Knowledge, attitude, and perception of the referral system among tertiary health-care workers in Kaduna metropolis, Nigeria

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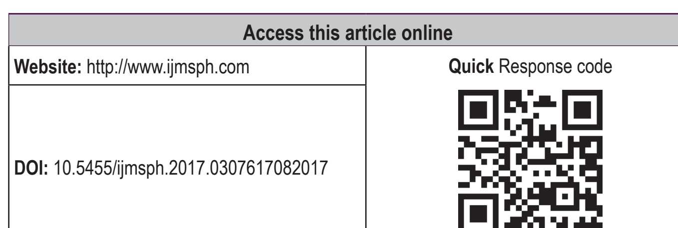
ABSTRACT

Background: Among many recognized factors, the role of health workers remains crucial in influencing the effective running of the referral system. A paucity of information in this area exists in many developing countries. **Objectives:** This study sought to probe for such information toward improving the quality of the referral process and the health system at large. **Materials and Methods:** Using structured, open-ended, self-administered questionnaires, data were collected from 114 respondents, randomly selected across four tertiary health facilities. **Results:** Knowledge and understanding of referral was high (93.8-100%) among respondents. However, attitudes and perceptions expressed regarding diverse aspects of referral such as referral tools, indications for referral, recordkeeping, and practicalities were relatively average. Only 21.9% were aware of standard referral forms; about 20% thought that referral should be at the request of patients. About 65.8% expressed diverse challenges encountered with referrals; and 64.9% support the rejection of certain cases referrals. **Conclusion:** The advocacy for reforms in the referral system with regards to the training of health workers; the implementation of referral policies, guidelines and structured, standardized forms is recommended.

KEY WORDS: Referral System; Health Workers; Knowledge; Health Systems; Perception

INTRODUCTION

Nigeria operates a comprehensive, three-tier health-care system based on the primary health-care (PHC) system advocated in the Alma-Ata declaration[1] of the International Conference on Primary Health of 1978. The three operational levels of health care in Nigeria are the primary, secondary, and tertiary levels.[2] This is similar to the three-tier structure of the civil government; namely, local, state, and federal governments. The primary health-care level, designed to provide services that meet the basic and essential health needs of the population, in both rural and urban settlements serves as the entry point into the health-care system. The Local Government tier of civil governance is saddled with the responsibility of running this level of health care.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Secondary health care is a higher level of services, which covers general medical care to both in- and out-patients. State governments are responsible for this level of health care. While tertiary health care refers to specialist care, which in many cases would require expertise, experience as well as high technological facilities, equipment, and gadgets. The Federal Government is largely saddled with this responsibility through the services it renders through Teaching Hospitals

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and Federal Medical Centers spread across the nation. However, in the recent past decades, some state governments have established medical schools, with teaching hospitals and thus, also participate in the provision of tertiary health care.

Running such a tier-oriented health system will require some degree of interaction and coordination of activities and services within and between the various levels to ensure smooth, effective, and efficient operations; and to minimize wastage and duplication of efforts and services. This is made possible by the referral system in which the World Health Organization (WHO) defines as "a process in which a health worker at a one level of the health system, having insufficient resources, and/or capacity (in terms of drugs, equipment, skills, etc.) to manage a clinical condition, seeks the assistance and involvement of a better or differently resourced facility or health worker at the same or higher level to assist in, or take over the management of the patient's or client's case."[3] Al-Mazrou et al. define it as "any process in which health-care providers at lower levels of the health system, who lack the skills, facilities, or both to manage a given clinical condition, seek the assistance of providers who are better equipped or specially trained to guide them in managing, or to take over responsibility for a particular episode of a clinical condition in a patient."[4] Other abridged definitions include "a continuum of care in which case a health-care worker assesses that his client may benefit from accessing additional or expert services elsewhere"[5] and "a process of requesting another physician to examine a patient to obtain advice or management."[6]

It stands to reason, therefore, that referral does not occur in isolation or unilaterally by one individual or an institution. It is a formal, intentional, or deliberately planned and organized operation within a general health system. The essential or requisite components of an effective referral system[3] include the following:

i. An initiating center or facility - from where the case (patient) is coming
ii. A receiving center or facility - where the case is sent (or referred) to
iii. The referral practicalities - this covers the logistics, modalities, and other resources involved in the transfer process
iv. Supervision and capacity building
v. The general health system (or *milieu* in which referral is operated).

