

Best Evidence Summaries of Topics in Mental Healthcare

BEST *in* **MH** *clinical question-answering service*

Question

“In patients that self-harm and present at emergency departments, how effective are follow-up postcards, compared to treatment as usual, in improving patient outcomes (e.g. a decrease in re-presenting to emergency departments, decrease in self-harming behaviour, reduction in time spent in hospital).”

Clarification of question using PICO structure

Patients: Adults who deliberately self-harm and present at emergency departments

Intervention: Follow up postcards

Comparator: Treatment as usual

Outcome: Improving patient outcomes (e.g. a decrease in re-presenting to emergency departments, decrease in self-harming behaviour, reduction in time spent in hospital).

Clinical and research implications

The evidence came from three RCTs and one systematic review (containing an additional two trials) of postcard interventions, only two of the RCTs were at low risk of bias. There was one trial in adults who deliberately self-harmed and presented at an appropriate emergency department (toxicology as it was a trial of self-poisoning). This found reductions in both the number of hospital admissions for repeat self-poisoning attempts and the number of days spent in hospital. The other trials found reductions in repeat presentations for self-harm (one trial), and reductions in suicide attempts (two trials). One trial did not find any significant differences between postcards and treatment as usual, this was the smallest study.

More research is needed in this population as not all the current research is in adults presenting at emergency departments, most studies were in people being discharged from other units, such as toxicology or psychiatric units. Not all the trials measured the specified outcomes, especially time spent in hospital. This was only reported by one trial. None of the research was conducted in the UK so these results may not be generalisable. Further high quality RCTs are needed which measure relevant patient and service use outcomes and also measure compliance with the intervention, as not all participants will take notice of the postcards.

What does the evidence say?

Number of included studies/reviews (number of participants)

Three RCTs with 772, 761 and 165 participants (1, 2, 3) and one systematic review (with 3 RCTs, 3,399 participants, relevant to this question (4)) were included.

Main Findings

Only one trial reported the numbers of readmissions and this found significant reductions in the numbers of readmission to a general hospital and also to a psychiatric hospital for self-poisoning, for the postcard group compared to the control group (1). This also reported that the total time spent in hospital was halved for the postcard group.

One trial reported on self-harm attempts. This was conducted in young people (15 to 24 years) but found no significant difference between the postcard and control groups at 12 or 18 months (3).

Two trials reported suicide attempts. One trial in people who had previously attempted suicide found a significantly reduced time to a repeat attempt in the group receiving a crisis postcard in the per-protocol analysis (only those who actually read the postcard compared to the control group, amongst those receiving full case management). However no differences were seen in the analysis of all participants (2). The young people's trial found no significant differences between the groups regarding suicidal thoughts or suicide attempts.

The systematic review (4) contained three trials relevant to this question, one of which has been reported above (1). One found a significant reduction in the number of re-presentations to emergency departments in participants treated for deliberate self-harm, for postcards compared with control. The other found a small, significant reduction in repeat suicide attempts in participants being treated for deliberate self-harm.

Authors Conclusions

The systematic review concluded that repeated follow-up contacts (by phone, letter, postcards, in person and using email or texting) appeared to reduce suicidal behaviour but that more RCTs are needed to determine which factors make some contact methods more effective than others.

The trial in self-poisoning concluded that postcards reduced psychiatric admissions by a third and halved self-poisoning events, leading to substantial savings in general hospital and psychiatric hospital bed days. Both trials in suicidal participants concluded that the postcard intervention did not reduce subsequent suicidal behaviour or thoughts.

Reliability of conclusions/Strength of evidence

Two trials were rated as low risk of bias (1 and 3), they reported suitable randomisation methods, blinding or research staff to the treatment group, included all participants in the analysis (or imputed missing data) and appear to have reported on all outcomes measured. The other trial was at an unclear risk of bias as allocation concealment and blinding were not clearly reported. None of the

trials blinded the participants but given the use of postcards compared with usual control this would not have been feasible. The systematic review was considered high risk of bias as some details of the literature searches and review methods were not given, there was also no assessment or discussion of the quality of the evidence.

