Analysis and Optimization of Substitution Treatment in Belgium

(SUBANOP)

SCIENCE AND SOCIETY

Analysis and Optimization of Substitution Treatment in Belgium (SUBANOP)

Vander Laenen Freya
Vanderplasschen Wouter
Smet Valérie
De Maeyer Jessica
Buckinx Margaux
Van Audenhove Sharon
Ansseau Marc
De Ruyver Brice

This publication is the result of the project 'Analysis and optimization of substitution treatment in Belgium (SUBANOP)'. The study was financed by Federal Science Policy and the Federal Service of Public Health. Program's responsible: Aziz Naji.

The study was executed by a multidisciplinary team of researchers from two universities: Ghent University (Department of Criminal Law and Criminology, Prof. Dr. F. Vander Laenen (coordinator), Prof. Dr. B. De Ruyver (promoter); Department of Special Education, Prof. Dr. W. Vanderplasschen (promoter)) and the University of Liège (Prof. Dr. M. Ansseau (promoter)).

The content of these texts is the responsibility of the authors.

Dit kwaliteitslabel wordt toegekend door Wetenschapsbeleid aan onderzoeksprojecten die bij de ex-post evaluatie door een panel van buitenlandse experts een score van minstens "sufficient" (voldoende) kregen. Het project dat het voorwerp uitmaakt van deze publicatie heeft dit label gekregen.

Ce label de qualité est octroyé par la Politique scientifique fédérale aux projets de recherche qui ont obtenu un score d'au moins "sufficient" (suffisant) lors de l'évaluation ex-post effectuée par un panel d'experts étrangers. Le projet qui fait l'objet de la présente publication a reçu ce label.

© Academia Press
Eekhout 2, 9000 Gent
Tel. 09/233 80 88 Fax 09/233 14 09
Info@academiapress.be www.academiapress.be

J. Story-Scientia nv Wetenschappelijke Boekhandel
Sint-Kwintensberg 87, B-9000 Gent
Tel. 09/225 57 57 Fax 09/233 14 09
Info@story.be www.story.be

Vander Laenen Freya, Vanderplasschen Wouter, Smet Valérie, De Maeyer Jessica, Buckinx Margaux, Van Audenhove Sharon, Ansseau Marc, De Ruyver Brice
Analysis and Optimization of Substitution Treatment in Belgium (SUBANOP)

Gent, Academia Press, 2013, xiv + 210 pp.

Lay-out: proxessmaes.be

ISBN 978 90 382 2172 4
D/2013/4804/142
U 2041

Niets uit deze uitgave mag worden verveelvoudigd en/of vermenigvuldigd door middel van druk, fotokopie, microfilm of op welke andere wijze dan ook, zonder voorafgaande schriftelijke toestemming van de uitgever.

Table of Contents

List of tables, maps and figures

List of abbreviations

ALTO:	Alternative aux Toxicomanies
BCR:	Brussels Capital Region
Centrum voor Algemeen Welzijnswerk (CAW)	General Welfare Centre
Centrum voor Geestelijke Gezondheidszorg (CGG)	Ambulant Centre for Mental Health Care
CSR	Cochrane Systematic Review
Europ-Asi	European Addiction Severity Index
FEDITO	La Fédération wallonne des Institutions pour Toxicomanes
FOD Justitie	Federal Public Service of Justice
FOD Volksgezondheid	Federal Public Service of Health
GP	General Practitioner
Justitieel welzijnswerk (JWW)	Judicial welfare services
MSSC (MSOC/MASS)	Medical Social Specialized centre
OCMW/CPAS	Public Centre for Social Welfare
OST	Opiate substitution therapy
PH	Pharmacological
PS	Psychosocial
Psychosociale Dienst van de gevangenis	Psycho social prison Department
QoL	Quality of Life
RIZIV/INAMI	National Institute for Health and Disability Insurance
VAD	Vereniging voor Alcohol en Andere Drugproblemen
WHO	World Health Organisation

Preface

This research was executed for the Federal Research Programme on Drugs and commissioned by the Belgian Science Policy Office (BELSPO). The study was executed by a multidisciplinary team of researchers from two universities: Ghent University (Department of Criminal Law and Criminology, Prof. Dr. F. Vander Laenen (coordinator), Prof. Dr. B. De Ruyver (promoter); Department of Special Education, Prof. Dr. W. Vanderplasschen (promoter)) and the University of Liège (Prof. Dr. M. Ansseau (promoter)).

The researchers would like to thank the members of the advisory committee for their constructive and critical remarks and by doing so significantly contributed to the research. The following members were part of the advisory committee:

- Aziz Naji (Belspo)
- Kurt Doms (FOD Volksgezondheid)
- Ilse Declercq (FOD Volksgezondheid)
- Tino Ruyters (Free Clinic)
- Jan Lagrain (Algemene Pharmaceutische Bond)
- Rita Verrando (CAD Limburg)
- Marie-Eve Janssen (Start-MASS)
- Annemie Vrijders (De Sleutel)
- Geert Verstuyf (VAD)
- Karel Berteloot (FOD Justitie, Dienst Strafrechtelijk beleid)
- Jessica Failla (SPF Justice)
- Caroline Theisen (SPF Santé Publique)
- Sven Todts (FOD Justitie)
- André De Swaef (RIZIV)
- Pierre Zaeytydt (Start-MASS)
- Jacques Van Russelt (Centre Alfa, Fedito Wallonne) V
- Christian Figiel (Centre Alfa)
- Claire Trabert (C.a.p. Fly asbl)
- Dominique Lamy (réseau Alto)
- Serge Zombek (Fedito Bruxelles)

Furthermore, the researchers would like to thank everyone who cooperated at this research, in specific the respondents, key actors and pro-

fessionals who helped gathering the information. Without this cooperation the execution of this research would have been impossible. Special thanks goes to Leen Cappon, Sarah Eelen and Cathérine Gérimont for their help in executing this research.

INTRODUCTION

1. Legal framework

Since the Belgian Federal Drug policy note in 2001, a legal framework has been developed for the prescription and administration of OST. In 2002, the law of 22 August 2002 (*B.S.*, 1 October 2002[1]), provided a legal basis for substitution treatment in Belgium, almost 10 years after the consensus conference on methadone treatment of 1994.

Two Royal Decrees determine the conditions of substitution treatment in Belgium. In 2004, a Royal Decree on substitution treatments was adopted in order to implement the law of 2002.[2] In 2006 a Royal Decree was adopted, which modified the 2004 Royal Decree on substitution treatment to a large extend.

Article 2 of the 2006 Royal Decree clearly states the essential conditions for physicians who prescribe substitution medication. Any physician who prescribes substitution treatment to at least two patients should be registered in a specialised centre for drug treatment or should be part of a network for the treatment of drug users. A physician who prescribes OST is required to follow the scientific recommendations regarding OST, should monitor the psychosocial support of OST clients (which does not imply providing the support him- or herself). The physician needs to register the characteristics of the client and the medical treatment in his client's medical record. The prescribing physician should follow specialised training or should prove his expertise regarding OST in another way.[3]

In 2009, a workgroup under the guidance of the Federal Agency of Medication and Health Products which was assigned to conduct an evaluation of the different aspects of the Royal Decree, as well as to

---

1 Wet van 22 augustus 2002 strekkende tot de wettelijke regeling van behandelingen met vervangingsmiddelen en tot wijziging van de wet van 24 februari 1921 betreffende het verhandelen van de giftstoffen, slaapmiddelen en verdovende middelen, ontsmettingsstoffen en antiseptica, *B.S.* 01 oktober 2002
In article 2 of this law it is being stated that a medical practitioner cannot be punished when prescribing controlled substances for treatment.

2 Koninklijk Besluit van 19 maart 2004 tot reglementering van de behandeling van vervangingsmiddelen, *B.S.* 3 april 2004

3 Koninklijk besluit van 6 oktober 2006 tot wijziging van het koninklijk besluit van 19 maart 2004 tot reglementering van de behandeling met vervangingsmiddelen, *B.S.* 01 december 2006.

develop recommendations for its improved implementation of OST. In 2010, the General Drugs Policy Cell stressed the importance of the development of a registration system to avoid medical shopping as well as to map the OST prescriptions and client characteristics.

In 2011, the current Minister of Public Health and Social Affairs, Minister Onkelinx, ordered the development of a new Royal Decree. The Federal Agency for Medicines and Health Products and the Federal Service of Public Health developed a proposal for this decree, taking into account the preliminary findings of the SUBANOP-study.

In December 2012, the final proposal was submitted to the Belgian privacy commission,. The new Royal Decree is to be operational in July 2013.

In the beginning of 2010, the Inter-ministerial Conference on Drugs approved the Communal Declaration on a global and integrated drug policy, which was prepared by the General Drugs Policy Cell. With regard to OST, the declaration states that substitution therapy is just one element of harm reduction; medical and psychosocial support, treatment and social reintegration are other essential elements as well. In this respect, involving primary care workers in the treatment process is important. The latter can be achieved through training and support by MSSCs as well as through their inclusion in the current system of registration for OST. Finally, the declaration stated that incarcerated opiate dependent persons should have access to OST.

2. Goals of the study and methodology

In response to the emerging opiate use, substitution treatment first appeared in the EU in the late 1960s (EMCDDA, 2000). Several international studies show that substitution treatment is effective in reducing crime (Schwarts et al., 2009), reducing risks (Keen, Oliver, Rowse, & Mathers, 2003), reducing morbidity and mortality (Moller, Karymbaeva, Subata & Kiaer, 2009) reducing heroin use (Amato, Davolia, Peruccia, Ferria, Faggiano, & Mattick, 2005), reducing the use of other illegal drugs (Masson et al., 2004), increasing treatment retention (Amato et al., 2005) and increasing individual's quality of life regarding employment, housing status and education (Vanagas, Padaiga & Bagdonas, 2010).

Substitution treatment has been studied in several studies in Belgium as well (Reggers, Somers & Richy, 2006; Ledoux, Brohée & Lagrain, 2004; Ledoux, et al., 2005; Pelc et al., 2004; De Maeyer et al., 2011). However, policymakers and fieldworkers point at various gaps in the knowledge on substitution treatment in Belgium, in particular regarding substitution treatment in settings outside MSSCs (e.g. in (psychiatric) hospitals), on the characteristics of clients receiving substitution therapy and on challenges and obstacles in the provision of this type of treatment.

The full spectrum of pharmacological and psychosocial interventions for the treatment of opiate dependent individuals was incorporated in this study, except the use of alternative medicines (e.g. ibogaine) and supervised/assisted heroin treatment. Since the focus of the study on substitution treatment for opiate dependence, opiate pain management was excluded as well.

The aim of the SUBANOP-research was to provide an extensive and up-to-date overview of key elements of substitution treatment in Belgium. Following **research objectives** can be distinguished:

1. A critical analyses of the available review studies and meta-analyses on substitution treatment (chapter 1).
2. The development of an inventory of the current provision of substitution treatment in Belgium in terms of type, number, geographical spread, and organisation, as well as mapping out the current provision of training, education and intervision for providers of substitution treatment in Belgium (chapter 2).
3. Make an assessment of the psychosocial profile of clients in substitution treatment through a secondary data-analyses of existing data (chapter 3), as well as a measurement of treatment satisfaction of clients in various types of substitution treatment (chapter 4).
4. Provide insight in the provision and application of psychosocial support in OST in Belgium.
5. Develop a feasible, evidence-based guideline for the treatment and support of opiate-dependent individuals in substitution treatment, with particular attention for the operationalization of psychosocial support and the available WHO guidelines.
6. Draw up an overview of obstacles related to the provision of OST in Belgium (e.g. application of psychosocial support, hard-to-reach populations, referral, follow-up).

7. Develop policy and practice recommendations to overcome identified obstacles.

To answer these research objectives, the study applied *a multi-method research design*. Methodological triangulation was realized by using both qualitative and quantitative methods (Dale, 1995). The strength of multi-method research is that it can overcome the weaknesses of one method by the use of another method and that the scope of the research can be expanded (Creswell, Plano Clark, Gutmann, & Hanson, 2003; Johnson & Onwuegbuzie, 2004; Onwuegbuzie & Leech, 2005). Moreover, the research was executed by a multidisciplinary research team, consisting of criminologists, social workers, orthopedagogues, psychologists, lawyers, medical doctors and sociologists.

The study was reviewed and approved by the Ethical Committee of the Ghent University Hospital (Belgium), the Federal Government Service of Public Health and the Belgian Privacy Commission. In addition, the use of databases has been approved by the Belgian Commission for the Protection of the Privacy and by the ethical committee of the Faculty of Law of the Ghent University (coordinating university of this project).

Quantitative interviews were set up to get insight in the treatment characteristics, substance use history, treatment satisfaction and quality of life of opiate-dependent individuals in substitution treatment. Qualitative in-depth interviews focused on participants' experiences with psychosocial support (e.g. availability, frequency, content) and substitution treatment in general.

In order to adapt available guidelines on psychosocial support in substitution treatment to the Belgian context, a two-round electronic Delphi survey was organized. The Delphi-method is an interactive research method, which involves a panel of experts who reply to questions/statements in several rounds (McIlrath, Keeney, McKenna & McLaughlin, 2009; Skulmoski, Hartman & Krahn, 2007). The Delphi-method is a useful consensus method and was used to identify and obtain consensus on experts' views on psychosocial support in substitution treatment.

Finally three focus group were organized – one in each Belgian region (Brussels, Flanders and Wallonia to formulate policy recommendations and identify good practices, in order to optimize the organization of

OST in Belgium. The topics of the focus groups were based upon the results of research in the preceding work packages and were complemented with the suggestions of the members of the guiding committee. As a result, the following topics were discussed in each focus group: the identification of various target groups in OST and the type of service they can/should receive; the integration of primary care into OST; the integration of OST in (general or psychiatric) hospitals; and the optimization of the organization of the collaboration between sectors.

Given the scientific and policy relevance the 2009 WHO guidelines for the Psychosocially Assisted Pharmacological Treatment of Opiate Dependence (WHO, 2009), these guidelines formed the framework of the SUBANOP-study and they were used as a benchmark for the formulation of practice and policy recommendations.

Chapter 1 Substitution treatment for opiate dependent individuals: a review of international literature

Valérie Smet
Freya Vander Laenen
Margaux Buckinx

1.1. Background

Opiates are recognized as substances with an extremely high abuse potential. Opiate dependence[4] is often considered a chronic relapsing disease, caused by a combination of genetic, drug-induced and environmental factors (van den Brink & Haasen, 2006). This dependence is associated with a multitude of health and social concerns for individual users and society at large (van den Brink & Haasen, 2006; WHO, 2009; Veilleux, Colvin, Anderson, York & Heinz, 2010; UNOCD, 2011). Physical, psychological and social harm such as (an increased risk for) HIV and hepatitis C virus infections (HCV), delinquency, unemployment, legal issues and interpersonal breakdowns are substantial (van den Brink & Haasen, 2006; Vielleux et al., 2010). Furthermore opiates account for the greatest share in drug related morbidity and mortality in the European Union (EMCDDA, 2010a&b).

Even though the prevalence of opiate use is relatively low compared to other drugs[5], opiates dominate treatment with a disproportionately high percentage of demand (EMCDDA, 2010a&b). Data suggest that in European countries one in every four to five opiate users ends up in

[4] "The Tenth Revision of the International Classification of Diseases and Health Problems (ICD-10) defines the dependence syndrome as being a cluster of physiological, behavioral, and cognitive phenomena in which the use of a substance or a class of substances takes on a much higher priority for a given individual than other behaviours that once had greater value. A central descriptive characteristic of the dependence syndrome is the desire (often strong, sometimes overpowering) to take the psychoactive drugs (which may or not have been medically prescribed), alcohol, or tobacco." (; The ICD-10 is the international standard diagnostic classification for all general epidemiological, many health management purposes and clinical use. ICD-10 was endorsed by the Forty-third World Health Assembly in May 1990 and came into use in WHO Member States as from 1994 (http://www.who.int/classifications/icd/en/).

[5] Opiates are the third most widely used group of substances after cannabis and amphetamine-type stimulants (ATS).

treatment (EMCDDA, 2010a&b). Opiates (notably heroin) are also over-represented in terms of problematic use. For 2008, estimates pointed to 1.2-1.5 million problem opiate users[6] in the European Union (UNODC 2011; EMCDDA, 2010b). In most cases, long-term or even life-long treatment will be required. The aim of treatment services in such instances is not only to reduce or stop opiate use, but also to improve health and social functioning (WHO, 2009).

Opiate substitution treatment (OST) first appeared in Europe in the late 1960s, in response to the emerging and later expanding opiate use. This type of treatment was first introduced in Sweden, followed shortly by the Netherlands, the United Kingdom and Denmark, though with limited provision and often in the context of abstinence-oriented programs (Solberg, Burkhart & Nilson, 2002; Hedrich, Pirona & Wiessing, 2008; EMCDDA, 2010). From the late 1980s on, the adoption of OST accelerated (EMCDDA, 2000; Solberg, Burkhart & Nilson, 2002). The opinion shift between 1985 and the early 1990s has been influenced by the awareness of HIV and its links to injecting drug use (EMCDDA, 2010). By 2001, 26 EU countries had introduced OST (Hedrich et al., 2008).

Although the reasons for introducing substitution treatment and the relative emphasis may differ country-by-country, four general aims of substitution treatment can be identified: namely (a) reducing infectious diseases such as hepatitis and HIV/AIDS; (b) improving general health of problem drug users; (c) reducing drug-related crime, public nuisance and raising urban safety; and (d) complementing traditional addiction care through the diversion of treatment options aimed at improving the meeting of client's needs (Solberg et al., 2002; van den Brink & Haasen, 2006).

OST has become part of European drug policies for reducing problems related to drugs, injecting and HIV (EMCDDA, 2010a), and is generally based on the principle of harm reduction (generally defined as '*interventions, programs and policies that seek to reduce the health, social and economic harms of substance use to individuals, communities and societies*', EMCDDA, 2010a:79). The global acceptance of the harm reduction approach has increased and it has become an integral part of most drug

[6] Usually defined by countries as those that regularly use illicit substances and can be considered dependent, and those who inject drugs. EMCDDA defines problem drug use *as "injecting drug use or long duration or regular use of opiates, cocaine and/or amphetamines"*. http://www.emcdda.europa.eu/stats07/PDU/methods

policies. By 2009, 31 European countries supported harm reduction principles in policy or practice, all of which provided OST. Of the 1 million people that received treatment for illicit drug use in the EU in 2007, more than half received OST (EMCDDA, 2010b)[7]. The total number of opiate users receiving substitution treatment in the EU is still growing.[8]

OST has been internationally recognized as the most effective and cost-effective intervention to reduce the social, health and economic burden associated with opiate dependence. (Stover, 2011). Benefits of substitution treatment are well-documented. Several international studies show that substitution treatment is effective for the reduction of crime (Kinlock, Gordon, Schwartz, Fitzgerald & O'Grady, 2009), morbidity and mortality (Moller, Karymbaeva, Subata & Kiaer, 2009), heroin use (Amato, Davoli, Perucci, Ferri, Faggiano & Mattick, 2005) and the use of other illegal drugs (Masson, Barnett, Sees, Delucchi, Rosen, Wong & Hall et al., 2004). Further evidence exists on the positive impact on treatment retention (Amato et al., 2005) and quality of life, more specifically on the level of employment, housing status and education (Vanagas, Padaiga & Bagdonas, 2010).

One of the basic assumptions underlying OST seems to be that pharmacological interventions have to be accompanied by a minimum level of psychosocial support. This psychosocial component in the treatment of opiate dependent individuals is seen as an essential part of an integrated holistic treatment approach (Amato, Minozzi, Davoli, Vecchi, Ferri & Mayet, 2011a; Amato et al., 2011b; Soyka et al., 2011). The need for (a minimal amount of) psychosocial support in addition to pharmacological treatment of opiate dependent individuals has been stressed by the WHO (WHO, 2009) as well as by the Belgian Federal Health Board (Hoge Gezondheidsraad, 2006)). Generally, OST is therefore regarded as including a pharmacological as well as a psychosocial component in which psychosocial support refers to "*the many ways in which professional and non-professional members of society can support the psychological health and the social environment of the opiate user, to help improve both the quality and duration of life. Assistance can range from the simple (e.g. provision of food and shelter) to the complex (e.g. structured psychotherapy)*"(WHO, 2009, 7). Considering the fact that most opiate depend-

[7] Coverage varies considerably between countries.

[8] With an estimated 670 000 clients in 2008, 650 000 in 2007 and about 500 000 in 2003 (EMCDDA, 2010a).

ents have a wide range of problems (not all of these are drug-related), additional psychosocial support may generate more chances of success in terms of harm reduction and the amelioration of individuals' situation on various 'life domains' (McLellan, Arndt, Metzger, Woody & O'Brien, 1993). Opinions differ as to which type of psychosocial treatment should prevail.

1.2. Objectives

The aim of this literature review was to provide an up-to-date state of the art on the available international scientific knowledge regarding OST. Important key elements in substitution treatment for opiate dependence were assessed and identified, as will possible knowledge gaps. Further research in this matter might also benefit the practice of OST, since a lack of systematic information on certain key elements can be a significant barrier to progress in daily practice.

Furthermore (and in accordance with the objectives underlying the SUBANOP-research), this study focused on the provision and application of psychosocial interventions as a part of the treatment of opiate dependent individuals, thereby emphasizing the differences in the demarcation of the concept, its practical application, efficiency and possible standardization.

1.3. Methods: search strategies and databases

Relevant English, French and Dutch scientific literature on OST (limited to publication dates between 2000 and April 2012)[9] was listed through a database analysessearch and the consultation of the search engine "Google scholar". Reference lists of the selected studies and grey literature[10] were screened for additional studies.

[9] Initially all databases were searched without time limitation. Due to the fact that older reviews and important primary studies were systematically superseded by more recent ones, the appraisal of reviews was restricted to publication dates between 2000 and (April) 2012. Moreover, OCT and corresponding literature have systematically developed further over the last few years.

[10] Grey Literature consists of multiple document types produced on all levels of government, academics, business organizations in electronic and print formats not controlled by commercial publishing i.e. where publishing is not the primary activity of the producing body.

Regarding the English literature following databases were screened: Cochrane Database of Systematic Reviews, Web of Science, Pubmed (Medline), PsycInfo, Drugscope, Archido and EDDRA.

For an inventory of the French Literature searches were conducted in Medline, PsychInfo, Banque de données Santé Publique (BDSP), Biblio-Drogues and Observatoire Français des Drogues et des Toxicomanies (OFDT Toxibase).

Additionally, the VAD-library catalogue[11] and the websites of research institutes such as Trimbos-Institute[12], Jellinek[13] and IVO[14] were screened for relevant Dutch publications.

No restrictions were made in terms of specific subpopulations of opiate dependent persons (e.g. minors, pregnant women and people with additional psychological disorders).

Considering the vast amount of literature, the inventory was limited at first to available meta-analyses, systematic reviews and overviews on the treatment of opiate dependent individuals. Following search terms were used: 'Methadone', 'Buprenorphine', 'heroin', 'opioid, 'opiate', in combination with the terms 'meta-analyses', 'systematic review', 'literature review' or 'review', as well as one or several of the following search terms: 'substitution', 'treatment', 'intervention', 'maintenance', 'detoxification' and 'psychosocial'.

Regarding the psychosocial part of the treatment of opiate dependent individuals, the search was extended to primary studies as very few meta-analyses, systematic reviews and overviews seem to exist on this topic. The following search terms were added to the above-mentioned criteria: 'case management', 'social', 'housing', 'integr*', 'care', 'psych*', 'support', 'substance', 'drug', 'addict*', 'training', 'supervision', and 'barriers'.

[11] 'Vereniging voor Alcohol- en andere Drugproblemen vzw', catalogue can be consulted on http://vad-koha.osslabs.biz/

[12] http://www.trimbos.nl/over-trimbos

[13] http://www.jellinek.nl/

[14] http://www.ivo.nl/?id=416

1.4. Results

1.4.1. Review categories and scope of the studies

The available studies can be categorized as follows:

Meta-analyses (MA): refers to a statistical synthesis of the outcomes of a group of studies. The relevance of each study is being defined by previously determined mathematical criteria. If executed correctly, this method provides an objective and transparent approach which can be repeated (Borenstein, Hedges, Higgins, & Rothstein, 2009).

Systematic Review (SR): consists of the systematic search, evaluation and summary of findings from a large number of studies. Clear criteria are being listed for inclusion and analyses. Even though the criteria listed contain a subjective component, this method still remains very transparent (Borenstein et al., 2009).

Cochrane Systematic Review (CSR): reviews executed by the *Cochrane Collaboration*[15], based on the principles of evidence-based medicine and focusing on effect sizes. An inventory and critical analyses of all existing research on a certain topic is made, followed by a summary of methodologically rigorous studies in order to provide a comparable overview of outcomes in terms of the effectiveness of various treatments (mainly using meta-analyses of controlled clinical studies, e.g. randomized controlled trials (RCT)).

Overview Cochrane Systematic Review (OCSR): the collection and analyses of all evidence resulting from CSRs on specific themes.

Literature Review (LR): conclusions drawn from a summary of data from several studies on a specific theme. Three important limitations of this method should be mentioned: (1) subjectivity: researchers might use different criteria and focus to select studies; (2) lack of transparency: no insight in the decision-making process preceding analyses and conclusions; (3) this method is hard to use in case of a limited number of available studies (Borenstein et al., 2009).

To measure the effectiveness of psychosocial intervention, other methods than the above-listed can be used (Vanderplasschen, Wolf, Rapp & Broeckaert, 2007). Controlled clinical studies and other primary studies

[15] http://www.cochrane.org/about-us

that are excluded from SRs and MAs can contain interesting and usable findings, resulting in important knowledge accretion (Cleary, Hunt, Matheson & Walter, 2009; Veilleux et al., 2010).

1.4.1.1. English literature

In total, 85 studies on OST were identified (see Appendix I for a list of all selected studies).

Table 1.1: *English studies on OST*

English studies on OST (N=85)					
Type of study	Orientation			TOTAL	
	PH	PH+PS	PS		
MA	8	1	5	14	16.7%
CSR	26	1	2	29	34.5%
OCSR	2	0	0	2	2.4%
SR	9	1	11	21	25%
LR	14	1	3	18	21.4%
Total	59	4	21	84	100%

MA	*Meta-analyses*
CSR	*Cochrane Systematic Review*
OCSR	*Cochrane Overview Systematic review*
SR	*Systematic Review*
LR	*Literature Review*

PH	*Pharmacological treatment*
PS	*Psychosocial treatment*

1.4.1.2. French and Dutch literature

In the French literature one study including a meta-analyses as well as one primary study was found, which appeared to be mainly based upon the same data as the English literature (Reggers, et al. 2006). No meta-analyses were found in the Dutch literature. Generally, most meta-analyses and systematic reviews are published in English, resulting in a very low number of French and Dutch reviews. In addition, a search of primary studies was conducted. For the French literature two relevant primary studies from Belgium were identified (Pelc et al., 2005; Ledoux, 2005). With regard to Dutch literature, 5 literature reviews and 5 primary studies were identified, all but one (PH) containing a combination of pharmacological and psychosocial treatment (see Appendix I for a list of selected studies).

1.4.2. Intervention objectives and types of treatment

The results of our review can be presented according to the objectives of the intervention and the corresponding type of treatment (van den Brink, Goppel & van Ree, 2003; van den Brink & Haasen, 2006).

Table 1.2: *Identified intervention objectives and types of treatment*

Type of treatment			Standard medication	Information*
1	**Crisis intervention** (intoxication and overdose)		Naloxone	Naloxone is an opiate antagonist which binds to the opiate receptors but does not generate an effect of its own. An overdose of opiates can lead to suppression of the breathing system; the administration of Naloxone can restore this.
2	**Abstinence-oriented** (treatment abstinence from all legal and illegal opiate agonists)			
	a	Evaluation and motivational enhancement in terms of recovery	No type of medication specified	
	b	Detoxification	Methadone Buprenorphine (Clonidine, lofexidine)	Methadone is an opiate agonist, buprenorphine a partial opiate agonist. For detoxification the short-acting opiate is being replaced by the equivalent dosage of the long-acting methadone or buprenorphine, with a gradual cut-back Clonidine and lofexidine are ?2-adrenerge non-opiate agonists and can be used to reduce detoxification symptoms
	c	Relapse prevention	Naltrexone	Naltrexone is an opiate antagonist which binds onto the opiate receptors but does not generate an effect of its own thereby reducing craving. It is used for relapse prevention in clients that have been detoxified and that are motivated for abstinence
3	Reducing or suspension of usage of all illegal opiate agonists and ameliorating health and social functioning			
	a	Substitution therapy (maintenance therapy)	Methadone Buprenorphine	Methadone is an opiate agonist, buprenorphine a partial opiate agonist. Both are long-acting opiates who remediate the craving for opiates. The effect of heroin consumption is being reduced or overruled by the occupation of the opiate receptors.
	b	Harm reduction/limitation of risks (e.g. syringe exchange)	No type of medication specified	
	c	Rehabilitation/recovery	No type of medication specified	

* Rigter, van Gageldonk, Ketelaars & van Laar, 2004; Soyka et al., 2011; VAD, 2010.

1.4.3. Studies with a focus on pharmacological treatment[16]

The core of pharmacologically oriented treatment is the administration of medication. A recently published *systematic review* (Soyka et al.,2011) resumes all relevant meta-analyses, systematic reviews, primary studies and guidelines regarding the effectiveness of pharmacological treatments for opiate dependence. This review concludes that there are sufficient high-quality data for the formulation of evidence-based guidelines and recommendations in terms of effectiveness of pharmacological treatment. Its effectiveness has mainly been assessed regarding following variables (Clarck, 2002; Faggiano, Vigna-Taglianti, Versino & Lemma, 2003; Mattick, Kimber, Breen, Davoli, 2008; Mattick, Breen, Kimber & Davoli, 2009; Ferri, Davoli & Perucci, 2011; Veilleux et al., 2010; Minozzi, Amato, Vecchi, Davoli, Kirchmayer & Verster, 2011):

- Treatment retention
- (Illicit) drug use during treatment (self-reports or urine-analyses)
- Relapse after treatment was ended (measured by follow-up after treatment)

Table 1.3 presents a summary of these guidelines and recommendations.

Table 1.3: *Guidelines and recommendations on intervention objectives and types of treatment*

Type of treatment			Recommendations Soyka et al. (2011)*
1	Crisis intervention (intoxication and overdose)		Naloxone seems a very effective and vital treatment for opiate overdose, though little controlled studies exist
2	Abstinence-oriented treatment (abstinence of all legal and illegal opiate agonists)		
	a	Evaluation and motivational enhancement in terms of recovery	No type of medication specified
	b	Detoxification	Methadone and buprenorphine /naloxone are the standard and safe medicines for detoxification. Clonide and lofexidine seem less effective in reducing detoxification symptoms, but can be useful in combination with methadone and possibly with buprenorphine in case of hypertension or symptoms related to that
	c	Relapse prevention	Naltrexone (opiate antagonist) can be effective for a small group of very motivated and well-integrated clients

[16] See Appendix I for a listing of all pharmacological studies.

Table 1.3: *Guidelines and recommendations on intervention objectives and types of treatment (continued)*

Type of treatment			Recommendations Soyka et al. (2011)*
3	Reducing or suspension of usage of all illegal opiate agonists and ameliorating health and social functioning		
	a	Substitution therapy (maintenance therapy)	Methadone, buprenorphine and buprenorphine / naloxone are the standard medications. There is a need for an empirical validation as to whether the combination of buprenorphine and naloxone generates more benefits than treatment with solely buprenorphine alone. The effectiveness of a methadone-treatment can be enhanced when combined with contingency management (CM). There are no indications for this type of enhancement through combining buprenorphine and CM. Evidence exists for the effectiveness of treatment of hard-to-treat opiate dependents with diacetylmorphine (medical heroin). Further research is required
	b	Harm reduction/limitation of risks (e.g. syringe exchange)	No type of medication specified Evidence exists regarding positive outcomes on the reduction of HIV and HCV infections
	c	Rehabilitation	No type of medication specified

* *"It should be noted that the strength of recommendation is based on the level of efficacy, safety, tolerability and feasibility, not necessarily on the treatment's importance"* (Soyka et al., 2011).

1.4.4. Studies with a focus on psychosocial support

Pharmacological treatments is usually embedded in a broader psychosocial approach (Soyka et al., 2011). Twenty-five of the identified studies deal (in part) with psychosocial interventions. The following tables provide an overview of the type of drug use studied (table 1.4) and of the type of evaluation conducted (table 1.5).

Table 1.4: *Type of drug use studied*

Studies with a (partial) psychosocial orientation		
Opiates	9	36%
(legal and illegal) Drugs	16	64%
Total	25	100%

Table 1.5: *Type of evaluation conducted*

Studies with a (partial) psychosocial orientation								
	n	%	Subject	n	%	Subject	n	%
Effect evaluations	24	96	Effect of PS in opiate dependent individuals	8	33.3	PS general	6	26
						PS specific	2	9
			Effect of PS in drug dependence	15	62.5	PS general	7	30
						PS specific	8	34
						Total	*23*	*100*
			Effect of education and training for professional social workers on support and treatment of drug addicts	1	4.2			
			Total	*24*	*100*			
Process evaluation	1	4	Role of nurses in methadone maintenance treatment					
Total	25	100						

Studies on psychosocial interventions do **not** always **define** the term 'psychosocial treatment' clearly. Certain reviews refer to it as 'all forms of interventions and treatments excluding the administration of medication' (Winhusen & Kropp, 2003; Mayet, Farrell, Ferri, Amato, & Davoli, 2010; Hesse, Vanderplasschen, Rapp, Broekaert & Fridell, 2007; Amato, Minozzi, Davoli, Vecchi, Ferri, Mayet, 2011b; Cleary, Hunt, Matheson, Siegfried & Walter, 2008; Cleary et al., 2009; Veilleux et al., 2010).

Psychosocial treatment is defined differently between countries, and even within countries regional differences may exist when it comes to the types of treatment and the setting.

Generally, a distinction is made between a *standard form of psychosocial support* and additional *more structured forms of psychosocial treatment*. The first one is being referred to as 'treatment as usual' or 'standard of care'. It involves pharmacological substitution treatment, combined with a (minimal) amount of psychosocial support. This support can consist of a wide range of psychosocial interventions since there is no consensus as to what a basic psychosocial treatment should encompass. The term is mainly used to distinguish between the existing support and additional structured psychosocial treatment.

Examples of frequently studied structured psychosocial support include 'motivational interviewing'[17] and different types of behavioural interventions[18] (such as 'cognitive behavioural therapy'[19], 'community approach'[20] and 'contingency management'[21]).

Almost all identified studies on psychosocial support are *effect evaluations* (24/25), focusing on the question whether additional psychosocial treatment is superior to the opiate dependents more than 'treatment as usual' (23/25) among opiate dependent individuals[22]. No systematic reviews or meta-analyses have compared the effectiveness of 'treatment as usual' with pure pharmacological treatment.

Generally, the same outcome variables are used as in pharmacological effect evaluations, i.e. treatment retention, use of (illegal) drugs during treatment (base on self-report or urine analyses) and relapse (measured by follow-up after treatment).

Based on the available effect evaluations, various arguments can be given in favour of adding psychosocial support to pharmacological

[17] "A collaborative person-centered form of guiding to elicit and strengthen motivation for change"

[18] Operant conditioning is the process of behavioral change based on the consequences of the behavior. The punishment of undesirable behavior versus the reward on desirable behavior are the most common conditions used to change behavior.

[19] The premise of cognitive behavioral therapy, developed by dr. A.T. Beck, is that changing maladaptive thinking leads to change in affect and in behavior. Patients are helped to overcome their difficulties by changing the way they think, behave as well as their emotional responses.

