

Best Evidence Summaries of Topics in Mental Healthcare

BEST in MH *clinical question-answering service*

Question

In adults being assessed by mental health services, how effective are assessments conducted via telephone, compared to face to face, in improving patient and service outcomes?

Clarification of question using *PICO* structure

Patients: Adults being assessed by mental health services

Intervention: Assessments conducted via telephone

Comparator: Face-to-face assessments

Outcome: Improving patient and service outcomes

Plain language summary

There is limited evidence into telephone assessments when compared to face to face assessments for adults being assessed by mental health services. High quality research is needed in this area for improving patient and service outcomes.

Clinical and research implications

No definite clinical or research implications may be made based on the evidence presented in this BEST summary. There were no recent, well-conducted randomised controlled trials that compared telephone versus face-to-face assessments. Two studies compared video conferencing versus face-to-face modalities – one compared these modalities on providing psychiatric assessments, and the other compared these modalities on clinical outcomes.

What does the evidence say?

Number of included studies/reviews (number of participants)

Two randomised controlled trials (RCTs) met the inclusion criteria for this BEST summary (O'Reilly et al. 2007; Shore et al. 2007).

Main findings

The randomised study by Shore et al. (2007) compared face-to-face and real-time interactive video for providing psychiatric assessments (using the Structured Clinical Interview for DSM III), in 53 rural American Indian military veterans. The authors reported that there were no significant differences between these modalities for assessing substance abuse and dependence, generalised anxiety disorder, and anti-social personality disorder. However, assessments by videoconferencing were found to more easily detect externalising disorders, and post-traumatic stress disorder.

The RCT by O'Reilly et al. (2007) also compared face-to-face and interactive video conferencing in 495 patients referred by their family physician for psychiatric consultation. In this study, the primary outcome was the proportion of participants who moved from a dysfunctional to a functional score (as measured using the Brief Symptom Inventory), although the authors also evaluated rates of hospitalisation, Global Severity Index, mental health, and client satisfaction. After four months, all of these outcomes were found to be equivalent between the different modes of delivery, and that telepsychiatry costed 10% less per patient.

Authors' conclusions

Shore et al. (2007) concluded that overall, assessments made using live interactive videoconferencing were similar to assessments using face-to-face interviews.

O'Reilly et al. (2007) concluded that interactive videoconferencing resulted in equivalent outcomes to face-to-face care, and that telepsychiatry can be a cost-effective method for delivering psychiatric services.

Reliability of conclusions/Strength of evidence

Both RCTs had a high risk of bias, largely due to high drop-out rates, so that their results may not be reliable.

What do guidelines say?

NICE guidelines do not discuss the use of telephone assessment for mental health assessments.

Date question received: 12/07/2016

Date searches conducted: 22/07/2016

Date answer completed: 08/08/2016

References

Randomised controlled trials

O'Reilly, R., Bishop, J., Maddox, K., Hutchinson, L., Fisman, M., & Takhar, J. (2007). Is telepsychiatry equivalent to face-to-face psychiatry? Results from a randomized controlled equivalence trial. *Psychiatric Services*.

Shore, J. H., Savin, D., Orton, H., Beals, J., & Manson, S. M. (2007). Diagnostic reliability of telepsychiatry in American Indian veterans. *American Journal of Psychiatry*, *164*(1), 115-118.