There were two high quality trials and only one of these was in adults presenting to a specialist toxicology unit. This was also the only trial to measure repeat hospital admissions and the time spent in hospital (for self poisoning). The other two trials were in young people at risk of suicide and adults who had previously made a suicide attempt, only one of these reported on deliberate self-harm. The systematic review had some methodological limitations and included two more relevant trials. Overall, there is a lack of high quality evidence to answer this question.

What do guidelines say?

NICE Guidelines (2012, CG133) consider research that looks at post-card interventions but does not make any recommendations based on this research. It poses a future research question;

“For people who self-harm, does the provision of potentially cheap low-intensity/brief psychosocial interventions, compared with treatment as usual, improve outcomes?

This question should be answered using a well-conducted RCT. Consider using a variety of approaches, including postcards, emergency cards, phone calls, or the use of electronic media in community mental health settings. The outcomes should include service users’ engagement and experience, and hospital-reported and self-reported repetitions of self-harm. Other important outcomes, such as quality of life, depressive symptoms and adverse events (for example, distress or exacerbation of symptoms associated with contact with services) should be included.

Why this is important

Many people do not engage with available treatments following self-harm. If acceptable, alternative approaches, such as the low-intensity contact interventions indicated above, can be relatively easily and widely implemented, with the potential to improve outcomes, at relatively low cost, in individuals who may be otherwise difficult to engage.” (pp. 225)

Given the lack of evidence found for this question (only two high quality trials) these research recommendations are appropriate, especially regarding the recommended outcomes as quality of life and adverse events were not reported.

Date question received: 01/10/2013

Date searches conducted: 02/10/2013

Date answer completed: 18/10/2013

References

RCTs

1. Carter, G.L., Clover, K., Whyte, I.M., Dawson, A.H. and D'Este, C. (2013) Postcards from the Edge: 5-year outcomes of a randomised controlled trial for hospital-treated self-poisoning. *The British Journal of Psychiatry* 202 pp. 372-380.
2. Chen, W-J., Ho, C-K., Shyu, S-S., Chen, C-C., Lin, G-G., Chou, L-S., Fang, Y-J., Yeh, P-Y., Chung, T-C. and Chou, F, H-C. (2013) Employing crisis postcards with case management in Kaohsiung, Taiwan: 6-month outcomes of a randomised controlled trial for suicide attempters. *BioMed Central* 13 (1): 191
3. Robinson, J., Yuen, H.P., Gook, S., Hughes, A., Cosgrave, E., Killackey, E., Baker, K., Jorm, A., McGorry, P. and Yung, A. (2012) Can receipt of a regular postcard reduce suicide-related behaviour in young help seekers? A randomised control trial. *Early intervention in Psychiatry* 6 pp.145-152.

SRs

4. Luxton, D.D., June, J.D., Comtois, K.A. (2013) Can Postdischarge Follow-Up contacts Prevent Suicide and Suicidal Behaviour? A Review of The Evidence. *Crisis* 34 (1) pp.32-41.

Guidelines

5. National Institute for Health and Care Excellence (2012) Self-harm: Longer-term Management CG 133. London: National Institute for Health and Care Excellence.<http://www.nice.org.uk/nicemedia/live/13619/57205/57205.pdf>

