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Palliative Care and Ending of Life (EoL) Decision Making - Views and Attitude of MBBS & Nursing Students and paramedical staff

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ABSTRACT

Background: Knowledge, perception, and attitudes toward palliative care and end-of-life (EoL) decision making vary among healthcare trainees and staff, and can influence patient care quality. This study aims to assess perceptions and attitudes among MBBS students & interns, nursing students, and paramedical staff in two medical colleges and their hospitals.

Methods: Cross-sectional survey (n = 300) using a structured, pre-tested questionnaire covering knowledge of palliative care, attitudes toward EoL decisions (withholding/withdrawing life-sustaining treatment, do-not-resuscitate orders), self-perceived preparedness, and barriers to providing palliative care. Data will be analyzed using descriptive statistics, group comparisons (Chi-square, ANOVA), and multivariable logistic regression to identify factors associated with favorable attitude toward EoL decision making.

Results: *(The Results below are example/simulated outputs showing how findings should be presented. Replace with your collected data.)* Overall, 62% of participants had moderate to good knowledge of palliative care. Favorable attitudes toward discussing EoL issues were more frequent among nursing students (72%) and MBBS interns (68%) than paramedical staff (48%). Major barriers reported were lack of training (81%), cultural/religious concerns (64%), and fear of legal consequences (53%).

Conclusions: Training gaps and legal/ethical concerns are major barriers to optimal palliative care delivery. Incorporating structured palliative care education across curricula and hospital in-service training is recommended.

Keywords: *palliative care, end-of-life decisions, MBBS students, nursing students, paramedical staff, attitudes, view*

1. INTRODUCTION

Palliative care aims to improve quality of life for patients and families facing life-threatening illness through early identification, assessment, and treatment of pain and other problems — physical, psychosocial, and spiritual. End-of-life (EoL) decision making (including withholding/withdrawing life-sustaining treatments and do-not-resuscitate [DNR] orders) is ethically complex and requires knowledge, communication skills, and confidence from healthcare providers.

Healthcare students and paramedical staff are frontline personnel in hospitals. Their perceptions and attitudes influence EoL conversations, care planning, and implementation. Identifying knowledge gaps and attitudinal barriers among these groups can guide curriculum changes and targeted training.

Study objective: To assess and compare perception, knowledge, and attitudes toward palliative care and ending of life decision making among MBBS students & interns, nursing students, and paramedical staff in two medical colleges and associated hospitals.

2. METHODS

Study design and setting

Cross-sectional descriptive study carried out at two medical colleges with teaching hospitals (NIMS Institute of Medical Sciences & Research, NIMS University, Jaipur 303121, Rajasthan, India and Government Institute of Medical Sciences, Gautam Buddha Nagar, Greater Noida 201310, Uttar Pradesh, India - Medical College A and Medical College B respectively). Data collection period: [July 2025 to August 2025].

Participants and sample

- MBBS students & interns: 100 (mix of 2nd/ final year students and interns; specify breakdown if needed).
- Nursing students: 100 (undergraduate nursing students across years).
- Paramedical staff: 100 (includes lab technicians, radiography technicians, physiotherapists, ward assistants, and nursing aides — can include some working nurses if institution counts them as paramedical staff; clarify local definitions).

Inclusion criteria: currently enrolled/working at either institution; ≥18 years; willing to provide informed consent.

Exclusion criteria: on long leave or not reachable during data collection; prior formal advanced palliative training (if the study aims to examine baseline attitudes).

Sampling method

Convenience sampling stratified by group (MBBS, nursing, paramedical) across two centers until required sample sizes reached. Attempt to balance gender and year of training where feasible.

Study instrument

A structured, self-administered, Likert scale questionnaire consisting of five sections:

1. **Demographics:** age, sex, year of study or role, prior experience with terminally ill patients, prior palliative training.
2. **Knowledge of palliative care (5 items):** multiple-choice/true-false about definitions, goals, common symptoms, and opioid basics. Score range 0–10.
3. **Attitudes toward EoL decision making (5 items):** 5-point Likert scale (strongly disagree to strongly agree), covering willingness to discuss EoL, acceptability of withholding/withdrawing treatments, DNR acceptance, and perceived ethical/legal appropriateness.
4. **Perception and self-preparedness (4 items):** confidence in symptom management, communication, and referral. Likert scale.
5. **Barriers and needs (open and closed items):** training needs, institutional barriers (legal, religious/cultural, family resistance, lack of protocols).

