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Knowledge assessment test of rabies among the veterinary students in India: A cross-sectional study

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Abstract
Rabies remains a significant public health threat in India, necessitating a highly knowledgeable veterinary workforce for its effective prevention and control. This study aimed to assess the rabies knowledge of 550 undergraduate, Bachelor of Veterinary Science (BVSc and AH) students and postgraduate (PG), Master of Veterinary Science across India using an online questionnaire administered via Google Forms. The 50 multiple-choice questions were categorized into four key aspects: Etiology and structural composition of Rabies virus, Epidemiology and transmission route, Laboratory diagnosis and sample collection, and Prevention and Control strategies. Out of 550 participants, 268 completed the questionnaire within the stipulated 45 minutes. The results revealed an average knowledge score of 65.54% (32.77/50), with a wide range from 5% to 100%. While students demonstrated strong foundational knowledge in viral morphology, classification, and the gold standard diagnostic method (Fluorescent Antibody Test, 89.9% correct), notable gaps were identified. These include critical practical aspects such as sample preservation for virus isolation (only 40% correct), detailed understanding of specific viral proteins (61% correct for N protein), and vaccine strain origins (30.4% correct for Flury Fixed virus). Furthermore, a common misconception was observed, with 45.1% of students incorrectly believing hydrophobia is present in all rabid animals. These findings highlight both strengths and specific areas for targeted educational intervention within veterinary curricula to enhance their preparedness for robust rabies control efforts in India.

Keywords: Rabies, awareness, veterinary students, India, online questionnaire, google forms, knowledge assessment, one health

1. Introduction

Rabies, a fatal zoonotic disease, continues to pose a substantial public health burden globally. India alone accounts for a significant portion, estimated at 18,000 to 20,000 human deaths annually (WHO, 2018) [10], though more recent Indian Council of Medical Research (ICMR) data suggests around 5,726 deaths annually (Thangaraj *et al*., 2025) [7]. A particularly tragic aspect is that 30-60% of reported cases and deaths in India occur in children under 15 years (WHO, 2018) [10]. The disease is almost invariably fatal once clinical symptoms appear, yet it is 100% preventable through timely and appropriate interventions, primarily vaccination. Dogs are the primary reservoirs and transmitters of rabies to humans in India, accounting for around 95-97% of cases (Radhakrishnan *et al*., 2020) [2] underscoring the critical role of veterinary professionals in disease surveillance, control, and public education.

Effective rabies control and eventual elimination in India hinge critically on a highly knowledgeable veterinary workforce. As future frontline workers in animal and public health, their understanding of the virus, its transmission, diagnostic methods, and control strategies directly impacts their ability to contribute effectively to national rabies elimination programs and implement the 'One Health' approach. Previous studies have assessed rabies knowledge among general populations and medical professionals in India, revealing varying levels of awareness and persistent misconceptions (Roy *et al*., 2023; Sivagurunathan *et al*., 2021) [3, 6] However, a targeted assessment of rabies knowledge specifically among BVSc students, encompassing both undergraduate and postgraduate levels, across a pan-India demographic, remains less explored.

The advent of online survey tools, such as Google Forms, offers an efficient and cost-effective method for conducting widespread surveys, enabling access to a diverse student population across geographical barriers. This study utilized such a platform to gain a deep insight into the knowledge base of BVSc students regarding rabies. The objective was to identify strengths in their understanding and pinpoint specific areas where knowledge might be lacking, thereby informing targeted educational interventions and curriculum enhancements.

2. Materials and Methods

2.1. Study Design and Participants

A cross-sectional study was conducted through an online questionnaire. The criteria for target population comprised of student (both undergraduate and postgraduate) of Veterinary Science enrolled in various veterinary colleges across India. A total of 550 students expressed willingness to participate in the study.

2.2. Questionnaire Development
A comprehensive questionnaire consisting of 50 multiple-choice questions was developed by a team of veterinary experts with specialization in virology, epidemiology, and public health. The questions were broadly categorized into four key aspects of rabies:

- **Etiology and structural composition of Rabies virus (9 questions):** Covered topics such as viral classification, genome, key structural proteins, and antigenic properties.
- **Epidemiology and transmission route (14 questions):** Focused on reservoir hosts, modes of transmission (bite, non-bite), incubation period, geographical distribution, and factors influencing disease spread.
- **Laboratory diagnosis and sample collection (13 questions):** Included questions on various diagnostic techniques (FAT, PCR, ELISA), appropriate sample types (brain, skin biopsy, saliva), and sample handling procedures.
- **Prevention and Control strategies (14 questions):** Assessed knowledge on pre-exposure prophylaxis, post-exposure prophylaxis (vaccine types, schedule, dosage), wound management, animal vaccination strategies (ABC, mass vaccination), and public health measures.

