

# PLACE ATTACHMENT, KNOWLEDGE AND INSTITUTIONAL TRUST IN THE RELATIONS TO RISKS

ALEXIA LOPEZ\*, ALEXANDRA SCHLEYER-LINDENMANN\*, RAQUEL  
BERTOLDO\* & ISABELLE RÉGNER\*\*

## Preparedness evaluation

*Several definitions of preparedness*

*Wachinger et al. (2013)*

Enhancement of house resistance and resilience

*Bichard et al. (2012)*

Intentions of preparation actions

*De Dominicis et al. (2015)*

Perceived knowledge of the risk

*Tuladhar et al. (2015)*

*Scarcity of studies about preparedness as the operational knowledge of safety instructions and not using self-evaluative items*

## Place attachment and institutional trust

*Paradoxical effects on “risk perception” / “preparedness”*

Place attachment

*Reduces the effect of **risk perception** on **preparation** action intentions when perceived risk level is high (De Dominicis, 2015)*

Institutional trust

*Enhance response fit with the context but reduces the sense of responsibility and the individual initiative (Wachinger et al. 2013)*

*How are they combined with operational knowledge ?*

## The present study

Measure of the **effective operational knowledge**

Analyses the correlations between:  
effective knowledge, sense of knowledge & satisfaction with  
information

Explores the relations between place attachment, institutional trust,  
effective knowledge and sense of knowledge

## The sample

- ❖ 143 inhabitants of two villages in the south of France exposed to different natural and technological risks:
  - ❖ Vinon-sur-Verdon
  - ❖ Saint-Paul-Lès-Durance
- ❖ 53 females and 90 males
- ❖ Mean age: 53 years old
- ❖ Profession: retired (35%), employees (14.7%), technicians and associate professional (14%), unemployed (11.9%), workers (10.5%), farmers (1.4%), self-employed (6.3%), managers and intellectual professionals (6.3%)
- ❖ Mean residence time : 24 years
- ❖ Higher education level in relation to the general population

## Major risks in Vinon-sur-Verdon and Saint-Paul-Lèz-Durance

- ❖ forest fire
- ❖ floods
- ❖ earthquake
- ❖ landslides
- ❖ transportation of dangerous goods
- ❖ dam failure
- ❖ nuclear accident

## Questionnaire

6-point Likert type items were used to measure:

- ❖ *Place attachment (6 items from Lalli, 1993)*
- ❖ *Satisfaction with information (1 item for each risk)*
  - ❖ *As an inhabitant of Saint-Paul-Lès-Durance, do you feel you have been given enough information about the forest fire risk ? The flood risk ? ... »*
- ❖ *Sense of knowledge (1 item for each risk)*
  - ❖ *« To what extent do you consider you know what are the good reflexes to protect yourself in case of [...] ? »*
- ❖ *Institutional trust (3 items for each risk)*
  - *« The town is well prepared to face [...] »*
  - *« Applying safety guidelines is an assurance for a better protection in case of [...] »*

