

Original Article



Qualitative and quantitative effects of promoting altruism during the foundation course in Phase-1 medical undergraduate students by assigning them a task of 'Random Act of Kindness'

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Abstract

Background: Altruism, defined as an unselfish concern for the welfare of others, is a fundamental pillar of medical professionalism, emphasized during the Phase-1 MBBS foundation course. The study aimed to assess the understanding of altruism among Phase-1 students, assessing their ability to perform a 'Random Act of Kindness,' with qualitative reflections and quantitative analysis of altruistic behavior.

Methods: Following ethics approval, a quasi-observational study was conducted. After an interactive lecture on altruism, students were encouraged to perform a 'Random Act of Kindness' over two weeks.

Participation was voluntary, with written informed consent obtained from all participants. Students reflected on their acts in Google Forms, and a pre-validated questionnaire, adapted from the Altruistic Personality Scale, was administered before the lecture to assess baseline altruistic tendencies using a Likert scale.

Results: Before the lecture - 25.6% of the students strongly liked doing the 'random acts of kindness.' After the lecture and completion of the activity, this figure rose to 49.6%. Most students performed simple altruistic acts or acts of charity. Reflective writing revealed that students felt 'happy' and 'grateful' after completing their acts of kindness.

Conclusion: While many students initially engaged in altruistic behavior due to parental influence, incorporating 'Random Acts of Kindness' into the foundation course of the CBME curriculum appears to effectively enhance altruistic tendencies in first-year medical students, thereby fostering the core values of medical professionalism.

Introduction

Modern medical practice is grounded in professionalism, with altruism being a key humanistic quality that underpins this concept. Professionalism has become increasingly recognized as a vital component of medical practice in the past few decades.¹ Professionalism has also been associated with ensuring patients' trust in doctors.² Given the growing emphasis on professionalism, medical students are encouraged to develop their professional identity from the beginning of their training. This identity, often referred to as "professional identity," reflects how students perceive themselves as future doctors.³ Forming

this identity is a complex process because students gradually internalize the values and behaviors of the medical profession through interaction with the intended and hidden curricula.⁴ According to Dr Jordan Cohen, professionalism is "a way of acting," whereas humanism is more a "way of being" that "animates authentic professionalism".^{5,6} According to the Arnold P. Gold Foundation, the core attributes of humanism include respect, altruism, excellence, compassion, integrity, and service.⁶ Students ranked altruism as the second most important characteristic of professionalism.⁷ Despite its significance, altruism remains one of the most debated

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yet least explored components of professional identity in medical education.⁶

Research gap

A need was felt to sensitize medical students on altruism and motivate them to practice altruism in their daily lives. This is particularly relevant in the context of the new competency-based medical education (CBME) curriculum, where altruism is included in the foundation course for first-year students.

Research question

Can incorporating a 'Random Act of Kindness' activity into the foundation course for Phase-1 medical students serve as an effective method for teaching the concept of altruism in medical professionalism?

Study goal

By the end of the study, Phase-1 medical students should have a clear understanding of the concept of altruism as taught in the foundation course.

Primary objective

To assess whether Phase-1 medical students can successfully perform a 'Random Act of Kindness' as part of their training.

Secondary objectives

1. To qualitatively assess the reflective writings of Phase-1 medical students on their experience performing a 'Random Act of Kindness.'
2. To quantitatively measure the degree of altruistic behavior in first-year medical students using a questionnaire adapted from the Altruistic Personality Scale.

Materials and Methods

Study setting and design

A quasi-observational study was conducted among first-year MBBS students as part of the foundation course in September 2023. The study aimed to promote altruism through an interactive lecture followed by an activity requiring students to perform a 'Random Act of Kindness' within two weeks. Both qualitative and quantitative assessments were employed to evaluate students' altruistic behaviors and reflections on the activity. All the 120 students who joined the first year of MBBS in 2023 were approached for this pilot study, and no separate sample size calculation/sampling technique was used.