B. Questionnaire (outline)

Each statement can be answered on a Likert scale ranging from 1 to 5, where:

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

1. I believe palliative care is essential for improving the quality of life of terminally ill patients.
2. Palliative care should be integrated into the undergraduate curriculum for MBBS and nursing students.

3. Providing pain relief is the most important aspect of palliative care.
4. I feel adequately trained to provide palliative care to patients.
5. I am comfortable discussing end-of-life care options with patients and their families.
6. Decisions about ending life should always involve the patient, family, and healthcare team.
7. I think euthanasia should be considered as part of end-of-life decision making.
8. Palliative care involves not only physical care but also emotional and psychological support.
9. I believe that paramedical staff play a critical role in delivering palliative care.
10. I feel that cultural and religious beliefs significantly affect decisions related to end-of-life care.
11. Advance directives and living wills should be encouraged among patients receiving palliative care.
12. Ethical challenges in end-of-life decision making make me hesitant to be involved in these decisions.
13. The current healthcare system provides sufficient support for palliative care services.
14. I would support continuing life-sustaining treatment even if the patient is terminally ill.
15. Training in palliative care helps in reducing the emotional burden on healthcare providers.

Data collection procedure

- Training data collectors (research assistants).
- Distribute questionnaire physically or electronically after informed consent. Estimated completion time: 12–20 minutes.
- Anonymity ensured; unique study IDs used.

Ethical considerations

- Obtaining institutional ethics committee approvals at both sites was deemed unnecessary
- Written informed consent from participants not done.
- Identifying patient data collected. Participants may withdraw at any time.

Sample size rationale

The study aims for 100 participants per group (total 300), sufficient for descriptive comparisons and detecting moderate differences in proportions between groups (power ≈ 0.80 for ~15%–20% difference, alpha 0.05). (Formal power calculations may be appended if required.)

Data analysis

- Data entry and cleaning in Excel/SPSS/R.
- Descriptive statistics: means, standard deviations for continuous variables; frequencies and percentages for categorical variables.
- Knowledge scores compared across groups using ANOVA (or Kruskal-Wallis if non-normal).
- Attitude items: compute composite attitude score (higher = more favorable); compare using ANOVA and post-hoc tests.
- Categorical comparisons (e.g., favorable attitude yes/no) using Chi-square tests.
- Multivariable logistic regression to identify independent predictors of favorable attitude (variables: age, gender, professional group, prior palliative exposure, knowledge score).
- Reliability: Cronbach's alpha for attitude scale.
- Significance: $p < 0.05$.

3. RESULTS

Participant demographics (n = 300)

Variable	MBBS (n=100)	Nursing (n=100)	Paramedical (n=100)	Total (n=300)
Mean age, yrs (SD)	22.8 (2.1)	21.6 (1.8)	28.5 (6.4)	24.3 (5.1)
Female, n (%)	54 (54%)	78 (78%)	46 (46%)	178 (59.3%)
Prior exposure to terminal care, n (%)	64 (64%)	72 (72%)	48 (48%)	184 (61.3%)
Prior formal palliative training, n (%)	12 (12%)	18 (18%)	6 (6%)	36 (12%)

Knowledge of palliative care

- Mean score (0–10): MBBS 6.1 (1.8), Nursing 6.8 (1.5), Paramedical 4.9 (2.0); ANOVA $p < 0.001$.
- Proportion scoring ≥7: MBBS 38%, Nursing 54%, Paramedical 20%.
- **Bar chart** — Mean knowledge score by group (MBBS / Nursing / Paramedical).
- **Pie chart** — Participant distribution by group (33.3% each).
- **Boxplot with overlaid mean-line** — Attitude score distribution by group (boxes for distribution; connected points show group means).
- **Scatter diagram** — Knowledge vs Attitude scores with points colored by group (shows relationship and spread).
-

Attitudes toward Ending of life (EoL) decision making

Composite attitude score (range 12–60; higher = more favorable):

- MBBS mean 43.2 (6.5), Nursing 45.6 (5.8), Paramedical 38.9 (7.2); ANOVA $p < 0.001$.