[20] The Community Reinforcement Approach (CRA) is a comprehensive behavioral program for treating substance-abuse problems. It is based on the belief that environmental contingencies can play a powerful role in encouraging or discouraging drinking or drug use. Consequently, it utilizes social, recreational, familial, and vocational reinforcers to assist consumers in the recovery process. Its goal is to make a sober lifestyle more rewarding than the use of substances (Meyers & Squire, 2001:3).

[21] In treatment of drug addiction abstinence can be rewarded by giving vouchers, awards or privileges which also is being referred to as 'contingency management'.

[22] An interesting study, though not very recent, is the McLellan, Arndt, Metzger, Woody & O'Brien study (1993). This study examined whether the addition of counseling, medical care, and psychosocial services improved the efficacy of Methadone maintenance therapy in terms of rehabilitation of opiate-dependent patients. It involved the random assignment of clients of a Methadone maintenance program in Philadelphia to one of three treatment groups for a 6-month clinical trial: (1) minimum Methadone services (MMS)—Methadone alone (a minimum of 60 mg/d) with no other services; (2) standard Methadone services (SMS)—same dose of Methadone plus counseling; or (3) enhanced Methadone services (EMS)—same dose of Methadone plus counseling and on-site medical/psychiatric, employment, and family therapy. The main conclusion of the study was that Methadone alone (even in substantial doses) may only be effective for a minority of eligible patients. The addition of basic counseling was associated with major increases in efficacy; and the addition of on-site professional services was even more effective. The latter is not consistent with later findings (Amato et al., 2011b).

therapy, although no definitive conclusions can be drawn as to what these psychosocial interventions should consist of specifically.

For the subpopulation of opiate dependents with co-occurring mental disorders, evidence was found for the effectiveness of combining pharmacological and psychosocial treatment in terms of substance use reduction (Go, Dykeman, Santos & Muxlow, 2011). Certain specific psychological conditions like depression and anxiety are being associated with opiate dependence, resulting in opiate use as a form of self-medication in reaction to these conditions. Psychosocial support can help opiate dependent persons in dealing with these disorders, leading to an improvement in terms of future abstinence or a reduced craving symptoms (Amato et al., 2011b). Given the high relapse rates and the fact that terminating the physiological opiate dependence does not automatically imply the disappearance of client's physiological, behavioural and social problems, adequate psychosocial support may result in more long-term benefits and effectiveness (Amato et al, 2011a). Moreover, positive contacts with supportive caregivers seem to lead to stronger maintenance and acceptance of connections with the health care system (Wilson, MacIntosh & Getty, 2007). Less drop-out and longer treatment retention may also create more and broader counselling opportunities for practitioners, including attention for other drug-related 'life domains' of opiate dependent (Amato et al., 2011a). Motivational interviewing, which has been demonstrated to be effective for various vulnerable populations, has also been shown to affect clients with additional crack cocaine dependence who are already in methadone maintenance treatment positively (Mitcheson et al., 2007).

One recent CSR shows that mere pharmacological treatment for opiate *detoxification* is not **effective**. **Combining** pharmacological treatment with psychosocial support generates significant positive effects in terms of treatment retention and opiate abstinence (Amato et al., 2011a).

For opiate *maintenance* treatment another CSR demonstrated that adding more structured psychosocial interventions to 'treatment as usual' (consisting of minimal psychosocial interventions) did not improve outcomes regarding treatment retention and opiate abstinence (Amato et al., 2011b).

A third CSR pointed out that mere psychosocial interventions (in other words, lacking any form of pharmacological treatment) have proven not to be effective in treating opiate abuse and dependence (Mayet et al., 2010; van den Brink, van de Glind & Schippers, 2012); in this study, treatment orientation (e.g. detoxification/maintenance) was not taken into account.

One randomized clinical trial found that methadone maintenance therapy provided to prisoners with a pre-incarceration history of heroin addiction was effective for the interruption of the cycle of relapse recidivism and re-incarceration, and that methadone maintenance therapy initiated in prison was superior to counselling only (Kinlock, Gordon, Schwartz, Fitzgerald & O'Grady, 2009).

Although theoretically 12 comparisons of treatment scenarios are possible (table 1.6), available meta-analyses and systematic reviews on opiate dependence and psychosocial treatment have only focused on five of these comparisons (marked with an * in table 1.6).

Table 1.6: *Comparison scenarios/control groups regarding the evaluation of psychosocial treatment*

Control group		Test group
PH	⇔	PH + structured PS (Amato et al., 2011a) * only PS (Mayet et al., 2010) * treatment as usual + structured PS
Treatment as usual (PH + minimal PS)	⇔	PH only PS PH + structured PS (Amato et al., 2011b) * treatment as usual + structured PS non-intervention
PS	⇔	treatment as usual + structured PS other form of PS (Mayet et al., 2010) * non-intervention (Mayet et al., 2010) *

Only one effect evaluation (1/25) was found that has measured the role of (additional) education and **training** for professional providers in drug treatment. General effects are an increase in knowledge, improvements in the attitudes towards clients and more confidence in working with drug addicted clients. For a long-term adoption of these skills, adequate follow-up, supervision and feedback have been proven to be necessary. Institutional factors also influence the extent to which providers are willing to adopt new practices (Walters, Matson, Baer & Ziedonis, 2005).

The only *process evaluation* of psychosocial treatment (1/25) that was identified concerned the role of nurses in methadone maintenance treatment. This study shows that specific attention should be given to nurses' knowledge and skills regarding addiction, methadone maintenance treatment as well as client counselling, since insufficient knowledge may result in insufficient care (Go, Dykeman, Santos & Muxlow, 2011).

1.5. Discussion and conclusion

Despite the availability of three Cochrane reviews (CSR) on psychosocial interventions in opiate dependence, it remains impossible to draw definitive conclusions as to which psychosocial intervention is preferred in terms of effectiveness. We observed several **limitations** related to the identified studies on psychosocial interventions.

Only 9 of the 25 outcome studies focus specifically on psychosocial interventions for opiate dependence, generating difficulties regarding the interpretation and generalization of these results to persons with opiate dependence. Different substances may also require different psychosocial interventions (Mayet et al., 2010).

Furthermore, considerable heterogeneity was observed regarding the study population, setting and length, type of intervention and the definition of psychosocial support.

The outcome variables measured varied as well, complicating a meta-analysis on the effectiveness of psychosocial treatment, the comparison of different types of psychosocial treatment and the possibility to recommend one interventions over another (Amato et al., 2011a&b; Mayet et al., 2010).

The wide range of psychosocial interventions utilized further complicate the evaluation of the effectiveness of various types of treatment.

Other evaluation obstacles include different benchmarks in various studies, as well as the lack of a clear conceptualization of the psychosocial treatment. Studies often compare the surplus value of additional forms of psychosocial support with 'substitution treatment as administered' while it is not mentioned whether the comparison group received some type of psychosocial support (Griffith, Rowan-Szal,

Roark & Simpson, 2000). Finally the treatment objective (detoxification/ maintenance) is not always specified, making it difficult to generalize the findings regarding effectiveness to specific treatment settings.

An large part of the research on OST has been conducted in the United States, which raises questions regarding the generalization of these results to other (European) countries with varying contexts, culture, health care systems and drug (treatment) policy.

The limitations listed above complicate the comparison of study outcomes as well as the formulation of conclusions on the applicability of these results.

Research on the *pharmacological* aspect of treatment of opiate dependence is predominant in the literature on OST and generally adheres to high quality standards. Its focus has mainly been on the role and effectiveness of pharmacological treatment and the physiological aspects of addiction (instead of psychosocial aspects). There is no discussion about the effectiveness of pharmacological treatment of heroin dependence. In particular, abundant evidence is available with regard to treatment retention and opiate abstinence (Mattick et al., 2009).

Evidence has been found for adding (a minimal amount of) *psychosocial* support to pharmacological treatment, generating positive effects on treatment retention and opiate abstinence (Amato et al., 2011a&b; van den Brink, van de Glind & Schippers, 2012). However, no answer can be given as to which type of psychosocial support has proven to be the most effective. Available research on psychosocial interventions seems to be very heterogeneous, complicating the formulation of generalconclusions. It mainly addresses the effectiveness of more structural forms of psychosocial interventions like 'contingency management' and other behavioural therapies. Little attention goes to the psychosocial component in 'treatment-as-usual'. In spite of the widespread occurrence of different types of psychosocial interventions for treating opiate dependence and the general consensus on the necessity of at least a minimum amount of psychosocial support, limited research is available on the definition and demarcation of the concept, its application and effectiveness.

The *outcome variables* used when evaluating psychosocial interventions correspond with the pharmacological ones: i.e. treatment retention, use of (illegal) during treatment (self-report, urine-analysis, hair analysis)

and relapse (measured after treatment). Questions arise whether these outcomes variables are not too strict. A broader interpretation of effectiveness should also take into account outcomes regarding other 'life domains' an individuals' subjective well-being or (Cleary et al., 2009; De Wree, De Ruyver & Pauwels, 2009; De Maeyer, Vanderplasschen & Broeckaert, 2010). A differentiation based on clients' profiles could also provide more insight into the underlying mechanisms of treatment retention, opiate abstinence and relapse.

Training of providers in methadone maintenance (and in addiction treatment in general) has been shown to be necessary and susceptible to improvement (Go et al., 2001; Walters et al., 2005).

Psychosocial support is defined differently between countries, and even within countries regional level differences may exist when it comes to types of treatment and settings. Studies on psychosocial interventions do **not** always **define** the term psychosocial treatment or they use different definitions. Some reviews refer to psychosocial support as 'all forms of interventions and treatments excluding the administration of medication' (Winhusen & Kropp, 2003; Mayet, Farrell, Ferri, Amato, & Davoli, 2010; Hesse, Vanderplasschen, Rapp, Broekaert & Fridell, 2007; Amato, Minozzi, Davoli, Vecchi, Ferri, Mayet, 2011b; Cleary, Hunt, Matheson, Siegfried & Walter, 2008; Cleary et al., 2009; Veilleux et al., 2010). This general definition will be used in this study as well.

Summarizing, it may be stated the knowledge gaps and limitations mentioned above illustrate the additional value of the SUBANOP-research with its specific focus on the psychosocial component of OST. The next chapters will address these issues and present an inventory of the state-of-the art of OST in Belgium, including education and training needs.

Chapter 2 Overview of the provision of OST in Belgium

Valérie Smet
Margaux Buckinx
Leen Cappon
Freya Vander Laenen

2.1. Objectives

The main aim of this chapter is to generate an overview of the current provision of substitution treatment in Belgium. This overview will focus on nine specific domains: Mapping the geographical spread of OST providers; Reasons for non-provision; Administration of OST medication; Number of clients per provider (present and potential number); Treatment orientation (detoxification/maintenance) and medication prevalence (Methadone/Buprenorphine /Naltrexone); Referral and networks; Psychosocial treatment; Provided education, training, supervision and intervision; and OST in Belgian prisons.

2.2. Methods

Data were collected through a telephone (October-December 2011) and online survey (November 2011-May 2012) of potential Belgian providers of OST: general practitioners (GPs), hospitals, specialized centres (SC's) and pharmacists[23]. The general aim of the phone survey was to map out whether the GPs, hospitals, specialized centres and pharmacists provide OST (past and present). Furthermore, the respondents of the phone survey were asked if they wanted to participate in the online survey. Respondents with a positive reply were sent the online survey

[23] Samples: GPs and hospitals based upon the lists of the FPS of Health; pharmacists based upon the list of the National Institute for Health and Disability Insurance; specialised centres based upon the list of the VAD (Flanders), Fedito BXL (BCR), Fedito Wallone (Wallonia). More details on the consulted sources and data bases can be found in annex II of the publication Vander Laenen et al. (2013). 'Specialised centres' include all centres specifically aimed at providing drug treatment (day care centres, crisis intervention centres, therapeutic communities and associations without lucrative purpose). The specialized departments of psychiatric hospitals are included in the overview of the hospitals.For details on the consulted sources and databases per provider see Appendix II.

link (see: sample column online survey in table 2.1 for number of providers who wanted to participate).

All Belgian hospitals and all Belgian specialized centres were contacted for the phone survey.[24]

For the phone survey of general practitioners and pharmacist we selected a representative sample, which was based on the procedures of the Belgian Health Interview Survey (ISP-WIV, 2005), using a stratified random sampling.[25] The selection process consists of the following steps:

Regional stratification: Belgium consists of 3 regions: Flanders, Wallonia (and German Community) and Brussels Capital Region, for which the number of interviews was predetermined (100 for both Flemish and Walloon region and 50 for the Brussels region). The reason for this stratification was to ensure that for each region inference was possible with nearly the same precision.

Provincial stratification: This second level of stratification was done to improve the quality of the sample over a simple random sample. In particular a balanced geographical spread was achieved. For the base sample, the sample size within the provincial stratification was proportional to the population size of the province. Furthermore, the province of Liege is a special case, as the sample size of the German Community (which is geographically located within the province of Liège) was predetermined (One pharmacist, one GP and two hospitals). The province of Liège has been split into two strata: the German community and the rest of the province.

Municipalities/cities/urbanization: Within each stratum, cities and municipalities were ranked according to their size (general practi-

[24] The satellite centres of the MSSCs were not contacted separately, nevertheless, all MSSCs were asked to report the number of clients for each satellite centre. Satellite centres are small urban initiatives aimed at OST provision in smaller cities. They are provided by the general provincial MSSC and generally consist of staff of the central MSSC being present once a week or a few times a week in one of the antennas. An exception to this rule of the MSSC in the province of Limburg: the MSCC services are spread throughout the province.

[25] Random stratified sampling involves dividing the population into homogeneous subgroups and then taking a simple random sample in each subgroup. In others words, the population is divided into non-overlapping groups (i.e., strata) N1, N2, N3, … Ni, so N1 + N2 + N3 + … + Ni = N. The framework used for this sampling is based on the Belgian Health Interview Survey: https://www.iph.fgov.be/epidemio/epien/crospen/hisen/his04en/protocol2004.pdf

tioners or pharmacists/population). For the selection of the sample, random starts (through the pseudo-random number generator) and regular intervals (jumps) were used. By 'jumping' through the list, one ensures that small, medium, and large units are all present. Several studies established the link between urbanization and the prevalence of drug abuse and other social problems (Ensminger, Anthony & McCord, 1997; Johnson, Williams, Dei & Sanabria, 1990; Seddon, 2006; De Ruyver et al., 2008) suggesting the use of an urbanization variable in the ranking of cities. The addition of the latter variable unfortunately generated face validity problems.[26]

Referral and networks of GPs, pharmacists, hospitals and specialized centres were assessed, focusing on reasons not to refer clients with an OST demand further, the (prevalence of) institutes or practitioners being referred to, as well as the participation in a network. To check if possible OST providers are aware of local existing OST provision, all providers were asked if and if so, how many providing GPs or pharmacists they were aware of.

Although adding psychosocial treatment to pharmacological treatment proves to be effective (Amato et al., 2011a&b) little is known about the specific ways in which this part of OST treatment is provided in Belgium. Therefore the survey aimed to map out the psychosocial support that is being given to OST clients answering the questions whether the different OST providers execute a psychosocial assessment of their clients, what psychological and social support entails and whether there are differences in the prevalence of psychological or social support. The Europ-Asi life domains were listed, to see if or which of these domains proved dominant. As a general consensus seems to exist that psychosocial support should not be mandatory (WHO, 2009), all respondents were asked whether this support was obliged or not. Independent of the fact whether the different groups do provide psychosocial support, all OST providers were asked whether they referred their clients further or not.

[26] More specific: rather small municipalities with a wide spread of inhabitants scored high on the urbanization scale. The term face validity implies the validity of results by testing at face value. Essentially, researchers are simply taking the validity of the test at face value by looking at whether a test appears to measure the target variable (http://psychology.about.com/od/findex/g/face-validity.htm).

As was pointed out in the first chapter of this report, training and education of OST providers play an important role in the quality of treatment (Walters, Matson, Baer, Ziedonis, 2005; Go, Dykeman, Santos & Muxlow, 2011). The relevance of training and education is also stressed by the WHO (WHO, 2009: 15-16) as well as in the recent EQUS-project (Uchtenhagen & Schaub, 2011). The online survey therefore investigated whether staff education or training is provided, its frequency, the way it is organized (internal or external provision), as well as the question whether training or education is compulsory. Furthermore, intervision and supervision were inquired.[27]

For prisons, additional information was provided by the Belgian national registration of substitution therapy (Ledoux, Brohée, Lagrain, Vermeire, Houben, Spago & Vansnick, 2008), the 2008 analyses of the prison health care department of the Federal Public Service of Justice (Todts, Glibert & Van Malderen, 2008) as well as a master thesis database of a prison survey (Debehets, 2011) which was based upon the study by Stover, Hennebel & Casselman (2004). The latter survey was also executed for the Brussels Capital Region and Walloon prisons in June 2012 by the research team.

2.3. Response rate

In table 2.1 an overview of the phone and online survey response on a regional level, as well as the prevalence of OST providers per region is presented. The geographical spread of OST providers will be discussed under point 2.5.

The phone survey response was overall very good. On a national level, specialized centres (79,3%) and pharmacists (74,2%) had the highest response rate for the online survey. For the online survey Brussels Capital Region providers non-response was high for all providers (except for the pharmacists) and in particular for the hospitals.

[27] *Intervision* involves an inter-collegial group learning methodology focusing on teamwork and care/service in terms of quality improvement, with questions of all participants being treated in a structural way. All participants are equal and the group is led by a chairman.
Supervision is an individual learning method focused on improving personal functioning in the working context of the professional. The process is led by a supervisor.

Table 2.1: *Provider's response to the phone and online survey*

	Population	Sample	Phone survey						Online survey						
			Response		OST		OST past		Sample size	Response		OST		OST past	
			n	%	n	%	n	%		n	%	n	%	n	%
GPS															
FL	7090	100	88	88	5	5.7	16	18.2	66	42	63.6	1	2.4	11	26.2
WALL+GERM	4693	100	71	71	13	18.3	17	23.9	67	56	83.6	10	17.8	12	21.4
BCR	1547	50	49	98	7	14.3	5	10.2	22	13	59.1	2	15.4	2	15.4
TOTAL	**13330**	**250**	**208**	**83.2**	**25**	**12**	**38**	**18.3**	**155**	**111**	**71.6**	**13**	**11.7**	**25**	**22.5**
HOSPITALS															
FL	103	103	98	95.1	65	66.3	.	.	17	12	70.6	12	100	12	100
WALL+GERM	64	64	55	85.9	19	34.5	.	.	34	24	70.5	11	45.8	.	.
BCR	41	41	36	87.8	11	30.5	.	.	41	2	4.9	2	100	.	.
TOTAL	**208**	**208**	**189**	**90.9**	**95**	**50.2**	**.**	**.**	**92**	**38**	**49.3**	**25**	**65.8**	**.**	**.**
SC'S															
FL	70*	70	70	100	58	82.8	.	.	17	17	100	17	100	.	
WALL+GERM	19*	19	19	100	12	63.1	.	.	19	11	57.9	11	100	.	
BCR	9	9	3	33.3	3	100	.	.	9	3	33.3	3	100	.	
TOTAL	**98**	**98**	**92**	**98**	**73**	**79.3**	**.**		**45**	**31**	**68.9**	**31**	**100**	**.**	
PHARMACISTS															
FL	1728	100	96	96	76	79.2	.	.	81	61	75.3	46	75.4	12	19.7
WALL+GERM	1443	100	90	90	66	73.3	19	21.1	90	79	87.8	57	63.3	18	22.8
BCR	480	50	47	90	31	65.9	8	17	35	13	37.1	9	69.2	4	30.8
TOTAL	**3651**	**250**	**233**	**93.2**	**173**	**74.2**	**.**	**.**	**206**	**153**	**74.3**	**112**	**73.2**	**34**	**22.2**
TOTAL ALL PROVIDERS	**17287**	**806**	**722**	**89.6**	**366**	**49.5**			**498**	**333**	**70.5**	**181**	**54.3**	**59**	**17.8**

* Including satellite centres

The response of *Flemish and Brussels Capital Region GPs* providing OST is too low to allow general conclusions. In reaction to the high non-response in BCR, separate e-mails were sent to the BCR hospitals and specialized centres, containing three questions: 1) whether they provide OST, 2) whether they used to provide OST and 3) whether they wanted to participate in an online survey. Two weeks later a reminder was sent followed by the survey link to the non-responders. Nevertheless, non-response of BCR hospitals remained very high, as only 2 hospitals completed the online survey (4.9%).

2.4. Provision and administration of OST

First of all, an overview of the different reasons why GPs, hospitals, pharmacists and specialized centers do not provide OST is given. As to the geographical spread of OST provision, a regional overview of current OST providers is given, followed by a more detailed state of the spread of OST provision in various provinces.

The specific professionals who administer the OST medication in hospitals, specialized centers and pharmacies are being discussed.

As the sheer facts of geographical spread in itself do not provide a sufficient overview of OST provision, the number of OST clients are presented as well. Furthermore, the type of medication used for detoxification and maintenance are outlined.

2.4.1. Reasons for non-provision

In table 2.2, an overview is given of present and past OST provision. Reasons for non-provision will be discussed here. Referral by non-providing GPs, hospitals, pharmacists or specialized centres of clients with an OST demand to other providers will be treated under point 2.6.

2.4.1.1. General practitioners

The *lack of demand* is the main reason why Walloon and BCR GPs don't provide OST. Flemish GPs main reasons **to not provide** OST are a lack of time for developing adequate expertise (N=14), a lack of demand (N=12) and the presence of nearby GPs who already provide OST (N=11). The fear of a negative impact on their reputation and exposure

of clients or staff to opiate dependent persons do not seem to play a significant role for Belgian GPs in their decision not to provide OST.

It seems that GPs who provided OST in the past generally had just one client, with the detoxification of the client leading to the end of substitution treatment. For Flemish GPs the main reasons for **no longer providing OST** (N=11) is the presence of other local GPs who provide OST, lack of demand and limited capacities or means. The average number of years of providing OST in the past reported in Wallonia (6 years) and Flanders (3,2 years) is higher than in Brussels Capital Region (2 years). However, the average in Wallonia is affected by a few outliers (1 GP reporting 24 years, and two persons reporting 14 years of OST). When these three respondents are not taken into account, the average number of years of OST provision is 2,2.

To **restart the provision of OST** the general demands of Flemish GPs involve more education/training, a proper legal framework and development of better networks with specialized centres.[28]

2.4.1.2. Hospitals

For Walloon and BCR hospitals no response was given about the provision of OST in the past. All Flemish hospitals that participated in the online survey provide OST.

2.4.1.3. Pharmacists

A *lack of demand* is the main reason for Belgian pharmacists to **no longer administer OST**, the end of provision generally being caused by the end of treatment (either because the clients have become abstinent, stopped the treatment themselves or re-entered residential treatment). The reported average number of years of OST is higher in Flanders (5,1 years) than in the Brussels Capital Region (4 years), and in Wallonia (3,8 years). As is the case for the GPs, fear for their reputation and exposure of clients or staff to opiate dependent persons seem to play no significant role in non-administration. Clients also know which pharmacies are providing and tend to mainly frequent those pharmacies.

For a few pharmacists a higher financial compensation would convince them to **restart OST**. The biggest obstacle seems to be the *lack of client's*

[28] Data for BCR are limited to GPs; data on Walloon GPs for this question are not available.

strictness in terms of appointments, especially regarding pick-up times (e.g. clients with a demand mainly turning up at weekends, nights and evenings).

2.4.1.4. Specialized centres

All Flemish and Walloon centres in the online survey reported OST provision. The response of BCR specialized centres remained too low to draw general conclusions; the centres that did respond all provide substitution treatment.

2.4.2. Regional spread

Table 2.1 gives an overview of the regional spread of OST providers.

In general, the phone survey points out that in Belgium, OST is provided mainly through specialized centres followed by **pharmacists**. Pharmacists take up a special position as they can be providers as well as administrators of OST. Hospitals provide OST as well, be it that they report less clients per week than the specialized centres; psychiatric departments of general hospitals provide OST the most, although psychiatric hospitals provide OST as well. General hospitals tend to be providing OST the least. General practitioners are much less involved in OST practice.

As pointed out by the results of the phone survey presented in table 2.1, the Walloon GPs provide OST more frequently in comparison to the Flemish and BCR GPs. OST provision by hospitals is a lot more common in Flanders than it is in Wallonia and Brussels Capital Region, whereas Walloon pharmacists report more OST than BCR pharmacists, and certainly than the Flemish ones. This leads us to assume that OST in Flanders is generally more executed by hospitals than by GPs. As the Flemish specialized centres report more OST than the Walloon and BCR ones, it seems that in Flanders OST is mainly provided by the specialized centres, and to a lesser degree by the hospitals. Differentiation in the type of hospitals providing OST (see table 2.3) points out that this provision is mainly executed by psychiatric hospitals and the psychiatric department of hospitals in Flanders, whereas in Wallonia psychiatric departments of general hospitals are the most prevalent providers in hospitals. Even though general hospitals provide OST the least, the practice is more established in Flanders than in Wallonia.

2.4.3. *Geographical spread at a provincial level*

2.4.3.1. General practitioners

In table 2.2, GPs phone survey outcomes on current and past provision of OST is being differentiated per province.

Of all Flemish provinces, Antwerp GPs provide OST the most. None of the Limburg[29], West-Flanders or Flemish Brabant GPs questioned in the phone survey provided OST.

In Wallonia, the GPs in the province of Hainaut and Liège reported provision of OST the most. Provision by GPs seems to be more spread over the different provinces in Wallonia than in Flanders, except for Brabant Walloon and the German community. In Luxembourg a network of GPs providing OST is active.

Table 2.2: *OST provision of general practitioners by province (source: phone survey)*

GENERAL PRACTITIONERS				
	sample	n	Currently OST	
FLANDERS				
Antwerp	28	22	3	13.6%
East-Flanders	22	20	2	10%
Limburg	13	12	0	/
West-Flanders	17	16	0	/
Flemish Brabant	20	18	0	/
Total Flanders	**100**	**88**	**5**	**5.7%**
WALLONIA + GERMAN COMMUNITY				
Hainaut	33	22	5	22.7%
Liège	32	28	5	18.8%
Namur	16	9	2	22.2%
Brabant Wallon	11	7	0	/
Luxembourg	7	5	1	20%
German community	1	0	0	/
Total Wallonia	**100**	**71**	**13**	**18.3%**
BRUSSELS CAPITAL REGION				
TOTAL BCR	50	49	7	14.3%
TOTAL ALL BELGIAN GPS	**250**	**208**	**25**	**12%**

[29] Notwithstanding this result, the province of Limburg works with a network of general practitioners who provide OST in their private practice or deliver the service in a specialized centre (once a week or more). In June 2012 this network consisted of 27 voluntary GPs.

2.4.3.2. Hospitals

Psychiatric departments in hospitals provide OST the most (38.1%), followed by psychiatric hospitals (34.5%). 27.4% of the general hospitals provide OST. In table 2.3 the specific types of OST providing hospitals are listed per province showing regional differences in hospital OST provision.

For Flanders, OST in hospitals is provided the most in East-Flanders and West-Flanders, and the least in Flemish Brabant. In general, OST provision is executed more by psychiatric hospitals and psychiatric departments of general hospitals, except for Antwerp (where OST is provided the most in general hospitals closely followed by the psychiatric departments of general hospitals).

In Wallonia, psychiatric departments of general hospitals are more common providers of OST than the psychiatric hospitals. General hospitals take up but a small amount of the OST provision. The province of Hainaut has the most hospitals providing OST; the German Community the least.

Table 2.3: *OST provision of hospitals by province and type of hospital (source: phone survey)*

HOSPITALS							
					OST		
	sample	n	Currently OST		GH*	GHPD†	PH‡
FLANDERS							
Antwerp	24	23	14	60.9%	6	5	3
East-Flanders	27	24	18	75%	4	5	9
Limburg	12	12	8	66.7%	3	2	3
West-Flanders	24	24	17	70.8%	5	8	4
Flemish Brabant	16	15	8	53%	0	3	5
TOTAL HOSPITALS FLANDERS	**103**	**98**	**65**	**66.3%**	18	23	**24**
					27.7%	35.4%	**36.9%**
WALLONIA + GERMAN COMMUNITY							
Hainaut	25	24	7	29.2%	1	4	2
Liège	17	12	5	41.7%	3	1	1
Namur	10	7	4	57.1%	0	3	1
Brabant Wallon	6	6	2	33.3%	1	1	0
Luxembourg	4	4	1	25%	0	0	1
German community	2	2	0		0	0	0
TOTAL HOSPITALS WALLIONIA	**64**	**55**	**19**	**34.5%**	5	**9**	5
					26.3%	**47.4%**	26.3%

Table 2.3: *OST provision of hospitals by province and type of hospital (source: phone survey) (continued)*

HOSPITALS							
					OST		
	sample	n	Currently OST		GH*	GHPD†	PH‡
BCR							
TOTAL HOSPITALS BCR	41	36	11	30.5%	.	.	.
TOTAL ALL BELGIAN HOSPITALS	**208**	**189**	**95**	**50.2%**	**23**	**32**	**29**
					27.4%	**38.1%**	**34.5%**

* GH: General hospital
† GHPD: Psychiatric department of a general hospital
‡ PH: Psychiatric hospital

2.4.3.3. Specialized centres

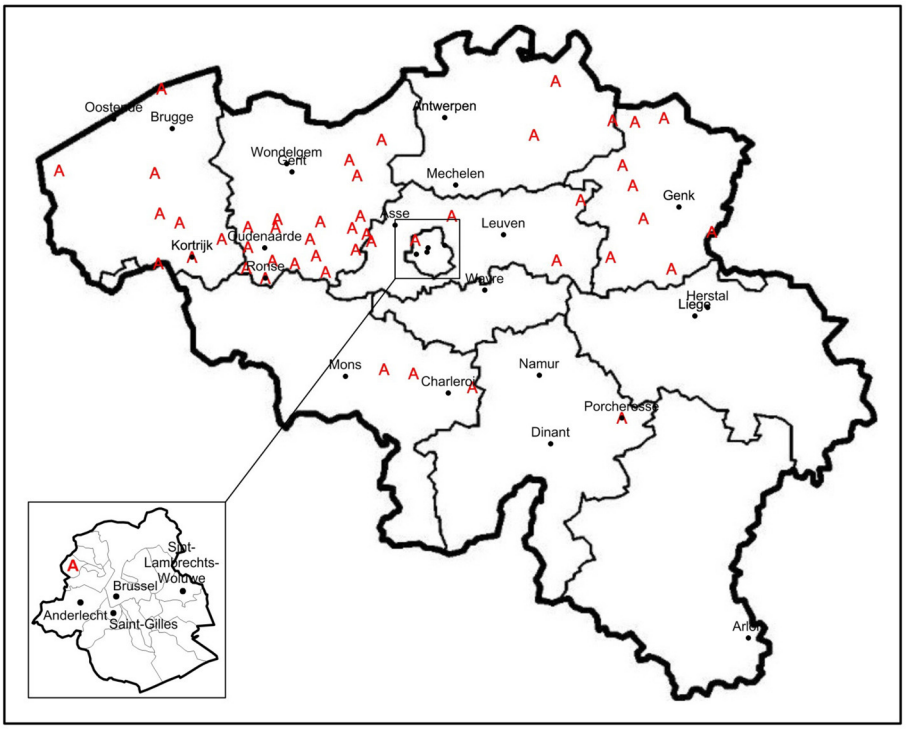
Table 2.4 reports the specialized centres that provide OST (satellite centres excluded), whether they are residential or outpatient, as well as the number of satellite centres they have. In map 2.1 (p. 36) all Belgian specialized centres and satellite centres are marked. Maps 2.2 (p. 37) and 2.3 (p. 38) provide an overview of the spread of specialized centres offering detoxification and/or maintenance[30]. It is important to note that the maps provide an overview of the number of centres and not the number of clients for each centre.

When the spread of OST detoxification and maintenance by specialized centers is compared, no great differences can be found between most Belgian provinces. In general there are less centers providing OST for maintenance reasons, but in most provinces another center in the same city will still be providing OST for maintenance. For the province of Antwerp, Flemish Brabant, Brabant Walloon, Namur, Liege and Brussels Capital Region the centres providing OST for detoxification all provide it for maintenance as well. Only the province of Hainaut counts more specialized centres providing OST for maintenance than centres who provide OST for detoxification.

The most visible difference is in the province of *Luxemburg* where the center providing detoxification, does not provide OST for maintenance. As in the nearby province of Namur one specialized center only seems to provide detoxification, and maintenance treatment by specialized

[30] Including hospitals and GPs would have made these maps less organized, therefore only the specialized centres offering detoxification and/or maintenance are being mapped out.

Map 2.1: *OST provision by Belgian specialized centres and their satellite centres*



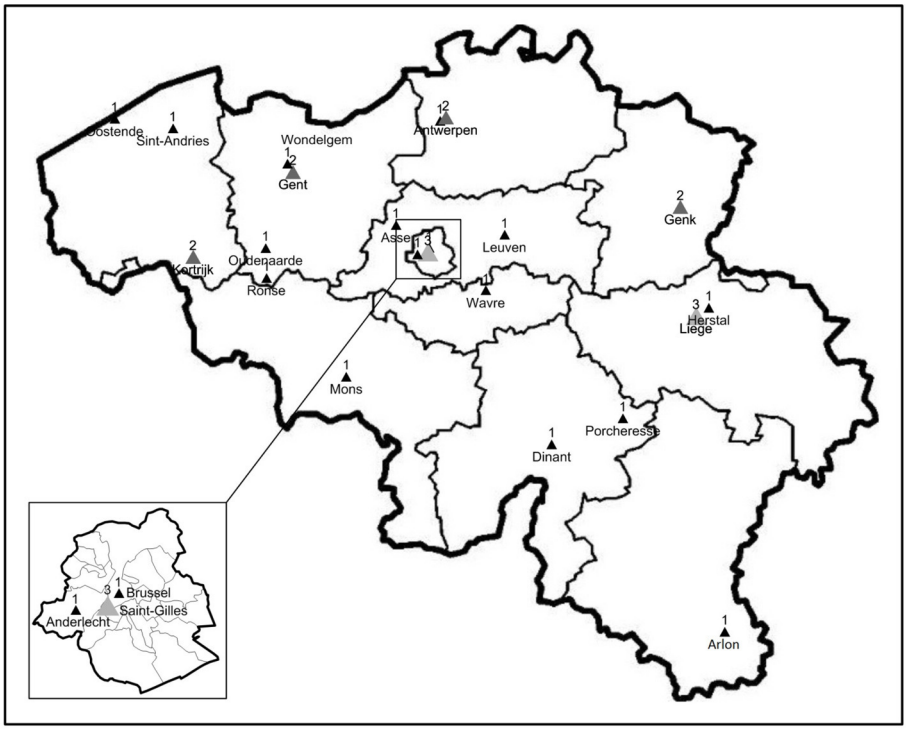
	Specialized centre
A	Satellite centre of specialized centre

centers in the South of Wallonia could be spread better. Satellite centers were not assessed in the online survey, which limits our view on the provision of OST for maintenance reasons.

In Flanders, OST is spread in the province of East-Flanders, except for the south of the province with only one specialised centre providing OST for maintenance. As for West-Flanders, the specialized centre with the most satellite centres (N=6) only provides detoxification. The other centre which also provides maintenance only counts two satellite centres. Therefore, OST for maintenance purposes could be spread better in this province, especially in the north and the west where no satellite centres or centres providing maintenance are available.

