean "sharing scores" when compared to their counterparts in the federal health institutions. This is quite surprising considering that these federal institutions are training ground for producing new doctors and those going into residency. Thus, there is the expectant need for the training to be focused on the current paradigm shift in the doctor-patient relationship from being doctor-centered to becoming patient-centered.[32] Perhaps, the training is present, but in rudiments as the federal-hospitals doctors' mean scores on the "caring"

dimension is non-significantly higher than those in the state-owned health institutions. Nevertheless, the mean scores of all doctors in all dimensions of PPOS still fall in the low range implying that they are highly doctor-centered, as they exhibits mainly one way medical technical and health cognitive expertise relationship. This orientation is mindless of the contributions of patients, their family, community, the organization and that of the other members of the managing team.

Despite the moderately large sample size of our study compared to previous outside Africa studies involving doctors with sample size ranges of 12-177[5,6] and higher response rate of 64.84% compared with the 44% reported by Krupart *et al*. in America,[6] the non-inclusion of patients' response to correlate our findings does serve as a major limitation. Other limitations include the sampling procedure (i.e., convenient sampling) and the non-inclusion of doctors' previous training experience in techniques of medical interviewing that focus on patients as the central concern.

Conclusion

The results of this study showed a high doctor-centered orientation style for Kano doctors in their encounter with patients. It significantly identified high "caring" orientation among doctors who are aged 30 years and above and in those who have been practicing for more than 5 years. It also significantly associates high "sharing" orientation for doctors working in state-owned hospitals. The low "sharing" practice orientation of doctors working in federally owned health institution may be responsible for the bad hospital image one of them had been accused of, and this may carry a litigious penalty in future. This paper has shown why patient-centered medical interviewing should be given top priority in the medical training curriculum in Nigeria. This is particularly true for the federal health institutions in this study that are saddled with production of new doctors and further training for practicing doctors. However, further research is required to identify better implementation modality, areas for improvement and increased understanding of the dynamics influencing the practice orientation of doctors to the practice of the doctor-patient relationship in Nigeria.