From the foregoing and within the Nigerian context, referrals are expected to ideally begin from the PHC facilities, go through the secondary health-care facilities, and finally arrive at the tertiary health-care facilities. However, a very crucial and pertinent determinant to the success of a smooth-running referral system is the workforce element; that is, the knowledge, skills, awareness, attitude, etc., of health workers of and to the practice of referral.[7]

This study sought to investigate the current knowledge, attitude, and perception of the referral system among health workers operating within tertiary health facilities in Kaduna metropolis (an urban area), within one component of the referral system (the receiving center). Information regarding issues surrounding referrals in four tertiary health facilities domiciled within the metropolis; namely, the 44 Army Reference Hospital, the National Ear Care Centre (a facility specialized in otorhinolaryngology also known as ear, nose, and throat), the National Eye Care Centre (a facility specialized in ophthalmology), and the National Neuropsychiatric Centre was obtained from various categories of staff of these facilities.

MATERIALS AND METHODS

Study Design

This was a descriptive, cross-sectional study.

Study Methods

Data were collected by administering structured, open-ended, self-administered questionnaires to staff of all four facilities. Questionnaires were developed based on adaptation and review of previous literature on the subject and pre-tested for content validity before the commencement of the data collection. A total of 114 respondents, randomly selected across the four tertiary health facilities participated in the study - 30 (26.3%) from the Army Reference Hospital, 22 (19.3%) from the National Ear Care Centre, 32 (28.1%) from the National Eye Care Centre, and 30 (26.3%) from the National Neuropsychiatric Centre.

Data Analysis

Data collected were analyzed using SPSS 20 version.

Ethical Considerations

Approval to conduct the research was obtained from each of the tertiary institutions involved in the study. Respondents were approached for consent to be involved in the study, after being briefed on the objectives of the study.

RESULTS

Table 1: Of the 114 respondents in this study, 62 (54.4%) were males, whereas 52 (45.6%) were females. Majority of the respondents (i.e., 93 representing 81.6%) were direct caregivers - 62 doctors (54.4%) and 31 nurses (27.2%); 16 (14.0%) were staff involved in information management, whereas 5 (4.4%) represented other categories of health workers. In terms of duration, the post-qualification experience of the respondents ranged from newly employed staff to over 16 years in practice (mean = 7.5 ± 7.3 years).

Table 2: Even though all (100%) the respondents were aware that the facilities they work in receive patients coming from other health facilities and 98.2% of them had knowledge of the term "referral;" however, a lower proportion of them (93.8%) had a more in-depth and elaborate understanding of the definition and concept of the referral system.

Table 3: On their opinion of the most relevant information (or tool) expected to accompany referred patients, only 25 (21.9%) mentioned standard or formal transfer/referral documents. While 20 (17.5%) were clueless with regards to what to expect from a referred patient; the remaining 69 (60.6%), who constitute the majority, only gave piecemeal fragments of what constitutes a complete referral document.

Table 4: On their view of the appropriate indication(s) for referral, majority of them; namely, 83 (55.3%) and 37 (24.8%) gave factors or reasons that are treatment-oriented and diagnosis-oriented, respectively. However, almost 20% of the respondents thought that referral should be at the request of patients or their relations, rather than by the managing physician or health worker.

Table 5: Majority (87.7%) of the respondents saw the practice of recordkeeping in the referral system as necessary, but only 68 (59.6%) responded in the affirmative that this was the practice in their facility.

Table 6: With regards to the practicalities involved in referring patients, less than one-third of the respondents (28.9%) thought it necessary to have the receiving centers notified beforehand. Majority of them (80.7%) were of the opinion that it is appropriate to have prior discussions of cases with receiving physicians (or managing teams) before they are transferred. However, only 26.3% experienced this in actual practice. About one-fifth (21.9%) admitted reluctance to discuss cases with referring or initiating centers; and almost two-thirds (65.8%) expressed diverse challenges encountered from the referring or initiating centers.

Figure 1: Only one-third (33.3%) of the respondents affirmed that all referrals, irrespective of nature, details, or circumstances should be received or welcome in their facility (reasons for non-acceptance were also captured).

