The Addiction and Mental Health Tertiary Care Framework:
Models of Evidence Based/Informed Rehabilitation (Models of Care)

Project 2
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Mental health redesign has taken place in many jurisdictions, notably Italy, UK, US, Australia and Canada. The Canadian experience is described below.

Canada

In 1964, the Royal Commission on Health Services recommended that patients capable of receiving care in general hospital psychiatric units should be moved “with all due speed”. However, studies in the 1970s showed that individuals with severe mental illness benefited from far fewer resources than had been available in the psychiatric institutions in which they had been previously accommodated. During this time, non-governmental organizations became especially strong and effective in providing supported living for the mentally ill. It was acknowledged in the 1990s that community services needed to be enhanced but this should be done by following “best practices and by an emphasis on integrating mental health services and supports. (Mental Health Commission of Canada, 2009)

B.C. has established regional tertiary care centres as alternatives to the larger mental health institutions and the early results appear to be very positive. As part of a balanced mental health care plan, the tertiary psychiatric care facilities have the potential to act as hubs of expertise and centres for research and training. There remains a need for investment in community-based care such as assertive community treatment and intensive case management. In B.C., re-admission rates for the Access Project at Riverview Hospital went from 25% annually to 4%. (Lesage, Groden, Goldner, Gelinas, & Arnold, 2008) (B.C. Provincial Health Services Authority, 2005)

Some of the lessons learned from the ongoing process of shifting care from larger institutional mental health treatment to smaller, more community-focused residential centres are:

- It is possible to create good local/regional systems if strong leadership is sustained and resources are focused on providing flexible, non-institutional care (Lurie, 2008)
- Community-based models of care have been shown to be largely equivalent in cost to the services they replace, so they cannot be considered primarily cost-saving or cost-containing measures. There can be some cost savings but initially the costs for effective and adequately-resourced community services will be the same or more (Thornicroft & Tansella, 2008)
- Creating some practical demonstrations of how things can be better, using best practice in how they are set up and run, can increase the likelihood of overall support (Mansell, Knapp, Beadle-Brown, & Beecham, 2007)

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The increase in quality of life and social determinants of health generally were well beyond expectations (Thornicroft G., 2005) (Kirby, 2006)

There was no increase in symptom severity or in incidents of violence when long-stay patients with severe mental illness were transitioned to community-based residential treatment centres (Barbato A. et al., 2004) (Wasylenki, et al., 2000)

Re-admission rates actually declined in most jurisdictions (Gaddini, 2008) (Gilmer, 2010)

The trend towards re-institutionalization needs to be considered carefully, as this may not be a result of de-institutionalization but other factors such as risk tolerance (Pedersen & Kolstad, 2009) (Priebe S, et al., 2005)

Most studies and reviews have shown no change in the pattern or severity of outcomes for people with mental illness who are transitioned into community-based services from long-term institutional residence. International and Canadian provincial evaluations have demonstrated significant improvement in quality of life, sociability and client and family satisfaction and that health care cost savings realized from decreased inpatient stays and emergency use outweigh the costs of developing adequate housing and services. (Gilmer T, et al., 2007) (Lamb & Bachrach, 2001)

The urgency of the need for reform and redesign can inadvertently result in ideological dichotomies or in marginalizing important participants in tertiary care, including the mentally ill clients, their families or community-based non-profit service providers. (Leff, 1997)(Mansell, Knapp, Beadle-Brown, & Beecham, 2007) (Thornicroft & Tansella, 2008)

A number of authors emphasize that mental health systems must include specialized intensive and long-term securable care for those people who cannot tolerate the conditions of community living. There must be adequate and timely support for higher risk patients while continuing to provide the least restrictive environment. (Cochrane, 2000) (DeGirolamo, 2005)

It is essential to ensure that cost savings created from moving to community care are reallocated into community care (Barbato A., 2004) (DeGirolamo, 2007) (Kirby, 2006) (Mansell, 2007) (Thorncroft & Tansella, 2003)

