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# Vaccination intention against influenza and COVID among ICU caregivers: a pilot study.

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## INTRODUCTION

Protective Motivation Theory (PMT) states that health intentions and behaviours arise from several components:

- Threat appraisal : perception of the severity of the disease and vulnerability to the disease,
- Coping appraisal : self-efficacy (feeling able to make the decision), vaccine effectiveness and associated costs (including risks and side effects)
- The extended LMP model proposes the addition of intra-personal characteristics: social attitudes and social norms.

## METHOD

**Participants:** 43 caregivers from an intensive care unit evaluated from December 2020 to January 2021.

**Questionnaires:** 26 items (13 influenza-related and 13 Covid-19-related) with 7-point Likert scales and socio-epidemiological data.

## RESULTS

### OBJECTIVE 1: Comparison of PMT components (influenza vs covid-19)

**Threat appraisal :** no significant difference between the two viruses.

**Coping appraisal :** more confidence in their decision to vaccinate against influenza than against COVID-19, more vaccine-related costs (side effects) for COVID-19 vaccine

**Intrapersonal characteristics:** Social attitudes (individual contribution against the spread of the epidemic) stronger regarding influenza vaccination

Comparison table of PMT components of protective behaviour against influenza and Covid-19. Data are presented by median [interquartile range].

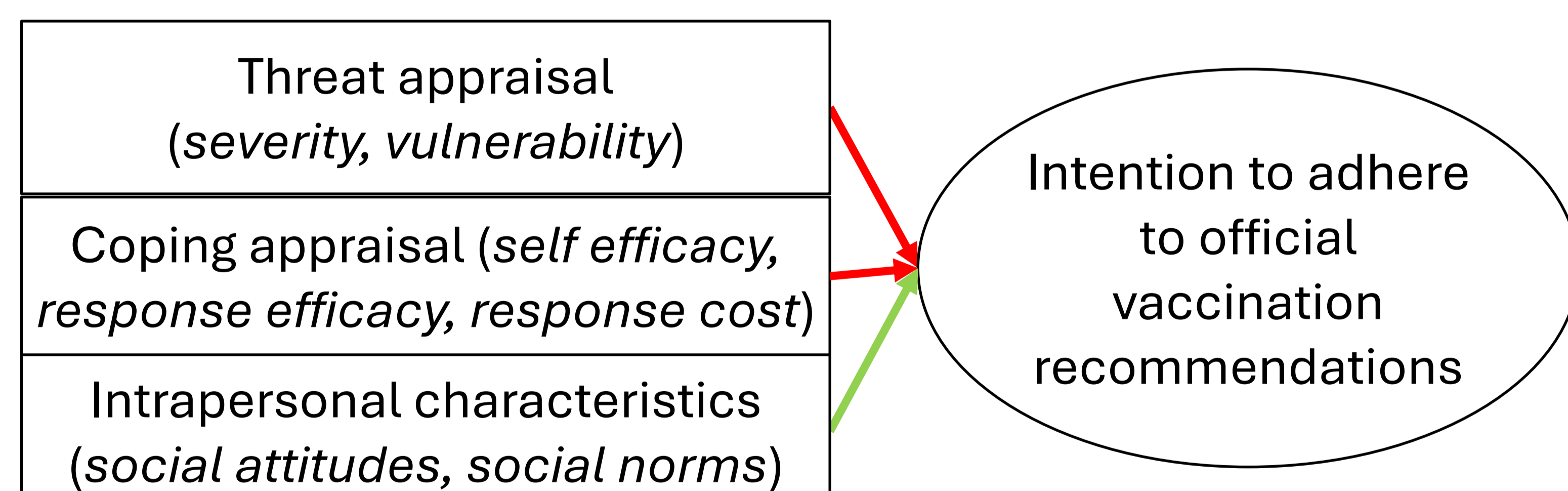
PMT dimensions	Influenza	Covid-19	P
Perceived severity	7 [6-7]	7 [7-7]	0.615
Perceived vulnerability	6 [5-7]	6 [5-7]	0.846
Self-efficacy	6.67 [6-7]	6.16 [5-7]	0.004**
Response (vaccination) efficacy	4 [3.66-4.5]	4 [3.42-4.67]	0.224
Response cost	4.5 [4-5]	5 [4.5-6]	0.002**
Social attitudes	6 [5-7]	5 [5-6]	0.040*
Social norms	3 [3-5]	3 [2-4]	0.061
Intention to adhere to official vaccination recommendations	5 [3.5-6]	4 [2.25-5]	<0.001**

The sign " \* " represents significant differences lower than 0.05. The sign " \*\* " represents significant differences lower than 0.005.

### OBJECTIVE 2: Predictions of vaccine intention

**Against influenza:** The only significant predictor of participants' intention to get a flu shot was *social norms* ( $R^2 = 0.20$ ,  $p = 0.002$ , ).

**Against covid-19:** *Social attitudes and social norms* predicted vaccine intention against COVID-19, respectively ( $R^2 = 0.32$ ,  $p < 0.001$ ) and ( $r^2 = 0.45$ ,  $p < 0.001$ ).



## CONCLUSION

- ❖ Threat perception to both viruses was high but did not predict vaccine intention.
- ❖ Being confident in one's vaccination decision or anticipating side effects depended on the vaccine.
- ❖ Vaccination intention was significantly influenced by social representations.

This pilot study shows the feasibility and relevance of the PMT for the study of vaccine decision behaviour. It could be used on larger numbers of health care workers or in the general population.