DISCUSSION

Enshrined as part of the PHC model, which has been a core concept of the WHO's goal of "Health for all" is the referral system.[8] This, the WHO defines as "a process in which a health worker at a one level of the health system, having insufficient resources and/or capacity (in terms of drugs, equipment, skills etc.) to manage a clinical condition, seeks the assistance and involvement of a better or differently resourced facility or health worker at the same or higher level

Table 1: Distribution of respondents

Characteristics	Frequency (%)
Sex	
Male	62 (54.4)
Female	52 (45.6)
Occupation	
Doctor	62 (54.4)
Nurse	31 (27.2)
Records clerk/information officer	16 (14.0)
Others	5 (4.4)
Post-qualification experience (years)	
0-3	37 (32.5)
4-6	23 (20.2)
7-9	10 (8.8)
10-12	9 (7.9)
13-15	5 (4.3)
≥16	21 (18.4)
No response	9 (7.9)
Total	114 (100.0)

Table 2: Knowledge of referral

Knowledge	Yes (%)	No (%)
Prior knowledge of the term "referral"	112 (98.2)	2 (1.8)
Level of understanding of the definition and concept of "referral" (out of 112 respondents)	105 (93.8)	7 (6.3)
Awareness of referred cases being received in their facility	100	0 (0.0)

Table 3: Opinion on the most relevant information (or "tool") expected from referred patients

Tool	Frequency (%)
Clinical history of patients	30 (26.3)
Standard or formal transfer/referral documents	25 (21.9)
Details of treatment given hitherto	18 (15.8)
Clinical findings/provisional or definitive diagnosis	15 (13.1)
Specific reason or indication warranting/justifying the referral	6 (5.3)
No response	20 (17.5)

Table 4: View of the appropriate indications for referral

Indications for referral	Frequency* (%)
Diagnosis-oriented (e.g., for definitive diagnosis, to rule out or exclude other possible or coexisting pathologies)	37 (24.8)
Treatment-oriented (e.g., for specific treatment, to obtain information about treatment options, etc.)	83 (55.3)
Patients' or relations' requests, etc.	27 (18.1)
Other non-specific indications, etc.	2 (1.3)

*Open-ended (therefore, multiple entries)

Table 5: Records of referrals

Records	Yes (%)	No (%)	Unsure/no response	Total
It is necessary or important to keep records of referrals	100 (87.7)	5 (4.4)	9 (7.9)	114 (100.0)
Records of referrals are kept in my facility	68 (59.6)	19 (16.7)	27 (23.7)	114 (100.0)

Table 6: Referral practicalities

Practicalities	Yes (%)	No (%)	Unsure/no response	Total
Opinion on the need for prior notification of receiving centers by initiating centers	33 (28.9)	56 (49.1)	25 (22.0)	114 (100.0)
The actual practice of prior discussion of cases with receiving physician/managing team by initiating centers	30 (26.3)	67 (58.8)	17 (14.9)	114 (100.0)
Opinion on the need for prior discussion of cases with receiving physician/ managing team by initiating centers	92 (80.7)	19 (16.7)	3 (2.6)	114 (100.0)
Admission of reluctance to discuss cases with referring or initiating centers	25 (21.9)	81 (71.1)	8 (7.0)	114 (100.0)
Any challenges from referring or initiating centers?	*75 (65.8)	38 (33.3)	1 (0.9)	114 (100.0)

*Challenges indicated (out of 75 "yes") include: Late referral=20 (26.7%), ambiguous information=20 (26.7%), improper diagnosis=15 (20.0%), unskilled handling of patients=15 (20.0%), and Illegible handwriting=5 (6.7%)

