The Technology Acceptance Model: A potentially useful tool to understand why therapists intend to use or not virtual reality

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Introduction

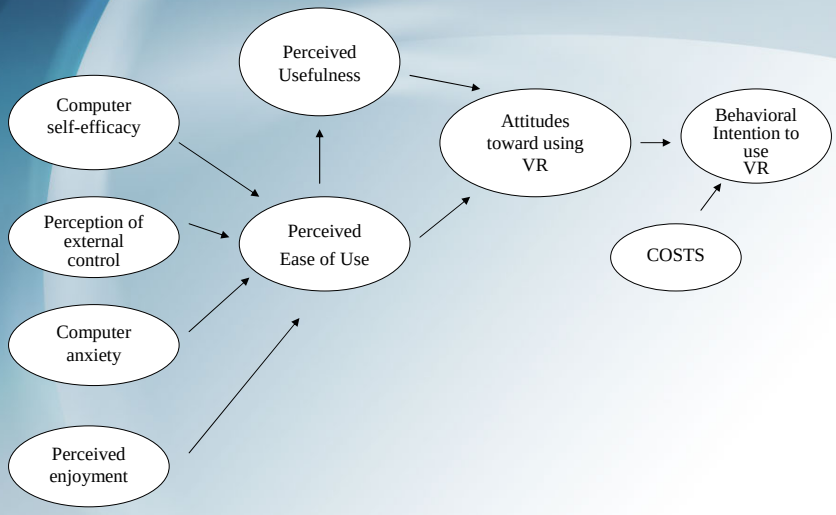
- The Technology Acceptance Model (TAM) developed by Davis (Davis, 1989, 1993 ; Davis & Venkatesh, 1996) has been extensively validated to explain the factors involved in people's intention to use computers or software at the office or at home.
- The TAM is a powerful and robust model to predict the usage intentions and the actual usage of information technology (King & He, 2006).
- No studies have yet been conducted on factors related to the use of virtual reality by mental health practitioners.

Aim of this study

- Empirically document factors that could have an impact on the intention of using VR in clinical practice (inspired by the TAM model).

Proposed TAM model adapted to the use of VR in mental health practice

(the model to be tested)



Method

- Participant were invited to fill our questionnaire on paper or online (67%). They were recruited at last year's Cybertherapy conference, disseminated by colleagues, after VR workshops and through invitation on listserves (VRPSYCh and Presence).

Sample

- The current sample consists of 141 respondents (58% female), with an average age of 39.6-year old and an average of 11 years of clinical experience.

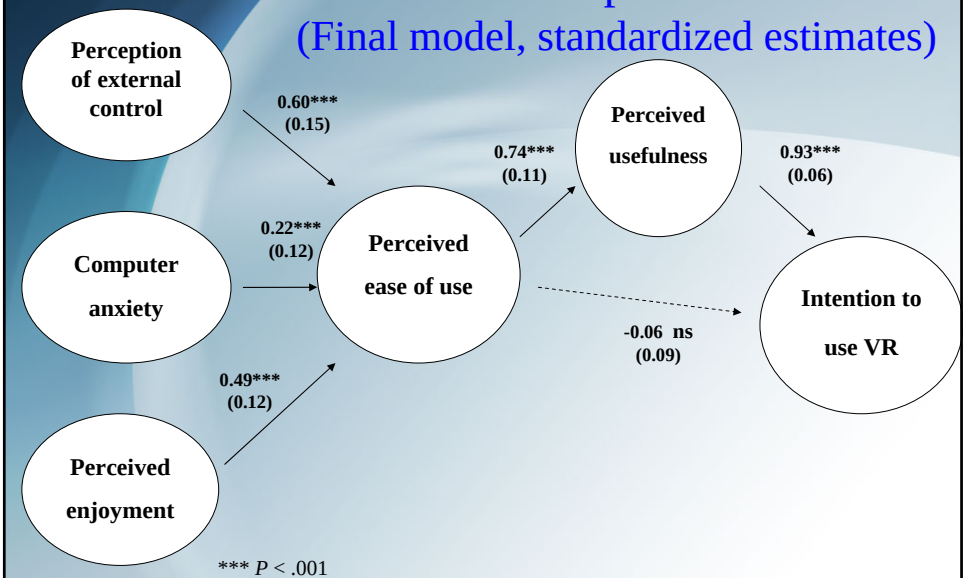
Country	% of the sample
Canada	49
United-States	23
Spain	12
France	3.5
Israel	2
Italy	2
England	1.4
Australia	.7
Germany	.7
Grece	.7
Japan	.7
Corea	.7
Luxembourg	.7
Scotland	.7
Sweden	.7

- Participants come from a variety of clinical settings:
  - public setting (32%)
  - private practice (23%)
  - directors of a clinic or a research lab (21%)
  - a majority of them rarely or didn't use VR in the last 12 months (63%).

Analyses

- Structural equation modeling analyses were performed with the EQS software to fit the data. As usually done in SEM analyses, the key indices of fit were selected and cut-off scores were set *a priori*.
- The first analysis tested all the variables in the proposed model. Several parameters were not significant and therefore removed from the model, such as *Costs*, *Computer self-efficacy* and *Attitudes towards VR*.
- The final model provided an adequate fit to the data, as shown with a variety of fit indices:
  - Satorria-Bentler χ^2 (177, N = 141) = 227.4, p <0.01
  - Robust CFI = 0.98
  - RMSEA = 0.45
  - NNFI = 0.96
  - SRMR = 0.06
  - and examination of the modification indices.

TAM adapted to VR
(Final model, standardized estimates)



*** $P < .001$

The model explains 85% of variance in the intention of use VR for clinical purposes.

Discussion

- VR is different from other technologies studied before with the TAM (ex.: websites, email, WordPerfect, Telemedecine).
- These results must orient our dissemination efforts of VR towards documenting and highlighting the usefulness of this technology (as opposed to focusing solely on its efficacy).
- We should now study how to disseminate our efficacy findings using Rogers' Innovation Diffusion Theory (IDT) (1995) :

Innovation Diffusion Theory (IDT)

- This theory is based on 7 factors (Venkatesh et al., 2003):
  - Relative Advantage
  - Ease of Use
  - Image
  - Visibility
  - Compatibility
  - Results Demonstrability
  - Voluntariness of Use

Thank you for your attention

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