System reform must avoid the automatic transplantation of institutional care practices in community care environments – it is possible to replicate the problems that re-design efforts are meant to solve. (Mansell, Knapp, Beadle-Brown, & Beecham, 2007)

Some initiatives were able to create some continuity by utilizing familiar staff for long-stay patients who were moved (Hobbs C, et al., 2002) (Trudel & Lesage, 2006)

The success of deinstitutionalization cannot be measured in terms of reduced hospital populations, because this excludes those mentally ill people who never enter hospitals in the first place. Evaluations of community-based, integrated mental health services have generally used one of two comparisons:

[1] persons who have transitioned from “traditional” institutional care, or

[2] persons who had been marginalized and received little or no support for their mental illness. (Lamb & Bachrach, 2001) (Mansell, Knapp, Beadle-Brown, & Beecham, 2007)

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A new generation of long-term, severely mentally ill persons has presented new challenges for service planners and clinicians. Among other problems, their easy access to alcohol and other chemical substances has greatly exacerbated their symptoms and has interfered with any progress they might have made. Many, especially the young, have a tendency to drift away from their families or from board-and-care homes. Many of these individuals have suffered from homelessness and inappropriate incarceration and these problems have caused many of the concerns about deinstitutionalization. However, this population has never been institutionalized as patients were in the past and they will not accept constraints on their freedoms [alcohol, recreational drugs, sex, etc.]. (Lamb & Bachrach, 2001)

Evidence Based Models of Care

Desinstitutionalization has been considered by some to be a "radical" change in delivery of care for those members of society who are in need of Addiction and Mental Health services. Others have determined that deinstitutionalization has benefits in terms of return on investment and in some cases, reduction in cost for services (institutional vs community care). In any case, deinstitutionalization experience has given rise to a number of evidence based Models of care.

1. Housing First. Evaluations of Housing First initiatives, such as Pathways to Housing, are showing strong positive indicators for clients followed for several years before and after participation. The Pathways to Housing project incorporates intensive health, social and housing supports for chronically homeless clients referred from the health or justice system. Outcome data for 79 participants shows that after one year of intervention, clients experienced a 44% reduction in EMS responses, a 63% reduction in emergency room visits, and a 69% reduction in psychiatric hospitalizations. The savings in reduced hospitalizations alone amounted to $447,120. (Alberta Health and Wellness, 2010)

An important success factor for the program was the collaboration with the justice system, the police and the health system; there are representatives from these and other stakeholders on the board. Housing First projects described in the literature have these characteristics and generally demonstrate reductions in the use of emergency departments and inpatient services (Culhane, Metraux, & Hadley, 2001) (LaCalle & Rabin, 2010) (Lehner et al, 2007) (Stefancic & Tsembris, 2007)

The Mental Health Commission’s “At Home” demonstration projects [5 projects in 5 cities that will compare different Housing First approaches and “care as usual"] will provide needed research on the impact of a Housing First approach for the homeless and mentally ill. Informal learning has already emerged that trauma-informed care is important. (Mental Health Commission of Canada, 2010)

Adding “need-adapted” inpatient care in the form of a small and calm crisis home guaranteed continuity in approach and treatment. Results showed that easily accessible need-adapted

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treatment with integrated overnight care included a shorter duration of untreated psychosis and better outcomes. (Nelson, Aubry, & Lafrance, 2007)

2. **Psychosocial Rehabilitation (PSR).** This approach was developed at Boston University by William Anthony. It promoted a convergence between recovery principles and evidence-based practice. PSR has gained respect and is now a basic component of many state and provincial guidelines for treatment of the severely mentally ill. PSR operationalizes and specifically defines concepts such as acquired skills (behavioral, purposeful, generalizable, standardized, stable). The practitioner training involved in this approach breaks each concept into very small substeps. (Anthony, 1993) (Calsaferrri, 2003)

