

Adjunctive nurse telehealth care reduced depressive symptoms and improved functioning

Hunkeler EM, Meresman JE, Hargreaves WA, et al. *Efficacy of nurse telehealth care and peer support in augmenting treatment of depression in primary care*. *Arch Fam Med* 2000 Aug;9:700–8.

QUESTION: In depressed patients, is adjunctive nurse telehealth care more effective in reducing depressive symptoms than usual physician care alone? Does the addition of peer support to nurse telehealth care further improve outcomes?

Design

Randomised (unclear allocation concealment), unblinded, controlled trial with 6 months of follow up.

Setting

Primary care clinics in northern California, USA.

Patients

302 patients (mean age 55 y, 69% women) who had major depressive disorder or dysthymia and had a prescription for a selective serotonin reuptake inhibitor (SSRI). Exclusion criteria were previous antidepressant drug prescription in the previous 6 months, inadequate command of English, substance abuse, current suicide risk, or reported thoughts of violence. Follow up was 90% at 6 weeks and 85% at 6 months.

Intervention

Patients were allocated to usual physician care (physician counselling and treatment with an SSRI) (n = 123); usual physician care and nurse telehealth care (n = 117); or usual physician care, nurse telehealth care, and peer support (n = 62). Allocation to the peer support group only occurred during the second half of the recruitment period. Nurse telehealth involved a goal of 12–14 calls to each patient during the 16 week treatment period during which the clinic nurse answered questions, offered support, and discussed the patient's mental and overall health. Peer supporters were trained volunteers who had experienced a successfully treated episode of major depression.

Main outcome measures

Depressive symptoms (Hamilton Depression Rating Scale [HDRS] and Beck Depression Inventory [BDI]) and functioning (SF-12 Mental Functioning Scale).

Main results

More patients who received nurse telehealth care had $\geq 50\%$ improvement in HDRS score at 6 weeks ($p = 0.01$) and at 6 months ($p = 0.003$) than patients who received usual physician care (table). The groups did not differ for

$\geq 50\%$ improvement on BDI score at 6 weeks ($p = 0.28$), but at 6 months a marginal benefit was seen with nurse telehealth care ($p = 0.05$) (table). Nurse telehealth care had a more favourable effect on mental functioning than usual physician care at 6 weeks (mean score 47.1 v 42.6, $p = 0.004$), but not at 6 months (mean score 47.3 v 44.6, $p = 0.10$). The addition of peer support to nurse telehealth care did not improve outcomes.

Conclusions

In depressed patients, the addition of nurse telehealth care reduced depressive symptoms better than usual physician care alone. The addition of peer support to nurse telehealth care did not affect outcomes.

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Nurse telehealth care v usual physician care for major depression†

Outcomes	Follow up	Nurse telehealth care	Usual physician care	RBI (95% CI)	NNT (CI)
$\geq 50\%$ improvement Hamilton Depression Rating Scale	6 weeks	50%	37%	35% (2.6 to 82)	8 (4 to 90)
	6 months	57%	38%	47% (12 to 97)	6 (4 to 18)
$\geq 50\%$ improvement Beck Depression Inventory	6 weeks	38%	33%	16% (–16 to 62)	Not significant
	6 months	48%	37%	32% (–1.3 to 81)	Not significant

†Abbreviations defined in glossary; RBI, NNT, and CI calculated from data provided by author.

COMMENTARY

The efficacy of telephone support for people coping with chronic illness continues to draw interest. Because clinical depression is a common, highly recurrent, and often under treated condition in primary care, interventions aimed at augmentation of usual treatment are important focuses of research.

The telephone intervention in this study by Hunkeler *et al* focuses on psychoeducation, social or emotional support, and behavioural activities provided by specially trained nurses for depressed patients also receiving antidepressants. The study strengths include random allocation of participants, use of well established depression scales, and long term follow up of 6 months with excellent representation (85%) of the original study sample.

Early symptomatic improvement, minimal nurse and physician training, the use of regular clinic nurses familiar to the patient, and an average of 10 short (5–6 min) telephone contacts make this a viable, feasible, and time effective addition to the treatment of depressed primary care patients. In each telephone contact, the nurse emphasised the importance of taking medication regularly, offered emotional support, and helped patients to identify activities that they were willing to try to do to be more active and to find pleasure. Interestingly, Hunkeler *et al* did not find that medication adherence improved with telehealth care, suggesting that the scheduling of positive activities and the emotional support may have been most helpful. Social support is a known positive predictor of treatment outcome for the chronically ill. The efficacy of peer support, however, as a form of social support, was not shown in this investigation because only half of the 62 patients allocated to peer support received ≥ 1 telephone contact.

This study has relevance for all health practitioners working in outpatient primary care environments and provides an excellent model of effective nurse and physician collaborative practice.

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