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Patient's perception of Nigerian physiotherapists as supplementary prescribers

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Abstract: In supplementary prescription (SP) of drugs; patient must consent and ascent to clinical management plans (CMP) and this is the principle of shared decision making (SDM). Shared decision making is a modern care ideology being used to promote effective treatment of patients. If physiotherapists are to become supplementary prescribers (SPs) it is important to seek patient's opinion as they are also expected to be involved in drawing the CMP. The primary aim of this study was to investigate the opinion of Nigerian patients on enlistment and legislation of physiotherapists as supplementary prescribers. A structured and self-administered questionnaire was used to seek the opinion of 240 patients. They were selected from purposively selected health institutions in Nigeria. The data were analyzed using descriptive statistics of frequency, percentage and non-parametric inferential statistics (chi-square). A significant number of patients opined that prescription of drugs should not be restricted to medical doctors alone (X^2 =193.67, P<0.001). One hundred and ninety four (81.17%) participants supported the enactment of policies that will recognize physiotherapists as SPs. Similarly, a significant number of patients opined that physiotherapist should only prescribe oral drugs at the chronic stage of diseases (X^2 =35.53, P<0.001). Majority opined that supplementary prescribing will reduce waiting time in hospital (92.89%), reduce burden on medical doctors (94.48%); and increase accessibility and timely intervention of medical care (94.15%). In conclusion, most patients opined that Nigeria physiotherapists should be allowed to become supplementary prescribers of relevant oral drugs because of the enormous benefits to patient care. Also, an enactment should be made to protect them against litigations.

Keywords: Supplementary Prescription, Patients, Physiotherapists, Medications, Enlistment

1. Introduction

There has been paradigm unrelenting transformation of boundaries in the statutory roles of allied health professions, creating new roles and expanding the existing traditional roles; and this is a strategic approach towards improving health care [1]. Inter-disciplinary skills, adequate knowledge and experience of health professionals are required to achieve this modernization [2]. The British Medical Association in 1998 observed that previous health professional relationships were in-appropriate and could not meet the demand of modern day clinical practice [3]. This culminated into non-medical prescription of drugs by specially trained health professionals such as nurses, pharmacists, radiologist and physiotherapists, and this has been tagged as a 'leading ideology' of modern medical care [4,5,6,7].

The patient-centered health care is now the dominant paradigm in health service delivery [4]. Shared decision-making (SDM) has been reported severally to make patients more secured, have a stronger sense of commitment to recover, increase quality of care and improved self-efficacy coupled with increased self-management behaviors [8,9,10,11,12,13].

In Australia, Salisbury and Sullivan observed that 40 per cent of physiotherapists prescribe drugs daily, although, majority had approval from physician [14]. However, more than 50 per cent of those physiotherapists had no formal training except the deficient pharmacology training during undergraduate education. Most physiotherapists have poor pharmacology knowledge in clinical practice because they

did not have opportunity to practice prescription of what was acquired during undergraduate training [15]. Currently in the UK, physiotherapists had been legislated to advance from being supplementary to independent prescribers [16]. In order to achieve standards, intending non-medic prescribers were trained for safe and effective prescribing [16]. In Nigeria, most physiotherapists desired to be supplementary prescribers and were also willing to improve their pharmacology knowledge and take up responsibilities attached to SP [17]. The inclusion of drug therapy is very crucial as an adjunct to effective treatment in practice of physiotherapy [18].

The main concept of supplementary prescribing, the prescribing 'partnership', must be explained to the patient by the prescriber and the consent, either verbal or written must be recorded in the CMP prior to entering into a prescribing agreement [19]. Also, considering importance of patients in clinical auditing, it is important to investigate the opinion of patients on physiotherapists assuming the role of supplementary prescribers. The primary objective of this study was to investigate the opinion of patients on the desire of physiotherapists to include supplementary prescription to their statutory roles.

2. Materials and Method

2.1. Study Settings

The settings comprised 5 University Teaching hospitals, 1 national orthopeadic hospital, 2 state hospitals and 3 private clinics located at South west of Nigeria.