Inclusion criteria

Inclusion Criteria: First-year MBBS students enrolled in the foundation course who attended the lecture on altruism and voluntarily agreed to participate and provided written informed consent.

Study instruments

Interactive Lecture

An educational session was conducted to define altruism, discuss its relevance in medical professionalism, and motivate students to perform a 'Random Act of Kindness.'

Reflection questionnaire

After the two weeks, students were asked to reflect on their 'Random Act of Kindness' using a structured questionnaire. The reflective writing was assessed using Rolfe's model, exploring:

- What act was performed
- How it made the student feel
- Future intentions regarding altruistic behavior
- Previous experience with altruism and sources of motivation

Modified Altruistic Personality Scale

A questionnaire, adapted from the Altruistic Personality Scale, was used to measure the degree of altruistic behavior. Responses were recorded on a Likert scale (never, once, more than once, often, very often), which was scored from 0 to 4 for quantitative assessment.⁸

Demographic data collection

Information regarding student demographics, including name, age, sex, schooling, and religion, was also collected.

Interpretation and statistical analysis

Qualitative analysis

Reflections were analyzed using an open coding method to identify themes and patterns. Codes were derived from the students' reflective writing, and similar responses were grouped. Key quotes were extracted for deeper insight into the students' experiences and emotions.

Quantitative analysis

Responses from the modified Altruistic Personality Scale were scored, with total scores calculated based on the Likert scale responses. The percentage distribution of responses across different categories was computed. An evaluation matrix was used to assess both Level-1 (reaction) and Level-2 (learning) outcomes. Data for this evaluation were gathered from the questionnaire, reflective writing, and feedback forms. Descriptive statistics, such as percentages and mean scores, were used for analysis, and results were displayed in tabular format (see [Table 1](#) for evaluation criteria).

Ethical approval and consent

The study was approved by the institutional ethics committee of GMC Chamba with no. IEC/ 2023/ Sept/34(g), and the study was done in accordance with the Declaration of Helsinki. Informed consent was taken from all the participants. Evaluation questions and indicators to achieve Level-1 and Level-2 are shown in [Table 1](#).

Table 1. An evaluation matrix to assess the Level-1 (reaction) and Level-2 2 (learning)

Levels	Evaluation/outcome questions	Indicators/outcome measures	Data sources	Data collection methods
Level-1 (Reaction)	To what extent do you like the present method of the interactive teaching and learning module on Altruism	60% of the students should rate the program more than 3	Students Feedback	Questionnaire Based on Likert Scale
Level 2 (Learning)	How many students performed the altruistic activity on Random Act of Kindness?	90% of the students should perform the altruistic activity	Students Data	Data Collection from the Reflective Writing and Feedback Forms
Level 2 (Learning)	Did you like doing the activity on 'Random Act of Kindness'?	80% of the students should rate the activity more than 3	Students Feedback	Feedback Questionnaire based on Likert Scale

Results

Results have been expressed as a quantitative and qualitative assessment. Out of 120 students, 117 consented to participate in the study. 117 students answered questions mentioned in Tables 2, 3, 4, and 5 from the Google form. The students were asked to reflect on the activity performed. Table 6 elaborates on the responses of 114 students on what act was performed. 89 responses were received for the question mentioned in Table 7 on 'How did you feel? /So what? 114 students responded to the question on 'what next'/would you be willing to pursue such activities in the future in Table 8.

Quantitative assessment

The characteristics of the students/demographic details, driving force behind doing selfless service or a random act of kindness, activity performed before and after the lecture, how much you like doing 'Random Acts of Kindness' earlier, i.e., before and after the lecture, and how frequently you do such activities have been tabulated as follows:

The female population group was larger than the male group, and most of them belonged to the cities. Based on schooling, most of them studied in private schools. According to the received data, most of the participants revealed that the driving force in their lives for selfless service was their parents. Level 1 of the evaluation matrix was achieved as 93.1% of the students rated more than 3 on the Likert scale for the evaluation question 'To what extent do you like the present method of interactive teaching-learning module (including the random act of kindness) on altruism'. (The indicator to achieve level -1 was; that 60% of students should rate more than 3). To evaluate the Level-2, which was learning, was evaluated by the two evaluation questions. The first question was to quantify how many students performed the altruistic activity on Random Act of Kindness. The received data revealed that after the lecture or during the assigned time to do a random act of kindness, out of 114 responses from 108 participants performed an altruistic activity, which was 94.7 % indicating that we also achieved Level 2. (The indicator for this evaluation question was whether 90% of the students should perform the altruistic activity.)

