

A Study of Decision-Making Strategies for Resolving Common Ethical Dilemmas Encountered by Clinical Dental Students

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Abstract

Objective: The primary objective of this study is to identify common ethical dilemmas encountered by Universiti Sains Islam Malaysia's (USIM) clinical dental student. The other objective is to correlate between gender/experience with theory of ethics that is commonly applied.

Methods: The participants for this study were all USIM's 4th and 5th year clinical dental students and dentists with more than 5 years' experience. The total number of participants involve are 53 students and 19 experienced dentists. This survey consists of two parts of questionnaire. The students will answer both parts while the dentists will answer only the second part. The first part is regarding the common ethical dilemma that commonly encountered in the clinic. The students were asked to tick 3 most common items that they had faced during their practice in USIM's polyclinic. For the second part the dentists and the students were asked several questions on decision-making strategies based on ethical theories, which are Teleology, Deontology and Virtue.

Result: The result suggested that the most common Ethical Dilemma encountered by USIM's clinical students is difficult patient (83%). The second most common is Conflict between clinician (43%) and followed closely by Treatment option (41%). For the decision-making strategies it shows that there were no much differences between USIM clinical dental students and the experienced dentists.

Conclusion: The result of the survey showed that the ethical dilemmas commonly encountered by USIM's clinical dental students were the items that related with communication process such as difficult patient and the treatment option.

Introduction

Since ancient time, in the profession of dentistry, the code of ethics is outlined by the Hippocratic Oath, which is a vow taken by professionals who are entitled or given an opportunity to practice [1]. Nowadays, dental schools teach ethics as a part of their dental school curriculum. In light of changing pedagogical methodologies and an increasing public scrutiny of standards and expectations of dentist, dental schools have had to reevaluate existing curriculum practices [2]. People are always curious on whether an ethics curriculum can be expected to produce "ethical dentists," though many agree that competency in ethics is a worthy goal and that ethics should be part of the dental education process [3]. According to American Dental Association, the dental profession holds a special position of trust within society. As a consequence, society affords the profession makes a commitment to society that its members will adhere to high ethical standards of conduct [4,5].

An ethical dilemma is one of the ethical issues that are usually faced by Dental Practitioners and students in the clinic. This can happen when problems such Financial, treatment option, appointment, and insurance frauds, deleterious act. USIM clinical dental students were undergoing the same curriculum course on Ethics during their preclinical year. However, their understandings maybe differ, which will affect their decision-making strategies when facing ethical dilemmas throughout their clinical years.

The word 'ethics' is derived from the Greek word 'ethos' meaning custom or character [6]. It can be defined as moral facts, which are based upon community moral beliefs, reactions or attitudes and are decided by introspection of values by all reasonable people [7]. A dilemma is a situation in which a difficult choice has to be

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made between two or more alternatives. More informally, it can mean as a difficult situation or problem [8,9].

The philosophies of Ethics that would be considered in this study are:

- Teleology uses a utilitarian or consequential approach to behavior. This theory emphasizes the rightness of any action by the resultant consequences [10]
- Deontology uses a principled approach to behavior. This theory emphasizes the moral duty and responsibility that a person must assume when making an ethical decision regardless of the consequences [11]
- While virtue theory considers both moral duty and the effect has on a patient. It combines moral values with practical wisdom to choose the best possible course of action [11,12].

For further explanation on the principles, Deontology (from the Greek deon, meaning "duty") refers to an ethical theory or perspective based on the duty or obligation. A deontological, or duty-based theory is one which specific moral duties or obligations are seen as self-evident, having intrinsic value in and of themselves and needing no further justification [13]. In contrast, teleology (from Greek telos, meaning goal or end) describes an ethical perspective that contends the rightness or wrongness of actions is based solely on the goodness or badness of their consequences.

While these descriptions appear to draw a clear distinction between theoretical perspectives, the two categories are not mutually exclusive. Alternatively, the terms consequentialist and non-consequentialist are sometimes used. Some rights-based theories and theories of justice are consequentialist in their concern for outcomes while also claiming the inherent rightness of obligations related to human rights and justice. Likewise, virtue ethics and formulations of natural law both seek goals of human happiness and fulfillment, but in relation to deontological assumptions about human character and/or rationally derived obligations [14]. Making well-informed decisions takes self-knowledge, acquired knowledge, belief in oneself (character), and practice. As well, one should know the values that guide most of our behaviour, such as: honesty, fairness, respect, and confidentiality. Bio-ethical decision making includes principles of: beneficence, non-maleficence, autonomy, and justice and the concepts of informed consent, futility, quality of life, personal values, professional norms, community expectations and the law [15].

