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A study devoted to the characterization of antimicrobial use in rabbit production in France (Chauvin *et al*, 2011) identified that only 50% of the variability of uses could be explained by technical, structural and health factors. Indeed, farmer's decision making processes regarding medication use are crucial and studying the human behavior is likely pivotal to understand further attitudes towards the antimicrobial use.

The following year, a study based on a psychosocial validated model was conducted using the same sample of farmers.

The aim of this study was to assess the impact of farmer's psychological characteristics, particularly aspects of personality and perception of stress, on the use of antimicrobials in rabbit production.

MATERIAL & METHODS

A questionnaire based-survey was carried out by mail, on a sample of 118 french rabbit farmers. The questionnaire was based on Lazarus and Folkman's stress-coping model (1984) and included 34 questions whose answers were recorded on a 7-point scale ranging from 0 (desagree) to 6 (completely agree).

The model focuses on stress as a transaction between the person resources and the environment demands. The model contends that stress results from an imbalance between the requirements of the environmental situation and person's ability to cope with it. Different people could appraised the same situation as threatening, harmful or challenging.

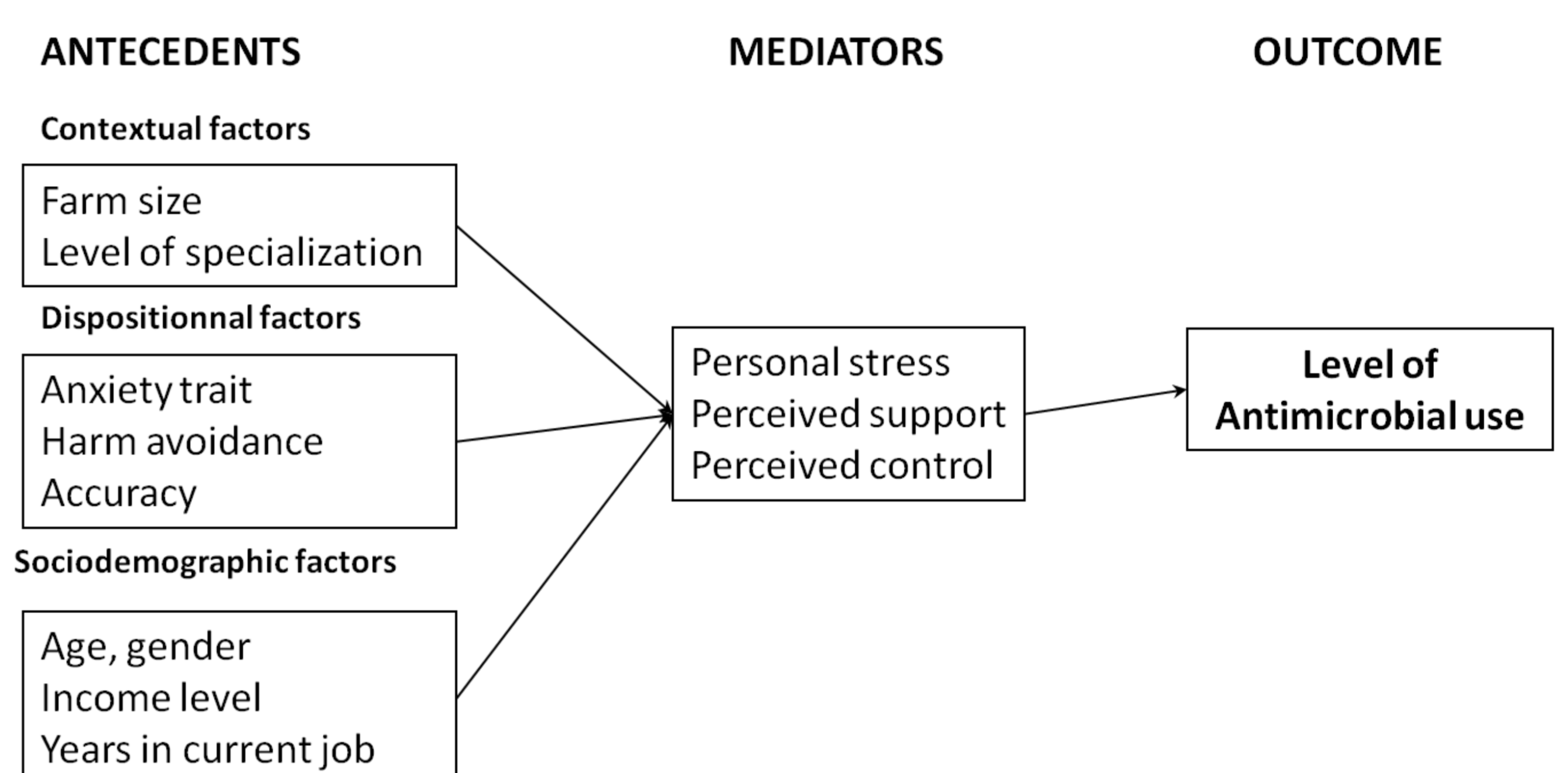


Fig 1 : Understanding personality characteristics of the farmers and stress perception (based on Lazarus and Folkman's transactional model, 1984)

RESULTS AND DISCUSSION

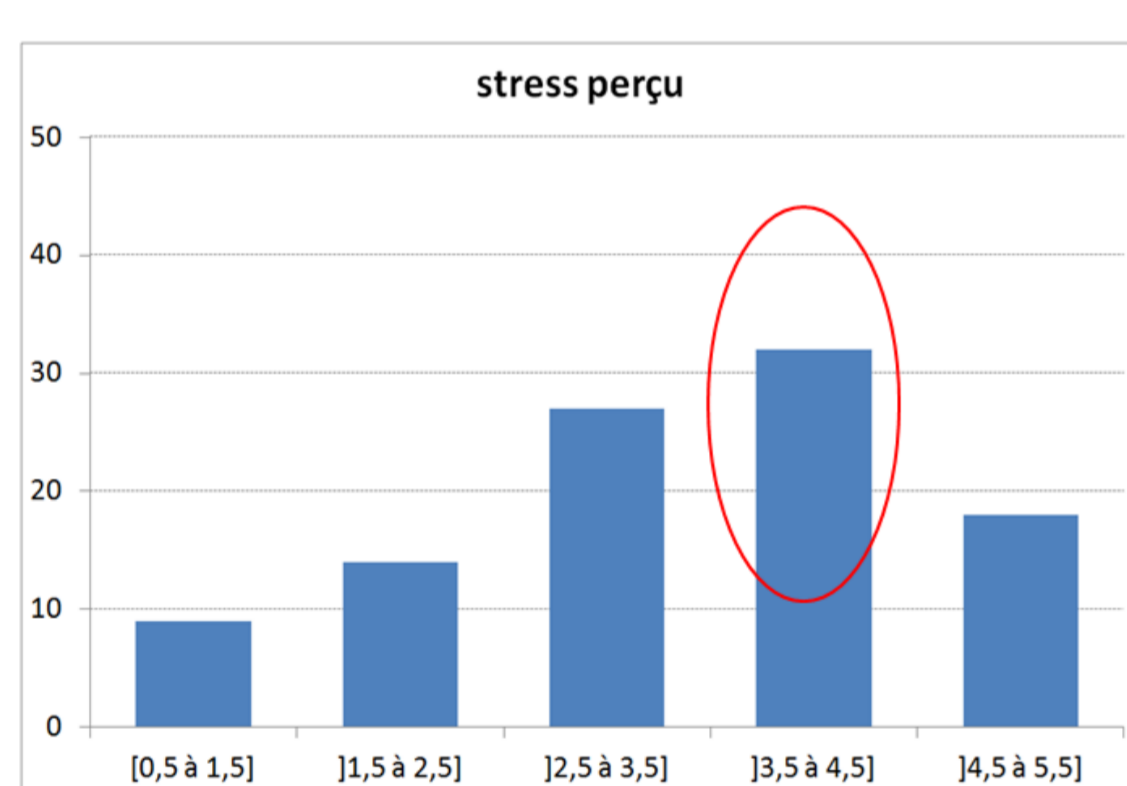


Fig 2 : Personal perception of stress (from threat to challenge)