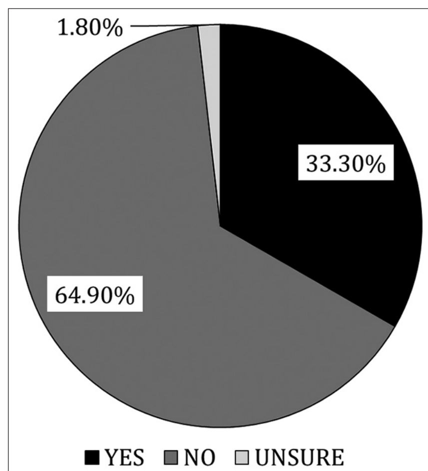

Figure 1: Should referrals always be received, welcome, or accepted without queries or questions? (Reasons for non-acceptance of referred patients include: (a) For proper or further clarifications due to inadequate information on referral forms or letters, informally written, or even scribbled notes, etc. [i.e., irregularities regarding referral details or procedures]; (b) Shortage of bed spaces, facilities, or services [for inpatients, especially surgical cases or urgent emergencies, particularly during periods of industrial strike actions by vital or relevant health workers or caregivers], that is, "In-house" issues within the receiving center. (c) "To correct misconduct or non-adherence to protocol or due process" [i.e., disincentives to serve as corrective or "punitive" measures])

to assist in, or take over the management of the patient's or client's case."[3] Since its adoption and implementation (following the Alma-Ata Conference in the late 1970s) by virtually all member states, the success of its operation has varied from one nation to another. While succeeding and running relatively smoothly in many industrialized countries, the referral systems of many developing countries (including Nigeria) still remain rudimentary, sub-optimal, and ineffective; and in some cases, even moribund.[9] Among the many conspicuous factors that determine the outcome or smooth-running of the referral system in developing or underdeveloped nations, determinants directly or indirectly emanating from health-care workers are often neglected. Other factors identified by previous researches to influence the operation of the referral system include limited resources, lapses in the management of these resources, poorly coordinated activities and operations, the absence or non-implementation of standardized guidelines, protocol, and criteria for referral.

Granted technical deficiencies and organizational incompetence may account for the operational shortfalls in the referral systems of many developing countries, however, focus and attention ought to be given to the place and role of this "human" factor (being the role played and the input contributed to the referral system by human resources in the health sector). The number, skill, characteristics, and distribution of health-care workers in a nation can contribute to making or marring the effectiveness of its referral system. The term "health-care workers" encompasses all individuals involved in the promotion, protection, or improvement of public or population health[10] cutting across all cadres, domains, and areas of specialty. They are also defined by the World Health Report (2000) as "the different kinds of clinical and non-clinical staff who make each individual and public health intervention happen."[11]

A number of studies have been conducted (particularly in developed countries) to ascertain the influence of health workers' role on the referral system, with regards to their behavior, communication, skills, commitment, etc.[12,13] Furthermore, a study by Abodunrin et al. in North-Central Nigeria alludes to the need for health-care providers to have adequate knowledge of the referral procedure of their health-care system,[5] in order for it to function optimally. In this study, which assessed the knowledge, attitude, and perception of health workers in four receiving facilities in a Nigerian urban area (Kaduna metropolis), the respondents displayed a high level of awareness and knowledge of "referral" as

a term. This is good and encouraging and compares with findings by Al-Erian et al. in Saudi Arabia.[14] However, a lower proportion of them (93.8%) had a more in-depth and elaborate understanding of the definition and concept of the entire referral system. All the respondents were aware of (the practice of) referred cases being received in their various facilities. Details of their views and responses to various aspects regarding the subject matter were captured and are discussed in the following.

The Most Relevant Information (or "Tool") Expected in Referrals

On their opinion of the most relevant information (tool) expected in referrals, less than a quarter of the respondents (21.9%) mentioned standard or formal referral documents, which is recommended by the WHO.[3] These are documented communications between levels of health care regarding details of patients, their conditions, as well as investigations, treatments, and other forms of medical interventions administered to them (the patients) before being referred. Obviously, these documents play a critical and pivotal role in ensuring the effectiveness of referrals. A study conducted in a tertiary hospital in Southwestern Nigeria by Oshikoya et al. expressed this crucial and strategic place of referral letters, as serving as "the interface between health-care professionals in the primary health-care center or general practice and centers for higher level of care."[7,15] The WHO advocates that such documents be standardized within the context of the locally operational health system, and communicate a summary of the essential information required for an uninterrupted medical care for the referred patient.