Dental students, after graduating from dental school will become public servants. They are required to produce ethical decision-making in their work setting which is very important to establish trust contributing to communities' stability [16-18]. There are a lot of study was being conducted on decision-making approach in Ethical dilemmas that encountered by Medical/dental practitioner worldwide. However, it is still crucial to conduct a study on decision-making strategies for resolving Ethical Dilemmas in Malaysia because we want to know what the ethical dilemmas that our students facing and how they tackle the problems whether by using deontology, teleology or virtue principles. So that, we will understand more about how much experience can effect decision making as we compared them with experienced dentists.

The main questions that this study sought to investigate are:

1. What are the common ethical dilemmas encountered by clinical dental students?
2. Do gender and/or experience effect which theory of ethics is most commonly applied in resolving ethical dilemmas?
3. Do students and the dentists apply different criteria in decision-making?

Method and Material

It is a cross-sectional study to identify common ethical dilemmas encounters by clinical dental students at USIM's dental clinic and secondly is to examine the process that the students use to resolve these situations. The source population of the research was the clinical year dental student and dentists practicing at USIM's dental clinic. Sampling frame were all fourth and fifth year dental students and practicing dentists having more than 5 years clinical experiences. For inclusion criteria, students and dentists must be volunteered whereas for the exclusion criteria, we excluded dentist that has experience less than 5 years. A form of established questionnaire was used as a survey tool. The questionnaire was divided into two parts. Part one was regarding common ethical dilemma among clinical dental students, and part two was about decision-making strategy. The students had to answer both parts while dentists had to answer part two only. On part one, seven items of ethical dilemma were listed with several examples of situation based on previous study. Students were asked to tick three most common ethical dilemmas that they usually encountered in the clinic. On the part two, there were 5 demographic questions and 4 conflict statements were answered. The action statements following each scenario reflected the principles related to each of the three models of ethical theories, which are teleology, deontology and virtues. The responses were analyzed to determine if year 4, year 5 students, and dentists respond differently to the conflicts. Responses from males and females also were compared to see if gender makes a difference in the response.

Result

Seventy-two questionnaires were distributed and all of them were returned. There were 72 respondents, which represented of 28 fourth year dental student, 25 fifth year dental students and 19 dentists. Amongst the participants, they were divided into 16 males and 56 females. Of the dentists who responded, there were 5 males and 14 females. Overall, more women participated than men. Table 1 gives the number and percentage of the total of those who participated in this survey.

Ethical dilemmas among clinical USIM's dental students

Figure 1 shows the result of ethical dilemma among clinical

Group	Participation
4th year Students	N=28 or 38.9%
4th year Students	N=25 or 34.7%
Dentists	N=19 or 26.4%
Male	N=16 or 22.2%
Female	N=56 or 77.8%

Table 1: Composition of participants.

USIM's dental students. All participants well responded to the instruction. Students were asked to choose three most common ethical dilemmas that they usually encountered in the clinic. The result shows that the most common dilemmas that they encountered is difficult patient which is about 83%, followed by conflict between clinician 43% and treatment option which is about 41%. The least dilemma that they encountered if we exclude the 'other' is a cultural issue, which is only 14%. Among these top most common ethical dilemmas, we can see that, it is closely related to the communication skill of the students.

Decision-making strategy survey.

Question 1

An instructor repeatedly gives clinical advice that you consider inferior to your own standard of care. You report the most recent incident to the clinical director because:

A. All staff must demonstrate basic skills so that all patients can be assured of receiving a predetermined standard of care.

B. Every dentist has an obligation to promote the well being of the patient.

C. You believe that this is an opportunity for the clinician to be made aware of his need to refresh his knowledge base.

D. Other.

(A is Teleology, B is Deontology, and C is Virtue.)

Table 2 shows response of the participants to question no 1. About 36% of the students of 19 of them chose teleology response, while 30% of them chose virtue response. About 26% of the other chose deontology response. Small number of them

Dental Students	
Teleology response	N=19/36%
Deontology response	N=14/26%
Virtue response	N=16/30%
Other	N=4/8%
Dentists	
Teleology response	N=6/32%
Deontology response	N=5/26%
Virtue response	N=4/21%
Other	N=4/21%

Table 2: Response to question 1 based on participation.