The second question was "Did you like doing the activity on 'Random Act of Kindness?'" According to the received data, out of 117 responses, 107 participants rated

Table 2. Characteristics of study population (details of age, gender, schooling, and religion)

Character	Age in years	Numbers (%)
Gender	Male	47 (40.2%)
	Female	70 (59.8%)
Native place	City	49 (41.9%)
	Town	38 (32.5%)
	Village	30 (25.6%)
Type of school	Government	27 (23.1%)
	Private	90 (76.9%)
	Trust	0 (0%)
Driving force in the study population's life for selfless service	Parents	88 (75.2%)
	Grandparents	9 (7.7%)
	Role model	7 (6%)
	Religious Group	7 (6%)
	Charitable	1 (0.9%)
	Other	5 (4.3%)
	Teachers	0 (0%)
	Friends	0 (0%)

on a Likert scale of more than 3, which was 91.5%. These data indicate that we achieved

Level-2. (The indicator for this evaluation question was whether 80% of the students should rate the activity more than 3.)

Table 4 – How much did you like doing 'Random Acts of Kindness' earlier, i.e., before the lecture? After the lecture, Rate on a scale of 1-5. Data from this study show that before the lecture on Random Acts of Kindness, 30 individuals or 25.6 %of the study population, strongly liked to do random acts of kindness, whereas after the lecture, 49.6% of the population strongly liked to do altruistic activities. Similarly, students who disliked altruistic activities also decreased from 1 student to nil. Students who strongly disliked altruistic activities increased from 0.9% before the lecture to 1.7% after the lecture.

When we categorized the study population based on 'how frequently do you do such Altruistic activities', most of the students revealed that they do such activities weekly/monthly, and only 1 student shared that they do not do such activities at all.

Qualitative assessment of the reflections

The qualitative assessment of students' reflections was conducted using Rolfe's model of reflection, which is

Table 3. Activities performed by the study population earlier to participate in this study [Altruistic Personality Scale responses]

Question	Never	Once	More than once	Often	Very often
I have helped a stranger with a broken-down vehicle	53 (45.3%)	40 (34.2%)	20 (17.1%)	3 (2.6%)	1 (0.9%)
I have given money for an act of charity/stranger in need	11 (9.4%)	21 (17.9%)	50 (42.7%)	22 (18.8%)	13 (11.1%)
I have donated goods /clothes	9 (7.7%)	15 (12.8%)	61 (52.1%)	21 (17.9%)	11 (9.4%)
I have done voluntary service (Shramdan)	43 (36.8%)	23 (19.7%)	40 (34.2%)	9 (7.7%)	2 (1.7%)
I have donated blood	105 (89.7%)	6 (5.1%)	1 (0.9%)	2 (1.7%)	3 (2.6%)
I have helped carry a stranger’s belongings (books, Parcel)	5 (4.3%)	16 (13.7%)	48 (41%)	31 (26.5%)	17 (14.5%)
I have allowed someone to go ahead of me in line (in a supermarket, at a fast food restaurant)	11 (9.4%)	6 (5.1%)	62 (53%)	25 (21.4%)	13 (11.1%)
I have offered help to a handicapped or elderly person in need	4 (3.4%)	20 (17.1%)	59 (50.4%)	25 (21.4%)	9 (7.7%)
I have offered my seat on a bus or train to the elderly	8 (6.8%)	12 (10.3%)	55 (47%)	22 (18.8%)	20 (17.1%)
Any other activity	18 (15.4%)	19 (16.2%)	34 (29.1%)	36 (30.8%)	10 (8.5%)