## Questionnaire

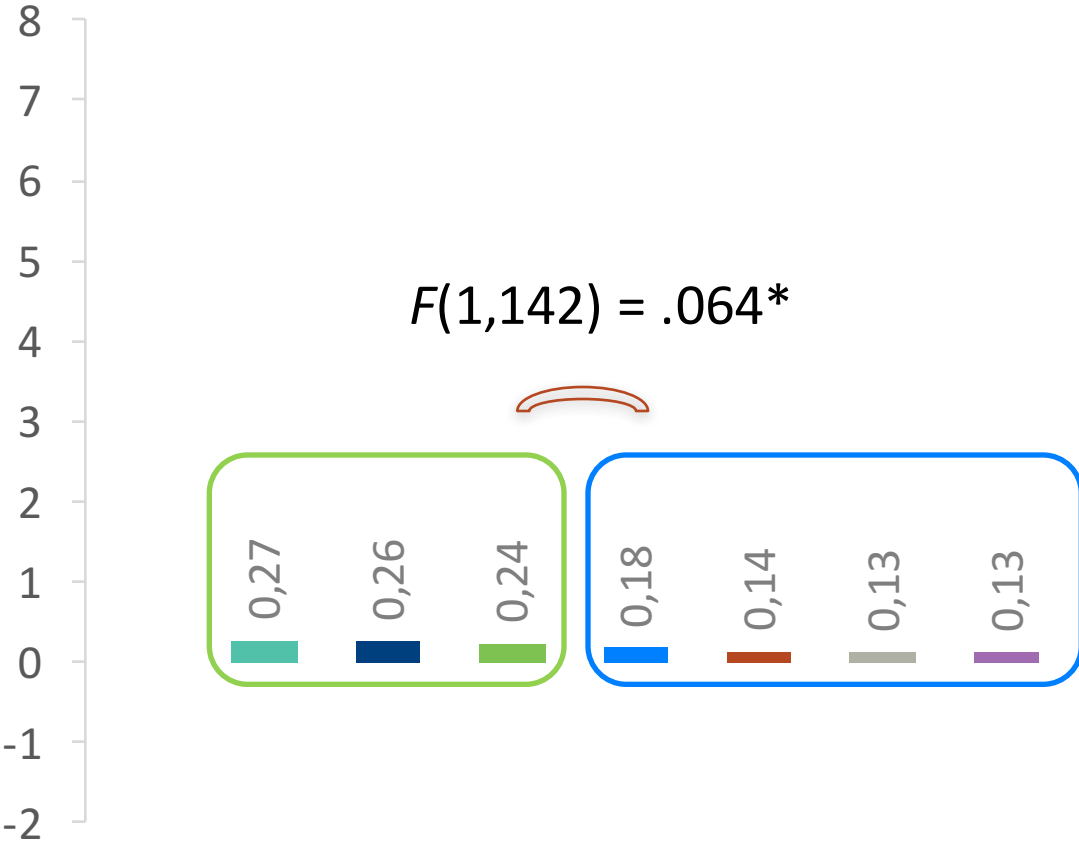
### ❖ **Effective knowledge**

- ❖ Measured with an open question for each risk : « *What are the good reflexes to have and the behaviours to avoid in case of [...] ?* »
- ❖ Participants answered giving up to 8 answers for each risk
- ❖ Encoding of the answers according the DICRIM
  - ❖ - 0,25 pts for incorrect answers
  - ❖ 0,00 pt for no answer
  - ❖ + 0,10 pt for inappropriate answers
  - ❖ + 0,40 pt for ambiguous or partial answers
  - ❖ + 1,00 pt for correct answers

