11TH EUROPEAN COMMUNICATION CONFERENCE
8–11 SEPTEMBER 2026
BRNO, CZECH REPUBLIC

ECC
SHIFTING GROUNDS
2026

PATHS, CONNECTIONS, AND FUTURES

UNDERSTANDING EFFECTS OF DIGITAL MEDIA ON WELLBEING: ADVANCING THEORY THROUGH INTERVENTIONS AND HEALTH FRAMEWORKS

David Šmahel and Adéla Švestková
Interdisciplinary Research Team on Internet and Society
Faculty of Social Studies, Masaryk University

CONCEPTUALIZING MEDIA EFFECTS

- media use – highly individualised and personalised
- barely any direct and universal effects

- **media effects limited by boundaries** (Valkenburg, 2016)
  - the user's background and compatibility with the medium
  - modality and content
  - chains of post-exposure variables
  - moderating variables

- complex integration in the **Differential Susceptibility to Media Effects Model** (DSMM; Valkenburg & Peter, 2013)

INTEGRATIVE MODEL OF ICT EFFECTS ON ADOLESCENT WELL-BEING (IMEW, SMAHEL ET AL., 2023)

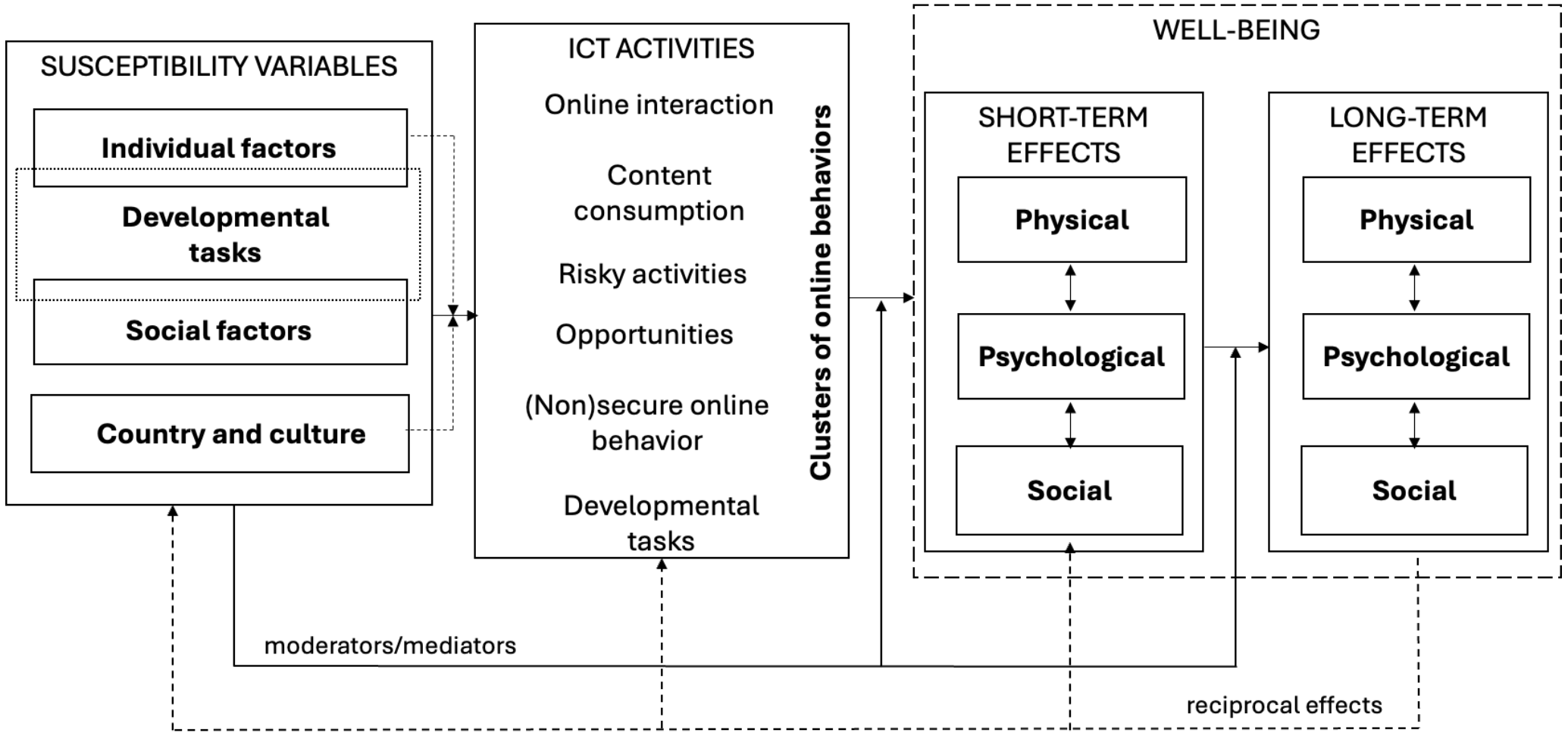
- revision of DSMM in the light of new literature
- better guidelines for variable conceptualisation
- media use in the light of developmental needs and tasks
- an integration of DSMM with three other theories