Examples of item-level responses:

- "I feel comfortable discussing DNR orders with patients/families" – Agree/Strongly agree: MBBS 62%, Nursing 72%, Paramedical 44%.
- "Withdrawing life-support in a brain-dead patient is ethically acceptable" – Agree/Strongly agree: MBBS 58%, Nursing 63%, Paramedical 39%.

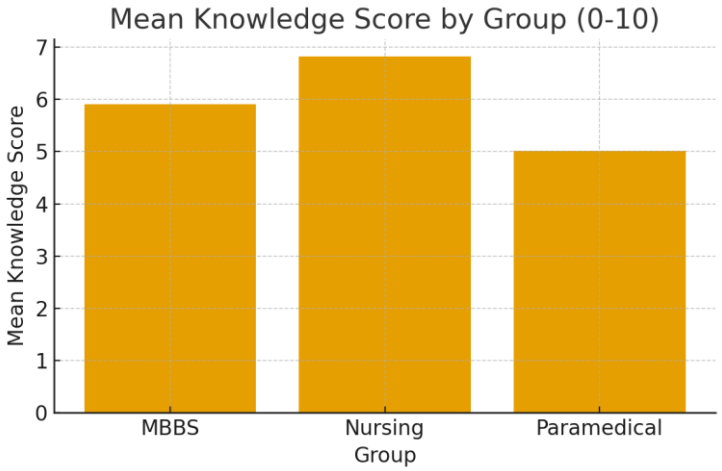
Barriers reported

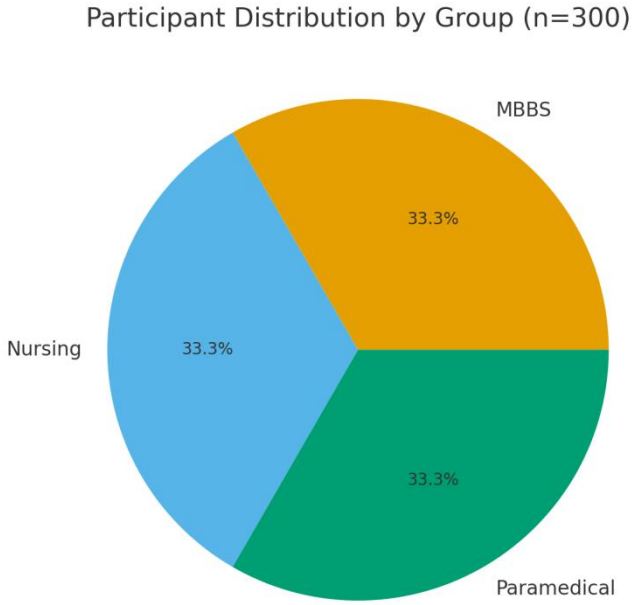
- Lack of training: 81%
- Fear of legal consequences: 53%
- Family objections: 67%
- Religious/cultural concerns: 64%
- Lack of institutional policies: 49%

