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The economics of liaison psychiatry

Andy Bell, 8 March 2018

Costs to the NHS (1)

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1. Physical/mental health comorbidities

- 4.6 million people in England have co-morbid long-term conditions and mental health problems
- a mental health co-morbidity increases the cost of physical health care by 45-75%
- on average this corresponds to an extra annual cost of £2,400 per case
- aggregate cost = £11 billion a year

2. Medically unexplained symptoms

- estimated cost to the NHS = £3 billion a year

Costs to the NHS (2)

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- taken together, mental health co-morbidities and MUS thus increase the overall cost of physical health care by £14 billion a year

- this is as much as the total amount spent by the NHS on the direct treatment of mental illness

- about half of the extra spending on physical health care falls on the acute hospital sector, equivalent to an extra cost for a typical 500-bed hospital of around £25 million a year

- the estimated cost of a Core 24 liaison psychiatry service for a 500-bed hospital is £1.1 million a year

The evidence base on liaison psychiatry in hospital settings

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- not an easy area to research (complex interventions, heterogeneous groups of patients, multiple outcomes, attribution problems, disparate service models etc.)

- not a well-researched area; the evidence base is incomplete or inconclusive in important respects

- for example, there is very little evidence on the impact of liaison psychiatry in A&E departments

- a 2014 systematic review of evidence on the effectiveness of liaison psychiatry in the general hospital setting found 11 cost-effectiveness studies

- "Overall, the evidence suggests that liaison psychiatry services are cost-effective"

(Wood and Wand, 2014, *Journal of Psychosomatic Research,* 76, 175-192)

Economic evaluation of the original RAID service in Birmingham

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- focused solely on reductions in inpatient bed use

- found good evidence of shorter lengths of stay and reduced re-admissions

- financial savings associated with reduced bed use exceeded the cost of the RAID service by a factor of 4 to 1

- limitations in the research design were offset by the use of deliberately conservative assumptions in the analysis, suggesting that the overall conclusion is reasonably robust

Evidence from the roll-out of RAID

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- following the RAID evaluation, the service model was extended to four other hospitals in Birmingham and Solihull

- an internal evaluation of the roll-out confirmed that RAID is cost-effective, with combined financial savings in the four hospitals exceeding service costs by a factor of 3 to 1

- 10% of the savings were associated with reduced numbers of admissions from A&E (not analysed in the original RAID report)

Evidence from an older people's service in Doncaster

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- 2013 consultancy study of a mental health liaison service for older people with dementia, delirium or depression in an acute hospital trust (c.800 beds) in Doncaster

- average length of stay in the target group fell by 2 days in the year following introduction of the service

- other benefits included a reduced number of falls

- financial savings exceeded service costs by a factor of 5 to 1

- as in the RAID roll-out, about 10% of savings resulted from reduced numbers of admissions from A&E

US study of a proactive psychiatric consultation service

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- comparison of two service models for psychiatric consultation in an acute hospital:

(1) proactive, based on initial review of all inpatient admissions with medical staff, followed by immediate psychiatric consultation where indicated; and

(2) reactive, based on consultation only when requested by medical staff

- the proactive service identified patients needing support more quickly and in greater numbers, resulting in significantly more bed-days saved compared with the reactive service

- the proactive service needed more staff and was therefore more costly, but every $1 of additional spending on the service yielded financial savings of over $4 because of lower bed use

(Desan *et al.,* 2011, *Psychosomatics,* 52, 513-520)

Some conclusions on hospital-based liaison psychiatry

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- growing evidence that well-designed liaison psychiatry services can reduce hospital inpatient bed use, leading to financial savings which exceed the costs of service provision, in some cases by a substantial margin

- most of the reduction in bed use comes from shorter lengths of stay rather than reduced admissions or re-admissions

- older patients are the key target group, they account for 80% of all bed-days occupied by patients with co-morbid physical/mental health problems and average lengths of stay are twice as long as among younger adults

- the most effective services are those which work very closely with medical staff, including by providing relevant training

Liaison psychiatry in community settings (1)

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- liaison psychiatry is one of the few services in the NHS operating at the interface between physical and mental health, supporting the delivery of integrated care

- integrated care in hospitals is critical because that is where the sickest and most costly patients are, but the importance of integrated care for patients outside the hospital is also gaining increasing recognition

- the very large numbers involved suggest the need for a stepped care approach, with the majority of patients being supported by GPs and IAPT, and the liaison psychiatry input being focused on those with the most severe or complex needs

Liaison psychiatry in community settings (2)

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- there is good evidence, albeit very largely based on US studies, for the collaborative care approach, i.e. systematic team-based care including a significant liaison psychiatry input

- drawing on this evidence, a US modelling study found that every $1 invested in collaborative care for patients with co-morbid long-term conditions and depression led to savings of $2.5 in health care costs (www.wsipp.wa.gov/BenefitCost/Program/239)

- promising results for integrated services are also emerging in this country, e.g. the Three Dimensions of Care for Diabetes (3DFD) service in SE London

- Centre for Mental Health has recently started work on a multi-site project on mental health in primary care, evaluating four innovative services for patients with complex needs

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Thank you

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