Problem Behavior Theory (Jessor, 2014)**:** risk x opportunity approach, clusters of behaviors with similar predictors

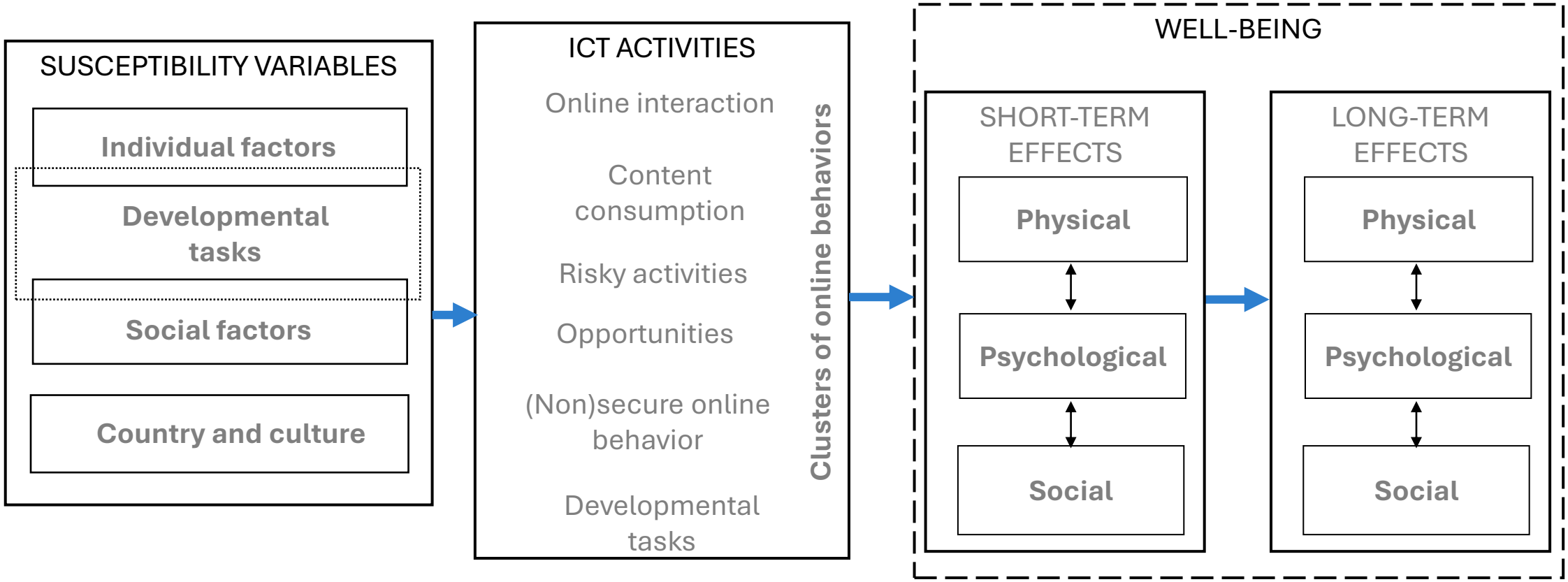
Ecological Systems Theory (Bronfenbrenner, 2000)**:** more multi-layered perspective on susceptibility variables

Health Belief Model (Champion & Skinner, 2008)**:** risk awareness as important cognition