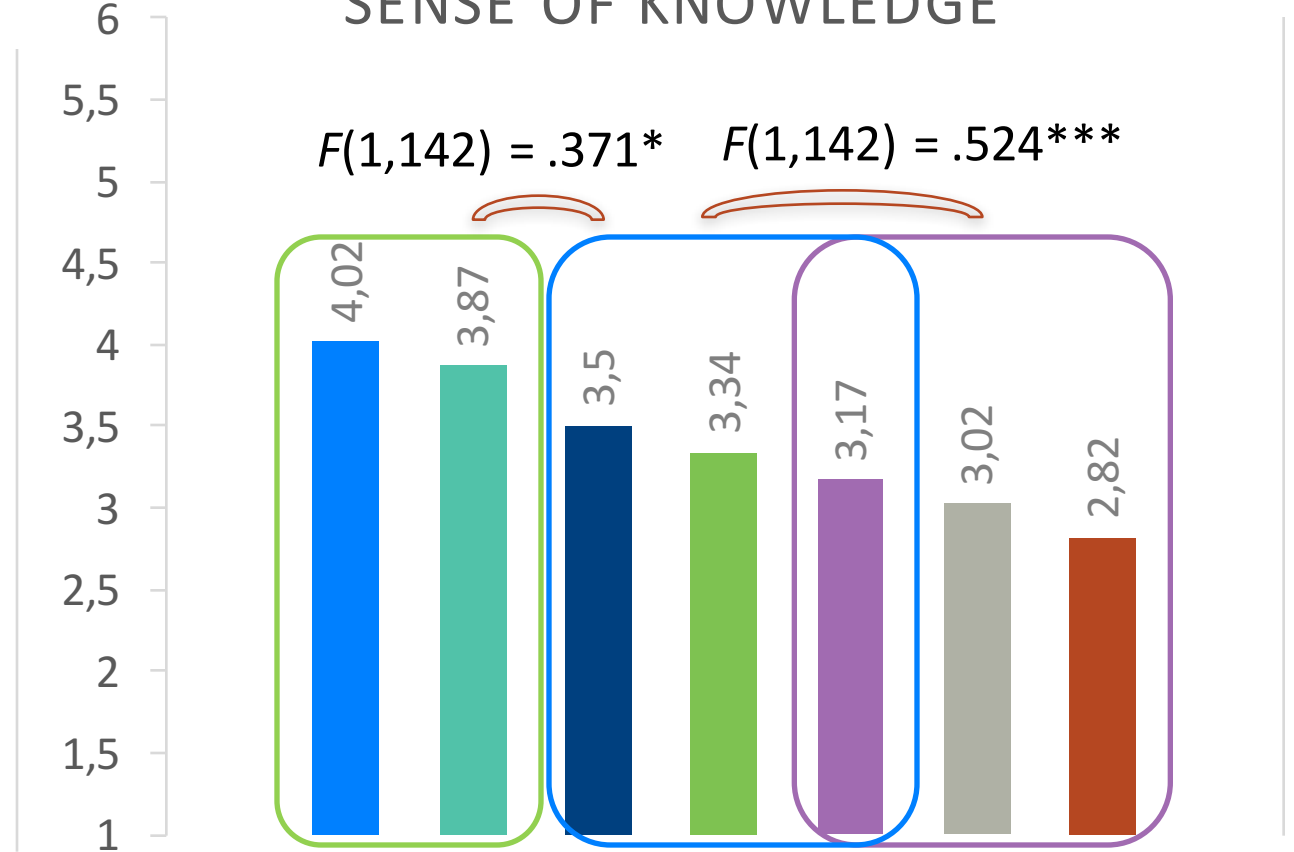


# Effective knowledge and sense of knowledge for each risk

EFFECTIVE KNOWLEDGE



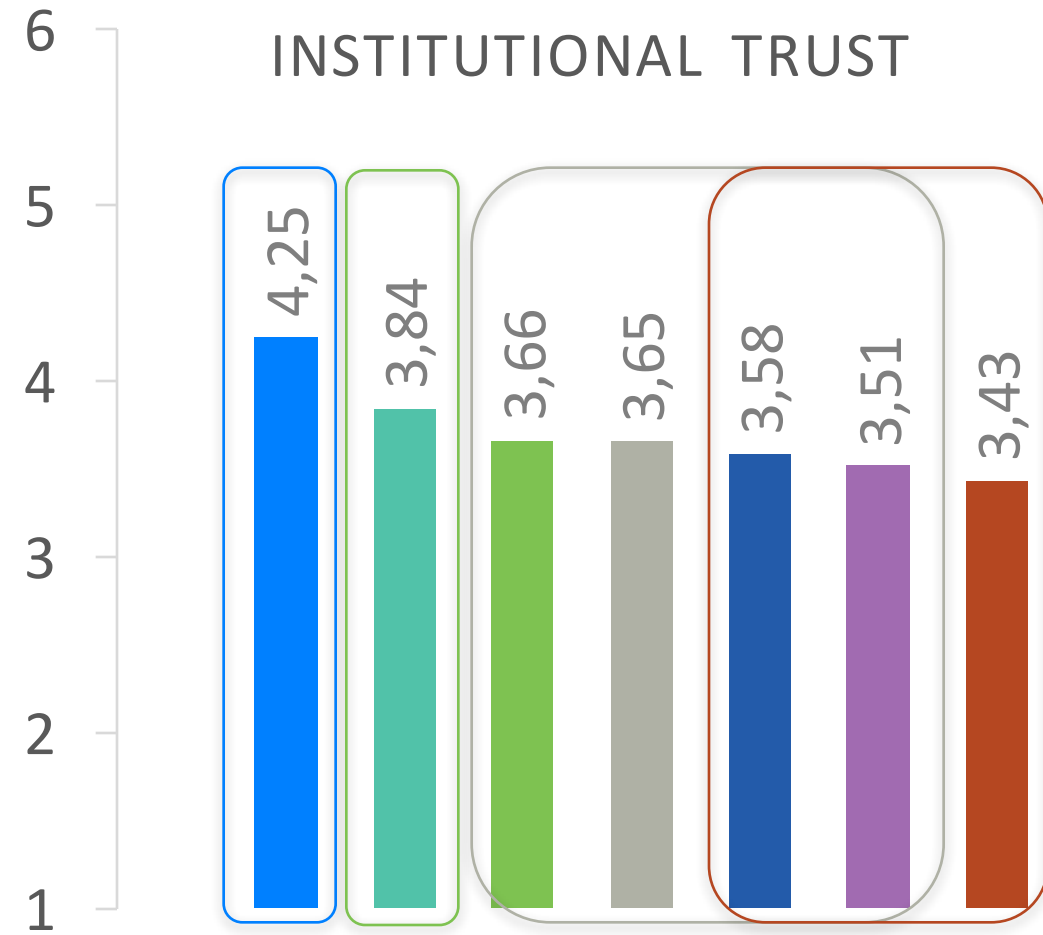
SENSE OF KNOWLEDGE



## Pearson correlations between sense of knowledge and effective knowledge

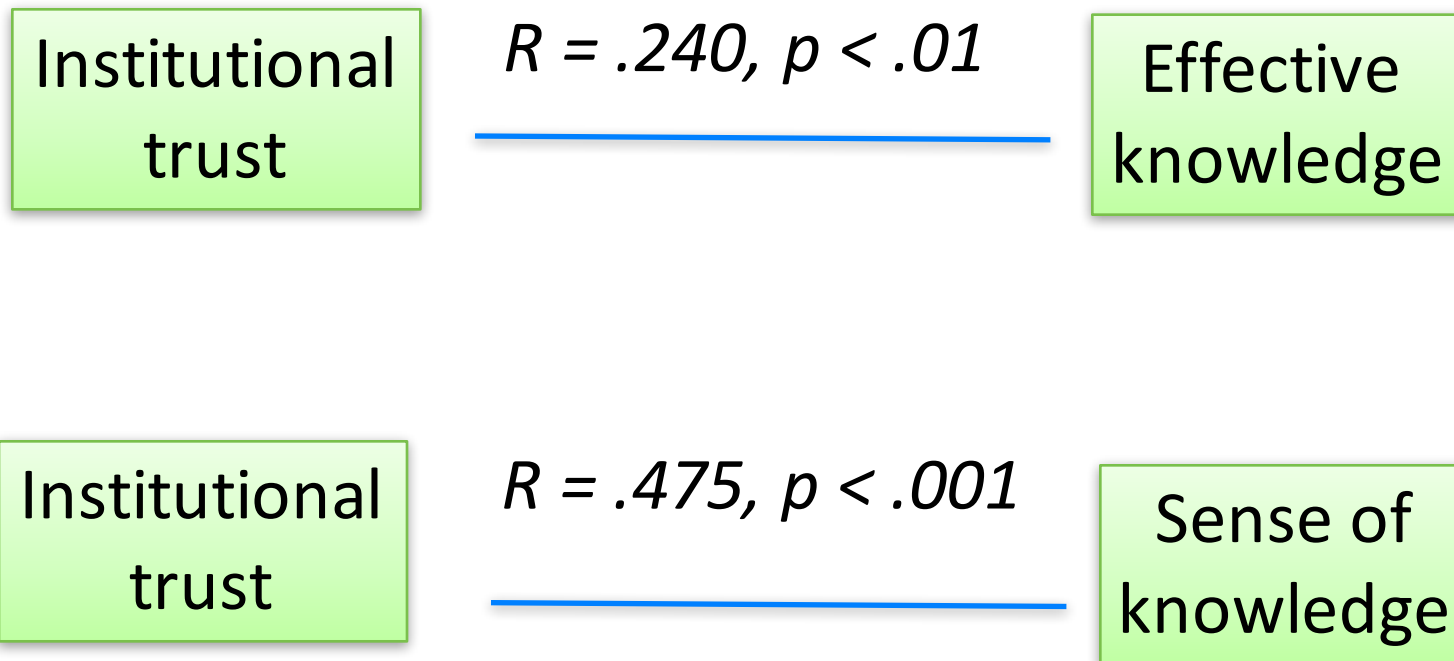
<b>Wild fires</b>	R = .144, p = ns
<b>Floods</b>	R = .199, p < .05
<b>Earthquakes</b>	R = .105, p = ns
<b>Transportation of dangerous goods</b>	R = .200, p < .05