2.2. Sample and Sampling Techniques

Respondents were 240 patients and they were recruited using the sample of convenience technique at the purposively selected health institutions. Patients who had experienced physiotherapy interventions for at least 5 treatment sessions, and were willing to participate were recruited for the study. Patients that could not read nor write, under the age of 18 and had no relative to interpret the questionnaire were excluded from the study.

2.3. Sample Size Determination

We determined a sample size of 250 patients for this study with a 6% margin error based on assumption that the response rate would be 60% [20]. The assumed response rate was the consideration that some patients might be illiterate and might also not have relatives who would be able to appropriately interpret the questions. Only 240 patients could meet the inclusion criteria at the time of the study.

2.4. Research Design

The study was a quantitative cross-sectional survey.

2.5. Instrument

A structured and self-administered structured questionnaire was used in obtaining information for this study. A pilot study using a draft of the questionnaire was conducted among 3 experienced physiotherapists who had at least 15 years of experience in clinical research; they evaluated the questions for viability, simplicity and precision. They made corrections and ascertained that the questionnaire reflected the major focus, concept and objectives of the study [21]. To allow for respondents' differing educational background, the questions were kept as simple as possible in YES and NO format.

The questionnaire was divided into two sections; namely A and B. Section A sought for information on demography and academic related data, diagnosis and opinion on medications. Section B inquired about opinion on government enactment of policies and perceptions on likely benefits of having physiotherapists as supplementary prescribers of relevant medications.

2.6. Procedure

Ethical approval was granted by the Health Research and Ethics Committee (HREC) of ObafemiAwolowo University Teaching Hospital Complex (OAUTHC), Ile-Ife, Osun State, Nigeria. Heads of departments of the study settings also granted permission for the study. Each patient willing to participate signed a consent form prior to being administered the questionnaire. In order to maintain anonymity, subjects' name and address were not requested for in the questionnaire. All respondents filled the questionnaire instantly and returned it immediately, however, there was no time restriction to complete the questionnaire.

2.7. Data Analysis

The copies of the questionnaire were labeled sequentially, collated and entered into SPSS, version 17 in a private and password protected computer to restrict accessibility of none members of the research team. A descriptive statistics of frequency, percentages, mean and standard deviation were used to analyse the data. Non-parametric inferential statistic (chi-square) was used to compare the number of respondents differing on opinion. Alpha value was set at $p < 0.05$.

3. Results

3.1. Demographic Details of the Respondents

Table 1. *Educational qualifications of respondents*

Qualifications	Frequencies	Percentages
Primary school certificate	38	15.8
Secondary school certificate	43	17.9
Diploma certificate*	48	20.0
Bachelor degree	37	15.4
Masters degree	15	6.3
Doctorate degree	11	4.6
Others	48	20.0

*: Ordinary & Higher diploma certificates

One hundred and thirty four respondents (55.8%) were male while 106 (44.2%) were female. The educational qualification of are presented in table 1. The diagnoses of the respondents are presented in table 2.

Table 2. *Diagnoses of respondents*

Diagnoses	Frequencies	Percentages
Burns	4	1.70
Fractures	21	8.80
Injection neuritis	7	2.90
Stroke	84	35.0
Osteoarthritis	22	9.17
Low back pain	17	7.08
Lumbar spondylosis	6	2.50
Cerebral palsy	17	7.08
Others	46	19.16

