Original Research Article

A STUDY OF MORAL VALUES IN STUDENTS IN A MEDICAL COLLEGE IN SOUTHERN INDIA

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ABSTRACT

Background: Moral positions are essential for decision-making processes in medical practice. Doctors are expected to make moral decisions regarding the welfare of their patients. Decisions made in healthcare affect many non medical issues which may even affect the community and society. A moral compass is an inner sense which functions as a guide for morally correct behavior. During the course of study, a professional healthcare worker must develop a suitable moral compass Objectives: To assess and compare the moral values of medical and nursing students in a medical college using the Moral Foundations Questionnaire (MFQ). **Materials and methods:** This descriptive study was done at the NRI Medical College, in June and July 2019 involving 131 Medical students and 86 Nursing students. After taking informed consent, the MFQ questionnaire was administered to the students. The MFQ was developed based on a model of five universal sets of moral perceptions; Individualizing foundations like Harm/care and Fairness and traditional binding foundations like In-group/loyalty, Authority/respect, and Purity. The self-administered MFQ data was entered in MS Excel and subjected to statistical tests like z test and Chi square at 5% Level of Significance. **Results:** The mean scores (out of a possible total of 5 for each domain) in medical students obtained for Person focused values were Harm / Care 3.5, Fairness 3.54. Group focused values were Loyalty 3.37, Authority & respect 3.30 and Sanctity and Purity 3.20. In nursing students it is 3.24, 3.31, 3.36, 3.44 and 3.09 respectively. **Discussion:** Gender differences were seen in harm / care, authority and purity. Medical students scored higher in harm/care, fairness while nursing students scored higher for team work, respect for authority. **Conclusion:** Moral positioning is an essential part of medical practice. Medical teachers and society must help students develop the right moral compass.

Keywords: Medical education, moral development, moral compass, MFQ, morality

INTRODUCTION

Morality is the recognition of the difference between right and wrong. It is an acceptable code of conduct given certain reasonable circumstances. **(1)** Medicine has always been associated with morals and ethics. However in today's world, where medicine embraces industrialisation, commercialization, aggressive marketing and patient-provider partnerships, moral values and ethical positions in healthcare are coming under criticism.

Clinical decision-making is subject to the physician's personal values and moral attitudes. **(2)** Moral reasoning is the process by which one tries to decide logically between right and wrong. It is a crucial daily process people use to reason out the decisions they make, the morality of their actions and their potential consequences. Doctors are expected to make moral decisions regarding the welfare of their patients. Decisions made in healthcare affect many non-medical issues like family finances, relationships and may even affect

the community and society. Some decisions in health care can bring about pressure between moral principles and create conflict. To make a good moral judgement, one must have sensitivity to the needs of others, experience and discernment. **(3)**

According to Piaget's theory of moral development, young people come to understand that morals represent society's compromise to uphold the common good depending on circumstance, incentive, aptitude and purpose. They also realize that people respect fair decisions. Personal values, moral positions, and knowledge of medical ethics are extremely important in the shared decision-making process between patients, their families and the health professional. **(4)** Moral realism allows ordinary rules of logic to be applied explicitly to moral statements while moral relativism addresses a range of moral positions. **(5)** Most often the norm is that we should tolerate people or their ideas. **(6)** Moral relevance looks at theories about what is morally pertinent and applicable. Moral judgments are about the practical use of moral foundations in judging situations.

Moral development according to Kohlberg occurs at three levels. In the first two levels, one's moral values are subject to the influence of figures of authority like parents and also to others approval or disapproval. **(7)** In the Post-conventional level (third level), moral reasoning is based on human rights and universal ethical principles like equality, dignity, or respect. **(7)**

A moral compass is an inner sense which functions as a guide for morally correct behavior. Medical teachers are aware that their students have to somehow develop a suitable moral compass. Students observe the world around them and make their own judgements about various issues thereby developing a moral behaviour. The moral stands they develop will definitely have an effect on their future professional practices. Moral systems are a result of integrated principles, qualities, standards and customs which help to restrain self-interest encourage social collectives. **(8)**

James Rest developed the four components model of Morality. They are moral sensitivity (the ability to appreciate a moral dilemma and its possible effects), moral judgment (the ability to reason correctly about what 'ought' to be done in a specific situation), moral motivation (a personal commitment to moral action) and moral character (a courageous persistence). **(9)** Failure at any step can result in a failure to make an ethical decision. One may have strong moral

judgment skills but will not begin to use them if she or he lacks moral sensitivity and fails to recognize a moral issue. **(9)**

