Assessment of the Involvement of the Community Pharmacist in the Practice of Pharmaceutical Care in Benin City, Nigeria

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Objectives: To assess the involvement of the Community Pharmacists in the practice of pharmaceutical care in Benin City.
Method: A structured pharmaceutical care questionnaire was administered to all Community Pharmacies with registered pharmacists in Benin City. Descriptive statistics including frequencies, standard deviations and mean scores on sample characteristic and questionnaire items were computed.
Result: The survey achieved about 66.7% response rate. All the component of pharmaceutical care investigated were been practiced by Community Pharmacists in Benin City.
Conclusion: The study shows that community pharmacist in Benin City are highly involved in most of the practice of pharmaceutical care except in few areas where the enlightenment and adequate facilities needs to be put in place.

Introduction
Evaluate data to identify health and drug problems
This process requires a systematic approach using critical thinking and problem solving skills.
Problems and treatments are compared to ensure that every drug is managing a condition and that every condition is being managed with or without a drug. Every drug used as per an indicated ailment must be assessed for safety, efficacy, compliance, and appropriateness of dosage regimen and dosage form.1, have identified different classes of drug therapy problems, which may be adopted to include the following:

Causes of Drug Therapy Problems

Drug therapy Problem	Cause
Unnecessary drug therapy	No medical indication, non drugs therapy more appropriate, Duplicate therapy
Wrong drug	Dosage form inappropriate, contraindication present, condition refractory to drug, drug not indicated for condition.
Dosage too low	Wrong dosage, frequency inappropriate, duration inappropriate, incorrect storage, incorrect administration

Adverse drug reaction	Unsafe drug for patient, allergic reaction, incorrect administration
Dosage too high	Wrong dose, frequency inappropriate duration inappropriate
Inappropriate compliance	Drug product not available, cannot afford drug product, does not understand instructions, patients prefers not to take drug
Needs additional drug therapy	Untreated condition synergistic therapy prophylactic therapy

Develop and implement pharmaceutical care plan (pharmacist's intervention) This is a means of solving the identified problem(s), it consists of the patient specific goals (what which should not be confused with the methods (how) of achieving the goals. Goals should be achievable, measurable and consistent with the pharmacists' professional responsibility.

There are two major types of pharmacists' interventions: patient focused and focused. Patient-focused interventions include assisting the patient with compliance problems, patient education with counseling beyond Omnibus Budget Reconciliation Acts monitoring the patient, implementing non-drug therapy and patient referral 2,4. Drug-focused interventions include adding a new drug, discontinuing medication, changing drug, dose, interval duration or dosage form and monitoring parameters. The pharmacist should be specific with recommendation and seek the cooperation of the drug prescribed in making a drug-focused intervention. It must be ensured that the patient has all the supplies (drugs and information) needed for compliance before implementing the pharmaceutical care plan.

Evaluate intervention and follow-up The Pharmacist should determine whether his intervention improved patient outcomes (clinical, humanistic and economic). A follow-up indicates the need to modify care plans and lessons for the future.

Documentation Pharmaceutical care activities must be documented in the appropriate data forms. This step runs throughout the entire pharmaceutical care process. Documentation provides evidence for what was done, audit trail, and continuity of care when another pharmacist is on duty. Furthermore, it accumulates data for practice research.

Prospects Of Pharmaceutical Care In Nigeria

Nigeria has a population of over 120 million people with about 70% of the people living in rural areas, where poverty interacts with high disease mortality rates the ratio of pharmacist to patients is about 1:12000 with about 2000 community pharmacies. There are fewer pharmacists in hospitals where their practice is focused on drug distribution and inventory management. Here there is no job satisfaction, poor image and remuneration4. Community pharmacy practice is facing numerous challenges, most important include low aggregate consumer demand and a hostile practice environment. In Nigeria, the pharmaceutical care

is a new concept and the practice is at its infancy.Earlier studies by Erah et al and Opara et al have look at how it can be applied and the extent of the practice in Nigeria 10.

Some of the obstacles to the effective take off of pharmaceutical care practice in Nigeria include insufficient time to talk with patients, lack of private counseling areas to talk with the patient especially in the hospitals, inadequate training of the pharmacists to practice pharmaceutical care, pharmacists; perception that patients are not willing to pay for this intensive level of care, and lack of standards for pharmacists to conform to in daily practice. In Nigeria, there are a lot of problems in our healthcare delivery system including poor funding, inadequate facilities and inadequate qualified personnel. Apart from these problems, we have illegal drug distribution outlets, chaotic drug distribution, handling of drugs by non-professionals and many community pharmacists not making much progress in their practice.

In all of these, it is the patent that suffers. Also added to the patient's plight is the fact that in Nigeria the burden of health care is borne by the patients and their families since most patients have to pay for their drugs, medical supplies and other products essential to their proper care and healing.