The results of several controlled studies suggest that disabled individuals can be taught a wide range of social skills. Social and community functioning improve when the trained skills are relevant for the patient’s daily life and the environment perceives and reinforces the changed behaviour. Overall, social skills training has been shown to be effective in the acquisition and maintenance of skills and their transfer to community life. (Rossler, 2006)

Best practices include:
- PSR focuses on utilizing person’s strengths and abilities
- This approach has no limit on length of participation and imposes very few selection criteria
- Supported education: integration of services between mental health agencies and educational services
- Self-determination is a recognized right
- Involvement with the natural support network is an important component
- Peer support should be built into all rehabilitation strategies


**Unintended elements of the PSR approach.** One article pointed out three potential paradoxes of the PSR model. [1] PSR emphasizes integration of skills but the actual approach involves deconstruction of every skill, shifting the emphasis from integration to step-by-step methodology. [2] PSR places a high value on clients reaching their highest level of independence but the training manuals insist on a high level of dependency on the practitioner. [3] PSR intends to remain accessible and therefore uses every-day language in its coaching; however, its insistence on positive-focused language means that common words become more rehabilitation-specific in their meaning, which can seem confusing or artificial. (Lilleleht, 2005)

3. **Supported employment.** This is a version of vocational rehabilitation which, as opposed to prevocational training [which assumes that a period of preparation is required before someone with a severe mental illness can enter competitive employment], is a new approach that places clients in competitive employment without extended preparation. This is paid work that takes place in normal work settings with provision for ongoing support services. A meta-analysis of
studies comparing these two approaches found that Supported Employment is more effective for patients suffering from mental illness who wanted to work. (Marshall, et al., 2001)

4. **Assertive Community Treatment.** Assertive community treatment is distinguished from traditional approaches by the following features: a multidisciplinary team, low client/staff caseloads that enable more intensive contact, community-based services that are directly provided rather than brokered to other organizations, and 24-hour coverage by the treatment team. The superiority of assertive community treatment compared with other case management models is well documented. A number of studies, including several meta-analyses, demonstrate statistically significant advantages of assertive community treatment in substantially reducing the length and frequency of hospitalization and increasing independent living while moderately improving psychiatric symptoms and quality of life for persons with severe mental illness. In terms of cost, assertive community treatment appears to allow flexible deployment of resources such that the number of days in hospital is reduced, which means that in many cases this form of treatment pays for itself. (Clark & Rich, 2003) (Coldwell & Bender, 2007) (Latimer, 2005) (Nelson, Aubry, & Lafrance, 2007) (Phillips, et al., 2001)

5. **Soteria.** This residential treatment model, originally developed in Switzerland, was replicated, in modified form, in the United States by Loren Mosher in the 1990’s and it has been studied extensively as an alternative to acute psychiatric hospitalization. In two facilities in San Diego, where “so-called long-term ‘frequent flyers’ were treated”, persons treated using this model were found to be as clinically improved as hospital-treated patients at considerably lower cost. The Soteria method can be characterized as the 24 hour a day application of interpersonal phenomenologic interventions by a nonprofessional staff, in the context of a small, homelike, quiet, supportive, protective, and tolerant social environment. The core practice of interpersonal phenomenology focuses on the development of a nonintrusive, noncontrolling but actively empathetic relationship with the psychotic person without having to do anything explicitly therapeutic or controlling. However, a great deal of “therapy” took place there as staff worked gently to build bridges, over time, between individuals’ emotionally disorganized states to the life events that seemed to have precipitated their psychological disintegration. The context within the house was one of positive expectations that reorganization and reintegration would occur as a result of these seemingly minimalist interventions. In terms of formal research evidence, an analysis of outcome studies on the Soteria paradigm describes it as an “intriguing but in many ways still experimental approach to the treatment of people diagnosed with schizophrenia”. However, the vast majority of service users and providers support the idea of residential crisis services as an alternative to acute inpatient treatment. (Calton, Ferriter, Huband, & Spandler, 2008) (Ciompi & Hoffmann, 2004) (Mosher, 1999)