In Antwerp, specialized centres are solely concentrated around the city of Antwerp, although the specialized centre of Limburg has a satellite centre in this province, which in turn has three satellite centres provid-

Map 2.2: *Detoxification by Belgian specialized centres excluding satellite centres (source: online survey)*



ing OST (both detox and maintenance) for the region of East-Antwerp (De Kempen). In Limburg, OST is organized on a provincial level and OST is spread over the province. In Brussels Central Region specialized centres providing OST are spread out.

The specialized centres in Wallonia are concentrated around the main cities. The province of Liège has the highest concentration of centres (N=4); the German Community has none. The province of Luxemburg counts one specialized centre.

In general, there are less specialized centres in **Wallonia** in comparison to Flanders; Wallonia tends to have less centres as well as a smaller number of satellite centres (the latter are only present in the province of Hainaut).

Map 2.3: *OST treatment (goal: maintenance) provided by specialized centers in Belgium (source: online survey)*

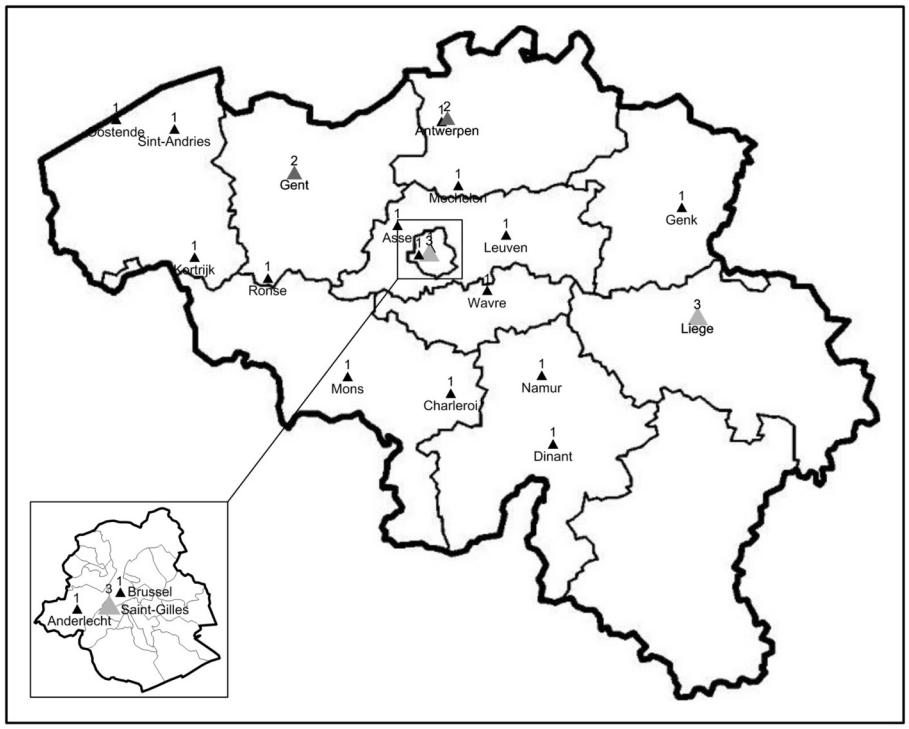


Table 2.4: *OST provision by specialized centers per province (source: phone survey)*

SPECIALIZED CENTRES (INCLUDING SATELLITE CENTERS)								
					OST			
	sample	n	OST		ambulant	residential	both	N° of satellite centres
FLANDERS								
Antwerp	4	4	4	100%	3	1		0*
East-Flanders	36	36	26	72.2%	4	1		20
Limburg	11	11	11	100%	1	1		12
West-Flanders	14	14	12	85.7%	3	1		10
Flemish Brabant	5	5	5	100%	2	0		3
TOTAL Flandres	**70**	**70**	**58**	**82.8%**	**13**	**4**		**45**
WALLONIA + GERMAN COMMUNITY								
Hainaut	4	4	2	50%	2			3

Table 2.4: *OST provision by specialized centers per province (source: phone survey) (continued)*

SPECIALIZED CENTRES (INCLUDING SATELLITE CENTERS)								
					OST			
	sample	n	OST		ambulant	residential	both	N° of satellite centres
Liège	9	9	5	55.5%	3		1	0
Namur	4	4	3	75%	2	1		0
Brabant Wallon	1	1	1	100%	1			0
Luxembourg	1	1	1	100%	1			0
German community	0	0	0	0%	0			0
TOTAL Wallonia+Ger.com.	**19**	**19**	**12**	**63.1%**	**9**	**1**	**1**	**3**
BCR								
TOTAL BCR	9	3	3	100%	2	1	.	.
TOTAL BELGIAN SPECIALIZED CENTRES	**98**	**92**	**73**	**79.3%**	**24**	**6**	**1**	**48**

* Three satellite centers of MSSC Limburg

2.4.3.4. Pharmacists

In general, 73.3% of the Belgian pharmacists provide OST. The National Institute for Health and Disability list of OST providing pharmacists[31] shows that the majority of Flemish (81.9%) and Walloon (77.9%) municipalities have 1 to 10 pharmacists providing OST. In BCR, the number of providing pharmacists is more diverse: 77.8% of the municipalities have 1 to 30 pharmacists, and 31% have 1 to 10 pharmacists. 69.3% of the BCR pharmacists currently deliver OST. In Wallonia 73.3% of the inquired pharmacists deliver OST; in Flanders 75.4% delivers OST

Table 2.5 shows the provincial spread of OST providing pharmacists. For Flanders, West-Flanders and Flemish Brabant have the least pharmacists providing OST, Limburg the most. In Wallonia, the province of Hainaut has the most providing pharmacist, Walloon Brabant and Luxemburg the least. The response rate of providing pharmacists in the Brussels Capital Region was too low, not allowing drawing general conclusions.

[31] see appendix II

Table 2.5: *OST provision by pharmacists per province (source: phone survey)*

PHARMACISTS				
	sample	n	Currently OST	
FLANDERS				
Antwerp	25	25	22	88%
East-Flanders	29	29	25	86.2%
Limburg	11	10	10	100%
West-Flanders	20	18	10	55.5%
Flemish Brabant	15	14	9	64.3%
Total Flanders	100	96	76	79.2%
WALLONIA + GERMAN COMMUNITY				
Hainaut	41	41	33	80.5%
Liège	30	25	18	72%
Namur	14	10	6	60%
Brabant Wallon	7	7	4	57.1%
Luxembourg	7	7	4	57.1%
German community	1	1	1	100%
Total Wall+Ger.Com.	100	91	66	75.5%
BCR				
	50	13	9	69.3%
TOTAL BELGIAN PHARMACISTS	**250**	**200**	**151**	**75.5%**

2.4.4. Administration of OST medication

We did not find many regional differences regarding the administration of the OST medication. No data are present for the BCR hospitals and specialized centres because of high non-response to this question in the survey.

In all Flemish and Walloon *hospitals* the OST medication is administered by nurses. Two Flemish hospitals also report cooperating with pharmacies who provide the medication in their pharmacy. This is different from the **specialized centers**, which refer clients more regularly to the pharmacist.

In the Flemish *specialized centres* the medication is administered by pharmacists in their pharmacy (12/17) or by nurses in the centre (10/17). Staff instructed by a medical practitioner (1/17), the psychosocial team (1/17) or staff at the desk (1/17) are mentioned as well. In Wallonia the medication is mainly administered by pharmacists (10/11), one centre mentions the nurse in the centre as the administrator. As the satellite centres were not inquired in the online survey we cannot draw conclusion as to who administers the OST medication in the satellite centres.

Most Flemish, Walloon and BCR *pharmacists* provide the treatment themselves, or delegate the provision to an assisting pharmacist in the pharmacy. Only one Flemish pharmacy reports a nurse as the administrator.

2.4.5. *Number of clients*

To develop a full-spectrum view on the OST provision the reported number of clients has to be taken into account. Farmanet (the electronic registration system of the National Institute for Health and Disability Insurance) registers the number of extemporaneous mixtures delivered by Belgian pharmacists. For the period of January 2010 to November 2010, 16.095 clients received at least one mixture of Methadone, and 2.169 persons received at least one packing of Buprenorphine. The treatment goal (detox/maintenance) is not registered in these files.[32] The files also contain clients who receive this medication for pain management, so the number 'pure' of substitution clients only is lower. In sum, the current registration by Farmanet does not allow to generate epidemiological data to monitor treatment demand and to optimize the provision and administration of OST.

Table 2.6 gives an overview of the total number of clients per week for the 4 different providers. Table 2.7 provides more detail on the regional differences in the number of clients in each group.

When we compare the number of clients reported by the different providers in the online survey, specialized centres receive the most clients per week, followed by the pharmacists. It has to be taken into account that some of the clients reported by the pharmacists are being sent there by specialized centres or GPs. GPs report the least number of clients per week, although in Wallonia the GPs report receiving more clients than the Walloon hospitals. Within the group of the specialized centres, the

[32] Data provided by the National Institute For Health And Disability Insurance and personal communication with Joos Tielemans and Marc De Falleur from National Institute For Health And Disability Insurance (May-June 2012). Since these data were anonymous (containing no national registration numbers but codes instead) and the registration is per package, the registration leads to many double counts of clients. Therefore it was not possible to answer the question on regional differences in the workload of pharmacists and possible differences in prescribing behaviour. The files for Methadone were very large (N= 271.153) and the codes used contained letters and numbers making it impossible to analyse the data in spss. Processing these data in spss would require a time-consuming recoding.

Table 2.6: *Total number of weekly clients per provider and per region (source: online survey)*

	Weekly n° of clients	Feasible n° of clients
Total per provider		
GP	118,5	130,5
Hospitals	135,5	191
SC	3073	2950
Pharmacists	460	1001,9
Total	***3787***	***4273,4***
Total per region		
VL	2222	2095
BCR	371	399
Wall	1194	1779,4
Total	***3787***	***4273,4***

Table 2.7: *Total and feasible number of clients per week reported (source: online survey)*

provider	Average weekly n° of clients	Average feasible n° of clients
GENERAL PRACTITIONERS		
Vl	1	1
BCR	22	30
Wall	95,5	99,5
TOTAL	**118,5**	**130,5**
HOSPITALS		
Vl	44	73
Bcr	.	.
Wall	91,5	118
TOTAL	**135,5**	**191**
SPECIALIZED CENTRES		
Vl	2026	1688
BCR	290	265
Wall	757	997
TOTAL	**3073**	**2950**
PHARMACISTS		
Vl	151	333
BCR	59	104
Wall	250	564,9
TOTAL	**460**	**1001,9**
TOTAL ALL BELGIAN PROVIDERS	**3787**	**4273,4**

MSSCs receive the majority of clients (table 2.8). The number of clients per week that is treated in the hospitals lower than 50 clients for all hospitals in Flanders participating in the online survey (N=12) and less than 100 clients for all responding Walloon hospitals (N=11). Again, regional differences exist, as hospitals in Wallonia report much more clients than the ones in Flanders. As more Flemish hospitals report OST

provision than Walloon hospitals, this might point to a **concentration of OST in certain Walloon hospitals.**

When confronted with the reported number of feasible clients per week, all Belgian providers but the specialized centres report a possibility to receive more clients per week. (table 2.7 and 2.8). For Flanders and BCR, the MSSCs report a lower feasibility than the number of clients they are receiving on a weekly base for the moment, in Wallonia the feasible number is higher than the actual number. The range of feasible number of clients of the non-MSSCs is not sufficient to compensate for the overload of clients at the MSSCs (table 2.8). What becomes clear from table 2.8, is that the MSCCs in Flanders have significantly more OST clients on a weekly basis than the MSCC in Wallonia (2406 and 667 respectively).

Table 2.8: *Weekly number of clients and feasible number of clients in the specialized centres (source: online survey)*

Specialized centres*	Weekly n° of clients	Feasible n° of clients
MSSCs		
Vl	1701	1260
BCR	170	140
Wall	535	570
Total MSSCs	**2406**	**1970**
Non-MSSCs		
Vl	325	428
BCR	120	125
Wall	222	427
Total non-MSSCs	**667**	**980**

* No satellite centres

As the number of clients reported by the MSSCs varied and the satellite centres were not inquired in the online survey, all Belgian MSSCs were asked to provide the number of clients per week for the MSSC as well as for the satellite centres (table 2.9). Table 2.9. provides a general overview of all Belgian specialized centres per province, while table 2.10. provides an overview of the number of clients reported by each centre. The results of the online survey cannot be compared with the results of the e-mail request, as the latter also involved the weekly number of clients of the satellite centres (which was not questioned in the online survey) and was inventoried at another date than the online survey. Nevertheless, the weekly number of clients reported in this e-mail request turned out to be significantly higher for all MSCCs.

Table 2.9: *Weekly number of clients in the specialized centres (source: e-mail request)*

MSSCS	WEEKLY N° OF CLIENTS
Fl	2026
BCR	170
Wall	626
TOTAL N° OF CLIENTS MSSCS	**2822**

Table 2.10: *Weekly number of clients per MSSC, including satellite centres (source: e-mail request)*

Province	MSSC	N° of clients per week in MSSC	Satellite centres	N° of clients per week in satellite centres	Total N° of clients per week
FLANDERS					
ANTWERP	MSSC Antwerp	294	Antwerp (females only)	18	312
EAST-FLANDERS	MSSC Gent	570	Lokeren Sint-Niklaas	20 (OST-service: one day a week) 12 (OST-service: one day a week)	602
LIMBURG	MSSC Limburg		Beringen Bilzen Genk Hasselt Heusden-Zolder Maasmechelen Noord-Limburg St Truiden Tongeren	11 13 87 107 16 30 13 38 46	361
WEST-FLANDERS	MSSC Oostende	250	Kortrijk Roeselare	100 70	420
FLEMISH BRABANT	MSSC Leuven	90	Diest Tienen Vilvoorde	98 81 62	331
TOTAL FLANDERS		**1204**		**822**	**2026**
WALLONIA					
LIEGE	MSSC Liège	180			180
HAINAUT	MSSC Charleroi	180	Farciennes Chapelle-lez-Herlaimont	21 30	231
	MSSC Mons	155	Hougend	60	215
TOTAL WALLONIA+GER.COM.		**515**		**111**	**626**
BRUSSELS CENTRAL REGION					
TOTAL BCR	MSSC Brussels	170			**170**
TOTAL N° OF CLIENTS		**1889**		**933**	**2822**

The results of the e-mail request did raise discussion between the Flemish MSCCs, as the number of clients reported could be distorted by clients who receive their substitution therapy in pharmacies as well as clients who receive other types of support than pharmacological substitution therapy. This in turn led to a new formula in which the number of revalidation weeks[33] realized per MSSC per year is taken into account. By dividing this number by 52 and subtracting the clients who solely receive psychosocial support, the number of OST clients per week per MSCC can be calculated (table 2.11.). The Walloon and Brussels MSSCs were asked to provide data based on this new formula, unfortunately no data were provided for these regions. This was also the case for the Flemish Brabant MSCC. Table 2.11 provides an overview based on this formula of the weekly number of clients in the Flemish MSSCs, proving the formula to result in fewer clients per week for all centres. Nevertheless, this formula might fail to properly reflect the actual weekly workload, as it does not take into account clients who visit the centre several times a week.

Table 2.11: *Weekly number of clients based on the number of revalidation weeks for Flemish' MSSCs (source: 2nd e-mail request)*

Province	MSSC	N° of clients per week in MSSC	N° of clients per week in satellite centres	Total N° of clients per week
ANTWERP	MSSC Antwerp	238	18	256
EAST-FLANDERS	MSSC Gent	206	40	246
LIMBURG	MSSC Limburg		150	150
WEST-FLANDERS	MSSC Oostende	135	155	290
FLEMISH BRABANT	MSSC Leuven	No new data	No new data	No new data

Of all Belgian provinces, the MSSC of Limburg has the most satellite centres (N=9). They do however only provide OST in these satellite centres or though their GP network. The Ghent MSSC has the highest number of clients per week (N= 570), the MSSC of Leuven (Flemish Bra-

[33] All revalidation centres (including MSSCs) have to report their 'production capacity' to National Institute For Health And Disability Insurance once every trimester. It involves a registration of every contact with one client in one week ('revalidation week'). These contacts can also consist of purely psychosocial support, or involve clients with another drug dependence than opiate dependence as well as alcohol dependence. So these data do not provide a general view on the number of OST clients. They can however provide an insight in the number of clients per week in specialized centres. As medication is registered as well, it also gives an indication of the spread of clients who receive OST over the different specialized centres (phone interview, dr. Tino Ruyters, director of Free Clinic Antwerp, 27/06/2012).

bant) has the least (N=90). Hainaut is the only Belgian province which has two MSSCs. This province also reports the highest number of clients per week (N=446). Brussels Capital region's MSSC has no satellite centres.

In Flanders, the four specialized centres with the highest number of clients are located in Ghent (506), Oostend (400), Antwerp (300) and Limburg (250). Of all Flemish provinces Flemish Brabant has the least number of clients in specialized centres. The three Walloon specialized centres with the most clients are located in Mons (155), Charleroi (180) and Liège (200). The spread of clients in Liège could be organized better as one centre indicates having reached its limits, while another centre has capacity for an additional 72 clients per week.

Specialized centres in Brussels Capital Region report between 30 to 40 clients per week (1/3) and 50 clients (1/3) per week. The urban MSSC has an average of 170 clients (1/3). When it comes to feasibility it seems that two specialized centres are at their maximum weekly capacity. The Brussels MSSC, however reports a weekly maximum that lies quite a bit lower than the actual number indicating that a decrease in the number of clients would be feasible. However, since only 3 of the 9 BCR specialized centres responded to the survey general recommendations for the optimization of the spread remain difficult to be made.

Considering the low response of *GPs* it is difficult to extrapolate the results.

There are hardly any Belgian *pharmacists* indicating that they want a decrease in the number of OST clients. The majority of the pharmacists consider that a slight increase in the number of clients per week is feasible. Two Walloon pharmacies (Luxemburg and Liège) prefer less clients (3-5 clients), possibly indicating that the spread of clients is not entirely convenient. The numbers of clients per week is higher in Wallonia and BCR than it is in Flanders.

In Flanders, the majority of the *hospitals* provide OST occasionally (maximum 15 clients per year). Hospitals providing OST on a regular basis are psychiatric hospitals or psychiatric departments of general hospitals. In Wallonia the majority of hospitals provide OST on a regular base (14/19).

2.4.6. *Treatment goals and type of substitution medication*

Table 2.12 gives an overview of the goals of treatment (detox/maintenance) within the group of OST providers according to the regional.

Belgian GPs tend to provide more OST for maintenance reasons than for detoxification. However Belgian hospitals and specialized centres provide more OST for detoxification than they do for maintenance reasons.

For the GPs and hospitals no regional differences in dominance of treatment goal exist. As for specialized centres in Flemish centres detoxification is more common than maintenance (with 13 out of the 17 centres providing detoxification)), whereas in Walloon centres detox and maintenance are provided equally. Regarding treatment goals and medication use no answers were given by the BCR specialized centres.

Table 2.12: *Treatment goals of OST providers per region (source: online survey)*

		detox		maintenance	
	N° of OST	n	%	n	%
GP					
Fl	1	0	0	1	100
Wall+Ger	10	7	70	9	90
BCR	2	2	100	2	100
Total Belgian GPs	*13*	*9*	*69.2*	*12*	*92.3*
HOSPITALS					
Fl	12	11	91.7	10	83.3
Wall+Ger	11	9	81.8	8	72.7
BCR	2	.	.	.	.
Total Belgian hospitals	*25*	*20*	*80*	*18*	*72*
SPECIALIZED CENTRES					
Fl	17	17	100	13	76.5
WaLl+Ger	11	8	72.7	8	72.7
BCr	3	.	.	.	.
Total Belgian SC's	*31*	*25*	*80.6*	*21*	*67.7*
Total all OST providers	**69**	**54**	**78.3**	**51**	**73.9**

As the question was asked if hospitals provide maintenance therapy, no general conclusion can be drawn as to whether they actually start up maintenance treatment or whether maintenance involves the continuation of treatment for clients who started up maintenance treatment elsewhere.

In Flanders, detoxification as well as maintenance is generally provided in psychiatric hospitals, whereas in Wallonia the psychiatric departments of general hospitals are more dominant for detoxification and maintenance.

Table 2.13 (detox) and table 2.14 (maintenance) provide an overview of the types of medication that are used for detox and maintenance by the different providers according to region. In general, the combination of Methadone with Buprenorphine and Naloxone seems the most dominant choice of medication for detoxification, followed by Methadone and thirdly the combination of Methadone with Buprenorphine. The most common medication for maintenance involves the combination of Methadone with Naloxone and Buprenorphine, followed by Methadone and thirdly the combination of Buprenorphine with Naloxone.

Methadone seems to be the most common drug for detoxification and maintenance among GPs. Since few of the Flemish GPs provide detoxification or maintenance, drawing general conclusions is impossible.

For detoxification, hospitals tend to equally combine Buprenorphine with Naloxon (30%) or Methadone with Buprenorphine and Methadone (30%). For maintenance treatment, the combination of Buprenorphine with Methadone is most prevalent in hospitals. For detoxification, the combination of Buprenorphine with Methadone and Naloxone is used the most in Flemish hospitals, where in Walloon hospitals this is Buprenorphine with Naloxone, leading to the conclusion that in Wallonia Methadone is used less for this kind of treatment.

Specialized centres tend to use a combination of Methadone, Buprenorphine and Naloxone (53.8%) or Methadone with Buprenorphine for detoxification. For maintenance treatment, the combinations of Buprenorphine with Naloxone and of Methadone with Buprenorphine are used most frequently (both 38.1%). In Flanders, Buprenorphine is used more often for maintenance treatment than it is in Wallonia.

General conclusions regarding the absolute prevalence of Methadone or Buprenorphine treatment cannot be drawn from these data as it is not clear what percentage of each type of medication is prescribed in combination with Naloxone and without Naloxone. These results should be interpreted with caution, as they are based on small samples.

Table 2.13: *Substitution medication used for detoxification by OST providers per region (source: online survey)*

PROVIDER	DETOXIFICATION						
	N° of OST	M	B	M + B	B + NX	M+B+NX	0
GPS							
FL	0	0	0	0	0	0	0
WALL+GER	7	7	3	.	2	.	0
BCR	2	1	0	1	0	0	
TOTAL	**9**	**8**	**3**	**1**	**2**	**0**	**0**
% of Belgian providingGPs		**88.9**	**33.3**	**11.1**	**22.2**		
HOSPITALS							
FL	11	1	1	2	0	6	1
WALL+GER	9	1	0	.	6	.	3
BCR	.	.	.	.	.	.	.
TOTAL	**20**	**2**	**1**	**2**	**6**	**6**	**4**
% of Belgian providing hospitals		**10**	**5**	**10**	**30**	**30**	**20**
SCS							
FL	17	1	0	6	0	9	0
WALL+GER	8	1	0	2	0	5	0
BCR	.	.	.	.	.	.	.
TOTAL	**25**	**2**	**0**	**8**	**0**	**14**	**0**
% of Belgian providing SC's		**7.1**		**30.8**		**53.8**	
TOTAL	**54**	**12**	**4**	**11**	**8**	**20**	**4**
% of OST Belgian providers		**22.2**	**7.4**	**20.3**	**14.8**	**37**	**7.4**

M	Methadone	NX	Naloxone
B	Buprenorphine	O	Other

Table 2.14: *Substitution medication used for maintenance by OST providers per region (source: online survey)*

PROVIDER	MAINTENANCE						
	N° of OST	M	B	M + B	B + NX	M+B+NX	0
GPS							
FL	1	1	0	0	0	0	0
WALL+GER	9	8	3	.	2	.	2
BCR	2	1	0	1	0	0	0
TOTAL	**12**	**10**	**3**	**1**	**2**	**0**	**2**
% of Belgian providing GPs		**83.3**	**25**	**8.3**	**16.7**		**16.7**
HOSPITALS							
FL	10	3	0	1	0	6	0
WALL+GER	8	2	.	1	.	5	.
BCR	.	.		.		.	
TOTAL	**18**	**5**	**0**	**2**	**0**	**11**	**0**
% of Belgian providing hospitals		**27.8**	**0**	**11.1**		**61.1**	

Table 2.14: *Substitution medication used for maintenance by OST providers per region (source: online survey) (continued)*

PROVIDER	MAINTENANCE						
	N° of OST	M	B	M + B	B + NX	M+B+NX	O
SC'S							
FL	13	2	0	3	8	0	0
WALL+GER	8	0	0	0	0	8	0
BCR	.	.	.	.	.	.	.
TOTAL	**21**	**2**	**0**	**3**	**8**	**8**	**0**
% of Belgian providing SC's		**9.5**	**0**	**14.3**	**38.1**	**38.1**	
TOTAL	**51**	**17**	**3**	**6**	**10**	**19**	**2**
% of OST Belgian providers		**33.3**	**5.9**	**11.8**	**19.6**	**37.2**	**3.9**

M	Methadone	NX	Naloxone
B	Buprenorphine	O	Other

2.5. Referral and networks

2.5.1. General practitioners

The group of *providing* GPs participating in the online survey is very small for all regions (Flemish (1/42), BCR (2/13) and Wallonia (10/56)), which complicates the drawing of general conclusions and does not allow a comparison across regions.

Flemish and BCR GPs who provide OST report having the possibility to refer clients to other services. The Flemish GP has no formal contacts nor is part of network, whereas both BCR GPs report being in a *network* with a specialized centre. One of these GPs also works in a specialized centre from time to time. The two BCR GPs know other GPs who provide OST in their community (one reports knowing 3 GPs, the other 30 GPs).

Of the 10 providing Walloon GPs, 8 know other OST providing general practitioners. Half of them mentioned knowing 1 to 4 other GPs, but a few (N=3) mentioned 15 to 40 other GPs known, resulting in an average number at 8,81 known GPs. These 8 GP also participate in a professional network. Their network is mainly composed of specialized centers, other GPs and the leagues of GPs.

Almost all *non-providing* Flemish (39/41) and BCR (10/11) GPs *refer* clients with a demand for OST to other providers. The most common

referral made is to specialized centers and psychiatric departments of general hospitals (in order of importance: day care centres, specialized centers other than the MSSC, psychiatric departments and the MSSC). Referral to other GPs who do provide OST is rare.

Out of the 56 Walloon GPs who completed the survey, 81.8% (N=45) refer the client with an OST-demand to other providers. Walloon GPs who do not provide OST and refer their clients further (N=37) tend to refer them mostly to other general practitioners who do provide OST and to specialized centers. Referral to psychiatric hospitals and psychiatric department of general hospitals are also common. Referral to general hospitals is rare.

One out of three of the non-providing Flemish or Brussels Central Region GPs, know other GPs who do provide it. For Flanders the average number of known providing GPs lies at 1,45. For Brussels Capital Region the average number of providing GPs known is 1,75. For Wallonia, the average number of known GPs who provide OST lies at 3,81, which is more than for Flanders and Brussels Capital Region.

Referral by Flemish and BCR GPs who do not provide OST seems to follow the same pattern, with referral to specialized centres and psychiatric departments of general hospitals being most prevalent. Contrary to non-providing Walloon GPs, referral by Flemish and BCR GPs to other GPs with OST expertise remains rare. These experienced GPs seem to be the main choice in Wallonia, together with the specialized centre. A possible explanation might be the fact that these GPs report knowing more GPs with OST expertise than the Flemish and BCR GPs. Lack of demand is the main reason indicated by all Belgian non-providing GPs.

2.5.2. Hospitals

General conclusions can be drawn for Flemish and Walloon hospitals; the response rate among Brussels Capital Region hospitals remained too low to enable general conclusions. However, it should be noted that, because of the limited response of the Flemish psychiatric departments of general hospitals and the general hospitals in the online survey, the results regarding networking for Flanders mainly apply to the psychiatric hospitals.

All Flemish hospitals (N=12) refer clients as well as most Walloon hospitals (8/11). Both Flemish and Walloon hospitals refer most often to GPs with OST expertise as well as to psychiatric hospitals[34]. Referral to specialized centres seems to be more common in Wallonia. Contacts with other professionals or networks are more common for the Flemish hospitals (12/12), although they are also quite common in Wallonia (8/10). Flemish hospitals seem to cooperate more with provincial networks of drug treatment organizations, whereas in Wallonia hospitals prefer drug treatment networks at city level.

All the Flemish hospitals in the online survey report providing OST (N=12). All but one Flemish hospital report being able to *refer* clients further (11/12). The one hospital that does not refer clients is a psychiatric hospital with a specific drug care department. The reason for not referring clients is that their clients have relapsed several times before admittance to the hospital and their admittance is considered to be a last resort. In case of referral, hospitals mainly refer to a GP with OST expertise operating in a private practice (11/11), psychiatric hospitals (11/11) or a psychiatric department of general hospitals (10/11). Specialized centres such as a MSSC (4/11), day care centres (2/11) or other specialized centres (2/11) are referred to less often.

8 out of 11 Walloon hospitals providing OST refer clients to other professionals. Referrals mainly involve GPs with OST expertise operating in a private practice (8/8), specialized centers (8/8), psychiatric hospitals (6/8) and MSSC (5/8). General and university hospitals are not frequently referred to. The hospitals that do not refer did not indicate the reason for non-referral.

All Flemish hospitals report having contacts with other professionals or being part of a *network*. Drug care treatment organized at a provincial level are most prevalent (6/11) followed by specialized centres (3/11) and drug care networks at city level (2/11). For one hospital the latter specifically involves a network on double diagnosis. 8 out of 10 Walloon hospitals providing OST report having contacts with other professionals or being part of a professional network. Their network is composed of various organizations notably drug care networks organized at city level, but most are specialized centers.

[34] All providers were asked to make a ranking in order of importance of the providers they refer they clients to.

In general, most Flemish hospitals report knowing 0 (4/10) to 1 (4/10) pharmacist in the community providing OST; one hospital reports being aware of 10 pharmacists and one of 4. Two hospitals report knowing 10 local GPs who provide OST (one hospital in Flemish Brabant and one hospital in Eastern Flanders), two other hospitals know one. Four Walloon hospitals out of 10 report knowing 12 pharmacists providing OST; four do not know any (and for one hospital there was no response). Most Walloon hospitals (7/8) report knowing at least 10 GPs providing OST. Amongst them, one hospital knows around 100 general practitioners (a psychiatric hospital, located in the city of Liège).

2.5.3. Specialized centres

All Belgian specialized centres refer clients, most of all to GPs with OST expertise and to psychiatric hospitals. Walloon specialized centres are more likely to refer to other specialized centers than the Flemish centres. All specialized centres are part of a network which consists of several types of professionals and drug treatment organizations on an city, provincial and regional level.

All Flemish specialized centres report having formal *contacts* with other professionals and being part of a *network*. They intensively cooperate with different types of professionals and organizations, involving medical practitioners, hospitals, other specialized centres (in particular the MSSC), and networks of drug treatment services/organized drug care at the provincial level and regional level (VAD Forum Addiction Medicine). Provincial networks are mentioned the most (7/17),[35] local networks (such as the Steering Committee of the city of Ghent) and initiatives at a regional level (VAD Forum Addiction Medicine) are mentioned less frequently (three and two times respectively)

General practitioners and psychiatric hospitals are *referred* to the most (17/17), followed by general hospitals (14/17) and psychiatric departments of general hospitals (12/17). Clients are being referred to other specialized centres the least (5/17).

11 out of the 17 specialized centres report knowing 3 to 10 GPs in their

[35] Netwerkcomité Drugs, Overlegplatform Centra West-Vlaanderen, Provinciaal Clientenoverleg, Forum Verslavingsgeneeskunde, Provinciaal Substitutieoverleg

community who are prescribing substitution therapy.[36] The range of known providing pharmacists is quite wide, from zero to 527 with a mean of 69,41 and the modus being 15. Three centres report not knowing any providing pharmacists.

The response for the Brussels' Capital Region specialized centres was limited and the centres that did respond did not answer all the questions, limiting the conclusions that can be drawn from the responses. As to referral, none of the responding specialized centres filled in where they refer clients to. On the network level, one specialized centre reports cooperating with a psychiatric hospital. The number of known GPs who provide OST in the same community lies in between 10 (1/2) and 20 (1/2). Pharmacists known to administer OST in the same community are estimated between 5 (1/2) to 15 (1/2).

Almost all Walloon specialized centres refer to other professionals (10/11). They mainly refer to GPs (9/10), psychiatric hospitals (9/10), specialized centres (8/10), MSSC (8/10), general hospitals (8/10) and psychiatric services in general hospitals (8/10). Referral to day care centers scored lowest in the ranking (7/10). The reason for non-referral indicated is that the client has little trust in GPs for dealing with OST.

Nine out of eleven specialized centres report knowing pharmacists providing OST, as well as OST providing GPs. Two report not knowing either a pharmacist or a GP providing OST. The average number of known providers lies at 17,86[37] for pharmacists, and at 9,8[38] for GPs.

All specialized centers report that they participate in a professional network. The network is composed of a variety of organizations and institutions.[39] Fedito[40] (6/11) is mentioned most frequently, followed by

[36] Unfortunately, 6 out of 17 the specialized centres gave an inventory of how many GP providing OST are registered on a provincial level instead of how many are part of *their* network.

[37] 5 of them mentioned from 15 to 50 pharmacists providing OST while 4 mentioned from 1 to 7 pharmacists known.

[38] 4 of them mentioned from 15 to 30 GPs providing OST. The same proportion mentioned from 1 to 6 GPs known. However, one report knowing "a lot" of GPs providing OST, without specification. This is a specialized center which is located in Liège, Province of Liège.

[39] GPs, pharmacists, social workers, specialized centers, medical houses, hospitals, Fedito (federation of institutions for addictions), Relia (platform/network for addictions in liege), Alto (a network composed by GPs), RAN (network for addictions in Namur), the PPL (pharmacies populaires liègeoises) which is a network of pharmacies in the provinces of Liège, Namur and Luxembourg, RAMBo (Network for addictions in Mons-Borinage), Rasanam (Network which provide help and care on the field of addictions in Namur), etc.

[40] FEDITO (la Fédération wallonne des Institutions pour Toxicomanes) focuses on informing, prevention and risk reduction for substance abusers in general.

Alto[41] (4/11). Drug care networks organized at the provincial level seem to dominate, although organizations at an urban level as well as professionals who are in a private practice are also mentioned.

2.5.4. Pharmacists

The response of non-providing Flemish and Brussels Capital region pharmacists for this topic remained rather limited. Referral by *non-providing* pharmacists seems to be limited for all three regions. Not enough insight is gained into the reasons for this non-referral though due to high non-response.

Of the Belgian pharmacists who provide OST, Walloon pharmacists are much more aware of other providing pharmacists then BCR pharmacists. Flemish providing pharmacists know other providing colleagues the least.

As to knowing GPs who provide OST, for Flanders and Wallonia the outcome is a lot lower than for knowing providing pharmacists; BCR pharmacists report knowing more GPs.

When pharmacists participate in a network this mainly involves a specialized centre. In Wallonia these networks involve GPs with OST expertise on a more regular base.

Of the Belgian pharmacists who do not provide OST (N=15) the non-response for the topic of *referral* and networks in general was very high.

The BCR pharmacists report more referral of clients with a demand for OST (1/4) than the Flemish ones (2/13). 22 out of 79 Walloon pharmacists are currently not providing OST. Only 5 of them refer clients to (an) other pharmacist(s). 17 pharmacists do not administer OST, mostly (N=15) because there is no demand for OST. Some of them (N=8) would not refer even if there were a demand as they think it is part of a pharmacist responsibility to take care of these clients themselves.[42]

[41] ALTO (Alternative aux Toxicomanies) is a network of around 600 GPs of the French-speaking community who provide support to drug users and their family as well as prevention campaigns and providing training for other professionals (mainly other GPs). http://www.ssmg.be/cellules-specifiques/toxicomanie-alto

[42] The remaining (N=2) said that he was the only pharmacist in the village (N=1) another one didn't answer the question.

