

**Evaluation of the Readiness for Collaborative Practice Between Pharmacists and Doctors for Better Drug Utilization in an Urban Setting.**

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**ABSTRACT**

The responsiveness to collaborative practice between pharmacists and doctors in Ikot Ekpene -an urban centre was assessed. Questionnaires were administered freely in the study area to healthcare professionals to assess the prevailing knowledge about issues of collaborative practice. A pharmaceutical care centre was established at a central point in the study area with four pharmacists in attendance for the study. 10 general practitioners (GP) were randomly selected from the compiled list of doctors and invitations sent to them for a collaborative practice lasting 4 months (September to December). Phone calls for drug and patient related enquiries from the invited physicians, physician's personal visits and patient referrals with respect to the collaboration were noted and analyzed. One hundred and thirty nine (139) respondents in the healthcare team attempted the questionnaires. The study population comprised of 8.6% and 28.1% pharmacists and doctors respectively. Sixty four percent (64%) of the doctors and forty three percent (43%) of the pharmacists respondents have less than 10 years practice experience. About twenty eight percent (28.8%) of the pharmacists and the doctors were involved in both private and public sector practice. The average telephone calls to the pharmaceutical care unit from the doctors per month was significantly higher than visits and referrals ( $P < 0.05$ ). The modal value of the personal convictions for collaborative practice by healthcare practitioners was greater than 3.0, an indication of above average ranking on a scale of 1-5. The mean  $\pm$  SD monthly telephone calls, referrals and visits to the pharmaceutical care centre were  $5.6 \pm 3.2$ ,  $6.5 \pm 2.4$  and  $1.9 \pm 0.8$  respectively. There was an increasing awareness of the benefits of collaborative effort in the healthcare sector. It is hoped that this would facilitate better patient care.

**Keywords:** Collaboration, doctor, pharmacists, pharmaceutical care, benefits.

## **INTRODUCTION**

The traditional role of pharmacist as dispenser and doctor as prescriber is no longer appropriate to ensure safety, effectiveness and adherence to therapy (Helper and Strand, 1990). Pharmacy practice which now embraces patient-centered, outcome-focused care to optimize the safe and effective use of medicines is in perfect agreement with the goal of the prescriber (Zermansky et al., 2001). In the light of these, the thought of collaborative practice of the two professionals in the clinical setting should be a welcomed development.

The role of pharmacists is expanding in primary health care and collaboration between general practitioners (GP) and pharmacists is thought to be important for safe and effective delivery of health care. Approximately 6% of hospital admissions are associated with adverse drugs effects and high error rates during transfer of care. Increased inter-professional collaboration between pharmacists and doctors in the community may reduce the considerable medication – related morbidity and mortality (Bradley et al., 2008).

It is in the additional role of managing therapy in collaboration with physicians that pharmacists can now make a vital contribution to patient care. The pharmacist takes direct responsibility for individual patient's medication – related needs thereby making a unique contribution to the outcome of medication therapy and to the patient's quality of life (Institute of Medicine, 2001).

While dispensing remains a responsibility of the pharmacy profession prescribing and dispensing should not be done by the same person as is observed in many private practices. Teamwork, effective

communication and collaboration between health professionals are important for the safe and effective delivery of healthcare. Poor communication is perhaps the most important common factor contributing to medication errors. Increased inter-professional collaboration between doctors and pharmacists could therefore reduce the risks and dangers of therapeutic failures (Bennett, 2003; Braye and Preston-shool, 2000; Connor and Ress, 2003).

Studies have shown the contributions that pharmacists can make to direct patient care and better medication management in the UK and New Zealand. The problems of general practitioners accepting pharmacist's recommendation and their possible reluctance to use a service led by a pharmacist who they do not personally know have been highlighted as major setbacks to the effective implementation of a collaborative program in such developed and organized system. Developing some degree of trust and collaboration is essential between the pharmacists and general practitioners but this integration may take time to grow until it is perceived clearly. Studies that have integrated pharmacists into primary care practices have shown improved patients outcome (Bennett and Irwin, 1997; Hilton, 1995; Gregson et al., 1991; Cowen, 1992).

The role of the doctor and pharmacist are complementary and good working relationships between all healthcare professionals are essential to the delivery of personalized and effective patient services (Edward and Smith, 1998). It is important that all health professionals show greater responsiveness to changing patient needs.

