

Welfare of cattle at local markets in Kaduna State: Handling and transportation - A major concern

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Abstract

The aim of the study was to evaluate the welfare of cattle at local markets in Kaduna State based via means of transportation, loading and unloading methods, abusive behaviours by stake-holders and stress-related behaviours of cattle. Ten different villages within Kaduna State were each visited twice during their market days. During the visits, 700 cattle were observed during handling, means of transportation by road and the behavioural responses, and in addition photographs were taken. The result showed that the most common means by which the cattle were transported were in buses (60%) and cars (55%), followed by pick-ups (35%) and trucks (20%). There were no loading or unloading ramps in all the markets. The most common abusive behaviour was beating of cattle with stick or club (80%), closely followed by horn/neck pulling (60%) and neck twisting (50%); while the most common stress-related behaviour of the cattle was aggression (70%), followed by panting and repeated vocalisation (40% each). The results showed that the welfare of the cattle was compromised, which may adversely affect their health, productivity and meat quality. It was concluded that cattle transported and sold at various local markets in Kaduna State were abused, poorly and inhumanely handled, and transported by means not specifically meant for animal transportation.

Keywords: Welfare, cattle, handling and transportation

Introduction

Animal welfare is an animal's state as it responds to environmental challenges (Broom, 2003). An animal is in a better state of welfare, if it demonstrated good biological functioning within its environment: good general physical and mental health, productivity and growth (Broom, 2003; Brydges and Braithwaite, 2008). Animal welfare is of great importance in Nigeria because the farming of animals is no longer seen as merely a means of food production, but also as an ethical concern (FGN-ADC, 1988). Increasingly, there is a public sense of responsibility for animals which are under human care. Moreover, in consumers' minds, the well-being of farmed animals is

strongly associated with the quality and even safety of food. The handling of animals in developing countries has been a subject for critical discussion for a long time and requires further research. The specialisation of production of animals and the need to market and slaughter them outside places where they are produced have made transportation of different animals and inevitable husbandry practice worldwide (Minka and Ayo, 2007). Transportation of livestock, which includes handling, regrouping, loading, the journey proper and unloading, is one of the major management practices that often compromise animal welfare (Minka and Ayo, 2010, 2016). These Conditions of transportations may cause injury, reduce

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performance, increased morbidity and mortality rate and consequently substantial economic losses due to loss of live weight and poor meat quality (Knowles *et al.*, 1999; Minka and Ayo, 2007). Only few studies have evaluated the common practices of handling, loading and unloading of cattle in local livestock markets.

The aim of the study was therefore to evaluate the welfare of cattle at local markets in Kaduna State, Nigeria by assessing handling techniques, behaviour and means of transportation of cattle to and from the markets.

Materials and methods

The field study was conducted at 10 different local animal markets in Kaduna State during the hot-dry season. The villages where the animal markets were located were visited on their market days and the following procedures were carried out: 1. Visual identification of the methods used in handling, loading and unloading of cattle at local markets. 2. Means by which the cattle were transported to and from the markets. 3. Abusive behaviour by stock handlers. 4. Stress-related behaviour by the animals. 5. Photographs of the entire handling, loading and unloading processes at the various cattle markets were obtained. A total of 750 cattle were observed in all the markets, which comprised 25 groups, with an average of 30 animals per group. The behaviour of the animals at the markets was outlined and defined based on human and animal behaviour (abusive handling and stress-related animal behaviour (Hemsworth, 2003; Jerlström, 2013). Scan sampling method was used in evaluating the behaviours (Altmann, 1974). A group of five to ten animals randomly was chosen and observed by instantaneous recordings for 10 minutes, then a break of 10 minutes

and another observation for 60 minutes. Photographs/video of some animals was obtained in order to make registrations repeatable. During observation, abusive behaviours against the animal and all behaviours that the animals were expressing were recorded in a behavioural survey as a frequency; for example, number of animals in the group performing the same behaviour. The behavioural observations were made by four trained persons. On each observation, date, number of animals in the group and condition of animals were recorded. In each group of animals, a frequency of all expressed behaviours was calculated as percentages. The values recorded were then summarised within each of the behaviours and divided by the number of animal groups per market in order to obtain average values. This was named the frequency of expressed behaviour and used to indicate differences. In order to calculate the most common transport system of animals, the average value was calculated by dividing the number of groups of animals that were transported by pick-up, car, bus or any other means with total number of animal groups that were transported. Data were subjected to Student's *t*-test at $P < 0.05$. The results were presented in simple percentiles.

Results

The various means used in transportation of cattle at the markets are shown in Figure 1. Most of the cattle were transported in buses (60%) and small cars (55%), while some were even transported on motorbikes (20%) and wheel barrows (5%). The most common abusive behaviour was beating of cattle with stick or club (80%), closely followed by horn/neck pulling (60%), and neck twisting (50%) (Figure 2). The most common stress-related behaviour of the cattle was aggression (70%), followed by

panting and repeated vocalisation (40% each) (Figure 3) There were no loading or unloading facilities in all the markets visited.