<b>Landslides</b>	R = .175, p < .05
<b>Dam failures</b>	R = .303, p < .001
<b>Nuclear accident</b>	R = .456, p < .001
<b>Global index of measured knowledge*Global index of perceived knowledge</b>	R = .337, p < .01

# Levels of institutional trust and satisfaction with information for each risk

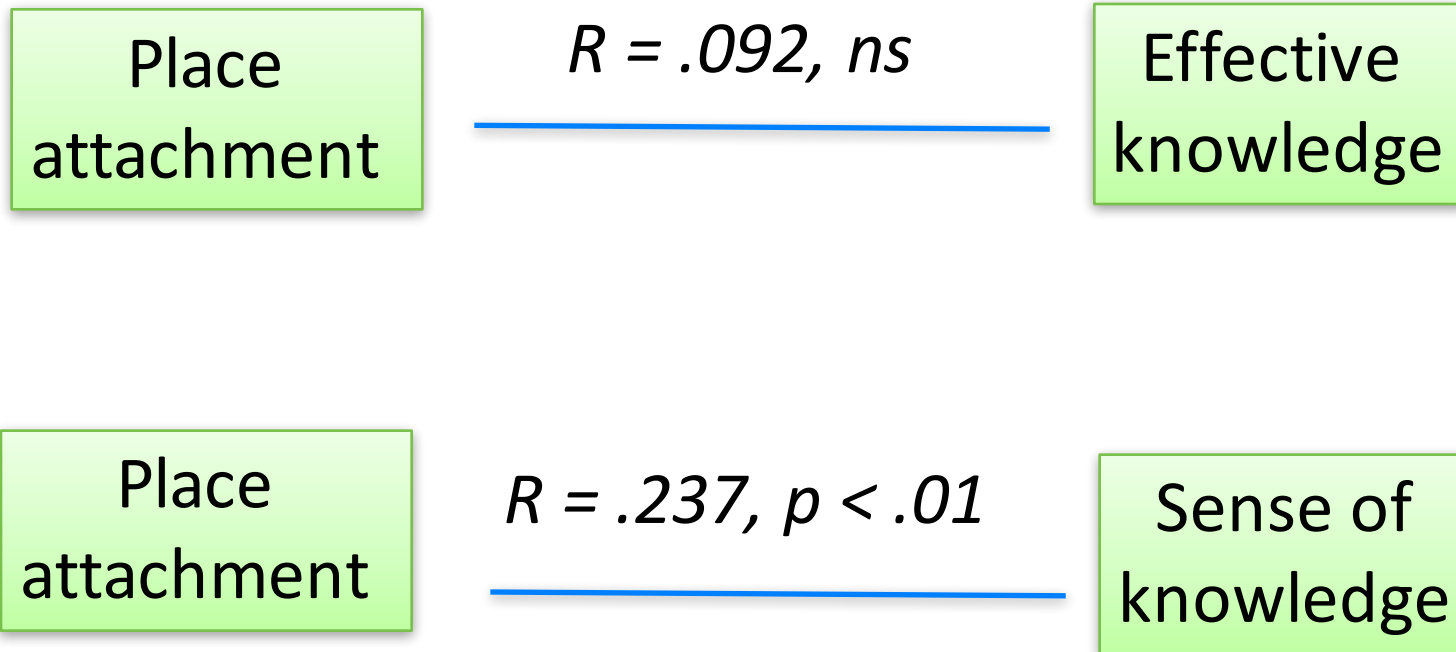


■ Wild fire 
 ■ Flood 
 ■ Earthquake 
 ■ Landslides 
 ■ Nuclear 
 ■ Dam failure 
 ■ TDG