The introduction of pharmaceutical care in Nigeria is to resolve some of these problems. In recent years, pharmacists in many countries have adopted a much more patient centreed approached in the pharmaceutical services they provide. This assures that both patient care and economic aspects of drug therapy are appropriately considered in the interest of the patient. Our attitude determines our approach to situations. The attitude of Nigerian pharmacists has been positive towards pharmaceutical care practice notwithstanding the numerous barriers.Oparah and Eferakeya conducted a national survey on the attitude of pharmacists towards pharmaceutical care among 1500 pharmacists 5. 76% of the respondents indicated willingness to embrace the concept, 96% believed pharmaceutical care would enhance patients appreciation of the pharmacist, 84% reported their intention to practice pharmaceutical care, while 93% agreed to participate in any training programmeme to upgrade their knowledge ad skills.

The study therefore shows that the attitude of Nigerian Pharmacists towards pharmaceutical care are favourable. Another survey by Oparah and Enator among patients in a hospital in Benin City, patient's expectation of Pharmacists activities geared towards pharmaceutical care was high 3.80% of the 500 outpatients involved in the study expected hospital pharmacists to ask them about the effectiveness of their medications discuss their health problems with them and communicate with their physicians on their behalf. Despite these favourable dispositions only few elements of pharmaceutical care are evident in the practice of Nigeria Pharmacists. Patient referrals, documentation of interventions, and identification of drug therapy problems, which are the core elements of Pharmaceutical care, were still lacking 3.Most important among such documented barriers to pharmaceutical care is the behaviour of pharmacists arising out of attitude.

Method Setting

This study was carried out in Benin City, Edo State, Nigeria. The city is a state capital with a projected population of 1.2million inhabitants made up of different socio-economic strata. There are two tertiary health care facilities; a 550 – bed University of Benin Teaching Hospital (UBTH) and 200-bed psychiatric Hospital. The secondary healthcare facilities

with a 450-bed Edo State Government controlled Central Hospital and a 100 –bed military Hospital. Each having a pharmacy department. There are over fifty private hospitals and clinics and several patient medicine shops and traditional medicine clinics. The City has at least 150 registered community Pharmacies providing pharmaceutical services to the population under the supervision of pharmacists. The data for this study was collected over a period of three months from all the community pharmacists in Benin City. From the information from Ministry of Health, Edo State, there are about 240 registered pharmacists in the city, out of which 90 are community pharmacists. The location of the pharmacies tend to emphasize the commercial interest of the pharmacists in the city with about fifty percent of the pharmacies located within the vicinity of the government hospitals while the remaining are scattered in no definite pattern over the rest of the city.

Research Design

The research design used for this work was a structured pharmaceutical care questionnaire that was distributed to all community pharmacists in the city. The questionnaire was pre-tested and modified as appropriate. Items included in the questionnaire were demographics, year of post qualification and highest professional qualification obtained by the community pharmacists. Based on literature available and professional experience, a 20 statements based on the objectives of the study were formulated, details of these are presented in Appendix. Respondents were requested to rate their level of agreement or disagreement on a 5 point Lickert-type scale as follows. Strongly agree = 5, Agree = 4, Undecided = 3, disagree = 2, Strongly disagree = 2.

SAMPLE

The target population were all pharmacists practicing in community pharmacists whether self-employed or employee. A sample size of 100 pharmacists was targeted for the study. The questionnaire was administrated to them in their offices and some during the state ACPN meeting.

RESULTS

Frequencies Statistics

		Gender	Age	Yr Post Qual	Highest qual
N	Valid	50	50	50	50
	Missing	0	0	0	0

Frequency Table GENDER

		Frequency	Percent	Valid Percent	Cumulative %
M	F	50	50	50	50
	M	0	0	0	0
	Total	50	100.0	100.0	

AGE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20 to 29	6	12.0	12.0	12.0
	30 to 39	21	42.0	42.0	54.0
	40 to 49	14	28.0	28.0	82.0
	50 to 59	7	14.0	14.0	96.0
	60 to 69	2	4.0	4.0	100.0
	Total	50	100.0	100.0	

YR POST QUAL

		Frequency	Percent
Valid	1 to 5	9	18.0
	6 to 10	13	26.0
	11 to 15	12	24.0
	16 to 20	7	14.0
	21 to 25	5	10.0
	26 to 30	4	8.0
	Total	50	100.0

Highest Qualification

		Frequency	Percent
Valid	B. Pharm	29	58.0
	B. Pharm, Pharm, D	12	24.0
	B. Pharm, Pharm. D, MBA	4	8.0
	B. Pharm, LLB	1	2.0
	B.Pharm, M. Pharm	1	2.0
	B. Pharm, MBA	1	2.0
	B. Pharm, MHPM	1	2.0
	B. Pharm, Pharm. D, MHPM	1	2.0
	Total	50	100.0

