
Opinion of Nigerian pharmacists on enlistment of physiotherapists as supplementary prescribers of relevant medications

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Abstract: There is increasing evidence that combining pharmacotherapy and physiotherapy is an effective tool towards effective management different pathologies. Physiotherapists in some countries have had prescription rights for more than a decade but this appears not to be the trend in Nigeria. In these countries, pharmacists played key roles in the change of policy which allowed allied health professionals to prescribe drugs. The primary aim of this study was to determine the opinion of pharmacists on the enlistment and legislation of physiotherapists as supplementary prescribers. A self administered questionnaire was used to obtain information from 110 pharmacists. Purposive sampling technique was used to select the hospitals and institutions. A descriptive statistics of frequency, percentages, standard deviation and Chi-square test were used to analyze the data. This study found that 70 respondents (70%) supported the enlistment of Physiotherapists as Supplementary Prescribers in Nigeria. The result of the Chi-square test showed that the number of respondents who supported the formulation of policy to allow physiotherapists to prescribe was significantly higher than the number of respondents who opposed it ($X^2=16.00$; $P<0.001$). Also, 60 respondents (63.8%) are aware that physiotherapists are supplementary prescribers in some foreign countries. Also, 79 respondents (71.8%) opined that physiotherapists should be allowed to prescribe NSAIDs while 73 (66.4%) respondents opined physiotherapists should be allowed to prescribe analgesics. Most Pharmacists (71.9%) are unaware that cardiopulmonary physiotherapists can prescribe inhaler for patients requiring the use in some foreign countries. This study concluded that most pharmacists are of the opinion that Physiotherapists should be enlisted as supplementary prescribers and that a policy should be formulated to guide prescription by them.

Keywords: Pharmacists, Physiotherapists, Supplementary Prescription, Drugs

1. Introduction

Physiotherapy is a health care profession concerned with human function and maximizing potentials using physical approaches to promote, maintain and restore physical, psychological and social well-being, taking accounts of variations in health status [1]. Physiotherapeutic care of patient can be facilitated by the timely administration of medicine and the ability to administer that medicine be given to the physiotherapy profession. This would maximize effective and timely use of resources [2]. Most physiotherapists are involved in Home-based Rehabilitation and they appear to spend longer period and sessions with patients [3]. Thus, most patients expect physiotherapists to give advice or prescribe medications.

Physiotherapy profession recognizes the benefits of extending prescribing rights in terms of benefits to patients, enhancing a physiotherapeutic intervention by the timely use of medication, improving long term care (like in asthma and anticoagulation), reducing patient anxiety, reducing the wait for medication, providing a cost-effective service to patients by reducing the number of visits to medical practitioners [2].

Australian community physiotherapists mostly operate as primary contact practitioners with an estimated 90% of their contacts related to musculoskeletal system [4]. Hence, concerns have been formally expressed regarding physiotherapists' role in drug administration since 1992 especially in prescription of analgesics and non steroidal anti-

inflammatory drugs (NSAIDs) [5]. Supplementary prescribing is an innovative policy development in the UK healthcare system in terms of healthcare professionals and service users [6]. Physiotherapists' ability to prescribe certain medication would be a major advantage in a country like Nigeria where it can take longer time to access a GP for a non-urgent medical issue, hence, it is pertinent to introduce SP innovations. There is a greater demand being placed on existing health care professionals coupled with increased cost-cutting measures in health care resulting in greater workload demands on clinical staff and managers [7].

Currently in the UK, physiotherapists can only prescribe medication when working with the written authority of a doctor and under this, physiotherapists would be able to prescribe a range of medication for respiratory diseases such as asthma, neurological conditions such as the effects of a stroke, and for pain relief. The advantage is that the new rights will relieve a currently unnecessary burden on doctors who are simply asked to write a prescription for medication recommended by the physiotherapist [8]. The Medicines Act of 1968 was reviewed in UK to develop a framework to determine situations in which health professionals could undertake new roles in prescribing medicines. The Chartered Society of Physiotherapists (CSP) responded to this review and argued that physiotherapists should be given opportunity to prescribe and administer drugs in order to improve patient's care and that it will maximize effective use of resources. UK Crown Report recommended that specialist physiotherapists be extended prescribing rights [9].