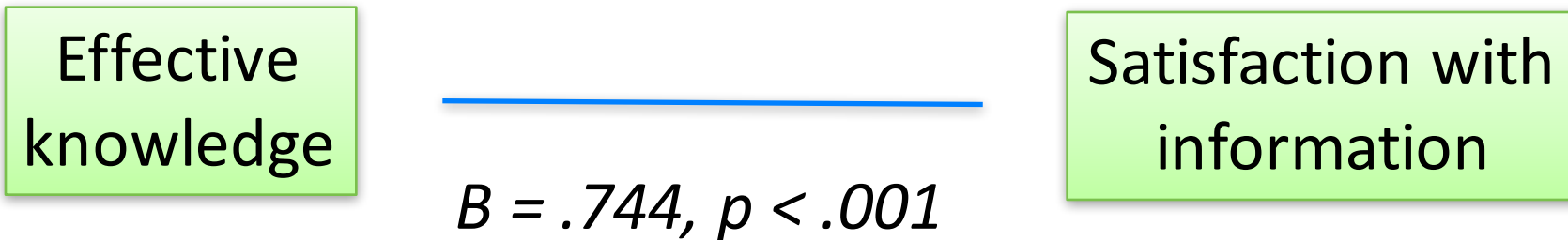
## Results: correlations



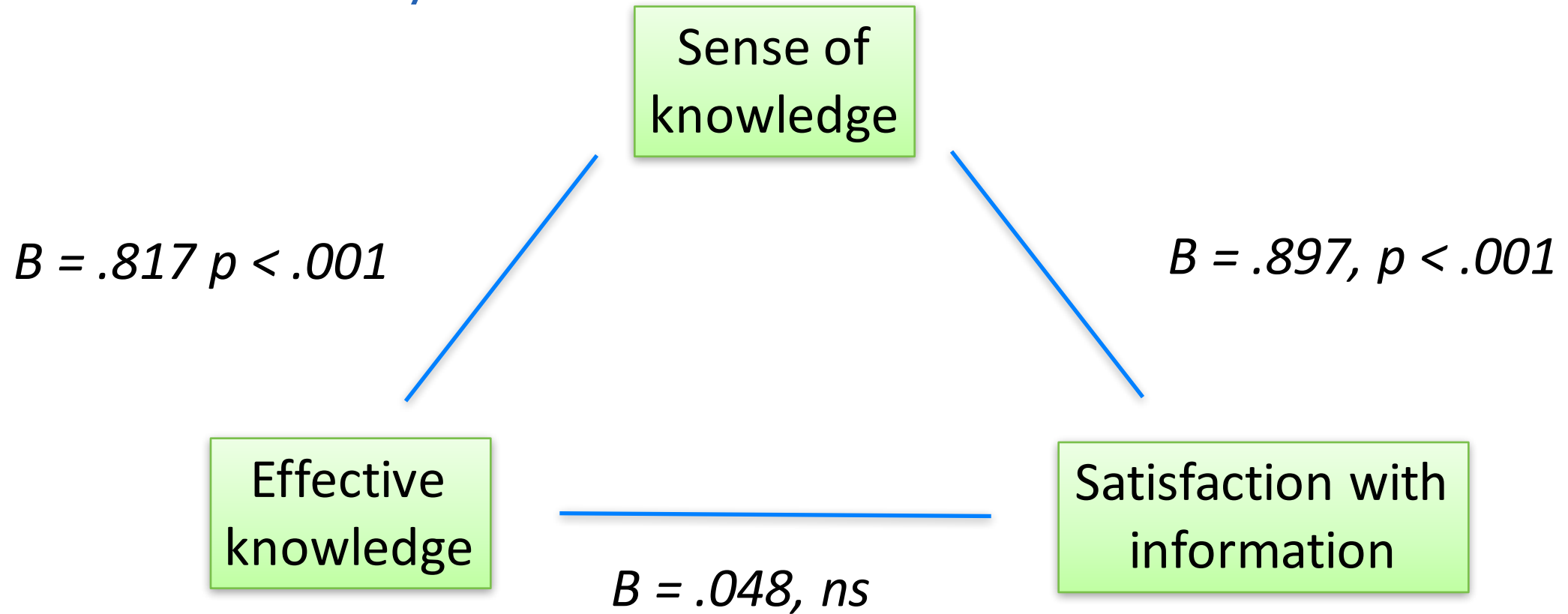
## Results: correlations



## Mediation analysis



