

## Original Article

# Clinical photography among African cleft caregivers

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### ABSTRACT

**Objective:** The aim of this paper is to document the practice of photography among clinicians whose daily work depends and is influenced so much by medical photography. **Materials and Methods:** Questionnaires documenting the bio data, place of practice, and experience of cleft caregivers with clinical photography were distributed. Knowledge of rules guiding clinical photography and adherence to them were also asked. Types of camera used were documented and knowledge of the value of clinical photographs were also inquired. **Results:** Plastic surgeons constitute the highest proportion of 27 (38.6%), followed by Oral and Maxillofacial surgeons with 14 (20.0%). Twenty one (30.0%) of the respondents always, 21 (30.0%) often, 12 (17.1%) frequently, while 9 respondents sometimes took photographs of their patients. Suggested uses of clinical photographs included training, 52 (74.3%), education, 51 (72.9%), medicolegal, 44 (62.9%) and advertisement, 44 (62.9%) among others. Twenty two (31.4%) did not know that there were standard guidelines for taking clinical photographs. Twenty three (32.9%) of them did not seek the consent of the patients before taking clinical photographs. **Conclusion:** While the practice of clinical photography is high among African cleft caregivers, there is a need for further education on the issues of standard rules and obtaining consent from patients.

### KEY WORDS

Africa; clinical photography; consent

### INTRODUCTION

Photography has been used to document events and has found its importance in Arts and Sciences as well as in Medicine. Clinical photography has become very useful among surgeons, especially the Plastic and Reconstructive surgeons, Oral and maxillofacial surgeons, and indeed most other surgeons who have found photography transforming their practices. Consistent, uniform, high-

quality photography allows the best opportunity for critical self-assessment and self-education.<sup>[1]</sup>

Early in the history of medicine, recording of visual data was done by hand. Over time, these drawings and paintings were superseded by the advent of photography. Photo-documentation of the face before aesthetic or plastic surgery is of fundamental importance for at least three reasons: It is an aid to surgical planning, it can be used for illustrative purposes in discussions with the patient, and it satisfies medicolegal requirements for documentation. Communication using images proves to be the superior way to persuade audiences. Thus, in cosmetic surgery, images are widely used to inform and to lure consumers.<sup>[2]</sup>

The current study aimed at finding out the knowledge and practice of clinical photography among African

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surgeons and health workers involved with the care of cleft lip and palates. This was expected to give a basis for possible education of clinicians on the practice and use of clinical photography to improve their record keeping and documentation in their surgical practice.

**MATERIALS AND METHODS**

A cross-sectional study of the understanding and use of clinical photography was conducted among surgeons and other health workers attending a Pan African Association for Cleft Lip and Palates (PAACLIP) conference in Ethiopia in February 2009. This is an association formed in 2006 at the first meeting of African Cleft caregivers sponsored by Smile Train at Ibadan, Nigeria. Participants to this meeting were drawn out essentially from all regions of Africa as well as a few from outside Africa. The knowledge, understanding, and use of clinical photography by these health workers were assessed using a set of structured questionnaires. Information sought and obtained included sex, age, years of practice, type of hospital where they were practicing, presence or otherwise of a medical illustration unit in the hospital, possession, or otherwise of a camera and type of camera as well as its uses. Possible uses to which clinical photographs have been and could be put to by the respondents were also inquired. The data are analysed using SPSS Version 15 and presented in frequencies, tables, etc.

**RESULTS**

A total of 74 questionnaires were distributed out of which 70 were returned. The respondents consist of 57 (81.4%) males and 13 (18.6%) females. There were 22 respondents from Nigeria, 25 from Ethiopia, 5 from Ghana, 2 from Senegal, 2 from Egypt, 2 from South Africa, 6 from Kenya, 4 from Uganda, and 2 from Tanzania.

**Professional status and types of clinical practice**

Fifty four of the respondents were consultants in various specialties, while 13 were resident doctors in training and 3 were professionals in other specialties of cleft care. Plastic surgeons constituted the highest proportion of 27 (38.6%), followed by Oral and Maxillofacial surgeons with 14 (20.0%), while other specialists were as shown in Table 1.

Majority, 44 (62.9%) of the respondents worked in teaching hospitals while 13 (18.6%) of them worked in specialist hospitals, 5 (7.1%) in private hospitals, while 4 (5.7%) each in mission and general hospitals, respectively.