The questionnaire was designed to be clear, concise, and unambiguous. A pilot study with a small group of veterinary students (n=10) was conducted to assess the clarity of questions, estimated completion time, and overall user experience. Minor modifications were made based on their feedback.

2.3. Data Collection
The questionnaire was administered online using Google Forms. A unique link to the Google Form was shared with student representatives from various veterinary colleges across India via email and professional student networks. Participants were informed about the study's purpose, ensured anonymity, and provided with explicit instructions regarding the single attempt and the 45-minute time limit for completion. Data collection was conducted in 2024. Out of the 550 students who initiated the questionnaire, 268 (48.7%) successfully completed it within the given time frame.

2.4. Data Analysis
The data collected from the Google Form responses were exported into a spreadsheet format (e.g., Microsoft Excel) and subsequently analyzed using IBM SPSS Statistics. Descriptive statistics, including frequencies, percentages, means, standard deviations, and ranges, were used to summarize the overall knowledge levels and performance in each of the four categories. No inferential statistical comparisons between groups were conducted for this descriptive study.

3. Results and Insights
The study analyzed responses from 268 veterinary students who completed the online questionnaire within the stipulated 45 minutes. The overall average score was 32.77 out of 50 points (65.54%), with a median score of 33 points. The scores ranged from a low of 5 points to a high of 50 points, indicating a wide variation in knowledge levels among the participants.

Table 1: Overall Knowledge Scores of BVSc Students on Rabies (N=268)

Metric	Score (out of 50)	Percentage (%)
Average	32.77	65.54
Median	33	66.00
Range	5 - 50	10 - 100

3.1. Etiology and Structural Composition of Rabies Virus (9 Questions Analyzed)
This section aimed to assess students' understanding of the fundamental characteristics of the rabies virus. The results generally indicate a good grasp of basic viral morphology and classification.

- **Viral Capsid Symmetry (Q1):** 182 out of 262 respondents (69.5%) correctly identified the helical capsid symmetry. This suggests a solid understanding of fundamental virology.
- **Characteristic Shape (Q2):** An overwhelming majority, 257 out of 267 (96.3%), correctly identified the bullet shape of the rabies virus, demonstrating strong recognition of a key viral characteristic.
- **Family Classification (Q3):** Similarly, 258 out of 267 (96.6%) correctly placed the rabies virus in the *Rhabdoviridae* family, indicating strong foundational knowledge.
- **Rabies-Related Viruses (Q4):** Knowledge was moderate on specific rabies-related viruses, with 172 out of 249 (69.1%) correctly identifying Mokola virus. This suggests some students may not be familiar with the broader Lyssavirus genus beyond the classical rabies virus.
- **Host Cell Receptor Binding Protein (Q5):** 169 out of 259 (65.3%) correctly identified the G-protein as responsible for host cell binding. This indicates a reasonable understanding of viral protein functions.
- **Viral Inclusion Body Formation Protein (Q6):** 158 out of 259 (61.0%) correctly identified the N protein as involved in Negri body formation. While over half were correct, this suggests some room for improvement in understanding the roles of specific viral proteins.
- **Fixed Rabies Viruses (Q7):** Only 146 out of 249 (58.6%) correctly identified CVS and PV-11 as Fixed Rabies Viruses. This indicates a specific knowledge gap regarding different rabies virus strains and their properties, which is crucial for vaccine production and research.
- **Neurotropic Nature (Q8):** A high percentage, 248 out of 263 (94.3%), correctly identified the neurotropic nature of the Lyssa virus, reflecting a strong understanding of its tropism.
- **Replication Site (Q9):** 179 out of 262 (68.3%) correctly identified the cytoplasm as the replication site. This indicates a good understanding of rabies virus replication within host cells.

3.2. Epidemiology and Transmission Route (14 Questions Analyzed)
This section explored students' understanding of how rabies spreads and its occurrence in different animal populations.