Table 4. How much you liked doing ‘Random Acts of Kindness’ earlier i.e., before the lecture? and after the lecture, rate on a scale of 1-5

How much did you like doing ‘Random Acts of Kindness’	Before the lecture	After the lecture
Strongly disliked it (1)	1 [0.9%]	2 [1.7%]
Disliked it (2)	1 [0.9%]	0 [0%]
Neutral (3)	18 [15.4%]	8 [6.8%]
Liked it (4)	67 [57.3%]	49 [41.9 %]
Strongly liked it (5)	30 [25.6%]	58 [49.6 %]

structured around three key questions: “What happened?”, “So what?”, and “What next?”. This model allowed for a deeper exploration of students’ experiences, emotions, and future intentions.

Stage 1: “What happened?”

This stage focused on what acts of kindness the students performed. Students were asked to describe the specific ‘Random Act of Kindness,’ they undertook. Out of 114 participants, 72 students chose to engage in simple altruistic acts or acts of charity. Table 4 provides two illustrative quotes from the responses to this question, highlighting the variety of acts performed.

Stage 2: “So what?”

This stage explored the emotional impact and personal reflection on the act. Students were prompted to consider how the experience affected them, addressing questions like “What change did it cause in you?” and “How did it make you feel?”. Table 7 presents a summary of the students’ emotional responses and insights gained from performing altruistic acts.

Stage 3: “What next?”

In the final stage, students reflected on their plans for altruism, considering how they might continue to incorporate acts of kindness into their lives. This forward-thinking reflection encouraged them to think about the long-term impact of altruism. Table 8 details the students’

Table 5. How frequently you do such activities

Frequency	Count of individuals
No	1 (0.9%)
Daily	13 (11.1%)
Weekly	44 (37.6%)
Monthly	53(45.3%)
Yearly	6(5.1%)

future intentions and how they plan to carry forward these values in their daily lives.

After the lecture or during the assigned time to do a random act of kindness, 36 individuals performed the simple altruistic act, and 12 performed a risk-taking act. Out of 114 responses, data showed that 22 students did humanitarian acts and 36 students performed charity acts. Two students did mixed acts, which were humanitarian as well as acts of charity, and 6 students did not perform any act within the assigned time.

The students used a variety of adjectives to describe their emotions after performing a random act of kindness, including “feeling good,” “very good,” “happy,” “very happy,” “extremely happy,” “great,” “grateful,” “satisfied,” “sense of gratitude,” “positive vibes,” “amazing,” and “very proud.” Some even mentioned experiencing a “feeling they had not experienced before” and an “improved quality of life” as a result of their altruistic actions.

Of the 114 participants, 108 expressed a strong willingness to continue engaging in such activities in the future, with only one student noting a preference to participate in altruistic acts without involving monetary contributions. Remarkably, just one student indicated no desire to participate in such activities moving forward. These responses highlight that the vast majority of medical students are inclined to pursue altruistic endeavors, reflecting the positive impact of integrating such practices into their professional development.

Table 8 describes the replies of the students to the ‘what next’ question in reflective writing. 108 students expressed

Table 6. What act was performed (what happened) after the lecture, and two qualitative responses received in the Google form

