

Refining the Reconceptualized Uncertainty in Illness Theory

Two principle-based concept analyses of *Probabilistic thinking* & *Self-organization*



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2) Probabilistic thinking³

Data sources

Relevant hits	27 (26 journal publications, 1 scientific book)
Time period	1978-2020
Professional context	Nursing (n=14), Psychology (n=3), Sociology (n=3), Communication science (n=3), Medicine (n=1), Public health (n=1), Health sciences (n=1), Social work (n=1)
Design/ Publication type	Qualitative studies (n=15), Discussion articles (n=4), Correlational studies (n=3), Concept analyses (n=2), Interventional study (n=1), Editorial (n=1), Book chapter (n=1)

Theoretical construct (context-specific)

Nursing	Other health and social sciences
Cognitive coping strategy for dealing with uncertainty	
Manifests as a mental focus on possibilities arising from an uncertainty	Manifests as mental focus on mathematical probabilities to reduce uncertainty
Influenced by social support, cognitive reframing and time	Influenced by orientation to art, science, gender and age
Results in an open, appreciative attitude toward uncertainty	Results in a rejective attitude toward uncertainty

Philosophical principles

Epistemology	Unclearly positioned in the body of literature due to contradictory definitions within different contexts
Pragmatics	No operationalization in nursing, three psychological measurements on the handling of probabilities
Logic	A positive attitude toward uncertainty (nursing) is illogical in contrast to the concept of probabilism which seeks certainties, Possibilistic thinking corresponds to a more logical interpretation for the context of nursing
Linguistics	Synonymous use with possibilistic thinking, positive thinking and probabilistic reasoning

1) Introduction

Mishel's Reconceptualized Uncertainty in Illness Theory (RUIT)¹ consists of the concepts of *Probabilistic thinking* and *Self-organization* to explain the evolution of the subjective uncertainty meaning over time in chronic illness. *Probabilistic thinking* was defined as appreciating opportunities that arise from uncertainty and *Self-organization* as the incorporation of enduring uncertainty into one's being. However, their meanings are ambiguous and vaguely described and the theoretical propositions of the RUIT remain unclear. This lack of explanatory power limits nurses to understand and use the information the theory provides in clinical practice, education, research and theory dynamics.

Aim of the studies

To enhance the understanding of the concepts of *Probabilistic thinking* and *Self-organization* by developing theoretical constructs and finally to derive implications for the refinement of the RUIT.

Methods

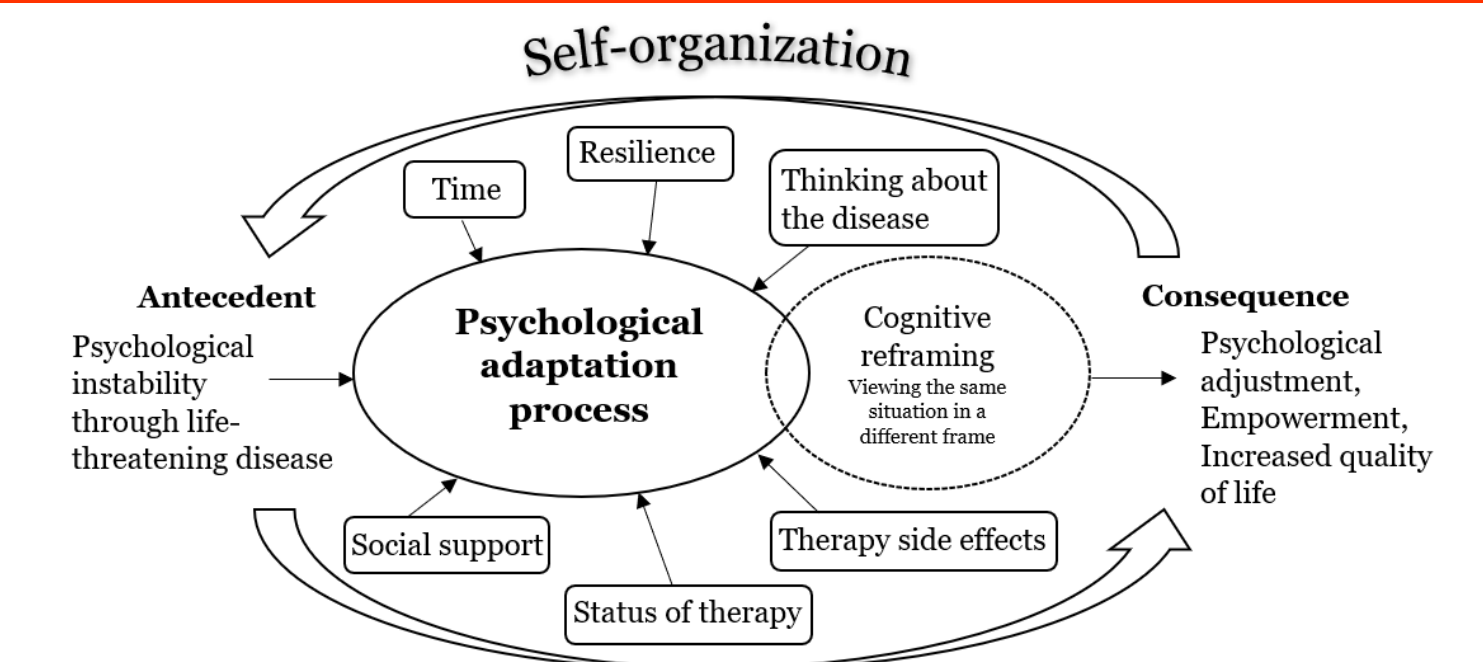
- **Design:** Principle-based concept analysis²
- **Literature search:** Databases, dictionaries, encyclopedias, citation tracking, free web search
- **Inclusion criteria:**
 - Probabilistic thinking or self-organization in the context of a social phenomenon
 - English or German language
 - No restrictions regarding publication date and research design
 - Nursing or another health or social science discipline
- **Analysis & synthesis:** Content analysis using the four philosophical principles of *Epistemology*, *Pragmatics*, *Logic* and *Linguistics* as core categories. Furthermore, theoretical coding to achieve a higher level of abstraction and to develop a theoretical construct.

