Abstract

**Background and problem statement:** Integrated care for mental disorders aims to encompass forms of collaboration between different health care settings for the treatment of mental disorders. To this end, it requires integration at several levels, i.e. integration of psychiatry in medicine, of the psychiatric discourse in the medical discourse; of localization of mental health care and general health care facilities; and of reimbursement systems.

**Description of policy practice:** Steps have been taken in the last decade to meet these requirements, enabling psychiatry to move on towards integrated treatment of mental disorder as such, by development of a collaborative care model that includes structural psychiatric consultation that was found to be applicable and effective in several Dutch health care settings. This collaborative care model is a feasible and effective model for integrated care in several health care settings. The Bio Psycho Social System has been developed as a feasible instrument for assessment in integrated care as well.

**Discussion:** The discipline of psychiatry has moved from anti-psychiatry in the last century, towards an emancipated medical discipline. This enabled big advances towards integrated care for mental disorder, in collaboration with other medical disciplines, in the last decade.

**Conclusion:** Now is the time to further expand this concept of care towards other mental disorders, and towards integrated care for medical and mental co-morbidity. Integrated care for mental disorder should be readily available to the patient, according to his/her preference, taking somatic co-morbidity into account, and with a focus on rehabilitation of the patient in his or her social roles.

**Keywords**

mental disorder, integrated care, bio psycho social model, psychiatry, disease management, collaborative care

1. Introduction

The last decade has shown significant developments towards integrated care in the Netherlands. Integrated care for mental disorders, however, has not kept up with integrated care developments for somatic illnesses such as diabetes mellitus, cardio vascular disease and chronic obstructive pulmonary disease. A reason for this is the fact that psychiatry as a medical discipline developed itself, during the late 20th century, strongly towards the field of Humanities. This was a reaction to the paternalistic treatment culture and consequent patient alienation as it had existed in the asylums [1].

The upside of this reaction was that it emphasized the humanity and individuality of the psychiatric patient [2]. The downside was that it evolved towards antipsycho-
try [3] and denounced its medical identity in many ways. In the Netherlands, this was an important movement in the 1970s [4, 5]. While antipsychiatry started as an emancipatory movement with the aim to improve the social involvement and status of psychiatric patients, in the Netherlands it led to marginalization of mental health services in comparison with general medical services [6]. Integrated care for mental disorders aims to encompass forms of collaboration between different health care settings for the treatment of mental disorders. Therefore, to achieve integration of care for mental disorder, more steps have to be taken than for other medical illneses, as not only treatment of mental disorders has to be integrated, but psychiatry itself needs to be integrated into general medical care as well. This should be effectuated not only in terms of organization of care, location of mental health services and reimbursement of treatment, but also in terms of medical discourse. This article describes this course of integration, with a focus on how integrated care for mental disorder may best be established in the Netherlands.

2. Policy development

2.1. Macro-level: a paradigm shift for psychiatry

On a macro-level, the integration of psychiatry, general medicine and even society has been strongly enhanced by the report ‘Zorg van Velen’ [Care for many] in February 2002 [7]. This report distinguished cure from care for psychiatric patients. This was a new approach, as the combination of those two concepts had previously been regarded as a comprehensive approach, and even the idea that many mental disorders might be cured was a much more optimistic approach towards possible outcomes of treatment than previous stances on this matter. Furthermore, the report stated that cure and care for psychiatric patients should not be exclusively delivered by mental health institutions that would provide all-encompassing life-long patient care. Care for the mentally ill should also be delivered by communities, primary care, and general health care; it is a responsibility for society as a whole. These two lines of thought depicted a paradigm shift for psychiatry in the Netherlands. Although the report evoked criticism at first, suggesting that continuity of care might be threatened by this approach as the mental health institutions would lose their central directing role, the report was endorsed by the Dutch Psychiatric Association and the Dutch Ministry of Health in November 2003 [8].