Results











Randomised controlled trials


Author (year)	Inclusion criteria	Number of participants	Summary of results	Risk of bias
O'Reilly et al. (2007)	<p>Participants: Adults aged 18-65 years referred to outpatient psychiatric services with a BSI in the dysfunctional range.</p> <p>Intervention: Psychiatric consultation with follow up via telephone.</p> <p>Comparator: Psychiatric consultation with follow up face-to-face.</p> <p>Outcome: Psychological symptoms (BSI, GSI, SF-36), patient satisfaction (CSQ-8).</p>	N=495 (n=254 face-to-face condition, n=241 telepsychiatry) (286 completed the study)	The proportion of participants returning to a functional score on the BSI was similar between the two groups by four months (face-to-face: 0.20; telepsychiatry: 0.22) (MD 0.02 (95% CI: -0.10 to -0.15)). The proportion of participants with any hospitalisation in a psychiatric unit in the year after initial assessment was also the same (face-to-face: 0.07; telepsychiatry: 0.07) (MD 0.01 (95% CI: -0.03 to -0.10)). At 4 months, GSI scores were 49.7 (SD 13.3) in the face-to-face group, and 49.7 (SD 12.6) in the telepsychiatry group (MD -0.3 (95% CI: -2.6 to -5.0)); mental health subscales of the 36-item Medical Outcomes Study Short Form were 30.9 (SD 15.7) in the face-to-face group, and 31.7 (SD 14.2) in the telepsychiatry group (MD -1.0 (95% CI: -4.7 to -5.0)); and Client Satisfaction Questionnaire scores were 23.0 (SD 5.7) in the face-to-face group, and 22.7 (SD 6) in the telepsychiatry group (MD 0.3 (95% CI: -1.2 to -2.0)). Costs data showed that telepsychiatry was 10% less per patients than the cost of in-person service.	High
Shore et al. (2007)	<p>Participants: American Indian male Vietnam-theater and -era veterans from a Northern Plains tribe.</p> <p>Intervention: Diagnostic interviews (SCID</p>	N=60 (53 completed the study)	The authors reported that there were no significant differences between face-to-face and live interactive videoconferencing modalities for assessing substance abuse and dependence, generalised anxiety disorder, and anti-	High


<p>for DSM-III-R) conducted via face-to-face interviews in a private office in the community. Interviews lasted approximately 80-90 minutes. Followed by a real-time interactive videoconference.</p> <p>Comparator: Diagnostic interviews conducted (SCID for DSM-III-R) via real-time interactive videoconferencing. Interviews lasted approximately 80-90 minutes. Followed by face-to-face interviews conducted in a private office in the community</p> <p>Outcome: Diagnosis of psychiatric conditions (using the Structured Clinical Interview for DSM III).</p>		<p>social personality disorder (assessed by percent agreement between the two). However, assessments by videoconferencing may more easily detect externalising disorders, and post-traumatic stress disorder. [Percentages were presented in tables in tables in the paper]</p>	
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
Risk of bias

Randomised controlled trials

Study	RISK OF BIAS					
	Random allocation	Allocation concealment	Blinding of participants and personnel	Blinding of outcome assessment	Incomplete outcome data	Selective Reporting
O'Reilly et al. (2007)			NA			
Shore et al. (2007)			NA			

 Low risk

 High risk

 Unclear risk

Search details

Source	Search Strategy	Number of hits	Relevant evidence identified
<i>Guidelines</i>			
NICE	Assessment Depression Schizophrenia Crisis Referral	36	0
<i>Systematic Reviews</i>			
CDSR	ID Search Hits #1 telephone near/3 assessment 189 #2 telephone near/3 consultation 239 #3 telephone near/3 interview 1209 #4 telepsychiatry 56 #5 #1 or #2 or #3 or #4 1635 #6 "face to face" near/3 assessment 45 #7 "face to face" near/3 consultation 89 #8 "face to face" near/3 interview 199 #9 "face to face" 2537 #10 #6 or #7 or #8 or #9 2537 #11 #5 and #10 221 #12 "mental health services" or "psychiatric services" 2538 #13 MeSH descriptor: [Mental Health Services] explode all trees 5408 #14 #12 or #13 6562 #15 #11 and #14 27	20	