What type of act was performed	Count of individuals	Quotes from the students
Simple Altruism [SA]	36 (31.5%)	I helped the patients in the hospital with the management of their checkups. My initial reaction was whether I should be doing it or not, but I eventually ended up doing it, and it made me feel very grateful for the knowledge that I have. The sense of doing something good without any selfish reason makes you feel gratitude towards life.
Risk taking Altruism [RTA]	12 (10.5%)	I have helped my classmate...She was suffering from a fever 2 days ago. I took her to the hospital, and there I got to know that she is suffering from jaundice and she has to be admitted, and someone has to be with her. But we were having Anatomy test after 2 days, therefore, nobody actually gets ready And I have the option to either leave her because of a paper or just be with her during that time. Therefore, I actually choose to be with her as she needs somebody therewith her. And I just did all that I could do. I was very happy that I did that.
Humanitarian acts [HA]	22(19.2%)	I helped an elderly lady carry her belongings from the bus stand to her house. She was really old and fragile, and the bags she was carrying were really heavy good part was that I felt satisfied helping her.
Act of charity	36(31.5%)	I helped a hungry little boy. I was upset seeing his condition. I helped him by giving him some food. He was very happy and thanked me multiple times. It was a very good feeling doing such an act. Nothing challenging about the act, it was just random. I liked it.
HA & AC	02 (1.7%)	I was traveling in a local bus from Chamba to Sarol, and in the bus, I saw an elderly person standing while I was sitting, I offered them my seat. I paid for the bus fare of a stranger who had lost their wallet somewhere, and also helped them find their wallet in the bus.
No act	06 (5.2%)	Due to my anatomy test, I don't get any chance to do any act of kindness. My path to college and to my room is short. Directly in these 2 weeks I didn't go anywhere, like the market or temple, or travelling in a bus..... But in the future I am always ready to do anything which is helpful for others without any selfish reason...

Table 7. So what (how did you feel)?

Codes derived from the students' responses to How Did You Feel?	Number of students with the same code	Quotes from the text submitted by the students
Good	38	It is always good to help others, and it does make us feel good, though it can be bothersome sometimes.
Very good	11	Just after I offered her my umbrella, I felt so good. There was a sudden rush of positive energy within me. I felt so good. Whenever I help people, I always feel good. And thanks god for making me able to help people in need.
Happy	5	I felt extremely happy and blessed at that time.
Very happy	3	I remembered God and thanked him for forgiving me an opportunity to help others.
Extremely happy	1	I was extremely happy. Thanks a lot for this exercise
Great/grateful	4	I felt grateful at that time because it was the only way I had to help someone. This made me very grateful for the act of kindness I performed
Very grateful	5	I was very grateful to perform the random act of kindness. I wish to perform such acts later too.
Better	3	It makes me feel better than the earlier situation and gives a different feeling of a kind of satisfaction, and makes me feel good.
Joy /cheerful/ satisfaction	7	After offering help to her, I was very satisfied with my act of kindness towards her. I learned that helping someone in need is a service equivalent to God, and everyone must do this. I think I did it in a way it should have been done. So I have no regrets.
Sense of gratitude	1	I felt a sense of gratitude within myself because helping others is possible only when we are sufficiently compassionate towards others.
Neutral/ nothing	2	I felt nothing substantial, just a deep-rooted empathy. I'd not like to lose this feeling, therefore, I try to be decent as long as it is not a huge bother for me.
Relaxed	1	I felt relaxed and good.
Relaxed & good	1	It is a good and relaxing feeling
Positive vibes	1	Yes. It generates positive vibes inside me
Elated & warm	1	Elated and warm yes, it does reflect some of the values my parent inculcated in me. Nothing better than that could ever be done.
Good & happy	3	I feel very good after this, it is like the feeling of achieving something,
Very good & happy	1	It's a very good and happy feeling.
Very Tired	1	I felt very tired, but I learnt that I can make a difference in this world in more Ways than I think I can. I don't know any other way that I could have done it better.
Amazing	1	I felt amazing after doing it, as she gave me a lot of blessings as well.
Very proud	1	I feel very proud when I realize that I've been doing these selfless acts already without expecting any favours. It shows that I have been growing well and with a good nature.
Love	1	Would love to help others.

their desire to continue doing such acts further; however, seven students did not clearly state whether they would pursue. Table 9 shows the modified Altruistic Personality Scale responses as compared with other authors. The

modified Altruistic personality scale responses, as compared with other authors, found that responses were comparable. Data showed that charity and humanitarian acts are frequently done in the present study population

Table 8. Responses of students with quotes to the 'What next/'/'Would you be willing to pursue such activities in the future' question?

