Nigerian Journal of Pharmaceutical Research
Vol. 9 No 1 pp. 92 – 100 (February 2011)

ATTITUDE OF OTHER HEALTHCARE PROFESSIONALS ABOUT PHARMACEUTICAL CARE IN NIGERIAN HOSPITALS

R. C. Okechukwu[1*] and L. O. Igbinomwanhia[2]
[1] *Centre for Community Medicine and PHC*
Nnamdi Azikiwe University Teaching Hospital
Neni, Nigeria
E-mail: rayco60@yahoo.co.uk Phone: +2348036684935
[2] *Department of Clinical Pharmacy, Madonna University, Elele Campus, Nigeria*
***Correspondence Author**

Abstract
Integration and collaboration among healthcare professionals are emerging global strategies towards achieving effective utilization of skills and expertise of healthcare professionals and optimal healthcare delivery. Awareness and attitude are critical factors for actualization of these strategies. To study the awareness and attitude of other healthcare professionals about pharmaceutical care practice in Nigerian hospitals. A survey of hospital-based healthcare professionals working in three large hospitals in Nigeria was done in 2008 using a 19-item structured questionnaire instrument after due ethical approval. The self-administered questionnaire was pre-tested in some of the respondents who were excluded from the research population. Included in the questionnaire were questions related to familiarity of the respondents with the pharmaceutical care concept, their attitude towards its practice and their attitude towards pharmacists' participation in multidisciplinary ward rounds in their respective hospitals. The data obtained were analyzed with version 11 of the SPSS software. Of the 145 copies of the questionnaires administered 123 were returned as validly completed, (response rate was 85%). Most of the respondents, 118, (96%) were familiar with pharmaceutical care concept: 104, (85%) of them were aware that pharmaceutical care was being delivered in their hospitals. Most of them, 107, (87%) believed that pharmaceutical care was relevant to patients care and highly commendable; 12, (10%) believed it concerned only pharmacists. Two 2, (2%) and one (1%) of the respondents respectively believed it was time wasting and unnecessary. About half of them, 60 (49%) do not think pharmacists should be part of the multidisciplinary ward rounds in their hospitals; only 21, (17%) of them supported pharmacists' participation while 42, (34%) were undecided. The healthcare professionals in this study were familiar with pharmaceutical care practice and they recognized its benefits to patients. They however showed low level of support for pharmacists' involvement in multidisciplinary ward rounds.

Keywords: Attitude, Health care professionals, pharmaceutical care, hospitals

INTRODUCTION

Significant changes are taking place in the healthcare industry worldwide. Healthcare professionals continue to evolve and reposition themselves to meet the challenges of providing optimal and effective healthcare to the populace. The pharmacist is one

healthcare professional that makes enormous contributions towards optimal, effective and safe healthcare delivery through medicine therapy management and pharmaceutical care

*Corresponding author
ISSN 0189-8434

interventions. Pharmacists' contributions in the healthcare process are not fully recognized and integrated to the healthcare continuum in some countries (Anne *et al*., 2006; WHO 2006). The principal focus of the pharmacy profession in the healthcare system is to optimize patient care through effective medicine therapy management and pharmaceutical care. The pharmaceutical care concept that emerged several decades ago is the new philosophy of pharmacy education and practice as well as the compass for the future of the pharmacy profession globally (Kaboli *et al*., 2006; Hemant, 2008). This new practice philosophy, however, has not been transl [82] o universal practice performance that is fully integrated into the healthcare process. In Nigeria pharmaceutical care has been adopted as the practice philosophy for the pharmacy profession though it is not yet fully operational in most practice settings (Erah and Nwazuoke, 2002).

Pharmaceutical care

Many countries have different definitions of the pharmaceutical care concept that are often closely related to the experience and evolution of the pharmacy profession in that country. The definition developed by Hepler and Strands is the most popularly used around the globe. They defined pharmaceutical care as the responsible provision of drug therapy to achieve therapeutic outcomes that improve the patients' quality of life (Hepler and Strand, 1990). The pharmaceutical care concept and practice have already been reviewed extensively (Berengner *et al*., 2004; Foppe and Schultz, 2006; Bootman *et al*., 1997). It has been shown to benefit all stake holders in the healthcare process namely the patients, pharmacists, other healthcare providers and the entire health system.