6. **Consumer-driven and peer programs.** It is generally recognized that many resources beyond formal services enrich people’s lives. Equally important are the informal supports of family, friends and community, access to income, housing, jobs and education, and the solidarity that can come from membership in consumer groups and organizations. This implies a

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shift from the service paradigm to the community process paradigm. Though consumers are increasingly documenting their experience, this information is too often dismissed as anecdotal, rather than recognized as a useful source of knowledge. In addition to consumers, families can contribute in their own way to the experiential understanding of mental illness. Although organized family groups have tended to adopt the medical/clinical perspective, as individuals these same family members have extensive knowledge of the day-to-day realities of mental illness. Making sense of the experience involves at least three factors:
1. the experience itself must be explained and classified;
2. its meaning for a person's sense of self and identity must be dealt with (for example, does the presence of the condition mean that one is damaged or inferior, or perhaps, as in some traditional cultures, that one is gifted); and
3. the impact on an individual's social situation and expectations must be confronted. (Clay, Schell, Corrigan, & Ralph, 2005) (Mental Health Commission of Canada, 2009)

Economics: Funding and Costing Models

A discussion of Care Models can not be complete without a brief discussion of Funding and Costing Models.

Challenges of costing community mental health. It is generally recognized that economic models that monitor and predict costs of service have been designed for institutional contexts, using costs per bed as a base. Individual patient or service costs have not been utilized consistently in community mental health. There is an absence of a strong evidence base for the financial costs of community-based mental health services and very little information on models for cost accountability. If all the hidden costs associated with responsible programming are considered, it is generally not accurate to conclude that community services will result in substantial savings over hospital. Not surprisingly, cost-effectiveness studies have found that quality of care is closely related to expenditure on services. (Amaddeo et al, 2007) (Gilmer, 2009) & 2007) (Jacobs, Dewa, & Bland, 2007) (Newman, Harkness, Galster, & Reschovsky, 2001) (Thornicroft & Tansella, 2003)

Studies on cost-effectiveness. Results of studies on cost effectiveness are mixed, some indicating that community care is less expensive and others that it is equal or slightly higher. Every study consistently reports savings realized with community-based tertiary care due to decreased hospital re-admissions, fewer emergency visits, shorter inpatient stays and reduced justice system involvement. (Gilmer, Stefancic, Ettnner, Manning, & Tseberis, 2010) (Harkness, Newman, & Salkever, 2004) (Rosenheck, Kasprow, & Frisman, 2003)

Reviews of system reform in Italy found that community care was a more expensive solution. Common rules of economies of scale were not valid – the cost per patient increased
significantly with the size of each residential facility. Patient factors accounted for the majority of variation in costs [age, diagnosis, history, etc.]. (Amaddeo, Grigoletti, de Girolamo, Picardi, & Santone, 2007)

The Netherlands found that from 1993 onwards, the costs of inpatient care declined sharply, resulting in a decrease of 20% expenditure over a 10-year period. These savings equalled the increased expenditure for day-treatment, sheltered residences and home-treatment. (Pijl, Systema, Barels, & Wiersma, 2002)

**Use and economics of contracted non-profit providers.** In Canada, the majority of community residential tertiary care rehabilitation is provided by non-profit service providers often funded by the regional health care organizations or by other charitable funders [e.g., United Way]. The literature on the economic viability of NGOs and other non-profits as service providers is limited, although it is generally assumed that the cost is comparatively less than if the same service was provided by the mental health care system. In the U.S., several studies of “full-service partnerships” [where clinical services are partnered with publicly-funded and/or non-profit sector infrastructure] have shown that the reductions in costs of inpatient, emergency and justice system services offset 80% of the costs of the partnership. (Gilmer, Stefancic, Etter, Manning, & Tsemberis, 2010)