While 17.5% of the respondents were clueless with regards to what to expect from a referred patient, about 60.6% (who constitute the majority), only gave piecemeal fragments of what constitutes a complete referral document such as clinical history of patients and details of treatment given hitherto. For health workers serving in apex, tertiary, and specialized health facilities located in an urban area, this reflects a poor knowledge and may potentially serve as a limitation in effective bidirectional (two-way) referral practice; which is vital for the success of the referral system.[16] However, this observation is not entirely surprising, as findings from previous studies on the content of referral documents in Nigeria and other developing countries reflect a picture of inadequate, inaccurate (or inappropriate) information.[15,17,18] This situation engenders low-quality referrals and may not be entirely unconnected to the lack of a universally adopted or acceptable "gold standard" for referral documentation.

The various stakeholders and practitioners within the health sector have found it challenging to come to an agreeable consensus on the content of an ideal referral document. This poses a challenge in clearly defining what constitutes an accurate or appropriate referral document; thus creating room for inconsistent and subjective, rather than objective practices when it comes to documenting and communicating referral information within or across health-care levels.[19,20] In spite of this lacuna, the training of health workers on the rubrics of referral writing at all levels is recommended to enhance the quality of referral documentations.[15] Furthermore, the introduction of globally or regionally acceptable, standardized referral forms that suit or fit into the local context of various health-care systems would enhance and augment consistency in referral procedures. This has been proven to have remarkable positive influence on the quality of referrals in many other settings.[21,22] Pre-structured forms designed in such a manner as they capture and cover all vital entries or information required by the receiving health-care provider are better advocated than handwritten (or typed) letters.

Indications for Referral

In clinical practice, the decision to refer patients is reached following many considerations and assessments. These factors or indications form the basis for referral. Majority (80.1%) of the respondents in this study had a fairly acceptable view of the appropriate indications for referral; namely, 83 (55.3%) and 37 (24.8%) of them gave factors or reasons that are treatment-oriented and diagnosis-oriented, respectively. Referral appropriateness has often been regarded to be of utmost importance in ensuring the quality of the referral system, as well as in safe-guarding the system from unnecessary strain[23] through duplication of efforts and services, waste of resources, added costs of treatment to patients, and clients, etc. Recognized key factors for deciding to refer both emergency and routine cases include (among others) the quest for expert opinions, additional services (both diagnostic and therapeutic), and admission of patients. Closely related to "why" patients get referred, is the question of "who" initiates the referral process? It is interesting that almost 20% of the respondents thought that referral should be at the request of patients or their relations, rather than by the managing physician or health worker. This perspective (even among health workers) may in the long run contribute to the bypassing of lower levels of health care and the resultant increased turnout of self-referrals in tertiary health-care facilities; and addend overstretching and overwhelming of their services and facilities.[24-26] In another study by Abodunrin et al. in North-Central Nigeria, the failure of the referral process was partly attributed to this phenomenon.[27]

However, in response to this misperception that the decision to refer is solely at the discretion of patients and clients, Bossyns et al. categorically state that "The criteria for referral are supposed to be purely medical and objective, in the interest of the patient."[28] Kichen and Cooper et al. also attribute the decision to refer to the health worker.[29] This is further corroborated by the WHO's "overview of referral systems," which alludes to the decision for referral coming

only "after the health worker has gathered and analyzed the relevant information using the protocol of care as a guide."[3] On the contrary, the argument still remains that ethically, patients still retain the right to choose or even change (at will) their health-care service provider or facility,[30] if dissatisfied. This was similarly revealed by the previously cited study by Abodunrin et al., where some respondents "felt people (referring to patients and clients) should be allowed to make free choices."[5] Furthermore, this perspective was buttressed by Pho, an internal medicine physician and blogger, in an online article, saying that "patient didn't like their choice restricted."[31]

Recordkeeping in Referrals

The non-availability of health-related data for formal or official purposes such as policy and decision-making, research, monitoring, and evaluation is a recognized limitation in many developing countries, including Nigeria.[32,33] This often arises mainly due to a "culture" of poor generation and keeping of records.[34] In relation to the referral system and with regards to records-keeping, the standard practice advocated is to keep a referral register of all referred cases in and out of every health facility, with detailed information of each patient. A referral register is a data entry tool designed to track all referrals made and received in a health facility as well as monitor the trends and patterns of referrals.[3] Majority (87.7%) of the respondents in this study saw this practice as necessary, but only 68 (59.6%) responded in the affirmative that this was the practice in their facility.