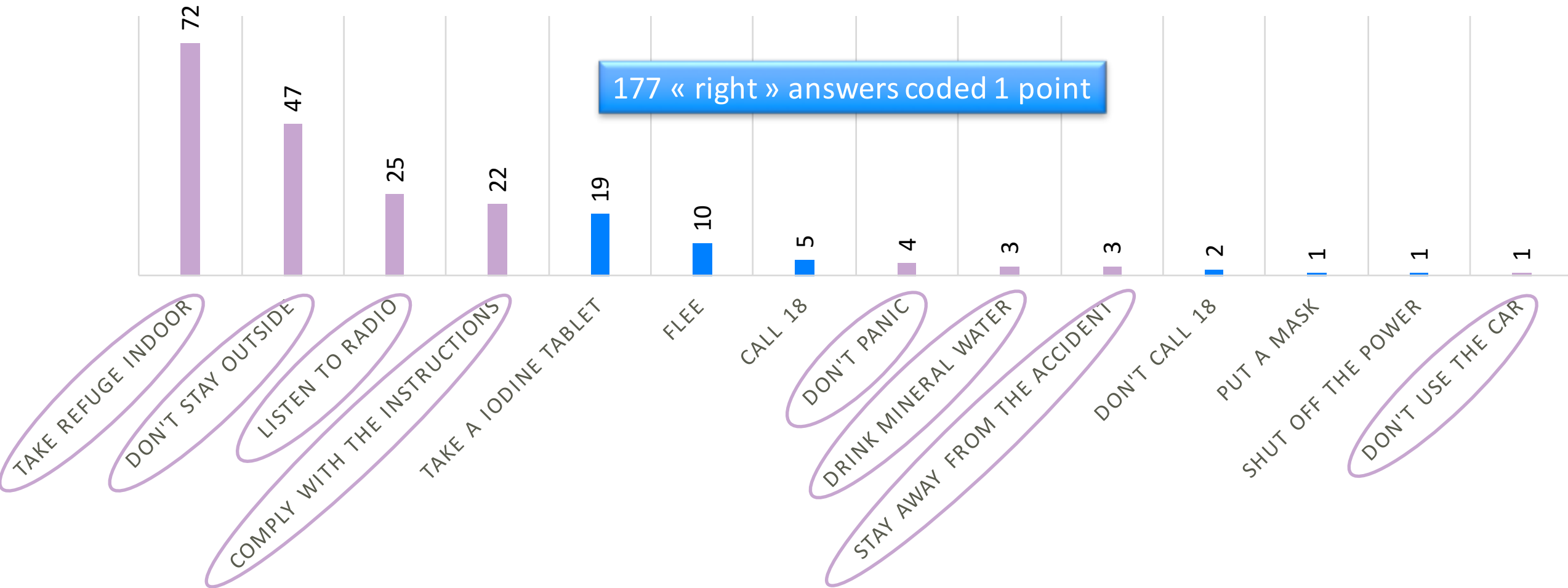
## Mediation analysis



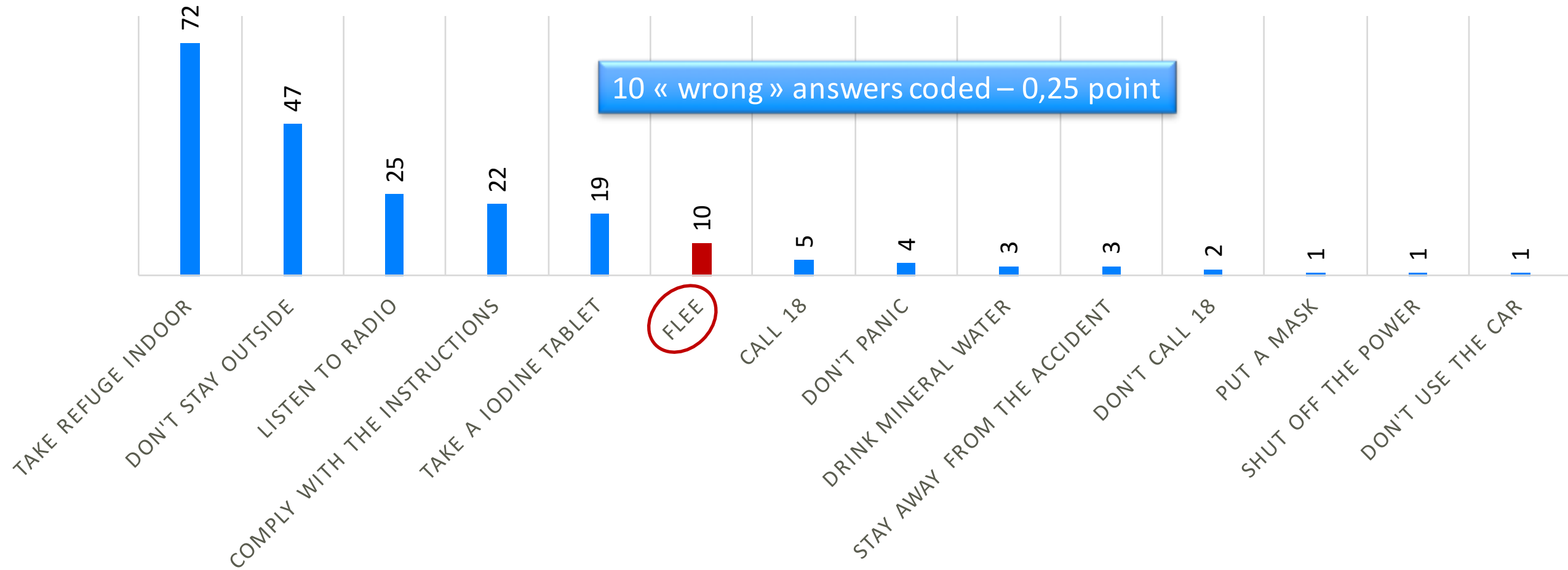
Thank you for your attention!  
*Alexia Lopez (alexialopez086@gmail.com)*