Consequently, psychiatry was allowed to participate in the same reimbursement system as general medicine, and became involved in the development of diagnosis related groups (DRGs) alongside with other medical disciplines, albeit that psychiatry still lags behind in actual application of DRGs. Although it remains to be seen whether DRGs are a blessing or a curse for management and quality of healthcare, these developments have nevertheless been of paramount importance for the re-integration of psychiatry into general medicine, as the concept of cure by treatment was reintroduced by this reimbursement system for mental disorders at the same level as for other medical illneses, and with both medical areas sharing a common system of treatment classification and reimbursement.

Also, the location of mental health services gradually shifted from the monopoly of mental health institutions to more community based care, that often had a preventative approach [9], and to primary care, where a variety of health care professionals delivered mental health care in collaboration with General Practitioners (GPs) [10]. Furthermore, the Ministry of Health changed regulations to allow the creation of more psychiatric departments in general hospitals. The objective was to enhance the delivery of care for medically ill patients with co-morbid mental disorder in the general hospital setting, which was another aspect of integration of care on somatic and mental level for patients [11, 12]. Finally, the Dutch Psychiatric Association issued a white paper strongly asserting the identity and role of the psychiatrist as a medical specialist, working in accordance with the medical model [13]. These developments reunited psychiatrists with their fellow medical specialists on organizational, reimbursement and localization of health services levels.

2.1.1. Medical discourse: shift towards biology and evidence based medicine

In terms of medical discourse, psychiatry developed towards a more biologically oriented medical discipline over the past 10 years. In research as well as funding thereof, strong emphasis is put on genetic etiological aspects of mental disorder, identifying several genes as risk factors in the etiology of schizophrenia and bipolar disorder, but also the need for more research on environmental impact on gene expression [14]. Imaging studies have been used to elucidate mental processes in the brain in, i.e. obsessive compulsive disorder [15] and invasive techniques, such as trans cranial magnetic stimulation, vagal stimulation and deep brain stimulation are being developed as a means to treat mental disorders [16].

The Dutch Psychiatric Association did develop several guidelines for evidence based treatment of mental disorders, and collaborated in the development of multidisciplinary guidelines, which again did enhance the integration of psychiatry with other medical disciplines, such as general practice and internal medicine.
An example of such a guideline is the multidisciplinary guideline for depression [17]. This evidence based approach reinforced the medical identity of psychiatry [18, 19]. On the other hand, psychotherapeutic treatment modes that could not be substantiated by evidence, would not appear in the guidelines and were on the decline. For example, psychoanalysis was no longer considered evidence based treatment by the College of Medical Insurances (CVZ) and consequently, its reimbursement was stopped in March 2010 [20].

2.2. Meso-level

In the past decade, on a meso-level, the integration of psychiatry and general medicine has significantly progressed in two domains: the primary care setting and the general hospital setting. An expert group defined principles of integrated care as aspects of quality of care in a document defining standards of care under auspices of the Ministry of Health and ZonMw, the Netherlands organisation for health research and development in November 2009 [21]. One of the implications in the report was that integrated care requires collaboration between domains of health care, such as primary care and mental health care, or general hospitals and mental health institutions. Several such guidelines have been made that enhance this collaboration.

2.2.1. Primary care

Primary care has been described by Starfield in the UK as a health care setting with a local community orientation where health care is delivered to patients on a longitudinal basis by a named practitioner who serves as a gatekeeper for other health services and social care, including preventive care; it is the first point of entry in the medical care system [22]. In the Netherlands, this role as gatekeeper for referral to general medical disciplines has always been upheld, but for mental health care this has been a more recent development. For mental health care, the ‘American bypass’ existed, allowing patients to seek mental health care without referral by the GP [23]. However, in the nineties, the Ministry of Health reinforced the role of the GP as gatekeeper for mental health care as well, and at the same time, facilitated development of psychiatric consultation models for primary care [10].