Benefits of pharmaceutical care

Such benefits have been severally documented to include improved patient outcomes (Ferfleman *et al*., 2005; Tarid and Sigurd, 2008; Kassam *et al*., 2008); more efficient and effective healthcare delivery and professional development of pharmacists (Strand *et al*., 2004). Pharmaceutical care also benefits policy makers and healthcare managers through optimized healthcare care process, reduction of cost of care and optimal utilization of healthcare resources (Roughead *et al*., 2005; Mehos *et al*., 2000; Armour *et al*., 2007). By providing pharmaceutical care pharmacists achieve career development and a fulfilling professional practice. Other healthcare professionals, particularly physicians and nurses benefit immensely from the expert knowledge pharmacists have about medicines and other pharmaceuticals. The full benefits of pharmaceutical care can only be derived if this practice philosophy is fully integrated into the healthcare continuum. In the United Kingdom for instance the Department of Health has recognised pharmacy as an integral professional group that should form part of the National Health Services, NHS family alongside GPs and nurses. A policy framework is also in place for more clear integration of pharmaceutical care into the work of other primary care professionals, particularly GPs and to make pharmacists members of the primary healthcare team, (PHCT) (Fay *et al*., 2008). A fully integrated pharmaceutical care model would obviously be a positive influence in the healthcare industry as it would promote effective teamwork and optimize patient care outcomes. A model for this integration have been developed and advocated by other researchers (Debora *et al*., 2009).

Challenges to pharmaceutical care practice

Its positive impacts on health outcomes notwithstanding pharmaceutical care face several challenges in Nigeria and elsewhere in the world (Jiri, 2008; Uema, 2008; Gravell *et al*., 2006). There is yet limited or no integration of this practice into the healthcare delivery system. Other reported barriers to effective implementation of pharmaceutical care include time constraint, space and infrastructural limitations, policy restrictions as well as humanistic barriers. In Nigeria patients often come to the hospital pharmacy as last port of call after visiting various units such as accounts unit (to pay for folders and consultations), medical records, physician's consulting room, m 83 laboratory unit (where requ), pharmacy (for assessment and costing of prescriptions), back to the accounts unit for payments and finally back to the pharmacy for prescription dispensing, counseling and other pharmaceutical care services. Majority of patients are impatient with the pharmacist at this point and this strongly challenges effective delivery of pharmaceutical care.

There are also insufficient spaces in most hospital pharmacies for confidential counselling and pharmaceutical care. The open-window or pigeon-hole dispensing point which is now discouraged by Pharmaceutical Society of Nigeria, (PSN) and the Pharmacists Council of Nigeria, (PCN) continues to be used in most hospital pharmacies for dispensing of medicines. This structure is obviously not conducive for pharmaceutical care delivery. There is lack of legal and policy framework that support pharmaceutical care and pharmacists' input into patients' health records. In several hospitals in Nigeria pharmacists do not join the multidisplinary clinical ward round team where they could apply their professional knowledge in the bedside decision making process for optimal patient care. Professional inputs and interventions of other professionals such as physicians, nurses, medical laboratory scientists, dieticians and physiotherapists are documented in the patients' bedside medical records but pharmaceutical care inputs from pharmacists are rarely documented and included. Pharmacists' interventions when made are only verbally communicated to patients and other care providers. It is not known the extent to which pharmacists independently document the pharmaceutical care interventions they make in different care settings in Nigeria. Pharmacists are not reimbursed for the extended patient care services they provide through pharmaceutical care services and this dampens the enthusiasm of pharmacists to deliver pharmaceutical care services to patients.

Humanistic barriers commonly encountered include the negative attitude of pharmacists themselves as well as those of other healthcare providers. Attitudes are critical barriers to overcome as attitudinal changes are the most difficult to make. Some pharmacists are reluctant to accept the inevitable changes in the profession. Some lack confidence in their abilities to implement a pharmaceutical care practice. There appears to be general lack of will power by pharmacists themselves to embrace the change in practice required by the pharmaceutical care philosophy. Pharmacist-related attitudinal obstacles that can hinder effective pharmaceutical care practice include: Inadequate comprehension of the pharmaceutical care concept (Phantina, 2007). Another important obstacle is lack of advanced practice skills in therapeutic, clinical problem

solving, communication, documentation and research.

Historically, pharmacists particularly those in community practice tend to work in isolation from other healthcare professionals with only minimal contact on routine matters. It has been reported that the perceived professional barriers between general practitioners, GPs and community pharmacists hinder the development of the role of the pharmacists (Hughes and McCann, 2003). The stereotypical business orientated image of community pharmacy adds further tension to this. Pharmacists are perceived essentially as businessmen that manufacture, dispense and sell medicines. They are [illegible] recognized as healthcare professionals who should make any input in the patient care decision process (RCGP, 2007). This is believed to influence pharmacists' position in the hierarchy of healthcare professionals as well as their attitude towards embracing pharmaceutical care practice (Erah and Nwazuoke, 2002).