Shweder proposed that the moral language people use across the world are; the ethic of autonomy (ideas like harm, rights, and justice, which protect the independence of individuals), the ethic of community (duty, respect, and loyalty, which protect institutions and society), and the ethic of divinity (purity, sanctity, and sin). **(10)**

Moral flexibility suggests that in a given situation, the context strongly influences which moral beliefs are put into action. **(11)** The words ethics and morals are used synonymously by many. However ethics are codes of conduct as seen in workplaces and morals are an individual's own principles regarding right and wrong. Today's medical school curriculum pays attention to the study of ethics but scant attention is given to the capacity building of moral judgement. **(12)**

While moral values generally address concerns about individuals harming or unfairly treating other individuals, morality on a wider basis also includes concerns about purity and degradation, proper social role fulfillment and expectations of loyalty to the community. To study the moral domain, five universal and innate moral foundations have been proposed by researchers and found to be the best fit.12 The Moral Foundations Theory (MFT) proposed by Haidt and Joseph addresses differences in people's moral concerns through five moral foundations. **(13)**

This study is set to assess and compare the moral values of students (medical and nursing) in a medical college using the MFQ and to look for gender inequality if any.

Materials and Methods: This descriptive study was done at the NRI Medical College, in the month of June and July 2019. Ethical clearance was taken from the Institutional Ethics Committee of the NRI Medical College and General Hospital. Medical students from the 6th smester and 3rd year BSc Nursing students who were willing to take the self-administered Moral Foundations Questionnaire after an informed consent were selected by convenience sampling.

Moral Foundations Questionnaire (MFQ): Based on a theoretical model of five universal sets of foundations, the MFQ was developed by Haidt and Graham in 2007. These are two individualizing foundations which are Harm/care and

Fairness/reciprocity and three binding foundations which are In-group/loyalty, Authority/respect, and Purity/sanctity. Liberal morals focus on Harm and Fairness while conservative morals also focus on the binding foundations. The MFQ is composed of two 15-item sub-scales which measure the relevance individuals ascribe to each of the foundations and their moral judgement. **(8)**

Components of the MFQ (8)

Higher-order clusters	Moral foundation	Concerns	Contrary to
Person-focused **Individualizing cluster of Care and Fairness**	Care	Cherishing and protecting others	harm
	Fairness	Rendering justice according to shared rules	cheating
Group-focused **Binding cluster of Loyalty, Authority and Sanctity**	Loyalty	With one's group, family, nation	betrayal
	Respect for authority	Submitting to tradition and legitimate authority	subversion
	Sanctity or purity	Revulsion for disgusting things, foods, actions	degradation

The data was entered in MS Excel and analysed and presented in the form of tables and graphs. The maximum scores for each of the 5 foundations are 30. Important findings were subjected to statistical tests (Z test, Chi square etc) at 5% Level of Significance.

RESULTS

131 Medical students (34% boys & 66% girls) and 86 Nursing students (boys 19% & girls 81%) took part in this study. The overall mean scores obtained for Harm / Care was 3.5, Fairness 3.54, Loyalty 3.37, Authority & respect 3.30 and Sanctity and Purity 3.20. In nursing students it is Harm / Care 3.24, Fairness 3.31, and Group focused values were Loyalty 3.36, Authority & respect 3.44 and Sanctity and Purity 3.09. Comparison of the total scores for each of the moral foundations between male students and female students showed statistically significant differences. Female students were more concerned in the foundations of Harm/care, fairness, authority and especially Purity (Table 1). Further dividing the scores between the relevance related and judgement related questions, it is seen that except of in-group loyalty relevance, in all other aspects the female students have significantly higher scores (Table 2). Similar analyses between male and female nursing students did not show any significant differences in the moral foundations (including separate analysis for relevance and judgment related questions). (Table 3)

There were significant differences in moral values between medical and nursing students. Statistically significant differences are seen in all the foundations except the in-group loyalty (Table 4). Looking at certain important questions between medical and nursing students, it is seen that medical students were higher in scores for compassion, not hurting a defenseless animal and love for country. Nursing students had higher scores regarding respect for authority and being a team player. (Table 5)

Looking at certain items between male students and female students (both medical and nursing together) female students had higher scores regarding never right to kill anyone, importance of justice in a society, and condemning disgusting acts. Chastity is seen to be of much more importance to female students than the males (Table 6).

Overall, the medical students had low scores with regard to team spirit and respect for authority. Team spirit and respect for authority were higher in the nursing students. Female students in both professional courses were more concerned about Purity.