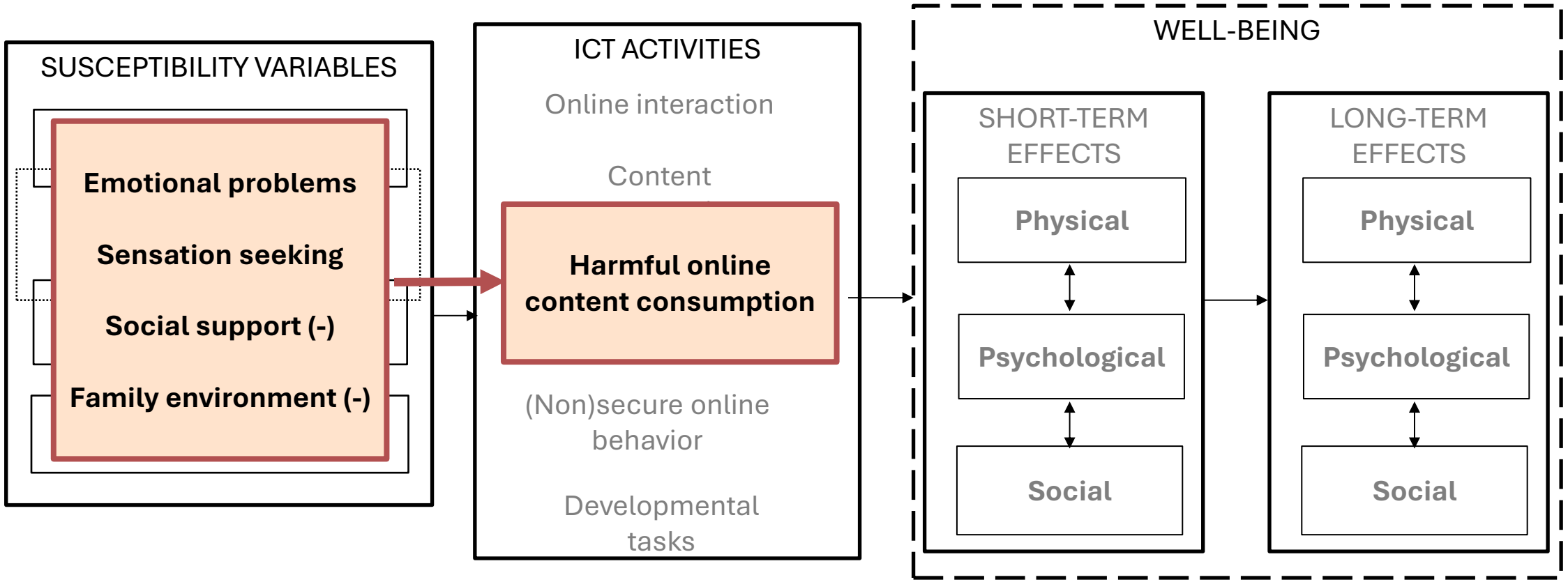
IMEW (SIMPLIFIED)



Proposition 1: *The effects in the model are thought to be causal.*

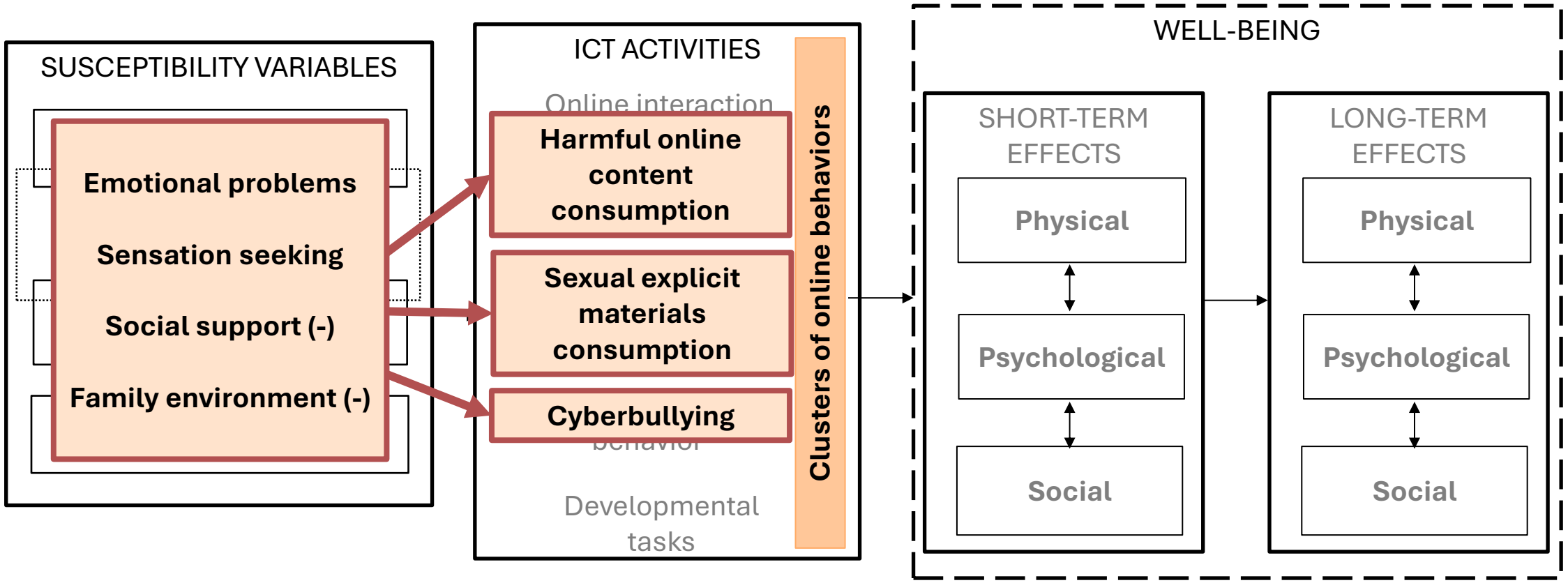


Proposition 2: *The risk/benefit of media use depends on susceptibility variables.*