Resources – Related Constraints Lack of time is the most cited constraints to effective pharmaceutical care delivery. In reality, pharmacists lack time because the workflow pattern in most Nigerian hospitals does not support patient care services and the locale are generally not conducive for delivery pharmaceutical care. Funding is another resource restriction. There could be need for additional funds to hire more personnel and purchase of documentation tools. There is also the problem of inadequate space (pharmaceutical care requires space for privacy in other to gain patient's confidentiality) and p**ersonnel:** the number of pharmacists who are available and willing to provide pharmaceutical care is limited.

System – Related Constraints include: The lack of data and documentation of pharmaceutical care services which jeopardizes the society's acceptance of its value. Documentation of pharmaceutical care activities by pharmacists in Nigeria is still limited. Data are relevant in making statistical arguments and for policy advocacy. Besides paper documentations of patients' data are still used extensively in Nigeria instead of electronic data in use in many developed nations. This makes pharmaceutical care practice and research more cumbersome.

Policy restrictions
Some pharmacists who are truly committed to pharmaceutical care may be discouraged by lack of managerial support. Their support may be required to update drug information resources, patient care areas, hire or retain personnel and reimburse pharmacists for pharmaceutical care services. Many patients may resist the adoption of pharmaceutical care due to time spent, cost, unfamiliarity with the pharmacist's expertise among other issues. There is also concern for acceptance by other healthcare providers whose support and collaboration are required for effective pharmaceutical care delivery. Like most healthcare concepts pharmaceutical care is not practiced in vacuum. It is delivered in a team environment and it requires the collaboration of the patients, other healthcare professionals and patients care givers.

Healthcare teamwork
Inter professional collaboration and effective teamwork in healthcare present a great challenge to the healthcare industry worldwide (Xyrichis and Lowton, 2008; Pippa, 2005). There still remain professional boundaries or smoke screens in healthcare work places among healthcare professionals. The result is

that health systems do not achieve set goals and continue to perform below expectations of patients. Healthcare professionals often busy themselves with overt or latent inter professional rivalries that are at best energy dissipating and a hindrance to the healthcare process. Origin of these rivalries could be traced to the quest by members of different professional groups to protect their professional boundaries and influence. The result is that healthcare delivery is carried out in a fragmented system that lack proper integration of vital care components. This is often times vented in industrial disputes, work stoppages and mutual distrust in the healthcare work environment. Teamwork in the healthcare process is imperative if healthcare professionals are to achieve the goals of safe, effective and efficient healthcare delivery. Effective healthcare teamwork requires full participation of composite care providers. The respective knowledge, expertise and skills of each professional group should be harnessed and integrated into the care process to benefit the patients and the healthcare system. This can only be achieved in an atmosphere of mutual understanding and respect among the healthcare professionals and their commitment to work as a **Team: T**ogether **E**veryone **A**chieves **M**ore. To achieve this healthcare teamwork the different professional groups involved in healthcare should not only understand but also appreciate and respect the knowledge and expertise of each and be committed to work together in mutual trust and cooperation. The awareness and attitude of other healthcare professionals have not been sufficiently documented in Nigeria. In this research we carried out a questionnaire survey of awareness and attitude of doctors, nurses and medical laboratory scientists about pharmaceutical care practice in two tertiary and one secondary level care hospital in southern Nigeria.

Method The survey was carried out using a 19-item, pre tested questionnaire instrument. The questionnaires were hand-delivered and collected from the respondents who were all staff of the hospitals where the research was carried out. The hospitals were the University of Port Harcourt Teaching Hospital, (UPTH), Port Harcourt and the Braithaire Memorial Hospital, (BMH), Port-Harcourt in the south-south Nigeria and the Federal Medical Centre, (FMC), Owerri situated in the South east. Both UPTH and FMC are tertiary care centres while BMH is a secondary hospital. The teaching hospitals are referral centres where complex healthcare problems are managed while the secondary centre takes care of primary and intermediate health problems and refers difficult cases to the teaching hospitals. The teaching hospitals usually have healthcare professionals of different qualifications and specialization in various disciplines of healthcare. Consultants, registrars, resident doctors, medical students, different cadres of pharmacists, nurses, medical laboratory scientists and others are actively involved in the care process. This is not usually the case in the secondary healthcare facilities where there may not be all these cadres of care providers. The research centres were selected to elicit responses from healthcare professionals with diverse backgrounds and experience. The respondents were selected based on the simple criteria that they were healthcare professionals who were employed in the research centres during the research period in 2008. The questionnaire instrument was adapted from that used by McLay1 *et al*., (2006) in a related survey and it was pre-tested in some of the respondents who were later excluded from the research population.

