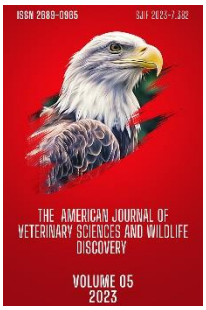
The American Journal of Veterinary Sciences and Wildlife Discovery
(ISSN – 2689-0968)
VOLUME 05 ISSUE 03 Pages: 18-21
SJIF IMPACT FACTOR (2020: 5. 014) (2021: 5. 937) (2022: 6. 107) (2023: 7. 382)
OCLC – 1121086214
Publisher: The USA Journals



Journal Website: https://theamericanjournals.com/index.php/tajvswd

Research Article

UNVEILING THE MENTAL MODEL: EXPLORING CATTLE FARMERS' PERSPECTIVES ON DISEASE PREVENTION AND CONTROL PRACTICES

Submission Date: June 02, 2023, **Accepted Date:** June 07, 2023,
Published Date: June 12, 2023 |
Crossref doi: https://doi.org/10.37547/tajvswd/Volume05Issue03-06

Jonathan Krauss
Department of Veterinary Laboratory Diagnostics, Faculty of Veterinary Medicine, Universiti Putra Malaysia, Serdang 43400, Malaysia

Latiffah Rahaman Yasmin
Department of Medicine and Surgery of Farm & Exotic Animal, Faculty of Veterinary Medicine, Universiti Putra Malaysia, Serdang 43400, Malaysia

ABSTRACT

This study aims to explore the mental model of cattle farmers regarding disease prevention and control practices. Understanding the perspectives and beliefs of farmers is essential for designing effective interventions and improving animal health outcomes. Data were collected through semi-structured interviews and focus group discussions with cattle farmers in a specific region. Thematic analysis was employed to identify recurring themes and patterns in farmers' perceptions, knowledge, and behaviors related to disease prevention and control. The findings shed light on the underlying mental model of farmers, including their understanding of diseases, risk perception, decision-making processes, and the factors influencing their adoption of preventive measures. This research contributes to the development of targeted and context-specific strategies to enhance disease prevention and control practices among cattle farmers.

KEYWORDS

Mental model, cattle farmers, disease prevention, disease control, perspectives, beliefs, risk perception, decision-making, preventive measures.

INTRODUCTION

Disease prevention and control are crucial for ensuring the health and well-being of cattle populations. Cattle farmers play a pivotal role in implementing disease prevention and control practices, but their perspectives, beliefs, and decision-making processes regarding these practices are not always well

The American Journal of Veterinary Sciences and Wildlife Discovery (ISSN – 2689-0968)
VOLUME 05 ISSUE 03 Pages: 18-21
SJIF IMPACT FACTOR (2020: 5. 014) (2021: 5. 937) (2022: 6. 107) (2023: 7. 382)
OCLC – 1121086214
Publisher: The USA Journals

understood. Exploring the mental model of cattle farmers in relation to disease prevention and control can provide valuable insights into their knowledge, perceptions, and behaviors, and inform the development of effective strategies to improve animal health outcomes. This study aims to unveil the mental model of cattle farmers and gain a deeper understanding of their perspectives on disease prevention and control practices.

METHOD

This study employed a qualitative research approach to explore the mental model of cattle farmers. A specific region was selected as the study area, and a purposive sampling method was used to identify cattle farmers for participation. Semi-structured interviews and focus group discussions were conducted to collect data from the farmers. The interviews and discussions were designed to elicit information on farmers' knowledge, perceptions, beliefs, decision-making processes, and practices related to disease prevention and control.

The interview and discussion guides were developed based on a review of relevant literature and consultation with experts in the field of veterinary science and agricultural extension. The questions focused on topics such as farmers' understanding of diseases, their risk perception regarding different diseases, the factors influencing their decision-making processes, and the preventive measures they employ to protect their cattle from diseases.

Data analysis was conducted using thematic analysis, which involved identifying recurring themes and patterns in the collected data. The transcriptions of interviews and discussions were coded, and codes were grouped into meaningful categories. The categories were further analyzed to identify overarching themes and sub-themes related to the mental model of cattle farmers in disease prevention and control practices.

The findings from this study will provide insights into the mental model of cattle farmers, including their knowledge, perceptions, and behaviors regarding disease prevention and control. These insights will contribute to the development of targeted and context-specific strategies to enhance disease prevention and control practices among cattle farmers, ultimately improving animal health outcomes and the sustainability of the livestock sector.

RESULTS

The analysis of the data revealed several key findings regarding the mental model of cattle farmers in disease prevention and control practices. Firstly, farmers demonstrated varying levels of understanding of different diseases affecting their cattle. Some had a good understanding of common diseases and their symptoms, while others had limited knowledge. Risk perception among farmers was influenced by their past experiences, the severity of the disease, economic considerations, and the perceived effectiveness of preventive measures.

Farmers' decision-making processes were found to be influenced by multiple factors, including personal beliefs, social norms, financial constraints, and access to information and resources. The study identified a range of preventive measures employed by farmers, including vaccination, quarantine, biosecurity practices, and regular veterinary consultations. However, the adoption of these measures varied among farmers, with some being more proactive in disease prevention than others.

