Informed consent for medical photography in Nigerian surgical practice

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Abstract

Background: The aim of this study is to assess the current practice of informed consent for medical photography in the Nigerian surgical practice and how it compares to international best practices.
Methods: Self-administered questionnaires were distributed to consenting surgeons attending two major surgical conferences. The questionnaire assessed respondents' practices and opinions of informed consent for medical photography.
Results: Teaching, research and publications were the commonest indications for medical photography. 29.9% of respondents always obtained informed consent, while 2.6% never obtained informed consent for medical photography. Verbal consent was the preferred form of consent. Most respondents were unaware of existing guidelines on medical photography. Most University based surgeons opined that consent be obtained for all medical photographs, while most non-University surgeons align with consent for only identifying photographs. (P=0.012). Most respondents agreed that consent for treatment does not by extension cover medical photography. Most respondents do no agree that a policy of mandatory consent for medical photographs will negatively affect publications.
Conclusion: The practice of informed consent for medical photography is widespread but inconsistent among Nigerian surgeons. There is need for increased awareness especially among non-university based surgeons of current international best practices with respect to medical photography. Definite local guidelines in tune with established bioethical principles ought to be formulated by institutions and regulators of medical practice in Nigeria.

Keywords: Informed consent, medical photography, surgeons, Nigeria.

Highland Med Res J 2016;16(2):70-74

Introduction

The acquisition and use of medical (clinical) photographs by medical practitioners, is an integral part of clinical and academic practice in today's medical practice, especially visible pathology oriented specialties like surgery[1]. The various indications for their acquisition and use include: part of medical records of patient, follow up of patients, audit, intra and interdisciplinary communication among medical practitioners[2], communication with patients, teaching, illustrations, research and publications among others.

The use of electronic capturing devices and advances in information and communication technology has increased the ease of capture and storage of these data in forms that are easily transmitted and transferred directly or over the internet. For all the efforts at ensuring privacy and safety, the electronic milieu remains relatively unsafe. Thus, there is a risk of unauthorized access and use of these photographs for ignoble purposes.

Except best practices are adhered to, the use of clinical photography portend litigation pitfalls for health workers and their institutions in addition to violation of the privacy of patients. There is also a growing consensus that the patient is the primary owner of the data (clinical photograph)[3], and as such their consent to the acquisition and use of them, is in conformity to the established principles of confidentiality, privacy and autonomy with respect to the patient. However, information from the Medical and Dental Council of Nigeria and local empirical studies suggest that the knowledge and practice of informed consent among clinicians in Nigeria is unsatisfactory and falls short of internationally accepted best practices[4-8].

While patients perceptions of medical photograph was assessed by Adeyemo et al [8], no study on the practice of medical photography among medical practitioners involved in this practice has been done to the best of our knowledge. The aim of this study was to determine the awareness and practice of informed consent in the acquisition and use of medical photography in Nigerian surgical practice.

Materials and Methods

A self-administered questionnaire designed to obtain information regarding demographics, indications for acquisition and use of medical photographs, opinions on informed consent for medical photographs, practice of the informed consent process and awareness of existing policies guidelines on consent for medical photography

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was administered on all consenting surgeons and trainees in surgery, attending the annual scientific conferences of Association of Paediatric Surgeons of Nigeria (Calabar 2013), and National Association of Orthopeadics (Lokoja 2013). The total of 184 attendees was drawn from 24 of the 36 states of Nigeria including the Federal Capital Territory. Anonymity was maintained. The inclusion criterion was consenting respondents who routinely acquire and use medical photographs in their practice.

Data was analysed using IBM SPSS Statistics version 20. Pearson's Chi square were employed and P<0.05 was considered as significant.

Results

140 questionnaires were distributed; 88 (62.9%) were completed and returned. Eleven did not meet the inclusion criteria.

Most respondents, 61(79.3%) were Specialist/ Consultant Surgeons, the rest being trainee surgeons and non-specialist Medical Officers. Thirty six (46.8%) of the respondents practiced within the University / Teaching hospital setting, while 41 (53.2%) plied their trade in tertiary and secondary health facilities outside the University setting.