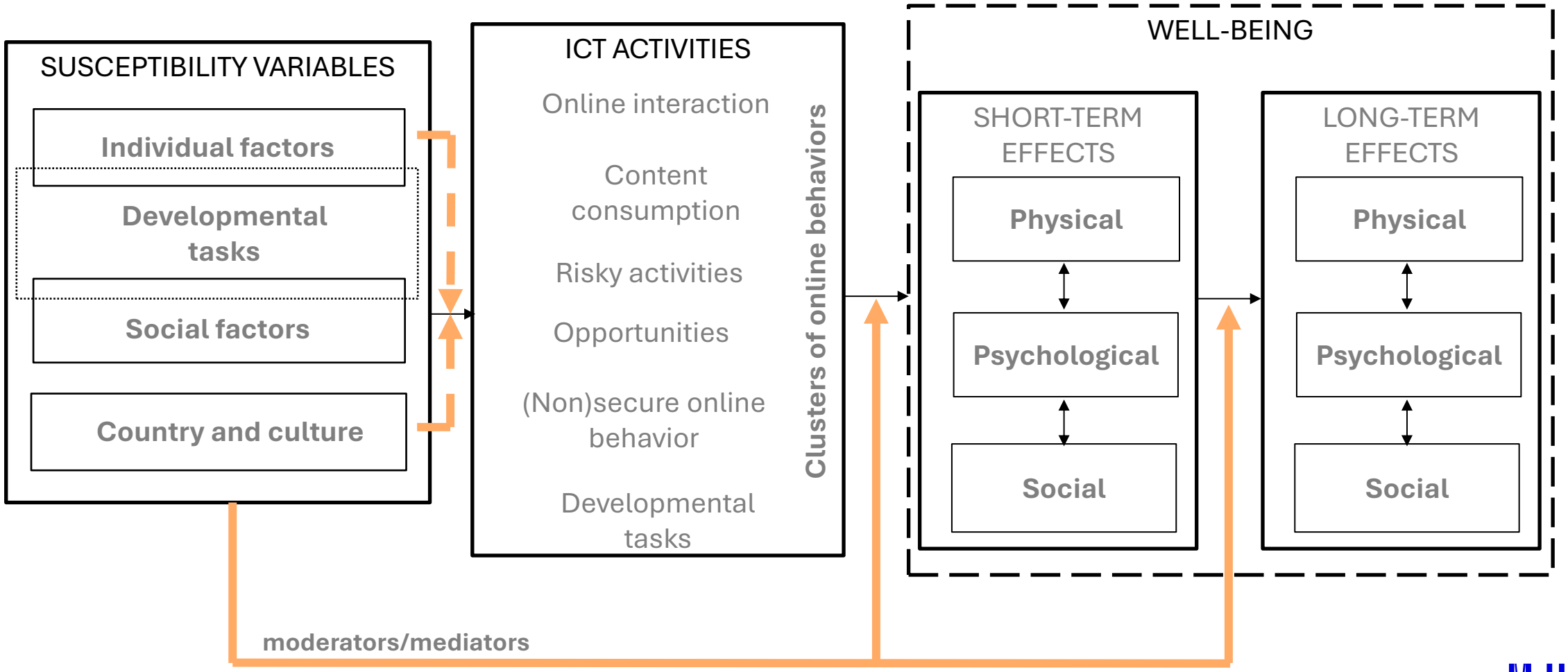
MUNI FSS

Proposition 3: *Online activities tend to cluster and relate to the same DS variables.*