The questionnaires were administered by hand and collected from the respondents during subsequent visits to their respective hospitals by the researchers. The results were collected and analyzed with SPSS statistical software (version 11).

Results **o**f the 145 copies of the questionnaires delivered 123 were returned as validly completed, the response rate was thus (85%). The respondents comprise of medical doctors, 57, (46%); nurses, 41, (33%) and 25, (20%) others made up of medical laboratory scientists, nutritionists and physiotherapists. Among the respondents were three medical consultants, 44 other cadres of physicians, seven chief nursing officers and 28 nurses of other junior ranks. The respondents were asked to show their awareness about pharmaceutical care by how familiar they were about this practice and their responses are presented in figure 1. The awareness of respondents about pharmaceutical care practice is presented in figure 2. Almost all the respondents, 113, (92%) believed that pharmaceutical care is relevant to patient care; only one, (0.8%) thought it was not relevant while 9, (7.2%) did not know if it was relevant or not. Most of the respondents, 108, (88%) thought pharmaceutical care is highly recommendable; 2, (1.6%) of them thought it was time wasting and expensive; 12, (9.8%) thought it was pharmacists' business alone to sort out while only one respondent, (0.8%) thought it was not necessary in healthcare. Asked whether pharmacist should be included in multidisciplinary ward rounds only , 21, (17.2%) of them responded "Yes"; 60, (48.8%) responded "No" while 42, (34%) were undecided as shown in figure three.

Discussion Most of the respondents in this research showed they were familiar with pharmaceutical care practice. They also showed a positive attitude towards providing pharmaceutical care services in their hospitals. Most of them believed pharmaceutical care is relevant and beneficial to patient care and as such is highly recommended. This positive attitude was also demonstrated in their willingness to have pharmaceutical care commenced in their hospitals as soon as possible. Similar positive attitudes have been documented in related studies elsewhere (Oandasan, 2006). Mutual appreciation of roles and coordination of healthcare particularly among pharmacists and physicians would significantly improve patient care outcomes and should be promoted in the healthcare work places. The negative attitude of other healthcare providers in this survey towards pharmacists' participation in multidisciplinary ward rounds clearly requires further research. Multidisciplinary ward rounds provide great opportunity for teamwork and bonding between healthcare professionals. It is necessary to explore the reasons for such attitude in future research as it represents a humanistic barrier to full integration of pharmaceutical care and effective teamwork in healthcare.

Recommendations and Conclusion Pharmaceutical care is clearly a necessary component of health care that should be integrated in the healthcare process for the overall benefit of patients and the health system. Healthcare professionals included in this survey were aware of pharmaceutical care services and recognized its benefits to patients' care. This is an important development towards removing the humanistic barriers against full integration of

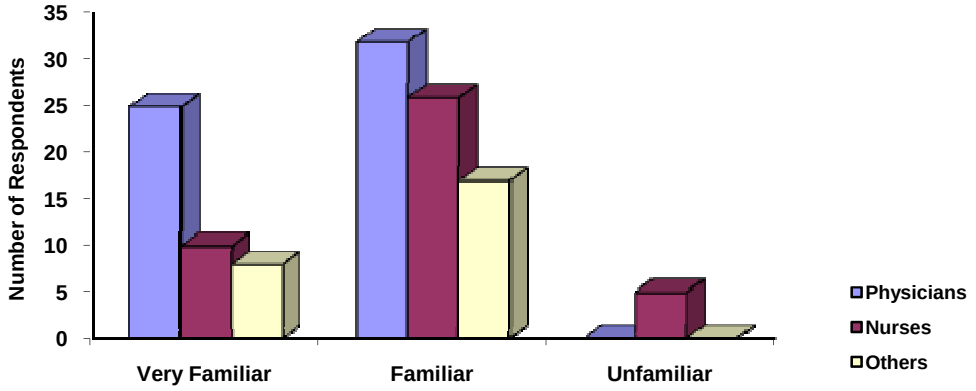

Fig. 1: Bar chart showing the familiarity of respondents with pharmaceutical care

Fig. 2: Pie chart showing Awareness of respondents about Pharmaceutical care practice.