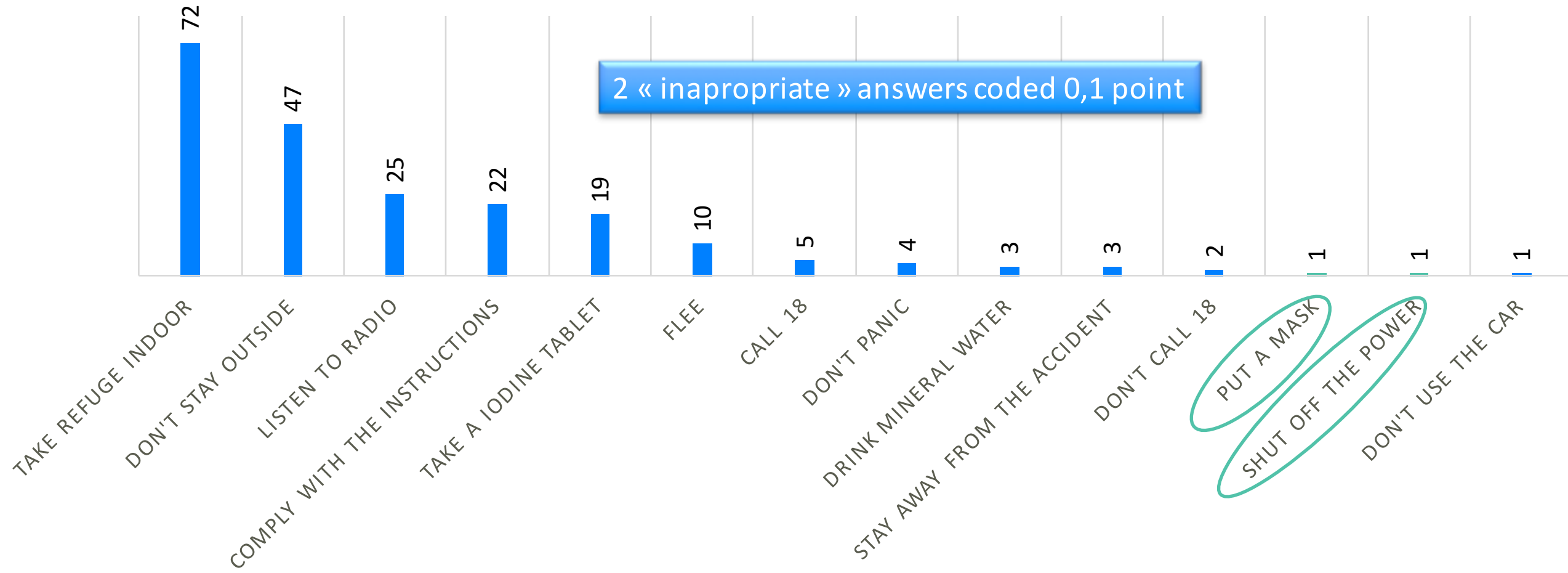
# Answers for the nuclear risk



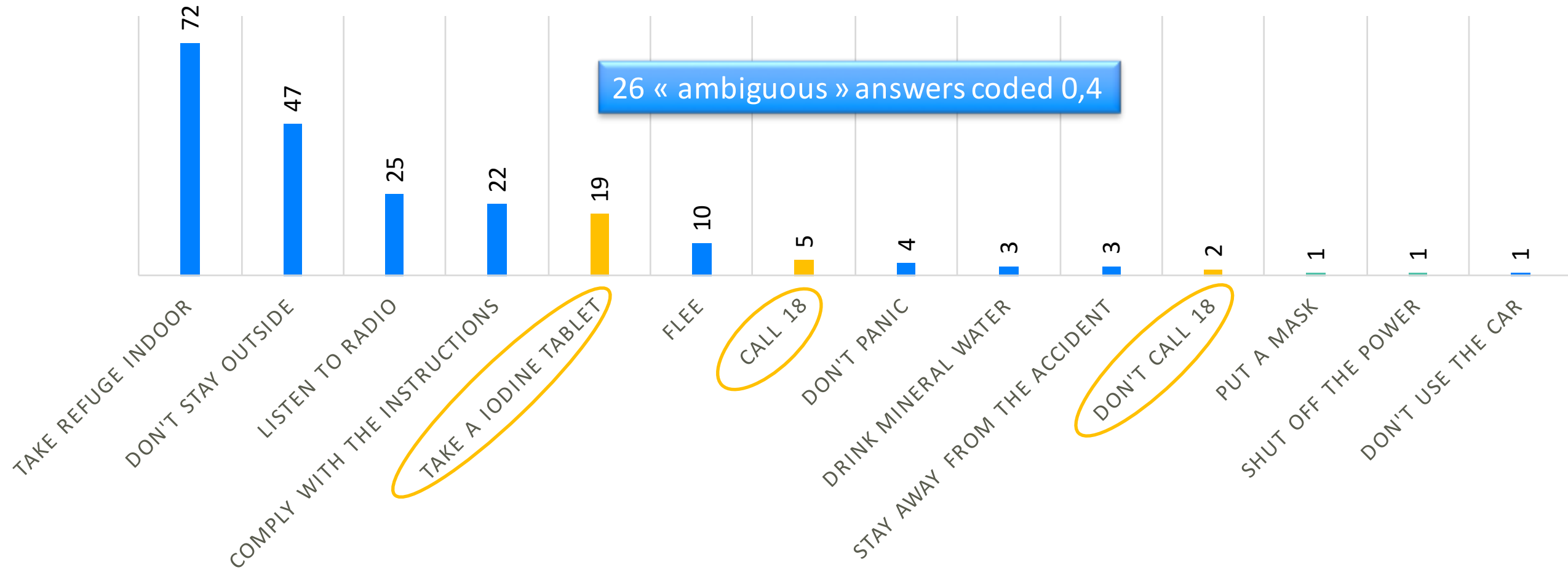
# Answers for the nuclear risk



