

Who would you learn from? The effect of the model's characteristics on observationally induced placebo effects

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Background and aims

According to the social learning theory (Bandura, 1977), not only the characteristics of an observer, but also of a model play crucial role in learning through observation and can enhance the effect of modeling.

Characteristics of the observer, as e.g. empathy, were broadly studied. The social learning model of placebo effects (Bajcar & Bąbel, 2018) also focuses more on the observer's characteristics, than those of an observed model.

The aim of this poster is to present the current state of the art on the influence of model's characteristics on placebo effects induced by social learning and to provide a comparison between the social learning theory's assumptions about the influence of the model's characteristics and the results from placebo studies.

Results

- In all studies placebo effects were successfully induced by observational learning.
- Świder and Bąbel (2013): Regardless of the sex of the participant, nocebo hyperalgesia was greater after the male model was observed.
- Bajcar and collaborators (2020): The way the observed model was introduced to participants (as either another participant taking part in the study or a coworker of the experimenter) did not affect the magnitude of placebo analgesia.
- Bieniek and Bąbel (under review): The social status of the model was a significant predictor of placebo hypoalgesia. Higher social status predicted stronger placebo effect.
- Brączyk and Bąbel (under review): The self-confidence of the model was a significant predictor of placebo hypoalgesia. Higher self-confidence predicted stronger placebo effect.

The results have shown that male sex, high social status and high self-confidence seems to be the traits related to stronger magnitude of the observationally induced placebo effects.

Methods

	Model's characteristic under examination	Levels of the variable	Participants	Type of modeling	Sex of the model	Type of placebo	Studied effect
Świder & Bąbel (2013)	sex	male female	84 healthy volunteers	live model	1 female model, 1 male model	color stimuli: red and green	nocebo hyperalgesia
Bajcar et al. (2020)	membership of the same vs another group	demonstrator co-participant	96 healthy volunteers	live model	2 female models	color stimuli: orange and blue	placebo analgesia
Bieniek & Bąbel (under review)	social status	high status low status	60 healthy volunteers	videotaped model	1 male model	color stimuli: orange and blue	placebo analgesia
Brączyk & Bąbel (under review)	self-confidence	high confidence low confidence	60 healthy volunteers	videotaped model	1 male model	color stimuli: orange and blue	placebo analgesia

Conclusions

The results of the reviewed studies suggest that the model's characteristics affect placebo effects induced by observational learning. Some of the results seem to be contradictory to the social learning theory assumptions. Learning through observation influences pain experience, induces placebo analgesia and may be used in pain therapy. Further examination needs to be done to expand the knowledge in the field and fully understand the mechanisms of placebo effects induction by observational learning.

