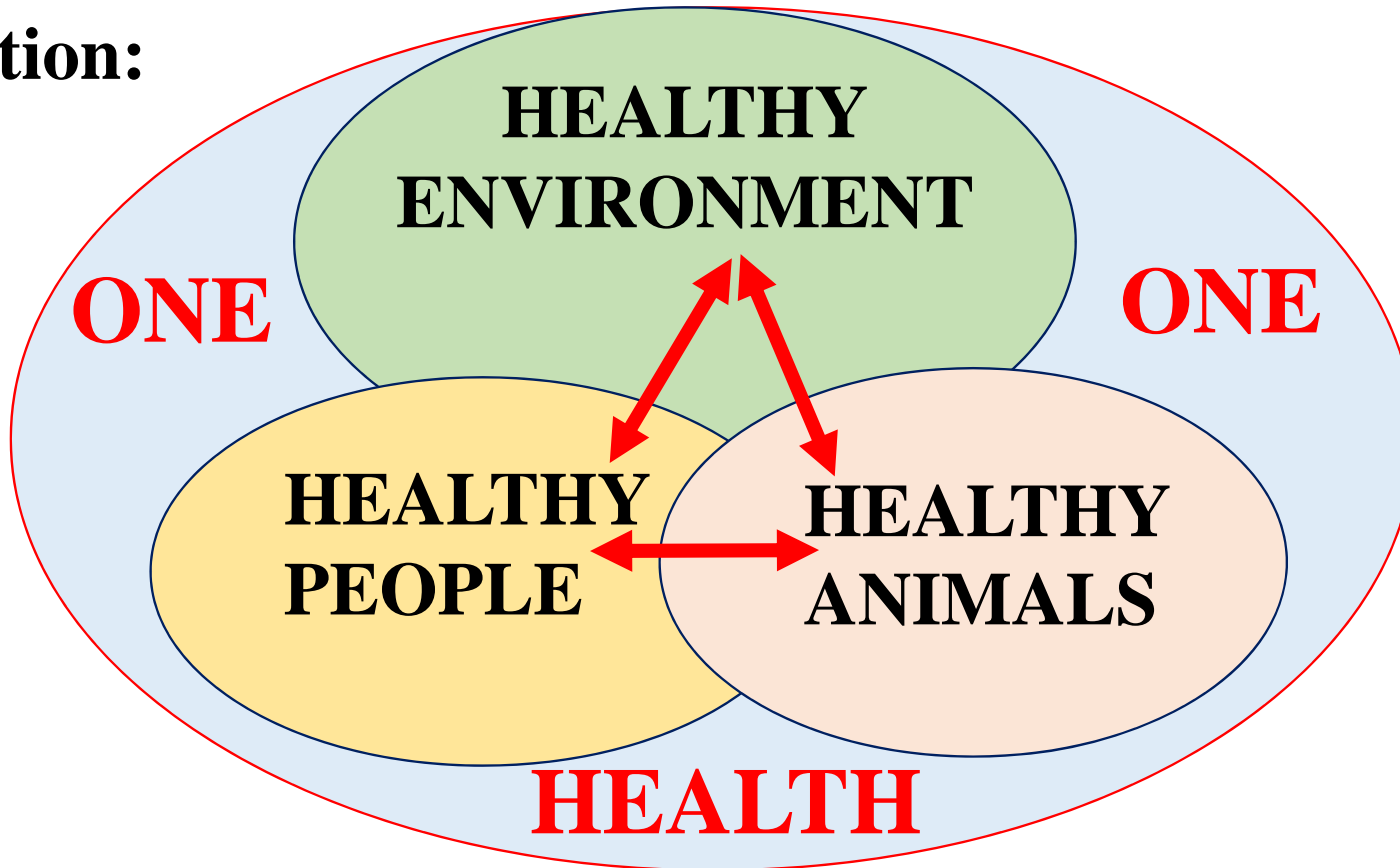


**Enhancing Animal Welfare by
Integrating a Multidisciplinary One
Health Approach in Training and
Research: A Case Study of University of
Nairobi Veterinary Training**

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Introduction: **THE ONE HEALTH CONCEPT**

Interaction:



Animal welfare training through a transdisciplinary approach

- **Influence of animal welfare** on Animal, Human and Environmental health on a scale of 1-10 is on **upper one third**.
- **Key players:**



Education and training are the **most effective tools** to solving most of the animal welfare problems (**Radeski et al, 2018**)

Objectives

- 1) To evaluate the **changes in the knowledge, attitudes and practices** on animal welfare resulting from introduction of One Health and Animal Welfare modules in veterinary Curriculum.
- 2) To determine the **constraints to effective practice of good animal welfare principles** by the Kenyan rural communities and veterinary extension officers.
- 3) To determine the effectiveness of evidence-based **One Health multidisciplinary approach** in embracing animal welfare principles.

Objective 1: Methodology

- *Evaluate changes in knowledge, attitudes and practices on animal welfare resulting from introduction of One Health and Animal Welfare modules in veterinary Curriculum.*
- **One Health Course unit**--45 hours: Lectures, Practical, Examination
- **Animal Welfare Course unit**-45 hours:Lectures, Practical, Examination
- **Self-administered questionnaire**- 5th year veterinary students
- Pre-module and Post-module comparisons

Objective 2: Methodology

- *Determine the constraints to effective practice of good animal welfare principles by the Kenyan rural communities and veterinary extension officers.*
- **Retrieval of data** from animal welfare research.
- **Previous data** collected by questionnaires
- Focusing on **data related to constraints** for good animal welfare practice (implementation)
- Animal owners, Stockpersons, Veterinarians, Animal care givers.
- **Strategies for future research** to improve animal welfare.