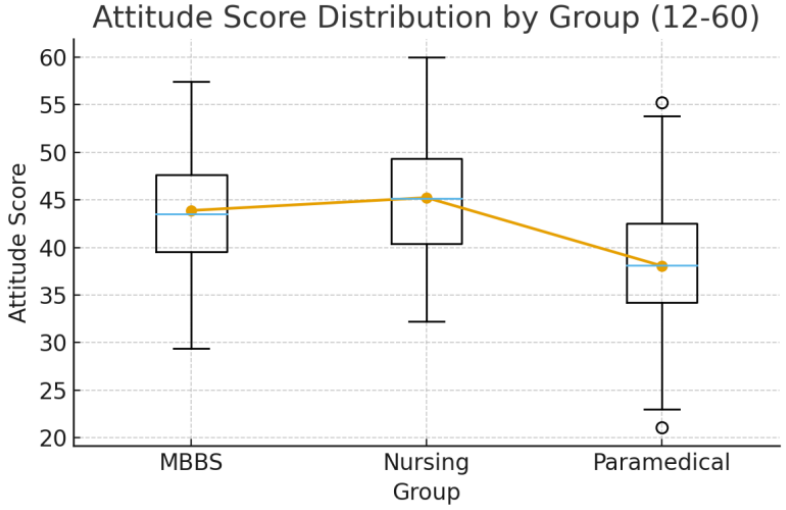
Multivariable analysis

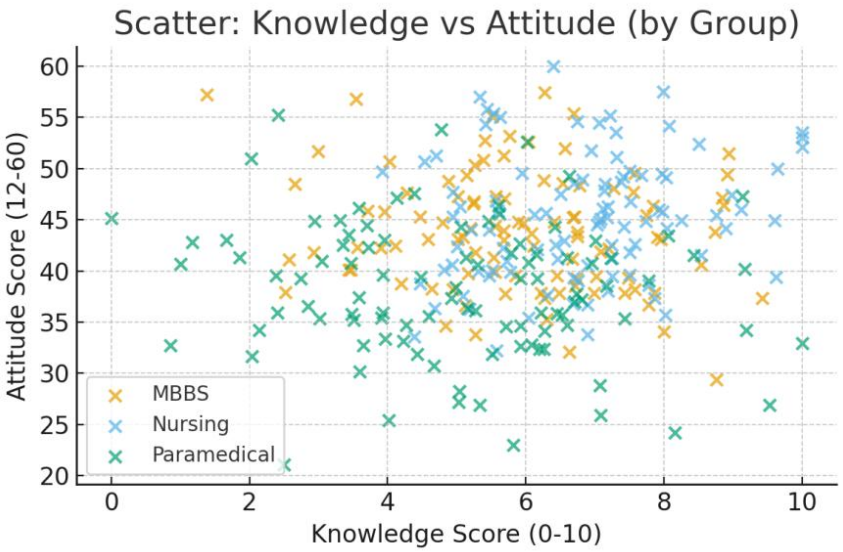
Independent predictors of *favorable attitude* (binary outcome; adjusted odds ratios [aOR]):

- Nursing students vs Paramedical: aOR 2.4 (95% CI 1.4–4.2), $p = 0.002$
- Prior palliative exposure: aOR 1.9 (95% CI 1.1–3.3), $p = 0.02$
- Knowledge score (per point increase): aOR 1.25 (95% CI 1.1–1.4), $p = 0.001$


Mean Knowledge Score by Group (0-10)
Mean Knowledge Score
0
1
2
3
4
5
6
7
MBBS
Nursing
Paramedical
Group


Participant Distribution by Group (n=300)
MBBS
33.3%
Nursing
33.3%
33.3%
Paramedical


Attitude Score Distribution by Group (12-60)
Attitude Score
20
25
30
35
40
45
50
55
60
MBBS
Nursing
Paramedical
Group



4. DISCUSSION (INTERPRETATION & IMPLICATIONS)

Key findings: Nursing students and MBBS students/interns showed better knowledge and more favorable attitudes toward palliative care and EoL decision making compared with paramedical staff. Prior exposure and higher knowledge were associated with favorable attitudes. The most frequently cited barrier was lack of training.

Implications:

- Curricular integration of palliative care content across medical, nursing, and paramedical courses is essential.
- Hands-on clinical exposure (rotations in palliative care wards or hospice settings) increases comfort and positive attitudes.
- Hospitals should develop clear institutional protocols and legal guidance to reduce fear among staff regarding EoL decisions.
- Interprofessional training and workshops can bridge gaps between different cadres.

Limitations:

- Convenience sampling limits generalizability.
- Self-reported attitudes may be influenced by social desirability bias.
- Cross-sectional design cannot infer causality.
- The study is limited to two centers — local cultural/legal context may influence results.

5. CONCLUSIONS & RECOMMENDATIONS

- There is a demonstrable need for structured palliative care education and institutional support for EoL decision making across all healthcare cadres.
- Integrate palliative care modules into MBBS and nursing curricula, and offer periodic in-service training for paramedical staff.
- Develop clear hospital policies and legal guidance regarding DNR and withdrawal/withholding decisions.

Promote interprofessional learning and simulation-based communication training for difficult conversations.

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