Some medical organizations have antagonized the expanded role for pharmacists in primary health care, opposing pharmacy as the first point of call for treating minor ailments, pharmacists prescribing, disease state management and immunization. However, pharmacists already play a valuable role in triaging minor conditions in the community. People will continue to consult pharmacists for minor health problems as they are a trusted and accessible source of information and advice (Cowen, 1992; Edward and Smith, 1998; Hannay, 1995; Lambert, 1996).

This present study set out to evaluate the readiness to embrace collaboration between pharmacists and doctors within an urban community in terms of the physician's visits, telephone calls and patient referrals observed at the established pharmaceutical care unit.

## **METHOD**

The study was divided into two parts. The first part involved the assessment of the response of all available health care professionals in the study area. Section A of the questionnaires sought information on the demographics of the respondents while B evaluates the perception and readiness indices of the professionals. The second part involves the setting up of a pharmaceutical care center in a pharmaceutical outfit in the study area with four pharmacists in attendance. Invitation letters calling for collaborative practice with four telephone lines supplied were sent to 10 doctors randomly selected among the respondents to the questionnaires. Collaborations in terms of calls relating to drug information, patient's referral and visits

with respect to patient's treatment from doctors were noted and recorded for 120 days.

## **Analysis of Data**

The data collected were analysed using Graph Pad InStat. Frequencies, percentages and descriptive statistics were computed for the variables and the association between years of practice and conception of collaboration. The observed patterns of collaborative attitudes of the general practice physician were scored with respect to patient related phone calls, doctor's visits and referrals. The level of significance of the readiness for collaboration was determined as paired alternatives and tested by McNemar's test ( $P < 0.05$ ).

## **RESULTS**

A total of 139 respondents filled out the questionnaire. The demographics of the respondents and the average age of respondents are shown in (Table 1). The ratio of pharmacists to doctors in the study area was 12:39.

There was no significant difference ( $P < 0.05$ ) in the number of doctors or pharmacists who take monopoly of treatment of their clients in the study. Twenty four percent (24%) of the doctors and seventy six percent (76%) of the pharmacists were willing to cede power with members of the healthcare team. All the respondents agreed that there is a growing recognition that patient's rights and expectations are paramount. Twenty three percent (23%) of the respondents believed that the logistics of implementing inter-professionalism in patient care is tasking.

**Table 1:** The demographics of the professionals in the study area.

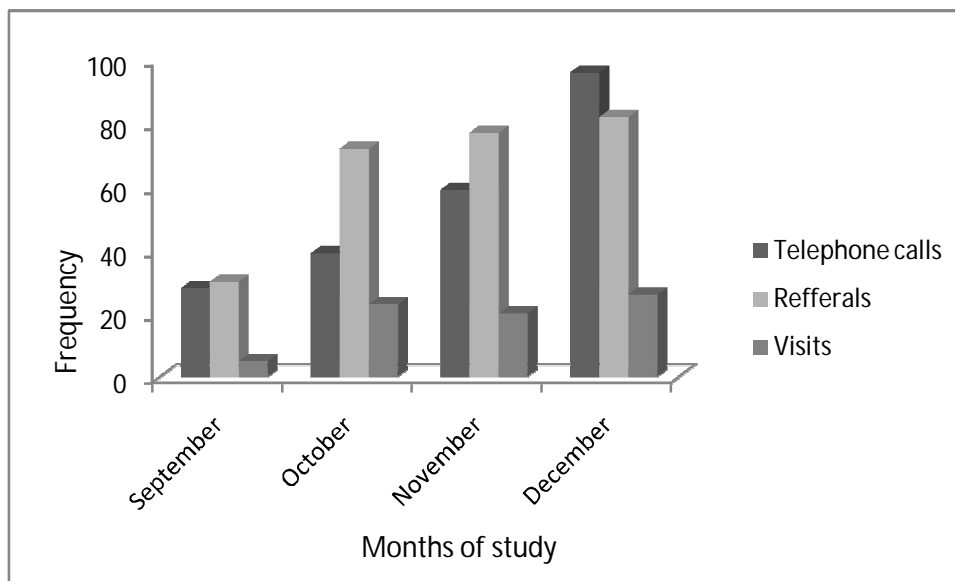
Parameters	Female	Male	Total
	45 (32.37)*	94 (67.63)	139 (100)
<b>Sector of practice</b>			
Private only	17 (39.53)	26 (60.47)	43 (30.9)
Public only	22 (39.29)	34 (60.71)	56 (40.3)
Private and public	6 (15)	34 (85)	40 (28.8)
<b>Profession</b>			
Nurse	22 (32.84)	45 (67.16)	67 (48.2)
Laboratory scientist	16 (84.21)	3 (15.79)	19 (13.7)
Pharmacist	2 (16.67)	10 (83.33)	12 (8.6)
Doctor	5 (12.82)	34 (87.18)	39 (28.1)
Others	0 (0)	2 (100)	2 (1.4)
<b>Years of experience (Number of years =x)</b>			
x < 5	19 (35.85)	34 (64.15)	53 (38.1)
5 < x < 10	15 (41.67)	21 (58.33)	36 (25.9)
10 < x < 20	11 (42.31)	15 (57.69)	26 (18.7)
20 < x	0 (0)	24 (100)	24 (17.3)