What next/Would you be willing to pursue such activities in the future	Count of Individuals	Quotes
Yes	108	Yes, I have decided to help the people in a lot of ways possible .as many ways are possible. I would like to help people whenever they need it. I would surely help them.
Other responses	06	I do not think I'd participate in activities. The schedule is taking a while to adjust to. I'd like to think that I know about my strengths and interests, but they often change depending on the situation. But this activity was helpful in the way that I know what I'd like to become in the future- A decent human being.

as compared to risk-taking altruism. Data also showed that charity and humanitarian acts are frequently done in the present study population as compared to risk-taking altruism.

Discussion

Medical professionalism embodies a set of values, behaviors, and relationships that strengthen the trust of the public in doctors. Core humanistic values, such as honesty, integrity, compassion, altruism, respect, commitment to excellence, accountability, a reflective mindset, and an ability to deal with complexity and uncertainty, adhering to high moral standards, are some of the important aspects of professionalism.⁹ Therefore, in these times when the health care system is suffering through a serious erosion of trust, altruism cannot be termed as a fiduciary duty of the doctor; however, it can be perceived as a professional virtue that the doctor should strive to achieve.¹⁰ As Marynissen and Spurrier reported, medical professionalism is increasingly acknowledged as an essential aspect of medical practice.¹¹ Altruistic motives have been reported to rank highly amongst students' motivation to study medicine.¹²⁻¹⁴ However, the present study echoes earlier findings by Sanjai and Gopichandran, who noted that altruistic behaviors among medical students were infrequent, with a significant decline as students aged.⁸ A need was felt to conduct activities that promote altruism, like performing a 'random act of kindness' might inculcate/develop this much-needed virtue in the medical students. Hence, the study was planned to observe the qualitative and quantitative effects of promoting altruism in medical students by asking them to perform a 'random act of kindness.'

Sanjai and Gopichandran's study reported that in 1st year, medical students' simple acts of altruism were performed by 47.5% students, risk taking act were performed by 28.8 % and limited acts of altruism were performed by 23.8 % students -whereas in our study - simple altruistic acts were done by 31.5% of the total population and risk-taking act were reported by 10.5% students and limited acts were done by 19.2% which shows lower percentage of students performing altruistic acts in present study. A lower percentage of students willing for altruism in our study may be due to the tough hilly terrain for doing such activities, lack of time, and increased workload and tiredness due to mountain walking, which could have caused hindrances in doing

such activities, or may indicate a further declining trend towards altruism in young budding doctors. Our findings further matched with Sanjai and Gopichandran, who found that the parents and peer influence were limited to simple altruistic acts, such as giving change to a stranger or allowing somebody to pass ahead in a queue, which does not expose the individual to many risks.⁸ According to Bhuvana et al, it was found that the majority of the medical students belonged more to the simple altruism group compared to risk-taking behavior, which favors our study.¹⁵ Various researchers have reported that prosocial behavior, where people intentionally give advantage to others through voluntary actions, is different from altruistic activities, which are done for the benefit of others without personal gain.¹⁶

In our study, most of the altruistic acts performed by students were simple acts of kindness, charity work, or humanitarian work. Risk-taking altruism, however, was far less common, with only a few participants demonstrating such behavior. For instance, one student helped prevent a child from being hit by a car, while another rushed in front of a bike to stop an accident involving a woman. Others helped an injured puppy or a trapped animal, risking infection or injury. These examples raise the question of whether promoting risk-taking altruism among medical students is necessary, given the inherent risks they already encounter in their profession, such as exposure to infections, surgical accidents, and high-stress environments. Further research is needed to explore the effects of different types of altruistic behavior on medical students and whether risk-taking altruism is essential to their development. Should the focus shift toward fostering the spirit of altruism, rather than categorizing or grading these acts? The lack of performing altruistic activities by medical students could largely be due to the clinical training of medical students in traditional settings, which subjects students to a lot of stress, huge volumes of information, a scenario of uncertainty, high levels of responsibility, and heavy competition. Amidst this atmosphere, medical students go through a change that has been called "traumatic de-idealization."¹⁷ This is assumed to represent an attitude passed down from more senior doctors. Marcus hypothesized that evidence might be found in medical students' dreams, from which he collected data from almost 400 medical students, and he suggested that many students start with fantasies of becoming 'hero healers', but find themselves moving on