Mean And Standard Deviation Scores

	Male			Female			
Question	No	Mean	SD	No	Mean	SD	Pvalue
	29			21			
1.		3.28	1.31		3.71	0.9	0.2008
2.		3.31	1.17		3.52	1.08	0.5209
3.		3.38	1.42		3.81	0.98	0.2379
4.		3.72	1.19		4.05	0.80	0.2761
5.		3.24	1.15		3.52	0.87	0.3533
6.		3.38	1.24		3.24	1.09	0.6806
7.		3.24	143		3.57	0.98	0.3661
8.		3.86	1.38		4.24	0.62	0.2453
9.		2.07	1.31		2.38	1.12	0.3851
10.		4.03	1.21		4.19	1.03	0.6260
11.		3.86	1.43		4.05	0.80	0.5856
12.		2.93	1.53		3.52	0.87	0.1188
13.		2.83	1.28		2.90	1.04	0.8377
14.		2.86	1.22		3.86	1.06	0.0041*
15.		3.34	1.29		3.57	1.08	0.5092
16.		3.79	1.29		3.16	0.77	0.1904
17.		2.87	1.35		3.29	1.35	0.4122
18.		3.66	1.26		3.67	1.11	0.9769
19.		3.41	1.35		3.95	0.97	0.1248
20.		3.62	1.08		3.00	0.77	0.1749

Comments On Result

From table 2 above, out of al the 50 questionnaires retrieved, 42% were female pharmacists, while 58% are male pharmacists. Table 3 shows the age of the pharmacists. From the result, 12% were within the age bracket of 20-29. 42% between 30-39, 28% between 40-49, 14% between 50-59 while 4% between 60=69. Table 4 shows years of post qualification. 18% of the interviewed pharmacists has less than 5 years post qualification experience, 26% were within 6-10years, 24% had 11-15years, 14% had 16-20years, 10% had 21-25years while 8% 26-30years post qualification experience. Table 5 shows the highest question obtained by the pharmacists. 58% had just B. Pharm alone, 24% had B. Pharm and Pharm. D., 8% had B. Pharm, Pharm and MBA. An insignificant percentage had other qualification with B. Pharm. Table 6 shows the response to the questions. From the questionnaire, 1 represents strongly disagree, 2 = Disagree, 3 = Undedecided , 4 = Agree and 5 = Strongly agree. Description statistics, including frequencies, mean scores and standard deviations on sample characteristics and questionnaire items were computed. From the table, about 50% of the community pharmacists are already documenting the patients demographic data. About 40% are evaluating data to identify health and drug problems and make appropriate referrals when necessary. Though many are aware of the phamacovigilance activities, more than 50% do not have record of adverse drug reactions and do not report to NAFDAC.

Discussion

Pharmacists should develop pharmaceutical care services in response to unmet needs of their pharmacy's particular patients or the local health care system. Pharmacists should decide if they will offer one or more of the pharmaceutical care services, and once identified, harmacists should be able to describe them to patients other than health care providers. In this study, community pharmacists in Benin City are aware of pharmaceutical care and about 50% of the Pharmacists under study are already practicing one form or more of pharmaceutical care services. The pharmaceutical care service could be described as a more thorough, in-depth service that includes an extensive patient review and ongoing follow-up to ensure that health improvements occur. The need for pharmacists to agree on a standardized approach by which individual pharmacists will provide pharmaceutical care to patients cannot be overemphasized. There is no doubt that pharmaceutical care will fail if each pharmacy setting or individual pharmacist are allowed to define pharmaceutical care standards on their own6 The involvement of pharmacists in any setting in developing practice standards for pharmaceutical care to which they can adhere and upon which they may ultimately be evaluated is relevant 7 from this study, it is obvious that pharmacists in Benin City are aware of pharmaceutical care and some are already carrying out one form or the other. Lack of workable strategies to adopt pharmaceutical care has been suggested as a possible reason for poor response on intention to apply the standards by m any pharmacists 8.Barriers identified include lack of adequate technology and personnel, time constraints, money and negative attitudes towards pharmaceutical care8 Pharmacists in Benin City, still practice in health care environment where there are little or no spaces provided for patient counseling. The provision of pharmaceuticals care is not merely a function of individual decision-making but is strongly impacted by pharmacists perceived control over their practice environments9. his calls for urgent attention by the pharmaceutical society of Nigeria, the pharmacists council of Nigeria and all pharmacists practicing in Nigeria, to seriously address the needs of patients, and better health care for them through effective pharmaceutical services. This is an obligation by all pharmacist practicing in Nigeria.

Conclusion And Recommendations

The study has shown that 50% of community pharmacists in Benin City are aware of pharmaceutical care and some are already carrying out one form or the other. Pharmacists may have to receive additional training to provide pharmaceutical care adequately. The pharmacists council of Nigeria should incorporate more practical courses related to pharmaceutical care in the mandatory continuing education programmeme for re-certification of pharmacists. cademic curricular faculties should be updated with pharmaceutical care philosophy and practice. The pharmacists councils of Nigeria use its proposed benchmark for minimal standards for pharmacy practice to effect changes in hospitals and community pharmacy settings to implement pharmaceutical care practice in the short, medium and long terms The pharmaceutical society of Nigeria should organize workshops specifically to retrain pharmacists in the provision of pharmaceutical care.

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