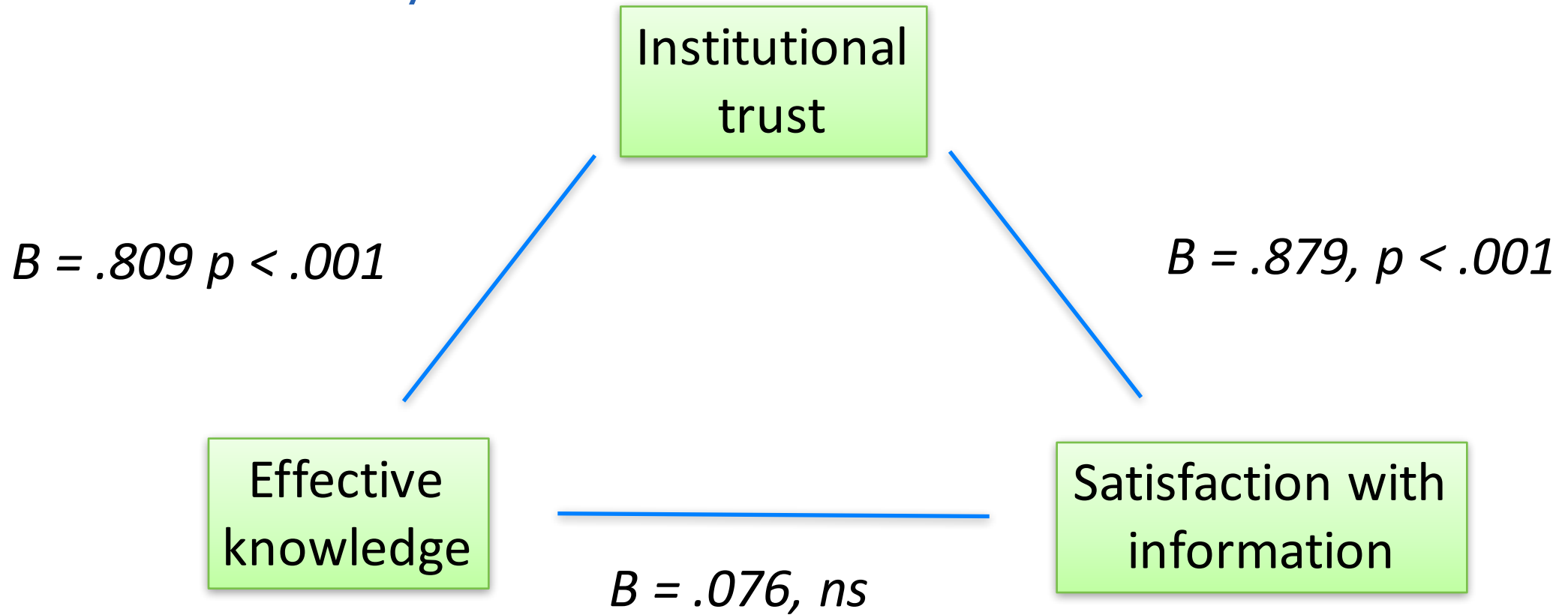
# Answers for the nuclear risk



## Answers for the nuclear risk



## Mediation analysis



## Mediation analysis