As observed earlier, referral does not occur in isolation, but it is a system operated harmoniously by a network of diverse levels of health facilities within a health system. Proper communication within and across these levels is enhanced and facilitated by good recordkeeping. Furthermore, continuity in patient care, which is at the core of the referral process, is undermined by poor recordkeeping. It is, therefore, imperative that for the system to work smoothly and effectively, an operational referral register be put in place at all levels of health care. In practice, good recordkeeping should not just be dismissed or considered lightly or with levity, as it ultimately plays a determining role in deciding the type, quality, timeliness, and comprehensiveness of care patients receive when referred. In a study on this subject matter, Pullen and Loudon express this thus "Good records do more than support good patient care; they are essential to it."[35] Since the quality of patient care can be traced to the culture of recordkeeping, careful attention toward institutionalizing, strengthening, and improving on it in the referral system is recommended.

Referral Practicalities

In the aspect of the practicalities involved in referring patients, less than one-third of the respondents (28.9%) thought it necessary to have the receiving centers notified beforehand. However, majority of them (80.7%) were of the opinion that it is appropriate to have prior discussions of cases (patients) with receiving physicians (or managing teams) before they are transferred. Despite this perspective, only 26.3% of the respondents experienced this in actual practice. Prior notification of receiving centers is known to position them better, in terms of preparedness to receive and attend to referred patients promptly and appropriately.[3] It also minimizes the waiting time encountered by many patients before being attended to in health facilities. This has been shown to contribute to the delay barrier in accessing health care. This factor is particularly pertinent in emergency cases or life-threatening situations, where advanced preparedness and prompt intervention are crucial to treatment outcomes. In a review by Razzak and Kellermann, simple communication systems for notifying both first-contact and regional referral facilities of patients in need were identified as a core component of the emergency care system.[36] The practice of prior notification of receiving centers would invariably (or at least, most likely) contribute to a resultant quality health care and favorable outcome for the patients.

However, surprisingly, about one-fifth of the respondents (21.9%) admitted reluctance to discussing cases (patients) with referring or initiating centers. This was largely attributed to challenges experienced from previous unpleasant encounters with referring or initiating centers. These challenges include late referrals, ambiguous information, improper diagnosis, unskilled handling of patients, and illegible handwriting. These enumerated limitations often also result in increased waiting time and delayed attendance to referred patients,[37] thus undermining the entire referral process. This notwithstanding referral still remains the mainstay of any multilevel health system, and effective measures could be proffered and instituted to surmount such teething issues and improve the overall referral system.[38,39]

Rejecting Referrals

Only one-third (33.3%) of the respondents affirmed that all referrals, irrespective of nature, details, or circumstances should be received or welcome in their facility. However, reasons given by the larger majority of respondents for non-acceptance of some categories of referrals were also captured. They include proper or further clarifications due to inadequate information on referral forms or letters, informally written or even scribbled notes, etc., shortage of bed spaces, facilities, or services, and "to correct misconduct or non-adherence to protocol or due process" (i.e., disincentives, to serve as corrective, or "punitive" measures). As extreme as some of these expressions may appear, receiving centers are not constrained on every occasion to attend to unwarranted referrals. They actually reserve the privilege of either rejecting inappropriately referred or self-referred patients; or even meting out some forms of disincentives, to discourage

the practice of inappropriate or self-referrals.[3,5,7,24] Such disincentives include taking measures such as the enforcement of "referral only" protocols, the payment of extra charges as penalty for breaching referral protocols, and the introduction of fast-track queues for appropriately referred patients only in outpatient departments (resulting in prolonged waiting time for inappropriately or self-referred patients). However, this must be done empathetically, bearing in mind the nature and severity of the conditions of individual patients; for in the long run, the ultimate objective of the health system of any nation is the welfare of patients and the well-being of its larger citizenry.[1]

CONCLUSION

Although the overall knowledge and awareness of the referral system is high and encouraging among respondents in this study, their attitudes and perception of the actual practice of the referral process and procedure still requires some measure of improvement and updating. In view of the foregoing, it is advocated that the spot light of on-going continuing medical education be flashed in this area. Furthermore, the introduction and promotion of structured and standardized referral forms as well as the implementation of referral protocols are highly overdue and welcome to boost the quality of the referral system.

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