Table 9. Modified Altruistic Personality Scale responses as compared with our author's studies

Question	Responses	Present Study (n=117)	Bhuvana et al (n=400)	Sanjai et al (n=224)
I have helped a stranger with broken-down vehicle. (Risk-Taking Altruism)	Never	53(45.3%)	147 (36.8%)	147(65.6%)
	Once	40 (34.2%)	112 (28%)	37 (16.5%)
	More than once	20(17.1%)	102(25.5%)	32(14.3%)
	Often	3 (2.6%)	32(8%)	3(1.3%)
	Very often	1(0.9%)	7(1.8%)	3(1.3%)
I have given money for an act of charity/ stranger in need. (Act so if Charity)	Never	11(9.4%)	79(19.8%)	69(30.8%)
	Once	21(17.9%)	88(22%)	52(23.2%)
	More than once	50(42.7%)	146(36.5%)	75(33.5%)
	Often	22(18.8%)	59(14.8%)	19(8.5%)
	Very often	13 (11.1%)	28 (7.8%)	9 (4%)
I have donated goods or clothes. (Acts of Charity)	Never	9(7.7%)	48 (12%)	14 (6.3%)
	Once	15 (12.8%)	42 (10.5%)	42 (18.8%)
	More than once	61 (52.1%)	164 (41%)	84 (37.5%)
	Often	21 (17.9%)	95 (23.8%)	48 (21.4%)
	Very often	11 (9.4%)	51 (12.8%)	36 (16.1%)
I have done volunteer service (Shram Dan). (Acts of Charity)	Never	43 (36.8%)	120 (30%)	115 (51.3%)
	Once	23 (19.7%)	165 (26.3%)	50 (22.3%)
	More than once	40 (34.2%)	117 (29.3%)	41 (18.3%)
	Often	9 (7.7%)	39 (9.8%)	14 (6.3%)
	Very often	2 (1.7%)	19 (4.8%)	4 (1.8%)
I have donated blood. (Risk-taking Altruism)	Never	105 (89.7%)	240 (60%)	182 (81.3%)
	Once	6 (5.1%)	74 (18.5%)	27 (12.1%)
	More than once	1 (0.9%)	49 (12.3%)	9 (4%)
	Often	2 (1.7%)	24 (6%)	4 (1.8%)
	Very often	3 (2.6%)	13 (3.3%)	2 (0.9%)
I have helped carry a stranger's belongings (books, parcels). (Simple acts of Altruism)	Never	5 (4.3%)	73 (18.3%)	61(27.2%)
	Once	16 (13.7%)	92 (23%)	47 (21%)
	More than once	48 (41%)	153 (38.3%)	75 (33.5%)
	Often	31 (26.5%)	56 (14%)	23(10.3%)
	Very often	17 (14.5%)	26 (6.5%)	17 (7.6%)
I have allowed someone to go ahead of me in a line (in a supermarket, at, a fast-food restaurant). (Simple acts of Altruism)	Never	11 (9.4%)	63 (15.8%)	34(15.2%)
	Once	6 (5.1%)	80 (20%)	27 (12.1%)
	More than once	62 (53%)	166 (41.5%)	95 (42.4%)
	Often	25 (21.4%)	63 (15.8%)	46(20.5%)
	Very often	13 (11.1%)	28 (7%)	22 (9.8%)
I have offered help to a handicapped or elderly person in need. (Humanitarian acts)	Never	4 (3.4%)	48 (12%)	45(20.1%)
	Once	20 (17.1%)	84 (21%)	54 (24.1%)
	More than once	59 (50.4%)	165 (41.3%)	82 (36.6%)
	Often	25 (21.4%)	67 (16.8%)	30 (13.4%)
	Very often	9 (7.7%)	36 (9%)	13 (5.8%)
I have offered my seat on a bus or train to an elderly. (Humanitarian acts)	Never	8 (6.8%)	25 (6.8%)	27 (12.1%)
	Once	12 (10.3%)	54 (13.5%)	38 (17%)
	More than once	55 (47 %)	163 (40.8%)	86 (38.4%)
	Often	22 (18.8%)	110 (27.5%)	53 (23.7%)
	Very often	20 (17.1%)	48 (12%)	208.9%)