About *two thirds* of the Flemish pharmacists who do not provide OST know pharmacists in their community who do provide (9/15). Four of them indicate not knowing the exact number due to a lack of contact. The average number of known pharmacists is one (2/9) or two pharmacists (5/9) living in the same community. Most pharmacists do not know any GP in their community who provide OST (12/15). Two pharmacists report one GP; one reports two GPs providing OST in their community. Half of the Walloon pharmacists who do not provide OST (7/14) do not know any GPs who do provide OST. The other half has reported knowing from 1 to 4 GPs who provide OST.

Half of the Brussels Capital Region pharmacists who do not provide OST know other pharmacist in their community who do provide OST (2/4). One of them reports 10 pharmacies, the other one knows just one pharmacy. As to number of providing GPs known, 2 BCR pharmacists report knowing 1 or 2 providing GPs.

Less than half of the Walloon pharmacists who do not provide OST know other pharmacists in their community who provide OST (10/22).

The majority of the Flemish (N=46) and BCR pharmacists (N=13) *provide OST*.

Of the providing Flemish pharmacists, only 45.7% (N=21) have contacts with other drug treatment professionals or are part of a network. In half of the cases those contacts involve specialized centres (N=10) (mostly MSSCs, N=9), Four pharmacists in the province of Limburg report a cooperation with general drug treatment service at the provincial level (CAD) and three cooperate with the responsible medical practitioner. One out of three providing Flemish pharmacists know no GP who provides in their community, another third knows one. 20% knows 2 or 3 GPs. The maximum number of known GPs is seven.

Two thirds of the Flemish providing pharmacists know up to three pharmacists who are also providing in the same community.

57 out of 79 Walloon pharmacists currently provide OST. 70.1% (N=40) of them do not have contact with other professionals or do not participate in a network within the framework of addiction/OST. 28.1% do have contact or participate in a network (N=16)[43]. Within this frame-

[43] 1,7% non-response (N=1)

work[44], contacts with specialized centers or non-lucrative associations were mentioned 10 times (8 pharmacists); contacts with GPs were mentioned 6 times (6 pharmacists). 3 of the latter and 2 other pharmacists mentioned other contacts (pharmacists union, conferences/lectures, prevention department). 12.5% (N=2) said that conferences were a way to build their network. 76.2% of the providing pharmacists know up to 8 providing GPs; 91.2% know between 1 and 6 other providing pharmacists.

One Brussels Capital Region pharmacist mentions the prescribing GP as a formal contact.

Two thirds of the providing BCR pharmacists know 1 to 5 providing GPs (6/9), two however report knowing of 20 GPs providing OST in the same community. As to other local pharmacists who provide substitution treatment, two thirds of the respondents know 1 to 6 pharmacists, although one pharmacist claims to know 65.

2.6. Psychosocial interventions

2.6.1. General practitioners

As mentioned before, the response of the Flemish and BCR GPs providing OST is too low to draw general conclusions.

Of the 10 providing Walloon GPs, 9 have a *written agreement* with their clients. 5 GPs execute a detailed psychosocial *assessment* of the client themselves. Amongst them, 4 provide psychosocial *treatment* themselves or they consult (in the following order) social workers, educators, psychologists or psychiatrists. The psychosocial support consists of a combination of psychological and social support. *Social* support consists of referral and help with housing issues, the *psychological* support also involves referral to the indicated care provider and listening and talking to the clients, as well as motivating and encouraging clients to take up therapy or contact a mental health care professional. *Referrals* are made to either psychologists/psychiatrists or specific drug treatment services. The 5 GPs not referring clients for psychosocial support

[44] 16 pharmacists with answers

do not refer because there is no demand (N=2) or because they believe the clients do not need care by multiple professionals (N=1).

2.6.2. Hospitals

The response rate of BCR hospitals was too low to allow general conclusions. We need to notice that, in view of the low response of the Flemish (psychiatric departments of) general hospitals in the online survey, the results regarding psychosocial support for Flanders mainly apply to psychiatric hospitals.

The main difference in psychosocial treatment between Flemish and Walloon hospitals is the aspect of *written agreement*, which is a lot more common amongst Walloon hospitals.

When it comes to psychosocial *assessment*, in both regions this is a multidisciplinary process, involving gathering information on all life domains and including the assistance of nurses, psychologists and psychiatrists. Psychosocial treatment consists of social and psychological treatment, both focusing on all life domains. Psychosocial treatment is mandatory in most Flemish hospitals whereas in Wallonia less than half of the hospitals oblige clients to this kind of treatment. More Flemish hospitals (9/12) refer clients than Walloon hospitals (4/7); the reason for not referring in both regions is the sufficient in-house service. Referral by Flemish hospitals mainly involves specialized centres.

Most Flemish hospitals do not make *written agreements* with clients regarding the psychosocial treatment. The two hospitals that do so are situated in Limburg.

All Flemish hospitals but one (11/12) execute a detailed psychosocial *assessment* of the client. The assessment is multidisciplinary, involving cooperation between psychiatrists, nurses, social workers and psychologists. All life domains (cf. the Addiction Severity Index), are assessed by a multidisciplinary team, collecting information on previous treatment, medical and psychiatric antecedents, living conditions, legal issues, social and environmental factors, clinical research and medical tests.

All hospitals provide psychosocial *treatment* in combination with pharmacological treatment of opiate dependence. This psychosocial support is a shared multidisciplinary responsibility and is mainly provided by

social workers, followed by psychiatrists, nurses and psychologists. In all hospitals psychosocial treatment involves social as well as psychological support. The *social* support again refers to various life domains, with a focus on social problems in terms of the family/social network (87.5%), housing (50%) and financial problems (50%). Some hospitals also refer clients to other institutions for social support (N=2) (table 2.15).

Table 2.15: *Types of social support mentioned by hospitals (N=8) Flanders (source: online survey)*

Types of social support	N (%)
Family and social network	7 (87.5)
Demographic aspects => housing	4 (50)
Work, education and income	4 (50)
Mental health	1 (12.5)

Only 7 of the 12 responding hospitals specified which types of *psychological* support they provide, mainly referring to their different providers of psychological support.

In the category psychotherapy, two hospitals refer to treatment of psychiatric co-morbidity (N=1) and to a specific therapy program, namely Cognitive Behavioural Therapy (N=1) as the type of psychological support. The therapy related to alcohol and drug use focuses overall on relapse prevention (N=2). Some hospitals also seem to combine both individual and group therapy sessions (N=4). The type of hospital (general/psychiatric department/psychiatric hospital) does not seem to generate differences in the type of psychological support provided.

Flemish hospitals also name different types of psychological support. Two hospitals refer to the combination of psychotherapy and therapy focused on motivation. In addition to psychotherapy and motivation related therapy, these hospitals also mention relapse prevention (N=1) or family counselling (N=1).

Table 2.16 gives an overview of the different types of treatment mentioned, showing again the relation with various life domains in and with psychological assessment.

Table 2.16: *Types of psychological support mentioned by hospitals (N=7) Flanders (source: online survey)*

Types of social support	N (%)
Psychotherapy	5 (71.4)
Alcohol and drug use	3 (42.9)
Therapy not specified	2 (28.6)
Motivation	1 (14.3)
Family and social network	1 (14.3)
Psychological assessment	1 (14.3)

Most hospitals (10/12) point out that psychosocial support is mandatory in their hospital, thereby explaining that provision of this treatment is mainly provided by themselves instead of by other institutions or practitioners.

The provision of social and psychological support is equally spread over the different Flemish provinces.

75% of the Flemish hospitals *refer* clients for psychosocial treatment, the ones who do not refer (N=3) consider the available in-house service to be sufficient (these three are psychiatric hospitals). The referral is mainly to specialized centres, referral to mental health institutions is less common. Psychiatric hospitals are the only ones who refer to other providers of psychosocial treatment than specialized centres. Table 2.17 gives an overview of referral by Flemish hospitals. Referral is rather equally spread over the different Flemish provinces.

Table 2.17: *Flemish hospitals' referral for psychosocial treatment by (N=9) (source: online survey)*

Referral to	N (%)
Specialised centres not specified	3 (33.3)
Medical Social Care Centre	2 (22.2)
Specialised centres not MSSC*	2 (22.2)
Mental health institutions	2 (22.2)
CAW (General Welfare Centre)	2 (22.2)
Other	3 (33.3)

* The question was phrased as an open-ended question. 'Specialized centres not MSSC' refers to drug treatment centers OTHER THAN MSSCs, 'Specialized centres not specified' reflects the respondent marking specialized centres without differentiating whether it involves an MSCC or not.

8 Walloon hospitals answered this part of the questionnaire. 7 out of 8 hospitals have a *written agreement* with their clients.

All hospitals execute a detailed psychosocial *assessment* of the client. Assessment involves past treatments, medical/psychiatric history, living conditions, legal issues, work situation, social/cultural factors as well as clinical tests and medical examination. This is mainly carried out by psychiatrists, psychologists and nurses and concerns various life domains.

All Walloon hospitals provide psychosocial *support*, which consists of both psychological and social support. In three hospitals this treatment is mandatory, in four it is not. This support is provided by social workers, psychologists, nurses and occasionally psychiatrists. *Social* support consists of housing, employment and legal issues or administrative questions. *Psychological* support consists of referring the client to psychologists or psychiatrists. 4 out of 7 hospitals *refer* to other professionals, the others do not since they consider the available in-house service to be sufficient.

2.6.3. Specialized centres

As opposed to hospitals, *written agreements* in specialised centres are a lot more common in Flanders (12/16) than in Wallonia (6/11). Psychosocial assessment has the same prevalence in both regions and consists of collecting information on different life domains, involving a multidisciplinary team. Psychosocial treatment contains both social and psychological support. For the Flemish centres the most common combination is psychotherapy with motivational therapy. Where psychosocial treatment is mandatory in most Flemish specialized centres (13/16) in Walloon centres it is not (2/11). Flemish specialized centres tend to refer clients to mental health centres, in Wallonia referral is more diverse, also involving external psychological experts and public social centres.

The response from Brussels Capital Region specialized centres remained too low to draw generalized conclusions as only 3 out of 9 centres responded, including many missing values in the question concerning psychosocial interventions. In one centre, the *assessment* is executed by all staff members, in the MSSC it is done by an educator. None of the centers report *referring* clients for psychosocial support since the available in-house services are usually sufficient. As to *social* support,

specific individual support regarding social and juridical aspects are mentioned (1/3) as well as life domains in general (2/3). Two centres report *psychological* support consists of individual therapy for two centres, one specified it being 'conversations', cognitive behaviour therapy and contingency management. One centre also adds group and family therapy to individual therapy. The third centre only specified psychological support involving all life domains.

Most of the Flemish centres have a *written agreement* with the clients (N=12, 70.6%). It is required in most of the day care centres and in the outpatient drug treatment services.

Of the Flemish specialized centres (N=16), only one does not execute a detailed psychosocial *assessment* of the clients. Assessment is spread rather equally over the provinces. The psychosocial assessment consists of a multidisciplinary approach as most centres appeal to different types of professionals for the assessment of clients. Case managers are only mentioned in East and West Flanders. Table 2.18 provides an overview of the executers of this assessment.

Table 2.18: *Flemish specialized centres (N=16) assessment executers (source: online survey)*

Executers of assessment	N (%)
GP/physician	14 (82.4)
Social worker	14 (82.4)
Psychologist	12 (75)
Psychotherapist	7 (43.6)
Psychiatrist	6 (37.5)
Nurse	5 (31.3)
Pedagogue	4 (25)
Case manager	2 (12.5)

The content of this assessment is multidisciplinary and involves various life domains, consisting of information on experiences with previous treatment, medical and psychiatric antecedents, living conditions, clinical research and medical tests. Also legal issues, employment status and social/cultural factors of the client are assessed. In addition one day care centre investigates the expectations of the client and the presence of supportive family members.

All specialized centres provide psychosocial *treatment* next to OST. In the great majority of the specialized centres this is taken care of by

social workers (N=15) and psychologists (N=16). Overall, it seems that in a specialized centre not just one person is responsible for the provision of psychosocial treatment; psychosocial treatment consists of a combination of several professionals of multiple disciplines.

Both social and psychological support is provided by the specialized centres. *Social* support consists once again of various life domains and also involves referral. In sum, the combination of work, education and income with housing/administration is the most frequent combination of social support. On top of this some specialized centres also mention adequate referral under social support (N=8). Table 2.19 gives an overview of the types of social support mentioned.

Table 2.19: *Types of social support mentioned by Flemish specialized centres (N=14) (source: online survey)*

Types of social support	N (%)
Work, education and income	9 (64.3)
Demographic aspects (housing/administration)	8 (57.1)
Criminal justice and police	6 (42.9)
Family and social network	8 (57.1)

When it comes to *psychological* support once again the aspects addressed concern various life domains and psychological assessment (table 2.20). In the category of psychotherapy specific therapeutic programs are mentioned such as contingency management (N=1), Cognitive Behavioural Therapy (N=4) and systemic therapy (N=2).[45] The therapy related to alcohol and drug use focuses overall on relapse prevention (N=2). Two specialised centres seem to combine both individual and group therapy sessions (N=2).

Table 2.20: *Types of psychological support mentioned by Flemish specialized centres (N=13) (source: online survey)*

Types of social support	N (%)
Alcohol and drug use	3 (23.1)
Motivation	5 (38.4)
Psychotherapy	9 (69.2)
Family and social network	4 (30.8)
Therapy not specified	4 (30.8)
Psycho-diagnostics	1 (7.7)

[45] The systemic therapy uses family and social network as types of psychological support.

The day care centres (N=5) overall combine psychotherapy with therapy related to the family and social network (N=4). In addition to these types of psychological support, two day care centres also mention motivation (N=1) and alcohol and drugs (N=2). A last combination of types of psychological support for a day care centre is motivation related therapy, therapy not specified and alcohol and drugs.

The other specialised centres (N=2) combine the following types of psychological support: psychotherapy and motivation related therapy; motivation related therapy, therapy not specified and diagnostic assessment.

In sum, the combination of *psychotherapy* with *motivation related therapy* seems to be the most frequent psychological support over the different types of specialised centres (N=3).

Most of the Flemish specialised centres (N=13; 76.5%) state that psychosocially assisted treatment is *obligatory*.

They also *refer* clients who ask for psychosocial treatment (N=12, 70.6%). When they do not refer the main reason given is the sufficient provision of psychosocial treatment in the specialized centres, although one day care centre also points out that by not referring their clients, they manage to keep an overall picture on the clients' situation. Ten of the twelve specialized centres that refer their clients for psychosocial treatment specified to which service they refer. Overall, the specialized centres seem to refer to mental health services (residential and ambulant). Table 2.21 provides an overview of the institutions the specialized centres refer to.

Table 2.21: *Referral by Flemish specialized centres (N=10) (source: online survey)*

Referral to	N (%)
Mental health services	8 (80)
CAW (General Welfare Centre)	4 (40)
Public Centre for Social Welfare	4 (40)
Other	2 (20)

It is striking that twelve of the sixteen specialized centres that state that they provide psychosocially assisted treatment themselves, also refer to other providers of psychosocially assisted treatment. However, the providers they refer their clients to seem to be rather specialized in specific

life domains of the client (such as mental health; work, education and income). These specific life events can perhaps not be addressed adequately by the multidisciplinary team of the specialized centre which makes referral to other providers necessary. Generally, the specialized centres mention more than one provider of psychosocial treatment.

Eleven specialized centres in Wallonia answered this part of the questionnaire. Six out of eleven centres have a *written agreement* with their clients.

10 of the 11 responding centres execute a detailed psychosocial *assessment*. Generally this is executed by social workers, GPs and psychologists and involves the medical and psychiatric history of the clients. Further issues addressed in this assessment are past treatment, work situation, social and cultural factors, and living conditions.

Psychosocial *treatment* is provided by all specialized centres. One centre only provides psychological support; the remaining centres provide both social and psychological support. For only two centres this support is mandatory. The main issues addressed are employment and housing, followed by administrative and juridical problems. *Psychological* interventions consist mainly of professional management of the client, conversation and listening to the client.

Six out of eleven Walloon specialized centres also *refer* clients further for psychosocial treatment. This referral is made to public social centers (N=2), external psychologists and psychiatrists (N=4) as well as general hospitals (N=1), day care centres (N=1) and mental health services (N=1). The general reason not to refer is adequate in-house provision of services.

2.6.4. *Pharmacists*

Combining OST with some form of psychosocial care by pharmacists seems a lot more common in Flanders (67.5%) than it is in Wallonia (21%) or in Brussels Capital Region (44.4%)[46]. In Flanders or BCR, the pharmacists mainly provide care themselves by having conversations with the clients (mainly involving motivation and monitoring the evo-

[46] Pharmacists do not provide structural forms of psychosocial interventions; they have an important role as listener and caregiver (Vogt & Finley, 2009).

lution of the therapy) or by referring them. In BCR, this referral is equally spread over psychological and social support, whereas in Flanders psychological support dominates and Wallonia has a dominant social focus. In all three regions, the combination of referring to specialized centres and physicians is the most common. When pharmacists do not refer their clients it is mainly because of the lack of demand or the clients are (thought to be) already receiving psychosocial treatment.

67.4% of the Flemish pharmacists provide psychosocial care with OST. The majority of Walloon pharmacists on the contrary do not (78.98%, N=45). 44.4% of the Brussels Capital Region pharmacists provide psychosocial treatment.

Most of the Flemish and BCR pharmacists provide this care themselves. Other providers mentioned are general practitioners and social workers. Specialized providers are mentioned as well, namely psychiatrists, psychologists and specialized centres. Only pharmacists in the BCR refer to pedagogues (N=2). It seems that in West-Flanders and Limburg this care is provided more frequently by specialized centres (although the limited response warrants a cautious interpretation). Additionally, pharmacists often refer to Public Centres for Social Welfare.

2.6.4.1. In-house support

Generally, in Flanders the provision of *psychological* support dominates. 28.6% of the Flemish pharmacists provide social support, mainly for housing, work/education/income and family and social support. Pharmacists often report other providers for psychological support. For both social and psychological care, various life domains are stressed. Conversations with the client to check on how therapy is evolving and monitoring clients' motivation are the most common interventions.

In Wallonia, the provision of psychosocial support by pharmacists is very rare. However, *social* support seems to dominate. 15.8% (9/57) of the responding pharmacists have reported providing social support, while 10.5% provide a psychological support. Social support consists, generally, in providing basic help with housing and employment. Psychological support consists, for most pharmacists, in trying to have an understanding and open attitude toward the clients, and listening and talking to them. Some pharmacists mentioned also referring their cli-

ents to more competent professionals for social as well as for psychological support.

In the Brussels Capital Region psychological and social support are spread evenly.

Table 2.22 gives an overview of the regional spread of social and psychological support provided by Belgian pharmacists.

Table 2.22: *Social and psychological support by Belgian pharmacists (source: online survey)*

Region	Provision of support (N=12)	
	Social (N=16)	Psychological (N=34)
FLANDERS		
Antwerp	4	5
East-Flanders	4	10
Limburg	3	6
West-Flanders	0	7
Flemish Brabant	1	2
Total **%**	**12** **28.6**	**30** **71.4**
BRUSSELS CAPITAL REGION		
Total %	4 50	4 50
WALLONIA		
Hainaut	2	4
Liege	4	1
Namur	3	1
Brabant Wallon	0	0
Luxembourg	0	0
German community	0	0
TOTAL **%**	**9** **15.8**	**6** **10.5**

2.6.4.2. Referral for support

In Brussels Capital Region pharmacists equally *refer* to social and psychological support providers. In Flanders only Flemish Brabant and Antwerp have an equal distribution in referring clients; the other provinces refer more to psychological support providers than to social support providers. Different reasons are given for not referring clients for psychosocial treatment, the majority marking a lack of demand thereof, or the supposition that the client already receives some kind of psychosocial treatment. Overall Flemish and BCR pharmacists seem to refer to

specialized centres, mainly MSSC. They also refer more to physicians than to mental health practitioners, leading to the assumption that they are being consulted more for physical problems than mental ones. Pharmacists seldom refer to only one type of provider, the most common combination being specialized centres and physicians. When comparing the question "who provides the psychosocially assisted treatment" with the question to "who pharmacists refer their clients for psychosocially assisted treatment", no clear association between the answers on these two questions is found. For example, pharmacists who state that general practitioners provide psychosocially assisted treatment do not refer more often to physicians for psychosocially assisted treatment. So, there seems to be a discrepancy between the ideas of pharmacists on who is providing the psychosocially assisted treatment and to whom they refer their client for this type of treatment.

The pharmacists from the Brussels Capital Region refer their clients to specialized centres (N=4) and also to mental health practitioners (N=4). In Flanders the pharmacists often refer to specialized centres as well (N=39), particularly in East-Flanders (N=16). The referral by pharmacists to mental health practitioners is rather rare (N=4). Again, the limited response warrants caution in the interpretation.

The Walloon pharmacist (N=11) who do provide psychosocial treatment either do it themselves (N=5) or through a social worker (N=4). The focus in psychosocial treatment lies generally more on the *social* component, involving housing issues, employment issues and referral. Psychological interventions mainly involve listening to the client and having a 'conversation'. Half of the Walloon pharmacists who provide OST refer to other professionals for psychosocial support, mainly to specialized centres (46.4%, N=13). 23.5% refers to general practitioners (N=8). Reasons for not referring are no demand, not knowing where to refer the client to and clients already receiving psychosocial support.

2.7. Education, training, intervision and supervision

2.7.1. General practitioners

The response of OST providing Flemish and Brussels Capital Region GPs was very low (3/55), making it impossible to draw general conclusions.

Out of the 10 Walloon GPs who provide OST, 6 report receiving *training*.[47] Training is not mandatory, and is mostly provided by specialized centres. The frequency of training is diverse, varying from once a month to less than once a year. It is difficult to draw conclusions because the frequency is very disparate and the sample is too small. With caution, it seems training is consisting of all aspects related to drugs, as well as of specific training on OST and its pharmacological aspects (5/6). Four respondents mentioned psychosocial trainings, three of which involved education on clients' lives (life domains), 1 mentioning specialized psychological training.

Only four GPs take part in *intervisions* (4/10), the intervisions are not mandatory. three of the ten Walloon providing GPs report participating in *supervison*, which tends to be at a voluntary base as well.

2.7.2. Hospitals

Both Flemish and Walloon hospitals organize *training* for their staff. We do note that the results for Flanders mainly apply to the psychiatric hospitals. Participation tends to be more on a voluntary basis in Wallonia (5/6) than in Flanders (6/11). Frequency varies widely between once a week and once a year. All hospitals provide internal training which is reserved for staff only. Internal training accessible to outside professionals tends to be more common in Walloon (50%) than in Flemish hospitals (25%). Training organized by external professional organizations on the other hand is more frequent in Flemish hospitals than in Walloon hospitals. Where the provision of pharmacological training is common for hospitals in both regions, psychosocial training seems to be given more in Flanders.

[47] The response is too low to allow provincial differentiation.

Intervision and supervision is organized more in Wallonia than in Flanders, and again tends to be less mandatory than in Flemish hospitals.

Of the Flemish hospitals that provide OST regularly, 11 indicate *education and training* for staff being organized (11/12). In 6 of the eleven hospitals this training is mandatory. If specified, this training consists of conferences and lectures (5/11) and workshops (2/11). All hospitals provide internal training for hospital staff, which is organized by the general department (4/11), psychiatrists (7/11), psychologists (4/11), nurses and pharmacists (2/11) or an educator (1/11). Three hospitals also organize training for external professionals. An external offer from other institutions is reported 8 times, involving specialized services and psychiatric centres. Both pharmacological and psychosocial training is being provided, the first one involving addiction training in general as well as OST, the latter one involving specific psychological interventions, e.g. motivational interviewing (9/12), client assessment (7/11) and specific life domains (7/11). The average frequency of training varies considerably between hospitals, between weekly (3/12), to once a year (3/11).

Eight hospitals report the organization of *intervision* (8/12), being mandatory most of the time (6/8). Six hospitals also report *supervison* that is organized (6/12), which is obligatory in 4 cases (4/6). All hospitals indicating supervison also provide intervision.

Only 7 of the 11 OST providing hospitals in Wallonia answered this part of the survey; six of them reporting *training* (6/7), with participation being generally on a voluntary base (5/6). The training's frequency varies from once a week (1/6) over once every trimester (3/6) to once a year (1/6). Answers on the specific forms of this training were very diverse, so no generalization can be made. Internal training is reserved for hospital staff, although half of the hospitals also organize training that is open to outsiders as well. External organizations also provide training for 3 hospitals.

Training involves all aspects related to drugs, OST and further pharmacological issues. Assessment is mentioned 4 times, as are specific psychological interventions (3/6) and life domains (3/6).

Participation in *intervisions* is reported for 6 hospitals (6/7) and is mandatory in 3.

Supervision is less common, as only 4 hospitals mention supervision being organized, mostly on a voluntary base (3/4).

2.7.3. Specialized centres

All Belgian specialized centres report training, being organized internally as well as by external professionals. Internal training accessible for outside professionals is more common in Flemish centers than in Walloon centres. In Flanders this training is always mandatory, whereas in Wallonia it is only the case in half of the centres. The content of the training is very diverse in Flanders, whereas in Wallonia education on life domains is most common. For all Belgian specialized centres, (mandatory) intervision turns out to be a more common practice than supervision.

All respondents of Belgian specialized centers report training and education being provided.

Training is provided for all Flemish specialized centres and is mandatory in almost all centres (15/17). In-house sessions are organized in all centres; 11 centers also report internal sessions that are open to external professionals, and which are mainly organized by the management and sometimes by doctors as well. All specialized centers also get training from external institutions, mainly being other specialized centres and mental health care services. Training generally consists of psychosocial education (life domains and specialized types of psychological interventions) as well as specific pharmacological education (13/17), client assessment (11/17) and general education on drug use, addiction and treatment.

Intervision is organized more (16/17) than *supervison* (12/17) and it is more frequently mandatory (15/17 for intervision and 8/17 for supervision).

Conferences and lectures are the most common form of training (11/17), followed by education (7/15) and workshop training (6/17). The frequency varies from weekly (3/17), over monthly (2/17) to 4 times a year or more (4/17).

For Wallonia, *training* is mandatory in half of the specialized centres (5/10). Individual training and conferences/lectures are cited the most, although the response is rather diverse. Life domains are the most common topic of trainings (9/10). Further issues addressed in training are

pharmacological education (4/10), client assessment (3/10) and specialized psychological interventions (3/10). All specialized centres receive training by external institutions. six out of ten report internal trainings that are only accessible for staff and 2 mention internal training open to external professionals.

8 out of 10 of the centers have *intervisions*, all of them mandatory and are being organized on a weekly or monthly basis. *Supervision* is provided as well (6/10) and is mainly mandatory (5/6) although its frequency is lower (3 centres reported monthly supervisions, 1 every trimester and one yearly supervisions).

Again, the response of the specialized centres from the Brussels Capital Region is too limited to allow general conclusions (2/9). The MSSC reports mandatory training for new employees, further training and education seems to be mainly based upon staff's demand. The other specialized centre has training once or twice a month.

One centre gives extra attention to training on psychosis and drugs, the MSSC reports a focus on specific groups like minors, double diagnose and people of foreign origin.

Training can be given by in-house experts (e.g. a managing medical practitioner) as well as by external experts as for instance other specialized centres.

2.7.4. Pharmacists

Training is not very common amongst Belgian pharmacists, and if organized, it is on a voluntary basis. Training for Walloon pharmacists tends to be organized more by specialized centres, whereas in Flanders professional pharmacist organizations are the main organizers of training. Lecturers, conferences and courses are the most common forms of training. In general training seems to be organized on a yearly base. Flemish and BCR pharmacist seldom receive psychosocial training, which seems to be provided more in Wallonia. Finally, intervision and supervision are not common practices for Belgian pharmacists.

The majority of Belgian pharmacists indicate there is no education, training, intervison or supervision organized. One fifth of the Belgian pharmacists report training. Intervision and supervision are very rare. The number of BCR pharmacists receiving training is very low (2/9).

For the pharmacists indicating training is organized, courses and lectures are the most common form of training in Flanders (10/47) and BCR (2/9). They consist of aspects of OST, general addiction issues and specific pharmacological training. Psychosocial training seems rather rare. Training is mostly organized by professional pharmacist associations (11) although specialized centres are also regular providers of training (5). The frequency of training ranges between once a year (for half of the Flemish and half of the BCR pharmacists) to several times a year. Intervision and supervison are very rare in both Flanders and BCR.

In Wallonia one in four pharmacist report receiving *training* (13/57), mostly organized by specialized centres and with an average of once a year. Conferences and lectures are mentioned most, although the types of training are very diverse. Training in pharmacological treatment is dominant, including training on drug use in general and specific information on OST as well. Four out of thirteen Walloon pharmacists also report receiving psychosocial training, generally consisting of education on life domains and specific psychological intervention, as well as legislation issues (2/4). *Intervision* is very rare (N=1) and no *supervisions* were mentioned.

2.8. OST in Belgian prisons

2.8.1. Method

The data on substitution therapy in Flemish prisons were collected through an online survey by Jolien Debehets in January 2011, in cooperation with Sarah Van Malderen (coordinator of the drug policy in prisons in Flanders) in the context of a master thesis (Debehets, 2011). The same survey was executed for the BCR and Walloon prisons in June-July 2012. The results will only be reported at a provincial level, no results are given for specific prisons. The questions of the survey were based on an EMCDDA-study on substitution treatment in European prisons (Stover, Hennebel & Casselman, 2004; Stöver & Michels, 2010).[48].

[48] Additionally, data on the use of opiates inside prison and the continuation of (previously started) OST inside prison were collected from the analyses of the prison health care department federal public service of justice, in 2008 (Todts, Glibert & Van Malderen, 2008) (Sample: 389, total prison population 25th of February 2008: 9804.)

2.8.2. *Response rate*

The medical departments and the psychosocial departments of all Flemish prisons (N=15) and all Walloon prisons (N=14) were contacted. Each of the Flemish prisons responded to the survey and 11 of the Walloon prisons. All 3 Brussels Capital Regions prisons were contacted; two responded to the survey.

The survey showed that all responding prisons provide OST.

2.8.3. *Number of clients*

In 2008, the national registration showed that 234 clients were using Methadone and 60 Buprenorphine in Belgian prisons (Ledoux, Brohée, Lagrain, Vermeire, Houben, Spago & Vansnick, 2008:14).

Table 2.23 provides an overview of the average population of Belgian prisons and the average number of OST clients reported in the online survey.

The number of OST clients was inquired as the number of OST clients present in that prison at the time of the survey (January 2011). However the number of reported clients did vary amongst different respondents in the same prisons. Therefore the survey data do not enable the reporting of the total number of clients the Flemish prisons provided OST for.[49]

For Flemish prisons the average number of OST clients reported in January 2011 is the highest in the province of Limburg (N=48) and the lowest in Flemish-Brabant (N=2). Prisons in the three remaining provinces report OST provision for 11 to 12 clients on average. All Flemish prisons report a stagnation of OST, apart from prisons in the province of Antwerp, for which respondents indicate that substitution therapy is expanding. None of the prisons report a decline of OST.

[49] In case of prisons reporting different numbers of clients it was decided to take into account the number of clients reported by the *medical* departments, as they tend to have a better view on the exact number of OST clients in the prison. For certain prisons in the province of Antwerp and West-Flanders that still resulted in differences. For these prisons only the overall average number reported by the medical department staff was taken. In case of differences in reported numbers of clients and no response of medical staff, the average number of clients noted by the psychosocial department staff is given.

Table 2.23: *Average number of OST clients in prisons in January 2011 (source: Directoraat-generaal Penitentiaire Inrichtingen for 2011)*

	Average number of OST clients in prisons
FLANDERS (JANUARY 2011)	
Antwerp*	11.7
East-Flanders†	11
Limburg	48
West-Flanders‡	7.85
Flemish Brabant	2
TOTAL	16.11
WALLONIA (JUNE-JULY 2012)	
Hainaut	10.5
Liège	17.66
Namur	17.25
Luxembourg	10.5
Walloon Brabant	7.5
Total	12,68
BRUSSELS CAPITAL REGION (JUNE-JULY 2012)	
	20

* One Antwerp prison only reported the number of OST clients to be varying. The medical department staff of another Antwerp prison reported a different number of clients (2-7), therefore the average of the numbers the two respondents of that prison reported is given.

† One East-Flanders prison only reported the number of OST clients to be varying. For another East-Flanders prison only staff from the psychosocial department answered.

‡ One prison in West-Flanders provided no data on number of clients, another prison had only psychosocial department staff responding. Still, one other prison had the three different members of the medical service all reporting a different number of clients (8-13-23), therefor the average of their response was taken.

In Wallonia, 10 prisons responded to this part of the survey. The average number for the province of Liège is at 17,66 and for the province of Namur at 17,25. For the province of Hainaut and Luxembourg, the number is the same and lies at 10,5 OST clients. The average number for the province of Walloon Brabant lies at 7,5. Therefore, provincial average numbers are only based on one to three prisons due to the small sample. The maximum and the minimum numbers can be found in the province of Liège, with one prison with 40 OST clients and another one with only 1 OST client. Four prisons, three of which are located in the province of Liège and one in the province of Luxembourg, report stagnation. Three others, in the province of Liège, Hainaut and Namur, report an increase of the number of OST clients. None of the Walloon prisons, except for the province of Walloon Brabant, report a decrease.

Only one prison located in Brussels Capital Region has reported their number of OST clients. It mentioned 20 OST clients. This prison reports an increase of OST clients.

Compared to the numbers collected in the national survey in 2008 (Todts, Van Malderen & Glibert, 2008), the number of OST clients reported in the online survey seems too low. Based on the study of Todts, Van Malderen and Gilbert (2008), the self-reported number of clients receiving OST is 71 (18.25%) which might be the result of a selection bias in the self-report survey.

In table 2.24 an overview is given of self-reported opiate use in prison, the use of black market Buprenorphine as well as the proportion of clients in OST. Of the 2008 sample, 32.1% (N=125) of the Belgian prisoners incarcerated in 2008 reported to have used heroin during detention. 8.7% (N=34) reported intravenous opiate use inside prison, 13.1% (N=51) reported the use of black market Methadone or Buprenorphine. 15.7% of the Belgian prisoners reported to have initiated heroin us inside the prison (N=61) (Todts, Glibert & Van Malderen, 2008).

Table 2.24: *Self-reported opiate use and OST in Belgian prisons in 2008 (source: Todts, Glibert & Van Malderen, 2008)*

Opiate use	n	%
% opiate use inside prison	125	32.1
% intravenous opiate use inside prison	34	8.7
% of use black market Methadone or Buprenorphine	51	13.1
% OST in Belgian prisons	71	18.25
Heroin initiation in prison	61	15.7
Total sample	389	100

2.8.4. OST treatment goals and medication used

All Flemish prisons provide OST for detoxification; OST for maintenance treatment is provided by two third of the prisons (10/15). Limburg is the only province in which prisons do not provide OST for maintenance (Debehets, 2011).

An overview of the medication used for OST inside prison is presented in the following table (table 2.25).

Table 2.25: *Medication used for OST in Flemish prisons (source: survey Debehets, 2011)*[*]

Medication	N° of prisons	%
FLANDERS		
Methadone	12	36.4
Methadone+Buprenorphine	14	42.4
Methadone+Buprenorphine+Naloxone	5	15.2
No medication reported	2	6.1
WALLONIA		
Methadone	1	10
Buprenorphine	1	10
Methadone+Buprenorphine	6	60
Methadone+Suboxone	2	20
BRUSSELS CAPITAL REGION		
Methadone	1	50
Methadone+Buprenorphine	1	50

* As the question on type of medication used had been formulated in terms of substitution in general (instead of a differentiation according to treatment orientation), no specific results can be given for medication used per treatment orientation.