Supplementary prescribers are those responsible for continuing patients' health care after an initial assessment by an independent prescriber. They work with the independent prescriber to fulfil a clinical management plan between the prescriber and the patient [10,11,12]. Other supplementary prescribers are; nurses, pharmacists, podiatrists, diagnostic and therapeutic radiographers; and optometrists. Physiotherapists are involved in administering and supplying medications by two methods; "The Patient Specific Direction and The Patient Group Direction" However, there has been recommendations for change and improvement which included the extension of prescribing rights to specialist physiotherapists and such changes would require primary legislation [11]. National Health Services (NHS) employers are also making plans to empower appropriately qualified nurses, midwives and therapists to undertake a wider range of clinical tasks including the right to make and receive referrals, admit and discharge patients, order investigations and diagnostic tests, run clinics and prescribe drugs [13].

Although, among Nigerian health care professionals, controversy trails the use of oral drugs by physiotherapists but it appears global trend is favouring it. In the UK, Physiotherapists has now been listed among the supplementary prescribers [10]. The Medicines Act of 1968 was reviewed in UK to develop a framework to determine situations in which health professionals could undertake new roles in prescribing medicines. The Chartered Society of Physiotherapists (CSP) responded to this review and argued

that physiotherapists should be given opportunity to prescribe and administer drugs in order to improve patient's care and maximize effective use of resources. UK Crown Report recommended that specialist physiotherapists be extended prescribing rights. Although, the right to prescribe medication was not about the profession but the utmost is to make patients have easy access to medications.

In the UK, both Dr June Crown and Beth Taylor are pharmacists and were resourced persons at a CSP conference on Prescribing Rights for Physiotherapists [2]. The opinion of pharmacists is very vital in given recognition and formulating policy for drug prescription by health professionals. It is therefore important and paramount to seek the opinion of pharmacists on prescription of drugs by physiotherapists. The main objective of this study was to determine the opinion of pharmacists on the need for legislation that will support enlistment of Nigerian physiotherapists as supplementary prescribers.

2. Methodology

2.1. Subjects and Sampling Technique

The population consisted of 150 practicing pharmacists who were willing to participate in the survey. The study took into consideration the willingness of the participants to answer the questionnaire and return it immediately. They were sample of convenience from 2 federal university teaching hospitals, 2 state hospitals, 1 private hospital, 1 academic institution and 2 drug companies in south west Nigeria.

2.2. Research Design

This study was a cross sectional exploratory survey study.

2.3. Instrumentation

The instrument used in obtaining information for this study was a modification of a self administered questionnaire used by Onigbinde et al, [14]. The questions were kept as simple as possible with a Yes or No response format including free texts and checklist (of correct and incorrect answer). The questionnaire (as in appendix 1) was divided into 4 sections namely:

- Demographics and Academic- related data: this constituted five questions ranging from bio-data to years of experience and where they work.
- Section B had five questions, which addressed the attitude of pharmacists to the prescription of relevant medications by physiotherapists and the responsibility of the authority to provide information on relevant topical medications to physiotherapists.
- Section C had 24 questions, 12 of which were of the 'Yes, No' option addressing their awareness about physiotherapists being supplementary prescribers in some countries and supporting the enlistment of physiotherapist in Nigeria. A pilot study was conducted prior to the actual data collection. A draft of the

questionnaire was piloted in multistage phases. Firstly 5 pharmacists from Obafemi Awolowo University Teaching Hospital Complex (OAUTHC) who were not part of the main study were implored to complete the questionnaire. This was to determine whether the questions were clear and appropriate. On the basis of responses from these pharmacists, changes were made to the questions layout, content, wording and intent. The revised questionnaire was returned to these same pharmacists on about 3 occasions. Most of the participants actually sought for the simplification of the survey instrument by providing more 'yes/ no,' these changes were made again after discussions. The resultant questionnaire was sent to 5 academic pharmacists at Obafemi Awolowo University. The final questionnaire utilized for the study was the consensus copy agreed by all assessors.

2.4. Procedure

Ethical approval was obtained from the Research and Ethics Committee of the Institute of Public health Obafemi Awolowo University Ile-Ife, Osun state, Nigeria. Approval was also granted by the respective heads of departments of institutions, hospitals and pharmaceutical companies. One hundred and seventy (170) copies of the questionnaire were distributed but One hundred and fifty (150) copies were returned, representing a response rate of 88.2%. Only 110 were analyzed, representing an overall response rate of 73.3%, as 40 of the questionnaire was invalidated due to error in filling and inconsistencies. There was no restriction or time limit for the questionnaire to be completed.