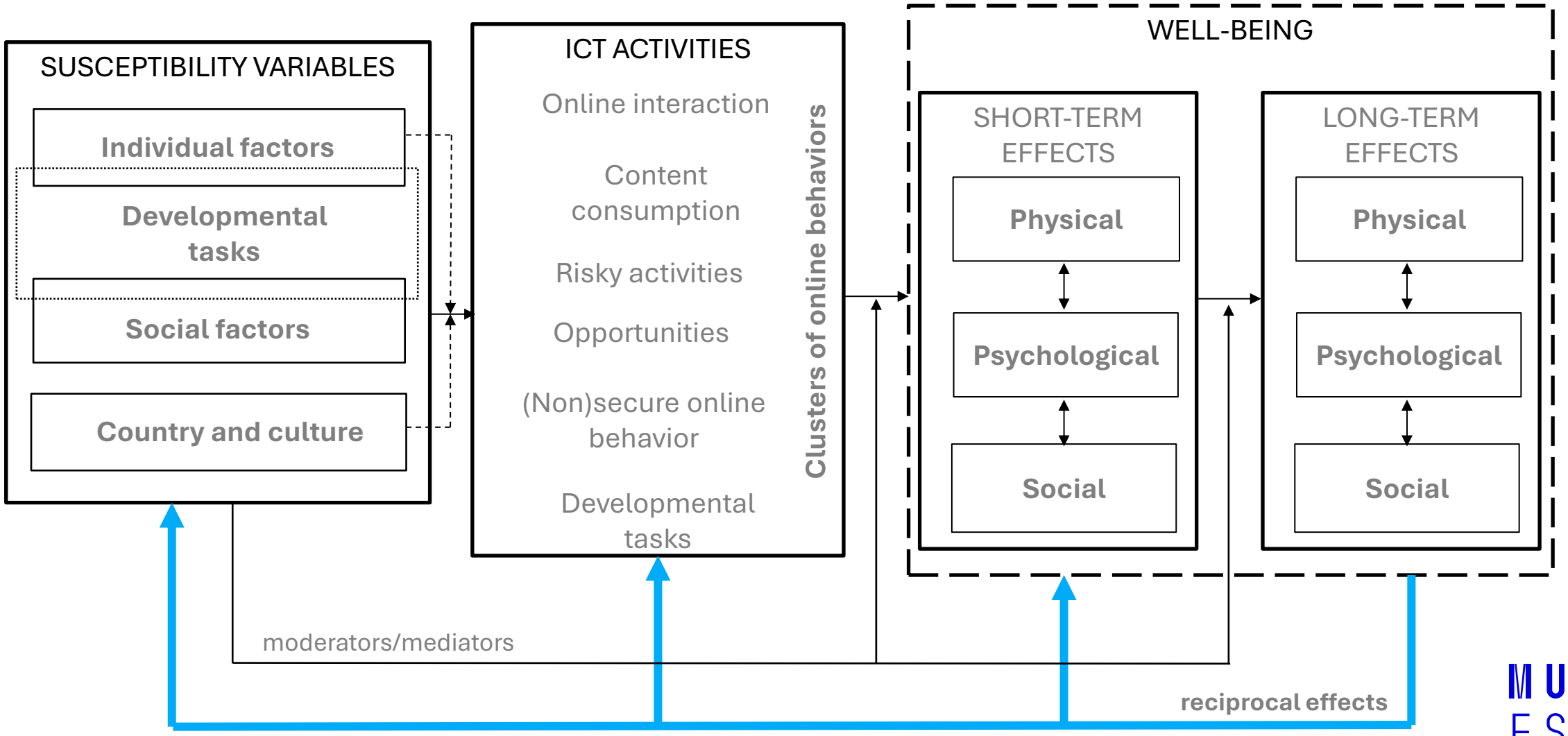
MUNI FSS

Proposition 4: *Media effects are conditional and indirect.*



MUNI FSS

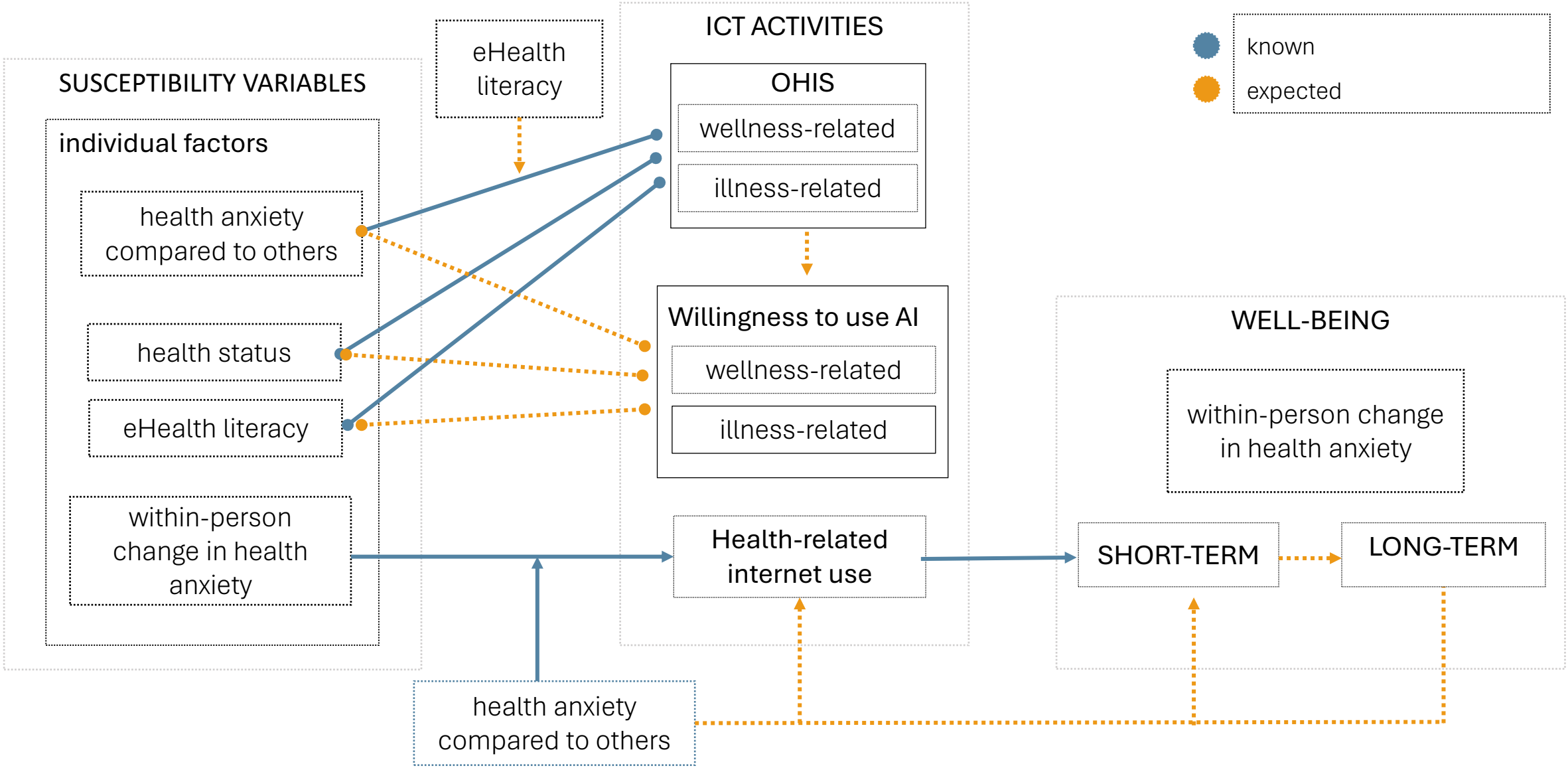
Proposition 5: *Media effects are transactional.*

