

Contents

Part 1: Foundations of Research Ethics and Integrity 1

Chapter 1

Introduction to Research Ethics	2
<i>1.1 Chapter Overview</i>	2
<i>1.2 Learning Objectives</i>	3
<i>1.3 Definition, Nature, and Scope of Research Ethics</i>	3
<i>1.4 Ethics, Values, and Morality in Academic Research</i>	7
<i>1.5 Importance of Ethical Research Practices in Knowledge Production</i>	13
<i>1.6 Historical Evolution of Research Ethics</i>	18
<i>1.7 Landmark Ethical Violations and Lessons Learned</i>	23
<i>1.8 Suggested Readings and Regulations</i>	30

Chapter 2

Research Integrity and Responsible Conduct of Research	33
<i>2.1 Chapter Overview</i>	33
<i>2.2 Learning Objectives</i>	35
<i>2.3 Conceptual Foundations</i>	36
<i>2.4 Mapping with Global and Indian Frameworks</i>	43
<i>2.5 Detailed Unit-Wise Explanations</i>	51
<i>2.6 Indian Vs Western Comparative Analysis</i>	89
<i>2.7 Case Studies</i>	93
<i>2.8 Identification of Gaps</i>	100
<i>2.9 Emerging Issues and Future Directions</i>	106
<i>2.10 Discussion Questions</i>	110
<i>2.11 Suggested Readings and Regulations</i>	111

Part 2: Ethics in Research Design, Methodology, and Approval 115

Chapter 3

Ethical Research Design and Planning	116
<i>3.1 Chapter Overview</i>	116

3.2 Learning Objectives	117
3.3 Ethics at the Proposal and Conceptualization Stage.....	126
3.4 Risk–Benefit Analysis and Social Responsibility of Research.....	129
3.5 Ethics Review Mechanisms: IRB, IEC, IACUC, Institutional Ethics Committees.....	132
3.6 Ethical Clearance, Compliance, Monitoring, and Continuing Review	136
3.7 Case Studies	141
3.8 Suggested Readings and Regulations	150

Chapter 4

Methodological Ethics: The Moral Architecture of Research Design	152
4.1 Chapter Overview	152
4.2 Learning Objectives	154
4.3 Ethics in Qualitative Research.....	159
4.4 Ethics in Quantitative Research.....	164
4.5 Ethics in Mixed-Methods Research.....	169
4.6 Sampling, Recruitment, Gatekeepers, and Power Relations	172
4.7 Bias, Validity, and Responsible Interpretation of Results	177
4.8 Ethical Failures: Case Studies.....	183
4.9 Indian vs Western Comparative Analysis.....	185
4.10 Case Studies (Analytical Format).....	186
4.11 Identification of Gaps (Critical Diagnostic Section).....	189
4.12 Emerging Issues and Future Directions.....	192
4.13 Discussion Questions	196
4.14 Suggested Readings and Regulations	197
4.15 Concluding Reflection.....	199

Part 3: Human, Animal, and Biomedical Research Ethics.....201

Chapter 5

Research Involving Human Participants.....	202
5.1 Chapter Overview	202
5.2 Learning Objectives	203
5.3 Conceptual Foundations.....	204
5.4 Mapping with Global and Indian Textbooks.....	205

5.5 <i>Informed Consent—Principles, Process, and Documentation</i>	207
5.6 <i>Privacy, Confidentiality, and Data Protection</i>	213
5.7 <i>Vulnerable Populations—Children, Elderly, Marginalized Communities</i>	219
5.8 <i>Clinical Trials, Biomedical Research, and Patient Safety</i>	226
5.9 <i>Medical Negligence, Adverse Event Reporting, and Accountability</i>	232
5.10 <i>Indian vs. Western Comparative Analysis</i>	239
5.11 <i>Case Studies (Analytical Format)</i>	240
5.12 <i>Identification of GAPS</i>	245
5.13 <i>Emerging Issues and Future Directions</i>	250
5.14 <i>Suggested Readings and Regulations</i>	254
5.15 <i>Visual Pedagogy Final Note</i>	256

