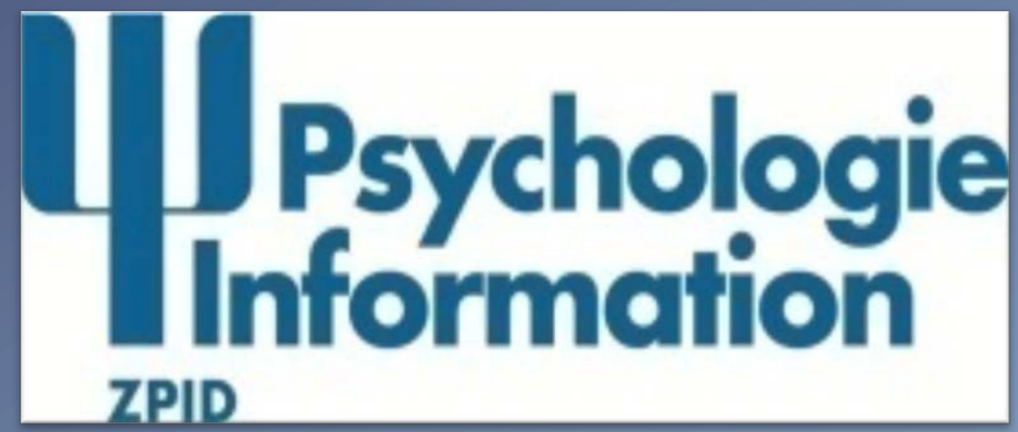


Health-Related Control Beliefs, Health Information Behaviors, and Health-Related Quality of Life in Older Adults



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Background: Project „GlnKA“

Cooperation project „Health information literacy in Old Age“ („Gesundheitsbezogene Informations-Kompetenzen im Alter“ GlnKA)

Basic assumption:

adequate health-related behavior in the elderly (also) depends on abilities to obtain and appropriately evaluate current and reliable information concerning the topic of healthy ageing → health information literacy = aspect of health literacy

Central questions of the project during the pilot phase (10/2014-09/2015):

- (1) How can health information literacy, health information needs and health information behavior be empirically measured?
- (2) Which training / educational programs exist to foster health information literacy in middle and older adulthood?

Further objectives (in subsequent project):

Development of innovative programs for the sustainable enhancement of health information literacy; program evaluation by means of standardized assessment tools

Pilot Study: Research Questions

- (1) Checking the applicability of self-report questionnaires assessing health information behavior (originally developed in student samples) in sample of middle-aged and older adults with heterogeneous educational backgrounds → assessment of quality of data and of psychometric quality
- (2) Associations between health information behavior and a) health-related control beliefs, and b) health-related quality of life (see conceptual model)

Methods

Sample

- $N = 100$ adults (participants of adult education programs, visitors of open institutions for the elderly, senior students) in the area of Trier ($n = 70$) and Bonn or Bochum ($n = 30$)
- **Age:** 55-87 years ($M = 68.70$, $SD = 7.96$); gender: 59 % female, 41 % male
- **Level of education:** 31% certificate of secondary education, 26% secondary school first level diploma, 8% advanced technical college entrance qualification, 32% general qualification for university entrance

Instruments

- German scenario-based questionnaire about **information needs and information behavior concerning healthy ageing** ($k = 53$), e.g. (meta-)cognitive aspects of **information behavior**: a) planning ($k = 5$), b) width/differentiation of selection ($k = 5$), c) monitoring of the search process ($k = 5$), d) reflection of the search process ($k = 3$)

Mit dem folgenden Fragebogen möchten wir etwas darüber herausfinden, wie Sie vorgehen würden, wenn Sie nach Informationen zum Thema „gesundes Altern“ suchen. Um zu verdeutlichen, was wir im Rahmen dieser Untersuchung unter „gesundem Altern“ verstehen, bitten wir Sie, sich die folgende Situation vorzustellen:

Ein 65-jähriger Bekannter von Ihnen hat seine Ernährung umgestellt und begonnen regelmäßig Sport zu treiben. Er ist der Meinung, durch diesen neuen Lebensstil Krankheiten, wie beispielsweise Arthrose, Diabetes oder Demenz, vorbeugen zu können oder wenigstens den Verlauf dieser Krankheiten positiv beeinflussen zu können. Außerdem hofft er, sich insgesamt wohler zu fühlen.