- ❑ 51 farmers have replied to the survey
- ❑ Descriptive analysis shows a global median position of the attitudes, however :
 - Stress is evaluated as a challenge rather than a threat
 - Most of the farmers have the feeling that the farm situation is under control

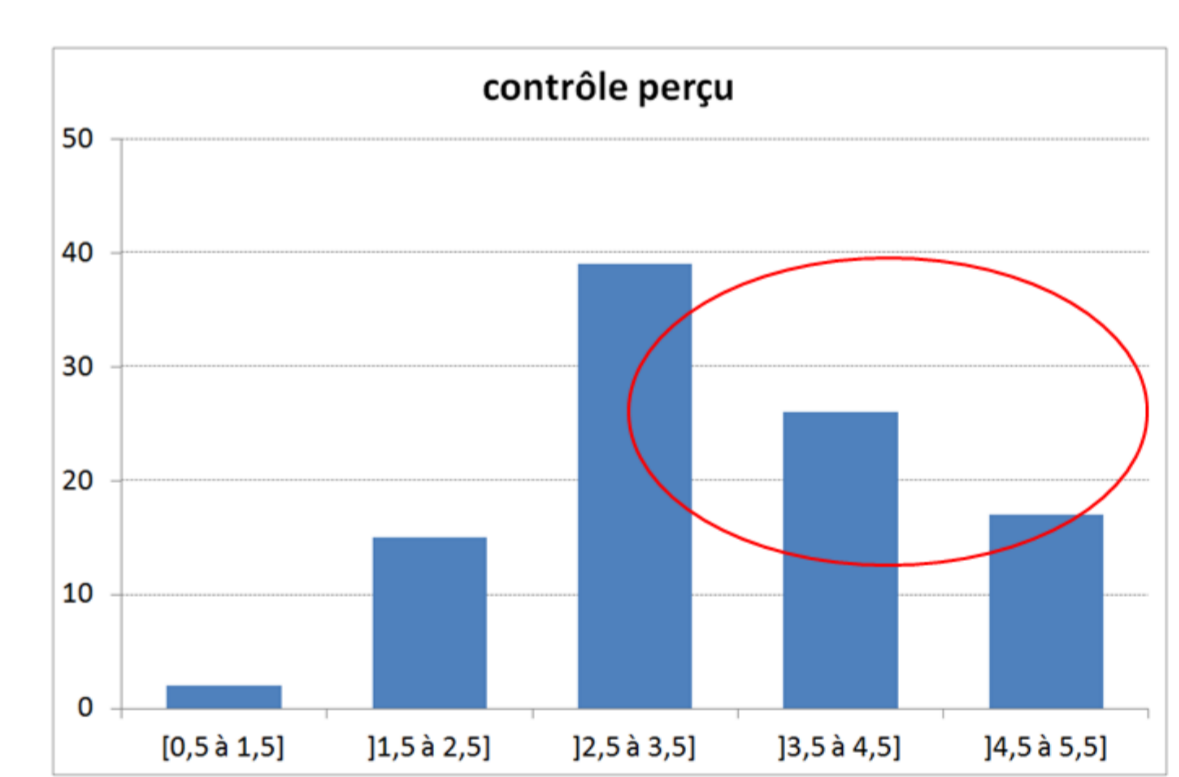


Fig 3 : Personal perception of control (from none to total)