Chapter 6

Research Involving Animals	257
6.1 <i>Chapter Overview</i>	257
6.2 <i>Learning Objectives</i>	257
6.3 <i>Conceptual Foundations</i>	258
6.4 <i>Mapping with Global and Indian Frameworks: Analytical Assessment</i>	261
6.5 <i>Ethical Theories and Frameworks for Animal Research</i>	263
6.6 <i>Animal Ethics Committees and CPCSEA Guidelines</i>	265
6.7 <i>The 3Rs Principle: Replacement, Reduction, and Refinement</i>	270
6.8 <i>Animal Welfare, Housing, and Care Standards</i>	275
6.9 <i>Comparative Analysis: Indian vs. Western Approaches to Animal Research Ethics</i>	281
6.10 <i>Identification of Gaps: Critical Assessment</i>	283
6.11 <i>Emerging Issues and Future Directions</i>	286
6.12 <i>Ethics Capacity Building: National and Institutional</i>	287
6.13 <i>Suggested Readings and Regulations</i>	288
6.14 <i>End of Chapter 6</i>	290

Part 4: Publication Ethics and Scholarly Communication291

Chapter 7

Authorship, Contributorship, and Intellectual Credit	292
7.1 <i>Chapter Overview</i>	292

7.2 Learning Objectives	294
7.3 Conceptual Foundations	294
7.4 Mapping with Global and Indian Frameworks	297
7.5 Authorship Criteria: ICMJE, COPE, UGC-CARE	299
7.6 Order of Authorship and Contributor Roles (CRediT Taxonomy)	302
7.7 Gift, Ghost, and Honorary Authorship	305
7.8 Authorship Disputes and Institutional Resolution Mechanisms	307
7.9 Case Studies: Authorship Ethics in Practice	312
7.10 Identification of Gaps in Authorship Governance	316
7.11 Emerging Issues and Future Directions	317
7.12 Suggested Readings and Regulations	319
7.13 Final Visual Pedagogy Summary	320

Chapter 8

Peer Review and Editorial Ethics	322
8.1 Chapter Overview	322
8.2 Learning Objectives	323
8.3 Conceptual Foundations	324
8.4 Models of Peer Review: Structure, Ethics, and Trade-offs	325
8.5 Ethical Responsibilities of Reviewers and Editors	328
8.6 Editorial Independence, Bias, and Decision-Making	331
8.7 Peer Review Misconduct and Confidentiality	333
8.8 Indian vs. Western Comparative Analysis: Peer Review and Editorial Ethics	337
8.9 Case Studies: Peer Review Ethics in Practice	338
8.10 Identification of Gaps in Peer Review and Editorial Ethics Systems	342
8.11 Emerging Issues and Future Directions	343
8.12 Suggested Readings and Resources	345

Chapter 9

Conflicts of Interest and Transparency in Research	347
9.1 Chapter Overview	347
9.2 Learning Objectives	348
9.3 Conceptual Foundations	349