Sie möchten nun selbst Informationen darüber beschaffen, ob diese Veränderungen des Lebensstils sinnvoll sind und welche weiteren Maßnahmen förderlich für ein „gesundes Altern“ im beschriebenen Sinne sein können.

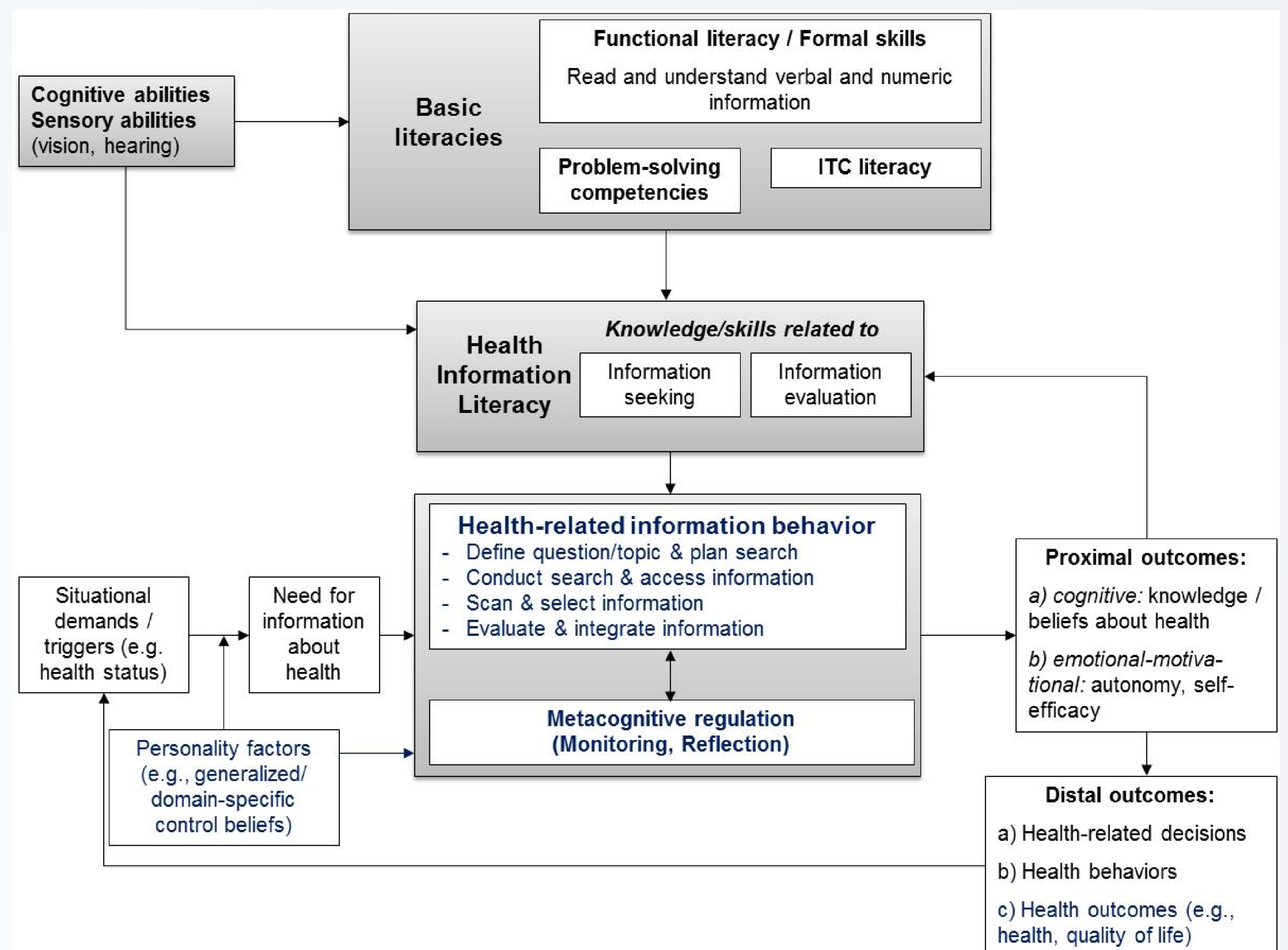
	Das ist für mich				
	sehr untypisch	eher untypisch	weder noch	eher typisch	sehr typisch
Wenn ich nach Informationen zu diesem Thema suche,					
PLANUNG					
01 ... überlege ich erst einmal, welche Gesichtspunkte des Themas mir besonders wichtig sind.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SELEKTION					
39 ... versuche ich mir einen umfassenden Eindruck vom Spektrum der Meinungen/Antworten zu verschaffen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MONITORING					
45 ... versuche ich jederzeit im Blick zu haben, ob die gefundenen Informationen schon ausreichen, um meine Fragen zu beantworten.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
REFLEXION					
53 ... nehme ich mir Zeit, um darüber nachzudenken, was ich bei der nächsten Suche besser machen könnte.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- **Health-related control beliefs** (FEGK; Ferring & Filipp, 1989): internal/ external
- **Health-related quality of life** (SF-12; Bullinger & Kirchberger, 1998): mental/ physical

