Lessons from research on hospital alternatives to Inpatient care: what's its place in the 21st century?

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This article is a brief summary of research on an essential component of any recovery oriented mental health system, the adequate provision of community-based alternatives to hospitalization (1).

This summary reviews three alternatives, all of which share several characteristics. First, they represent services that are specifically designed for the sole purpose of replacing hospital treatment. Second, they are facilities to which a patient, if determined to need hospital admission, can be quickly referred instead. And third, they have been compared with hospital treatment in either a randomized or non-randomized trial.

When reviewing these less than flawless studies, one needs to keep in mind that what these services purport to replace – inpatient care – is a historically derived service for which there is almost no effectiveness research (2).

The first alternative, called residential alternatives (RA), is impossible to summarize neatly. A systematic review identified fifteen relevant studies, eleven from the US and six of which were considered of moderate quality. All found

outcomes that were equal or superior to standard hospital care. Of the four that assessed patient satisfaction, three found greater satisfaction in the alternative. In addition, three of the four assessing cost found the alternative to be cheaper (3). An English multi-site study of five RAs, comparing their patients with patients in local hospitals, found no significant difference in risk of intentional or unintentional self-harm, recent self-harm, social functioning, and social problems. RA patients were also less likely to be psychotic and less likely to be perceived as a risk to others. Some patients were involuntarily detained under mental health legislation (4).

The second alternative – day hospitals – can reduce regular hospital admissions by 23%, according to a systematic review of randomized controlled trials (5) and a European multi-centre (five countries) randomized control trial (6). The review showed clinical outcomes were equal to the hospital controls.

The third alternative – intensive home treatment (IHT) – is now the front runner, as it is the most versatile and flexible alternative and also the least stigmatizing and intrusive.

In the following IHT studies, clinical outcomes were equal to the hospital controls.

A Cochrane review of five randomized studies showed a mean reduction in admissions of 55%. However, all the experimental services differed from the IHT

service offering typical of today, in that they continued to follow patients once the acute phase was over (7).

Non-randomized studies, while somewhat flawed in ensuring equivalence of populations, have the advantage of no exclusions. Four such English studies showed reduction in admissions ranged from 22%-72% (8, 9, 10, 11).

The most superior and most recent randomized trial was the N. Islington study, in inner London. Located in a socially deprived area with a very community oriented control hospital service, this was an unusually stringent test. Nevertheless, there was still a reduction in admissions of 37%. The NNT to avoid one admission was 2.65 (12). Cost savings over six months were $4,000 (13).

Research on the effect of IHT teams throughout England found a mean reduction in admissions of 23% in areas that had IHT services with 24-hour coverage (14). England's independent government audit of IHT teams found wide variations in such factors as staffing, availability of consultant psychiatrists, and adherence to the model. A survey of ward managers concluded that an additional 20% of admissions could have been avoided with adherence to the model. IHT also led to the early discharge of 40% of admitted patients (15). Economic modelling showed cost savings of $980 per episode (16).

Since the mandated creation of IHT teams throughout England after 2000, two naturalistic studies showed reductions in admissions of 37.5% (17) and 45% (18), respectively.

A second type of research on hospital alternatives is known as “alternative projections research” (19). This research utilizes a “bottom up” approach, whereby clinicians decide on a given day which of the current in-patients – including newly admitted patients – could be treated in one or more of the alternative services, even if those alternatives were not available. For example, a 2002 study of a psychiatric hospital in Montreal found that, on a given day, only 29% of a sample of acute care patients was unsuitable for a hospital alternative. 71% could have been treated by “packages” of the three alternatives (20).

The picture emerging from this research is that a triad of alternatives can be provided in a crisis, either singly, sequentially, or in combination. Behavioural health administrators, from the national level to the local level, should advocate for the systematic provision of these alternatives as the default disposition for all patients in a crisis. Hospitalization should be used only when an alternative is not feasible, and then only for the shortest time necessary.

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