

Appendix 4 MMAT results - studies investigating patterns of triage advice urgency

Quantitative Non-Randomised studies		Frederick North 2011	EJ Cook 2013	Wen-Chin Hsu 2010	F North 2010	Zwaanswijk 2015
Screening questions	Are there clear research questions?	Yes	Yes	Yes	Yes	Yes
	Do the collected data allow to address the research questions?	Yes	Yes	Yes	Yes	Yes
Criteria for Quantitative (Non-randomised studies)	Are the participants representative of the target population?	Yes	Yes	Yes	Yes	Yes
	Are measurements appropriate regarding both the outcome and intervention (or exposure)?	Yes	Yes	Yes	Yes	Yes
	Are there complete outcome data?	No	No	Yes	Can't tell	Yes
	Are the confounders accounted for in the design and analysis?	Can't tell	Can't tell	Can't tell	Can't tell	Can't tell
	During the study period, is the intervention administered (or exposure occurred) as intended?	Yes	Yes	Yes	Yes	Yes
		Medium (3/5)	Medium (3/5)	High (4/5)	Medium (3/5)	High (4/5)
Quantitative Descriptive studies		F Payne 2005	M Jacome 2018	A Elliot 2011	J Njeru 2017	
Screening questions	Are there clear research questions?	yes	Yes	Yes	Yes	
	Do the collected data allow to address the research questions?	yes	Yes	Yes	Yes	
Criteria for Quantitative (Descriptive studies)	Is the sampling strategy relevant to address the research question?	yes	Yes	Yes	Yes	
	Is the sample representative of the target population?	yes	Yes	Yes	Yes	
	Are the measurements appropriate?	yes	Yes	Yes	Yes	
	Is the risk of nonresponse bias low?	Yes	Yes	Yes	Yes	
	Is the statistical analysis appropriate to answer the research question?	Yes	Yes	Yes	Yes	
		High (5/5)	High (5/5)	High (5/5)	High (5/5)	

MMAT results - studies investigating service use

	Non-randomised studies	Judy Foster 2002	James Munro 2005	James Munro 2000	D Dunt 2005	L Huibers 2013	P Sprivulis 2003	Morimura 2010	J Dale 2003
Screening questions	Are there clear research questions?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Do the collected data allow to address the research questions?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Quality criteria	Are the participants representative of the target population?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Are measurements appropriate regarding both the outcome and intervention (or exposure)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Are there complete outcome data?	Can't tell	Can't tell	Can't tell	Can't tell	Yes	Yes	Can't tell	Yes
	Are the confounders accounted for in the design and analysis?	Can't tell	Can't tell	Yes	No	Yes	Can't tell	Can't tell	Yes
	During the study period, is the intervention administered (or exposure occurred) as intended?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Quality score	Medium (3/5)	Medium (3/5)	High (4/5)	Medium (3/5)	High (5/5)	High (4/5)	Medium (3/5)	High (5/5)

	Quantitative descriptive studies	Geraldine Byrne 2007	E Turbitt 2015	V Lattimer 2000	B Stewart 2006	J Turner 2013	N Siddiqui 2019
Screening questions	Are there clear research questions?	Yes	Yes	Yes	Yes	Yes	Yes
	Do the collected data allow to address the research questions?	Yes	Yes	Yes	Yes	Yes	Yes
Quality criteria	Is the sampling strategy relevant to address the research question?	Yes	Can't tell	Yes	Yes	Yes	Yes
	Is the sample representative of the target population?	Yes	Yes	Can't tell	Yes	Yes	Yes
	Are the measurements appropriate?	Yes	Yes	Yes	Yes	Yes	Yes
	Is the risk of nonresponse bias low?	Yes	No	Can't tell	Yes	Yes	Yes
	Is the statistical analysis appropriate to answer the research question?	Yes	Yes	Yes	Yes	Yes	Yes
	Quality score	High (5/5)	Medium (3/5)	Medium (3/5)	High (5/5)	High (5/5)	High (5/5)

	Mixed methods studies	A Mark 2003
Screening questions	Are there clear research questions?	Yes
	S2. Do the collected data allow to address the research questions?	Yes
Quality criteria	5.1. Is there an adequate rationale for using a mixed methods design to address the research question?	Yes
	5.2. Are the different components of the study effectively integrated to answer the research question?	Yes
	5.3. Are the outputs of the integration of qualitative and quantitative components adequately interpreted?	Can't tell
	5.4. Are divergences and inconsistencies between quantitative and qualitative results adequately addressed?	Can't tell
	5.5. Do the different components of the study adhere to the quality criteria of each tradition of the methods involved?	Can't tell
	Quality score	Low (2/5)

MMAT results - studies investigating user experience

	Qualitative Studies	J Goode 2011	Ewa Winneby 2012	A Björkman 2018	J Goode 2004
Screening questions	S1. Are there clear research questions?	Yes	Yes	Yes	Yes
	S2. Do the collected data allow to address the research questions?	Yes	Yes	Yes	Yes
Quality criteria	1.1. Is the qualitative approach appropriate to answer the research question?	Yes	Yes	Yes	Yes
	1.2. Are the qualitative data collection methods adequate to address the research question?	Yes	Yes	Yes	Yes
	1.3. Are the findings adequately derived from the data?	Can't tell	Can't tell	Yes	Yes
	1.4. Is the interpretation of results sufficiently substantiated by data?	Yes	Yes	Yes	Yes
	1.5. Is there coherence between qualitative data sources, collection, analysis and interpretation?	Yes	Yes	Yes	Yes
	Quality score	High (4/5)	High (4/5)	High (5/5)	High (5/5)

	Quantitative descriptive studies	A O'Cathain 2014	M Rahmqvist 2011
Screening questions	S1. Are there clear research questions?	Yes	Yes
	S2. Do the collected data allow to address the research questions?	Yes	Yes
Quality criteria	4.1. Is the sampling strategy relevant to address the research question?	Yes	Yes
	4.2. Is the sample representative of the target population?	Can't tell	Can't tell
	4.3. Are the measurements appropriate?	Yes	Yes
	4.4. Is the risk of nonresponse bias low?	No	No
	4.5. Is the statistical analysis appropriate to answer the research question?	Yes	Yes
	Quality score	Medium (3/5)	Medium (3/5)

Mixed methods study	A McAteer 2016
S1. Are there clear research questions?	Yes
S2. Do the collected data allow to address the research questions?	Yes
5.1. Is there an adequate rationale for using a mixed methods design to address the research question?	Yes
5.2. Are the different components of the study effectively integrated to answer the research question?	Yes
5.3. Are the outputs of the integration of qualitative and quantitative components adequately interpreted?	Yes
5.4. Are divergences and inconsistencies between quantitative and qualitative results adequately addressed?	Yes
5.5. Do the different components of the study adhere to the quality criteria of each tradition of the methods involved?	Yes
Quality score	High (5/5)