All Flemish prisons start OST in prison and continue OST started before detention, except for one prison reporting only continuation. Most Walloon prisons do detoxification (N=10) and maintenance (N=10). One prison did not respond to this question. Most Walloon prisons start and continue (if started before imprisonment) the OST treatment (N=6). Four prisons, located in the province of Hainaut, Liège, Walloon Brabant and Luxembourg, report only continuation.

One prison in Brussels Capital Region reports providing OST for maintenance only. Also, this prison only starts OST when requested by a client and it is not continuing a treatment that was started already before imprisonment.[50] The second prison provides both maintenance and detoxification and allows clients to start or continue OST.

In 2008, 15.3% of the sample of Belgian prisoners reported receiving OST upon time of arrest (Buprenorphine or Methadone) (N=108) (Todts, Glibert & Van Malderen, 2008). Of this group 14.8% (N=16) stopped OST at their own request, 18.5% stopped on request of the prison's medical staff (N=20). 65.7% continued OST, 24.1% of which

[50] However, the respondent for this prison was part of the Psycho social department and did not seem to be able to provide adequate detail on the medical treatment.

with the goals to detoxify (N=26) and 41.7% (N=45) with maintenance as a goal (Todts, Glibert & Van Malderen, 2008).

2.8.5. Psychosocial interventions

Six of the fifteen Flemish prisons did not indicate which type of psychosocial interventions they provide for clients in OST. Of the 9 prisons that did specify the psychosocial interventions, these interventions consist mainly of treatment-as-usual, described as 'conversations' and 'guidance'. All prisons report a written agreement between prison doctors and clients. The interventions are executed most of the time by staff from the medical department (N=4) or by the psychosocial department (N=5). Referral to external services providing treatment in prison is rare (4/15) (involving the outpatient mental health care centres and judicial welfare services (JWW)) and it is always combined with internal interventions.

More than half of the Walloon prisons (N=6) report providing psychosocial support. Only 3 amongst them mentioned the types of interventions albeit not in detail. In the province of Liège, 2 prisons report social and psychological support, discussion with the clients and an evaluation of the treatment. This evaluation of treatment is also mentioned by one prison in Walloon Brabant. One prison in the province of Namur only mentioned psychological support in the form of individual interviews. 4 prisons report that psychosocial support is provided by the prisoners help service, social workers, psychologists, GPs or educators and, most of the time, when the client makes a demand or when the psychosocial professionals are available. The psychosocial support is, therefore, not mandatory. However, one prison in the province of Walloon Brabant mentioned that the psychosocial support is mandatory.

Five Walloon prisons report that they are not collaborating with professionals outside the prison while 4 do so. They mentioned specialized centers' staff and prescribing GPs who become involved at the time of imprisonment and at the time the release of the client. One prison in the province of Walloon Brabant also mentioned pharmacists. Help groups for OST does not exist in most prisons (N=9), except for one prison located in the province of Liège, in which clients can attend groups 4 times a week.

One prison from Brussels Capital Region reports that they are not providing psychosocial support, except in case of an emergency crisis. The other one did not answer this question. One prison reports collaboration with professionals outside the prison[51].

Most Walloon prisons also report making a written agreement with clients (7/9). One BCR prison reports not they do not have a written agreement with OST clients (the other prison did not answer the question).

2.8.6. Training

Only half of the Flemish prisons provide training for staff involved in OST (7 of the 15 Flemish prisons) and, if provided, this training generally remains rather limited. Basic training for new staff is the only example given. No further or more detailed information was given regarding the content of this training (Debehets, 2011).

Most Walloon prisons (N=7) report that they are not providing training for their staff, only four do so. No further details about these trainings were provided.

In Brussels Capital Region, the 2 prisons interrogated report not providing any training for their staff either.

Although only provided in half of the prisons, training seems more common in Flemish prisons than in BCR or Walloon prisons.

2.9. Conclusions and discussion

In this chapter we presented the survey results which certainly have its *limitations*. First of all, the information that was provided was structured by the questions, not always allowing detailed answers regarding each topic (e.g. prelisted choices). To anticipate this problem, for each topic the respondents were also given the opportunity to add remarks. Second, the survey involves self-report by the various providers, therefore limiting the validity of the response only to the specific respondents and not presenting an objective truth. The fact that the SUBANOP-research also consisted of focus groups with representatives of the different types of OST providers from the three Belgian regions (chapter

[51] CAP-ITI, Solbosch, Enaden, Transit for follow-up after the release, GP and psychiatrist.

6), as well as the use of a Delphi-method (chapter 5), allowed a reality check for the response as well as more in-depth assessment of certain topics. Third, the responses for the GPs and for the Brussels Capital Region (for the GP, the hospitals and the specialised centres) was too low to allow general conclusions. Due to the limited response rate of Flemish (psychiatric departments of) general hospitals in the online survey, conclusions on networking, training and psychosocial support mainly apply to the *psychiatric hospitals*. The response of non-providing Flemish and Brussels Capital region pharmacists for the topic of referral and networks remained rather limited. Finally, the survey of Flemish prisons was executed in January 2011, whereas the Brussels Capital Region and Walloon prisons were inquired in June-July 2012.

The abovementioned limitations urge for a more systematic registration of OST provision, allowing a more adequate monitoring than is the case at present.

2.9.1. Type of providers and number of clients

On the basis of the phone survey, OST is mainly provided through specialized centres in Belgium. Hospitals provide OST as well, but they report fewer clients per week than the specialized centres. Pharmacists take up a special position as they can be providers as well as administrators of OST. Psychiatric departments of general hospitals are dominant for OST in hospitals, although psychiatric hospitals are also very common. General hospitals tend to be providing OST the least. General practitioners are much less involved in OST practice, in particular in Flanders.

To develop a full-spectrum view on the OST provision the reported **number of clients** has to be taken into account, demonstrating that the Belgian specialized centres receive the highest number of clients, followed by pharmacists.

When we compare the number of clients reported by the different providers in the online survey, the specialized centres in Belgium receive the highest number of clients per week, followed by the pharmacists. We do note that there is a chance that part of the clients reported by pharmacists have been referred by specialized centres. GPs report the least clients per week, although in Wallonia the GPs report receiving more clients than the hospitals. **Specialized centres** have **the highest**

number of clients per week, and for this type of provider the **MSSCs** receive **the majority of the clients.**

The number of clients per week that is treated in the hospitals is limited to less than 50 clients for all hospitals in Flanders participating in the online survey (N=12) and less than 100 clients for all responding Walloon hospitals (N=11).

The MSCCs in Flanders have significantly more OST clients on a weekly basis than the MSCC in Wallonia (2406 and 667 respectively). This confirms that in Flanders, opiate substitution treatment is mostly supplied by specific, low-threshold services for drug users (Lamkaddem & Roelands, 2010).

2.9.2. Geographical spread of OST provision

When we look at the geographical spread of OST, we find a limited provision of OST in some areas. This is the case for West-Flanders, where only a few pharmacists and specialized centres provide OST and the inquired GPs do not seem to be providing OST. In Flanders, in the provinces of West-Flanders and Flemish Brabant, few pharmacists provide OST. In Wallonia, the German community and the Walloon Brabant have the least providing pharmacists and GPs.

There are more specialized centres in Flanders than in Wallonia and they tend to be geographically spread out more. In Flanders, 45 satellite centres provide OST in regions where there would otherwise have been no OST provision. In the Walloon part of the country, the number of satellite centres is limited to 4.

The geographical spread of centres indicates that this spread might be organized better in certain (parts of) provinces of Flanders and Wallonia. In order to develop recommendations on the optimal spread of OST, the provision of OST should be in accordance with (trends in) the opiate substance use and with the characteristics of opiate users in the general population.

For both **detoxification and maintenance** the online survey pointed out that specialized centres are the predominant providers followed by hospitals. General practitioners provide detoxification and maintenance the least. In general, for Belgium not all specialized centres provide OST for maintenance reasons, but in most provinces another cen-

tre in the same city will still be providing OST for maintenance. OST for maintenance purposes could be spread better in the province of West-Flanders, especially in the north and the west; in the south of the province of East-Flanders and in the south of the Namur province and Luxemburg.

2.9.3. Psychosocial support

In general, Belgian OST providers pay attention to psychosocial support. Even providing GPs and pharmacists, who have limited time and means, seem to take into account these needs, by either providing psychosocial support themselves and/or by referring clients further.

Psychosocial *support* consists of both social and psychological treatment, including attention for various life domains. All specialized centres and hospitals provide psychosocial support. Combining OST with psychosocial support by pharmacists seems a lot more common in Flanders (67.5%) than in Wallonia (21%) or the Brussels Capital Region (44.4%).

When it comes to psychosocial *assessment*, this is considered to be a multidisciplinary process in hospitals and specialized centres, involving the collection of information regarding various life domains and a cooperation between nurses, social workers, psychologists and psychiatrists.

The main difference in psychosocial treatment between Flemish and Walloon hospitals is the aspect of *written agreement*, which is a lot more common in the Walloon hospitals. As opposed to hospitals, written agreements are a lot more common in specialized centres in Flanders than in Wallonia.

In Flanders, however, psychosocial support in hospitals and specialized centres is a lot more mandatory than it is in Wallonia.

More Flemish hospitals *refer* clients for psychosocial treatment than Walloon hospitals. The reason for non-referral in both regions is mostly sufficient service provision at the hospital itself. Referral by Flemish hospitals mainly involves referral to specialized centres.

In Brussels, pharmacists' referral for psychosocial support is equally spread over psychological and social support, whereas in Flanders,

referral for psychological support dominates, while in Wallonia referrals primarily have a social focus. In all three regions, the combination of referring clients to specialized centres and physicians for psychosocial support is the most common. When pharmacists do not refer their clients it is mainly because of the lack of demand or the fact that clients (are thought to be) already receiving psychosocial treatment.

Although specialized centres provide psychosocial treatment themselves, they tend to refer clients quite often to other providers of psychosocially assisted treatment. The providers they refer their clients to seem to be rather specialized in specific life domains of the client (such as mental health, work, education and income). These specific life events can perhaps not be addressed adequately by the multidisciplinary team of the specialized centre which makes referral to other providers necessary. Generally, the specialized centres mention more than one provider of psychosocial treatment. Flemish specialized centres tend to refer clients to mental health centres, in Wallonia referral is more diverse, also involving external psychological experts and public social centres.

2.9.4. Networking and cooperation

All specialized centres are part of a network which consists of several types of professionals and drug treatment services. Their network is the most diverse of all. All Flemish and 80% of the Walloon hospitals have contacts with other professionals or are part of a network. It mainly involves a network of drug treatment services' and specialized centres. Flemish hospitals seem to cooperate more with drug treatment organizations on a provincial level, whereas Walloon hospitals prefer drug care networks at city level (which is not surprising in view of the urban concentration of specialized centres in the Walloon part of the country).[52]

Pharmacists very often do not have contacts with other professionals, nor are they part of a network. When providing pharmacists participate in a network this mainly involves a specialized centre. In Wallonia,

[52] The survey response contained too little GPs who provide OST so no general conclusion can be drawn. In this context, it should be noted that, because of the limited response of the psychiatric departments of general hospitals and the general hospitals in the online survey, the results regarding networking mainly apply for the psychiatric hospitals.

these networks involve more often GPs with OST expertise. Networks are more common for Flemish pharmacist (45.7%) then for Walloon pharmacists (30.0%).

Although specialized centres provide psychosocial support themselves, they tend to refer clients further quite often to other providers of psychosocially assisted treatment. The providers they refer their clients to seem to be rather **specialized in specific life domains** of the client such as mental health, work, education and income. These specific life events can perhaps not be addressed adequately by the multidisciplinary team of the specialized centre, which makes referral to other providers necessary. Generally, the specialized centres mention referral to more than one type of psychosocial support provider.

2.9.5. Training

All Belgian specialized centres and hospitals report training and education. For all Belgian specialized centres, intervision turns out to be a more common practice than supervision, whereas for hospitals supervision is less common than intervision. All Belgian specialized centres report training. Regional differences exist, since training is mandatory in all Flemish specialized centres, but only in half of the Walloon centres. In Flanders, the training's content is very diverse (training generally consists of psychosocial education (life domains and specialized types of psychological interventions) as well as specific pharmacological education (13/17) client assessment (11/17) and general education on drug use, addiction and treatment; in Wallonia education on life domains is most common.

Training seems to be a regular practice in Belgian hospitals too. In Wallonia it seems to be less mandatory than in Flanders.

However, training is not very common amongst Belgian pharmacists, and (if organized) it tends to be on a voluntary base. Intervision and supervision are not common practices for Belgian pharmacists either.[53]

Training for prison staff involved in OST seems rather limited in Flemish (7/15), Walloon (3/10) and Brussels Central region (0/2). Only half of

[53] The survey response contained too few GPs who provide OST, so no general conclusion can be drawn with regard to GPs.

the prisons provide training for staff involved in OST (7 of the 15 Flemish prisons) and, if provided, this training generally remains rather limited. Basic training for new staff is the only example given. No further or more detailed information was given on the content of this training (Debehets, 2011). Most Walloon prisons (N=7) report that they do not provide training for their staff, three only do so. No further details about these trainings were provided. In Brussels Capital Region, the 2 prisons that were interrogated reported not providing any training for their staff either. Although only available in half of the prisons, training seems more common in Flemish prisons than in BCR or Walloon prisons.

2.9.6. OST in Belgian prisons

When we compare the prison data of the self-report survey by Todts et al. (2008) regarding the prevalence of (injecting) opiate use in Belgian prisons with the number of OST clients in prisons, in particular in maintenance therapy and more specifically in particular in some prisons, it is obvious that one can question the provision of OST in prisons.

It is fair to say that this is not in line with the Belgian law. The Belgian Prison Act of 2005 on the rights of prisoners provides a judicial basis for the right of health care that is equal to the health care in society and that is adapted to the specific needs of prisoners (art. 88). Moreover, art. 89 states explicitly that a prisoner has the right of continuity of health care, again on an equal basis as in the society. This principle is made explicit with regard to OST in a technical protocol added to the ministerial circular of 2006 (Ministerial Circular nr. 1785 of 18 July 18th 2006 on the drug problem in prisons). When it concerns psycho-social drug treatment in general, it is recognized that in practice, the current treatment offer is insufficient to guarantee the actual implementation of these prisoners' rights (Van Malderen, 2012).

Chapter 3 Characteristics of OST clients in Belgium. A secondary analyses of two Belgian databases

Yves Ledoux[54]

3.1. Presentation of sample, data and method

3.1.1. Data base: national registration and extension of the 2003 Belspo study

This chapter consists of a secondary data-analyses of two databases: a Belspo-study and the extension thereof (Ledoux, 2005 and new data collection in 2006), and a national registration of prescriptions of substitution medication (Ledoux, Brohée, Lagrain, Vermeire, Houben, Spago & Vansnick, 2010; Ledoux, 2012).

In 2003, the Belgian Pharmacists Association conducted a study[55] (called here the Belspo study) using a sample of Methadone substitution clients (Ledoux, 2005). More than 130 pharmacists participated and evaluated each of their OST clients. In 2006, this sample was extended to the Medical-Social Specialized Centres in Flanders to improve the representativeness of the sample of OST patients. The final sample has 494 Belgian clients (311 clients from Wallonia and Brussels and 183 from Flanders). Although the original study also analysed the pharmacists' evaluation of Methadone clients, the present chapter will refer only to the client's reports.

The national registration of substitution treatments consisted of an epidemiological analyses of the number, gender and age of OST clients and the area of dispensation, the amount of medical practitioners/pharmacists providing OST and medication used (Methadone or Buprenorphine-Subutex© or Suboxone©). The database consisted of all (coded) clients who were prescribed Methadone or Buprenorphine between the

[54] Sociologist. RUG. Former head of Substitution National Register (Institute for Pharmaco epidemiology).

[55] Sponsored by BELSPO/Politique Scientifique Fédéral

last trimester of 2006 and the second trimester of 2009. Patients and professionals were identified with a unique coding and could thus be "followed" during the total period of registration. It was the result of an endeavour of all Belgian community pharmacies through their 29 self-financed tarification Offices. All prescriptions were pulled together at the Belgian Institute for Pharmaco-epidemiology and processed in due respect of privacy laws. The program had been launched through a financial support of R. Demotte, the former Minister of Health. It stopped at the end of 2009 to be hopefully replaced by a similar effort by the Health Ministry.

3.1.2. Method

The data collected in the National Registration of substitution treatment are used as well as the extended BELSPO-study.

The chosen approach for the BELSPO-study consists of different multivariate analyses[56].

As a standard approach, forward conditional logistic regression was systematically performed. Since the dependent variables have to be binary, some scales were dichotomized. A higher or lower quartile dichotomization has been made to express low or high scale values. In models where some factors are found to measure dimensions close to the dependent variable it is worth the effort to present different models not selecting some variables. **Global satisfaction** was measured by the addition of 5 point Likert scales of satisfaction from life in general, work situation, housing, neighbourhood, friends, personal look, drug use, and health. The total was divided by the number of dimensions. The Cronbach alpha value of the scale reached the excellent value of .80.

The well-being scale was built with an inversion of "depressive experience scale" items with 5 levels (never, sometimes, most of the time, more than most of the time, all the time): I feel happy, calm, full of strength, fresh and my life is full of interest … Cronbach's Alpha has a very strong value of .89. High and low values were selected according to the higher or lower quartile of the scale. This method was used for all scales to allow binary analyses (direct odds or risk analyses through logistic regression).

[56] All data analyses were performed with a recent version of SPSS.

Improvement of mental health with substitution was built as a factorial score (first factor) with the following 5 levels items: Substitution enabled me to feel less depressed; to have a better opinion of myself; not to be so anxious anymore; to make projects; to be dynamic again; to be more open for activities; to take a step back from the drug "milieu"; to succeed in not being so much dependent on others; to find a job; to find more freedom from drugs; to succeed in completely stopping heroin use; to put my things in order with the judicial system; to avoid incarceration; not to "hustle" to find money for drugs; to stop dealing drugs. The first factor after Varimax rotation is clearly oriented toward mental health improvement. Each patient received a score on this factor subsequently dichotomized according to higher or lower quartile.

Therapeutic alliance with MD or any therapist can be defined as the quality of the therapeutic relation, an emotional bond between the therapist and the client, the level of agreement between the two parties on the therapeutic tasks, and/or the level of agreement between the two parties on the expectations and goals of therapy (Abrishami, 2009, Bickman et al. 2004, Bordin, 1979). It has been used for the study of many types of pathologies from schizophrenia (Frank & Gunderson, 1990) to epilepsy (Glueckauf et al., 2002). Therapeutic Alliance was constructed on a model proposed by the Institute for the study of Therapeutic change (Chicago) (Miller & Duncan, 2004). There are many different scales and items used in the scientific literature (Alexander, & Luborsky, 1986; Gaston, & Marmar, 1994). Here we felt that some specific items related to substitution treatment should be added: *My doctor is more than a simple prescriber, I trust my doctor for Methadone's dosage or I have more to thank my doctor than Methadone for my improvement* … It appears, however, in the following factorial analyses that these substitution oriented items did not come to the forefront in the first factor, but are more weighing on the last or third one. One possibility was to build a classical scale by adding the item values (and dividing them by their total number: N=16). The reliability analyses shows indeed an impressive Cronbach Alpha value of .92. We have chosen to use the factorial **score** obtained by Principal Component Analyses after Varimax rotation. The mean of the factor has a value of zero. This provides more specific measures by detailing three factors in which some items have more weight than others. The same approach was used to build the *Working Alliance with the pharmacist***.** Factors are built through 30 items that reflect the relationship with the pharmacist: "I receive good

advice", "I can talk about anything with my pharmacist", "I trust him", "The pharmacist respects me", "The pharmacist plays a role in my treatment",…. Details of the factorial construction of the scale can be found in Ledoux (2005, 219-227).

3.2. Number of clients and OST medication used

First of all, an overview of the number of OST clients is given, followed by the number of clients per type of medication (Methadone or Buprenorphine) and geographical spread of clients and medication used. Some clients used Methadone as well as Buprenorphine during a one year period. In the latest yearly recording from mid 2008 till mid 2009, a total of 16 974 OST clients were identified, with Methadone being the most dominant drug (Table 3.1).

Table 3.1: *Number of OST clients per medication in mid 2008-mid 2009 (source: national registration, Ledoux et al., 2010)*

OST medication	N° of clients	% of total n° of OST-clients (16275)
Methadone only	15.093	88.9
Buprenorphine+ Methadone	618	3.6
Buprenorphine only	1.263	7.4
TOTAL OST CLIENTS	**16.974**	**100**

Table 3.2: *Number of OST clients per district and region in mid 2008-mid 2009 (source: national registration, Ledoux et al., 2010)*

Region	N	% of total OST clients
Wallonia	9.335	55
Flanders	4.848	28.6
BCR	2.791	16.4
TOTAL	**16.974**	**100**

The prevalence of OST clients (measured for the year 2008 among persons between 20 and 64 years old) is the highest in Wallonia, where the districts of Liège and Charleroi are dominant (distribution of clients: 46.4% of the total Walloon clients). In Flanders, the districts of Antwerp, Ghent and Aalst represent 43.8% of the Flemish OST clients. Table 3.3 details the prevalence of clients in the general population.

Table 3.3: *Prevalence of OST clients per province and highest prevalence district in 2008 (source: national registration, Ledoux et al., 2010)*

Region	/10.000 inhabitants	highest prevalence district	Highest prevalence district (/10.000 inhabitants)
FLANDERS			
Antwerp	10.08	Antwerp	15.2
West-Flanders	13.42	Oostende	29.95
East-Flanders	17.23	Aalst	25.57
Limburg	10.41	Hasselt	14
Flemish Brabant	5.76	Leuven	6.12
WALLONIA			
Brabant Wallon	15.3	Nivelles (B-W)	15.3
Namur	35.57	Namur	40.75
Liége	53.15	Liège	73.57
Hainaut	52.4	Charleroi	73.78
Luxemburg	33.71	Arlon	67.86

Most OST clients use Methadone. Buprenorphine was prescribed to 1.560 clients in 2008-2009 and seems to be prescribed more regularly in Flanders than in BCR and Wallonia (Table 3.5). Table 3.4 and Table 3.5 overlap with some 618 clients being prescribed both medications during the period.

Table 3.4: *Total yearly number of OST clients who have been prescribed/delivered Methadone in 2008-2009 (source: national registration, Ledoux et al., 2010; Ledoux, 2012)*

Region	N	% of total OST clients with any Methadone prescription
Wallonia	8.865	56.4
Flanders	4.225	26.9
BCR	2.621	16.7
TOTAL	**15711**	**100**

Table 3.5: *Total yearly number of OST clients with any Buprenorphine in 2008-2009 (source: national registration, Ledoux et al., 2010; Ledoux, 2012)*

Region	n	% of Total OST clients with any Buprenorphine prescription
Flanders	902	48
Wallonia	744	39.5
BCR	235	12.5
TOTAL	**1.881**	**100**

Expressed in odds ratios, there is an odds of 2.6 (or a 160% increased chance) of Buprenorphine being prescribed/delivered in Flanders compared to the rest of the country (Ledoux, 2012).

The National registration indicates that Buprenorphine might be used more for opiate detoxification, since the treatment seems to stop much earlier than Methadone treatment. There are also more clients who stop the use of Buprenorphine for a certain period and start again with Methadone than the reverse (Ledoux, Brohée, Lagrain, Vermeire, Houben, Spago & Vansnick, 2010; Ledoux, 2012).

3.3. Regional spread of providers: GPs and pharmacists

In total, 2937 medical practitioners prescribed OST during a one year period (2008-2009) to at least one client. General practitioners (N=2489) represent 84.7% of the OST prescribing medical practitioners with GPs working in specialized centres also included in this percentage. An important specificity of the Belgian situation is that about half of medical practitioners (47.5%) have only one OST patient during an annual period and many would not even keep this patient the whole year. 61.9% of medical practitioners have only up to 2 OST patients a year. At the other extreme, there are 24 medical practitioners who have more than 120 different patients in a year but these medical practitioners are active in specialized treatment centres (Ledoux, 2012). Walloon GPs constitute the majority of OST prescribers. According to the total number of GPs per region, OST has the greatest impact on practitioners in the Brussels Central Region (table 3.6).

Table 3.6: *GPs providing OST in 2008-2009 (source: national registration, Ledoux, 2012)*

Region	N° of GPs providing OST	% of n° GPs providing OST	% of total GPs per region	% of Belgian GPs (N=15161)
Flanders	806	27.4	15.4 (N=5248)	5.3
Wallonia	1590	54.1	19.1 (N=8326)	10.5
BCR	541	18.5	34.1 (N=1587)	3.6
TOTAL	**2937**	**100**		**19.4**

In total, 3390 Belgian pharmacists provided OST in the annual period 2008-2009. This represents just a little less than two thirds of all pharmacists. There are almost ¾ of all Walloon and 71.6% of BCR pharmacists providing OST and just above 55% among Flemish ones (table 3.7).

Table 3.7: *Pharmacists providing OST in 2008-2009 (source: national registration, Ledoux, 2012)*

Region	N° of OST providing pharmacists	% of total OST providing pharmacists	% of total n° pharmacists in region	% of Belgian pharmacists (N=5268)
Flanders	1501	44.3	55.3 (N=2715)	28.5
Wallonia	1425	42	74.8 (N=1905)	27.1
BCR	464	13.7	71.6 (N=648)	8.8
TOTAL	3390	100	5268	64.4 (5268)

3.4. Clients' basic demographic characteristics: Gender, Age, Nationality and Region

3.4.1. Gender

In the year 2008, there were 24.6% women among annual OST clients, or a total of 4095 women and 12.518 men. Regional differences in gender distribution are not spectacular (p=.05) with Brussels presenting 26.3% of women, 24.9% for Flanders and 24% for Wallonia (Ledoux, 2012). In Wallonia, the analyses of the national registration in 2008 pointed to the highest female prevalence among 20-64 year old in the province of Luxemburg: Arlon (42,1/10.000 citizens), the province of Liège (37,5/10.000) and the province of Hainaut: Mons and Charleroi (both 30/10.000). Brussels Capital Region has a prevalence of 22,6 female clients/10.000. In West-Flanders, Ostend shows the highest prevalence of female OST clients (20,6/10.000).

The BELSPO sample confirms a constant observation: women represent about one fourth of the population (here 26%). Table 3.8 shows what differentiates women in OST. Women have had *less incarceration* in the past. However, they did experience *more mental health hospitalizations*. Furthermore, women have *lower family support* (odds: 1.96). Also, much more than men, women were more likely to have a *partner in substitution treatment* (odds: 5.18). Finally, contrary to what we expected, women are treated less in a private practice. No gender difference was

found regarding any psychological scales (Satisfaction, Well-being, Mental Health improvement during OST, Therapeutic Alliance, Working Alliance with pharmacist).

Table 3.8: *Characteristics of female clients. Forward conditional logistic regression of Women (N=432; Man N=317/ Woman N=115); 79.2% of cases correctly classified; Nagelkerke R^2=.35*

	B	S.E.	Wald	Sig.	Odds	95,0% C.I.for Odds	
						Lower	Upper
Low Family support	,673	,261	6,667	,010	1,961	1,176	3,269
Mental Health Hospitalization	1,401	,330	17,997	,000	4,061	2,125	7,758
Feels able to work	-,722	,268	7,271	,007	,486	,287	,821
Recent Cannabis misuse	-,584	,265	4,857	,028	,558	,332	,937
Delinquency before Addiction	-,773	,293	6,940	,008	,462	,260	,821
Present treatment: Private Practice	-,684	,270	6,398	,011	,504	,297	,857
Partner in substitution treatment	1,645	,300	30,118	,000	5,183	2,880	9,329
Prison experience	-1,7	,302	31,863	,000	,182	,100	,328
Constant	1,691	,504	11,281	,001	5,426		

3.4.2. Age

The Belspo sample (with a mean age of 32.4 years) reflects a younger sample than what we would expect in 2012.[57] For the latest registry's period of the 2nd quarter of 2009, mean age of all OST patients was 36.8 years. Compared to the previous Belspo sample, the national registration showed in 2009 that in all Belgian regions (Flanders, Brussels Central Region and Wallonia) OST clients are indeed getting older. The age group distribution of OST clients (mid 2008-mid 2009 period, see table 3.9) is as follows: younger than 25, 11.2%; 26-30 years, 15.1%; 31-35 years, 18%; 36-40 years, 22.2%; 41-45 years, 18.1%; 46-50 years, 9.2%; 51-55 years, 3.5% and finally 56 years and above, 2.9%. Flanders has the youngest clients with 16.3% being less than 25 year old; for Wallonia, this is 10.7% and only 4% in BCR.

[57] Age has a normal distribution with SD=7,22 and a low skewness.

Table 3.9: *Mean age of substitution patients by quarter from end 2006 till mid 2009 by region*

		N	Mean	Standard Deviation	Confidence Interval at 95%	
					Inferior	Superior
Age 4th quarter 2006	BCR	2209	38,95	7,706	38,63	39,27
	Wallonia	6485	34,32	7,682	34,14	34,51
	Flanders	2949	33,81	10,131	33,45	34,18
	Total	11643	**35,07**	8,584	34,92	35,23
Age 2nd quarter 2007	BCR	2119	39,72	7,768	39,39	40,05
	Wallonia	6787	35,18	7,853	35,00	35,37
	Flanders	3106	34,16	9,598	33,82	34,49
	Total	12012	**35,72**	8,539	35,57	35,87
Age 2nd quarter 2008	BCR	2258	40,38	7,906	40,06	40,71
	Wallonia	7371	35,86	8,153	35,68	36,05
	Flanders	3315	34,47	9,484	34,15	34,79
	Total	12944	**36,29**	8,698	36,14	36,44
Age 2nd quarter 2009	BCR	2287	41,05	8,023	40,72	41,38
	Wallonia	7664	36,28	8,278	36,09	36,46
	Flanders	3668	35,39	9,653	35,08	35,70
	Total	13619	**36,84**	8,842	36,69	36,99

In certain districts, however, very young clients are found. In East-Flanders these are: Aalst with the youngest ones in Belgium: 44.3% of OST clients are below 25, Oudenaarde (32.1%) and Dendermonde (31.2%). For West-Flanders, young clients are overrepresented in Roeselare (30.6%). In Wallonia, the youngest clients are in Luxembourg province with Bastogne (31,6%), Arlon (31.2%) or Virton (25.8%). Tournai in the Hainaut province has also a sizeable proportion of young clients (25.9%). All other districts have proportions below 20% for the youngest age group, with the following cities including less than 10% of the OST population below the age of 25 years: Liège (3.9%), Brussels (4%), Antwerp (4.7%), Tongeren (5.1%), Charleroi (5.8%), Hasselt (6.2%), and Mechelen (7.9%). One will notice that two of the districts with the highest prevalence of OST patients, Liège and Charleroi, have the lowest group of young patients. On the other hand, Arlon and Aalst (which has the highest prevalence in Flanders), have also their highest share of young patients.

3.4.3. *Nationality and ethnic origin*

In the Belspo sample, 87.6% of clients have a Belgian nationality (5.3% of these acquired the Belgian nationality).[58]

Table 3.10: *Present nationality of OST clients*

Present nationality			
	N	%	Valid %
Belgian	422	85.4	87.6
French	7	1.4	1.5
Italian	22	4.5	4.6
Portuguese	3	.6	.6
Greek	2	.4	.4
Moroccan	12	2.4	2.5
Turkish	5	1.0	1.0
Algerian	1	.2	.2
Spanish	4	.8	.8
Swiss	1	.2	.2
British	1	.2	.2
Total	482	97.6	100.0
Missing	12	2.4	
Full Total	**494**	**100.0**	

There are only few specific characteristics related with having a non-Belgian nationality (table 3.11). This is in itself an interesting result: no differences were found regarding mental health problems or on social or drug misuse related dimensions. Clients from foreign origin have a higher probability to be living in Brussels Capital Region or Wallonia. This follows the geographic distribution in the general population. In our sample these clients were older. The remaining characteristics retained were: 1. A greater probability of 80.3% (Odds: 1,803) to be of foreign origin when the partner is abstinent from drugs. 2. Clients from foreign origin are more likely (78.3%) to receive family support.

[58] The nationality of clients (present and former one), as well as both parents' nationality was recorded. This allowed to accurately detail the type of foreign origin of each client. If only the mother had a foreign nationality, the client who had a Belgian nationality was considered of Belgian origin.

Table 3.11: *Factors related to non-Belgian origin. Forward conditional logistic regression (N=433; No foreign origin N=352/ Foreign origin N=81); 81.3% of cases correctly classified; Nagelkerke R^2=.08*

	B	S.E.	Wald	Sig.	Odds	95,0% C.I.for Odds	
						Lower	Upper
Age	,054	,018	8,817	,003	1,055	1,018	1,093
High Family support	,578	,278	4,312	,038	1,783	1,033	3,078
Partner is clean from drugs	,589	,296	3,970	,046	1,803	1,010	3,219
Region: Brussels-Wallonia	,694	,283	5,990	,014	2,001	1,148	3,488
Constant	-4,006	,696	33,173	,000	,018		

3.4.4. *Regional differences: Analyses of Flemish clients (compared to others in Belgium)*

The BELSPO-study covers the Flanders region and compares 176 Flemish clients with 287 Brussels-Walloon clients. Unfortunately, in the Belspo-study, no distinction was made in the analyses between BCR and Walloon-clients.

Table 3.12: *Forward conditional logistic regression of Flemish clients: Total N=463; Brussels-Wallonia N=287/ Flanders N=176; 68.9% of cases correctly classified; Nagelkerke R^2=.20*

	B	S.E.	Wald	Sig.	Odds	95,0% C.I.for Odds	
						Lower	Upper
Hospital detoxification	,570	,210	7,356	,007	1,768	1,171	2,670
Therapeutic Alliance (MD)	,282	,117	5,833	,016	**1,325**	1,055	1,665
Recent Heroin misuse (past 3 months)	,755	,268	7,945	,005	**2,127**	1,258	3,594
Recent Heroin misuse more than once a week (past 3 months)	,593	,282	4,435	,035	1,809	1,042	3,141
Satisfaction scale	,608	,159	14,682	,000	**1,836**	1,346	2,506
High support from Family	,680	,229	8,788	,003	**1,973**	1,259	3,092
Constant	-3,421	,561	37,132	,000	,033		

a. Variable(s) entered on step 1: High support from family.

b. Variable(s) entered on step 2: Heroin misuse

c. Variable(s) entered on step 3: Satisfaction

Few factors were retained[59] in the Stepwise Logistic regression (SLR) (table 3.12). The difference in past treatment experiences shows that hospital *detoxifications* are more prevalent among Flemish clients. This indicates a different pathway through treatment in the two regions. Positive factors are Satisfaction, Therapeutic Alliance and High support

[59] We have excluded the type of present treatment (due to the high specificity of one type of orientation in Flanders: the Medical Social Specialized centre).

from family. In all these dimensions, Flemish clients evaluate themselves better than BCR and Walloon clients. However, there is a strong indication of recent heroin use among Flemish clients compared to BCR-Wallonia clients. The observed higher satisfaction among Flemish clients is a powerful factor in the Stepwise Logistic regression. Belgian surveys generally show lower satisfaction is more prevalent in BCR-Wallonia's general population than in Flanders.

3.5. Clients' illicit drug use during OST

3.5.1. Type of illicit substances abused

Recent (defined as misuse during the past 3 months) illicit drug use is still high among OST clients: 50% used heroin, one third used cocaine, almost two thirds used cannabis and about 8% used XTC or amphetamines (new secondary analyses of the 2003 Belspo sample extended in 2006).