Figure 1: Different means by which cattle were transported to and from local markets in Kaduna State, Nigeria

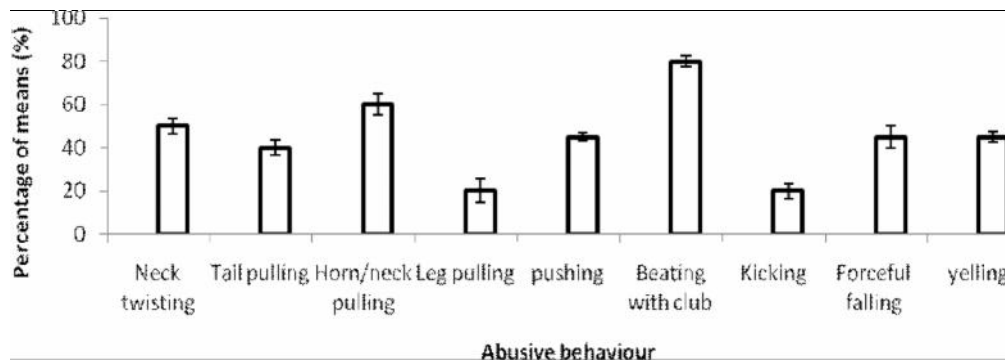


Figure 2: Frequency of abusive behaviours by stakeholders at local markets in Kaduna State, Nigeria

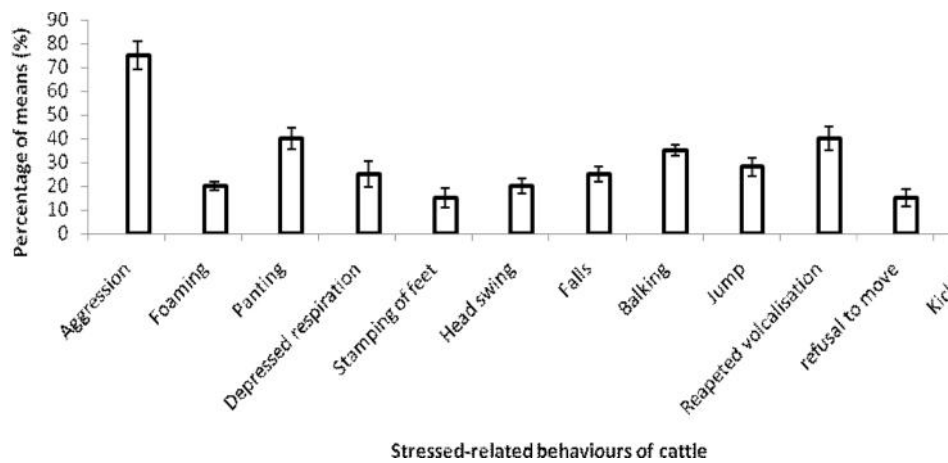


Figure 3: Frequency of stressed-related behaviours of cattle at local markets in Kaduna State, Nigeria

Discussion

Transportation of animals in buses, cars and even motorbikes which was a common practice in all the markets visited is a serious abuse of animal welfare and should be discouraged. In spite of the fact that these means of transportation are not recommended, the cattle were packed together in such a manner that no space was left in between them. The animals were tied to the sides of the vehicle to control their movement. The ropes were secured at the neck, legs, horns or nose and this may, in some cases, lead to respiratory problems, discomfort, rope rubbing injuries, and abrasion or laceration injuries from rubbing against the vehicle walls. The animals were forced to remain in such stressed conditions for several hours inside the vehicle. The very process of loading and unloading animals into vehicles is very strenuous and constitutes welfare problem. Most of the changes occurring in body parameters of the transported animals are as a result of handling, loading and unloading. The lack of loading and unloading ramps in all the local livestock markets in the zone under study is a serious welfare problem. During loading the animals were simply carried up and thrown into the vehicle by stock handlers and then dragged through the perforated rusted floor of the vehicle with such a strong force that may cause injury to the animal. Such acts constitute a break in the dynamic stereotype of the animals. Similar findings that handling constitutes a major welfare problem to animals have been reported (Brown *et al.*, 1999; Knowles *et al.*, 1999; Minka and Ayo, 2007). The high rate of abuse of the cattle by all stockholder in all the markets visited is an unacceptable practice and worrisome to animal welfarists. The present observation agreed with the result obtained in Ethiopian cattle market (Bulitta *et al.*, 2012). The

stockholders believed that the only way to control and make the animal move is by beating and pulling. It is unfortunate that the cattle were subjected to painful treatment throughout the period of stay at the markets and during transportation. Such abuse on the animals often results to aggression, repeated vocalisation and increase respiration or panting due to frustration, which often leads to traumatic injuries. This compromises the animal welfare, health and consequently meat quality and productivity. Similar observations were made by Hemsworth (2003) and Jerlström (2013). The stakeholders abused the animals indiscriminately, and the animals responded by aggressive behaviour. Thus, the welfare of the cattle was compromised, which may adversely affect their health, productivity and meat quality.

It is concluded that the cattle were transported in vehicles not meant for transportation of animals, and they were poorly and inhumanely handled with no loading or unloading facilities in all the local cattle markets visited in Kaduna State.

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