Preconceptions about the Infection Process among Pre-Nursing Students
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Problem:
Education about scientific concepts is more effective when it takes account of the students’ preconceptions, but little is known about preconceptions concerning the infection process among pre-nursing students.

Research questions:
- What understanding do pre-nursing students have of the infection process?
- What understanding do they have of the mechanism of action of antibiotics?

Conceptual Change Model:
Conceptual change occurs in response to discrepant events. If a new concept is understandable, plausible, and fruitful it is likely to be accepted.

Method:
- Written survey (open ended questions).
- In depth interviews.
- Hermeneutic inquiry used to interpret the data.

Hermeneutic Inquiry:
A theory of interpretation which emphasizes the role of the situated context both of the interpreter and her/his dialogue partner in the process of interpretation. Dialogue, whether with a flesh and blood partner or with a text, is a co-construction of the meaning of lived experience by means of questions and answers. A successful dialogue results in a fusion of the horizons of both parties.

Application:
Based on the Conceptual Change Model, deep learning takes place when students’ naive conceptions are challenged by alternative points of view which are understandable, plausible, and fruitful. In order to successfully challenge students’ naive preconceptions, teachers must have a good understanding of them. Although nothing can take the place of dialogue with individual students to uncover their specific preconceptions, a general understanding of the preconceptions commonly held among a group of students is likely to be helpful.

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References