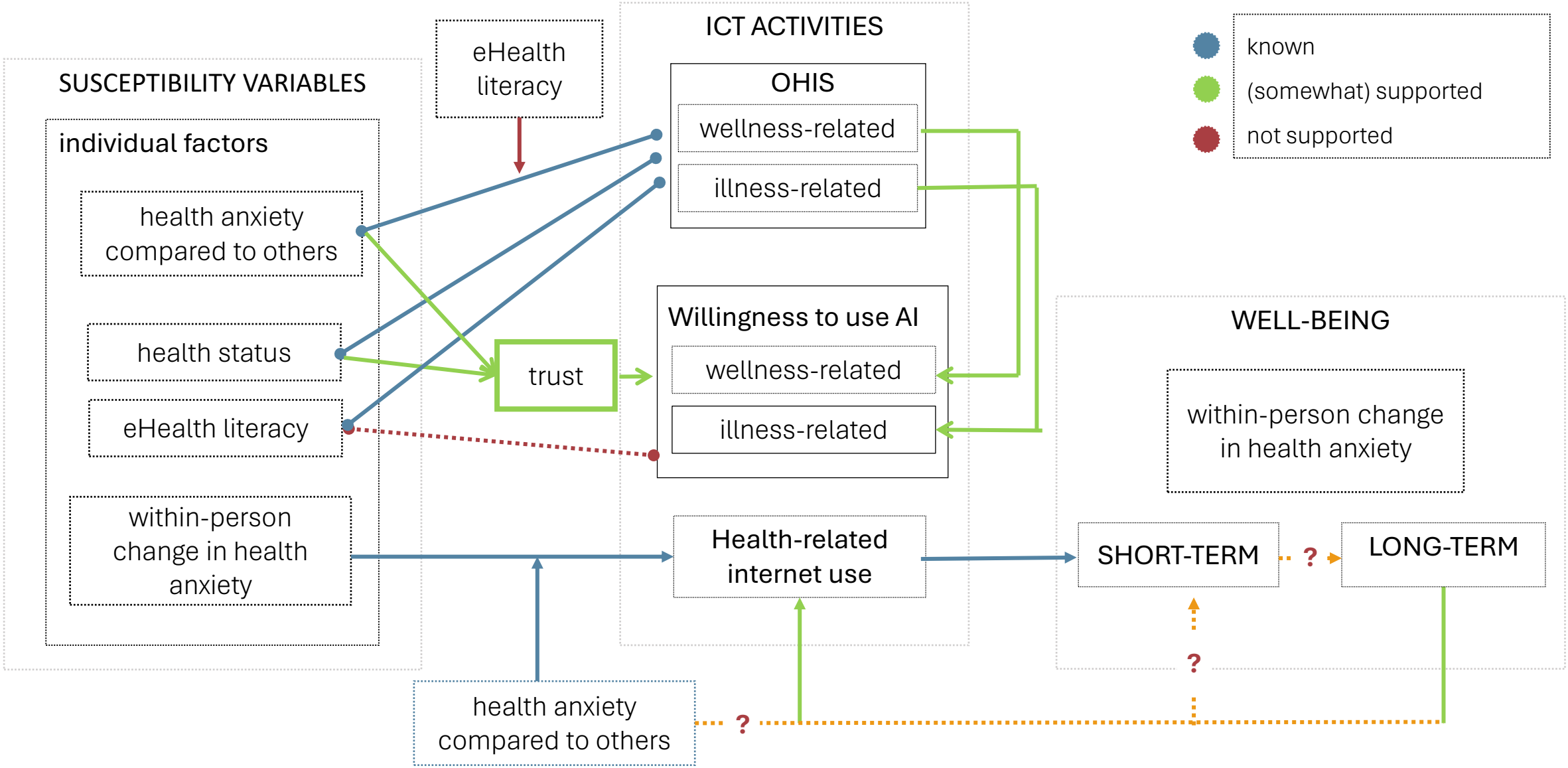


MUNI FSS

CURRENT UTILITY OF IMEW

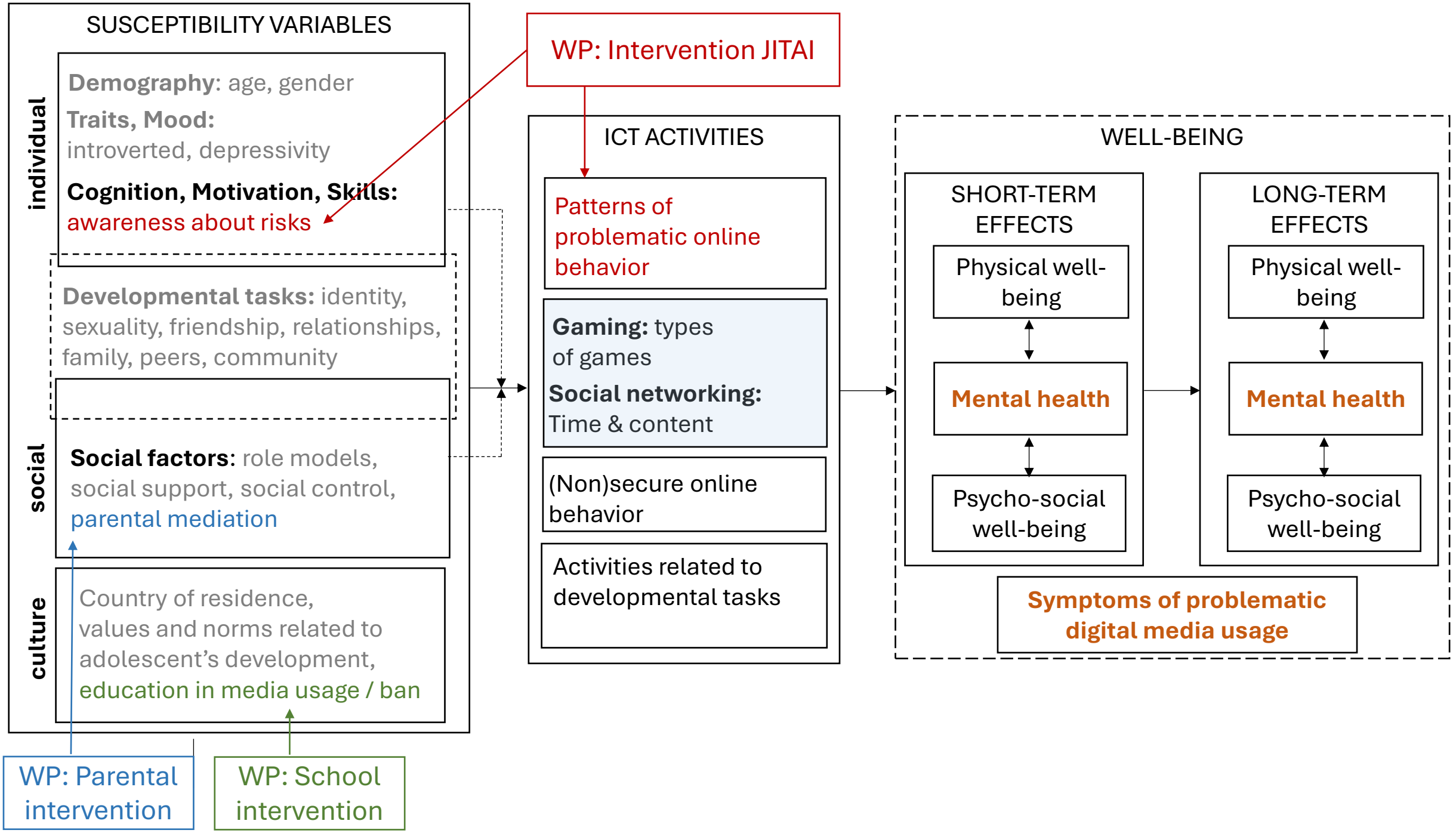
- literature review
  - systematization of the current knowledge
  - identification of gaps
  - evaluation of progress and future research goals


known
expected
SUSCEPTIBILITY VARIABLES
individual factors
health anxiety compared to others
health status
eHealth literacy
within-person change in health anxiety
eHealth literacy
ICT ACTIVITIES
OHIS
wellness-related
illness-related
Willingness to use AI
wellness-related
illness-related
Health-related internet use
WELL-BEING
within-person change in health anxiety
SHORT-TERM
LONG-TERM
health anxiety compared to others