Knowledge here is critical for effective disease surveillance and control.

- **Common Reservoir Host in India (Q1):** 213 out of 265 (80.4%) correctly identified the mongoose as a common reservoir host in India, indicating good regional epidemiological awareness.
- **Animals Rabies Does Not Occur In (Q2):** An impressive 244 out of 266 (91.7%) correctly stated that rabies does not occur in birds, showing a strong understanding of species susceptibility.
- **Symptomless Carriers (Q3):** 220 out of 266 (82.7%) correctly identified bats as symptomless carriers, a crucial epidemiological concept.
- **Skunks Identification (Q4 - Image Based):** Only 189 out of 261 (72.4%) correctly identified the image of a skunk. While a majority, this highlights the importance of visual recognition of key reservoir animals.
- **Overwintering Survival Mechanism in Bats (Q5):** Only 143 out of 252 (56.7%) correctly identified "Subscapular brown fat" as the overwintering survival mechanism in bats. This indicates a significant knowledge gap in the specific ecological aspects of bat rabies.
- **Modes of Transmission (Q6):** A high number, 240 out of 267 (89.9%), correctly identified "All of the above" for rabies transmission routes, demonstrating a comprehensive understanding of how the disease spreads.
- **Biological Transmission by Vectors (Q7):** 212 out of 262 (80.9%) correctly identified "None of these" for biological transmission by arthropod vectors, which is accurate as rabies is primarily transmitted via saliva.
- **Intensity of Rabies Virus Infection Dependence (Q8):** Only 155 out of 262 (59.2%) selected "None of the above" for factors affecting infection intensity. A significant portion (30.5%) incorrectly chose "Age of the animal/individual," suggesting some misconceptions about factors influencing disease progression post-exposure.
- **Spread to Nervous System (Q9):** 219 out of 266 (82.3%) correctly identified that rabies virus spreads to the nervous system through nerves from the bite site, showing a good understanding of neuro-invasion.
- **Virus in Saliva (Q10):** 163 out of 264 (61.7%) correctly stated that the rabies virus can be found in saliva "Before the onset of clinical signs," a critical point for understanding pre-symptomatic transmission. However, 29.9% still believed it's "Only during the clinical stage," indicating an area for clearer emphasis.
- **Clinical Sign in Furious Rabies in Dogs (Q11):** 210 out of 264 (79.5%) correctly identified "Biting moving and inanimate objects" as the most important clinical sign in furious rabies in dogs, demonstrating good clinical recognition.
- **Clinical Sign in Cattle Rabies (Q12):** 182 out of 263 (69.2%) correctly identified "Frequent bellowing and micturating with arching of back" as a key sign in cattle, indicating decent clinical knowledge in livestock.
- **Signs of Hydrophobia (Q13):** A notable finding was that only 133 out of 268 (49.6%) correctly identified "Human Rabies patients" as where hydrophobia is mainly seen. A large proportion (45.1%) incorrectly chose "In all of these," suggesting a common misconception that hydrophobia is a universal rabies symptom across all species.
- **Late-Stage Symptom in Horses (Q14):** 164 out of 264 (62.1%) correctly identified "Paralysis" as a late-stage symptom in horses, while 33.3% chose "All of the above," implying some confusion regarding the progression of clinical signs.

3.3. Laboratory Diagnosis and Sample Collection (13 Questions Analyzed)

This section assessed knowledge critical for accurate and timely diagnosis, which is fundamental to rabies control.