Indications for acquisition and use of medical photographs

In response to the multiple response question of "purpose for medical photography", Teaching and research/publication, tied as the commonest indications for acquisition and use of medical photographs. They each accounted for 27.7% (72) of the total responses (n=260), with 93.5% (72) respondents selecting them as an indication for obtaining and using medical photographs. Medicolegal reason was the next frequent indication with 22.3% (58) of total responses. Illustration for patients accounted for 13.1% (34), case notes (medical records) 7.3% (19), and hobby 1.9% (5) of responses (Table 1).

Table 1: Indications for medical photography

Indications	Responses	
	N	Percent
Teaching	72	27.7%
Research and Publication	72	27.7%
Case notes	19	7.3%
Illustration for patients	34	13.1%
Hobby	5	1.9%
Medicolegal	58	22.3%
Total	260	100%

Informed consent for acquisition and use of medical photographs

A total of 23 respondents (29.9%) always obtained consent before acquiring or using medical photography. While 41(53.2%) occasionally obtained informed consent, 11 (14.3%) rarely did and 2 (2.6%) never practiced informed consent for medical photography. Consequently, 83.1% of respondents obtain consent for medical photography either always or at variable times (Figure 2).

Among respondents that obtained informed consent always, occasionally or rarely (n=73), 94.5% (69) obtained verbal consent, while only 5.5% (4) would obtain both verbal and written forms of consent. Written consent as an only form of consent for acquisition and use of clinical photograph was not practiced by these surgeons.

Table 2: Opinion on informed consent for all or only identifying medical photographs

	Consent for all Medical photographs n(%)	Consent for only Identifying medical photographs n(%)	
University based surgeons	24(32)	12(16)	36
Non-University based surgeons*	14(18.67)	25(33.33)	39
Total	38(50.67)	37(49.33)	75

OR=3.57, 95% CI=1.38-9.26
*2 respondents were excluded as they opted for not sure as response to this question

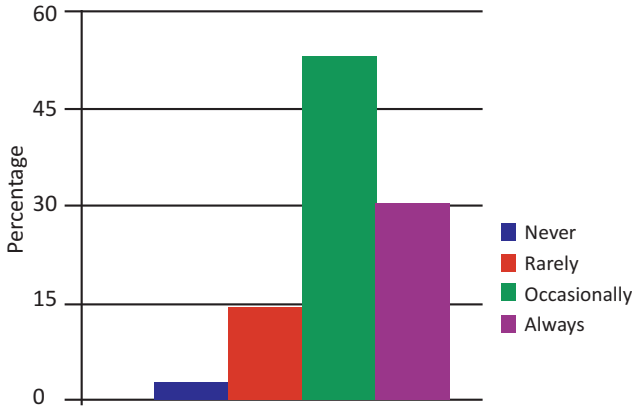


Figure 1: Consent before Medical Photography

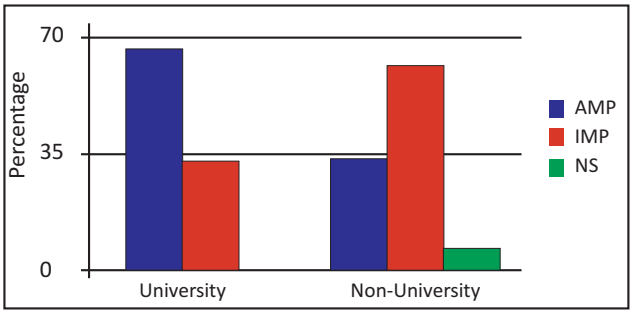
Policy on mandatory consent

Most respondents 80.8% (59) were unaware of any local hospital or Medical and Dental Council of Nigeria policy requiring consent for medical photography. Among surgeons working in the University, 77.1% were not aware and 22.9% were aware of local policies on

mandatory consent for medical photography. By comparison among non-university surgeons, it was 84.2% and 15.8% respectively. There was no association between this awareness and the work place (university or non university) of the respondents (OR= 0.63; 95%CI: 0.195 – 2.051).

Opinion on consent for all or only identifying photographs

With respect to opinion on consent for identifying / non-identifying photographs,49.4% (38) of respondents were of the opinion that informed consent be obtained for all medical photographs, 48.1% (37), for only identifying photographs and 2.6% (2) were not sure. However, a greater proportion (67.6%) of respondents advocating consent for only patient identifying photographs were Non University based as against 32.4% who were University based. Within opinion of consent for all photographs, the proportions were 63.2% for University based, and 36.8% for Non University based respondents. The association of work place (university/non university) and opinion of respondents was statistically significant OR= 3.57; 95%CI: 1.37– 9.26).