2.5. Data Analysis

Descriptive statistics of frequency mean, standard deviation, percentages and Non parametric inferential statistics of Chi-square test were used to analyze the data obtained. Statistical package for social sciences software (SPSS Inc., Chicago, and U.S.A) was used.

3. Results

The mean age of participants in this study was 31.97 ± 7.96 years. The result showed that 57 respondents (51.8%) were males while 53 respondents (48.2%) were females. Most respondents (86 [78.2%]) opined that physiotherapists should source for relevant information from pharmacists while 44 (46%) opined that they should source for information on relevant medications by self improvement or development. Other opinions are presented in Table 1.

Ninety four (85.5%) reported that there was no existing policy regulating or guiding prescriptions by physiotherapists in Nigeria but 2(%) were of the opinion that there was an existing policy and they reported that they follow this policy by honouring prescription from physiotherapists. On supporting an enactment, out of 96 respondents, 58 pharmacists (60.4%) supported having an enabling law while

34 (39.6%) were against it (Table 2). The result of the Mann-Whitney U test showed that the number of respondents who supported the formulation of policy to allow physiotherapists to prescribe was significantly higher than the number of respondents who opposed it ($X^2 = -5.99$; $P < 0.001$).

Table 1. Opinion of respondents on sources where physiotherapists should sought for information to improve knowledge

Variables	Frequency	Percentage
Self Development	44	40
MRTB	18	16.4
PSN	27	24.5
General Practitioners	9	8.2
Drug Companies	28	25.5
University Training	32	29.1
Pharmacists	86	78.2

MRTB= Medical Rehabilitation Therapy Board, PSN= Pharmacists' society of Nigeria

Table 2. Opinion of Pharmacists on Policy and Enactment of Law.

Variables	Frequency	Percentage	X ²	P
Existing policy	YES	5	4.5	–
	NO	94	85.5	–
Adhere policy	YES	2	1.8	–
	NO	12	10.9	–
Enactment	YES	58	60.4	–
	NO	38	39.6	-3.56

Seventy respondents (70%) supported the enlistment of Physiotherapists as Supplementary Prescribers while 30 respondents (30%) didn't support the enlistment. Also, 60 respondents (63.8%) are aware that physiotherapists are supplementary prescribers in some foreign countries (Table 3). The result of the Chi-square test showed that the number of respondents who supported the enlistment of Physiotherapists as Supplementary prescriber was significantly higher than those who opposed it ($X^2 = 4.17$; $P < 0.04$). Also, the number of respondents who are aware about physiotherapists being supplementary prescribers in some countries was significantly higher than number of those who were not aware ($X^2 = 7.19$; $P < 0.007$).

Seventy nine respondents (71.8%) opined that physiotherapists should be allowed to prescribe NSAIDs while only 8 respondents (7.3%) opined the prescription of anticoagulants by physiotherapists. Similarly, 73 (66.4%) respondents opined physiotherapists should be allowed to prescribe analgesics while only 9 respondents (8.2%) agreed on prescription of anti-depressants. Their opinion on other relevant drugs is presented in Table 4. Most Pharmacists (71.9%) were unaware that cardiopulmonary physiotherapists can prescribe inhaler for patients requiring the use in some foreign countries while 57 respondents (51.8%) were unaware of Pharmacophysiotherapy as a specialty (Table 5).

Table 3. Awareness of Pharmacists about Physiotherapists being Supplementary Prescribers in some Countries

Variables		Frequency	Percentage	X ²	P
Supp Prescribers:	YES	60	63.8	-3.56	0.001
	NO	34	36.2		
Enlistment:	YES	70	70	-9.95	0.001
	NO	30	30		

Supp= Supplementary, PT= Physiotherapist

Table 4. Opinion on types of medications which physiotherapists should prescribe

Variables	Frequency	Percentage
NSAIDs	79	71.8
Antibiotics	24	21.8
Analgesics	73	66.4
Vitamins	33	30
Anti-Coagulants	8	7.3
Corticosteroids	12	10.9
Anti-hypertensives	24	21.8
Anti-depressants	9	8.2
OTC	46	41.8
Anti-diabetes	12	10.9

NSAIDS= Non Steroidal Anti-Inflammatory Drugs, OTC= Over the Counter

Table 5. Familiarity with Prescription of Inhaler and awareness of pharmaco-physiotherapy as a specialty.