The only significant difference found between the regions is for heroin use: 60% in Flanders, versus 44% in BCR-Wallonia (odds: 1.95). More than one fourth (26.5%) of all clients have used heroin and cocaine during the last 3 months; for Flemish clients it concerns one third of them.

3.5.2. Factors associated with heroin use during OST

Table 3.13 provides an overview of the main characteristics of OST clients reporting the use of heroin during treatment in the last three months. The four most significant factors are: being a Flemish resident (Odds: 2.49), not living with their children (Odds: 2.12), having a more negative attitude towards the role of pharmacists in substitution treatment (Odds 0.731) and feelings of low social acceptance. No interference analyses was executed for the different significant variables.

The higher probability for heroin use if the client doesn't live with all their child(ren) can be interpreted in two ways: clients who have been separated from their child(ren) are negatively impacted and alleviate their distress by continuing heroin use, or the separation helps them to use heroin more freely.

The psychosocial dimension of social recognition with the feeling of

being completely socially accepted is strongly negative in clients who use heroin during OST (Odds 0.488).

Table 3.13: *Factors associated with any Heroin use (past 3 months) during OST. Forward conditional logistic regression. (N=415; Other N=202 / Heroin use N=213; Cases correctly classified: 69.6%; Nagelkerke R²=.25)*

	B	S.E.	Wald	Sig.	Odds	95,0% C.I.for Odds	
						Lower	Upper
Region: Flanders	,913	,234	15,255	,000	2,491	1,576	3,939
Ressources: Welfare Low	-,804	,351	5,234	,022	,448	,225	,891
Interuption of treatment with present MD	,597	,253	5,559	,018	1,816	1,106	2,983
Feels able to work	,607	,249	5,925	,015	1,834	1,125	2,989
High satisfaction	-,653	,333	3,848	,050	,521	,271	,999
Feels socially completely accepted as any other citizen	-,717	,275	6,825	,009	,488	,285	,836
Treatment is too long (open question)	-1,056	,432	5,983	,014	,348	,149	,811
Mental Health improvement. First Factor of benefit from substitution scale	-,278	,126	4,863	,027	,757	,591	,970
Working Alliance with pharmacist. First Factor: Positive attitude toward pharmacist's role	-,313	,113	7,604	,006	,731	,586	,914
Doesn't live with own child(ren)	,752	,260	8,381	,004	2,120	1,275	3,527
Partner in substitution treatment	,615	,289	4,538	,033	1,849	1,050	3,256
Constant	-,700	,267	6,863	,009	,496		

The next model focuses on clients with regular (more than weekly) heroin abuse (N=123; 27.8% of all clients). Several factors present in the "any heroin" model have disappeared in the "more than weekly" model (see: table 3.14; new secondary analyses of the 2003 Belspo sample extended in 2006).

Clients who still abuse heroin more than once a week tend to be *treated more in Medical Social Specialized Centres* (Odds 2.42). The proportion of Flemish clients in MSSC is high and it means that the regional factor (Flanders) in the previous model is here replaced by MSSC. Frequent heroin abuse is strongly linked to being treated in a MSSC. Results are somewhat paradoxical, because we also find that clients in these centres have an increased therapeutic alliance compared to other treatment approaches. More research should be done on possible explanatory client features as to why clients treated in an MSSC are more likely to use heroin during substitution treatment.

Three psychological dimensions are retained in the model: Satisfaction, Therapeutic and working Alliance with doctors and pharmacists.

Clients who still use heroin more than once a week do feel less global satisfaction (Odds 0.32). Reversely, the risk of frequent heroin use is increased with decreasing alliances with the pharmacist (Odds 0,5).

One factor that was not retained in the previous model of any heroin use is presented here: the client's agreement with the therapeutic method of their medical practitioners; in other words, the main factor of the therapeutic Alliance (Odds 0,78). A deficit in the working alliance with the pharmacist is thus more predictive of frequent heroin use than the therapeutic Alliance with the medical practitioner. This reveals an *important role of the pharmacist* that many of these professionals might not be aware of. It could be hypothesized that pharmacists have more inclination than medical practitioners to discuss this problem with the patient or that patients feel more free towards pharmacists to disclose this information (for example, if they need to buy some syringes). Maybe, this discussion leads to a better understanding or empathy and also to an effective prevention on the part of the pharmacist. Or, it could just indicate that patients with frequent heroin use are less accepting any professional supervision.

Table 3.14: *Factors associated with more than weekly Heroin use during OST. Forward conditional logistic regression. (N=443; Other N=305 / more than weekly heroin N=123; Cases correctly classified: 74.1%; Nagelkerke R^2=.15)*

	B	S.E.	Wald	Sig.	Odds	95,0% C.I.for Odds	
						Lower	Upper
Ressources: Wellfare low	-,932	,414	5,064	,024	,394	,175	,887
Present treatment: Medical social specialized centre	,888	,242	13,495	,000	2,429	1,513	3,901
High satisfaction	-1,15	,389	8,777	,003	,316	,147	,677
Therapeutic Alliance with MD. First Factor: Agreement with therapeutic method	-,243	,114	4,558	,033	,784	,627	,980
Working alliance with pharmacist: High positive attitude toward pharmacist	-,692	,296	5,452	,020	,501	,280	,895
Constant	-,867	,175	24,456	,000	,420		

3.5.3. Clients' alcohol use

More than two thirds of the clients (67.1%) consume alcohol occasionally at most; 18.4% are abstinent. Still, one out of ten clients has a massive consumption of 9 glasses or more per day. Table 3.15 provides an overview of the factors in problematic[60] alcohol usage during OST (new secondary analyses of the 2003 Belspo sample extended in 2006).

[60] Although the lower limit of a safe alcohol consumption is difficult to determine, we have chosen to set the problematic limit at 6 or more glasses per day (some argue it starts lower at 3-4 glasses per day), resulting in an alcohol abuse rate of 19.7% of all clients.

Table 3.15: *Factors associated with problematic alcohol use (≥ 6 glasses/day). Forward conditional logistic regression: (N=425; N=84 problematic alcohol use N=381 other); 81,6% of cases correctly classified; Nagelkerke R^2=.19*

	B	S.E.	Wald	Sig.	Odds	95,0% C.I.for Odds	
						Lower	Upper
Partner misuses drugs	1,222	,383	10,184	,001	3,395	1,603	7,193
Has misused "black" methadone	,609	,268	5,169	,023	1,839	1,088	3,110
Benzodiazepines misuse	,800	,271	8,745	,003	2,226	1,310	3,783
Education: Primary level only	,707	,286	6,101	,014	2,027	1,157	3,552
Cannabis misuse	,833	,311	7,148	,008	2,299	1,249	4,233
Low Well being	,660	,265	6,199	,013	1,935	1,151	3,254
Gender: Woman	-,713	,330	4,657	,031	,490	,256	,937
Constant	-3,023	,356	72,080	,000	,049		

Social, personal relations and types of drug types used were selected in the model.

The present situation of problematic alcohol users is characterized by a partner who uses drugs (Odds: 3.40). Not only the partners' substance use increases the likelihood of personal alcohol misuse, but results confirm cross-dependence between licit and illicit substances for OST clients. Problematic alcohol use is more probable when other licit and illicit substances are used: Cannabis (Odds: 2.30) or Benzodiazepines (Odds: 2.23). In the latter case, it is obviously difficult to distinguish use from legitimate medical use. Clients with problematic alcohol use often have sleeping difficulties, alleviated with benzodiazepines. However, the profile of excessive alcohol users is also one of poly-drug use, but without heroin or cocaine use. A low educational level is also dominant amongst clients with problematic alcohol use (Odds: 2.03).

There is a link between problematic alcohol use and clients' well-being: there is an increased probability (Odds: 1.94) when the client manifests low personal well-being (lowest quartile of the scale).

A new factor found was unexpected: the use of Methadone from the black market or the non-medical use of Methadone. Problematic alcohol consumption is more probable for clients who have used Methadone from the black market (Odds: 1.84). Non-medical use of Methadone has a negative impact on the excessive consumption of alcohol during treatment, but not on other substances used.

3.6. Conclusion and discussion

Based on the national registration study of the period between mid 2008 and mid 2009, an overview was given of the number of OST clients in Belgium, the medication used (Methadone is dominant) and the regional spread of both clients and professionals involved (GPs and pharmacists). The prevalence of OST clients is the highest in Wallonia and in districts such as Liège and Charleroi. Brussels Central region GPs provide OST the most compared to other Belgian GPs. Pharmacists of Wallonia and Brussels also dispense more substitution medication.

Women represent about one fourth of the population of OST clients. For both gender and age, regional differences exist. The prevalence of women in OST treatment is somewhat higher in BCR.

There is some clear evolution towards an older population of OST clients. Two major exceptions are East-Flanders and Luxembourg provinces, where many districts have a high proportion of young OST clients. The national proportion of young OST clients was 11.2% of the total population of OST clients. It remains to be seen if the aging process will go on in the future or if new young clients will start treatment.

According to the 2003-2006 sample, Flemish clients are more likely to have had a hospital detoxification than Walloon or BCR clients. They are also much more likely to be treated in specialized centres. In Wallonia, most OST patients are treated by a GP.

In the 2003-2006 sample, OST patients were mainly of Belgian origin. We could not observe any overrepresentation of persons from ethnic minority groups compared to the demographic situation in the general population.

Recent illicit drug use is still quite high amongst OST clients. About half of these clients continue to use heroin and one third continues to use cocaine. Clients who use heroin more than once a week are more likely to be in treatment in a Medical Social Specialized Centre (MSSC). Clients in Flanders are more likely to continue heroin use during OST, but they score better on satisfaction, therapeutic alliance and family support than Walloon and BCR clients. One must not forget that OST clients do not only belong to a "drug" culture, but also like any other citizen to their socio-cultural community. Walloon and BCR citizens score higher on depression and on lower feelings of wellbeing than in

Flanders. We may not be surprised to observe the same among OST clients. The difference in drug misuse during substitution is more problematic and should be taken into account by Flemish professionals.

In general, there is a higher chance for relapse when the client doesn't live with (all of) their children; reunification with children might induce some change in behaviour. Clients using heroin during OST have a more negative relationship with the pharmacist. In terms of preventing clients' heroin use during OST, the alliance with the pharmacists cannot be overlooked.

Alcohol use is also problematic during treatment: 10% of the OST clients consume 9 or more glasses of alcohol a day. These results confirm cross-dependence between licit and illicit substances for OST clients. Such a combined use of substances should be taken into account by therapists.

The analyses that was presented has some limitations. First of all, the BELSPO sample is somehow dated. Second, the National registry contains some (1%) non-illicit drug users who use this medication for pain treatment. A third limitation is the lack of interference analyses between the different variables. Nevertheless, this contribution provides an insight into the different characteristics of OST clients in Belgium.

Chapter 4 Treatment satisfaction and current quality of life of opiate-dependent individuals in outpatient substitution treatment

Jessica De Maeyer
Wouter Vanderplasschen

4.1. Introduction

In the fifth Drug Action Plan of the European Union (2009-2012), extensive attention is given to the reduction of harm caused by the use of drugs. Harm reduction is characterized by a humanistic, non-judgmental treatment approach, with respect for the autonomy of individuals using drugs and their rights for qualitative health care (Brocato & Wagner, 2003; Denning, 2001). Outpatient substitution treatment – mainly Methadone – is one of the pillars of the harm reduction approach (EMCDDA, 2009). The main goals of substitution treatment are the reduction of illicit opiate use, preventing harm caused by the use of opiates and improving individuals' well-being (Amato et al., 2005). Estimations of the number of opiate-dependent individuals following treatment in the European Union show that 40% of all problematic opiate users are involved in some form of substitution treatment, mostly Methadone substitution (70%) (EMCDDA, 2009). Substitution treatment is one of the most effective forms of treatment for opiate-dependent individuals, for whom abstinence is not feasible from a short-term perspective (Mattick, Breen, Kimber & Davoli, 2009). This approach is further stimulated by the chronic and relapsing character of opiate dependence, urging for a long-term treatment approach (Van den Brink & Haasen, 2006). Furthermore, in addition to the medical provision of a substitute drug for opiates (e.g. Methadone, Buprenorphine), (voluntary) psychosocial support is an essential component of substitution treatment (Amato et al., 2004; WHO, 2009; De Ruyver, Bosman, Bullens & Vander Laenen, 2001).

Until today, most outcome studies on the effects of substitution treatment have been characterised by a focus on objective and socially desir-

able outcomes such as the termination of drug use, reduction of health risks involved with drug use and the absence of criminal involvement, with limited attention to outcomes important for opiate-dependent individuals themselves (Fischer, Rehm, Kim & Kirst, 2005; Ruefli & Rogers, 2004; Barnett & Hui, 2000). In contrast with other fields of research (e.g. cancer research), drug users are seldom seen as important sources of information and their personal perspectives about substance abuse treatment and their life in general are not widely reported in the literature (Drumm et al., 2003; Kolind, 2007; Montagne, 2002; Fischer, Rehm & Kim, 2001a, b), even though such studies present a different perspective as compared with counsellors' views or 'objective' outcome measurements (Vanderplasschen & De Maeyer, 2007; Brun & Rapp, 2001). Furthermore, information on the impact of treatment and disease on the daily life of individuals suffering from chronic illnesses is often more revealing than 'hard' outcome measures or information on their functional status, including symptom reduction (Wiklund, 2004). Therefore, in this chapter a shift in focus is made to person-centred outcomes – starting from opiate-dependent individuals' personal perspectives – such as quality of life and satisfaction with treatment. Specific attention is given to the provision of psychosocial support, in addition to the pharmaceutical provision of substitution treatment and to challenges and obstacles in the organization and delivery of substitution treatment.

The following objectives will be addressed in this chapter:

- Explore the availability, intensity and desirability of psychosocial support
- Measure the treatment satisfaction of clients in various types of substitution treatment
- Measure the current quality of life of clients in various types of substitution treatment

4.2. Methods

4.2.1. Context, sample and data collection

The legalisation and development of substitution treatment in Belgium has known an enormous increase since the end of the eighties till today. Consequently, enormous regional differences can be identified in the organisation, prescription and distribution of opiate substitution treat-

ment (Lamkaddem & Roelands, 2010; Pelc et al., 2005). In the Flemish community, opiate substitution treatment is mostly supplied by specific, low-threshold services for drug users while only a small percentage of substitute drugs is prescribed by general practitioners. This is in contrast with the French community, where substitution treatment is mainly offered by general practitioners (Lamkaddem & Roelands, 2010). Between mid 2008 and mid 2009 14861 general practitioners were active in Belgium and only a proportion of 16.8% has prescribed an opiate substitute during that year. The Flemish region has only 9.1% of general practitioners prescribing a substitute drug for 22.4% of Brussels and 26.1% of general practitioners in the Walloon region (Ledoux, 2012). The majority of individuals following opiate substitution treatment in Belgium are primarily in Methadone maintenance treatment, with only a small minority of individuals following substitution treatment with Buprenorphine. Between January 2010 and November 2010 16 095 different clients have received at least one preparation of Methadone, while in the same period 2 169 clients received at least one packing of Buprenorphine (Farmanet, 2010; J. Tielemans, personal communication, May 24, 2012).

The study that is reported in this chapter, was set up as a multi-center, cross-sectional study of 77 opiate-dependent individuals receiving Methadone (93.5%) or Buprenorphine (6.5%) maintenance treatment. Inclusion criteria for the study were being over 18 years, having a diagnosis of opiate dependence at the start of treatment and currently being involved in an outpatient substitution treatment for at least three months. Table 1 presents the characteristics of the study sample. Participants were recruited by snowball sampling and the use of flyers distributed by pharmacists, staff members in outpatient substitution programs and general practitioners. Interviews took place between October 2011 and January 2012 in the following regions: Antwerp (N=20), Ghent (N=12), Limburg (N=15), Brussels (N=10), Charleroi (N=10) and Liège (N=10) and lasted between 25 and 120 minutes. Individuals received 20€ for participation in the study. A written informed consent was obtained from all participants before the start of the study. Participation was entirely voluntary and confidentiality was assured.

In order to answer the objectives of this study, a mixed methods approach was chosen (Fountain & Griffiths, 1999; Cowman, 1993). Consequently, limitations of individual methods were counterbalanced and

the effects of researcher bias were reduced. Methodological triangulation was applied by using both, qualitative and quantitative methods (Dale, 1995). By the use of a mixed method approach, the goal was not only to confirm results by using both quantitative and qualitative methods, but also to gain more insight and in-depth understanding of opiate-dependent individuals' personal perspectives about substitution treatment (Camfield, Crivello & Woodhead, 2009; Dunning, Williams, Abonyi & Crooks, 2008; Neale, Allen & Coombes, 2005). Data were collected during face-to-face interviews in a setting chosen in consultation with the participant (e.g. at the Methadone clinic, in the person's house, in a public place). The semi-structured interviews were conducted by two female researchers, employed at the department of Orthopedagogics of Ghent University. The quantitative phase of the interview focused on treatment characteristics, substance abuse history, satisfaction with treatment and quality of life. In the qualitative phase of the study, key thematic questions focused on participants' experiences with psychosocial support (e.g. availability, frequency, content) and substitution treatment in general. The study was reviewed and approved by the Ethical Committee of the University Hospital, Ghent (Belgium).

4.2.2. Instruments

Manchester short assessment for quality of life (MANSA)

In order to measure clients' quality of life the Manchester short assessment for quality of life, a shortened version of the Lancashire Quality of Life Profile, was used (Priebe, Knight & Evans, 1999). The MANSA is a self-report scale, measuring satisfaction with life in general and with 11 different life domains: 'work', 'financial situation', 'social relations', 'leisure activities', 'housing situation', 'safety', 'people one lives with', 'sexual relations', 'family relations', 'physical' and 'mental health'. Quality of life (QoL) on each domain is rated on a 7-point Likert scale, ranging from '1. Life cannot be worse' to '7. Life cannot be better'. Low QoL has been defined as 'a score below 4'. The reliability and validity have been demonstrated in several studies (Priebe et al., 2010).

Verona service satisfaction scale for Methadone treatment (VSSS-MT)

In order to measure clients' satisfaction with treatment, the Verona Service Satisfaction Scale for Methadone treatment (VSSS-MT), a self-

report scale specifically developed to assess satisfaction with Methadone maintenance treatment was used (de los Cobos et al., 2002). The VSSS-MT consists of 27 items and is a multidimensional measure which assesses satisfaction with treatment services in the previous three months on four domains: basic interventions, specific interventions, social worker skills and psychologist skills. Satisfaction with services is rated on a 5-point Likert scale, ranging from '1. Terrible' to '5. Excellent', which results in a satisfaction score for each domain and in an overall score for satisfaction with treatment. For the domain specific interventions, clients are asked if they received a specific intervention (provision) and in case they did, they rate their satisfaction about this specific intervention in the same way as for the other domains. If clients did not receive a specific intervention, they are asked if they would have liked to receive this intervention (desirability) and they are able to answer with no; do not know; not applicable; yes (de los Cobos et al., 2002). The range of clinical significance for the VSSS-MT scores are: 1-2 (very dissatisfied), > 2-3 (slightly dissatisfied), > 3-4 (slightly satisfied), and > 4-5 (very satisfied) (de los Cobos et al., 2004). The psychometric properties of the questionnaire are satisfactory (de los Cobos et al., 2002).

4.2.3. Data analyses

The characteristics of the sample were assessed using descriptive statistics. Domain and overall mean treatment satisfaction scores were calculated for each participant. Domain-based QoL scores and a global well-being score were calculated. A profile was determined, including the number of respondents with low QoL on each domain and low global well-being. Since there is abundant evidence that higher doses of Methadone (> 60mg) are more effective than lower doses of Methadone for reducing illicit heroin use and prolonging treatment retention (Bao et al., 2009; WHO, 2009), we compared the group of clients with a current Methadone dose of less than 60mg (N=36) with the group of clients with a Methadone dose of 60mg or more (N=36) for treatment satisfaction and QoL. Furthermore, the impact of current heroin use and the provision of psychosocial support in the last three months on treatment satisfaction and QoL was assessed. To test statistically significant group differences, chi^2-tests were applied in case of categorical variables and a *t*-tests for continuous variables. All statistical analyses were conducted

using SPSS 19.0. The statistical significance level was set at α=0.05. For the qualitative data analyses, all interviews were audio-taped and transcribed verbatim. The transcripts were read several times by both authors of this chapter. Data were coded in MAXQDA – a statistical program for content analyses – in order to identify the most important themes discussed by the participants (Kuckartz, 1998).

Table 4.1: *Socio-demographic and drug-related characteristics of opiate-dependent individuals following substitution treatment in Belgium (N=77)*

Characteristics	Sample
Age [(M SD)]	41.58 (8.56)
Male (%)	79.2
Nationality (%)	
Belgian	75.3
Moroccan	7.8
Italian	3.9
Portuguese	2.6
Other	10.4
Employment situation (%)	
Paid job	16.9
Sheltered work	5.2
Unemployed	71.4
Education	5.2
Retired	1.3
Type of welfare benefit (%)	
Social security benefit	15.8
Disability benefit	39.5
Unemployment benefit	15.8
Other	5.2
Not applicable	23.7
Substance use in the last 30 days (%)	
Alcohol	46.4
Cannabis	53.0
Benzodiazepines	66.2
Heroin	51.9
Cocaine	29.9

4.3. Results

4.3.1. Results of the quantitative study

4.3.1.1. Study sample characteristics

Study participants were predominantly male (79.2%), with an average age of 41.6 years (SD=8.56) (see Table 4.1). Thirty-eight percent did not complete any form of secondary education and less than one fifth of the

participants (16.9%) currently had a paid job. The largest group of subjects lived alone (37.7%) and about half of the participants had children (55.4%). About half of the participants (51.9%) reported recent heroin use.

The mean age of onset of substitution treatment was 28.7 years (SD=8.52). On average, they had been taking Methadone/Buprenorphine during 7.6 years (SD=4.4) and the mean number of treatment episodes was 3.4 (SD=3.38). The majority of the participants got their substitute drug prescribed by a specialised centre (81.8%) and provided by a pharmacist (63.6%). More than half of the participants in Liège got their substitute drug prescribed by a general practitioner (60.0%), followed by 30.0% in Charleroi, 10.0% in Brussels and 5.0% in Antwerp. In the remaining regions (Ghent and Limburg), all participants got their substitute drug prescribed by a specialised treatment centre. In Brussels, 20.0% of the participants received their prescriptions through a psychiatrist and one person through Médecins sans Frontières. All participants in Brussels, Charleroi and Liège got their substitute drug provided by a pharmacist, while this was only the case for 83.3% in Ghent, 40.0% in Antwerp and 6.67% in Limburg. The mean current dose of substitute was 57.9 mg (SD=28.15) for Methadone and 11.4 mg (SD=6.31) for Buprenorphine. The majority of the participants were satisfied with their current dose of substitution medication (78.9%). Eighty-five percent of the participants had been in substitution treatment for longer than one year.

About half of the participants (55.8%) received some form of psychosocial support in the last three months. Three quarters of them (74.4%) thought this psychosocial support was sufficient. Psychosocial support was mostly provided by social workers (51.2%), followed by psychologists (34.9%) and physicians in specialised centres (27.9%). The frequency of contact was limited to once a month or less for 44.2% of the participants. Table 4.3 gives an overview of the frequency of the contacts and the different providers of psychosocial support.

Table 4.2: *Treatment-related characteristics of opiate-dependent individuals following substitution treatment in Belgium (N=77)*

Characteristics	Sample
Substitute drug (%)	
Methadone	93.5
Buprenorphine	6.5
Prescriber (%)	
General practitioner	14.3
Specialised centre	81.8
Psychiatrist	2.6
Others	1.3
Provider (%)	
Pharmacist	63.6
Specialised centre	36.4
Daily use of substitute drug (%)	
Yes	94.8
No	5.2
Frequency of collecting (%)	
Daily	39.0
More than once weekly	16.9
Weekly	9.1
Two weekly	20.8
Monthly	14.3
Treatment duration (%)	
Between 3 and 6 months	5.0
Between 6 and 12 months	10.0
➢ 12 months	85.0
Received substitution treatment during residential treatment (%)	44.2
Received substitution treatment during imprisonment (%)	57.1
Illegal use of substitute drugs (%)	9.1

Table 4.3: *Frequency of contact and providers of psychosocial support (N=43)*

Frequency of contact (%)	
More than once a week	11.6
Weekly	16.3
2 or 3 times a month	27.9
Monthly	37.2
Less than monthly	7.0
Provider (%)	
Psychiatrist	9.3
Street corner work	4.7
Pharmacist	9.3
Nursing staff	4.7
General practitioner	4.7
Physician in a specialized centre	27.9
Psychologist	34.9
Social Worker	51.2

4.3.1.2. Satisfaction with substitution treatment

The overall mean score of the VSSS-MT was 3.68 (SD=.46) and the specific domain scores were 3.73 (SD=.60) for basic interventions and 3.40 (SD=.51) for specific interventions, indicating 'slight satisfaction' based on the ranges for clinical significance. The domain scores for psychologist skills (*M*=4.02; SD=0.87) and social worker skills (*M*=4.13; SD=0.87) were both in the clinical range of 'very satisfied', but the number of participants who had experience with those services was limited to 26 for the psychologist skills and 47 for the social worker skills.

Table 4.4 shows the categorical analyses of the VSSS-MT scores, based on the clinical ranges of the VSSS-MT. These results give a more balanced overview of treatment satisfaction and demonstrate the percentage of participants in each satisfaction category for the various domains. Only 7.8% of the participants was slightly dissatisfied about their substitution treatment in general, but almost a third of the participants was slightly dissatisfied with the domain 'specific interventions' and more than one fifth of the participants were (slightly) dissatisfied about the psychologist skills.

Table 4.4: *Categorical analyses of the VSSS-MT overall and domain scores*

	Very dissatisfied (%)	Slightly dissatisfied (%)	Slightly satisfied (%)	Very satisfied (%)
VSSS-MT, overall (N=51)	/	7.8	70.6	21.6
Basic interventions (N=77)	1.4	8.5	59.2	31.0
Specific interventions (N=67)	/	28.4	64.2	7.5
Social worker skills (N=47)	6.4	8.5	38.3	46.8
Psychologist skills (N=26)	3.8	19.2	26.9	50.0

Table 4.5 demonstrates in the left column the percentage of participants that received a specific intervention, and in the right column the percentage of the participants that did not receive a specific intervention, but that would have liked to receive this intervention. The results of this table illustrate the high percentage of participants who wish to get support in different life domains, especially help at home, employment and recreational activities and who do not receive this kind of social support at the moment.

No impact was found of current heroin use (N=77), current Methadone dose (N=72) and the provision of psychosocial support in the last three months (N=77) on treatment satisfaction.

Table 4.5: *Provision and desirability of specific interventions (N=67)*

	Provision of services (%)	Desirability of services (%)
Family psychotherapy	5.3	19.4
Legal situation	14.3	21.2
Group psychotherapy	3.9	30.4
Individual psychotherapy	35.1	33.3
Social and work situation	40.3	41.0
Recreational activities outside the centre	15.6	40.0
Housing	9.1	40.6
Recreational activities at the centre	10.4	42.9
Sheltered work	10.4	45.3
Help at home	2.6	49.2

4.3.1.3. Quality of life

Individuals in opiate substitution treatment appeared to be most satisfied at the moment with the domains 'safety', 'people one lives with' and 'housing situation'. Respondents were least satisfied with their 'financial situation', 'work' and 'leisure activities' (cf. Table 4.6).

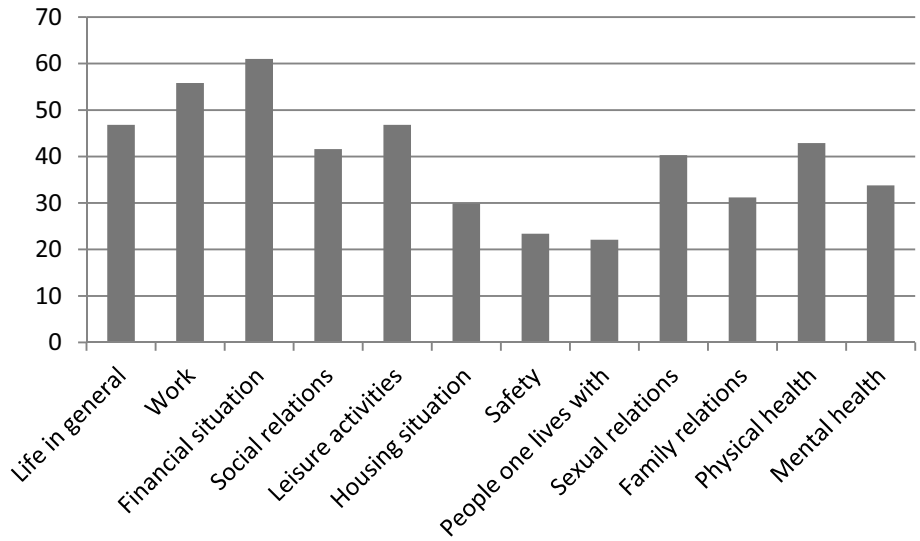
Table 4.6: *Mean scores (range 1-7) for the 11 domains and satisfaction with life in general of the MANSA (N=77)*

Life domains	[M(SD)]
Satisfaction with life in general	3.66 (1.68)
Work	3.56 (1.84)
Financial situation	3.03 (1.81)
Social relations	3.78 (1.71)
Leisure activities	3.65 (1.67)
Housing situation	4.22 (1.77)
Safety	4.77 (1.64)
People one lives with	4.73 (1.65)
Sexual relations	4.08 (1.86)
Family relations	4.20 (1.79)
Physical health	3.78 (1.67)
Mental health	4.16 (1.73)

While the mean scores provide an overall picture for the total sample, Fig. 4.1 shows the number of individuals reporting a low QoL (score

< 4) on the various domains. The results are divergent between the domains, with in particular a large number of subjects with a low QoL score for 'financial situation' (61.0%), work (55.8%), leisure activities (46.8%), physical health (42.9%) and social relationships (41.6%). Overall, almost half of the participants appear to be dissatisfied with their current QoL in general (46.8%).

Figure 4.1: *Proportion of participants with low QoL scores on each domain and life in general (N=77)*



Clients with a Methadone dose of less than 60mg were significantly more satisfied with the amount and the quality of their social relations, the people they lived with, their sexual relations, their family relations and their psychological health. These results might be influenced, among other things, by the social integration of the participants. Participants with a Methadone dose of less than 60mg had significantly more often a good friend than participants with a Methadone dose of 60mg or more (p=.023). The number of participants taking antidepressants in the last month was also significantly lower in the group with a Methadone dose of less than 60mg (p=.029). Furthermore, 75.0% of the participants with a Methadone dose of less than 60mg got their Methadone provided by a pharmacist, compared with 52.8% of the participants with a Methadone dose of 60mg or more (p=.050). More than half of the participants (51.4%) had used heroin in the last month. Significantly

higher scores on the domains 'sexual relations, mental health' and the current satisfaction with life in general were reported in the group of clients that did not report heroin use in the previous month. No significant impact of the provision of psychosocial support in the last three months on QoL was found.

4.3.2. Results of the qualitative study

4.3.2.1. Provision of substitute drug and the role of the pharmacist

Almost two thirds of the participants got their substitute provided by a local pharmacist and, therefore, specific attention was given in the interviews to the relationship and the experiences participants had with their pharmacist and their expectations towards the provider of their substitute drug.

The majority of the participants had a good relationship with their pharmacist. Personal commitment of the pharmacist and a friendly relationship were most frequently mentioned as important components of this relationship. For a number of clients, their pharmacist is a real confidential advisor and not seldom one of the few people clients in substitution treatment have contact with. The possibility of having a small chat when picking up their substitute is often of great value for people in substitution treatment.

> *'The relationship with my pharmacist is very good, I never had problems. She is like a mum to all of us. She is really nice. It's not only: 'Here are your drugs', but 'How are you doing?'. Whenever I have a problem, I can always go and talk to her about it. When I lost my boyfriend nine months ago she was very supportive. She even came to the funeral. It is not only a pharmacist, but a real mother figure.'* (Woman, Brussels)

Having the possibility to go to a pharmacist for the provision of their substitute, was appreciated mostly because this limited the contact with other drug users since they did not have to go to the treatment centre, the flexibility of the collecting hours and the fact that they got their medication for a couple of days and could take it home with them. Participants appreciated the fact that their pharmacist was very involved in their treatment, the discrete provision of their medication (e.g. behind the counter) and that now and then the pharmacist did that

little something extra (e.g. helping someone out when he had a lack of money, give their medication with someone else, flexibility in openings hours).

> *'To give you an example, the pharmacy only opens at 8:30 a.m., but I need to take my train at 8:30 to go to my training. She gave me the permission to pick up my medication at 8:15 and I could just walk in the pharmacy, while all the medication was there, she trusted me on that. That was really pleasant.'* (Man, Limburg)

However, a number of participants mentioned some negative experiences when looking for a pharmacist to provide them with their substitute drug. One of the barriers was first of all trying to find a pharmacist who was willing to provide their substitute drug. Now and then, clients were also referred to a specific pharmacist out of their neighbourhood, resulting in problems with accessibility. A few participants also mentioned stories when they were treated disrespectfully and where they had the feeling their pharmacist had a great distrust of people in substitution treatment.

> *'She puts my Methadone right at the counter in front of everyone, to say: 'This is my junk, craving for his daily dose of Methadone'. And that's sometimes really tough.'* (Man, Ghent).

When talking about expectations towards their pharmacist the major concern of participants was that pharmacists gave them accurate information about the type of medication they had to take and provided their medication correctly. They also expect their pharmacist to trust them and be flexible when they lack for example a prescription, that they help them out for the day. Another important expectation was mutual respect and understanding, being treated as a 'normal' customer.

> *'I expect my pharmacist to be friendly, not to treat me like a junk. To the other customers they always say: 'good morning, how are you?', but they never say that to me. It is not necessary for me that he becomes my best friend, but it would be nice if they would at least say: 'hello''* (Woman, Ghent).

4.3.2.2. Prescription of substitute drug and the role of the doctor

More than half of the participants mentioned to have a relationship based on mutual trust and personal commitment with the doctor who is prescribing their substitute drug, for them their doctor has a central role in their treatment process. The role of their doctor is broader than only providing medical support and they experience a lot of moral support and involvement from their doctor in keeping up their treatment.

> *'We almost never talk about Methadone, unless my dose is no longer ok. If I have problems, in whatever area of my life, we talk about that, how everything is going. That's really of fundamental importance to me.'* (Man, Antwerp)

> *'It's not only prescribing medication, but she really follows me. I have the feeling I can be open and put all my cards on the table. She starts from a broad perspective, how things are going in my family, all life domains. Also looking for ways to reduce my drug use, things that can replace it, that can make me feel good.* (Woman, Ghent)

> *'He supports me in everything, my kids, everything. He was there when my children were born. He has seen me in good and bad times, and when I am doing well, he is also satisfied. He respects me and looks me in the eyes.'* (Man, 45 Ghent)

A number of participants also saw more than one doctor in their substitution treatment and mentioned different relationships with different doctors.

> *'There is only one doctor who really listens to me, who tries to understand me. The other ones, it's just entering, getting a prescription and off you go again as soon as possible.'* (Man, Charleroi)

About a third of the participants had a pure professional and formal relationship with their doctor, and saw their doctor only in function of their prescriptions or additional medical complaints. For them it is less important to have the same doctor, they can rely on, since their contacts are limited to medical support. Few participants also mentioned that some doctors were very loose in prescribing medication, without concern for the people using it.