MEDLINE	<p>21. Medline; 19 OR 20; 306 results.</p> <p>24. Medline; ("face to face" adj2 consultation).ti,ab; 178 results.</p> <p>25. Medline; 21 OR 23; 683 results.</p> <p>26. Medline; 22 OR 24; 318 results.</p> <p>27. Medline; 25 AND 26; 26 results.</p> <p>28. Medline; (telephone adj2 consultation).ti,ab; 416 results.</p> <p>31. Medline; 25 OR 28 OR 29; 6831 results.</p> <p>32. Medline; 26 OR 30; 2485 results.</p> <p>33. Medline; ("face to face" adj2 triage).ti,ab; 5 results.</p> <p>34. Medline; 31 OR 15; 7200 results.</p> <p>35. Medline; 32 AND 34; 150 results.</p> <p>36. Medline; exp MENTAL HEALTH SERVICES/; 84066 results.</p> <p>37. Medline; "mental health".ti,ab; 93481 results.</p> <p>38. Medline; 36 OR 37; 154719 results.</p> <p>39. Medline; 35 AND 38; 9 results.</p> <p>40. Medline; 39 [Limit to: (Document type Review)]; 0 results.</p>	0	
EMBASE	<p>19. EMBASE; "telephone assessment".ti,ab; 186 results.</p> <p>20. EMBASE; (telephone adj2 assessment).ti,ab; 342 results.</p> <p>21. EMBASE; 19 OR 20; 342 results.</p> <p>22. EMBASE; ("face to face" adj2 assessment).ti,ab; 150 results.</p> <p>23. EMBASE; telepsychiatry.ti,ab; 447 results.</p> <p>24. EMBASE; ("face to face" adj2 consultation).ti,ab; 251 results.</p> <p>25. EMBASE; 21 OR 23; 789 results.</p> <p>26. EMBASE; 22 OR 24; 399 results.</p> <p>27. EMBASE; 25 AND 26; 29 results.</p> <p>28. EMBASE; (telephone adj2 consultation).ti,ab; 566 results.</p>	0	

	<p>29. EMBASE; (telephone adj2 interview).ti,ab; 7826 results.</p> <p>30. EMBASE; ("face to face" adj2 interview).ti,ab; 3040 results.</p> <p>31. EMBASE; 25 OR 28 OR 29; 9114 results.</p> <p>32. EMBASE; 26 OR 30; 3423 results.</p> <p>33. EMBASE; ("face to face" adj2 triage).ti,ab; 6 results.</p> <p>34. EMBASE; 31 OR 15; 9559 results.</p> <p>35. EMBASE; 32 AND 34; 160 results.</p> <p>36. EMBASE; exp MENTAL HEALTH SERVICE/; 47893 results.</p> <p>37. EMBASE; "mental health".ti,ab; 117607 results.</p> <p>38. EMBASE; 36 OR 37; 140962 results.</p> <p>39. EMBASE; 35 AND 38; 14 results.</p> <p>40. EMBASE; 39 [Limit to: (EBM-Evidence Based Medicine Systematic Review)]; 0 results.</p> <p>41. EMBASE; 39 [Limit to: (EBM-Evidence Based Medicine Meta Analysis or Systematic Review)]; 0 results.</p>		
PsycINFO/CINAHL	<p>1. PsycInfo; "telephone assessment".ti,ab; 45 results.</p> <p>2. PsycInfo; (telephone adj2 assessment).ti,ab; 121 results.</p> <p>3. PsycInfo; 1 OR 2; 121 results.</p> <p>4. PsycInfo; ("face to face" adj2 assessment).ti,ab; 71 results.</p> <p>5. PsycInfo; telepsychiatry.ti,ab; 327 results.</p> <p>6. PsycInfo; ("face to face" adj2 consultation).ti,ab; 49 results.</p> <p>7. PsycInfo; 3 OR 5; 448 results.</p> <p>8. PsycInfo; 4 OR 6; 119 results.</p> <p>9. PsycInfo; 7 AND 8; 12 results.</p> <p>10. PsycInfo; (telephone adj2 consultation).ti,ab; 121 results.</p> <p>11. PsycInfo; (telephone adj2 interview).ti,ab; 2149 results.</p> <p>12. PsycInfo; ("face to face" adj2 interview).ti,ab; 1012 results.</p> <p>13. PsycInfo; 7 OR 10 OR 11; 2692 results.</p>	0	