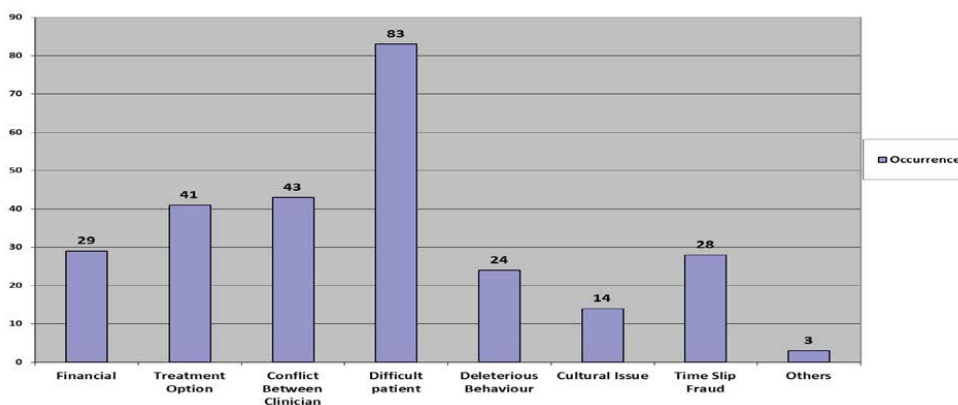


Figure 1: Ethical dilemmas among USIM clinical dental students

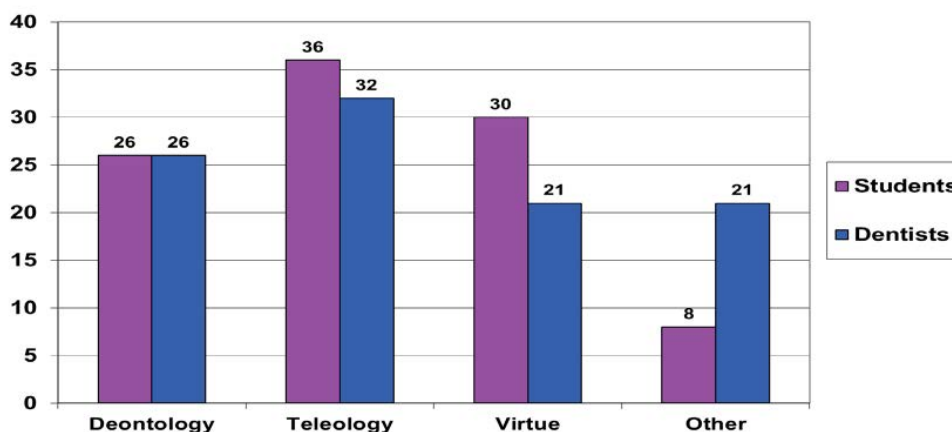


Figure 2. Response to question 1 based on gender.

chose other response. For dentists, the responses were quite close in number, 32% of them chose teleology response, while the other had almost the same distribution in responses.

Figure 2 shows the differences of responses between students and dentists. There were no much differences between students and dentists. About 36% of students chose teleology response, and 30% of them chose virtue response. For dentists, 32% of them chose teleology while 26% chose deontology response. There was not a big gap between the other responses, it probably due to misunderstanding the question.

Table 3 shows the responses to the question 1 based on gender. About 38% or 6 of males chose deontology response which was the highest response, while the other responses were almost equal in number. Whereas for the women, most of them chose teleology response which was about 39% followed by virtue response.

	Male (N=16)	Female (N=56)
Teleology	N=3 or 19%	N=22 or 39%
Deontology	N=6 or 38%	N=13 or 23%
Virtue	N=5 or 31%	N=15 or 28%
Other	N=2 or 13%	N=6 or 11%

Table 3: Responses to question 1 based on gender.

Figure 3 shows the differences between genders in answering question no 1. For males, most of them chose deontology response, while for females they chose more on teleology response. And the other chose other responses about the same in number.

Question 2

A patient requests that you alter the date and treatment rendered on their dental insurance claim so that they may be reimbursed for their dental treatment. You explain to the patient that you cannot do that because:

- A. You have a professional responsibility to be truthful.
- B. You cannot make exceptions for only certain patients and not oblige all.
- C. You want to ensure an honest long-term relationship with all your patients.
- D. Other.