> *'I can ask my doctor whatever I want, whatever I want, antibiotics, benzodiazepines, tranquilizers, and she will give it to me, without asking*

any further question. It really bothers me. I think that's unacceptable. Because then everyone can just go to a pharmacy for whatever kind of medication and screw themselves with it.' (Man, Charleroi)

Clients with a rather formal relationship with their doctor do not expect much of their doctor, except for prescribing their substitute drug and a medical follow-up of their substitution treatment. The first group, with a personal relationship with their doctor, puts a lot of emphasis on being able to have a talk and get personal advice of their doctor on different life domains.

The data-analyses revealed a number of specific expectations participants have towards their doctor. Most frequently mentioned expectations were medical support, sincere commitment and interest of their personal doctor and being treated with respect and confidence (without prejudices). Especially for this last expectation, clients expressed the desire not to be all put in the same box and urged for more differentiation in substitution treatment.

'What I find negative, is that in the substitution program, they treat everyone in the same way. I can understand it is difficult to be flexible, when you have 300 clients, and 180 of them are manipulating or abusing your service. But they should try to work more goal-oriented with persons who are doing well and reward them for that. Sometimes I am really pissed off, because they don't realize who is trying to keep up.' (Man, Antwerp)

One of the clients made the suggestion to split up clients who just want a prescription when they come to see their doctor and clients who want to have a more comprehensive treatment offer, asking for more time and flexibility.

"It would be a good idea to have different consultations, separate office hours for people who just want to get their prescriptions and a different moment for those of us who have the need to ask some questions and have a little talk with the doctor." (Man, Limburg)

'I have been in treatment with different doctors, but with doctor X you always have to wait long time, but he takes time for his clients. I have known doctors who did 30 patients in one hour. Then I rather have to wait a bit longer and have a doctor that takes his time to listen. It's

annoying for the patients in the waiting room, but for me that's very important.' (Man, Antwerp)

4.3.2.3. Need for a central key worker in substitution treatment

The participants were asked to name their key worker, that was most important to them in their substitution treatment and the results were rather divergent. Almost half of the participants (N=35) mentioned their doctor as the most important person in their substitution treatment, followed by their social worker (N=18), their psychologist (N=7), the nurses (N=6), street corner work (N=3) and their pharmacist (N=3).

'It's my doctor, because I can talk with her. There is nobody else to whom I can tell my story and there is nobody else who knows me. I only talk with her, every two weeks.' (Man, Antwerp)

Twelve participants reported they had nobody that was of great importance to them in their substitution treatment.

'I only come here once every two weeks, but normally we don't talk a lot, it's only for my prescriptions and afterwards I go to the pharmacy. They don't ask me how I am doing, because now I have a wife and a kid and all that, so we don't talk about my private life anymore.' (Man, Brussels)

When participants were asked about the reason to choose this specific person they mentioned the fact that the key worker worked in their world by the use of outreach activities (N=8), practical support (N=7), medical support (N=7), but the most frequently mentioned reasons were giving information and advice (N=22) and emotional support and engagement (N=34).

'When I have a problem, I always ask my social worker how he would solve that and how he looks at the situation. He tries to give me some advice and then I decide which side to go. And then I can still choose to go his way or mine, but then you have some different options in mind. Because sometimes you only look straight ahead, without attention for the side-roads.' (Man, Limburg)

'This might sound crazy, but I remember that I was crying and X (the psychologist) was sitting next to me, I only knew her for 2 months, and she just moved her chair closer to me and told me: 'We will solve this together' and I have always remembered those words.' (Man, Limburg)

4.3.2.4. Type of psychosocial support received

Based on the qualitative interviews, about a quarter of the participants stated they had received some kind of practical or emotional support. This psychosocial support was almost non-existent or unknown in the region of Liège and Charleroi. A number of participants mentioned that this lack of psychosocial support was not a problem, since they were not interested in receiving psychosocial support, while others mentioned the need for support with regard to their social reintegration and practical issues.

> *'There are a lot of services in the centre, that we don't even know they exist. It would be good if we would be a bit more aware of those opportunities.'* (Man, Charleroi)

> *'I got out of prison in 1995, they literally kicked me out and dropped me on the street. From that time I did not receive any support of anybody. They talk about reintegration, but that was zero, I had to do everything by myself, without any help.'* (Man, Charleroi)

> *'I almost come here every day, and they help me with everything that's going on in my life. I had problems with my teeth and they solved that for me. They helped me when I was in the hospital as well, they even came to visit.'* (Man, Brussels)

Furthermore, a small number of participants in the Dutch speaking region mentioned the provision of psychological support in the form of therapeutic sessions, but the opinions about the usefulness of these therapeutic sessions was divided.

> *'I really had some hard times, a lot of things happened in my life, and then when I had those talks and they were listening, but I did not have the feeling they were helping me, they could not give me any advice.'* (Woman, Ghent)

> *'My best experience, I am paranoia and I lived with a woman and I thought there were people there who wanted to kill me. I thought somebody was spying on me from behind the wall. I did not dare to talk about it with someone. But then I started talking with my psychologist and I began to understand that I had a problem. She explained me everything and now I can understand my disease.'* (Man, Antwerp)

4.3.2.5. Desired types of psychosocial support

When talking about the ideal psychosocial support clients in substitution treatment would like to receive, a distinction can be made between the role and form of the support.

4.3.2.5.1. Role of psychosocial support

When talking about the desired psychosocial support, the respondents most frequently mentioned the need to tell their story to someone, with whom they feel connected.

> *'It should be like talking with a girlfriend, to whom I can say whatever I want and that I can trust. Because sometimes I want to talk about girl-stuff and that's something I can't talk about with a man.'* (Woman, Ghent)

Besides emotional support, the respondents stated the importance of practical support in substitution treatment, because they sometimes experience a lot of problems in different areas in their life.

> *'It should not be limited to listening, but sometimes they should do the effort to pick up the phone and to call to certain institutions, such as the Social Service Department. A lot of the people working there, they will only do the strict minimum and when somebody calls them now and then, things go much easier. When I call myself, it's like I am talking to the walls. So that's important for me, that they sometimes not only listen, but are also willing to help.'* (Man, Antwerp)

> *'My girlfriend has an alcohol problem, and she had to go to the hospital. I mentioned this at the centre, and instead of suggesting to bring her by car, they just told me to call a cab?! They know my situation, they know I am not able to afford a cab. This is not the answer I would expect of the people working here.'* (Man, Limburg)

> *'I think practical support is the basis, especially when you are a heavy drug user, with financial problems, problems with the courts, etc. At that time, it's important to look: has that person clothes, housing, food. That's most important, because at that time you just spend all your money on drugs.* (Woman, Ghent)

More than a third of the participants stated the need to have something to do, to be occupied with something to help them deal with the some-

times experienced emptiness of their everyday life and to replace their drug use.

> *'As long as you have something to do, it is not a problem, but that's very important, that you have something on your mind. It's a big difference when you wake up in the morning to go to your job. It has a large impact on my emotional well-being. What do I do now? I go and sit somewhere in the park with some people I know, drink a couple of beers and smoke a joint and make sure the day passes by. That's my daily life, but that's unbearable. If they would say to me tomorrow: 'You can start to work as a garbage collector and clean the channels, I will be there day after day and the major part of my problems would already be solved.'* (Man, Ghent)

> *'I think if we were able to follow some form of education, we are interested in, the chances to get people out of all this misery would be much bigger than how they are dealing with it now.'* (Man, Liège)

> *'You wake up, and there's nothing to do. You go outside and there are always people in the street waiting for you. And since you have nothing to do, off you go again and you spend 10 Euros on drugs and your day is ruined and the next day it is the same story again.* (Man, Brussels)

Participants also mentioned the need for a place where they could 'hang around', where they feel safe and can spend the day. Participants often stated that the opening hours of specialized centers were often restricted to week days and a few hours a day, urging for a place with flexible opening hours, adapted to their life situation.

> *'When we were in Brussels, we stayed the whole day at the centre. We could cook there and do all kind of activities. And here it is only picking up your Methadone and off you go again, like a dog, back on the street.'* (Man, Limburg)

This meeting place was also strongly linked to the desire for a supporting, personal network.

> *'It's really though. I have nothing to do, nothing that replaces my drug use, no job, no friends, no hobbies. And I don't have the courage and the strength to deal with all that by myself.'* (Man, Antwerp)

When discussing the desired form of psychosocial support, 12 participants stated the need for a comprehensive treatment offer, with atten-

tion for different life domains, instead of the often experienced forms of fragmented care.

> *'When it is not comprehensive, not focused on all aspects in your life, then it won't matter. Maybe at certain moments it can help a little bit, but other moments it won't help at all. And when you have all those problems, as a result you will not be able to cut back your Methadone use. I experienced it a year ago, when I have financial problems, then I start using drugs again. In that situation, the psychosocial support doesn't help you a lot, and when you go to the Social Services Department, there they consider you a junk, so that doesn't help a lot either.* (Man, Antwerp)

Finally, an important theme regarding psychosocial support is the attitude when working with opiate-dependent individuals.

Participants put a lot of importance on the way they are approached in psychosocial treatment and expressed the wish to be seen as normal people, rather than unreliable individuals. A lot of clients are ashamed of asking help or do suggestions, because they are afraid they will be rejected. Some participants even have the feeling that (after years in treatment) the staff no longer believed in them and they were no longer willing to invest time in them. Based on these experiences a number of respondents made the suggestion to involve ex-drug users in substitution treatment, since they know what they are going through and they can motivate them and be an example of the possibility to change.

> *'That they don't judge us and that they stop seeing us as drug users, but as normal people, with a particular disease. That they don't have prejudices.'* (Woman, Brussels)

> *'To somebody who is addicted, you need to let them know that they still mean something in this society. That they are not lost. Let them know there is still hope'* (Man, Ghent)

Furthermore, they stated the need to talk about the current situation and the future, rather than keep on digging in the past and telling that same old story again, why they started using drugs in the first place. Rather than starting from a problem-oriented focus, participants really appreciated if staff focused on what went well in their life and the things they were good at.

'It's always drug use, drug use, drug use they want to talk about. But let us for once not talk about my drug use. I would appreciate it if they would have attention for what went well in my life and not always everything bad.' (Woman, Ghent)

'Now and then I get a pat on the back from my social assistant and that's something that doesn't happen a lot. He gives me the feeling, that I am also a human being. You have to go a long way, before somebody will say 'well done'. Because in our lives it goes step by step, sometimes forward, but sometimes backward to. And maybe that little step forward seems very negligible, but we had to work really hard to get there. (Man, Ghent)

4.3.2.5.2. Form of psychosocial support

The importance of the voluntary character of psychosocial support is frequently cited in the interviews. The participants also expressed the desire of psychosocial support when they need it and not with strict appointments within a strict time-limit. Their stories revealed that their life is sometimes very unpredictable, urging for flexibility in the provision of psychosocial support and not strictly planned in advance. Participants repeatedly mentioned the importance of a relationship with someone of the staff, apart from weekly psychosocial 'talks'. The existence of this relationship will result in the possibility to ask for help when needed. Clients sometimes gave more importance to a spontaneous chat with someone of the staff in the waiting room to find out how they were doing, rather than the availability of structured support/therapy sessions.

'In the beginning of my Methadone treatment I also had talks. And I had a lot of difficulties with those conversations. They always lasted for an hour and they kept droning on about the past. I couldn't stand it and after each session I went out to use drugs.' (Man, Antwerp)

'If you force someone, that's like telling a junk to stop using drugs. But you should keep on motivating people to keep in contact, even if it is only to talk about the weather.' (Man, Limburg)

However, a few clients mentioned the need for structure (e.g. daily visits to the specialized centre) in order to deal with the multiple problems in their life.

'It is better for me to come here every day, because then I can have a small chat with someone, even if it is only at the counter. If I don't feel well, I can talk to them.' (Ghent, Man)

One of the themes frequently cited when talking about the form of psychosocial support was the importance of continuity in staff. Participants put a lot of importance on having a single case worker, they can rely on. Not seldom participants already experienced a lot of staff turnover in their treatment program, which hampers building trustful relationships and now and then results in clients who are no longer willing to share their story with a professional in substitution treatment. The need for continuity was not only expressed for social workers and psychologists, but also when talking about their prescribing doctor, respondents expressed the desire for a permanent doctor, who is familiar with their situation, to avoid misunderstandings and develop a personal relationship.

'I have three or four different doctors, but the problem is, each time it is a different doctor. And that's not easy, because they all have a file in the computer, but each person interprets this differently.' (Man, Charleroi)

A number of clients also expressed the desire for more outreach activities, so staff of treatment centres would get more insight in their daily life and the struggles they are facing.

'I don't know if these people have studied sociology, but none of them has ever come to my house to see how the situation was and how I was doing, none of them! Then, I sometimes ask myself what these people are doing the whole day.' (Man, Limburg)

'I think it would be very useful if they come to people's houses. Because people who are addicted are sometimes very isolated and they feel embarrassed to come outside and will not make it to the conversation room' (Woman, Ghent)

About a quarter of the participants did not want additional psychosocial support, since they hold the opinion that in the end they have to do it themselves, since they had no other problems except for their opiate dependence or since they had a direct social network (e.g. family, partner) they could rely on.

4.3.2.6. Experiences with the treatment program

4.3.2.6.1. General aspects of substitution treatment

Apart from the psychosocial support that was delivered, participants were asked about their general experiences, both negative and positive, with the organization prescribing their substitute drug.

What participants appreciated mostly was the low-threshold character of the specialized treatment centers and the fact the staff working there was flexible and respectful.

> *'They try to help everyone, even when you are still using drugs. They will not say 'there is the door'. But when I need to go to the doctor, I always try to be sober.'* (Man, Antwerp)

> *'You can always rely on them. Like now, I only have an appointment next month, but if something happens in the meantime, I can always come over to the centre and talk with my assistant. That's really important for me.'* (Man, Limburg)

> *'Whenever I had a problem, I could go over to my doctor and then we talked. Sometimes, I stayed an hour or even longer. She always takes her time, she is not occupied by her paperwork, but she is really interested in people. It's not like other people, that just say: 'Yes,yes', but they say 'Yes' and then they slam the door in your face.'* (Man, Liège)

On the other hand, the most frequently mentioned negative experiences with the services prescribing participants' substitute drug were the lack of control (e.g. prescribing medication without further questions), the limited 'pressure' to change things and the contact with other drug users, sometimes ruining the atmosphere.

> *'When I see my doctor later on today and I ask for 20 mg extra, I will get it. That's not a solution.* (Man, Ghent).

> *'For the people who want it, there is the possibility to ask for talks, or to call for a residential treatment or whatever, but they don't shout it from the rooftops, you have to ask it yourself and that's ok, but some people are so easily influenced, that they never get there and they never get the chance to change something.'* (Man, Antwerp)

> *'My previous doctor, he gave me everything I wanted. He gave me Captagon, a very strong amphetamine and Vesparax, that had the opposite effect. I took this combination, and the next morning you wake up,*

you have nothing left, everything is taken away from you and you can't remember anything. So I went to my doctor, completely overdosed and I could not even speak anymore, I tried to say the name of my friend: 'Vé, Vé, Vé (her name was Véronique) and he said: 'I guess you come for Vesparax'. When they found me half an hour later, 10 meters from his office, he did not even call an ambulance, it was one of the clients who saw it happen and he called the ambulance, while I was lying there, with my prescriptions of Vesparax in my pocket.' (Woman, Liège)

'It all happens in front of the treatment centre, dealing, selling Methadone, it is very easy to relapse, because you are constantly faced with reality.' (Man, Antwerp)

A number of participants also have the feeling that in the treatment centres their attention mostly goes to the clients who are in really bad conditions (e.g. still using heavily, marginalized living conditions), with limited attention for those clients who are trying to do well.

'They only deal with the worst cases here in the centre, I really think that is a drastic mistake. People who are trying to cope and do well, they don't get the support they need.' (Man, Antwerp)

In general, the most positive effects of following a substitution treatment for the participants were: being able to function again (e.g. employment), having control over their life (e.g. financial), no longer being sick, being able to control or stop their heroin use. Less frequently mentioned positive effects were the fact that their substitute drug was legal and that it prevented them from doing illegal activities and the fact they achieved psychological stability by taking their substitute drug.

'The reason I started with Methadone was to become normal again, to be no longer sick, because that's really tough, when you have craving and you have no heroin available. It was definitely not for the high, because Methadone doesn't make you high. Now I feel normal again, and I am able to function normally.' (Man, Antwerp)

The most frequently cited negative consequences of following a substitution treatment were: being dependent on their substitute drug (e.g. daily pick-up of their substitute drug, not being able to travel), side effects of substitution treatment (e.g. tiredness, heavy sweating), the long treatment duration, stigmatization and discrimination as a result

of their substitution treatment and the persistent need for another drug (e.g. alcohol, cannabis) to replace their heroin use.

> *'People who are using Methadone are always seen as an unreliable population group, but there are a lot of people who are using Methadone who have a lot to offer and who are able to get there, because they are taking Methadone.'* (Man, Ghent)

4.3.2.6.2. Pharmacological aspects of substitution treatment

A number of statements referred to the pharmacological part of substitution treatment.

About a fifth of the participants mentioned the involvement in determining their current dose of their substitute drug and the trust they received (e.g. to take their substitute drug home with them) as positive aspects of their treatment, while a number of participants explicitly mentioned the fact that they got Methadone as one of the most positive experiences with the service providing their substitute drug.

> *'When I talk with my doctor, he is never directive. He will never say: 'you have to decrease your dose' or 'next month you will do that', he always asks my opinion. It's more my doctor who asks me what we should do, he trusts me on that.'* (Man, Brussels)

However, when talking about negative experiences with the organization that prescribes their substitute drug about the same number of participants mentioned the lack of involvement in determining their current dose of their substitute drug and limited possibilities to reduce their substitute drug. This mentality sometimes gave participants the feeling they were hooked to their substitute drug for the rest of their life and that there was no more hope to ever live a life without taking that drug.

> *'If it depends on my doctor, he will just increase my Methadone dose from 50mg to 80mg when I am not feeling well, without further questions. But I also want some involvement in that. If I can make it with a increase of 10mg, there is no need to raise my dose like that. It is still my goal to get rid of that Methadone, I don't want to take it for the rest of my life.'* (Man, Ghent)

On the one hand, participants experienced a lot of resistance from their doctors to decline the dose of their substitute drugs, while on the other

hand they expressed a lot of difficulties to get other medication prescribed, such as benzodiazepines. Recently, a number of specialised treatment centres stopped the prescription of benzodiazepines to their clients in substitution treatment, but this often resulted in shopping behaviour of clients (e.g. trying to get benzodiazepines through their general practitioners, buying medication on the street).

> *'I am able to buy my benzo's on the street, without prescription, 10 Euros for a package, that's not the problem, but when I have them with me, I feel tempted to use more of them. When I got them from doctor X in the centre, I got 6 benzo's a day with my pharmacist and that was it, so there was some more control.'* (Man, Limburg)

Another negative experience some participants had, were waiting lists to start their substitution treatment and long waiting times when they went to see their doctor. A few participants also mentioned the lack of information when they started their substitution treatment (e.g. long treatment duration, side effects).

4.3.2.6.3. Expectations with substitution treatment

When participants were asked how they saw their substitution treatment evolve further in the future, almost all participants expressed the desire to decrease their current treatment dose (often from a long term perspective) and at the end to be no longer dependent of their substitute drug. Only a small minority saw their substitution treatment as a lifelong necessity to be able to deal with their life.

> *'My goal is to stop with my Methadone treatment, but slowly, because I have seen dozens, hundreds of clients who relapsed again after a few days and that's not my goal. I have been in treatment for four years now and once I stop, I don't want to start over again a couple of months later.'* (Man, Liège)

> *'One day I would like to stop with everything, but I realize that I will have to take Methadone for the rest of my life in order to live a good and peaceful life, and that does no longer bother me.* (Man, Liège)

4.4. Discussion

The primary aim of this study was to get insight in the provision of psychosocial support of opiate-dependent individuals following substitution treatment and their personal experiences and expectations regarding psychosocial support. About half of the participants (55.8%) received some form of psychosocial support in the last three months and around three quarters of them (74.4%) thought this psychosocial support was sufficient. This means that – starting from clients' perspectives – 44.2% of the participants did not receive any form of psychosocial support in the last three months. However, when looking at the results of the VSSS-MT for specific psychosocial interventions, a large majority of the participants (ranging from 49.2% to 19.4%) who did not receive these specific interventions in the last three months expressed the desire to receive psychosocial support in different domains (e.g. help at home, recreational activities). Also, in the qualitative interviews the number of participants that cited the wish to get some form of psychosocial support was higher than the number of participants that actually received some form of psychosocial support.

During the qualitative interviews, in-depth information was gathered on the role of psychosocial support in substitution treatment. One of the most important findings of the qualitative interviews was the prominent role of a positive working alliance in substitution treatment, which can be developed with different people (e.g. pharmacist, doctor, nurses, social worker, …), with different forms of education and training. Besides the psychosocial staff, pharmacists and doctors are often of great importance to clients in substitution treatment and a source of emotional support. Pharmacists involved in dispensing substitution treatment and doctors prescribing substitution treatment should have completed training relevant to their role (broader than only medical support) in opiate substitution treatment (Ministry of Health, 2008). They need to have insight in the chronic character of opiate dependence and in the experiences of stigmatization and discrimination that clients might experience in their daily life. Specific attention should be given to the development of this therapeutic relationship from the moment clients come in contact with a professional as part of their substitution treatment, because clients often experience this therapeutic relationship as something stable, which does not change a lot during the treatment process (Martin, Garske & Davis, 2000). A positive work relationship is

characterized (by both clients and the scientific literature) by the following qualities: the collaborative nature of the relationship, based on a high involvement and interest of the case worker, an affective and equal relationship between the client and the worker and a shared decision making about the treatment goals (Martin et al., 2000). The therapeutic relationship is at least as important as the specific treatment method that is used in psychotherapy or the type of treatment provided (Norcross & Wampold, 2011; Martin et al., 2000; Lilly, Quirk, Rhodes & Stimson, 2000). As a result of a good therapeutic reliance, the client will experience a therapeutic effect, regardless of the type of treatment provided. It will be of vital importance to integrate this treatment aspect, when talking about evidence-based treatment, since it is a key factor in the realization of treatment outcomes (Norcross & Wampold, 2011). There is a positive relation between the fact that clients feel understood by their therapist (=empathy) and the outcomes of psychotherapy (Elliott, Watson, Bohart & Greenberg, 2011). This again illustrates the importance to focus on clients' subjective perspectives and their perceptions about the followed treatment, since clients' observational perspectives predict outcomes better than therapists' observational perspectives (Norcross & Wampold, 2011). In training of staff in substitution treatment, attention should not only be given to specific treatment methods and techniques, but to attention for how to the establishment of a solid therapeutic relation with clients.

In accordance with these findings, participants frequently mentioned the desire of a central key worker (e.g. a permanent doctor or social worker) they could rely on. Often participants have experienced a lot of staff turn-over in substitution treatment, hampering their willingness to develop a trustful relationship with a professional in their treatment program. Research has demonstrated that staff burn out has a negative effect on clients' satisfaction with treatment (Leiter,Harvie & Frizzel, 1998). Consequently, as well from the clients' perspective as from the perspective of staff working with opiate-dependent individuals, attention should be given to create a caring and safe working environment and a good organizational structure in substitution treatment programs to increase the availability of a continuous support staff who can build out a positive working relationship with clients (Lilly et al, 2000).

When talking about the form of psychosocial support, participants frequently mentioned the need for flexibility, among other things, through

voluntary treatment participation, but also by a flexible treatment offer in time and place, clients could appeal to when they feel the need (based on a trustful relationship as a constant), rather than structured weekly sessions. Strict appointment systems requiring people to attend a particular place at a specific time are likely to incur high levels of non-engagement and often do not correspond to the daily living situations of vulnerable groups (Dixon-Woods et al., 2005).

The needs for psychosocial support expressed by the participants are diverse and a number of respondents also mentioned the necessity to differentiate between the group of people following substitution treatment. Participants expressed the need to tell their story to someone they can trust and who treats them with respect, get practical support (e.g. with paperwork), have something to do and a place and people they feel welcome with. Opiate-dependent individuals often experience high rates of unemployment and a lack of structured daily activities, resulting in feelings of emptiness, low self-esteem and social isolation (National Collaborating Centre for Mental Health, 2008). These findings again illustrate the need for an integrated treatment approach, with attention for different life domains and adequate support to promote the social inclusion and belonging of opiate-dependent individuals in society (De Maeyer et al., 2011a).

A second aim of this study was to gain insight in the current treatment satisfaction and QoL of opiate-dependent individuals in substitution treatment. The overall score on the VSSS-MT was 3.68 (SD=.46), which is comparable to the mean satisfaction rating of 3.5 reported among Methadone clients in Spain (de los Cobos et al., 2004). The scores on the VSST-MT demonstrate that opiate-dependent individuals are rather satisfied about their substitution treatment in general, but almost a third of the participants was slightly dissatisfied for the domains specific interventions, including a number of psychosocial interventions (e.g. housing support, individual psychotherapy). Further analyses revealed that the group of clients who received these specific interventions were rather satisfied about this support, but it also illustrated the high percentage of participants who desired to get support in different life domains and who did not receive this kind of social support at the moment (unmet service needs) (cf. Supra). Comparable findings were retrieved in an Australian study on clients in opiate substitution treatment, where apart from the pharmacological support, additional psy-

chosocial support was often lacking, despite the broad treatment needs of clients regarding various life domains (Madden, Lea, Bathi & Winstock, 2008). These findings correspond with the results on the current QoL of opiate-dependent individuals in substitution treatment, illustrating various support needs on different life domains. The current overall QoL was below the cut-off score of a high QoL (≥ 4). Also, on five of the 11 domain scores (work, financial situation, social relations, leisure activities and physical health) clients reported a low QoL, urging for an holistic treatment approach when working with opiate-dependent individuals (WHO, 2009).

Research has demonstrated that the perceptions of improvement by clients are not always consistent with the perspectives of professional staff with regard to the effectiveness of substitution treatment (Trujols et al., 2011). These findings illustrate the importance of goal setting with clients in substitution treatment, because not seldom the goals of an individual client might not correspond with the expectations and objectives of staff working in substitution treatment programs. Abstinence of illegal drugs is not always the primary reason or motivation why individuals seek help or enter treatment. Not seldom, problems in other life domains (e.g. family relations, legal problems) are deemed more important. Therefore, we urge for an expansion of the objective indicators (e.g. retention in treatment, abstinence of illegal drugs) in studies on treatment effectiveness (e.g. of psychosocial support) by including patient-reported outcomes, such as QoL and treatment satisfaction in the assessment and the monitoring process, in order to strive for a more client-centered treatment offer, based on an individual's needs and expectations (Trujols et al., 2011, De Maeyer et al., 2011b).

Finally, this study confirms a number of regional differences in the provision of substitution treatment in Belgium, especially between the Flemish and the Walloon region. Substitution treatment in Flanders was mostly prescribed by a doctor in a specialized treatment centre, while the role of general practitioners was more prominent in the Walloon region, especially in Liège. However, the results of this study should be regarded in the perspective of some limitations. First, the sample size is limited (N=77) and consisted of an older group of opiate-dependent individuals (*M*=41.6 years; SD=8.56) in maintenance treatment and is not fully representative for the group of opiate-dependent individuals following substitution treatment in Belgium (cf. Chapter 4).

Findings may therefore not be generalized to other groups of opiate users. Second, clients who had been in substitution treatment for less than three months were not included in the study. Third, the sample consisted predominantly of individuals following substitution treatment in rather large cities, which will give an insight in the urbanization of substitution treatment, but provides limited information on the provision and distribution of substitution treatment in rural areas. These restricted regions and contextual differences might limit the generalisation of our data to other regions (in Belgium), with possibly different treatment populations. Fourth, the majority of the participants got their substitute drug prescribed through a specialized treatment centre, so no specific statements can be made about clients following substitution treatment in a private practice. Fifth, QoL was measured by the MANSA, a self-report scale, based on 12 items, so contextual information that influenced the QoL of the participants is limited. Sixth, the analyses of the qualitative data can be influenced by personal opinions while coding and structuring the data. We tried to minimize this potential bias by working with various coders to increase the reliability. In future research efforts should be made to get more insight in the group of opiate-dependent individuals following substitution treatment in rural areas and through general practitioners and primary health care in general. Furthermore, it is advisable to explore the reasons for not entering substitution treatment with the group of opiate-dependent individuals who are not yet or no longer in treatment (Peterson et al., 2010). This might give insight in limitations of the current treatment offer and possible protective factors that influence the recovery process of opiate-dependent individuals.

Chapter 5 The role of psychosocial support in substitution treatment in Belgium

Jessica De Maeyer
Wouter Vanderplasschen

5.1. Introduction

The application of evidence-based guidelines in substance abuse treatment in Belgium is relatively limited, among others, due to the lack of availability of Dutch/French guidelines and the restricted applicability of these guidelines in the Belgian context (Autrique, Vanderplasschen, Broekaert & Sabbe, 2009). Besides some general principles included in the legal framework, no specific guidelines are available for the pharmacological and psychosocial aspects of opiate substitution treatment in Belgium. At the moment, a new Royal Decree with guidelines for the treatment with substitute drugs is under development, which will replace the Royal Decrees of 2004 and 2006. The comprehensive and internationally approved 'Guidelines for the Psychosocially Assisted Pharmacological Treatment of Opioid Dependence' edited by the WHO (2009) offer a useful clinical guideline with regard to the pharmacological treatment of opiate dependent individuals and point out the importance of the availability of psychosocial support to respond to the multiple and complex treatment needs of opiate dependent individuals. However, specific guidelines on the content and provision of psychosocial support are limited and findings on the effects of psychosocial treatment for substance use disorders are not always consistent (Dutra et al., 2008). Nevertheless, psychosocial support in addition to the pharmacological aspects of substitution treatment appears to be an essential component of substitution treatment (Amato et al., 2011a; Amato et al., 2011b; WHO, 2004; De Ruyver, Bosman, Bullens & Vander Laenen, 2001; McLellan, Arndt, Metzger, Woody & O'Brien, 1993). The available WHO guideline (2009) is very limited and rather vaguely described with regard to psychosocial support, which hampers the application of these guidelines in clinical practice. Therefore, part of the Subanop-study was dedicated to the development and adaptation of specific guidelines with regard to psychosocial support in substitution treat-

ment based on the WHO-guideline (2009) and other available guidelines on substitution treatment (e.g. NICE clinical guidelines for psychosocial interventions).

5.2. Methods

In order to adapt and concretize the few available guidelines on psychosocial support in substitution treatment to the Belgian context, a two-round electronic Delphi survey was set up including an expert panel (12 Flemish and 2 Brussels experts) consisting of various professional disciplines (general practitioners, doctors in specialized treatment centres, social workers, case managers, psychologists, pharmacists and network coordinators) (N=14). The Delphi-method is an interactive research method, which involves a panel of experts who reply to questions/statements in several rounds (McIlrath, Keeney, McKenna & McLaughlin, 2009; Skulmoski, Hartman & Krahn, 2007). The input for the first round of the Delphi study was based on the findings from a focus group on psychosocial support in substitution treatment with experts from Flanders, Brussels and Wallonia (N=8) (Hasson, Keeney & McKenna, 2000). The text of the WHO-guideline was the starting point for this focus group, which was expanded with a number of themes that were raised by clients following opiate substitution treatment during the qualitative interviews (cf. Chapter 4). Based on the findings from this focus group, a number of statements related to the provision, content and accessibility of psychosocial support for opiate-dependent individuals were posted on an online discussion forum. The client perspective was integrated in these statements and in the online discussions (e.g. by formulating a statement on the role of ex-drug users in substitution treatment), starting from the qualitative interviews. The input from the first round of the Delphi study was used by the researchers to write a draft guideline on psychosocial treatment in substitution treatment and was submitted for feedback, comments and final approval to the study participants in a second round of the Delphi study. Afterwards, the draft was once more revised, based on the input of the second round of the Delphi study. The consensus findings from the focus groups, complemented with references to the international literature, are presented in the result section of this chapter.

5.3. Results

5.3.1. Availability of psychosocial support

Given the complex nature of opiate dependence, the prescription of substitute drugs for opiate dependence should never be seen as an isolated intervention, but as part of an integrated and holistic approach, with attention for various aspects of clients' quality of life (e.g. daily activities, life meaning, health, …) (De Maeyer et al., 2011; Ministry of Health, 2008). As a result, psychosocial interventions will be an important cornerstone in the treatment and support of opiate-dependent individuals and people who are dependent on drugs in general (National Institute for Health and Clinical Excellence, 2007).

Availability of services is one of the main parameters of accessible treatment and support (De Bie, 2005; Sels, Goubin, Meulemans & Sanne, 2009; Stöver, 2011). Therefore, psychosocial support should be available for and known by all clients in opiate substitution treatment. Clients should be informed about the availability and content of this treatment offer throughout the treatment process, even when they are not interested in starting psychosocial support at the beginning of their substitution treatment. Consequently, the provision of psychosocial support should not be restricted to clients following substitution treatment in specialized treatment centers (e.g. medical social care centres or day care centres), but it should be one of the main pillars of substitution treatment in general.

5.3.1.1. The availability of psychosocial support for clients treated by a general practitioner

When clients receive substitution treatment through a general practitioner – whether this person is linked or not with a specialized treatment centre – psychosocial treatment should be provided, if requested or needed. Often the general practitioner is the main caregiver for clients in substitution treatment and he should be able to provide, facilitate or refer to other services to respond to the support needs of clients in substitution treatment. General practitioners should have received training in the potential benefits of OST and the chronic and complex character of opiate dependence (e.g. impact of stigmatization), in order to have insight in the treatment needs of their clients (Stöver, 2011).

This means, among others, that general practitioners need to be familiar with the available network of (psychosocial) support for opiate-dependent individuals, so they can develop a close collaboration with specialized treatment centres and primary health care services, when additional support or advice is needed (Ministry of Health, 2008; Stöver, 2011). When general practitioners have a formal agreement with a specialized treatment centre or a multidisciplinary network and can rely on this centre or network for advice and consultation, a shared treatment network can be set up. Such a shared treatment network will reduce the risk that general practitioners prescribing substitution operate solely and will increase the chance of continuous care when a specific general practitioner is no longer available. By doing so, clients following treatment with a general practitioner, should have access to the same level of psychosocial support and the same standards of treatment as clients following treatment in specialized treatment centres.

Since some clients choose to follow substitution treatment through a general practitioner in order to limit contacts with other drug users in specialized centers and to restrict feelings of stigmatization and discrimination, closer collaboration with primary health care and social services can be an alternative to offer the desirable services with regard to psychosocial support. To optimize this collaboration, attention should be given to existing stereotypical ideas in general health care and in alcohol and drug treatment about individuals with substance dependence, which may increase feelings of stigmatization and may affect medical decisions negatively (Brener, Von Hippel, Kippax & Preacher, 2010; Lovi & Barr, 2009). Therefore, professionals need to have insight in central concepts and theories of drug dependence, including the role of personal and social determinants. Nevertheless, psychosocial support should be available for those who want to benefit from these services, but should not be made obligatory. Moreover, research has illustrated that the provision of substitution treatment alone (without psychosocial support) has positive effects on the reduction of illegal activities and use of illicit drugs (Schwartz, Kelly, O'Grady, Gandhi & Jaffe, 2011).

