

Assessing the maturity of the implementation of the Flanders Quality Model (FlaQuM) co-creation roadmap in hospitals

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BACKGROUND

- FlaQuM is an evidence-based quality management system, developed by the University of Leuven, and includes three pillars: (1) a quality vision model, (2) a co-creation roadmap and (3) learning and innovating during inter-hospital collaboratives
- No tool is available to monitor hospitals' quality management systems implementation according to the co-creation roadmap
- To address this gap, we aim to measure the maturity of the implementation of the FlaQuM co-creation roadmap in hospitals

METHODS

- Three-phase, co-design approach with 19 hospitals to develop maturity tools:

PHASE 1: SCOPE	Via the FlaQuM-Consortium consisting of 19 hospitals
PHASE 2: CONTENT VALIDITY	1) Started with a literature review and involvement of content experts
	2) Concept mapping part 1
	3) 20 co-design focus groups with 79 content experts
	4) Concept mapping part 2
	5) Delphi-round to test the content validity index with 19 quality managers
PHASE 3: TEST	1) Multi-centre pilot study of 19 hospitals
	2) Tested the psychometric properties (validity tests)

RESULTS

Co-creation roadmap with 6 primary drivers and 19 building blocks [A]

1) Maturity matrix with 52 sub-components scored by professionals, illustrative example:

FlaQuM Level	FlaQuM +1	FlaQuM +2	FlaQuM +3	FlaQuM +4

2) Co-creation scan with 19 statements scored by professionals, illustrative example:

Score 0 (strongly disagree)		Score 10 (strongly agree)		
0	X		10	
0		X	10	
0	X		10	
0		X	10	
0			X	10
0		X	10	
0		X	10	
0		X	10	
0		X	10	
0		X	10	
0	X		10	
0		X	10	
0		X	10	
0	X		10	
0		X	10	
0		X	10	
0	X		10	
0		X	10	
0		X	10	
0		X	10	

MATURITY TOOLS

19 Flemish hospitals:

The maturity matrix & co-creation scan are responded by 119 healthcare professionals

MULTI-CENTRE STUDY

Table 1. Scale-Content Validity index based on Delphi

Primary drivers	S-CVI in terms of relevance	S-CVI in terms of clarity
Quality Design and Planning	98.1%	92.1%
Quality Control	94.7%	93.7%
Quality Improvement	88.4%	87.9%
Quality Leadership	95.9%	92.4%
Quality Culture	91.7%	86.5%
Quality Context	91.0%	85.0%
Overall S-CVI	93.3%	90.0%

PSYCHOMETRIC PROPERTIES

Table 2. Relationship between maturity matrix and co-creation scan

Primary drivers	Building blocks	Spearman's ρ	P-value
Quality Design and Planning	1. Define a shared vision, set the aims, priorities and focus	0.291	0.001*
	2. Involvement of stakeholders	0.286	0.002*
	3. Adaptability and fit	0.397	<.001*
Quality Control	4. Legal and technical requirements for inspections, audits and labels	0.368	<.001*
	5. Monitoring system	0.341	<.001*
	6. Transparent feedback system	0.328	<.001*
	7. Demonstrate evolution over time on effectiveness & prioritise new challenges	0.446	<.001*
Quality Improvement	8. Evidence-based interventions	0.259	0.004*
	9. Teamwork	0.321	<.001*
	10. Intervention implementation by adapting quality design	0.108	0.241
	11. Communication and reflection	0.357	<.001*
Quality Leadership	12. Personal and clinical leadership	0.163	0.076
	13. Visible, supportive management and staff members	0.351	<.001*
	14. Executive and governance support	0.446	<.001*
Quality Culture	15. Attitudes and commitment	0.382	<.001*
	16. Just culture	0.253	0.005*
	17. Continuous learning and innovation	0.325	<.001*
Quality Context	18. Organisational characteristics	0.299	0.001*
	19. Healthcare system and external policy and demands	0.165	0.073

* = P<0.05

CONCLUSION & IMPLICATIONS

- Measuring the implementation of the FlaQuM co-creation roadmap and monitoring its maturity over time should be feasible by using these comprehensive maturity tools, i.e., the maturity matrix and co-creation scan, in hospitals
- Results of both tools should be able to describe the current state of hospitals' implementation of the co-creation roadmap as basis for strategic improvement plans and next steps
- Future research will focus on the benefits of implementing maturity tools in terms of maturity improvement and benefits for patients, processes and structures