This was an important prerequisite for integrated care for mental disorders in the primary care setting, as it reinforced the role of the GP as both a coordinator of care and as gatekeeper for mental health care, thus reinforcing the liaison between GPs and mental health institutions. It paved the way for establishing the effectiveness of psychiatric consultation in the Dutch primary care setting [24]. Subsequently, the Dutch guideline for psychiatric consultation was developed, which described consultation as a means for integrated treatment of mental disorders in the primary care setting as well as the general hospital setting [25]. This indicates high awareness of the importance of collaboration of mental health institutions with primary care for integrated treatment of mental disorder.

This approach was also endorsed by medical insurance companies, who reinforced the central coordinating role of the GP in integrated care models for, e.g. diabetes [26] and also facilitated pilots for a chain of integrated care treatment for depression in the primary care setting, following the principles of collaborative care; one of these pilots was recently terminated successfully [27].

2.2.2. General hospital setting

Another important domain that needs to be integrated with the mental health care domain is the general hospital setting, as this concerns patients with chronic medical illness and co-morbid mental disorder, requiring easy access to mental health services as well. Although chronic medical illness is increasingly prevalent due to factors, such as aging of the general population and increased metabolic syndrome, and co-morbidity with mental disorder is high as well, and treatment facilities for patients with this co-morbidity are scarce. The importance for integrated care for this patient group has been emphasized in a Trimbos Institute report commissioned by the Ministry of Health, which provided material and recommendations for a research program on disease management of ZonMw and for policy recommendations by the Dutch Health Council on co-morbidity [28]. Also, the integration of care for co-morbid mental and somatic disorders was facilitated by the remodeling of psychiatry departments in general hospitals into Medical Psychiatric Units, which enhances collaboration between mental health institutions and general medicine [29]. This development is similar to developments in the USA, where the establishment of psychiatry departments in general hospitals occurred earlier. The formation of Medical Psychiatric Units is an ongoing evolution there as well as in the Netherlands.

2.3. Micro-level

At a micro-level, establishing integrated care for mental disorders requires training of professionals in their respective collaborating domains in appropriate delivery of care according to an integrated care model. In the Netherlands, such an endeavour for depression was the Depression Initiative, a national disease management program for Depression aimed at delivering evidence based depression treatment according to the Depression standard of the Dutch College of General
Practitioners [29] and the Multidisciplinary Depression Guideline [17]. The Depression Initiative was started in 2006 by the Trimbos Instituut, in collaboration with many partners and will reach its fulfillment in 2011 [30]. For the micro-level, two models for treatment and assessment according to integrative care are relevant. They will be described below.

2.3.1. The collaborative care model
The preferred integrated care model that was implemented in the Depression Initiative is the collaborative care model. It was implemented in the primary care setting [31, 32], in the general hospital setting [33], and in the occupational health care setting [34]. This model as deployed in the Depression Initiative is based on the enactment of the role of the care manager, usually a nurse, who monitors treatment according to an algorithm by use of the PHQ-9, a validated instrument for monitoring depression [35]. Apart from monitoring progress, the care-manager also provides problem solving treatment (PST) [36]. The care-manager is supported by web-based tracking software that functions as both a monitoring system and a decision aid, and works closely with the GP or another physician, who prescribes antidepressant medication if needed. Both the GP and the care-manager can receive consultation by a psychiatrist. Another important aspect of this treatment model is that it establishes the treatment plan in close accordance with the preference of the patient, with the assumption that this enhances adherence to treatment. This integrated care model was found to be feasible and effective in all three settings, mentioned above [37–39]. At the moment, a collaborative stepped care model is being evaluated for anxiety disorders in the primary care setting [40]. In other countries, collaborative care has been evaluated for other, more severe mental disorders as well, e.g. for bipolar disorder [41], and this example will be followed in the Netherlands.