- **Most Suitable Post-Mortem Specimen (Q1):** An excellent 259 out of 267 (97.0%) correctly identified the brain as the most suitable specimen for post-mortem confirmation, indicating strong practical knowledge.
- **Sample Preservation (Q2):** Only 106 out of 265 (40.0%) correctly identified "Phosphate buffer glycerol" for sample preservation. A significant number chose 10% Formalin (22.6%) or Phosphate buffer solution (30.6%), highlighting a critical knowledge gap in proper sample handling, which can severely impact diagnostic accuracy.
- **Hippocampus Identification (Q3 - Image Based):** 156 out of 267 (58.4%) correctly identified the hippocampus region from the given figure. This suggests that while a majority could identify it, a substantial portion still needs to improve their anatomical knowledge for sample collection.
- **Virus Visualization (Q4):** Only 104 out of 266 (39.1%) correctly stated that rabies virus particles can be visualized under an "Electron microscope." A large portion (50%) incorrectly chose "Fluorescent microscope," indicating confusion between direct visualization of the virus and the use of fluorescent antibodies for antigen detection.
- **Virus Cultivation (Q5):** 189 out of 263 (71.9%) correctly identified "All the above" (Vero cells, BHK-21 cells, Suckling Hamster brain) for rabies virus cultivation, demonstrating good knowledge of common cell lines and animal models.
- **Gold Standard for Diagnosis (Q6):** An impressive 240 out of 267 (89.9%) correctly identified the "Fluorescent Antibody Test" as the gold standard for rabies diagnosis, showcasing strong theoretical understanding of key diagnostic methods.
- **Stains for Negri Bodies (Q7):** Only 122 out of 266 (45.9%) correctly chose "All of These" (Mann's stain, Sellers stain, Fuchsin-Safranin Blue stain) for demonstrating Negri bodies. A significant 44% chose "Sellers stain" only, indicating a partial understanding. This points to a need for more comprehensive teaching on histopathological staining techniques.
- **Correct Stain Combination for Negri Bodies (Q8):** Only 138 out of 259 (53.3%) correctly identified the specific components of Sellers Stain (Methylene blue + Basic Fuchsin). This indicates a detailed knowledge gap regarding specific staining protocols.
- **Negri Body Location in Cattle (Q9):** Only 106 out of

265 (40.0%) correctly identified the "Cerebellum" as the common location for Negri bodies in cattle, while 44.9% chose "Hippocampus." This suggests confusion regarding species-specific variations in Negri body distribution.

- **Negri Body Location in Dogs (Q10):** In contrast, 176 out of 264 (66.7%) correctly identified the "Hippocampus" as the common location in dogs, demonstrating better knowledge for the primary reservoir species.
- **Live Animal Sample for Diagnosis (Q11):** 244 out of 266 (91.7%) correctly identified "Cerebrospinal fluid (CSF) test" as the most commonly used sample for diagnosis in a live suspected rabid animal. This is a crucial practical point.
- **"Babes Nodules" Location (Q12):** 244 out of 264 (92.4%) correctly identified "Gasserian ganglion" as the location for characteristic 'Babes nodules' before brain lesions, showcasing strong knowledge of neural pathology.
- **Cytoplasmic Inclusion (Negri bodies) Identification (Q13 - Image Based):** 174 out of 262 (66.4%) correctly identified the image of Negri bodies, indicating a reasonable ability to recognize histological features.

3.4. Prevention and Control Strategies (14 Questions Analyzed)

This section explored students' understanding of rabies prevention, vaccination, and control measures.