Objective 3: Methodology

- *Determine the effectiveness of evidence-based One Health multidisciplinary approach in embracing animal welfare principles*
- Multidisciplinary **One Health-focused training** with **contribution of animal welfare** in One Health
- Vet, Public health and Medical students.
- **Outreach demo-sites** with **animal welfare seminars** for community outreach coupled with **vaccinations and treatment** of animals
- Seminars focus on **human-animal health interactions** (zoonoses)

Demo-site training for community on OH/AW



Veterinarian trained by stop-gap induction on OH/AW—Giving practical experience vet and public health students



Student and oxen owners interaction



OUTCOMES/RESULTS: Knowledge, Attitude and practices

- **Two cohorts of Veterinary students** completed One Health and Animal Welfare Courses.
- 2017/2018 a class of 78 students
- 2018/2019 a class of 66 students
- **Some Knowledge, attitude and practice on animal welfare:**
 - Pre-module was 61%
 - Post-module was 100%
 - Improvement rate of 39%
- Main improvement for transdisciplinary training **is on the attitude**

Select number of students trained on One Health and Animal Welfare from each discipline as **stop gap measure.**

Student Discipline	Number	Percentage (%) (n = 306)
Veterinary	171	55.9
Medical	52	17.0
Nursing	31	10.1
Public health	23	7.5
Dentistry	15	4.9
Environmental	14	4.6
Total	306	100

Main factors that hinder practice of good animal welfare among the Kenyan animal owners.

Constraint factor	Number	Percentage (%)(n=80)
Finances	80	100
Dilapidated housing	33	41.3
Improper housing designs	48	60.0
Limited knowledge/ignorance	43	53.8
Cultural/Negative beliefs	20	25.0
Unavailable professional advice	20	25.0
Unconcerned	20	25.0

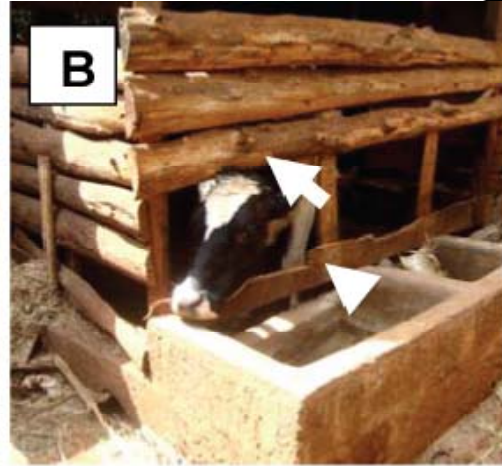
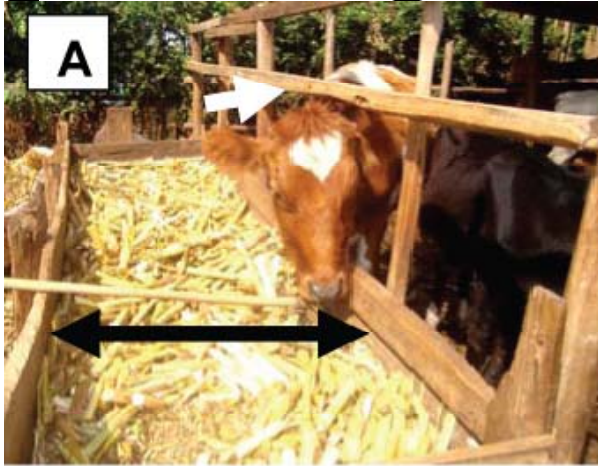
Other factors influencing students on animal welfare attitude

- Gender-----female more empathetic than males
- Geographical origin----urban more empathetic than rural
- Type of pre-university schools/institutions
- Exposure and contact to animals
- Pet/companion animals versus food/production animals
- Animal uses

Dilapidated cattle housing



Improper design of feed trough/bunk

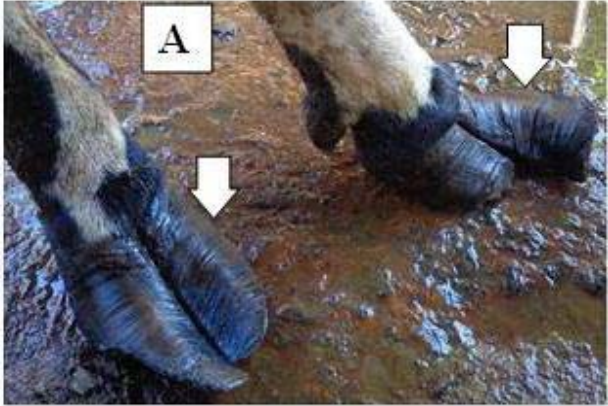


Improper design

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Effect of ignorance and attitude/lack of professional service



Normal feet



Zero-grazing units with cow injuries and cows with injuries

Zero-grazing units having Cows with injuries (n=80)			Cows with injuries (n=306)	
Body region	n	%	n	%
Carpal joint	77	96	230	75.2
Hock joint	76	95	260	85
Rib cage	76	95	228	74.5
Tuber coxae	72	91	204	66.7
Ischia area	61	76	124	40.5
Neck	52	65	186	60.8
brisket	51	64	134	43.8
Teat/udder	50	63	89	29.1

Strategy for improved attitude toward animal welfare

- Education/awareness, training and research
 - Multidisciplinary/transdisciplinary professional interactions
 - Direct/indirect benefits of good welfare
 - Policy and law enforcement
-

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THANK YOU!

ASANTE SANA!