**Practice of clinical photography**

When asked how often the respondents took clinical pictures, 21 (30.0%) of them responded that they always (i.e., all patients pre- and post-operative) did, 21(30.0%) often took (>75% of the cases) clinical pictures, 12 (17.1%) did so frequently (50%-75% of all the patients) while 9 (12.8%) sometimes (25%-50% of the patients) photographed their patients. Three (4.3%) rarely (>25% of patients) took clinical pictures and 4 (5.7%) had never (none of the patients) taken clinical pictures before. Only 47 (67.1%) of the respondents believed they should have both pre- and post-operative pictures of all their patients.

Fifty four (77.1%) of the respondents personally took their patients' clinical pictures while resident doctors took pictures for 6 (8.6%) of them, professional photographers for 4 (5.7%) while 2 of the clinicians delegated this job to their secretaries. Medical illustration units assisted 17 (24.3%) of the respondents in their clinical photography while 52 (74.3%) of them never received assistance from medical illustrating unit and one (1.4%) sometimes was helped by his medical illustration unit.

Most, 59 (84.3%) of the respondents possessed personal cameras while only 11 (15.7%) did not have cameras. Of those who used (whether personal or institutional) cameras, 56 (80.0%) used digital camera, 2 (2.9%) use non-digital while 5 (7.1%) used non-digital in addition to digital cameras.

**Uses of clinical photographs**

The uses to which clinical photographs can be put were also inquired from the respondents. Their responses included training - 52 (74.3%), education - 51 (72.9%), medico-legal - 44 (62.9%), and advertisement - 44 (62.9%). Other uses suggested by the respondents included record keeping by 16 (22.9%), fun by 5 (7.1%), publications by 2(2.9%), follow-up assessment by, 2 (2.9%), and research

**Table 1: Specialties of respondents**

<i>Specialty</i>	<i>Frequency</i>	<i>Percent</i>
Plastic surgery	27	38.6
Maxillofacial surgery	14	20.0
Anaesthesia	4	5.7
General surgeon	11	15.7
Dentistert	1	1.4
ENT surgery	1	1.4
Orthodontist	3	4.3
Paed surgery	4	5.7
Dental surgery	2	2.9
Nurse	3	2.9
Total	70	100.0

and documentation by 1 (1.4%) each. Sixty (85.7%) of the respondents agreed that clinical pictures have been useful to them in the past while 4 (5.7%) claimed that it had never been of use and 6 (8.6%) of them were not sure it had ever been of any use to them. Forty seven (67.1%) of the respondents used clinical pictures in training, 14 (20.0%) in advertisement, and 6 (8.6%) in publications.

### **Standard and rules for clinical photography**

Forty four (62.9%) of the respondents agreed that there was a standard procedure for taking clinical photographs while 22 (31.4%) did not know there were any such standards and 3 (4.3%) of them were not sure. Only 31 (44.3%) of all the respondents agreed to observing the rules governing clinical photography. Six (8.6%) did not always observe the rules, 12 (17.1%) never observed any rules while 19 (27.1%) were not sure they observe any rule on clinical photography.

Consent of the patients were usually obtained by 46 (65.7%) of the clinicians before clinical photographs were taken while 23 (32.9%) of them did not seek any consent and 1 (1.4%) sometimes took the consent before taking clinical photographs. Thirty two (45.7%) of the respondents blocked the identity of patients while presenting at clinical meetings/conferences while 35 (50.0%) did not and 1 (1.4%) agreed to do so at times.

When asked whether the consent of the patient was obtained for presentation at some meetings/conference without covering his/her face, only 28 (40.0%) of the respondent agreed they do this while 40 (57.2%) did not and 1 (1.4%) did not do so always. Thirty (42.9%) of the respondents had in the past sent patients' pictures through the internet to colleagues, 33 (47.1%) had never done and 7(10.0%) were not sure whether they had ever done so. Of the 30 respondents who had sent patients' pictures through the internet, 29 (96.7%) of them never obtained consent from the patients before sending the pictures.

Fifty four (77.1%) of the respondents regretted not taking clinical pictures at one time or the other.

Fifty eight (82.9%) of them believed that the introduction of digital camera was a breakthrough for clinicians. Forty-two (60.0%) of the respondents would like to change their old pictures to digital, 12 (17.1%) would not want to change them while 16 (22.8%) were not sure about digitizing photographic records. Fifty one (72.9%) of the respondents

agreed that photography should be introduced as part of the curriculum in their specialties while 10 (14.3%) did not think this was necessary and 9 (12.8%) were not sure.