(A is Deontology, B is Teleology, C is Virtue.

Table 4 shows the response to question 2 based on participation. About 72% of the students chose deontology response while small number of the other students chose the other response equally, which are about 9%. For dentists,

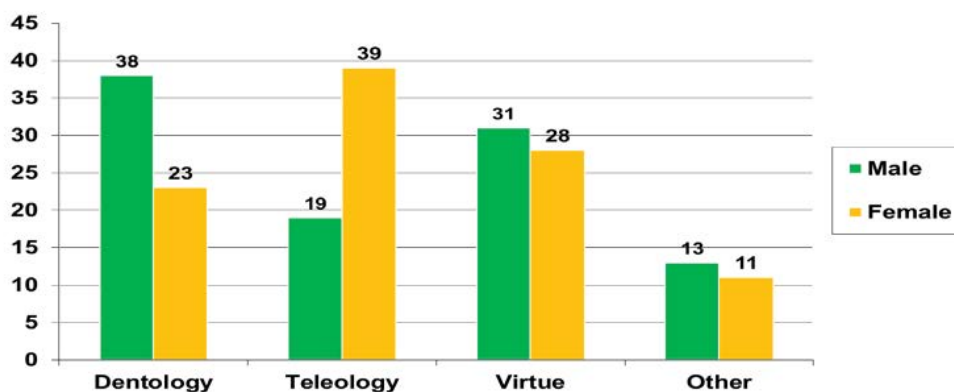


Figure 3. Differences between genders in answering question no 1.

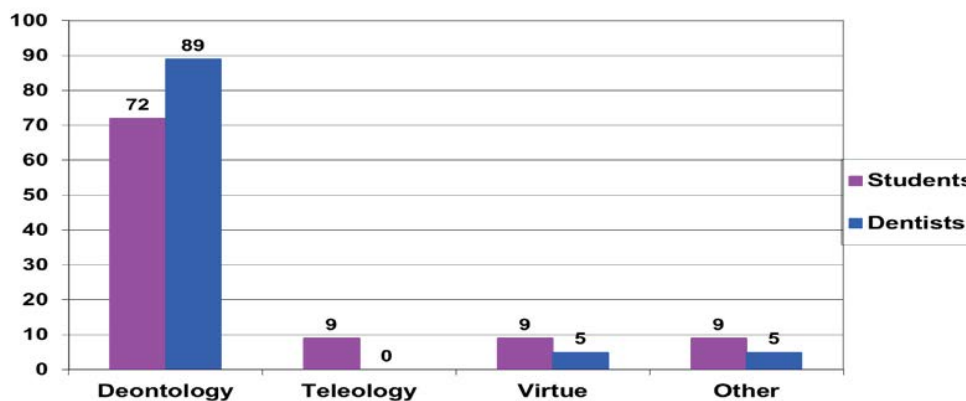


Figure 4. Differences between students and dentists in answering question no 2.

almost all of them chose deontology response, about 5% chose virtue and other response while none of them chose teleology response.

Figure 4 shows the differences between students and dentists in answering question no 2. Most of them chose deontology response while small number chose the other responses. It shows that students and dentists had shared similar ideas and strategies in responding the question.

Table 5 shows response to question 2 based on gender. For males, they are almost equally distributed in number following the responses. While for females, most of them chose deontology response, which is about 88%. Small number of females chose the others.

Figure 5 shows the differences between genders in responding question no 2. Most of participants chose deontology response especially for female participants. Males show no big differences on the responding compared to females. It is probably due to the number of male participants is too minimal.

Question 3.

Your patient wants to extract teeth that are hurting his/her

Dental Students	
Teleology response	N=5 9%
Deontology response	N=38 72%
Virtue response	N=5 9%
Other	N=5 9%
Dentists	
Teleology response	N=0 0%
Deontology response	N=17 89%
Virtue response	N=1 5%
Other	N=1 5%

Table 4: Response to question 2 based on participation.

	Male (N=16)	Female (N=56)
Teleology	N=3 or 19%	N=2 or 4%
Deontology	N=6 or 38%	N=49 or 88%
Virtue	N=4 or 25%	N=2 or 4%
Other	N=3 or 19%	N=3 or 5%

Table 5: Response to question 2 based on gender.