DISCUSSION

Knowledge without moral values is pointless and ineffective for civilization. Weak moral values subject people to difficulties in the face of immense challenges. **(14)** Before adulthood, individuals base their behaviors on the norms and values of those around them. Later in life, they identify and attempt to live by personal moral values. As students face academic pressures in the pursuit of acquiring vast amounts of knowledge, there is no opportunity for the inculcation of personal values like empathy, care, and compassion in their clinical training. **(15)**

As one practices medicine, one comes across situations which demand an ethical and moral stand almost every day. A study in New Zealand using the MFQ found that the five-factor structure of morality holds well. **(16)** Value sensitivity is a necessary competency to recognize value-related issues or ethical questions when they arise in practice. **(17)** However, inculcating an aptitude for value sensitivity is usually not found as a definite subject in the training of medical professionals.

Current university curricula favour work related practical issues and earning potentials. Little importance is being given to declining human values. Unfortunately, the youth of today are getting increasingly inclined towards violence, social intolerance and lack of respect towards their elders. **(18)** Family and school play an important role in developing ethical and moral values. However due to several social and economic factors, many families are unable to play this vital role. Today's youth are being trained in skills efficiently but seem to be more self-obsessed and self-serving and therefore poor citizens. **(19)**

In comparison with the overall mean moral foundations scores obtained for medical and nursing students in our study, the scores seen in a similar study from a liberal population in the USA are Harm / Care 3.77, Fairness 3.87, Loyalty 2.53, Authority & respect 2.36 & Purity 2.06 respectively. These scores show higher values for individual moral foundations but lower scores for societal foundations like authority, respect and purity. **(20)**

It was seen by Graham et al that liberal minded societies value harm and fairness concerns while conservative societies value In-group (Loyalty), Authority and Purity. As seen in the current study, women scored higher on harm, fairness and purity across most countries and cultures. Men just barely scored higher on in-group and authority. Studies on people from the east show more focus on the binding foundations like in-group loyalty, authority and purity. **(8)**

Moral values have to be inculcated during the making of a professional and it is the responsibility of teachers and society to ensure that the graduating doctor has the right set of moral values. Technical healthcare decisions are subject to not only the experts' scientific insight but also his/her individual moral values. Studies have shown a clear correlation between experience in the practice of medicine and various moral positions. **(21)**

Newer medical technologies are increasingly influencing physicians' decision-making. Health care professionals do understand that technology alone cannot add years to life or increase the quality of life. Medical graduates must function at a post conventional level which allows them to think beyond their own benefit or the "technical rules" of medicine. The concern of medical education must include not just procedural skills but also an aptitude in moral reasoning. **(22)** The human approach to treatment of both body and mind of the patient is essential. It is man that counts, and not the machine or the method. **(23)**

This study shows a higher level of respect for authority in the nursing students than the medical students. The chain of command in hospital nursing services based on educational qualifications and experience is the line of authority and accountability which when followed strictly, protects the nurse, her co workers and the patient.**(24)** The line of authority is not so clearly passed on to medical students in their formative years.

When healthcare professionals work as a team along with their patients and relatives, they can put forth safe, efficient and effective care. Nursing education brings in the importance of working as a team early in the course. Though medical students are trained to be leaders, many do not imbibe the concept of team work. Team based health care helps everyone on the team to perform to the fullest capacity of their training and experience. **(25)** Medical moralities refer to right and wrong medical action and the code of medical practice. **(26)** Current clinical training which focuses only on the biomedical aspects also needs to incorporate lessons on moral and human values. **(27)**

Morality is also concerned about whether people regard their own bodies as holy or purely for pleasure. This study also showed that the concern for

purity in women students is much higher than that of the men. Girl students in conservative societies wish to delay having sex until after marriage, are unwilling to risk disease or pregnancy and perhaps have an ideal of chastity. **(28)**

CONCLUSION

Taking of moral positions is an essential part of everyday clinical practice. Role modeling plays an important part in teaching students ethical behavior, conforming to professional standards. Moral values must be taught not only as a defined subject to healthcare professionals but also be practically demonstrated in the health care settings by all concerned. Moral positioning is an essential part of medical practice. Medical teachers and society must help students develop the right moral compass.