[a]AMP = All medical Photographs
[b]IMP = Identifying Medical Photographs.
[c]NS = Not sure

Figure 2: Opinion on consent for All vs Identifying Medical Photographs

Opinion on for consent for treatment and medical photography

Most respondents; 53 (69.7%), were of the opinion that consent for treatment does not cover medical photography, as against 21 (27.3%) that believed it does. The proportion of university based respondents that opined that consent for treatment does not cover medical photography was 77.1% (27/35), and non- University based 63.4% (26/41) [Odds Ratio = 0.48; 95% CI: 0.16 – 1.38].

Mandatory consent and volume of published photographic materials

Most respondents 57.9% (44), disagreed with the assertion that publications will be negatively affected by insistence on mandatory consent for medical photographs. However 25% (19) agreed, 11.8% (9) strongly agreed and 5.3% (4) are not sure. The proportion of university based respondents disagreeing was 62.9%, and non-university 53.7%.

Discussion

Medical illustration dates back to 1500BCE. The techniques have evolved from carvings, painting and engravings to photographs and computer generated images. Historically the earliest surviving medical photograph was taken in Edinburgh, Scotland in 1847, by Hill[9]. Photography added reliability and credibility to images represented. Medical photographs obtained have found use as being part of case notes (medical records), illustration to patients and medical trainees, teaching, research, publications, diagnosis and follow up of treatment, clinical communication among medical professionals and for medicolegal purposes when necessary[10]. Devices for acquisition of medical photographs have also evolved from the large and cumbersome cameras, to the easy to use miniature but sophisticated hand held devices like, digital cameras, mobile phones and wrist watches. The photographers have also undergone some revolution from professional clinical photographers, to just any person (health workers included) that possesses modern capturing devices, and has access to the patient. There is a growing consensus worldwide summed up in the recommendation of the International Committee of medical journal editors, which advocates informed consent for all medical images[11]. This is founded on the assertion that the patient is the sole owner of the data (the image) and thus the informed consent process, hinged on the principles of preserving privacy and autonomy of patients, applies to medical photography. The code of medical ethics in Nigeria, which governs medical practice in Nigeria, does not contain specific regulations or guidelines with respect to consent for acquisition, storage and use of medical photographs. The concept of informed consent however is well entrenched in the code [12].

Teaching and research/publication tied as the commonest indication for medical photography among Nigerian surgeons. This finding is similar to results from a study among plastic surgeons in the United Kingdom [1]. This is probably due to the fact that most of the respondents were specialists and educationists involved in undergraduate and postgraduate training. In addition, research is an important aspect of their job description, and the publishing of their works, a critical factor in promotion and career advancement. Clinical photographs as part of the patients' case note (health records) is practiced by only 19 (24.68%) of the surgeons, suggesting that its use as aide-memoir, tool in monitoring of patient's progress, and adjunct in clinical communication is not widespread in Nigerian surgical practice. This may not be the case as the capture of images on digital devices like smartphones, and storage of data on personal computers is common practice among clinicians. This enables surgeons to meet these

needs from personal storage devices.[1] However, storage of this type of data on personal storage devices exposes them to illegal access by unauthorized persons and subsequently unauthorized usage.

Adeyemo et al [8], in their survey, established that most Nigerian patients would prefer that their consent be sought for medical photography. While 83.1% of surgeons in the study may obtain some form of consent for acquisition and use of medical photography, only 29.9% consistently do so, while 2.6% never obtain consent. This would suggest that the practice of obtaining consent for medical photography is wide spread among Nigerian surgeons. This is in spite of the absence of specific guidelines, by institutions and regulatory authorities in Nigeria with respect to consent for medical photography as established by Adeyemo et al.[8] This confirms that surgeons in Nigeria are conversant with the foundational principles of informed consent namely; confidentiality and autonomy of the patient. Their practice of obtaining consent therefore, is acknowledgement of the right of patients to their images and its usage thereof. This is in conformity with the assertion by some authorities that the patient is the sole owner of the photographic data, as they are effectively laid bare in these images[3]. The inconsistency in obtaining consent observed among the studied surgeons maybe due to the lack of practice guidelines governing medical photography, and the relatively low rate of litigations in Nigeria's medical practice [4].