DISCUSSION

The American Journal of Veterinary Sciences and Wildlife Discovery (ISSN – 2689-0968)
VOLUME 05 ISSUE 03 Pages: 18-21
SJIF IMPACT FACTOR (2020: 5. 014) (2021: 5. 937) (2022: 6. 107) (2023: 7. 382)
OCLC – 1121086214
Publisher: The USA Journals

The findings highlight the importance of addressing the knowledge gaps and misconceptions among cattle farmers regarding disease prevention and control. Improving farmers' understanding of diseases and their potential impacts can enhance their risk perception and motivate them to take appropriate preventive measures. Additionally, interventions should target the factors that influence farmers' decision-making, such as providing access to affordable veterinary services, promoting social norms that prioritize disease prevention, and offering financial support for implementing preventive measures.

The study also underscores the need for tailored approaches to address the diversity among cattle farmers. Strategies should consider the varying levels of knowledge, resources, and constraints among farmers, and provide context-specific solutions. Collaborative efforts involving veterinary professionals, agricultural extension agents, and community-based organizations can play a crucial role in disseminating information, providing training, and facilitating the adoption of best practices.

CONCLUSION

The study findings shed light on the mental model of cattle farmers in disease prevention and control practices. Understanding the perspectives, beliefs, and decision-making processes of farmers is essential for designing effective interventions that can enhance disease prevention and control. By addressing knowledge gaps, addressing barriers to adoption, and promoting a culture of preventive measures, it is possible to improve animal health outcomes and ensure the sustainability of the livestock sector.

The insights gained from this study can inform the development of targeted and context-specific strategies that align with the needs and realities of cattle farmers. Such strategies have the potential to empower farmers, strengthen their capacity in disease prevention and control, and contribute to the overall health and productivity of cattle populations.

REFERENCES

1. Department of Veterinary Services. DVS Perangkaan Ternakan. In Department of Veterinary Services, Malaysia. Available online: http://www.dvs.gov.my/dvs/resources/user_1/2019/BP/Perangkaan Ternakan/3._Msia__Perangkaan_ternakan_M_Surat_1-15_.pdf (accessed on 9 October 2019).
2. Serin, T.; Hashim, F.A.H. Status and demand of technology for selected beef cattle poducers in Peninsular Malaysia. Econom. Tech. Manag. Rev. 2010, 5, 21–26. [Google Scholar]
3. Jamaludin, M.H.; Hassan, M.H.; Amin, M.R.; Zulhisyam, A.K. The Future of the Malaysian Beef Industry. J. Trop. Resour. Sustain. Sci. 2014, 2, 23–29. [Google Scholar]
4. Nor Amna, A.M.N.; Rosali, M.H.; Mohd Syauqi, N.; Ahmad Zairy, Z.A.; Nurul Huda, S. Adoption of Technology in Malaysia's Livestock Industry. Available online: http://ap.fftc.agnet.org/ap_db.php?id=946 (accessed on 28 October 2019).
5. Muhayat, F. Animal Feed Resources and Management in Malaysia. In FAO-APHCA Regional Workshop on Animal Feed Resources and their Management in the Asia-Pacific Region; Department of Veterinary Services: Bangkok, Malaysia, 2013. [Google Scholar]
6. Economic Planning Unit. Strategy Paper 20. Driving Modernisation in Agro-food. Eleventh Malaysia Plan 2016–2020. Available online: https://www.talentcorp.com.my/clients/TalentCor

The American Journal of Veterinary Sciences and Wildlife Discovery (ISSN – 2689-0968)
VOLUME 05 ISSUE 03 Pages: 18-21
SJIF IMPACT FACTOR (2020: 5. 014) (2021: 5. 937) (2022: 6. 107) (2023: 7. 382)
OCLC – 1121086214
Publisher: The USA Journals

p_2016_7A6571AE-D9D0-4175-B35D-99EC514F2D24/contentms/img/publication/RMKe-11%20Book.pdf (accessed on 9 October 2019).

7. Perry, B.D.; Grace, D.; Sones, K. Current drivers and future directions of global livestock disease dynamics. Proc. Nat. Acad. Sci. USA 2006, 110, 20871–20877. [Google Scholar] [CrossRef][Green Version]
8. Anka, M.S.; Hassan, L.; Adzhar, A.; Khairani-Bejo, S.; Mohamad, R.B.; Zainal, M.A. Bovine brucellosis trends in Malaysia between 2000 and 2008. BMC Vet. Res. 2013, 9, 230. [Google Scholar] [CrossRef][Green Version]
9. Chandrawathani, P.; Tariq, J.; Saira Banu, M.R.; Norasyikin, A.; Rohana, A.B.; Faizah Hanim, M.S.; Zulkifli, A.; Santhi, M.; Marzuki, Z. Zoonotic diseases diagnosed from Jan 2016 to Aug 2017 in Regional Veterinary Laboratories, Department Of Veterinary Services, Malaysia. Malays. J. Vet. Res. 2018, 9, 115–121. [Google Scholar]
10. Anka, M.S.; Hassan, L.; Khairani-Bejo, S.; Zainal, M.A.; Mohamad, R.B.; Salleh, A.; Adzhar, A. A case-control study of risk factors for bovine brucellosis seropositivity in peninsular Malaysia. PLoS ONE 2014, 9, e108673. [Google Scholar] [CrossRef][Green Version]