Results

Systematic Reviews

Author (year)	Search Date	Inclusion criteria	Number of included studies	Summary of results	Risk of bias
Luxton et al. (2013)	Unknown	<p>P: Inpatient psychiatric patients or emergency-room patients being discharged to home.</p> <p>I: At least one form of follow-up contact with patients to include postal mail (letters or postcards), phone calls, in-person visits or electronic mail (e-mail or mobile text messages).</p> <p>C: Any other intervention/treatment as usual.</p> <p>O: Measurement of suicidal behaviours (suicide, suicidal attempts or suicidal ideation).</p> <p>S: Not specified.</p>	9 (a total of 11 reports as 2 had follow-up analyses)	<p>There were 8 RCTs (n=8797) and one quasi-experimental cohort study (n=128) included in the review. Only 3 RCTs evaluated postcards (n=3399), one of which was by Carter (details in table below).</p> <p>Study quality was not assessed. No details of the participants were provided so it is unclear if they were adults presenting to emergency departments (some trials were in patients being discharged).</p> <p>One trial sent 6 postcards over 12 months to participants treated for deliberate self-harm (n=327). It found a significant reduction in the number of re-presentations to emergency departments with the postcards (20.3% vs. 50.6%). Another trial sent 8 to 9 postcards over 12 months to participants treated for deliberate self-poisoning (n=2300). This</p>	<p>High</p> <p>Review inclusion criteria were specified for populations, interventions and outcomes, but not study design. No details of the search dates or language restrictions were given, so this has been classed as high risk of bias. All articles were reviewed by a minimum of 2 authors, but it was unclear whether this applied to all steps of the review. There was no quality assessment. The results were narratively synthesised.</p>

				found a small but significant reduction in repeat suicide attempts with the postcard intervention.	
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RCTs

Author (year)	Inclusion criteria	Number of participants	Summary of results	Risk of bias
Carter et al. (2013)	<p>P: Individuals who self-poisoned, aged 16 or over who presented at a toxicology unit in Australia. Eligibility criteria; capable of informed consent, not considered a threat to an interviewer, not 'of no fixed address' and sufficient English to complete an interview.</p> <p>I: Postcard intervention (sealed, follow up postcards sent in months 1,2,3,4,6,8,10 and 12 after discharge) plus treatment as usual.</p> <p>C: Treatment as usual.</p> <p>O: Repeat episodes of hospital-treated self-poisoning; readmissions for self-poisoning; any psychiatric hospital admission; number of admissions to a psychiatric hospital; all-cause mortality and suicides. Outcomes were measured up to 5 years.</p>	N= 772 (n=378 intervention arm and n=394 control arm).	<p>The mean participant age was 33 years; 68% were female; 17% had previously been admitted for self-poisoning and 27% were discharged to a psychiatric hospital.</p> <p>The number of readmissions to a general hospital for self-poisoning was significantly reduced for the postcard group (252 vs. 484; IRR 0.54, 95% CI 0.37 to 0.81). Subgroup analyses showed a similar reduction for females, and those with a prior history of self-poisoning. However there was no significant difference between the postcard and control groups for the proportions of patients with one or more hospital-treated self-poisoning. The total durations of self-poisoning readmissions were 335 bed days for the postcard group and 641 bed days for the control group.</p> <p>The number of psychiatric hospital admissions was also significantly reduced for the postcard group (447 vs. 710; IRR 0.66, 95% CI 0.47 to 0.91). There was no significant difference in the proportions of</p>	<p>Low</p> <p>All risk of bias assessments were satisfied apart from blinding of the outcome assessors. Due to the nature of the intervention it would not have been possible to blind the participants. Randomisation was computerised and allocation status concealed. All other clinical and research staff were kept masked to the allocation. All analyses were by intention to treat, and</p>

			patients with one more psychiatric hospital admission. The total durations of psychiatric hospital readmissions were 3443 bed days for the postcard group and 6008 bed days for the control group.	included all randomised patients. All outcomes appear to have been reported.
Chen et al. (2013)	<p>P: Individuals who had attempted suicide within the previous month were identified by suicide prevention gatekeepers in medical or non-medical centres in Kaohsiung, near Taiwan.</p> <p>I: Case management with postcard intervention; postcard was individually tailored and listed coping strategies and resources that can help a suicide attempter to overcome obstacles during a crisis. Sent in a sealed envelope after three months of case management services. Postcard was small enough to fit in a wallet or pocket so could be carried at all times.</p> <p>C: Case management with no postcard intervention.</p> <p>O: Suicide reattempts over a six-month period.</p>	<p>N=761 (ITT n=373 intervention, n=388 control arm Per-protocol n=250 intervention, N=363 control).</p>	<p>The mean participant age was 40 years, 68% were female, and 37% had a history of previous suicide attempts. Full case management services were received by 94% of participants. In the intervention group 67% actually read the postcards. The per-protocol analysis compared those who read the postcard to the control group in only those participants receiving full case management for 3 months.</p> <p>In the analysis of all participants, there was no significant difference between the postcard and control groups in the time to suicide reattempt. However, the per-protocol analysis showed a significant benefit for the postcard, with a reduced risk of suicide reattempt (HR 0.39, 95% CI 0.21 to 0.72).</p>	<p>Unclear</p> <p>It was not reported if there was any allocation concealment or blinding in this study. The method of randomisation seemed appropriate; there was only one outcome and it was reported (although the actual numbers of suicide reattempts were not reported) and all participants were included in the ITT analysis. However the per-protocol results may not be reliable as it only included those who read the postcards and they are likely to have different characteristics/risk to</p>