	<p>14. PsycInfo; 8 OR 12; 1123 results.</p> <p>15. PsycInfo; (telephone adj2 triage).ti,ab; 67 results.</p> <p>16. PsycInfo; ("face to face" adj2 triage).ti,ab; 0 results.</p> <p>17. PsycInfo; 13 OR 15; 2747 results.</p> <p>18. PsycInfo; 14 AND 17; 71 results.</p> <p>19. PsycInfo; ((systematic* adj1 review*) OR meta-analytic* OR metanalysis OR metaanalysis OR (meta adj1 analysis) OR meta-synthesis OR metasynthesis OR (meta adj1 synthesis) OR meta-regression OR . AND metaregression OR (meta adj1 regression) OR (synthes* adj3 literature) OR (synthes* adj3 evidence) OR (integrative adj1 review) OR (data adj1 synthesis) OR (research adj1 synthesis) OR (narrative adj1 synthesis) OR (systematic adj1 study) OR (systematic adj1 studies)).ti,ab; 47377 results.</p> <p>20. PsycInfo; meta-analysis.ti,ab,pt; 18468 results.</p> <p>21. PsycInfo; ((systematic adj1 comparison*) OR (systematic adj1 overview*) OR (evidence based review) OR (comprehensive adj1 review) OR (critical adj1 review) OR (quantitative adj1 review) OR (structured adj1 review) OR (realist adj1 review) OR (realist adj1 synthesis)).ti,ab; 24748 results.</p> <p>22. PsycInfo; 19 OR 20 OR 21; 67414 results.</p> <p>23. PsycInfo; review.pt; 119390 results.</p> <p>24. PsycInfo; ((predefined adj1 criteria) OR (assess* adj3 (quality OR validity)) OR (select* adj3 (study OR studies)) OR (data adj3 extract*) OR (extracted adj1 data) OR (data adj2 abstracted) OR (data adj3 abstraction) OR (published adj1 intervention) OR ((study OR studies) adj2 evaluat*) OR (intervention* adj2 evaluat*) OR (confidence adj1 interval) OR heterogeneity OR pooled OR pooling OR (odds adj1 ratio*) OR Jadad OR coding).ti,ab; 152409 results.</p> <p>28. PsycInfo; review.ti; 131266 results.</p> <p>30. PsycInfo; (review* adj4 (papers OR trials OR studies OR evidence OR intervention* OR evaluation*)).ti,ab; 56993 results.</p> <p>31. PsycInfo; 22 OR 27 OR 29 OR 30; 209289 results.</p> <p>32. PsycInfo; (letter OR editorial OR comment).pt; 167780 results.</p> <p>33. PsycInfo; exp ANIMALS/; 306369 results.</p>		
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	<p>35. PsycInfo; 33 not 34; 283553 results.</p> <p>36. PsycInfo; 32 not 35; 163446 results.</p> <p>37. PsycInfo; 18 AND 36; 1 results.</p> <p>Result was not a SR –not included</p>		
<i>Primary Studies</i>			
MEDLINE	<p>21. Medline; 19 OR 20; 306 results.</p> <p>24. Medline; ("face to face" adj2 consultation).ti,ab; 178 results.</p> <p>25. Medline; 21 OR 23; 683 results.</p> <p>26. Medline; 22 OR 24; 318 results.</p> <p>27. Medline; 25 AND 26; 26 results.</p> <p>28. Medline; (telephone adj2 consultation).ti,ab; 416 results.</p> <p>31. Medline; 25 OR 28 OR 29; 6831 results.</p> <p>32. Medline; 26 OR 30; 2485 results.</p> <p>33. Medline; ("face to face" adj2 triage).ti,ab; 5 results.</p> <p>34. Medline; 31 OR 15; 7200 results.</p> <p>35. Medline; 32 AND 34; 150 results.</p> <p>36. Medline; exp MENTAL HEALTH SERVICES/; 84066 results.</p> <p>37. Medline; "mental health".ti,ab; 93481 results.</p> <p>38. Medline; 36 OR 37; 154719 results.</p> <p>39. Medline; 35 AND 38; 9 results.</p> <p>40. Medline; 39 [Limit to: (Document type Review)]; 0 results.</p> <p>41. Medline; randomized.ab; 414208 results.</p> <p>42. Medline; placebo.ab; 169409 results.</p> <p>43. Medline; randomly.ab; 249310 results.</p> <p>44. Medline; trial.ab; 347788 results.</p> <p>45. Medline; groups.ab; 1547029 results.</p>	3	