9.4 <i>Financial, Non-Financial, and Institutional Conflicts of Interest</i>	351
9.5 <i>Disclosure Norms and Journal Policies</i>	354
9.6 <i>Managing Conflicts in Collaborative and Industry-Sponsored Research</i>	358
9.7 <i>Indian vs. Western Comparative Analysis: Conflict-of-Interest Governance</i>	362
9.8 <i>Case Studies: Conflicts of Interest in Practice</i>	363
9.9 <i>Identification of Gaps in Conflict-of-Interest Governance</i>	366
9.10 <i>Emerging Issues and Future Directions</i>	368
9.11 <i>Suggested Readings and Resources</i>	369
Part 5: Plagiarism, Academic Integrity, and AI Ethics	373
Chapter 10	
Plagiarism and Originality in Scholarly Research	374
10.1 <i>Chapter Overview</i>	374
10.2 <i>Learning Objectives</i>	375
10.3 <i>Conceptual Foundations</i>	376
10.4 <i>Historical Evolution: From Common Property to Individual Attribution</i>	377
10.5 <i>Forms of Plagiarism: Direct, Mosaic, and Self-Plagiarism</i>	378
10.6 <i>Redundant, Duplicate, and Salami Publications</i>	382
10.7 <i>Similarity Detection Tools and Ethical Thresholds</i>	384
10.8 <i>UGC Regulations on Plagiarism: Architecture, Achievement, and Gaps</i>	387
10.9 <i>Indian vs. Western Comparative Analysis: Plagiarism Governance</i>	390
10.10 <i>Case Studies: Plagiarism and Originality in Practice</i>	391
10.11 <i>Identification of Gaps in Plagiarism Governance</i>	395
10.12 <i>Emerging Issues and Future Directions</i>	396
10.13 <i>Suggested Readings and Resources</i>	397
Chapter 11	
Artificial Intelligence and Digital Tools in Research.....	400
11.1 <i>Chapter Overview</i>	400
11.2 <i>Learning Objectives</i>	401
11.3 <i>Conceptual Foundations</i>	402
11.4 <i>Ethical Use of AI in Research and Writing</i>	404
11.5 <i>AI-Generated Text, Images, and Data</i>	407

11.6 Algorithmic Bias, Transparency, and Human Oversight.....	410
11.7 Authorship, Accountability, and Disclosure in AI-Assisted Research.....	413
11.8 Indian vs. Western Comparative Analysis: AI in Research Governance.....	417
11.9 Case Studies: AI in Research Ethics in Practice.....	418
11.10 Identification of Gaps in AI Research Ethics Governance.....	421
11.11 Emerging Issues and Future Directions	422
11.12 Suggested Readings and Resources	423

Part 6: Data Ethics, Open Science, and Research Transparency.....427

Chapter 12

Research Data Management and Ethics.....	428
12.1 Chapter Overview	428
12.2 Learning Objectives	429
12.3 Conceptual Foundations.....	430
12.4 Data Ownership, Stewardship, and Intellectual Property Rights.....	432
12.5 Data Storage, Security, and Privacy Laws	435
12.6 Data Sharing, Open Access, and FAIR Principles.....	438
12.7 Data Fabrication, Falsification, and Selective Reporting.....	441
12.8 Mapping with Global and Indian Frameworks	445
12.9 Indian vs. Western Comparative Analysis: Research Data Management.....	446
12.10 Case Studies: Research Data Management in Practice	447
12.11 Identification of Gaps in Research Data Management Governance.....	450
12.12 Emerging Issues and Future Directions.....	452
12.13 Suggested Readings and Resources	453

Chapter 13

Corrections, Retractions, and Post-Publication Ethics	455
13.1 Connecting Thread from Chapter 12.....	455
13.2 Chapter Overview.....	455
13.3 Learning Objectives.....	456
13.4 Conceptual Foundations.....	457
13.5 Mapping with Global and Indian Frameworks	459
13.6 Retractions, Corrections, and Expressions of Concern.....	460