				those who did not read them.
Robinson et al. (2012)	<p>P: Individuals ages 15-24, living in Melbourne; who did not meet entry criteria for the mental health service (not unwell enough or getting treatment elsewhere); with a history of suicidal threats, ideation, attempts and/or deliberate self-harm.</p> <p>I: Postcard intervention; a sealed post-card sent one per month over 12 months. Each postcard expressed an interest in the individuals' well-being, reminded them about sources of help identified in a 'source of help' interview and promoted one of six self-help strategies, which rotated each month.</p> <p>C: Treatment as usual, alongside the 'sources of help' interview but without the postcards.</p> <p>O: Suicide attempts and deliberate self-harm, hopelessness, depression, self-esteem, perceived social support, and the acceptability of the intervention. Outcomes were measured at 12 and 18 months.</p>	N=165 (n=81 intervention arm, n=83 control arm, 1 withdrew after randomisation).	<p>The mean participant age was 18.6 years, 66% lived with their parents; 35% had received mental-health treatment in the past months; 69% had previously self-harmed; and 93% had experienced some suicidal thoughts (from brief thoughts to making an attempt). The most common methods used for self-harm were cutting, burning, and intentionally overdosing on drugs.</p> <p>The mean numbers of self-harm attempts at 12 months were 8.4 for the postcard group and 7.9 for the control group. At 18 months they were 0.1 for the postcard group and 7.6 for the control group. However there were no significant differences between the groups at either time point.</p> <p>There were no significant differences between the groups regarding suicidal thoughts or suicide attempts.</p> <p>Overall 36% of participants were assisted with referrals for ongoing treatment, but details were not reported by treatment group.</p>	<p>Low</p> <p>All risk of bias assessments were satisfied apart from allocation concealment. Due to the nature of the intervention it would not have been possible to blind the participants. Randomisation was computerised and performed by an independent statistician. The research assistant did the assessments and was blind to treatment. Around 50% had dropped out by 18 months but the analysis used an appropriate method to impute missing data. All outcomes were reported.</p>

Risk of Bias: SRs

Author (year)	Risk of Bias				
	Inclusion criteria	Searches	Review Process	Quality assessment	Synthesis
Luxton (2013)					

RCTs

Study	RISK OF BIAS					
	Random allocation	Allocation concealment	Blinding of participants and personnel	Blinding of outcome assessment	Incomplete outcome data	Selective Reporting
Carter (1)			 personnel			
Chen (2)						
Robinson (3)			 personnel			