Variables		Frequency	Percentage
Prescribe Inhaler:	YES	29	26.4
	NO	79	71.8
PharmacoPT:	YES	51	46.4
	NO	57	51.8

Table 6. Opinion on Undergraduate Pharmacology and Collaborative Study with Physiotherapists.

Variables		Frequency	Percentage
Pharmacology:	YES	62	56.4
	NO	47	42.7
Collaborative Study:	YES	14	12.7
	NO	94	85.5
Drug Compoundment:	YES	17	15.5
	NO	77	70
Formal Presentation:	YES	11	10
	NO	86	78.2

The result showed that 62 respondents (56.4%) are aware that physiotherapy students now have pharmacology education in their curriculum while 47 respondents (42.7%) are not aware. Also, 14 respondents (12.7%) have been involved in collaborative study with physiotherapists while 17 respondents (15.5%) have compounded drugs for usage by physiotherapists and 11 respondents (10.0%) have done a formal/informal seminar presentation at gatherings of physiotherapists (Table 6).

4. Discussion

The mean age of participants in this study was 31.97 ± 7.96 years showing that majority are in the middle age while majority have Bachelor’s degree in pharmacy and majority of them works in teaching hospitals, these implied that their responses should be adequate and factual for interpretation.

Most pharmacists reported that there was no existing policy regulating or guiding prescriptions by physiotherapists in Nigeria. A significant number of respondents supported the enlistment and enactment of laws that would permit physiotherapists to prescribe relevant medications while a significant number of respondents were aware about physiotherapists being supplementary prescribers in some countries. This lent credence to the report of Chartered Society of Physiotherapist on prescription rights for physiotherapists [2]. In United Kingdom, Crown Report recommended that specialist physiotherapists be extended prescribing rights [9]. It also legitimised current administration practice via patient specific directions (PSDs) and patient group direction (PGDs). Among common barriers to inter-professional healthcare team work is legal issues of scope of practice and liability [12].

Most pharmacists opined that physiotherapists should be allowed to prescribe NSAIDs and analgesics while very few agreed on prescription of anti-depressants. Grimmer et al reported evidence on the role of Physiotherapists in the use, recommendation and delivery of NSAIDs [5]. A moderate number agreed on prescription of muscle relaxants and this might be attributed to the high number of patients with upper motor neurone lesion with spasticity being managed by physiotherapists. Similarly, a moderate number agreed on prescription of OTC drugs. Lansbury and Sullivan observed that physiotherapists frequently advise their clients on the use of over-the-counter (OTC) medications and administer it in the course of treatment [15]. Kumar and Grimmer reported that legislation is required for physiotherapists to recommend drugs for patients, and also seek advice from medical practitioner or pharmacist [16]. It also supports the use of topical pharmacotherapy as an adjunct to electro- physical therapy and manual therapy

Most respondents opined that physiotherapists should source for relevant information on drugs from pharmacists. Although, Onigbinde et al reported that physiotherapists actively sought for information to update their knowledge from drug companies’ seminars and journal articles [17]. This current finding also varied from that of Lansbury and Sullivan and Grimmer et al in Australia who observed that physiotherapists mostly source for information from Monthly Index of Medical Specialty (MIMS) and Medical practitioners [5,15].

Most Pharmacists are unaware that cardiopulmonary physiotherapists can prescribe inhaler for patients requiring the use in some foreign countries while slightly over 50% of respondents were not aware that there is a specialty known as pharmacotherapy. Onigbinde described pharmacotherapy as a concept where physiotherapy agent or modality is used in conjunction with drug therapy or is used to administer drug via mechanical and/or through electromotive force [17]. The linking of pharmacotherapy and physiotherapy is considered the most effective approach in recent days [18,19,20,21].

This study concluded that Pharmacists are of the opinion that physiotherapists should be enlisted as supplementary prescribers and that an enactment policy should be

formulated to guide prescription of drugs.

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