A Meta-analytic Test of the ‘Common Sense’ Model of Illness Self-Regulation

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The ‘Common Sense’ Model

- Central thesis of the model: Representations of threat and control may motivate coping strategies

- Cognitive outcomes/responses to illness threat social functioning, role functioning, job satisfaction

- Emotional outcomes: depression, anxiety, stress

- Coping responses - concurrent AND time-lagged, cognitive AND/OR behavioural

- Emotion-focused coping responses to illness - e.g. emotion venting, also avoidance & denial

- Perceived emotional response to the illness

- Identifying illness - coherence of illness
- Cause - external & internal
- Consequences - serious perceived impact
- Control/Cure - curability and controllability
- Timeline - chronicity of illness

Support for the CSM and Study Aim

Original 2003 meta-analysis demonstrated the consistency & trends across CSM research:

1. The pattern of inter-correlations among illness cognition dimensions
2. Relationships of illness cognitions with coping behaviours
3. Relationships illness cognitions with illness outcomes

Aim: Update the meta-analysis and conduct a test of the process model
Method

Search

- Databases: Web of Science, Scopus, OVID PsycARTICLES, PubMed
  - Keywords
  - Search of key theoretical reviews
- Pursuit of missing or unpublished data

Inclusion criteria

- Chronic illness
- Tested quantitative relations between ≥ 1 illness representation dimension(s) and ≥ 1 coping or outcome variable
Method

- 333 articles met inclusion criteria
- 79 articles excluded
- Final sample: $k = 254$ (270 effect sizes), $N = 52,599$

Candidate moderators:
- Study design
- Illness type (e.g., cancer, diabetes, CVD)
- Medically explained vs. medically unexplained
- Illness stage (time since diagnosis)
- Methodological quality
Classification

- Majority of studies used IPQ/IPQ-R
- Wide variety of coping and outcome variables
- Systematic classification into logical categories based on Hagger and Orbell (2003)

### Coping
- Problem-focused (generic)
- Problem-focused (specific)
- Cognitive reappraisal
- Emotion venting
- Seeking social support
- Avoidance

### Outcomes
- Role functioning
- Physical functioning
- Social functioning
- Well-being
- Disease state
- Distress
Meta-analytic strategy

- Effect size metric: Zero-order correlation coefficient
  - Illness representations
  - Coping categories
  - Outcome categories

- Random effects model (Hunter & Schmidt, 1994)
  - Sampling error
  - Measurement error

- Metaquick (Stauffer, 1996), CMA v.2.0 (Borenstein, 2011)

- Meta-analytic path analysis of process model using MPlus v.7.3 (Muthén & Muthén, 2016)
  - Six models, predicting each outcome by all illness reps with coping as multiple mediators
The ‘Basic’ Process Model

Cognitive Illness Representations
- Coherence
- Consequences
- Control
- Identity
- Timeline

Coping strategies
- Avoidance
- Cognitive reappraisal
- Emotion venting
- Problem-focused coping
- Seeking social support

Illness outcomes
- Disease state
- Physical functioning
- Psychological well-being
- Role functioning
- Social functioning
- Distress

Emotional Illness Representations

c.f. Leventhal et al. (1980)
Hagger & Orbell (2003)
Process Model

Control
Consequences
Identity
Timeline
Emotional representation
Coherence
Avoidance
Cognitive reappraisal
Emotion venting
Problem-focused generic coping
Problem-focused specific coping
Seeking social support
Outcome
Results

- Total indirect effect
- Specific indirect effects


Hagger, Koch, Chatzisarantis, & Orbell (2017) *Psychological Bulletin*
Results

Perceived Control → Coping strategies (Problem-focused coping (generic & specific)) → Illness outcomes (Well-being, Physical functioning, Role functioning)

Hagger, Koch, Chatzisarantis, & Orbell (2017) *Psychological Bulletin*
Results

Coping strategies
- Problem-focused coping (generic)
- Avoidance

Illness outcomes
- Functioning
  - Well-being
- Disease state
  - Distress

Threat perceptions
- Consequences

Total effect

Hagger, Koch, Chatzisarantis, & Orbell (2017) *Psychological Bulletin*
Summary

- Findings corroborate patterns of correlations in previous meta-analyses
- Path model demonstrates coping as mediator
- Strongest indirect effects for emotional representations
- Control had adaptive effects on functioning and well-being through PF coping
- Effects of threat perceptions (consequences) had both positive and negative indirect effects through PF coping and avoidance
Other Findings

- Stronger relations between illness reps. and outcomes, than with coping
- Direct effects between illness reps. and outcomes ~ coping not the only mediator
- Indirect effects were generally weak
- Few moderator effects, no clear pattern
- High heterogeneity
- Vast majority of studies correlational in design
Implications

- Correlational designs rife
- Effects of representations small relative to coping strategies
- Emotion management strategies might be effective
- Promoting better control and PF coping strategies also recommended (maybe with threat perceptions)
- Need for experimental/intervention research
Thank you

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