

Supplemental material 3: Scored quality assessments Mixed Methods Appraisal Tool (MMAT), version 2018 (1)

Supplementary material to manuscript *Feasibility and effectiveness of tools that support communication and decision making in life-prolonging treatments for patients in hospital: a systematic review*

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First author Year	Category of study design	Methodological quality criteria	Responses		
			Yes	No	Can't tell
Leigh 2011	2. Randomized controlled trials	S1: Are there clear research questions?	X		
		S2: Do the collected data allow to address the research question?	X		
		2.1. Is randomization appropriately performed?	1		
		2.2. Are the groups comparable at baseline?	1		
		2.3. Are there complete outcome data?	1		
		2.4. Are outcome assessors blinded to the intervention provided?		1	
		2.5 Did the participants adhere to the assigned intervention?		1	
Total items scored			3	2	0
Hollen 2013	4. Quantitative	S1: Are there clear research questions?	X		
		S2: Do the collected data allow to address the research question?	X		
		4.1 Is the sampling strategy relevant to address the research question?		1	
		4.2 Is the sample representative of the target population?		1	
		4.3 Are the measurements appropriate?	1		
		4.4 Is the risk of nonresponse bias low?	1		
		4.5 Is the statistical analysis appropriate to answer the research question?		1	
Total items scored			2	3	0
Walczak 2013	1. Qualitative	S1: Are there clear research questions?	X		
		S2: Do the collected data allow to address the research question?	X		
		1.1. Is the qualitative approach appropriate to answer the research question?	1		
		1.2. Are the qualitative data collection methods adequate to address the research question?	1		
		1.3. Are the findings adequately derived from the data?	1		
		1.4. Is the interpretation of results sufficiently substantiated by data?		1	
		1.5. Is there coherence between qualitative data sources, collection, analysis and interpretation?	1		
Total items scored			4	1	0
Yeh 2014	3. Quantitative non- randomized	S1: Are there clear research questions?	X		
		S2: Do the collected data allow to address the research question?	X		
		3.1. Are the participants representative of the target population?		1	

		3.2. Are measurements appropriate regarding both the outcome and intervention (or exposure)?	1		
		3.3. Are there complete outcome data?	1		
		3.4. Are the confounders accounted for in the design and analysis?		1	
		3.5. During the study period, is the intervention administered (or exposure occurred) as intended?	1		
		Total items scored	3	2	0
Walczak 2014	1. Qualitative	S1: Are there clear research questions?	X		
		S2: Do the collected data allow to address the research question?	X		
		1.1. Is the qualitative approach appropriate to answer the research question?	1		
		1.2. Are the qualitative data collection methods adequate to address the research question?	1		
		1.3. Are the findings adequately derived from the data?	1		
		1.4. Is the interpretation of results sufficiently substantiated by data?	1		
		1.5. Is there coherence between qualitative data sources, collection, analysis and interpretation?		1	
		Total items scored	4	1	0
Walczak 2017	2. Randomized controlled trials	S1: Are there clear research questions?	X		
		S2: Do the collected data allow to address the research question?	X		
		2.1. Is randomization appropriately performed?	1		
		2.2. Are the groups comparable at baseline?	1		
		2.3. Are there complete outcome data?	1		
		2.4. Are outcome assessors blinded to the intervention provided?		1	
		2.5. Did the participants adhere to the assigned intervention?		1	
		Total items scored	3	2	0
Henselmans 2018	5. Mixed methods	S1: Are there clear research questions?	X		
		S2: Do the collected data allow to address the research question?	X		
		5.1. Is there an adequate rationale for using a mixed methods design to address the research question?		1	
		5.2. Are the different components of the study effectively integrated to answer the research question?		1	
		5.3. Are the outputs of the integration of qualitative and quantitative components adequately interpreted?	1		
		5.4. Are divergences and inconsistencies between quantitative and qualitative results adequately addressed?	1		
		5.5. Do the different components of the study adhere to the quality criteria of each tradition of the methods involved?		1	
		Total items scored	2	3	0

Abbreviation: S1=screening question 1, S2=screening question 2

- Hong QN PP, Fàbregues S, Bartlett G, Boardman F, Cargo M, Dagenais P, Gagnon, M-P GF, Nicolau B, O’Cathain A, Rousseau M-C, Vedel I. Mixed Methods Appraisal Tool (MMAT), version 2018. Registration of Copyright (#1148552), Canadian Intellectual Property Office, Industry Canada. .