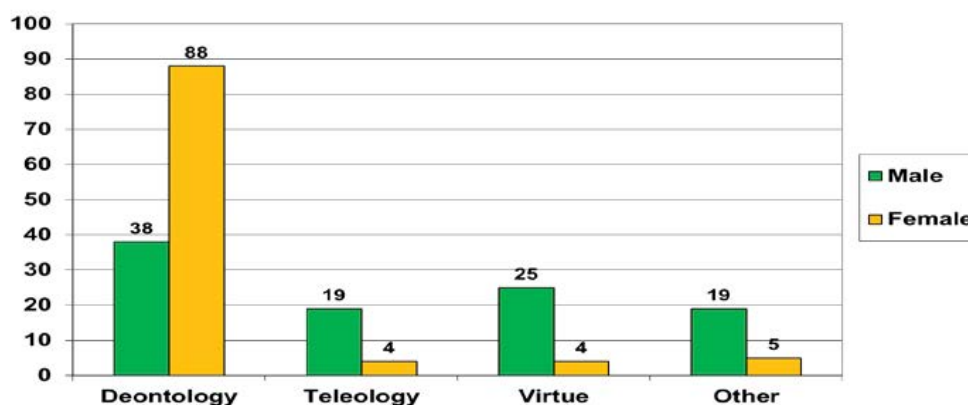


Figure 5. Differences between genders in responding question no 2.

Dental Students	
Teleology response	N=17 32%
Deontology response	N=33 62%
Virtue response	N=0 0%
Other	N=3 6%
Dentists	
Teleology response	N=3 16%
Deontology response	N=13 68%
Virtue response	N=0 0%
Other	N=3 16%

Table 6: Response to question 3 based on participation.

	Male (N=16)	Female (N=56)
Teleology	N=5 or 31%	N=15 or 28%
Deontology	N=11 or 69%	N=35 or 63%
Virtue	N=0 or 0%	N=0 or 0%
Other	N=0 or 0%	N=6 or 11%

Table 7: Response to question 3 based on gender.

instead of paying to restore them. You do not agree with treatment option but do the extractions because:

A. You concerned that your patient may go to someone else less qualified to do the extractions.

B. You respect your patient's right to do his/her own decisions.

C. You think that given the patient's socio-economic profile this treatment option will be the best decision for him long-term.

D. Other.

(A is Virtue, B is Deontology, C is Teleology)

Table 6 shows the response to question 3 based on participation. Students chose deontology response the most, which is about 62%. Some of them chose teleology response, which is about 32%, and small number of them chose the other. None of the students chose the virtue response. Majority of dentists chose deontology response. Some of them chose teleology and other response while no one chose the virtue response.

Figure 6 shows the differences between students and dentists in responding question no 3. Both of the groups chose deontology

response the most followed by teleology and other response. But none of them chose the virtue response.

Table 7 shows the response to question 3 based on gender. Most of the males chose deontology response followed by teleology response and none of them chose virtue and other response. While female participants, most of them also chose deontology response, followed by teleology and other response.

Figure 7 shows the differences between genders in responding question no 3. Most of the participants chose deontology response followed by teleology. None of males chose virtue and other response. About 11% of females chose other response.

Question 4.

Your patient wants to extract his/her remaining teeth so that he/she can have dentures. You do not agree with this treatment option and do not do the extractions because:

You believe that the consequences of this treatment will cause more discomfort to the patient in the future.

B. As a professional you only provide treatment that you believe in.

C. You believe that increased dental awareness for all patients would result in better patient health.

Dental Students	
Teleology response	N=27 51%
Deontology response	N=1 2%
Virtue response	N=20 38%
Other	N=5 9%
Dentists	
Teleology response	N=7 37%
Deontology response	N=1 5%
Virtue response	N=9 47%
Other	N=2 11%

Table 8: Response to question 4 based on participation.

D. Other.

(A is Teleology, B is Deontology, C is Virtue)

Table 8 shows the response to question 4 based on participation. For students, about 51% of them chose teleology response followed by virtue response which is about 38%. Small group chose the deontology and other response. For dentists, they chose virtue response the most, which is about 47% followed by teleology response and other. Small group chose deontology response.