## **DISCUSSION**

The practice of clinical photography among cleft caregivers in Africa was assessed and it was found that the knowledge of the significance of clinical photography was high among these health workers. They also appreciated the importance of clinical photographs for training, education, medicolegal, and advertisement purposes. Other uses suggested by the respondents included record keeping, fun, publication, follow-up assessment, research and documentation.

Mostly, 56 (94.9%) of the respondents had digital cameras suggesting the expansion of the use of the digital camera which has revolutionized photography in general and clinical photography in particular. Digital records can be stored easily, categorized with ease, appended even after log gaps in follow up and do not get destroyed by climatic vagaries.

Clinical photographs offers improved communication between medical professionals, education and counselling of their patients and forms today an important aspect of their medical records.<sup>[3]</sup> With the recent advances in digital technology, it is now possible to store voluminous numbers of photographs on a computer hard drive and keep them for a long time<sup>[4]</sup> unlike the whole pictures that grow mould.

Twenty five (34.7%) of the respondents were not aware that there are rules that guide the practice of photography. This is rather high a figure among health workers who practice photography on a daily basis. Worse still only 3 (44.3%) agreed to observing any existing rule governing clinical photography. Surgeons extensively rely on photographic communication for documenting surgical results, teaching and research, and obtaining informed consent from patients is a must.<sup>[5]</sup> It is therefore advised with such an important tool standardization of photographic images and views are essential in plastic surgery for validity of results,<sup>[6]</sup> consistency, demonstration of relevant anatomic detail, preoperative planning as well as reproduce accurate preoperative, and post-operative comparisons.

For example, for a child with cleft lip and (or) palate, the frontal, worm eye/inferior/nasal base, lateral, intra-oral,

and frontal smiling are important to assess and compare both the preoperative and post-operative views and to assess the facial structures of the lip elements, the philtrum, the columella as well as the nose. Children who may be uncooperative may have their pictures taken after anaesthesia just before the surgery, while the postoperative pictures of such patients are taken immediately after surgery before dressings are applied and anaesthesia reversed. Follow up photographs however will require a lot of patience and coaxing, not to forget tender love and care.

The surgeon and indeed all clinicians involved in clinical photography must update their knowledge about the standard views and positions for photographs which vary from one part of the body to the another. However, pre-operative and post-operative pictures must show the same structures in exactly the same way with the same colour, contrast, and sharpness to be effectively interpreted. Background of such pictures must also be the same. A frowning pre operative and a smiling post operative photographs present no honest clinical comparison.

The issue of consent for clinical photography has also generated arguments. It is not only asking for the consent of the patients before the photograph is taken, but also asking for and documenting the consent of the patients before they are used for presentations, publications and other communications with those who are not primarily involved in the care of the patients. It has been noted that consent was usually taken but was often only in a verbal form and that processing, storage and security measures highlighted potential risks for breaches in confidentiality.<sup>[1]</sup> The number of clinicians who obtain consent (mainly verbal) before clinical photographs are taken was low in this study, 46 (65.7%), while only 32 (45.7%) of them blocked the face of the patients while presenting at meetings/conferences and of the 30 respondents who had sent patients' pictures through the internet, 29 (96.7%) of them never obtained consent from the patients for the same. Consent of the patients must always be sought and obtained. The next of kin (or parents of a minor) may however give the consent in a difficult situation. The documentation of consent is particularly important where a patient's picture is being

considered for publication.

Fifty one (72.9%) of the respondents agreed that photography should be introduced as part of the curriculum in their specialties suggesting the high desire to have the knowledge imparted to the younger clinicians. Teaching the principles of good clinical photography and image composition early in residents' training can help build a foundation for excellent imaging habits that will serve them throughout the residents' careers.<sup>[3]</sup>

With the advent of digital camera where every surgeon, indeed every clinician may have to take his own clinical photographs, education of the clinician on clinical photography is suggested. This will arm the clinician not only with how to handle photographs, but the standard required of him to have a good quality pictures and a litigation free time due to handling of patients' photographs. We conclude by agreeing with the suggestion that clinical photography be included in the curriculum of residency training of clinicians and surgeons in specialties where clinical photography is constantly used.

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