

## ORIGINAL ARTICLE

## Effect of ascent in dental profession on ethical obligation in dental practice

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## INTRODUCTION

Ascent and progression in training and practice of dentistry is associated with increased knowledge and experience in expertise dental healthcare delivery. The gain in knowledge may be assisted through

classroom and clinical teachings, observation and mentoring or individualized based on specific interests. This is supported by the fact that advancement in dental school from preclinical to clinical stages results in

## ABSTRACT

**Objective:** To determine the effect of transformation from the dental student to the dentist on the knowledge of ethical obligation in dental practice.

**Methodology:** This longitudinal study was conducted among same group of dental professionals who were graduating dental students of University of Benin and house officers of University of Benin Teaching Hospital, Benin City during the first and second periods in August 2010 and 2012, respectively. Modified Ehigiator, *et al*, ethical obligation questionnaire was the data collection tool.

**Result:** The majority of the participants were aged 26-29years with the male:female ratio as 1.9:1 and 1.8:1 in the first and second periods, respectively. There was significant improvement in knowledge of patient identifiable information ( $p 0.001$ ) and awareness of guideline concerning patient information protection ( $p 0.001$ ). There was non-significant improvement in knowledge of confidential patient information security ( $p 0.049$ ). The improvement in knowledge of custodian of hospital care notes ( $p 0.006$ ), storage of hospital care notes ( $p 0.001$ ) and patient right to a copy of the case note ( $p 0.015$ ), were also significant. There was significant improvement and decline in knowledge of disclosure of underage patient information to parent/guardian ( $p 0.012$ ) and disclosure of patient information to security agents ( $p 0.020$ ), respectively. There was a non-significant improvement in knowledge of disclosure of adult patient information to parent/guardian ( $p 0.927$ ) and positive HIV status of patient to partner ( $p 0.400$ ).

**Conclusion:** Data revealed that the transformation resulted in significant improvement in the knowledge of 6 out of the 13 assessed areas of ethical obligation in dental practice.

**Keywords:** Confidentiality, dentist, ethical obligation, knowledge, student

improvement in attitudes and behaviors especially in relation to oral health.<sup>1,2,3,4</sup>

The transition from studentship to dentist is a great transformation burdened with huge responsibilities and expectations from the patients and the society as a whole. This commissioning in Nigeria starts with the Physicians' Oath taking ceremony conducted in accordance with laid down rules of Medical and Dental Council of Nigeria (MDCN). The acts of rendering care, confidentiality and adherence to ethics of the dental profession in accordance to the dictates of the regulating council are amongst the areas of heightened responsibility.

Dental students are taught the need of patient confidentiality because it is an expected mandatory core skill / attitude acquisition in dental training.<sup>5</sup> They are expected to have the same duties of confidentiality as dentists with no legal responsibility, thereby, deferring the liability to breach of confidentiality to graduation and acceptance in the folder of dentists after Physicians' Oath taking.<sup>5,6</sup> The rights of patients to confidentiality, protection and appropriate management of patient records are enshrined in Medical and Dental Council of Nigeria (MDCN) Rules of Professional Conduct for Medical and Dental Practitioners in Nigeria.<sup>7</sup>

In the midst of paucity of data on the ethics in dental practices, available information on ethical obligation in dental practice in Nigeria in a cross sectional study revealed overall poor knowledge with dental house officers exhibiting higher level of knowledge in comparison to graduating dental students.<sup>8</sup> The need to determine the effect of transformation from dental student to house officer on the ethical obligation necessitated this study. The objective of study was to determine the effect of transformation from dental student to dentist on the knowledge of ethical obligation in dental practice.

## METHODOLOGY

This longitudinal study was conducted among same group of dental professionals who were graduating dental students of University of Benin and house officers of University of Benin Teaching Hospital, Benin City during the first period in August 2010 and second period in August 2012, respectively. Tool of data collection was the modified Ehigiator, *et al*, ethical obligation questionnaire.<sup>8</sup> The original questionnaire was pruned from 19 questions to 15 questions by the elimination of 4 demographic questions. This validated self-administered 15-item questionnaire consisted of 2 demographic information questions and 13 ethical obligation questions.