- **Primary Purpose of Oral Rabies Vaccines (Q1):** 165 out of 263 (62.7%) correctly identified the primary purpose of oral rabies vaccines as "To vaccinate wildlife and stray dogs against rabies." This indicates a fair understanding of modern rabies control strategies, particularly for large-scale control in challenging populations.
- **Flury Fixed Virus Origin (Q2):** Only 78 out of 257 (30.4%) correctly identified the origin of Flury Fixed virus (HEP/LEP) as a "Rabid human patient." A significant number chose "Rabid Red fox" (35.4%), indicating a notable knowledge gap in the history and development of rabies vaccine strains.
- **Control of Vampire Bat Transmitted Rabies (Q3):** Only 107 out of 241 (44.4%) correctly identified that "By anti-rabies vaccines in bats" is NOT a method to control vampire bat transmitted rabies, but rather the other listed chemical methods. This question's format (asking what *cannot* be achieved) may have contributed to confusion, but the overall low score highlights a significant gap in knowledge about specific bat rabies control methods.
- **Correct Vaccination Regimes (Q4):** 163 out of 258 (63.2%) correctly identified "All are correct" regarding various human vaccination regimens (Essen, Zagreb, Thai Red Cross). This indicates a reasonable, but not universal, understanding of different Post-Exposure Prophylaxis (PEP) schedules.
- **10-Day Observation Period Validity (Q5):** Only 123 out of 255 (48.2%) correctly identified that the 10-day observation period is "applicable for only pet dogs and cats." A significant portion (29.4%) incorrectly thought it applied to "all animal species," indicating a crucial misunderstanding of this public health guideline.
- **Discontinuation of Nerve Tissue Rabies Vaccine in India (Q6):** 146 out of 249 (58.6%) correctly identified "2004" as the year Conventional Nerve Tissue Rabies Vaccine was discontinued in India. This suggests moderate historical awareness regarding vaccine policy changes.
- **Immediate Wound Management (Q7):** An overwhelming 244 out of 266 (91.7%) correctly stated that a bite wound should be "Washed with soap and water." This demonstrates excellent practical knowledge on initial first aid, which is critical for preventing rabies.
- **Management of Overdue Vaccinated Dog Bitten by Mongoose (Q8):** 153 out of 255 (60.0%) correctly chose to "Administer rabies vaccine and keep under 6 months quarantine." This indicates a fair understanding of post-exposure management protocols for animals, though 27.5% still opted for observation without immediate vaccination, suggesting a potential misconception.
- **Recommended PEP Schedule for Non-Immunized Humans (Q9):** 220 out of 260 (84.6%) correctly identified the "Day 0, 3, 7, 14, and 21/28" schedule. This demonstrates strong knowledge of standard human PEP.
- **HRIG Recommendation Situations (Q10):** Only 124 out of 260 (47.7%) correctly stated that Human Rabies Immune Globulin (HRIG) is recommended "Only to previously unvaccinated persons." A substantial number (23.8%) thought it applied to "Person receiving pre-exposure vaccination" and 17.7% for "vaccinated person even after receiving 3 doses," indicating significant confusion regarding HRIG administration criteria.
- **Rabies Virus Destruction Methods (Q11):** 189 out of 267 (70.8%) correctly identified "All the above" (Formalin, Detergents, Sunlight) as methods that destroy the rabies virus. This shows good general knowledge of viral inactivation.
- **Canine Rabies Free Countries (Q12):** 155 out of 265 (58.5%) correctly identified "All the above" (USA, Japan, New Zealand) as canine rabies-free countries. This indicates moderate global epidemiological awareness.
- **Rabies Related Viruses Threat in India (Q13):** A striking result was that only 26 out of 266 (9.8%) correctly responded "No Threat" to whether Rabies related Viruses at present pose a threat in India. A large majority (73.7%) incorrectly selected "Major threat," highlighting a significant and widespread misconception about the current epidemiological status of non-rabies Lyssaviruses in India.
- **Most Effective Method for Preventing Rabies in Dogs and Cats (Q14):** 177 out of 267 (66.3%) correctly answered 'Vaccination.' Other options included indoor confinement, leash walking, and 'all of the above,' which collectively accounted for [33.6%] of responses.

4. Discussion

The findings of this study provide a valuable snapshot of rabies awareness among the future veterinary workforce in India. The overall average score of 65.54% (32.77 out of 50 points), with a median of 33 points, indicates a moderate level of knowledge among the participating students. However, the wide range of scores (5 to 50 points) highlights a significant disparity in individual knowledge depth. This variability could be attributed to differences in curriculum emphasis across institutions, individual study habits, or varied exposure to practical rabies control programs during their academic tenure.

Comparing these results with similar studies conducted globally, particularly in rabies-endemic regions, offers valuable context. Our students demonstrated a strong foundational understanding in key areas, aligning with expected knowledge for veterinary professionals. For instance, the high accuracy in identifying the bullet shape of the rabies virus (96.3%), its classification within the *Rhabdoviridae* family (96.6%), and its neurotropic nature (94.3%) is commendable and consistent with robust virology education. Similarly, the almost universal recognition of the brain as the most suitable post-mortem specimen (97.0%) and the Fluorescent Antibody Test (FAT) as the gold standard for diagnosis (89.9%) reflects a solid theoretical grasp of crucial diagnostic practices. These strengths broadly align with observations from studies in countries like Thailand, where veterinary students showed strong awareness of basic transmission routes (Thiptara *et al*., 2022) [8]

However, the study also pinpointed specific knowledge gaps that warrant attention. A critical area of concern is the proper preservation of samples for virus isolation, with only 40.0% correctly identifying "Phosphate buffer glycerol." A significant portion of students opted for formalin or normal saline, indicating a potential disconnect between theoretical knowledge and practical application, which is vital for maintaining sample integrity for accurate diagnosis. This practical knowledge gap has parallels with findings in community surveys in Tanzania, where a striking lack of awareness about immediate wound cleaning post-bite was observed [Sambo *et al*., 2015] [4], The low score on sample preservation for virus isolation (40.0% correct) is particularly concerning as this practical skill is fundamental to ensuring the integrity of samples for accurate diagnosis, directly impacting public health surveillance and control efforts