Figure 8 shows the differences between students and dentists in responding to the question no 4. Most of the students chose

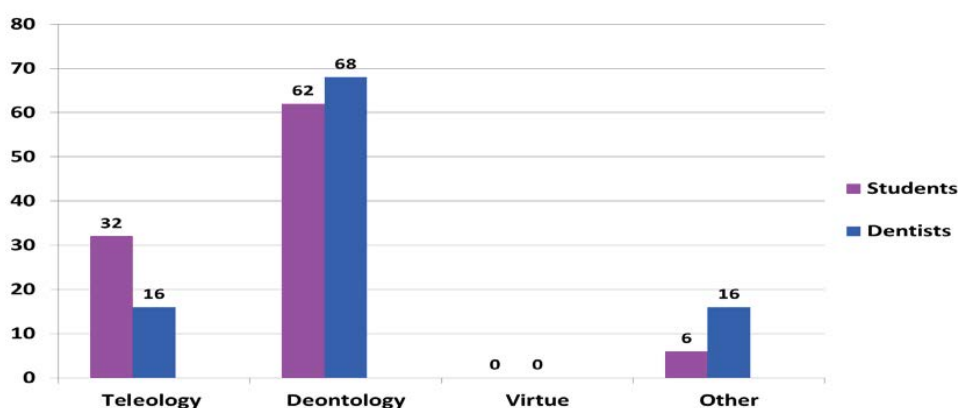


Figure 6. Differences between students and dentists in responding question no 3.

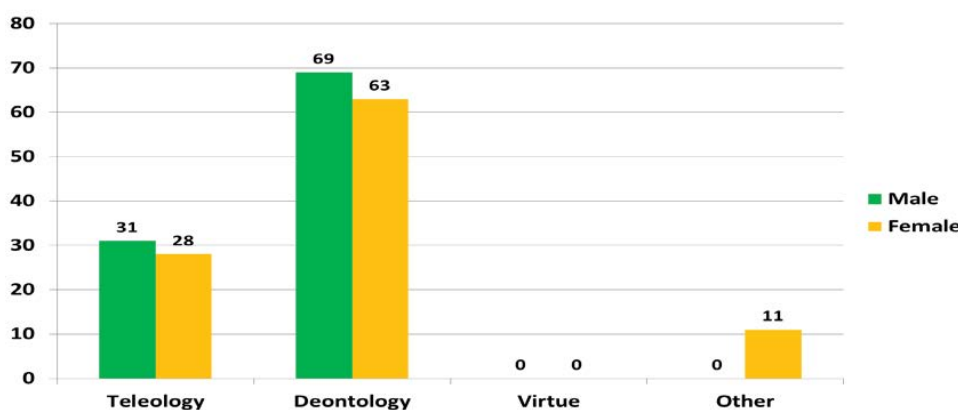


Figure 7: Differences between genders in responding question no 3.

teleology response, while most of dentists chose virtue response. Deontology had been chosen the least. In this question, it shows that students did decision more on context-based while dentists more on individual and context-based.

Table 9 shows response to question 4 based on gender. Males chose teleology the most followed by virtue and other response. None of males chose deontology response. Females chose virtue response the most followed by teleology and other. Small group percentage chose deontology response.

Figure 9 shows the differences between genders in responding to question 4. About 69% of males chose teleology response, while 46% of females chose virtue response. It shows that, in this question 4, males tend to do decision based on context-driven while females based on individual and consequence-based.

	Male (N=16)	Female (N=56)
Teleology	N=11 or 69%	N=23 or 41%
Deontology	N=0 or 0%	N=2 or 4%
Virtue	N=3 or 19%	N=26 or 46%
Other	N=2 or 13%	N=5 or 9%

Figure 9: Differences between genders in responding to question 4.

Discussion

The data from this study shows that, the three most common ethical dilemmas that commonly encountered by USIM's clinical dental students are; difficult patient (83%), Conflict between clinician (43%), and Treatment options (41%). This result might be due to the communication process between students and patients. The communication has contributed the high percentage of ethical dilemmas encountered by the students, which are difficult patient and treatment option. Communication is defined as a process by which we assign and convey meaning in an attempt to create shared understanding. The success of dental care depends on the way of the dentist and the patient interacts with each other. Good communication helps in enhancing patient satisfaction, minimizing misunderstandings and complaints [8]. Another reason might be because of the experiences, specialties and preferences the lecturers have which will cause conflict to the students. For Conflict between clinicians, it is more likely conflict between students and lecturers. Lecturers make their decision based on experience that they had gone through [19-21].

