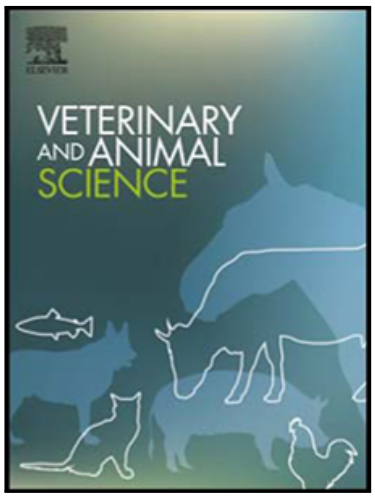

Using design theory to foster innovative cross-disciplinary research: lessons learned from a research network focused on antimicrobial use and animal microbes' resistance to antimicrobials

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Using design theory to foster innovative cross-disciplinary research: lessons learned from a research network focused on antimicrobial use and animal microbes' resistance to antimicrobials

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Abstract

Dealing with the major societal and research challenges related to antimicrobial use will require cross-disciplinary research and strong relationships between researchers and stakeholders. Design theories, such as the concept-knowledge (C-K) theory, can help spur the emergence of innovation. Here, our objective was to examine how the C-K theory could promote the development of novel, cross-disciplinary research projects on antimicrobial use and animal microbes' resistance to antimicrobials. A French research network (R2A2; Réseau Recherche Antibiotiques Animal) was created whose goal was to foster cross-disciplinary research and scientific discussion on these topics. The R2A2 network hosted general meetings and thematic workshops, during which participants brainstormed using C-K diagrams. The network's was evaluated through the evolution of C-K diagrams, project creation, and participant interviews. R2A2 led to the creation of a minimum of eight research projects. The participants felt network events facilitated interactions and collaborations with researchers in different disciplines. The R2A2 network has opened new avenues of research into several