**Mental health care reform in British Columbia.** In B.C., the average cost per resident at the new regionalized tertiary psychiatric residential facilities [Seven Oaks in Victoria and South Hills in Kamloops] were similar to the per diem cost at Riverview, the provincial psychiatric hospital. The economics of these facilities were influenced by five major factors; how many beds are needed, staffing levels, physical setting, programming and governance and financing. (B.C. Provincial Health Services Authority, 2005)

**Innovative directions for funding.** Self-directed care, as tested in a series of pilot projects in the U.S., has shown promise from the cost and clinical perspectives. In these programs, mental health consumers are given control over the spending on services. In considering this kind of innovative service delivery model, there is a need for thorough evaluations of effectiveness (cost and clinical). Early evidence shows that these new funding models that give participants control over public funds to purchase services and supports for their own recovery from disabling mental illness, demonstrate high consumer satisfaction and more complete recovery. (Alakeson, 2008) (Carroll, 2006) (Cook, Russell, Grey, & Jonikas, 2008)

**Cost-benefit of types of housing.** Another perspective is that benefit-cost and cost-effectiveness analyses pertaining to persons with mental illness have focused mainly on different modes of treatment - not different types of housing. While previous research, particularly in the Housing First literature, suggests that independent housing has salutary effects on individuals with mental illness, it has not examined what housing features have the
most important effects. Nor has it explored how the mental health outcomes associated with different configurations of housing compare to their costs.

Two basic principles underlie this perspective. First, the need for housing remains constant over a person's lifetime, while the need for services varies. Second, only by disentangling housing from services will it be possible to create a system in which services are designed to support the person in housing instead of developing housing programs to facilitate treatment or services. Without separating housing and services, it is impossible to distinguish the effects of a range of potentially relevant factors, such as service utilization, from the effects of housing per se. (Culhane, Metraux, & Hadley, 2001) (Gilmer, Manning, & Ettner, 2009) (Harkness, Newman, & Salkever, 2004) (Lamb & Bachrach, 2001) (Newman, Harkness, Galster, & Reschovsky, 2001) (Rosenheck, Kasprow, & Frisman, 2003) (Stefancic & Tsembiris, 2007)

Discussion

Mental health reform in the developed world started with funding services that did not exist. Usually, these were regional or community based. This allowed for more specific matching of patient and care intensity, with the driving principle being the delivery of care in the least restrictive setting (DeGirolamo, 2007) (Durbin, 2001).

In a stepped-care or tiered service delivery model, the principle of “least restrictive setting” has meant that service planners often are unsure of who will require the most secure, facility-based long-term care until adequate and accessible community services are developed. The literature repeatedly reinforces that most patients have thrived in settings that were well supported and connected to their home community and the vast majority have maintained community tenure over time. The results have usually outperformed expectations (Barbato A, et al., 2004) (Gaddini, 2008) (Hobbs C, et al., 2002) (Lurie, 2008) (Priebe, 2008) (Wasylenki, 2000).

The literature also emphasizes that centralized, facility-based care is an essential part of the care continuum. There are patients who need structured environments and specialized expert care that can best be delivered in regionalized psychiatric centres (Cochrane, 2000)(DeGirolamo, 2005) (Myklebust, 2010).

Each jurisdiction has taken different approaches to reform, with different degrees of success. In B.C., for example, regionalized, smaller tertiary psychiatric centres were designed (Lesage, 2008) and re-admission rates for the severely persistently mentally ill dropped from 25% annually to 4%. (B.C. Provincial Health Services Authority, 2005) In the U.K., a decision to very rapidly downsize and close all but 20 psychiatric hospitals in the late 1990’s was suspended upon recognizing that there were insufficient alternatives to hospital care in the community. They have since begun to develop “hostels” with 24 hour nursing support (Lelliott, 2006)

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In both cases of reform, there was a clear need for additional outreach and case management to complement the smaller mental health units. In Italy, all patients were moved from mental hospitals to “non-hospital residential facilities”. The majority of patients (75%) were considered to be in the appropriate setting, with 12% able to move to a more independent situation and 13% needing more intensive care (Barbato A., 2004) (DeGirolamo, 2007). The U.S. has taken some bold steps in reform, from new paradigms for residential community care to self-directed care initiatives (Alakeson, 2008) (Cook, 2008) (Mosher, 1999). San Diego and the states of Ohio and Indiana have had several years’ experience with strategic directions that involve serious efforts to place the client central to care whenever possible (Gilmer, 2010) (Gilmer, 2009) (Isett et al, 2007) (Ohio Department of Mental Health, 2007).