The questionnaires were hand delivered during regular class and interdepartmental seminar session during the first and second period respectively and collected at the end of the session. Absence from class and seminar during the data collection resulted in exclusion from study. Those that did not do housemanship in University of Benin Teaching Hospital, Benin City were also excluded in the second period. Participation in the study was purely voluntary and no incentive was offered.

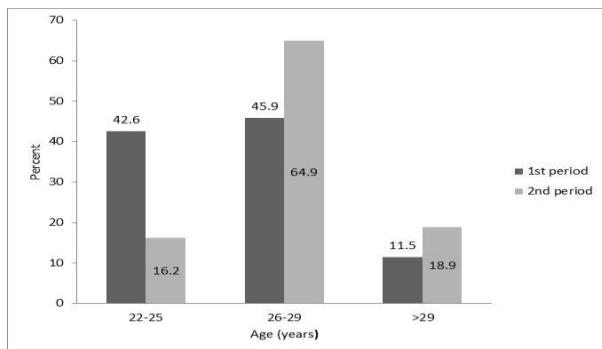
Informed consent was obtained from the participants prior to the onset of the study. The analysis of the 13 ethical obligation questions were in accordance with the model used by Ehigiator, *et al*, in which each question was analysed independently as correct or incorrect.<sup>8</sup> The data in the first and second periods were subjected to non-parametric statistics in form of chi square statistics to determine the concordance and differences using the statistical package for the social sciences (SPSS) *version 17.0*. Statistical significance was set at  $p < 0.05$ .

## RESULTS

A total of 37 dental house officers of the 61 dental students that participated in the first period completed the study. The majority of the

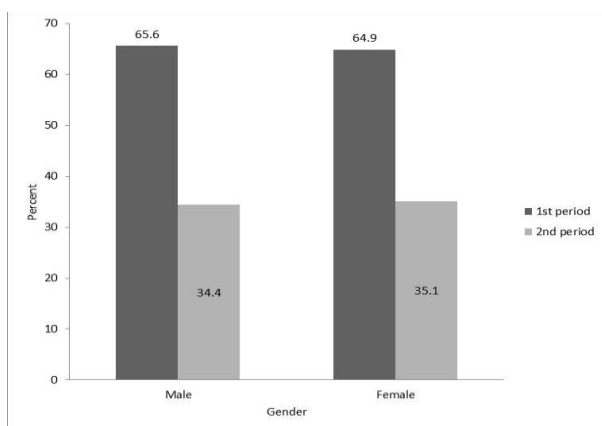
participants were aged 26-29 years in the first and second periods of the study (Figure 1).

**Figure 1.** Age distribution of the participants



The male: female ratios were 1.9:1 and 1.8:1 in the first and second periods, respectively (Figure 2). There was significant improvement in knowledge of patient identifiable information ( $p 0.001$ ) and awareness of guideline concerning patient information protection ( $p 0.001$ ). There were non-significant improvement and decline in the knowledge of protection of anonymised patient information in personal computer and best mode of inviting patient to the consulting room, respectively (Figure 3).

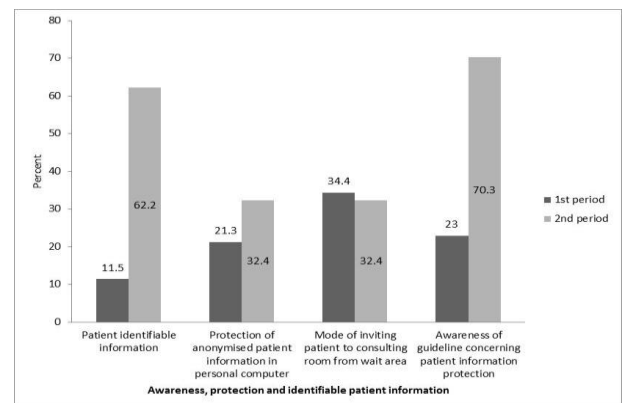
**Figure 2.** Gender distribution of the participants