	<p>46. Medline; "randomized controlled trial".pt; 415539 results. 47. Medline; "controlled clinical trial".pt; 90556 results. 48. Medline; 41 OR 42 OR 43 OR 44 OR 45 OR 46 OR 47; 2255645 results. 49. Medline; 39 AND 48; 3 results.</p>		
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	<p>43. EMBASE; factorial*.ti,ab; 27618 results.</p> <p>44. EMBASE; (crossover* OR cross-over*).ti,ab; 80690 results.</p> <p>45. EMBASE; placebo*.ti,ab; 235976 results.</p> <p>46. EMBASE; (doubl* ADJ blind*).ti,ab; 163978 results.</p> <p>47. EMBASE; (singl* ADJ blind*).ti,ab; 17670 results.</p> <p>48. EMBASE; assign*.ti,ab; 287590 results.</p> <p>49. EMBASE; allocat*.ti,ab; 104507 results.</p> <p>50. EMBASE; volunteer*.ti,ab; 203056 results.</p> <p>51. EMBASE; CROSSOVER PROCEDURE/; 47903 results.</p> <p>52. EMBASE; DOUBLE BLIND PROCEDURE/; 129905 results.</p> <p>53. EMBASE; RANDOMIZED CONTROLLED TRIAL/; 410130 results.</p> <p>54. EMBASE; SINGLE BLIND PROCEDURE/; 22486 results.</p> <p>55. EMBASE; 42 OR 43 OR 44 OR 45 OR 46 OR 47 OR 48 OR 49 OR 50 OR 51 OR 52 OR 53 OR 54; 1702110 results.</p> <p>56. EMBASE; 39 AND 55; 3 results.</p>		
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CENTRAL	<table border="0"> <thead> <tr> <th>ID</th> <th>Search</th> <th>Hits</th> </tr> </thead> <tbody> <tr> <td>#1</td> <td>telephone near/3 assessment</td> <td>189</td> </tr> <tr> <td>#2</td> <td>telephone near/3 consultation</td> <td>239</td> </tr> <tr> <td>#3</td> <td>telephone near/3 interview</td> <td>1209</td> </tr> <tr> <td>#4</td> <td>telepsychiatry</td> <td>56</td> </tr> <tr> <td>#5</td> <td>#1 or #2 or #3 or #4</td> <td>1635</td> </tr> <tr> <td>#6</td> <td>"face to face" near/3 assessment</td> <td>45</td> </tr> <tr> <td>#7</td> <td>"face to face" near/3 consultation</td> <td>89</td> </tr> <tr> <td>#8</td> <td>"face to face" near/3 interview</td> <td>199</td> </tr> </tbody> </table>	ID	Search	Hits	#1	telephone near/3 assessment	189	#2	telephone near/3 consultation	239	#3	telephone near/3 interview	1209	#4	telepsychiatry	56	#5	#1 or #2 or #3 or #4	1635	#6	"face to face" near/3 assessment	45	#7	"face to face" near/3 consultation	89	#8	"face to face" near/3 interview	199	6	
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#9	"face to face"	2537		
#10	#6 or #7 or #8 or #9	2537		
#11	#5 and #10	221		
#12	"mental health services" or "psychiatric services"	2538		
#13	MeSH descriptor: [Mental Health Services] explode all trees	5408		
#14	#12 or #13	6562		
#15	#11 and #14	27		

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