3.2. Desires of Respondents on Current Medications

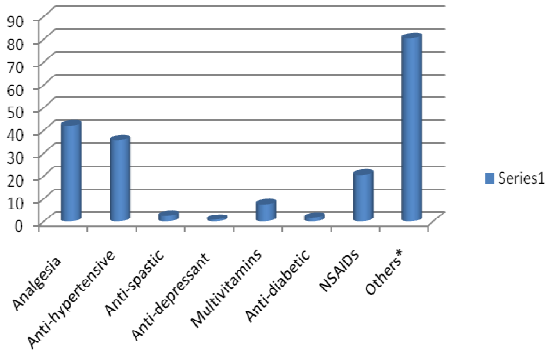

Figure 1. *Current medication respondents*

*other drugs such as anti-malarial, antibiotics, antacids and dietry supplements

One hundred and two (42.0%), 49 (20.4%) and 86 (35.8%) respondents were placed on analgesia, Non-Steroidal Anti-Inflammatory Drugs and anti-hypertensive respectively. Other medications are represented in figure 1. One hundred and eighty two patients (76.2%) were still on medications, the result of the chi-square showed that these number of respondents on medications was significantly higher than those who were not on any medication (X^2=65.38, P<0.001). Similarly, a significant number of patients [148 (62.5%) wished to continue with taking the medications (X^2=137.96, P<0.001). One hundred and ninety six (82.0%) desired to continue with both oral medications and physiotherapy. Other responses on desires are presented in table 3.

One hundred and seventy four (73.4%) respondents opined that prescription of drugs should not be the responsibility of medical doctors alone. The number of these respondents was significantly higher than those who opined otherwise (X^2 =193.67, P<0.001). Majority [159 (69.7%)] opined that physiotherapists would be most relevant at the chronic stage of diseases. The number of respondents who opined that prescription by physiotherapist should be at the chronic stage of disease was significantly higher than those who opined otherwise (X^2=35.53, P<0.001). Other opinions are presented in table 4. On reasons why they would provide such support, 142 (94.7%) respondents perceived that such SP would provide opportunity for timely intervention for medications and 171 (94.5%) opined that it would reduce burden on medical doctors. Other perceived benefits of SP are presented in tables 5.

4. Discussion

In the last decade of health care modernization, there has been redrawing of professional boundaries and identities and greater workforce flexibility [1]. Several tasks and roles previously within the exclusive domain of medicine have been delegated to allied health professionals, with the reshaping of workforce to meet the challenges posed by changing demographic, social and political contexts [1].

Most patients supported inclusion of supplementary prescription into the roles of Nigerian physiotherapists and considering problem of litigation they opined that government enacts a law that will protect them. Crown report recommended that there should be a law guiding administration and supply of drugs within the confine of trained health professionals [3]. They also opined that prescription of drugs should not be the statutory responsibility of medical doctors alone if the aims of SP are to make health care provision comprehensive, more accessible and cost-effective. Doctors are currently the only recognized prescriber of drugs but patients in this study opined they should not be accorded that sole responsibility if Nigeria desired to meet the demands of modern clinical practice. In SP, doctors will still continue to play the leading role in drug prescriptions [22].

Table 3. *Desires of respondents on current medications and physiotherapy*

Variables		Frequencies	%	X^2	p values
Still on medication	Yes	182	76.2		
	No	57	23.9	65.38	0.001
Desired to continue medication	Yes	148	62.5		
	No	89	37.6	137.96	0.001
Desired physiotherapy alone	Yes	90	37.5		
	No	150	62.5	15.00	0.001
Both physiotherapy & medication	Yes	196	82.0		
	No	43	18.0	97.95	0.001
Drug modification by PT	Yes	203	84.9		
	No	36	15.1	116.69	0.001
Physicians to modify drugs	Yes	155	65.4		
	No	80	34.6	23.94	0.001

The doctor's traditional authority to prescribe medicines alone could not be maintained because of emerging challenges facing health care services [23]. Although, they reported that the recent non-medical prescribing (supplementary prescribing) initiatives is being viewed erroneously as challenges to doctor's dominance. Nigeria will have to consider supplementary prescription by allied health professionals considering the increasing population and vast majority of Nigerians living in rural villages; and also increasing dependence on the already over-crowded health facilities in the urban cities.