Regardless of setting, some of the lessons learned from these reform initiatives are:

• An “ideal” facility should be small and community-based and maximise flexibility, privacy, engagement and positive therapeutic relationships and should provide regular physical health screening and specific interventions
• service planning must be tailored to the needs of each individual
• hospital care must be available for those who need it
• services must be culturally relevant
• severely mentally ill persons must be involved in their service planning
• service systems must not be restricted by preconceived ideology
• continuity of care must be achieved.

Provincial or state leadership is essential for overall reform to occur, as the innovations and new investment required cannot occur in isolated sectors but must involve the entire continuum of care (Isett et al, 2007) (Lurie, 2008) (Smith-Merry, 2010). If the appropriate resources are in place, readmission rates to acute psychiatric hospitals from Tier 4 settings are extremely low (B.C. Provincial Health Services Authority, 2005). A centralized, standardized access system with strong clinical input has worked the most effectively (Lesage, Groden, Goldner, Gelinas, & Arnold, 2008).

There have also been unintended consequences from mental health reform in Canada and elsewhere. One review of deinstitutionalization points to a new generation of “uninstitutionalized” persons who have severe mental illness and have never experienced the culture of an institution, which usually requires a certain level of compliance. Many are homeless and/or have been criminalized and they present significant challenges to service systems. Among other problems, their easy access to alcohol and other chemical substances has greatly exacerbated their symptoms and has interfered with any progress they might have made. Many, especially the young, have a tendency to drift away from their families or from board-and-care homes. Many of these individuals have suffered from homelessness and inappropriate incarceration and these problems have caused many of the concerns about deinstitutionalization. However, this population has never been institutionalized as patients
were in the past and they will not accept constraints on their freedoms [alcohol, recreational drugs, sex, etc.]. The authors emphasize that successful deinstitutionalization involves more than simply changing the locus of care. (Lamb & Bachrach, 2001)

Contracted service providers (non-profit or for-profit, depending on the context) need to be a part of any framework development and participate in the planning. The literature either identifies these agencies and organizations as essential to service delivery or they are ignored in reporting, despite the fact that almost, if not every, mental health system relies on them for part of the provision of services, especially for long-term residential care. While lower costs are part of the advantage, the outcomes that are reported are in a positive direction, when compared to other service delivery models. The substance use support system has considered these to be central to the work provided that they are integrated rather than separated (Cochrane, 2000) (Gilmer, Stefancic, Ettner, Manning, & Tsemberis, 2010) (Leff, 1997) (Rosenheck, Kasprow, & Frisman, 2003).

There is an emerging focus on peer support as an effective adjunct to mental health care. In Canada, there are recommendations that a small percentage of any mental health care budget be dedicated to funding peer support agencies or networks (Kirby, 2006) (Clay, Schell, Corrigan, & Ralph, 2005).

It is clear from the literature that state or provincial direction on standards, best practices, audit mechanisms and equity of access are absolutely necessary for real transformation to occur (Durbin, 2001) (Isett et al, 2008) (Lurie, 2008).

Summary

In summary, the evidence in the literature generally focuses on evidence-based practice which emphasizes randomized control trials and longitudinal research. However, knowledge mobilization from research is seldom seamless or logical. The literature is best taken into account along with “practice-based evidence”, which will reflect some of what is already deemed by clinicians to be best practices and may be more amenable to replication throughout the province.
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