13.7 <i>Post-Publication Peer Review and Academic Debate</i>	464
13.8 <i>Reproducibility, Replicability, and Research Transparency</i>	468
13.9 <i>Indian vs. Western Comparative Analysis: Post-Publication Integrity</i>	474
13.10 <i>Case Studies: Post-Publication Ethics in Practice</i>	475
13.11 <i>Identification of Gaps in Post-Publication Ethics Governance</i>	479
13.12 <i>Emerging Issues and Future Directions</i>	480
13.13 <i>Suggested Readings and Resources</i>	482
Part 7: Collaborative, Legal, and Institutional Ethics	485
Chapter 14	
Ethics in Collaborative and Interdisciplinary Research.....	486
14.1 <i>Connecting Thread from Chapter 13</i>	486
14.2 <i>Chapter Overview</i>	486
14.3 <i>Learning Objectives</i>	487
14.4 <i>Conceptual Foundations</i>	488
14.5 <i>Mapping with Global and Indian Frameworks</i>	491
14.6 <i>Multi-Author, Multicentre, and International Research</i>	492
14.7 <i>Industry–Academia Collaborations and Sponsored Research</i>	497
14.8 <i>Cultural Sensitivity, Equity, and Community Engagement</i>	502
14.9 <i>Indian vs. Western Comparative Analysis: Collaborative Research Ethics</i>	507
14.10 <i>Case Studies: Collaborative Research Ethics in Practice</i>	508
14.11 <i>Identification of Gaps in Collaborative Research Ethics Governance</i>	511
14.12 <i>Emerging Issues and Future Directions</i>	513
14.13 <i>Discussion Questions</i>	514
14.14 <i>Suggested Readings and Resources</i>	516
Chapter 15	
Legal and Institutional Frameworks	518
15.1 <i>Connecting Thread from Chapter 14</i>	518
15.2 <i>Chapter Overview</i>	518
15.3 <i>Learning Objectives</i>	520
15.4 <i>Conceptual Foundations</i>	521
15.5 <i>Mapping with Global and Indian Frameworks</i>	523

15.6	<i>Role and Functions of Institutional Ethics Committees</i>	525
15.7	<i>Inquiry into Research Misconduct and Due Process</i>	529
15.8	<i>Whistleblower Protection and Institutional Liability</i>	534
15.9	<i>Copyright Law, Patents, and Technology Transfer</i>	537
15.10	<i>Indian vs. Western Comparative Analysis: Legal and Institutional Frameworks</i>	542
15.11	<i>Case Studies: Legal and Institutional Frameworks in Practice</i>	543
15.12	<i>Identification of Gaps in Legal and Institutional Research Ethics Governance</i>	547
15.13	<i>Emerging Issues and Future Directions</i>	549
15.14	<i>Keywords</i>	550
15.15	<i>Discussion Questions</i>	550
15.16	<i>Suggested Readings and Resources</i>	552
	Part 8: Emerging Issues, Predatory Publishing, and Future Directions	555
	Chapter 16	
	Emerging Challenges in Research and Publication Ethics	556
16.1	<i>Connecting Thread from Chapter 15</i>	556
16.2	<i>Chapter Overview</i>	557
16.3	<i>Learning Objectives</i>	558
16.4	<i>Conceptual Foundations</i>	559
16.5	<i>Mapping with Global and Indian Frameworks</i>	561
16.6	<i>Big Data, Digital Research, and Surveillance Ethics</i>	563
16.7	<i>Social Media, Online Research, and Platform Ethics</i>	568
16.8	<i>Predatory Journals, Fake Conferences, and Metrics Manipulation</i>	572
16.9	<i>Case Studies: Emerging Challenges in Research and Publication Ethics</i>	577
16.10	<i>Identification of Gaps in Emerging Research Ethics Governance</i>	581
16.11	<i>Emerging Issues and Future Directions</i>	583
16.12	<i>Keywords</i>	585
16.13	<i>Discussion Questions</i>	585
16.14	<i>Suggested Readings and Resources</i>	588
	Chapter 17	
	Future Perspectives and Ethics Capacity Building	591
17.1	<i>Chapter Overview</i>	591

<i>17.2 Learning Objectives</i>	591
<i>17.3 Conceptual Foundations</i>	592
<i>17.4 Global Harmonization of Research Ethics Standards</i>	593
<i>17.5 Ethics Education, Training, and Institutional Capacity Building</i>	596
<i>17.6 Identification of Gaps in Ethics Education and Capacity</i>	600
<i>17.7 Future Trends in Ethical Research, Publishing, and Knowledge Governance</i>	600
<i>17.8 Identification of Gaps</i>	606
<i>17.9 Emerging Issues and Future Directions</i>	606
<i>17.10 Review Questions</i>	607
<i>17.11 Suggested Readings</i>	608