Procedure

- Completion of the instruments in paper/ pencil format in the context of supervised small group or individual testing

Conceptual Framework



Theoretical background

- Models of health competencies (z.B. Nutbeam, 2000)
- Process models of information behavior (z.B. Brand-Gruwel, Wopereis & Walraven, 2009)
- Concepts of basic literacies / competencies of adults (z.B. CILL; Friebe, Schmidt-Hertha & Tippelt, 2014)

Results and Discussion

Question (1)

- In principle, good **quality of data** (percentage of missings for single items consistently < 5%), high acceptance of the instruments
- **Analyses of reliability + explanatory and confirmatory factor analyses:** restricted configural invariance of the scales for the between-group design (seniors vs. students) → substitution of single items necessary to obtain scales with satisfactory psychometric quality (for reliabilities see table 1)
- **Conclusion:** scales are applicable for samples of older adults; still, further revision and validation in other samples are worthwhile to ensure their invariance and, thus, to enable comparisons between age groups

Question (2)

Table 1. Correlations of information behavior concerning the topic „healthy ageing“ with health-related control beliefs and health-related quality of life.

	Health-Related Control Beliefs		Health-Related Quality of Life	
	FEGK internal	FEGK external	SF-12 physical health	SF-12 mental health
Health-Related Information Behavior				
Planning (a = .70)	.32**	-.14	-.09	.23*
Selecting (a = .82)	.28**	-.16	.10	-.02
Monitoring (a = .77)	.30**	.07	-.14	-.13
Reflecting (a = .85)	.46**	-.07	.02	-.12
Health-related Control Beliefs				
FEGK: Internal (a = .85)			.18+	.04
FEGK: External (a = .88)			-.27**	-.27**

+ $p < .10$; * $p < .05$; ** $p < .01$ (2-tailed)

Notes a = Internal Consistency (Cronbach's Alpha)

- (1) Higher **internal health-related control beliefs** are associated with more (meta-)cognitive activities during the search for information, which facilitate the extraction of relevant information
- (2) Within a cross-sectional design, no associations of current **physical health** and only a very weak and inconsistent association of **mental health** with aspects of health-related information behavior were found → potential moderators (see conceptual framework) have not yet been tested; longitudinal analyses are needed

Literature

- Brand-Gruwel, S., Wopereis, I., & Walraven, A. (2009). A descriptive model of information problem solving while using internet. *Computers & Education*, 53(4), 1207-1217.
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