SUSCEPTIBILITY VARIABLES
individual factors
health anxiety compared to others
health status
eHealth literacy
within-person change in health anxiety
eHealth literacy
ICT ACTIVITIES
OHIS
wellness-related
illness-related
trust
Willingness to use AI
wellness-related
illness-related
Health-related internet use
health anxiety compared to others
WELL-BEING
within-person change in health anxiety
SHORT-TERM
?
LONG-TERM
?
?
known
(somewhat) supported
not supported

CURRENT UTILITY OF IMEW

- project planning (example: planning HORIZON project on interventions)
  - conceptualization of research
  - target of intervention (susceptibility? behavior? mitigation of effect)
  - outcome identification
  - intervention context (direct? by proxy? through the system?)


SUSCEPTIBILITY VARIABLES
individual
Demography: age, gender
Traits, Mood: introverted, depressivity
Cognition, Motivation, Skills: awareness about risks
Developmental tasks: identity, sexuality, friendship, relationships, family, peers, community
social
Social factors: role models, social support, social control, parental mediation
culture
Country of residence, values and norms related to adolescent's development, education in media usage / ban
WP: Intervention JITAI
ICT ACTIVITIES
Patterns of problematic online behavior
Gaming: types of games
Social networking: Time & content
(Non)secure online behavior
Activities related to developmental tasks
WELL-BEING
SHORT-TERM EFFECTS
Physical well-being
Mental health
Psycho-social well-being
LONG-TERM EFFECTS
Physical well-being
Mental health
Psycho-social well-being
Symptoms of problematic digital media usage
WP: Parental intervention
WP: School intervention

LIMITATIONS AND CHALLENGES

- modelling of causal within-person effects **x** theory preceeded evidence
  - „dynamic model based on static data“

- challenge for interventions
  - identification of vulnerable population x intervening at the right moment on the right risk

What does the evidence show?

- not all correlational effects are causal
- not all short-term causal effects imply long-term effects
- susceptibility to media use does not equal susceptibility to outcome
- conditional effects are important at all stages of the model

FUTURE: QUESTIONS, CHALLENGES, AND THEORIES

How do short-term effect translate into long-term effects?	cummulative effects expected but rare (Baumgartner, 2026)
	various plausible paths → **dynamic modelling**, combination of **intensive** and **longitudinal** data
Can a descriptive model be turned into an intervention guide?	perspective of stage theories of change (HBM) was not enough
	need for a continuum perspective on health behavior **(Health Action Process Approach)**
How to bridge the intention-behavior gap?	HAPA still based on deliberate volitional processes + behaviors with clear valence
	self-regulation models: coping with urges **(Temporal Self-regulation Model)**, conflicts **(The Dynamics of Self-Regulation Model)**

MUNI
FSS

MUNI
FSS

THANK YOU FOR YOUR ATTENTION!

Let's keep in touch!

svestkova@fss.muni.cz
davs@mail.muni.cz

https://irtis.muni.cz/

LITERATURE

Bronfenbrenner, U. (2000). *Ecological systems theory*. American Psychological Association.

Champion, V. L., & Skinner, C. S. (2008). The health belief model. *Health behavior and health education: Theory, research, and practice*, *4*, 45-65.

Fishbach, A., Zhang, Y., & Koo, M. (2009). The dynamics of self-regulation. *European review of social psychology*, *20*(1), 315-344.

Hall, P. A., & Fong, G. T. (2007). Temporal self-regulation theory: A model for individual health behavior. *Health Psychology Review*, *1*(1), 6-52.

Jessor, R. (2014). Problem behavior theory: A half-century of research on adolescent behavior and development. In R. M. Lerner, A. C. Petersen, R. K. Silbereisen, & J. Brooks-Gunn (Eds.), *The developmental science of adolescence: History through autobiography* (pp. 239–256). Psychology Press.

Schwarzer, R. (2016). Health action process approach (HAPA) as a theoretical framework to understand behavior change. *Actualidades en Psicología*, *30*(121), 119-130.

Smahel, D., Gulec, H., Lokajova, A., Dedkova, L., & Machackova, H. (2023). The integrative model of ICT effects on Adolescents' well-being (iMEW): The synthesis of theories from developmental psychology, media and communications, and health. *European Journal of Developmental Psychology*, *20*(6), 944-961.

Valkenburg, P. M., & Peter, J. (2013). The differential susceptibility to media effects model. *Journal of communication*, *63*(2), 221-243.

Valkenburg, P. M., Peter, J., & Walther, J. B. (2016). Media effects: Theory and research. *Annual review of psychology*, *67*(1), 315-338.