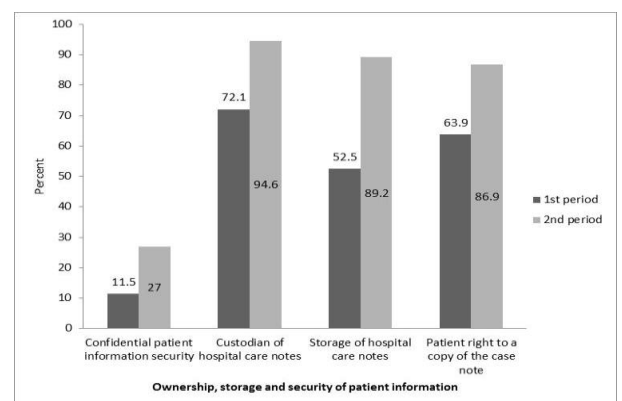
There was a non-significant improvement in knowledge of confidential patient

information security ( $p 0.049$ ). The improvement in knowledge of custodian of hospital care notes ( $p 0.006$ ), storage of hospital care notes ( $p 0.001$ ) and patient right to a copy of the case note ( $p 0.015$ ) were significant (Figure 4).

**Figure 3.** Awareness, protection and identifiable patient information among participants



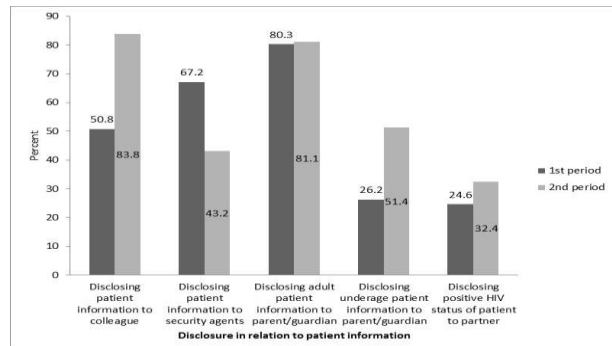
**Figure 4.** Knowledge of ownership, storage and security of patient information



There was significant improvement and decline in knowledge of disclosure under age patient information to parent/guardian ( $p 0.012$ ) and disclosure patient information to security agents ( $p 0.020$ ). There was a non-significant improvement in knowledge of disclosure of adult patient information to

parent/guardian ( $p$  0.927) and positive HIV status of patient to partner ( $p$  0.400) (Figure 5).

**Figure 5.** Disclosure in relation to patient information among the participants



## DISCUSSION

In this study, the majority of the participants were aged 26-29 years with the male:female ratios of 1.9:1 and 1.8:1 in the first and second periods, respectively, reflecting the predominant age at graduation from dental schools as well as gender trends among young dentists in Nigeria. Disclosing identifiable information about patients constitutes a breach of Medical and Dental Council regulation and could give rise to legal complaints from patients. Proper knowledge of patient identifiable information will help reduce and prevent unintentional and improper disclosures with their attendant legal implications.

In this study, there was significant improvement in knowledge of patient identifiable information and awareness of guideline concerning patient information protection. This is likely due to the increasing participation and responsibility in dental patient healthcare delivery with ascent and progression in training and practice of dentistry. The receipt of book on Rules of Professional Conduct for Medical and Dental Practitioners Code of Medical Ethics in Nigeria after Physicians' Oath with attendant increased access to ethical information may

also be an explanation for the dramatic improvement in knowledge.