3) Self-organization⁴

Data sources

Relevant hits	28 (6 dictionary entries, 22 journal publications)
Time period	1998 - 2020
Professional context	Nursing (n=14), Psychology (n=1), Communication (n=3), Rehabilitation medicine (n=1), Public health (n=1), Social sciences (n=1), Social work (n=1)
Design/ Publication type	Qualitative studies (n=15), Concept analyses (n=3), Discussion articles (n=2), Observational studies (n=2)

Theoretical construct (cross-context)



Philosophical principles

Epistemology	Clearly defined as a transition between psychological instability and psychological adjustment
Pragmatics	No operationalization identified, latent psychological adaptation process, manifests as possibilistic thinking
Logic	Unclear logic due to the missing explanation of its characteristics, cognitive reframing fits the implicit understanding as it stands for a transformation of distressing cognitions into cognitions fostering adaptation
Linguistics	Synonymous use with adaptation, coping, transformation and adjustment

Discussion & Implications

We identified the concept of possibilistic thinking to clarify the misleading meaning of *Probabilistic thinking* for the context of nursing. For *Self-organization*, we identified cognitive reframing to concretize its abstract meaning for the context of uncertainty in illness. These conceptual insights provide information not only about the operationalization of the concepts, but also about how they relate to each other within the theory. Subsequently, we were able to develop a new theoretical proposition for the RUIT: Self-organization as a latent, psychological adaptation process is characterized by cognitive reframing, which is manifested by possibilistic thinking. The adaptations of the concepts and the newly developed theoretical proposition therefore are first refinements of the RUIT. Nevertheless, possibilistic thinking and cognitive reframing should be further explored in the context of uncertainty in chronic illnesses to confirm, adjust and extend the new theoretical proposition empirically. Therefore, we conducted a longitudinal qualitative study to explore the evolution of uncertainty in chronic illness over time and examine the missing links. These results will finally contribute to the refinement and extension of the RUIT and the development of an empirically testable theoretical model that is to serve as theoretical basis for future measurement and intervention development.

References

- ¹ Mishel, M. H. (1990). Reconceptualization of the uncertainty in illness theory. *Image J Nurs Sch*, 22(4), 256-262.
² Perrotti, J., & Hupcey, J. E. (2005). Enhancing methodological clarity: principle-based concept analysis. *J Adv Nurs*, 50(4), 403-409.
³ Meichlinger, J., Kobleder, A., & Mayer, H. (2021). Probabilistic Thinking: A Principle-Based Concept Analysis in the Context of Uncertainty in Chronic Illness. *Res Theory Nurs Pract*.
⁴ Eppel-Meichlinger, J., Kobleder, A., & Mayer, H. (2022). Developing a theoretical definition of self-organization: A principle-based concept analysis in the context of uncertainty in chronic illness. *Nursing Forum*.

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