2.3.2. The Bio Psycho Social System model as instrument for assessment
Collaborative care is an integrated care model that clearly defines roles of health care professionals and patients in following treatment according to a predefined algorithm. In the Dutch collaborative care model, one aspect of the treatment plan is that the patient can choose between treatment options and thus indicate a preference. For initiation of such an integrated care treatment, an assessment instrument is needed that can be used in the phase preceding setting up of the treatment plan, as well as during psychiatric consultations in which reassessment is done during ongoing treatment. This instrument is needed so that it can be used by the clinician to enable assessment of somatic and mental symptoms, social circumstances and life events, and their interdependence, as well as use of health care services. This facilitates correct assessment as needed for the following integrated care treatment, especially in case of patients with somatic-mental co-morbidity. Such an instrument has been developed in the Netherlands from the Bio Psycho Social model as suggested by Engel [41]. It is a further elaboration of the Bio Psycho Social System (BPSS) developed by Reiser [42] and Huyse [43]. Van der Feltz-Cornelis et al. introduced its use for assessment during psychiatric consultation in the Dutch primary care setting [44] and in the occupational health setting [45].

The BPSS instrument (see Table 1) is a matrix that can be used as follows: from left to right the case history, consultation findings, diagnosis, and treatment recommendations. From top to bottom there are four horizontal axes, as shown in Table 1 below.

The BPSS instrument offers the ability to identify conditions that may need attention during the treatment process. The instrument also allows one to prioritize which condition or problem will be treated first, without forgetting the rest. All problems and conditions can be treated subsequently, and if they seem related, the underlying cause may be treated at first. Finally, the BPSS instrument shows how health services utilization has developed in a specific case, and also how and in which setting case-management could best be arranged, in view of previous health services usage. This is a very relevant aspect of assessment needed for integrative care.

3. Discussion
From the preceding overview it follows that integrated care for mental disorder can be effectuated if certain requirements are fulfilled: an integration between psychiatry and other medical disciplines in terms of medical discourse and localization of services; use of the same reimbursement system for different medical disciplines; multidisciplinary guideline development and evidence based treatment as common standard; a quality standard of care; and policies aimed at integrating treatment of medical as well as mental disorders. Cure and care for the mentally ill delivered by several collaborating parties with a shared medical discourse is a first requirement for the successful collaboration with other medical disciplines. Thanks to the presence of these facilitating factors on a macro-level during the past 10 years, psychiatry has made significant progress towards integrated care for mental disorder on the meso- and micro-level.

On a meso-level, the integration of care for mental disorders was facilitated by resolving of the former mutual isolation of primary care and mental health care by enhancement of the gatekeeper role of the GP, psychiat-
ric consultation in primary care, and coordination of care by the GP. Integrated care may benefit from being delivered in close proximity to the patient. Rehabilitation of the mental patients, e.g. in the work setting, can be more easily supported, thanks to the Dutch social welfare system. Also, integration can be provided in the primary care setting, or in the general hospital setting in case of the medically ill with co-morbid mental disorder. Thus, the next step should be to expand these models in such settings for other highly prevalent mental disorders, such as anxiety disorder and somatoform disorder.

On a micro-level, regarding the actual content of the integrated care models, it is worth noting that a difference seems to exist between integrated care models for medical illnesses, such as diabetes mellitus in primary care, and integrated mental health care models in primary care. For integrated mental health care, psychiatric consultation plays an explicit role in the Dutch model, which is based on evidence about its effectiveness in the primary care setting [46]. Also, contrary to application of the model in the USA and the UK, the care manager does not only monitor treatment, but also provides a form of evidence based treatment, namely PST. However, consultation with a medical specialist for somatic disorders does not seem to play a significant role in, e.g. disease-management programs for diabetes mellitus or cardiovascular disease. Also, in those models, the practice nurse performs case-management which consists mainly of monitoring of the illness and self-management. Contrary to the integrated mental health care model, in somatic integrated care models no other evidence based treatment is provided by the practice nurse/care-manager.