\*Figures in bracket represent percentages.

**Table 2:** Personal convictions of interviewed health care professionals.

Parameter	Doctor	Nurses	Pharmacists	Laboratory Scientist	Others
Net benefits to clients	5	5	5	4	4
Clear role known	3	5	5	5	4
Barriers surmountable	2	3	4	3	4
readiness of respondents	3	3	4	4	3
Philosophy of Care similar	3	4	4	4	3
Treatment cost allotment is easily solved	2	4	4	4	3
Confidentiality of patients a non issue	5	3	5	5	5
Collective Involvement In patient care	5	5	5	4	4

Entries are modal values for the professionals rated 1 – 5 with 5 being highest satisfactory value.



**Fig. 1:** The representation of the frequency of telephone calls, referrals and visits of doctors to the pharmaceutical care centre in four months.

The barriers to inter-professional collaboration as agreed to by the respondents include rivalry, power and status struggles and patient's care charges. The barriers to collaborative practice were quite understood by about eighty nine percent (89%) of the doctors and seventy two percent (72%) believe that surmounting them is quite a serious challenge (Table 2). About thirty five percent (35.6%) agreed completely with all the highlighted influences affecting the changing healthcare delivery approach while 78% of pharmacists similarly did. All the respondents noted issues relating to the treatment cost on patients as the major conflict area among professionals especially in the private setting.

There was progressive increase in responsiveness over the successive months during the study. Telephone call frequency was significantly higher than the other parameters of assessment of collaboration

i.e. referrals and physician's visits ( $P < 0.05$ ) Fig 1.

#### DISCUSSION

The issues associated with collaborative ventures across the healthcare profession can be the focus of considerable debate which will reflect political, professional and educational perspective (Sands R et al., 1990; Hawksworth and Chrystyn, 1994; Department of Health, 1996). The study was designed as a pilot study to investigate the possibility of acceptance and practice of team work approach to healthcare delivery among pharmacists and doctors in the study area. All the respondents agreed that the aim of collaboration should result in a net benefit to the patient or client and that the evaluation of such inter-professional collaboration presents a challenge for the future. The major worries are those of the practicalities of the collaborative practice in developing countries. Many professionals in these areas may agree in principle but not in practice.

The issue of cost of therapy and how to coordinate and pay each professional's due may throw the entire idea of collaborative practice overboard in the private sector. Provision of coordinated care towards commonly agreed goals by all stakeholders in patient care should be the keyword in the hospital settings and this could be initiated and motivated by the doctor or pharmacist as they begin a collaborative initiative hence the focus on pharmacists and doctors. The response of pharmacists to this lead was significantly higher ( $P < 0.05$ ) than doctors which suggested that the readiness of the later to the issues of collaboration in the study area is lower than their pharmacists' counterpart (Fig 1). A measure of the level of understanding of the clear roles of each member of the professional bodies in the healthcare team by these members is required to rationalize the reasons for the observed level of readiness (Berteotti and Seibold, 1994). The attitude of doctors towards pharmacists and their contribution to better medication management is a serious barrier to overcome. The nature of the pharmacist-physician relationship makes

some tension inevitable: Actions that the pharmacists must routinely perform if they are to practice pharmaceutical care (e.g. correcting, advising, reminding, recommending, and reporting) are intrinsically threatening to physicians' professional identities" (Sands R et al, 1990). The dichotomous nature of community pharmacy practice is also a critical dilemma for the profession. The traditional role of dispensing prescription medicines and perceptions around being a retailer and healthcare provider creates uncertainty in the mind of the medical profession. In treating patients, one has to rely on the expertise of a lot of different professional people—not just one person so you are not working in isolation. For the patient to get the best they can, they need input from everyone in the medical team (Sands R et al, 1990). At large, considering the goal of patient care, collaborative effort is seen as the avenue for collective goal attainment. The progressive increase in the frequency of telephone calls referrals and visits by the participating doctors revealed the likelihood of success in collaborative practice in the future.