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Table 1 - Moral values scores in Medical Students according to gender

S.No		Foundation (Relevance &Judgement) Possible scores of 30 each)	Total scores – Male (n=46)	Total scores - Female (n= 85)	Z test	p value
1	Individual based	Harm / Care	20.02	23.02	3.41	<0.01 ***
2		Fairness / reciprocity	19.22	23.7	5.86	<0.01 ***
3	Society based	In group / Loyalty	19.4	20.8	1.24	0.1
4		Authority / respect	17.7	20.08	3.05	<0.01 **
5		Purity / Sanctity	17.24	20.9	4.2	<.01 ***

* significant ,** moderately significant, ***highly significant

Table 2 - Moral values scores in Medical Students by gender (Relevance &Judgement)

S.No	Foundation			Total score - Male (46)	Total score - Female (85)	Z test	p value
1	Individual based	Harm / Care	R	9.65	10.76	2.34	<0.01***
			J	10.57	12.26	3.59	<0.01***
2		Fairness / reciprocity	R	9.59	10.79	2.43	<0.01***
			J	9.63	12.94	6.55	<0.01***
3	Society based	In group / Loyalty	R	10.17	9.61	0.97	0.2
			J	9.35	11.12	3.12	<0.01***
4		Authority / respect	R	8.85	8.84	0.02	0.5
			J	8.85	11.27	4.68	<0.01***
5		Purity / Sanctity	R	8.65	9.56	1.73	<0.05*
			J	8.59	11.42	5.27	<0.01***

* significant ,** moderately significant, ***highly significant / Relevance - R, Judgment- J

Table 3 : Moral values scores among Nursing Students according to gender

S.No	Foundation (Relevance &Judgement) Possible scores of 30 each)			Mean score - Male (n=16)	Mean score - Female (n= 70)	Z test	p value
1	**Individual based**	Harm / Care	R	10.6	9.41	0.94	0.17
			J	10.5	9.76	1.16	0.12
			Total	**20.56**	**19.17**	**1.54**	**0.06**
2		Fairness / Reciprocity	R	8.13	8.87	1.04	0.15
			J	11.5	11.03	0.66	0.25
			Total	**19.63**	**19.9**	**0.36**	**0.4**
3	**Society based**	In group / Loyalty	R	9.56	9.11	0.68	0.2
			J	11.62	10.81	1.38	0.08
			Total	**21.19**	**19.93**	**1.2**	**0.11**
4		Authority / respect	R	9.63	9.27	0.57	0.28
			J	12.31	11.1	1.74	<0.05*
			Total	**21.94**	**20.37**	**1.46**	**0.07**
5		Purity / Sanctity	R	8.63	8.97	0.61	0.27
			J	8.94	9.76	0.94	0.17
			Total	**18**	**18.63**	**0.74**	**0.23**

* significant ,** moderately significant, ***highly significant   R - Relevance, J - Judgement

Table 4 - Moral values scores between MBBS and Nursing students

S.No		Foundation	MBBS (n= 131)	Nursing (n=86)	Z test	P value
1	Individual based	Harm / Care	22.04	19.43	3.86	<0.01 ***
2		Fairness / reciprocity	22.15	19.85	3.24	<0.01 ***
3	Society based	In group / Loyalty	20.3	20.16	0.23	0.4
4		Authority / respect	19.3	20.7	2.04	<0.05 *
5		Purity / Sanctity	19.7	18.51	1.96	<0.05 *

* significant ,** moderately significant, ***highly significant

Table 5 - Moral considerations – Few items between medical and nursing students

S.No	Sub items (Agree & Strongly agree)	MBBS (n=131)	Nursing (n=86)	Chi square	P value
1	Showing compassion on the suffering	90 (68.7%)	35 (40.7%)	16.7	<0.01***
2	Never hurting a defenseless animal	109 (83.2%)	47 (54.7%)	20.9	<0.01***
3	Ones action showed love for his / her country	95 (72.5 %)	45 (52.3%)	5.7	<0.05**
4	Lack of respect for authority is wrong	51 (38.9 %)	54 (46.5%)	10.9	<0.01***
5	More important to be a team player	52 (39.7%)	48 (55.8%)	5.4	<0.05**

* significant ,** moderately significant, ***highly significant

Table 6 - Some moral considerations of all students (both medical & nursing) according to gender

S.No	Sub items (Agree & Strongly agree)	Male Students (n=61)	Female students (n=156)	Chi square	p value
1	It is never right to kill a human being	32 (52.5%)	118 (75.6%)	11.04	<0.01***
2	Justice is the most important requirement for a Society	40 (65.6%)	133 (85.3%)	10.51	<0.01***
3	Disgusting acts must be condemned	19 (31.2%)	74 (47.4%)	4.75	<0.05**
4	Chastity is an important virtue	31 (50.8%)	116 (74.4%)	11.12	<0.01***

* significant ,** moderately significant, ***highly significant