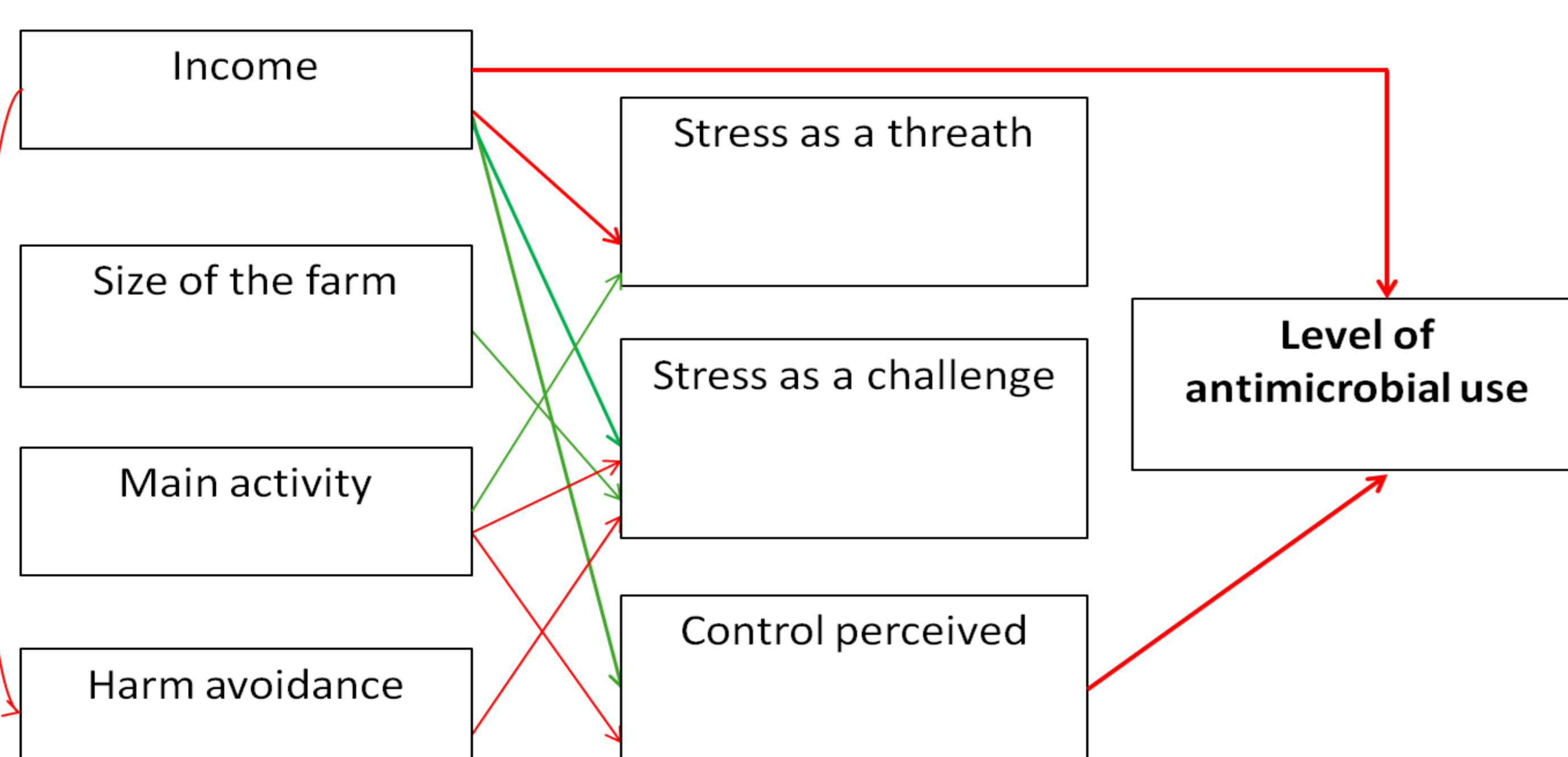


Fig 4 : Results of the model (positive (green) and negative (red) relation)

- ❑ The level of antimicrobials use and ...
 - the farmer income and the economic balance of the farm
 - the feeling that the situation of the farm is under control
 ...are correlated.
- ❑ There is no direct impact of stress on antimicrobial use

CONCLUSION

This work is a first attempt to assess the influence of humans factors on antimicrobial use. The adoption and implementation of appropriate measures to reduce the use of antibiotics require behavioral change on the part of the farmers. Farmers' perceptions and factors affecting behavior need to be understood better so that effective communication tools can be devised.