As the patient represents the demand for health services, the perspective of the patient should be explicitly taken into account in the further development and implementation of integrated care models for mental disorder [47]. Also, the BPSS can be a useful instrument for assessment of symptoms and conditions in integrated care. In view of these developments, the perception and assessment of health care workers concerning this integration of mental health care in general health care by the collaborative care model is considered important and it has been the subject of qualitative research, indicating that practice nurses as well as GPs are positively inclined towards working with this model [27].

Indications for cost-effectiveness of collaborative care, especially in the long term, are available, and evaluation of the cost-effectiveness of collaborative care in the Dutch setting is in progress [48]. In an economic report commissioned by the Ministry of Health, it was recently calculated that every euro that is invested in health care innovation yields, on average, an effectiveness gain of 30%. This suggests that innovation aimed at integrated care for mental disorder might therefore be a productive use of resources [49].

4. Conclusion

The perception of psychiatry moved from anti-psychiatry in the previous century, towards an emancipated medical discipline. This reinvention of itself enabled big advances towards integrated care for mental disorder, in collaboration with other medical disciplines, in the last decade. Collaborative care is a feasible and effective model for integrated care in several health care settings. The Bio Psycho Social System has been developed as a feasible instrument for assessment in integrated care. Now is the time to further expand this concept of care towards other mental disorders, and towards integrated care for medical and mental co-morbidity. Integrated

### Table 1. Bio Psycho Social System as assessment instrument

<table>
<thead>
<tr>
<th>Biological Axis</th>
<th>History</th>
<th>Consultation findings</th>
<th>Diagnosis</th>
<th>Treatment recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Somatic diseases and former treatment</td>
<td>Somatic symptoms and treatments</td>
<td>Somatic diagnosis</td>
<td>Treatment of somatic symptoms; medication</td>
</tr>
<tr>
<td>Psychological Axis</td>
<td>Personality traits, Coping mechanisms, psychiatric history and symptoms</td>
<td>Psychiatric symptoms and psychological mechanisms influencing factors</td>
<td>Diagnosis</td>
<td>Treatment recommendations of mental symptoms; psychotherapy</td>
</tr>
<tr>
<td>Health Services Use Axis</td>
<td>Frequency of hospitalization, non-compliance, alternative medical treatment etc. are mentioned here</td>
<td>Organization and utilization of health care services aspects can be described here</td>
<td>Diagnosis in terms of health care use and illness behavior</td>
<td>Recommendations for treatment in a certain setting, for case management, or for need for communication between certain health care providers are made here</td>
</tr>
<tr>
<td>Social System Axis</td>
<td>Former life events and circumstances</td>
<td>Describes the different role systems in which the patient functions, such as family, work etc.</td>
<td>Diagnosis of social problems</td>
<td>Treatment recommendations concerning the social system</td>
</tr>
</tbody>
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care for mental disorder should be readily available to the patient, according to his or her preferences, taking somatic co-morbidity into account, and with a focus on rehabilitation of the patient in his or her social roles.

5. Brief autobiographical note

Christina M. van der Feltz-Cornelis, psychiatrist-epidemiologist, is Full Professor of Social Psychiatry in Tilburg University, deputy director of the psychiatry residents training in GGZ Breburg, and Director of the Program for Diagnosis and Treatment in Trimbos Instituut, Utrecht, the Netherlands. Together with general practitioners, she developed, implemented and evaluated a psychiatric consultation model for the primary care setting, and she trained many colleagues in the application of this model. As a member of the Board of the Dutch Psychiatric Association, from 2002 to 2005, she was involved in many of the policy measures described in this article. She was a member of the committee that developed the Guideline for Psychiatric Consultation. Together with several colleagues in the field, she wrote the report on somatic-psychiatric co-morbidity that was commissioned by the Ministry of Health in 2007. She is penholder and member of the Board of the Depression Initiative, a national Disease management effort for depression in the Netherlands funded by the Innovatiefonds Zorgverzekeraars. She is penholder of several randomized controlled trials on psychiatric consultation and collaborative care. She organized international symposia on collaborative care with colleagues with a similar interest in development of integrated care models for mental disorder.

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