Furthermore, while students generally understood viral morphology, a notable knowledge gap existed regarding specific viral proteins, with only 61.0% correctly identifying the N protein's role in Negri body formation and 58.6% knowing about Fixed Rabies Viruses like CVS and PV-11. The confusion between direct virus visualization (electron microscopy, 39.1% correct) and antigen detection (fluorescent microscopy, 50% incorrect) further suggests a need for clearer pedagogical distinctions in virology teaching.

Epidemiologically, while students demonstrated awareness of common reservoir hosts like mongooses in India (80.4%) and the general modes of transmission, understanding of more nuanced ecological aspects, such as the overwintering mechanism in bats (only 56.7% correct for "Subscapular brown fat"), was less robust. Moreover, a significant misconception regarding hydrophobia being a universal sign across all rabid animals (45.1% incorrectly chose "In all of these") rather than primarily in humans, as observed in our study, is a persistent error also noted in general population surveys in India (Sivagurunathan *et al*., 2021) [6]. This highlights the need to address common public health misconceptions within the veterinary curriculum.

Another area of weakness was the historical context of vaccine development, with only 30.4% correctly identifying the origin of the Flury Fixed virus from a "Rabid human patient." While oral rabies vaccines for wildlife and stray dogs were understood by 62.7% of students, suggesting awareness of modern control strategies, the lack of historical knowledge could impact a comprehensive understanding of vaccine efficacy and current immunization strategies.

The observed overall average score of 65.54% among Indian BVSc students is notably higher than general community-level knowledge assessments in other endemic regions. For instance, a study in Ethiopia reported community-level good knowledge, positive attitude, and good prevention practices towards rabies at 58.3%, 47.9%, and 54.2%, respectively (Woldu *et al*., 2025) [9]. This comparison, though not direct due to different study populations, underscores the expected and crucial role of veterinary education in building specialized knowledge that surpasses general public understanding. However, when compared to studies of veterinary students in other developing countries, like Bangladesh, where the need for more seminars and discussions was also identified to enhance knowledge, attitudes, and practices (Sayed *et al*., 2022) [5], it suggests a common challenge in ensuring comprehensive and up-to-date rabies education. Even in more developed contexts, such as among healthcare professionals in Washington, DC, knowledge gaps in clinical signs, epidemiology, and specific post-exposure prophylaxis (PEP) protocols have been reported, emphasizing the continuous need for education (Pepin *et al*., 2018) [1].

The 45-minute time limit for 50 questions, along with the online format, could have influenced the response rate and the depth of responses. While Google Forms offers convenience and wide reach across India, potential limitations include varying internet access, technical glitches, or self-selection bias among participants. The relatively lower completion rate (268 out of 550 initial participants) could be attributed to these factors or the perceived difficulty of the questionnaire within the time constraint. Future studies might consider adaptive testing or flexible time limits to maximize participation and ensure a more representative sample.

In conclusion, the findings of this study offer critical insights for refining veterinary curricula in India. Identified knowledge gaps, particularly in practical aspects of sample handling, detailed molecular virology, species-specific clinical and pathological presentations, and historical aspects of vaccine development, should be prioritized. Strengthening these areas through targeted educational interventions, including practical demonstrations, case studies, and updated learning materials, is crucial. Fostering a comprehensive understanding of rabies, encompassing both theoretical and practical dimensions, will empower future veterinary professionals to contribute more effectively to national rabies elimination programs under the "One Health" framework.

5. Conclusion
This online questionnaire-based study provides crucial insights into the rabies knowledge of BVSc students (UG and PG) across India. The results indicate varying levels of understanding across different aspects of rabies, with certain areas requiring enhanced educational focus. Strengthening the knowledge base of future veterinary professionals is paramount for achieving the ambitious goal of rabies elimination in India. The findings advocate for continuous evaluation and refinement of veterinary curricula, along with the integration of practical and updated information on rabies prevention and control, thereby fostering a more competent and aware veterinary workforce dedicated to a "One Health" approach against this deadly zoonosis.

6. Acknowledgements
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