Honesty, fairness, integrity in all circumstances, respect for the rights, differences, and property of others; concern for the welfare of patients, competence in the delivery of care, and preservation of confidentiality in all situations where this is warranted are the characteristic ethical and professional behaviour of dental students.<sup>9</sup>

In this study, non-significant improvement in knowledge of confidential patient information security was recorded. Several authorities opined that patient information confidentiality maintained by dentists is applicable to dental students. It, therefore, means that patient information confidentiality knowledge and practices of dental students are optimal or close to optimal which only needs slight improvement and maintenance at graduation and practice as dentists explaining the non-significant improvement in knowledge of confidential patient information security in this study. However, the challenges about attitude of dentists to patient confidentiality have been expressed in the literature.<sup>10</sup>

The non-significant improvement in the knowledge of protection of anonymised patient information in personal computer was noted in this study. The involvement of dental students in collecting anonymised patient information for research which are usually stored in computer may have heightened the awareness in this mode of information. The main thrust of activity in dental profession with increasing application of information technology may necessitate the inclusion into the ethics training in dental profession. A previous study had reported that medical schools should directly address ethical and legal issues related to the use of computers in clinical practice as an integral part of medical school curricula as several teaching approaches can facilitate a greater

awareness of the issues surrounding technology and medicine.<sup>11</sup>

The non-significant decline in the knowledge of the best mode of inviting patients into the consulting room from the waiting area may be linked to the non-satisfactory ethical mode of inviting patients like asking the last patient to call the next patient, sending the orderly to invite patients or calling out patients' names loudly which may expose the identify of patient to others. The difference in what is taught and what is happening in practice may bring about conflicts thereby, being as possible explanation for the decline in the knowledge of the best mode of inviting patients into the consulting room from the waiting area in this study.

Medical records in the form of case notes necessary for ease and sequence of continuing case of patient are usually kept in hospital custody and never meant for the consumption of any person who is not a member of the profession.<sup>7</sup> The significantly improved knowledge of the custodian of hospital case notes, storage of hospital case notes and patients' right to a copy of the case note among the participants may be attributed to the gained knowledge and understanding of the utmost essence of protection of medical records of patients in the ethics of confidentiality during internship orientation and training within hospital employment.

Dentists and dental students have an ethical duty to protect a patient's confidentiality. Ethics of confidentiality also involves judiciously balanced maintenance of confidentiality for an underage patient and simultaneously making available information to the parent or guardian.<sup>7</sup> However, disclosures may be necessary to prevent the patient from committing crime or to protect those against whom it is threatened.<sup>7</sup>

In this study, there was significant improvement and decline in knowledge of

disclosure of underage patient information to parent/guardian ( $p 0.012$ ) and disclosure of patient information to security agents ( $p 0.020$ ), respectively. There was non-significant improvement in the knowledge of disclosure of adult patient information to parent/guardian ( $p 0.927$ ) and positive HIV status of patient to partner ( $p 0.400$ ). The transformation to dentists strategically place participants in a position to protect children as more responsible individuals are expected to protect children in Nigeria. This societal obligation may explain the significant improvement disclosure of underage patient information to parent/guardian.

The oppression and lack of appropriate regard to the law undermining human rights by security agents in Nigeria during investigations on one hand, and the non-direct involvement of house officers may have negatively influenced the knowledge on disclosure of patient information to security agents. Sub-optimal knowledge of disclosure to security agents and other health professionals has been reported among family medicine physicians, nurses and support staffs.<sup>12</sup> The inadequate understanding of obligations towards patient confidentiality when it came to practical situations, especially when colleagues and authorities (police, those in a judicial context) request for information, has been reported previously in Switzerzland.<sup>13</sup>

The exposure to a lot of HIV-related issues due to high prevalence of the condition in Nigeria and assumed knowledge of the right of adult patients as dental students may both explain the non-significant improvement in knowledge of disclosure of adult patient information to parent /guardian and positive HIV status of patient to the partner between the dental students and graduands.<sup>14</sup>

## CONCLUSION

Data revealed that the transformation resulted in significant improvement in knowledge in 6 of the 13 areas of ethical

obligation in dental practice studied which included patient identifiable information, awareness of guideline concerning patient information protection, custodian of hospital case notes, storage of hospital case notes, patient's right to a copy of the case note and disclosure of underage patient information to parent/guardian.

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DISCLOSURES: NONE