Guidelines for medical photography as existing in advanced societies, aims at ensuring the respect of the patient's privacy of and maintaining their dignity, while harnessing the benefits of medical photography[1,3,8]. In the United Kingdom (UK), the General Medical Council has published guidelines regulating capturing, use and storage of clinical images. It among other things makes provision for different levels of consent covering various indications for medical photography namely; publication, teaching and patient record purposes [13]. Proper guidelines also makes provision for withdrawal of given consent by patients, before the photographic material becomes irretrievable from the public domain[1,13]. Many journals require written consent prior to publication of articles containing medical image. Some journals include photographic consent forms to be signed by patients[1]. The International Committee of Medical Journal Editors agree on a policy of written informed consent for most medical photographs [11].

The most widely practiced form of consent in this study is verbal (89.6%). This is similar to findings by Taylor et al in the United Kingdom[1]. This is however, at variance with current recommendations and guidelines. While verbal discussion as part of the informed consent is recognized, and verbally expressed consent will suffice for some procedures in medical practice, written form of consent is preferred and required to compliment verbal discussions in medical photography. It is an independently verifiable documentation of the consent process, and is preferred by journals and regulators of the practice of medical photography. This is undoubtedly important in the event of legal disputes. Some guidelines advocate recording of verbal consent to strengthen its legitimacy[13]. While litigations may not be a prominent feature of the Nigerian medical practice for now, this may change with increased education and awareness of the public, with respect to their rights and dangers inherent in an increasingly digitalized world. This favors written consent as the consent form of choice.

Attempts at maintaining the anonymity of patients by black binding and excluding identifying features is often found to be difficult and inadequate in some instances[3]. Consequently, obtaining patients consent for both identifiable and non-identifiable images is considered to be a moral and legal obligation on the medical photographer [14], as this guarantees the respect of privacy and autonomy of the patient. Studies done in Nigeria and the UK among patients established that majority of patients would prefer that their non-identifiable photographs be used for purposes other than inclusion in their medical records. They were generally critical of identifiable images used in medical websites, journals and email[2,8]. Opinions of respondents in this study are equally divided on the subject of consent for identifiable and unidentifiable photographs. One half advocate consent for all medical photographs, while the other half advocate consents for only identifying ones. These positions are however significantly influenced by their places of work. University based surgeons favor consent for all photographs, while non- University surgeons favor consent for only identifying photographs. This is probably due to the fact that surgeons in the University system, being more involved in research and publishing, are more aware of current trends and international best practices with respect to the subject matter. Current recommendations range from emphasizing anonymization of images to emphasizing informed consent for all medical photographs, identifiable or non-identifiable[2,8,13].

Disclosure is one of the five elements considered by legal, moral, medical and philosophical thoughts to be necessary for an informed consent to be deemed valid. The others are: voluntarism, capacity, understanding and consenting or refusal[4]. Consequently, the notion of implied consent for medical photography that is, one covered by consent for treatment, may violate the informed consent process. This is because disclosure required for treatment will likely omit facts requisite for medical photography, as at this point photography will be considered secondary to treatment. Most respondents in this study are of the opinion that consent for treatment

does not cover medical photography. This is in tandem with current established international best practices which advocates different consent for as many different purposes intended [13].

Medical photographs authenticate and facilitate communication of facts in published works. They also enrich the quality of published materials and as such, raising the possibility that a policy of mandatory informed consent may reduce the volume of illustrations and consequently the quality of publications.[1] Respondents in this study don't agree that the quantity and quality of published materials will reduce. It should be noted that patients are generally averse to publications that compromise their privacy[2,8]. Given the acceptance and widespread practice of the informed consent process by respondents in this study and a similar one in the United Kingdom [1], it can be surmised that if guidelines of maintaining anonymity are diligently adhered to, patients will be more inclined to given consent for publication of their medical images, thus not adversely affecting publications.

Conclusion

Informed consent in medical photography is widely accepted in surgical practice in the area studied. Howbeit the practice is not consistent among the majority of surgeons. Its practice is however not adequately regulated and consequently, there is need for the formulation of definite guidelines on the practice of medical photography by local regulatory bodies and institutions. Teaching and research/publication are the commonest indications for medical photography in surgical practice studied. Verbal consent is the form of consent most commonly obtained. There is need for increased awareness of current trends and international best practices as related to this subject matter especially among surgeons outside the academic environment.

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