 Low Risk

 High Risk

 Unclear Risk

Search Details

Source	Search Strategy	Number of hits	Relevant evidence identified
<i>SRs and Guidelines</i>			
NICE	Self harm AND postcard	9	1
DARE	MeSH DESCRIPTOR Self-Injurious Behavior EXPLODE ALL TREES 118 Delete 2 MeSH DESCRIPTOR Suicidal Ideation EXPLODE ALL TREES 9 Delete 3 (self ADJ3 (harm* Or injur* OR mutilat*)) IN DARE 73 Delete 4 MeSH DESCRIPTOR Self Mutilation EXPLODE ALL TREES 1 Delete 5 (sjb OR dsh OR dsi OR dsm) IN DARE 281 Delete 6 (postcard* or mail* or letter*) IN DARE 13387 Delete 7 ((post* OR after*) adj3 discharge*) IN DARE 170 Delete 8 MeSH DESCRIPTOR Postcards EXPLODE ALL TREES 0 Delete 9 MeSH DESCRIPTOR Postal Service EXPLODE ALL TREES 25 Delete 10 MeSH DESCRIPTOR Letter EXPLODE ALL TREES 0 Delete 11 MeSH DESCRIPTOR Correspondence as Topic EXPLODE ALL TREES 25 Delete 12 #1 OR #2 OR #3 OR #4 OR #5 435 Delete 13 #6 OR #7 OR #8 OR #9 OR #10 OR #11 13584 Delete 14 #12 AND #13	44	
<i>Primary studies</i>			
CENTRAL	#1 MeSH descriptor: [Self-Injurious Behavior] explode all trees 657 #2 Enter terms for search "self harm" 284 #3 Enter terms for search "self mutilation" or "self poisoning" 115 #4 Enter terms for search "self injury" or "self destructive behaviour" 99 #5 Enter terms for search #2 or #3 or #4 437 #6 Enter terms for search #1 or #5 937 #7 Enter terms for search postcard 231 #8 Enter terms for search #6 and #7 8	8	

PsycINFO	<p>1. PsycINFO; exp SELF DESTRUCTIVE BEHAVIOR/; 29450 results.</p> <p>2. PsycINFO; "self harm".ti,ab; 2673 results.</p> <p>3. PsycINFO; ("self injury" OR "self mutilation" OR "self poisoning").ti,ab; 3164 results.</p> <p>4. PsycINFO; 1 OR 2 OR 3; 31192 results.</p> <p>5. PsycINFO; postcard*.ti,ab; 364 results.</p> <p>6. PsycINFO; 4 AND 5; 22 results.</p> <p>7. PsycINFO; *POSTTREATMENT FOLLOWUP/; 799 results.</p> <p>8. PsycINFO; 5 OR 7; 1162 results.</p> <p>9. PsycINFO; 4 AND 8; 40 results.</p>	40	
Embase	<p>10. EMBASE; exp SELF DESTRUCTIVE BEHAVIOR/; 0 results.</p> <p>11. EMBASE; "self harm".ti,ab; 3230 results.</p> <p>12. EMBASE; ("self injury" OR "self mutilation" OR "self poisoning").ti,ab; 4275 results.</p> <p>13. EMBASE; 10 OR 11 OR 12; 7193 results.</p> <p>14. EMBASE; postcard*.ti,ab; 2078 results.</p> <p>15. EMBASE; 13 AND 14; 17 results.</p> <p>16. EMBASE; *POSTTREATMENT FOLLOWUP/; 0 results.</p> <p>17. EMBASE; 14 OR 16; 2078 results.</p> <p>18. EMBASE; 13 AND 17; 17 results.</p> <p>19. EMBASE; "post treatment follow up".ti,ab; 794 results.</p> <p>20. EMBASE; AUTOMUTILATION/; 10419 results.</p> <p>21. EMBASE; 11 OR 12 OR 20; 13685 results.</p> <p>22. EMBASE; 14 OR 19; 2872 results.</p> <p>23. EMBASE; 21 AND 22; 17 results.</p>	17	
Medline	<p>10. MEDLINE; exp SELF DESTRUCTIVE BEHAVIOR/; 53820 results.</p> <p>11. MEDLINE; "self harm".ti,ab; 2504 results.</p> <p>12. MEDLINE; ("self injury" OR "self mutilation" OR "self poisoning").ti,ab; 3809 results.</p> <p>13. MEDLINE; 10 OR 11 OR 12; 55745 results.</p>	23	

	14. MEDLINE; postcard*.ti,ab; 1694 results. 15. MEDLINE; 13 AND 14; 23 results. 16. MEDLINE; *POSTTREATMENT FOLLOWUP/; 0 results. 17. MEDLINE; 14 OR 16; 1694 results. 18. MEDLINE; 13 AND 17; 23 results. 19. MEDLINE; "post treatment follow up".ti,ab; 581 results. 20. MEDLINE; 14 OR 19; 2275 results. 21. MEDLINE; 13 AND 20; 23 results.		
Summary	NA	NA	

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