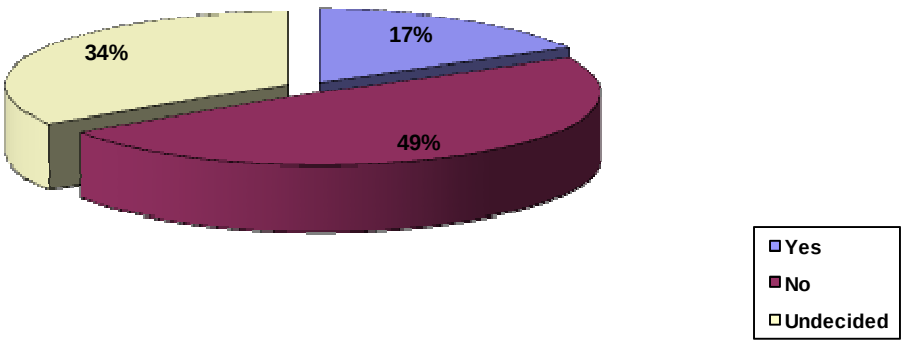

Fig. 3: Pie chart showing attitude of other health professionals about pharmacists' participation in ward rounds.

pharmaceutical care and development of effective teamwork in healthcare workplaces in Nigeria. Joint training of healthcare professionals particularly physicians, pharmacists and nurses need to be adopted as a strategy to foster understanding and teamwork among them. Courses in collaborative teamwork could be introduced into their prequalification curricula. Those already in practice should have joint seminars, clinical meetings and multidisciplinary ward rounds on regular bases to promote mutual appreciation, understanding and teamwork. The respective knowledge, expertise and skills of each professional group should be harnessed and integrated into the care process to benefit the patients and the healthcare system. This can only be achieved in an atmosphere of mutual understanding and respect among the healthcare professionals and their commitment to work as a **Team: T**ogether **E**veryone **A**chieves **M**ore.

REFERENCES

1. **Anne Slee, Keith Farrar, Don Hughes and Simon Constable.** Optimizing Medical Treatment – How Pharmacist-acquired medication histories have a positive impact on patient care; *The Pharmaceutical Journal* 2006, (December 16th), Vol: 277, 737-739.
2. **Developing pharmacy practice**: A focus on patient care. Handbook. World Health Organization in collaboration with International Pharmaceutical Federation. 2006. WHO/PSM/PAR/2006.5
3. **Peter J. Kaboli, Angela B. Hoth, Brad J. McClimon, Jeffrey L. Schnipper,** Clinical Pharmacists and Inpatient Medical Care: A Systematic Review, *Arch Intern Med.* 2006;166:955-964.
4. **Hemant Patel,** How the Pharmacy 2020 project is lighting the way for pharmacy's future, *Pharmaceutical Journal*, **2008; 280; (Accessed, October, 5th 2008) At http://www.pharmj.com/noticeboard/series/pharmacy2020.html**
5. **Patrick O Erah† and James C Nwazuoke** Identification of Standards for Pharmaceutical Care in Benin City, *Tropical Journal of Pharmaceutical Research* 2002 Vol. 1, No. 2, December, pp. 55-66.
6. **Hepler CD, Strand LM**. Opportunities and responsibilities in pharmaceutical care. *Am J Hosp Pharm* 1990; 47: 533-43.
7. **Berenguer B.; La Casa C.; de la Matta M.J.; Martin-Calero M.J.** Pharmaceutical Care: Past, Present and Future**,** *Current Pharmaceutical Design***,** December 2004; Volume 10, Number 31, pp. 3931-3946(16)
8. **J. W. Foppe van Mil, and Martin Schulz,** A Review of Pharmaceutical Care in Community Pharmacy in Europe, *Harvard Health Policy Review*: Health Highlights, 2006: Vol. 7, No. 1, Spring, 155-168
9. **Bootman, J.L., Hunter, R.H., Kerr, R.A., Lipton, H.L., Mauger, J.A. and Roche, VF.**, "Approaching the Millennium: The report of the AACP Janus Commission," Am. J. Pharm. Educ., 1997; 61, 4S-IOS
10. **Fertleman M, Barnett N, Patel T.** Improving medication management for patients: The effect of a pharmacist on post-admission ward rounds. *Quality & Safety in Health Care***.** 2005;14:207-11. **(Note)http://www.ub.uit.no/munin/handle/10037/1573**
11. **Turid VEGGELAND, Sigurd DYB.** The contribution of a clinical pharmacist to the improvement of medication at a geriatric hospital unit in Norway; Pharmacy Practice 2008 Jan-Mar;6(1):20-24.
12. **Kassam R, Volume-Smith C, Albon SP**. Informed shared decision making: An exploratory study in pharmacy. Pharmacy Practice 2008 Apr-Jun; 6(2): 57-67.
13. **Strand LM**, **Cipolle RJ**, **Morley PC**, **Frakes MJ**. The impact of pharmaceutical care practice on the practitioner and the patient in the ambulatory practice setting: twenty-five years of experience. *Curr Pharm Des.* 2004;10(31):3987-4001
14. **Roughead E.E.; Semple S.J.; Vitry A.I.;** Pharmaceutical care services: a systematic review of published studies, 1990 to 2003, examining effectiveness in improving patient outcomes; *International Journal of Pharmacy*