to sadistic fantasies that help them to deal with anxiety-provoking experiences that are part of the journey of medical education, and which they encounter at every stage, from the dissecting room to the palliative care unit.¹⁶ Studies of medical students' attitudes show a decline in altruism in medical schools and have convinced many educators that "traditional medical education even brings about increased cynicism and loss of compassionate attitudes."^{8,16} Thereby emphasizing the need for periodic, gentle, thought-provoking reminders about the 'meaning of becoming a good doctor', reminding them of the nature of healers they thought they were in the first year, and promoting them for altruistic acts like random acts of kindness, and also other values of medical professionalism.

Qualitatively, it appeared that most of the students felt good and satisfied after conducting the random act of kindness, and for some of them, it was a transforming experience, and it appeared that the satisfaction they got from it would be a driving force in the future to perform such acts. A recent study reported that altruism is negatively related to academic achievement in middle school students, but this relationship is gender-driven, as it is only significant for boys.¹⁸ However, it would be difficult to extrapolate these findings to medical students, where the soft skills of offering care to patients selflessly are a need in the medical profession, and unfortunately, altruistic skills are never assessed in the medical field separately. The current medical curriculum does not have any provision for periodically emphasizing the need for the important virtue of altruism, nor has it been allotted any extra marks or competency in the medical curriculum. No appreciation, encouragement, assessments, or reflections are done for students performing altruistic behaviors in the current medical curriculum, thereby making them forget the true virtues needed in medical professionalism. Therefore, this study highlights and demands the need for appropriate incorporation of altruistic activities and activities related to other virtues of medical professionalism in every year of the medical course. Allotting altruistic acts as a core competency in every year for medical

students might be the beginning of a new era where we emphasize and remind students about the concept of selfless service and build the trust that the patient expects from the doctors. Further, planning of assessments on the activities of altruism and medical professionalism may be considered by experts. The process may also limit the traumatic de-idealization that the senior medical students go through and help them believe in themselves as 'realistic healers' rather than 'hero healers.'

Study limitations and future directions

A key limitation of this study is the reliance on self-reported data, which may introduce bias as students could give socially desirable responses about their altruistic acts.

Additionally, the sample size, limited to a single institution, affects the generalizability of the findings. Future research should consider larger, multi-center studies across diverse educational and cultural settings to enhance the robustness and generalizability of results. We encourage further studies to solidify the evidence, as promoting altruism in medical students can strengthen humanistic values in the profession. Expanding research to explore barriers that prevent some students from engaging in altruism could also help develop targeted strategies to integrate it more effectively into medical curricula. If adopted as national protocols, such steps could have a broader, lasting impact on nurturing professionalism in healthcare.

Conclusion

First-year medical students in our study performed simple altruistic random acts of kindness and humanitarian acts, but demonstrated lower engagement in risk-taking altruistic behaviors. Despite this, students reported feeling good and fulfilled after participating in random acts of kindness, indicating the potential for such activities to foster altruistic values. Incorporating altruism as a core competency in medical education—through structured volunteerism, participation in medical camps, and humanitarian efforts—could enhance professionalism. By embedding altruistic acts into assessments and curricula, medical education could nurture the moral and ethical growth of future doctors, strengthening both individual development and the healthcare system as a whole.

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Authors' Contribution

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Competing Interests

The authors declare no conflicts of interest.

Ethical Approval

The study was approved by the institutional ethics committee of GMC Chamba with no. IEC/ 2023/Sept/34(g), dated 25/9/23, and the study was done in accordance with the Declaration of Helsinki. Informed consent was taken from all the participants.

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