Most respondent in this study were diagnosed to have stroke and musculoskeletal dysfunctions and this was the reason why analgesics, anti-hypertensives, muscle relaxants and NSAIDs are medications that most patients were taken at the time of this study; aside other drugs (anti-malarial, antacids, antibiotics and dietary supplements). Hence, if SP is allowed, these are the classes of drugs physiotherapist should be most likely allowed to prescribe. In the UK and Australasia, prescription right was given to musculoskeletal care physiotherapist while general right was given to podiatrist [24]. It was also opined that physiotherapists should be restricted to prescription for only chronic conditions. This corroborated the report of Department of Health in UK that supplementary prescribing is not suited for emergencies, urgent or acute prescribing situations because an agreed clinical management plan is needed before prescription [25]. Thus, acutely ill patients should be managed by the medical doctors.

Table 4. *Opinion of respondents on drug prescriptions and SP*

Variables		Frequencies	Percentages	X^2	P value
Physicians alone should prescribe	Yes	63	26.6		
	No	174	73.4	193.67	0.001
Support Physiotherapists as SPs**	Yes	194	81.2		
	No	45	18.8	113.78	0.001
Support prescription policies	Yes	198	84.3		
	No	37	15.7	110.302	0.001
Combined therapy is effective	Yes	217	91.6		
	No	20	8.4	357.15	0.001
Prescription enhances recovery***	Yes	200	86.4		
	No	32	13.8	295.22	0.001
Prescriptions at chronic stage	Yes	159	69.7		
	No	69	30.3	153.44	0.001
Drugs alone are effective	Yes	18	7.6		
	No	220	92.3	171.45	0.001
Physiotherapy alone is effective	Yes	66	27.9		
	No	171	72.2	46.52	0.001

* The percentages are based on number of valid respondents to each question. **SPs: Supplementary prescribers
*** Prescriptions by physiotherapists

It was recommended that supplementary prescription should be limited to prescriber's therapeutics and area of expertise [26]. Similarly, most respondents opined that supplementary prescribing will reduce waiting time in hospital, increase accessibility and will promote timely intervention for medications. The successful implementation of nonmedical (supplementary) prescribing had been reported to reduce patient's waiting time and had increased frequency of appointment in the UK [6], [27]. The opinion of our respondents did not differ from that of previous reports on effects of SP. Supplementary prescribing had been reported to reduce doctors' workloads and had also given them the opportunity to concentrate on patients with more complicated illnesses, requiring complex treatments and medications [21, 28]. Majority of respondents claimed that supplementary prescribing had lowered cost of management and this corroborated the reports of National Treatment Agency for Substance Misuse and Non-medical prescribing center that it had attracted substantial financial benefits through prevention of hospital admissions and secondary care referrals in the UK [6, 29].

Most respondents were of the opinion that supplementary prescribing would likely enhance effective communication between patients and health care providers. There is paradigm shift in global health care services to share decision making where all stakeholders, patients inclusive, jointly develop clinical management plans. Most respondents found doctors reproaching, intimidating and impatient compared to SPs who were easier to talk to and were also more informal during conversation [29]. Other perceived benefit opined by most patients aside effective communication are likelihood of effective treatment plans and drug compliance; and these were not different from reports of previous studies [22].

In conclusion, patients in this study were of the opinion that Nigerian physiotherapists should be allowed to add supplementary prescription to their roles considering benefits like increased access to medical care, timely intervention for drugs granting opportunities for physicians to concentrate emergencies and critically ill patients. Also, an enactment should be made to protect them against litigations. They also

opined that physiotherapists should focus on managing chronic conditions.

Table 5. *Perceptions of respondents on benefits of supplementary prescription*

Variables		Frequencies	Percentages
Timely drug intervention	Yes	142	94.67
	No	8	5.33
Reduce burden on doctors	Yes	171	94.48
	No	10	5.53
Cost effective	Yes	137	80.11
	No	34	19.88
Physicians re-focusing*	Yes	164	95.90
	No	7	4.09
Reduce waiting time	Yes	170	92.89
	No	13	7.10
Effective communication	Yes	154	91.12
	No	15	8.86
Ease accessibility to services	Yes	157	95.73
	No	7	4.27
Improve effectiveness	Yes	161	94.15
	No	10	5.85
Improve drug compliance	Yes	136	90.67
	No	14	9.33

***** Physicians shift focus to complex diseases

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