Practice, March 2005; Volume 13, Number 1, pp. 53-70(18).

15. **Mehos BM, Saseen JJ, MacLaughlin EJ.** Effect of pharmacist intervention and initiation of home blood pressure monitoring in patients with uncontrolled hypertension. Pharmacotherapy 2000; 20:1384-9.
16. **Armour C, Bosnic-Anticevich S, Brillant M, et.al** Pharmacy Asthma Care Program (PCAP) improves outcomes for patients in the community. *Thorax* 2007;62:496-502.
17. **Fay Bradley; Rebecca Elvey; Darren M. Ashcroft; Karen Hassell; Juliette Kendall; Bonnie Sibbald; Peter Noyce;** The challenge of integrating community pharmacists into the primary health care team: A case study of local pharmaceutical services (LPS) pilots and interprofessional collaboration; *Journal of Interprofessional Care*, 2008; Volume 22, Issue August , pages 387 - 398
18. **Debora Paone, Richard Levy and Richard Bringewatt.** Integrating Pharmaceutical Care: A Vision and Framework. The National Care Consortium and Thae National Pharmaceutical Council; 1-29, Accessed on February 9th, 2009 At: http://www.scribd.com/doc/7563433/Intergrating-Pharmaceutical-Care-A-Vision-and-Framework
19. **Jiri Vlcek,** Barriers to the development of modern pharmaceutical care: Hospital Healthcare Europe 0607, Campden Publishing Limited, 2008 (Accessed on October 20, 2008) at www.hospitalhealthcare.com
20. **Sonia A. Uema, Elena M. Vega1, Pedro D. Armando and Daniela Fontan;** Barriers to pharmaceutical care in Argentina; *Pharmacy World & Science*; June, 2008; Volume 30, Number 3 211-215
21. **Karine Gravel1, France Légaré, and Ian D Graham;** Barriers and facilitators to implementing shared decision-making in clinical practice: a systematic review of health professionals' perceptions, *Implementation Science*; 2006, **1**:16 Accessed on February, 9, 2009 at: http://www.implementationscience.com/content/1/1/16
22. **Phantipa Sakthong,** Comparative analysis of pharmaceutical care and traditional dispensing role of pharmacy, *Thai J. Pharm. Sci.* 2007 (31); 100-104
23. **Carmel M Hughes and Siobhan McCann,** Perceived interprofessional barriers between community pharmacists and general practitioners: a qualitative assessment. *British Journal of General Practice*, August 2003; 600-606
24. **Royal College of General Practitioners** (2007) The Primary Health Care Team: RCGP Information Sheet. RCGP , London
25. **Andreas Xyrichis and Karen Lowton** What fosters or prevents interprofessional team working in primary and community care? A literature review, *International Journal of Nursing Studies* Volume 45, Issue 1, January 2008, Pages 140-153
26. **Hall, Pippa,** Interprofessional teamwork: Professional cultures as barriers; *Journal of Interprofessional Care*, May 2005 , Volume 19, Supplement 1, pp. 188-196(9)
27. **J S McLay1, M Tanaka1, S Ekins-Daukes1, P J Helms2**, A prospective questionnaire assessment of attitudes and experiences of off label prescribing among hospital based paediatricians; Archives of Disease in Childhood 2006; 91: 584-587
28. **Ivy Oandasan, G. Ross Baker, Keegan Barker, et al.** Teamwork In Healthcare: Promoting Effective Teamwork In Healthcare In Canada; *Policy Synthesis and Recommendations* Canadian Health Services Research Foundation, June, 2006; Assessed at: **www.chsrf.ca**. on March, 1st 2009