## **CONCLUSION**

As different roles culminate into a perfect healthcare delivery, all healthcare professionals in public and private practices are expected to work hand in hand to achieve the goal of therapy. Doctors and pharmacist as evaluated in this study are expected to take the lead.

## **LIMITATION**

Three pharmaceutical care centres would have been appropriate for the assessment to

compare the outcomes of the observations but the cost constituted a limitation therefore a larger study is expected to give a broader picture of the behavior noted in this study. A multi-centre study of this nature ought to be conducted over a period of one year but this present study was done for a quarter of a year because of logistic problems.

## REFERENCES

Bennett B. (2003) Increasing collaboration within a multidisciplinary team; the early stages of a small action researcher projects. *J of Clin Nurs.*; 7: 227-231.

Bennett, KC and Irwin, H. (1997) Shifting the emphasis to "patient as central": Sea change or ripple on the pond. *Health Community.*; 9: 83 – 93.

Berteotti, CR and Seibold, DR. (1994). Coordination and role-definition problems in health-care teams: A hospice case study. In L. R. Frey (Ed.), *group communication in context: Studies of natural groups* (pp. 107 – 131). Hillsdale, NJ: Lawrence Erlbaum Associates.

Bradley F, Elvey R, Ashcroft DM and Noyce PR. (2008) The primary health-care team. A case study of local pharmaceutical services (LPS) pilots and inter-professional collaboration. *J. Inter-Prof Care.*; 22:237-98.

Braye S and Preston-shoot M. (2000). Keys to collaboration. In Davies C. Finally I and Bullman A. (Eds.), *Changing Practices in Health and social care*, London. Sage Publications Ltd.

Connor C and Ress S (1997). Ways forward for shared learning between nursing and social work students. *Nurse Educ. Today.* 17:494-501.

Cowen, DL. (1992) Changing relationships between pharmacists and physicians. *Am J. Hosp Pharm.*; 49:2715 – 2721.

Department of Health. (1996) *Primary Care-Delivering the Future*. London: HMSO; Dec..

Edwards, J and Smith, P. (1998) Impact of interdisciplinary education in underserved areas. *Health professions collaboration in Tennessee. Journal of Professional Nursing.*; 14: 144 – 149.

Gregson BA, Cartilidge A and Bond J. (1991) inter-professional collaboration in primary Health Care Organizations. London. The Royal College of General Practitioners. Occasional Paper 52..

Hannay, DR. (1980) Problem of role identification and conflict in multi-disciplinary teams. In. JH. Barber and CR. Kratz (Eds.), "Towards team care". Edinburgh: Churchill Livingstone., (pp. 3 – 17).

Hawksworth GM, Chrystyn H. (199) 4 Prescriber contacted interventions in a community pharmacy. *Pharm J.*; 253 (Suppl.)R9.

Helper CD, Strand LM. (1990) Opportunities and responsibilities in pharmaceutical care. *Am J Hosp Pharm.*; 47:533-43.



Hilton R. (1995) Fragmentation within inter-professional work. A result of isolationism in health care professional education programmes and the preparation of students to function only in the confines of their own disciplines. *J of inter-Prof Care.*; 9 (1): 33-40.

Institute of Medicine: Creating Safety systems in Healthcare organizations. (2000) In: Koln L; Corrgan J and Donaldson M. (Ed). *To err is human; building a safer health system.* Washington (DC). National Academy Press;.

Lambert, BL. (1995) Directness and defence in pharmacy students' messages to physicians. *Social Science and Medicine*; 40:545:555.

Sands, R., Stafford, J. and McClelland, M. (1990) "I beg to differ": Conflict in the interdisciplinary team. *Social Work in Health Care.*; 14(3): 55 – 72.

Zermansky AG, Petty DR and Raynor DK , Freemantle N, Vail A andLowe CJ (2001). Randomized controlled trial of clinical medication review by a pharmacist of elderly patients receiving repeat prescriptions in general practices. *BMJ.*; 323:1340-3.