This study demonstrates that professionals use all three principles (Teleology, Deontology, and Virtue) in decision-making depending upon circumstances. The questionnaire was used to

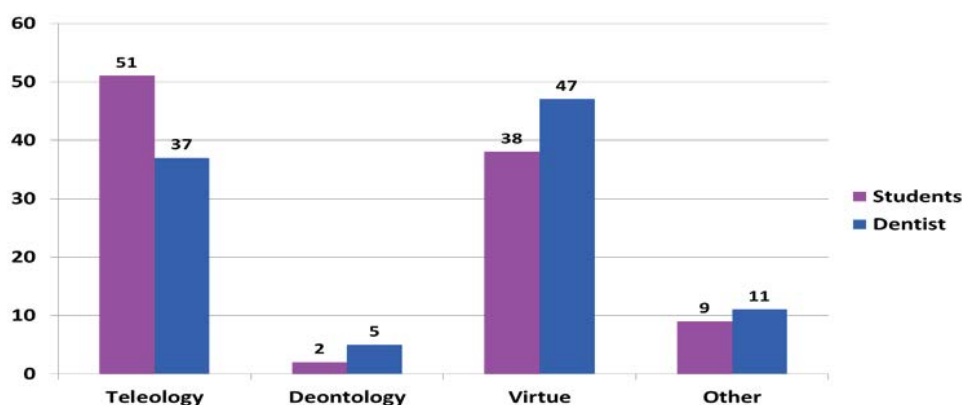


Figure 8: Differences between students and dentists in responding to the question no 4.

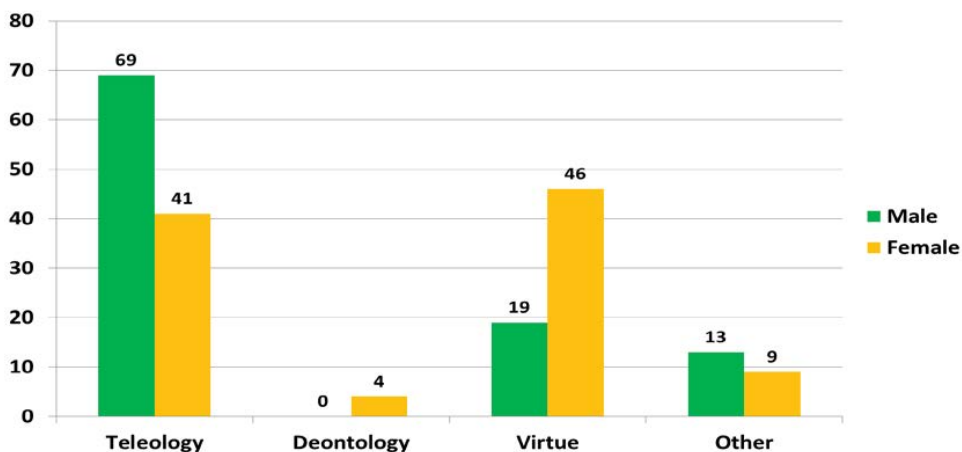


Figure 9: Differences between genders in responding to question 4.

determine which underlying principle motivated most decision; the ends justify means, principle-based or a combination of core values and practical knowledge. In first question, most of the students and dentists make a decision based on Teleology theory or the consequentialist thinking. When comparing between genders, males make decisions on the given situation based on principle of obligation theory. While for females make decisions more for the outcomes that providing the greater good. For the 2nd and 3rd questions, when comparing either between students and dentists or males and females, the decisions they made were based on principle of obligation or deontology. For the 4th question, most students select a decision that was based on the rightness of any action by the resultant consequences. For the dentists, most of them had selected decisions that consider both moral duty and, the effect that patient have on the action. Male's decision is more on teleology theory, while Female is more on virtue.

Conclusion

In a conclusion, the ethical dilemmas commonly encountered by USIM's clinical dental students are difficult patients, Conflict between clinicians and also Treatment options. We would like to suggest that more researches could be conducted focusing on these few ethical dilemmas to know what are the reasons that had contributed to this matter. For decision-making process, males made decisions when facing ethical dilemmas were based on deontology theory or principle-based. While for females, there are no significant theories that could be identified because the results were well distributed in every question. However, for overall results, there were no much difference in decision making when comparing between students and experience dentists. The data showed the distribution decision selection of theories between them were similar. We believe that the lecturers had given their best in teaching the students; therefore the students had made decisions during their clinical year were quite similar to the lecturers. A good foundation of education will bring an ethically competent dentist in decision-making.

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