References

1. Smith DH. Ethics in the doctor-patient relationship. Crit Care Clin 1996;12:179-97.
2. Lazare A, Putnam SM, Lipkin M Jr. Three functions of the medical interview. In: Lipkin M Jr, Putnam SM, Lazare A, editors. The Medical Interview: Clinical Care, Education, and Research. New York, NY: Springer-Verlag; 1995. p. 3-19.
3. Balint M. The Doctor, His Patient and the Illness. Edinburgh: Churchill, Livingstone; 1957. Quoted in: Meza JP, Fahoome GF. The development of an instrument for measuring healing. Ann Fam Med 2008;6:355-60.
4. Street RL Jr, Krupat E, Bell RA, Kravitz RL, Haidet P. Beliefs about control in the physician-patient relationship: Effect on communication in medical encounters. J Gen Intern Med 2003;18:609-16.
5. Chan CM, Azman WA. Attitudes and role orientations on doctor-patient fit and patient satisfaction in cancer care. Singapore Med J 2012;53:52-6.
6. Krupat E, Rosenkranz SL, Yeager CM, Barnard K, Putnam SM, Inui TS. The practice orientations of physicians and patients: The effect of doctor-patient congruence on satisfaction. Patient Educ Couns 2000;39:49-59.
7. Pollack S, Michael WB. Changes in attitudes of medical students toward psychological aspects of the doctor-image and the doctor-patient relationship. J Med Educ 1965;40:1162-5.
8. Parsons T. The social system. 1951, Free Press, Glencoe, IL. In: Morgan M, editor. The Doctor-Patient Relationship. In: Scambler G. editor. Sociology as applied to medicine. 6th ed. Edingurgh; New York: Saunders/Elsevier, 2008, p. 54.
9. Byrne PS, Long BL. Doctors Talking to Patients: A Study of the Verbal Behaviour of General Practitioners Consulting in their Surgeries. London: HMSO; 1976; In: Morgan M, editor. The Doctor-Patient Relationship; In: Scambler G, editor. Sociology as Applied to Medicine. 6th ed. Edinburgh, New York: Saunders/Elsevier; 2008. p. 55.
10. Griffith S. A review of the factors associated with patient compliance and the taking of prescribed medicines. Br J Gen Pract 1990;40:114-6.
11. Wu C. The impact of brand image on service quality, patient satisfaction and loyalty. Afr J Bus Manage 2011;5:4873-82.
12. Iliyasu Z, Abubakar IS, Abubakar S, Lawan UM, Gajida AU. Patients› satisfaction with services obtained from Aminu Kano Teaching Hospital, Northern Nigeria. Niger J Clin Pract 2010;13:371-8.
13. Olusina AK, Ohaeri JU, Olatawura MO. Patient and staff satisfaction with the quality of in-patient psychiatric care in a Nigerian General Hospital. Soc Psychiatry Psychiatr Epidemiol 2002;37:283-8.
14. Ofili AN, Ofovwe CE. Patients' assessment of efficiency services at a teaching hospital in a developing country. Ann Afr Med 2005;4:150-3.
15. Eze CU. Survey of patient satisfaction with obstetric ultrasound at University of Nigeria Teaching Hospital Enugu, Nigeria. Niger J Health Biomed Sci 2006;5:93-7.
16. Onotai LO, Ibekwe U. The perception of patients of doctor-patient relationship in otorhinolaryngology clinics of the University of Port Harcourt Teaching Hospital (UPTH) Nigeria. Port Harcourt Medical Journal 2011;6:65-73.
17. Gupta A, Gupta N, editors. Step by Step Defence of Doctors. New Delhi: Jaypee Brothers Medical Publishers (P) Ltd.; 2006.
18. Sunday Trust online edition: There was a time people thought we are ritualist at Aminu Kano Teaching Hospital – former CMD, Dutse. Sunday Trust, 24 July 2011. Available from: http://www.sundaytrust.com.ng/index.php?option=com_content and view=article and id=7330:there-was-a-time-people-thought-we-were-ritualists-at-aminu-kano-teaching-hospital--former-cmd-dutse and catid=1:sunday-people and Itemid=32. [Last accessed on 2012 Dec 12].
19. Simon RI, Shuman DW. The doctor-patient relationship. In: Clinical Manual of Psychiatry and Law. Arlington, VA: American Psychiatric Publishing Inc.; 2007. p. 17-36.
20. Kano city population 2007 estimate. In: Nigeria Facts and Figures. Microsoft ®Encarta®2009.© 1993-2008 Microsoft Corporation.
21. Lee KH, Seow A, Luo N, Koh D. Attitudes towards the doctor-patient relationship: A prospective study in an Asian medical school. Med Educ 2008;42:1092-9.
22. Archer E, van Heerden B, Bezuidenhout J. Medical students' attitudes towards patient-centredness. Presented at 6th Annual Conference on the Scholarship of Teaching and Learning, 22-23, May 2012. Available from: http://www.stbweb02.stb.sun.ac.za/sotl/SOTL_previous/SOTL_2012/presentations/Day1/SOTL2012_Day1_EArcher.pdf. [Last accessed on 2013 Jul 15].
23. Raosoft Inc. Sample size calculation. Available from: http://www.raosoft.com/samplesize.html. [Last accessed on 2013 Jul 14].
24. Ishiwata R, Sakai A. The physician-patient relationship and medical ethics in Japan. Camb Q Healthc Ethics 1994;3:60-6.
25. Jaafar J. Nigeria: Dearth of doctors hit Kano, 2010. Available from: http://www.allafrica.com/stories/201006010547.html. [Last accessed on 2012 Aug 14].
26. What is the ratio of doctors per population in US. Wikianswer, 2012. Available from: http://www.wiki.answers.com/Q/What_is_the_ratio_of_doctors_per_population_in_US. [Last accessed on 2012 Aug 14]. Quoting Available from: http://www.wisegeek.com/what-percent-of-the-us-population-do-doctors-comprise.htm. [Last accessed on 2012 Aug 14].
27. Malaysia hopes to attain WHO doctor-patient ratio by 2015. The Star Online, 24 April,

2010. Available from: http://www.thestar.com.my/news/story.asp?sec=nation and file=/2010/4/23/nation/20100423145351#1344928450499471 and if_height=175. [Last accessed on 2012 Aug 14].
28. Weisman CS, Teitelbaum MA. Physician gender and the physician-patient relationship: Recent evidence and relevant questions. Soc Sci Med 1985;20:1119-27.
29. Sandhu H, Adams A, Singleton L, Clark-Carter D, Kidd J. The impact of gender dyads on doctor-patient communication: A systematic review. Patient Educ Couns 2009;76:348-55.
30. Whitley TW, Allison EJ Jr, Gallery ME, Cockington RA, Gaudry P, Heyworth J, *et al*. Work-related stress and depression among practicing emergency physicians: An international study. Ann Emerg Med 1994;23:1068-71.
31. Hall DE, Curlin F. Can physicians' care be neutral regarding religion? Acad Med 2004;79:677-9.
32. Beach MC, Inui T, Relationship-Centered Care Research Network. Relationship-centered care. A constructive reframing. J Gen Intern Med 2006;21(Suppl 1):S3-8.

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