5.3.2. Provision of psychosocial support and the therapeutic relationship

5.3.2.1. The importance of the therapeutic relationship and the central role of the doctor

Interviews with clients in substitution treatment (Cf. Chapter 4) showed that all staff involved in the substitution treatment regardless their function (e.g. nurse, doctor, psychologist, pharmacist), may influence treatment adherence and are capable of developing a positive relationship with the client. Another important finding is that clients mostly select one person in substitution treatment – not seldom their doctor – with whom they are willing to develop a relationship of trust. Their doctor is often the first and only person that clients in substitution treatment have contact with and who they trust. Therefore, doctors who start from a broad, not strictly medical approach by giving attention to the different life domains that might be influenced or have an impact on opiate dependence, will be able to provide sufficient psychosocial support to some of their clients, who are reluctant to start psychosocial support with a psychologist or social worker. Moreover, doctors have the possibility to investigate the needs for psychosocial support with their clients and set up a collaboration between doctor, client and, for example, social worker (e.g. joint sessions/ sharing the principal responsibility with the specialized centre). Giving primary attention to the personal perceptions of clients and making them active participants in their treatment process, will have a positive impact on the effectiveness of the treatment delivered (Stewart et al., 2000). The doctor will be the central link between his client and the social worker and is further responsible for the development of the treatment plan in collaboration with his client and treatment staff ('shared' expertise). This calls for a holistic perspective of care and support (of a fragmented approach) for persons in opiate substitution treatment, supported by all various disciplines (WHO, 2009).

5.3.2.2. Who should provide psychosocial support?

In specialized treatment settings psychosocial support is mostly offered by social workers and psychologists, but this does not always needs to be the case. Besides the potential function of doctors, the role of nurses is often underestimated in the provision of psychosocial support in

substitution treatment. Nurses often provide on-going (psychosocial) support to clients in substitution treatment and have a large impact on their treatment process. During the daily provision of the substitute drug (e.g. Methadone/Buprenorphine), nurses have the opportunity to chat and to develop a positive, trustful relationship with clients. Unfortunately, the distribution of substitute drugs is often limited to a few hours a day in specialized treatment centres, which limits the opportunity for clients to hang around for a while in the centre and to make contact with the staff organizing the distribution and urges for a higher accessibility of services. For some clients, who are reluctant to the structured provision of psychosocial support by a social worker or a psychologist, nurses can fulfil an important role in providing psychosocial support. The role of nurses in substitution treatment should not be restricted to the distribution of the substitute drug, but should also leave space for psychosocial support and positive interactions with clients (Lilly, Quirk, Rhodes & Stimson, 2000; Go, Dykeman, Santos & Muxlow, 2011).

5.3.2.3. The need for a multidisciplinary team

The availability of multidisciplinary teams in specialized services where nurses, social workers and other professionals can rely on for advice and feedback and where they can refer clients to when they lack expertise on a specific topic, is a necessary condition. Former drug users, who have followed specific training in the field of addiction can be a surplus value in such a multidisciplinary team to illustrate clients' experiences and needs and can be of great importance in substitution treatment. Their past experiences may lower the threshold for clients in substitution treatment and may enable the establishment of relationship of trust. Furthermore, former drug users can be useful as role models in specific psychosocial interventions (e.g. activation projects) and educational sessions (e.g. psycho-education regarding hepatitis C treatment) to illustrate hope and positive treatment outcomes. Another possibility to increase the accessibility of psychosocial support, is by making different team members (e.g. social workers, psychologists, nurses) responsible for specific aspects of the substitution program (e.g. substitution distribution, intakes, reception). Once clients already have a relationship based on mutual trust with one of the staff members, they may rather be inclined to ask for psychosocial support.

5.3.2.4. A positive working relationship: something you can work on

As mentioned above, the positive relationship between a client and his case worker is the cornerstone for realizing clients' treatment objectives. A client-centred and non-judgmental attitude, including a high level of empathy, is an important aspect of a bonding relationship with a client. Staff can be trained in these skills by teaching them client-centred communication strategies, such as specific conversation skills, active and empathic conversation techniques, which will be experienced by clients as empathic and showing interest (Stewart et al., 2000). The establishment of such an alliance with the client – which demands time – will ideally result in a solid basis from which the case worker can start working with the client on his personal treatment plan. When clients are not willing/capable to take up 'traditional psychosocial support' (e.g. weekly talks with a psychologist), it will still be important to invest in the development and further growth of a relationship based on mutual trust, since this can result in a growing willingness to start with psychosocial support (in a later treatment stage) or will increase the chance that clients will ask for this support, when they need it. However, given the high turnover among staff working in the field of addiction treatment and to guarantee the continuity of care, it will be important to expand clients' positive treatment experiences to other staff members involved in the treatment process to avoid feelings of being left to fend for themselves. Outreach activities (e.g. accompanying clients to various services, home visits) can be an important tool to get insight in the social world of clients, their strengths and needs and to develop a positive relationship with them. In the light of the recent evolution towards more community-based mental health care in Belgium (~art. 107) which promotes, among others, the integration of opiate-dependent individuals in society, outreach activities are used to support individuals in their direct environment and to reduce the number of hospitalizations. Outreach services are also a way to provide psychosocial support and to counterbalance a number of potential barriers that hinder clients to ask for psychosocial support (e.g. feelings of shame to come to the treatment centre, contact with other drug users, transportation problems …).

5.3.3. Psychosocial support: what's in a name?

5.3.3.1. Psychosocial support, more than planned conversations

According to the expert panel, psychosocial support should not be restricted to structured, planned conversations at fixed points in time, but also other moments during the treatment process can be opportunities to get in contact with clients – especially when working with socially marginalized populations –, to develop a positive working relationship and to provide psychosocial support (e.g. in the waiting room, during the daily distribution moments, when taking a cup of coffee). These are important moments from which formal, structured conversations can take place. For a number of clients who are rather reluctant toward the provision of psychosocial support, such informal talks are important to build a connection between with the treatment setting and, therefore, such low-threshold encounters should not be underestimated. Offering staff in substitution treatment the necessary time to invest in these moments to get in contact with clients and to create a warm and positive atmosphere for welcoming clients are deemed invaluable. These contacts may also result in a better connection between the client and the treatment setting. Flexibility in the way psychosocial support is offered, is necessary to answer the various treatment needs of opiate dependent persons. When psychosocial support is only available by appointment, this often does not correspond to the daily living situations of opiate-dependent individuals, in which their need for psychosocial support is often influenced by crisis moments or acute experiences. Working with a of permanence system for psychosocial support, is a good way to enhance the availability and accessibility of this type of support.

5.3.3.2. Social and psychological interventions

When talking about psychosocial support, a distinction should be made between interventions with a focus at the social level (e.g. basic needs, employment) and interventions at a psychological level (e.g. motivational interviewing, contingency management) (WHO, 2009). In general, when clients ask for psychosocial support, their primary needs ask for social interventions (e.g. financial support, housing) that enable them to get their daily life back on track. Such social interventions, and the changes/stabilization it may bring on various life domains, can trig-

ger clients and motivate them to deal with their drug use. A stable socio-economic situation is desirable, before clients can engage in behaviour therapy or other psychological interventions. During the initial treatment phase, a trustful relationship and openness to talk about emotional life events – that may require a therapeutic intervention – can be established. Therapeutic interventions should be integrated in the global treatment offer and should be adapted to the capabilities of a client, rather than referring clients to a specific – often high-threshold – treatment service, which is restricted for 'the happy few'. Often these therapeutic interventions are only necessary during a specific part of the treatment process, and not during the whole treatment program. The necessity of psychological interventions will of course depend on the specific treatment goals that clients want and can achieve (e.g. introspection, no financial problems caused by heroin use, …). However, given the high levels of co-morbidity, psychological interventions should always be available for clients in opiate substitution treatment. These psychological interventions can also be organized in another service (e.g. primary health care), but often referral of clients with addiction problems is hampered by waiting lists, prejudices, and poor monitoring. Therefore, these interventions should also be integrated in the treatment offer of specialized treatment centres (Deering et al., 2011). Besides 'talking therapies', 'learning by doing' is an effective way of working with clients in opiate substitution treatment (especially with clients with limited cognitive abilities). The organization of low-threshold activities (e.g. cooking activities, art workshops) are very useful to develop a positive relationship with clients and to increase their self-confidence and often result in small success stories. Clients in substitution treatment are often socially excluded and express a high desire for so-called 'normalcy' and 'feelings of belonging' (De Maeyer et al., 2011). Therefore, there is a high need for activities and low-threshold projects (e.g. drop-in-centres, day activities) in society at large, to enhance opiate users' social identity and their feeling of belonging to mainstream society, and which are not restricted to activities organized by specialized treatment centers. Drop-in centres, a place where clients can 'hang around', have a cup of coffee or a meal, play some music, but most of all feel welcome, are very important to fill the gap of emptiness in these persons' lives and are a perfect place for staff to get in touch and build up a relationship with clients.

5.3.4. Collaboration: an absolute necessity

When the goal is to offer psychosocial support tailored to the needs of the clients, collaboration with other (low-threshold) services – both specialized settings and primary health care – will be inevitable in order to improve accessibility of care. Opiate-dependent individuals often encounter multiple problems, urging for intensive support in various life domains (e.g. practical help at home, taking care of the children, …), not seldom over long periods of time. It will not always be attainable for the primary care giver (e.g. general practitioner, specialized treatment centre) to do this all by themselves and the need for shared support (not passing the buck to someone else) in collaboration with other appropriate services is stressed. Among others, more intensive collaboration between specialized centers and primary health care may have a positive impact on the social reintegration of opiate-dependent individuals and enhance their feelings of belonging to society. Therefore, staff working in specialized settings, but also the staff involved in primary health care need to be aware of each other's treatment offer and need to develop inter-professional treatment networks. Knowing each other services is one thing, but cooperating closely and making agreements between services will be necessary to set up integrated treatment services. It is one of the tasks of staff in addiction treatment to advocate for their clients and stand up for the realization of their social rights. Clients often encounter a lot of barriers (e.g. discrimination) when trying to appeal to different services and fine-tuning services can remove barriers and reduce prejudices. The often difficult referrals to mental health care centres are an example of the rather fragmented organisation of care, where clients are not seldom excluded because they are following substitution treatment. This way of thinking is at odds with striving for an integrated care and support system for people with opiate dependence. In some cases, co-ordination of services might be required to avoid fragmented care, loss of contact and improve the accessibility of services. A case manager can be involved as a linking person to co-ordinate, link and attune the various organizations involved (e.g. professionals, pharmacists, self-help groups).

5.3.5. Differentiated treatment interventions

5.3.5.1. Heterogeneity among MMT-clients

People suffering from opiate dependence are a heterogeneous group of individuals with different treatment needs, possibilities and expectations, so the 'one size fits all' principle – not seldom still persisting in various treatment settings – is no longer tenable (Brooner & Kidorf, 2002). On the one hand, generic interventions are useful to make decisions with regard to evidence-based treatment, but on the other hand, they may also hamper the introduction of tailored services in substance abuse treatment, based on the specific needs and capabilities of clients (Marsden, 2012). It is impossible and undesirable to develop a standard treatment offer that should be completed in a unilateral way by all clients in substitution treatment, given the strong heterogeneity among clients. Every client is different and will have different support needs. Some clients do not need (e.g. when they have a strong informal network to rely on) or want additional psychosocial support, while other clients might need psychosocial support in one phase of their recovery process, but will no longer need this support later. A minority of them (e.g. poly drug users with psychological problems and intellectual disabilities) might need lifelong psychosocial support (even after pharmacological treatment has stopped), starting from a continuing care perspective with attention for aftercare. This differentiated approach will be much more cost-effective and adapted to the specific treatment needs and capacities of a client compared to the standard offer of psychosocial support (Brooner & Kidorf, 2002). However, this small group of clients with lifelong support needs often has a large impact on the workload of the staff, which sometimes results in limited attention for preventive strategies among clients with less extensive support needs (e.g. young drug users, socially integrated clients, single drug users).

5.3.5.2. Individualized psychosocial support

Taken into consideration the complex character of opiate dependence, an individualized treatment approach, starting from clients' personal perspectives, in which pharmacological treatment is interconnected with personalized psychosocial support (according clients' needs), is one of the main challenges to optimize substitution treatment. This process should be developed with the client in partnership with their

case worker and/or doctor. In clinical practice, drawing up an individualized treatment plan – based on both strengths and difficulties – to realize clients' treatment goals, is an inevitable first step towards more personalized support and the quality of life of opiate dependent individuals (United Nations Office on Drugs and Crime, 2008). A detailed psycho-social assessment, with attention for different life domains should be the starting point. Considering the chronic character of opiate dependence (McLellan, 2002), adaptive and recovery-based treatment strategies that start from a continuing care approach, in which the support offered (e.g. intensity) is adapted to clients' progress, characteristics and treatment outcomes and offers some future perspective, might be useful (Murphy, 2007; Brooner & Kidorf, 2002). Specific psychosocial interventions (e.g. motivational interviewing, contingency management, cognitive behavioral therapy) should be attuned to the specific features of clients. Certain therapies will not work for the total group of opiate-dependent individuals in substitution treatment, but will be very successful when they are used with specific (groups of) clients. These specific psychosocial interventions can be used in addition to the 'standard psychosocial support' and should be delivered by staff trained in these specific interventions (National Treatment Agency for Substance Misuse, 2010). Contingency management is an effective intervention to engage clients in opiate substitution treatment by offering incentives for positive behavioural change (e.g. reduction of illicit drug use) (National Institute for Health and Clinical Excellence, 2007), but staff should be trained and should dispose of the necessary competences to implement this intervention in their treatment setting (National Treatment Agency for Substance Misuse, 2010). A distinction should be made between low-intensity interventions (e.g. motivational interventions, contingency management), delivered by case workers and focusing on treatment engagement, the achievement of specific harm reduction goals and supporting behavioural change with regard to drug use, while high-intensity interventions (e.g. cognitive behavioural therapy), so-called psychological therapies should be reserved for relatively stable clients with sufficient cognitive skills (Aharonovich et al,, 2006). However, in individualized recovery-oriented treatment plans a combination of low- and high intensity interventions will often be necessary, starting from a long-term and continuing care approach (National Treatment Agency for Substance Misuse, 2010). Such a personalized treatment approach asks for flexibility of professionals work-

ing with opiate-dependent individuals in order to serve clients with different treatment needs and demands which might change over time (Deering et al., 2011).

5.4. Limitations of the study

This results of the Delphi-study provides a framework for the provision of psychosocial support in substitution treatment. However, a number of limitations should be taken into account. The Delphi-method is a useful consensus method and was used to identify and obtain consensus on experts' views on psychosocial support in substitution treatment. Still, participants might have been influenced by the responses of other group members or gave socially desirable responses. Since the Delphi process results in consensus on a certain topic, this is also regarded as one of the strengths of this method (Hasson et al., 2000). Another limitation of the study was that the judgments and opinions were not strictly anonymous, since the first name of the participants was displayed on the discussion forum. Moreover, participants were not randomly, but purposively, selected, because of their expertise in opiate substitution treatment. Therefore, representativeness is not assured. Finally, the number of study participants was limited (N=14), including an overrepresentation of Flemish experts, which has affected the input and answers on the discussion forum. Still, we send email reminder and called participants in order to increase the response rate (Hasson et al., 2000). The restricted time period, the use of an online communication platform and potential language barriers may further have had a negative impact on the number of experts participating in the Delphi method.

5.5. Conclusion

The often chronic and complex character of opiate dependence, which affects functioning on various life domains, urges for a paradigm shift based on a continuing care and support model, involving specialist services, general practitioners and primary health care services (Deering et al., 2011). Client-centered psychosocial support (including an active role of the client), which is tailored to an individual's needs, expectations, capacities and long-term treatment goals is an important

element of the overall treatment offer. Psychosocial interventions encompass a wide range of interventions from 'talking therapies' (e.g. chat sessions), over practical support (e.g. financial support) and psychotherapy (e.g. cognitive behavioural therapy) to sharing moments together (e.g. outreaching activities) and maintaining a trustful and respectful relationship with clients (RIOB, 2012). Psychosocial support should be regularly reviewed and may be delivered alongside – or as part of – a pharmacological treatment. Training and continuing supervision should be available for staff working with persons in opiate substitution treatment in order to deliver competence-based psychosocial interventions which are integrated in the overall treatment offer (National Treatment Agency for Substance Misuse, 2010).

Chapter 6 Policy recommendations for optimizing the quality of OST-provision in Belgium

Sharon Van Audenhove
Freya Vander Laenen
Margaux Buckinx

6.1. Introduction

This chapter is aimed at making an inventory of policy recommendations and to identify good practices based upon the points of view and the experiences of OST experts by means of focus groups. In view of the importance of the 2009 WHO guidelines on OST (WHO, 2009), the results from the focus groups are systematically compared to the recommendations in the WHO-guidelines throughout this chapter. Since the results from each of the preceding chapters and the results from this chapter will be integrated into one global chapter aimed at overall policy recommendations, we will not distil specific conclusions regarding this specific chapter.

6.2. Methodology

Three focus groups were organized – one in each region – to formulate policy recommendations and identify good practices. The topics of the focus groups were based upon the results of research in the preceding work packages and complemented with the suggestions of the members of the guiding committee. As a result, the following topics were discussed in each focus group: the identification of the different target groups within OST and the type of service they can/should be referred to; the integration of primary care into OST; the integration of (general or psychiatric) hospitals into OST; and the optimization of the organization of the collaboration between sectors.

The provision of OST in prisons was a topic in the focus group of Wallonia and Brussels, but it was not discussed in the focus group in Flanders, due to time constraints in the focus group in Flanders.

In total, 21 respondents participated in the three focus groups (8 in Wallonia, 7 in Flanders and 6 in Brussels). For the three focus groups, a maximum diversity in its members (both with regard to geographical spread and to the type of providers) was strived for (Polkinghorne, 2005). The three focus groups each lasted two hours.

In the focus group in Wallonia, a pharmacist, three specialized centers (two social workers and a coordinator), one street corner worker, one GP and two hospitals participated (a psychologist from a psychiatric hospital and two nurses). In the focus group in Flanders, a pharmacist, four specialized centers (two directors and two nurses), a staff member from a primary care center, and a staff member from an education and training center participated. In the focus group in Brussels, five specialized centers (a GP, a psychiatrist, a coordinator and two social workers) and the coordinator of one low threshold service for drug users (not providing OST) participated.

In the focus group in Flanders, every province was represented, except for the province of Limburg. In the focus group in Wallonia, there is a predominance of participants from the province of Liège.

To make full use of the rich information provided, each item was structured and analyzed. All focus groups were recorded and transcribed verbatim. For the analyses of the focus groups, we started from the research material, from the concepts and categories used by the research participants (Ryan & Bernard, 2003; Vander Laenen, 2011).

The results are illustrated by quotations from the focus groups. The quotes are translated from Dutch and French and are made anonymous.

6.3. Results

6.3.1. The treatment and societal context complicates the development of the OST-policy

In general, the participants in the three focus groups indicate the difficulty to formulate policy recommendations to optimize the organization of OST, because of the complexity of the way in which drug treatment is organized.

> *"Don't ask me to formulate a policy towards a reorganized drug care, I'm not able to. The organization of drug treatment is too complex and too diverse."* (specialized centre, Flanders)

There is consensus that substance dependence is a health problem, not a legal problem. This focus on health is in accordance with the WHO guidelines (2009: 8), stating: *"Given the multiple medical problems associated with opioid dependence and the nature of pharmacological treatment, provision of pharmacological treatment for opioid dependence should be a health-care priority"*.

Drug dependence can have implications for the physical, mental and social well-being of the drug user, his social network and the society. Drug dependence cannot be considered an isolated phenomenon, rather is should be considered a health and social problem and as such it should be dealt with by society. Additionally, the Flemish participants regret the increasing focus in society on security issues. They indicate that although a repressive policy might lead to a sense of security, for the most vulnerable people, it will produce predominantly negative consequences. The participants fear that this societal evolution will impact unfavourably upon the organization of care. The participants emphasize that social support should not function as a control-, protection- and defence strategy against delinquent behaviour. In the focus groups in Wallonia and Brussels, these issues were not raised by the participants.

> *"Usually, one spark is enough, one incident can cause the whole focus to change."* (primary care centre, Flanders)

In the focus group in Flanders, the participants discussed in detail potential ways to optimize the organization of OST. In the focus group in Wallonia and Brussels, this was only touched upon. To optimize OST in Flanders, two approaches were put forward by the participants: a bottom-up and a top-down approach. The bottom-up approach was advocated by the specialized centres, the general practitioners and other primary care workers. The pharmacist proposed a top-down approach.

Specialized centres, the general practitioners and other primary care workers advocate for a *bottom-up* approach to optimize OST. A bottom-up approach starts at micro-level and is inspired by local initiatives that

have been successful. A network, consisting of specialized centres and primary (health) care, is necessary to share best practices of OST, according to the Flemish participants. During the focus group one good practice was discussed, the case of Limburg, where a system of authorized GPs and a central electronic file is used. These participants recommend that a close cooperation should be developed at *local level*, rather than at provincial level. After all, clients do not always stay within the frontiers of a province when they make an appeal to care centres. Suggestions on how to demarcate the geographic boundaries of this local level in practice are hard to give, state the participants. However, there is a consensus that within each local level at least one actor of the primary, secondary and tertiary care level should be represented. The development of such a regional network could be established by a local care or drug *coordinator*.

The pharmacist advocates a *top-down* approach, referring to the Netherlands, with the government developing the structure of the drug treatment system and adopting the structure nationwide. In line with the proponents of a bottom-up approach, a top-down approach should be inspired by best practices in the drug treatment field.

The specialized centres stress that a top-down approach would not work if it is lacking support from the people in the field. However, all Flemish participants do agree that the government should define the pathways for support of each client (starting from the treatment needs, the expectations and preferences of the individual patient).

Registration of provision and demand is essential

There was no agreement between the participants in the focus groups in Flanders, Wallonia and Brussels regarding an electronic central registration system of patients.

In the focus groups in *Flanders,* all the professionals working in specialized centres are in favour of an electronic central registration system of patients. A central registration system of patients has advantages, e.g. to prevent that clients receive Methadone or Buprenorphine from more than one source and to avoiding shopping among various providers. In *Brussels*, there was no consensus about an electronic central registration system of patients because of its potential negative effects. The GPs in the focus group in BCR, state that the registration might negatively

impact upon their status. In the focus group in *Wallonia*, all the participants recognized that an electronic central registration system of clients could be very useful, although most (including specialized centres) mistrust it also because of its potential negative effects. In fact, the Walloon participants prefer no electronic data registration to avoid excesses; they would prefer a reference person to gather these data and pass them along. They also propose that it would be (more) interesting to create a repertory to identify institutions, organizations and professionals active in the field of OST. This could lead to more clarity for professionals and to more visibility for patients. In the focus group in Flanders, the participating pharmacist was also not convinced that the central registration of patients will have an additional value because disadvantaged populations (such as illegal immigrants without a National Social Security Office-number) will be missing in this central registration, a point of criticism also stated by the GP in the Brussels focus group.

The above-mentioned advantages of a central registration system are in accordance with the WHO guidelines (2009: 10), stating that such a register *"prevents patients from receiving Methadone or Buprenorphine from more than one source; can be used to limit access to other controlled medicines requiring central approval, such as other opioids; can provide more accurate data on treatment numbers than situations where central registration is not used."*

Overall the main fear of the participants opposing an electronic central registration system of patients is that this system could be liable to issues of *privacy and professional secrecy*. The element of privacy also makes the WHO hesitant towards a central registration system: *"However, central registration can facilitate breaches of privacy, and this may deter some patients from entering treatment. It can also delay the commencement of treatment."* (WHO, 2009: 10)

In the Flemish focus groups, all the participants see an additional value of this registration to optimize the organization of OST.[61] To this end, reliable data are required at two levels: at the level of the providers and at the level of the clients, including data on: (1) (the spread of) OST providers, and (2) the number of opiate-dependent people in substitution

[61] The topic of registration for planning and organizing OST structurally was not discussed in the focus groups of Wallonia and BCR.

treatment. The participants indicate that in Belgium in particular, epidemiological data about the treatment demand and the provision side of treatment are practically non-existent. Therefore, efforts should be made to systematically collect adequate data on both provision and demand.

> *"If they could follow-up all OST clients, we could gain insight into the regions in which OST are underrepresented, as I do think that there are gaps"* (primary care centre, Flanders)

These preconditions are in accordance with the WHO-guidelines: *"The policy should outline the approach to preventing and treating the problems of opioid dependence. It should be based on epidemiological data, the evidence for effectiveness of interventions, the resources of the country and the values of the society."* (WHO, 2009:. 8-9)

6.3.2. Substitution medication: Prescription and administration should remain the physician's responsibility

All the participants of the three focus groups agree that medical staff is required for the treatment of opiate dependence, both for clinical assessment and for the *prescription* of Methadone and Buprenorphine.

When it comes to the role of other members of staff in the pharmacological provision of OST, slight differences were found in the opinion between the Flemish and the BCR and Walloon participants.

In *Flanders*, the participants are not in favour of social workers dispensing substitution medication. To them, one decisive argument against this is that the distinction between the medical support and the psychological support must be maintained.

> *"Our social workers are happy with the present regulation, with the medical part of OST being the sole responsibility of the medical staff. Social workers who take care of clients' budget or administrative problems also administering Methadone would be considered detrimental for the care relation they have with their client."* (primary care centre, Flanders)

In *BCR and Wallonia*, in some settings such as residential settings and specialized centres medical staff may delegate the administration of

substitution medication to nurses and other health-care staff or to social workers, be it under the supervision of a physician or psychiatrist.

Dispensing substitution medication by medical and nursing staff is in accordance with the WHO-guidelines, albeit under two additional conditions: *"Staff dispensing Methadone and Buprenorphine are generally pharmacists, although (…) nursing staff may also be able to dispense medication, depending on national laws. Staff dispensing Methadone and Buprenorphine should have specific training in opioid-dependence treatment".* (WHO, 2009: 15-16)

6.3.3. Psychosocial support: a surplus value, but no obligation

All participants of the three focus groups agree with the principle of autonomy: clients should be free to choose psychosocial support. The motivation of the client is the most important condition to make this support a success.

> "*There's no use in trying to force someone into psychosocial support. If he doesn't want to talk, then that's just the way it is."* (specialized centre, Flanders)

The psychosocial support should be available to all opiate-dependents clients, according to the WHO-guidelines, although indeed it *"should not be compulsory".* (WHO, 2009: 9-10)

Some of the participants in the focus group in *Wallonia*, added to this that the *"initial goal of OST is to couple the medication to a relation"* (general practitioner in specialized centre). They agree that patients don't have to be forced into a formalized psychosocial support. However, it is the responsibility of professionals to be available and to try to maintain a relationship with their patients anyway. This relation can be rather labelled as informal psychosocial support.

All participants of the three focus groups agree that clients whose problems on the different life domains are sufficiently stabilized are not in need of psychosocial support, unless they themselves indicate that they would benefit from it.

> "*A client with a stable life, I mean with a stable relationship and a steady job doesn't, in my opinion, need psychosocial support."* (pharmacist, Flanders)

The participants in the three focus groups indicated a range of arguments in favour of adding psychosocial interventions to a pharmacological treatment, especially for clients experiencing many difficulties on the different life domains (such as housing, income and well-being). For these clients, a pharmacological treatment is not sufficient. Moreover, a long-term intervention may also create more and broader counselling opportunities for practitioners, allowing providing medication and simultaneously working on the different life domains of the patient.

All participants in the three focus groups state the importance of providing individualized psychosocial support, depending on the psychosocial needs of the client: *demand-driven health care* and *individualized care* are of vital importance. By doing so, caregivers empower their clients in that way taking charge of his/her life first of all with regard to his/her health. *Integrated holistic care* is an opportunity since problems on each of the life domains can be taken under consideration and are not limited to the health problems.

The advantages of integrated holistic care are emphasized in the WHO-guidelines as well: *"The optimal approach is to provide integrated holistic care to address current problems and prevent further problems. In practice, this means being able to detect medical, psychiatric and social issues in the assessment process, and having the means onsite to attend to the issues simultaneously."* (WHO, 2009: 19)

6.3.4. Referral and networking: essential parts in the treatment of persons with complex needs

Integrated holistic care emphasizes the merging of all the elements related to treatment and support. In that respect, the acquirement of new skills and training are essential for every care giver. In particular pharmacists and general practitioners report a lack of time and skills to support their clients on a personal, efficient and effective manner. Especially clients with complex problems are in need of active and long term support, in accordance with their treatment needs.

> *"I cannot provide support on other life domains. (…) As a pharmacist you need knowledge and time for it, something I really don't have."* (pharmacist, Flanders)

"It's important to make time to raise GPs and pharmacists' awareness of addiction and addicted patients' particularities." (specialized centre, BCR)

"Understanding the matter and its population is probably going to lead to less mistrust towards the OST patients from general practitioners, hospitals and pharmacists." (specialized centre, Wallonia)

According to the participants of the three focus groups, networking across the different levels of care is a necessary condition for active support: general practitioners, pharmacists and other primary care workers should refer clients with complex problems to other, more specialized, centres such as specialized drug centres or primary care centres with a low threshold and expertise in reaching marginalized populations (General Welfare Centre (CAW)/MSSC). In this respect, the participants in the three focus groups stress that networking with different (health) care services is an essential part of the treatment process.

"The general practitioner is the first one to listen to the client. It's his task to refer the client to other providers at the right time when he notices the client has a need for it and he can't provide a solution. Everything should be centred on an adequate cooperation between specialized centres and non-specialized providers." (specialized drug centre, Flanders)

The WHO-guidelines emphasize the importance of networking with the diverse specializes and non-specialized, health and other services as well: *"Access to and networking with medical, psychiatric, social and harm-reduction services is desirable, and should be developed when possible."* (WHO, 2009: 17)

However, the participants in the focus groups indicate that networking should not be a synonym for the merging of all services. The adage 'The whole is greater than the sum of its parts' certainly applies to networking, according to the participants. Networking will be only successful on one condition that is when the priorities and aspirations of each service for the major decision-making areas are acknowledged as well as the existing tensions between services.

6.3.5. Cooperation is essential for a successful treatment system

6.3.5.1. Training/education and consultation between primary care and specialized treatment services are key factors to improve cooperation

The participants of the three focus groups all agree that it is important that various primary care agents and specialized centres involved in OST get to know each other, at a structural-organizational level as well as with regard to the actual content and (treatment) methods applied. Knowing each other has several important advantages, on a patient level as well as on a structural level. The actors involved can develop a relationship of trust and it can lead to a clear-cut cooperation. Moreover, the interaction between professionals is essential to avoid misunderstandings and double prescriptions. Finally, it can help to optimize the spread of patients.

> *"Every organization has its own vision which complicates the cooperation too. Therefore, if we want to cooperate we have to get to know each other. And that starts off with discussing frustrations and granting each other trust; a 5-year dating period before getting married."* (specialized centre, Flanders)

According to the participants in the three focus groups, participation in conferences and in informal and formal meetings is the most suitable way of getting to know each other. In the Flemish focus group the participants added that this takes time and money, which is problematic for pharmacists and general practitioners. Therefore, the participating pharmacists and general practitioners in the Flemish focus group propose a financial compensation.

> *"You can only mobilize general practitioners and pharmacists by offering them money."* (pharmacist, Flanders)

Second, the consultation between primary and specialized – ambulant and residential – services, is considered to be a 'golden triangle'. Participants of the three focus groups all agree that this type of consultation is a simple and effective way to induce the cooperation on a client-level as well as on an organizational level. To realize this, consultation meetings should take place on a regular basis, e.g. every three months.

"A: We don't have to re-invent the wheel. We can all learn from each other, so consultation between different providers on a regular base is required." (specialized centre, Flanders)

B: I agree, but these meetings should be organized on a regular base, otherwise it is pointless. Yearly meetings only are not sufficient." (specialized centre, Flanders)

The participants of the Flemish focus group added one recommendation, regarding rules and regulations, to stimulate cooperation. All agree that Ministerial circulars urgently need to be linked to the Royal Decrees of 2004 and 2006. These Ministerial circulars are regarded as the foundations of the OST-policy. The Ministerial circulars should clarify the goals and modules of each OST-service.[62] The knowledge of these goals and modules would provide the OST-services with a basis for collaboration and communication. Moreover, it is a necessary condition to increase the support of pharmacists, general practitioners and other primary care workers. Participants are not in favour of rigid Ministerial circulars though.

6.3.5.2. Obstacles hampering cooperation

The participants agree that the cooperation between the different services is only possible if all the services approve of substitution treatment. Furthermore, a lack of knowledge of opiate dependence and substitution treatment can be a reason for rejecting OST-patients.

In Wallonia and BCR, the participants identified the mistrust of some hospitals, general practitioners and pharmacists towards the OST patients as an obstacle. More awareness and sensitization through trainings and education could improve the willingness to provide OST, they state.

Besides the lack of acceptance of OST and the lack of knowledge of OST indicated in the three focus groups, the Flemish focus group discussed exclusion criteria as important obstacles.

The Flemish participants of the specialized drug centres indicate that quite a lot of pharmacists and general practitioners are annoyed by the

[62] In the focus group, no concrete proposals or recommendations of the modules and the responsibilities that come with it were provided.

exclusion criteria or time-out criteria (such as not speaking Dutch, aggression or psychiatric problems (co morbidity), a lack of motivation of the clients) of some of the specialized drug centres.

> *"The terrible thing is that some centres discharge clients for small reasons; they have to go to ambulant centre as punishment. I don't understand that. (…) It's not a solution to say: you have made a mistake in our centre, you are not welcome here."* (pharmacist, Flanders)

The participants who are employed in these specialized drug centres acknowledge this criticism, although they emphasize the necessity of working with exclusion criteria to preserve the efficiency of the centre.

> *"I see your point, but a centre has to take disciplinary actions. Otherwise, a centre can't work efficiently. It's like a child: you also have to punish a child when he does something wrong."* (specialized centre, Flanders)

In addition to the specialized drug centres, some primary care centres (such as General Welfare Centre (CAW)-shelters) also apply exclusion criteria. The participant from the CAW indicates that not every CAW-shelter will admit clients dependent on drugs because of resistance from other clients.

Some general hospitals and psychiatric hospitals – psychiatric departments of general hospitals included – exclude patients with substitution treatment as well. Two reasons for this are given by the participants; first, the fear of nuisance caused by OST-patients and second, the impossibility of verifying the Methadone or Buprenorphine dose indicated by a patient they don't know.

The pharmacists understand the need for criteria. However, they expect that all services – taking into account the implications for the client – apply inclusion- and exclusion criteria and house rules consistently and transparently, and that they communicate these rules and criteria openly with other professionals (be it specialized, or non-specialized centres).

> *"Patients do not always know the real reason for their discharge. (…) I knew a client who had been discharged from a residential centre because of noncompliance with the programme rules. Transparency and clearness are necessary."* (pharmacist, Flanders)

The primary care practitioners state that pharmacists also have rules and limits: the limited opening hours is inconvenient for clients who hold a job.

Exclusion- and time-out criteria, and accessibility problems, are not acceptable in principle. According to the WHO-guidelines, they should be limited as much as possible and they should be revised as soon as the staff and other clients are no longer in danger. Noncompliance with program rules and house rules alone should not merely be a reason for involuntary discharge, unless *"Involuntary discharge from treatment is justified to ensure the safety of staff and other patients."* (WHO, 2009: 17)

6.3.6. Education and training are priorities

According to the participants of the three focus groups, one of the *most important obstacles* for the quality of OST-provision is the lack of support and training for *all* providers and not only for primary health care services.

Especially pharmacists, general practitioners, other primary care workers, and general and psychiatric hospitals are in need of education and training regarding substitution treatment.

"There are a lot of colleague-pharmacists losing their motivation because of pharmacists get too little support and education." (pharmacist, Flanders)

Medical as well as psychosocial aspects of substitution treatment are important parts of education and training. The participants state that such initiatives should be organized by independent organizations (such as VAD in Flanders and the Fedito in Wallonia and Brussels) and not by pharmaceutical companies that market Methadone and/or Buprenorphine. Following training sessions and attending conferences requires a lot of time though. Participants in the Flemish focus group agreed that a financial compensation is desirable to motivate pharmacists and general practitioners.

The WHO-guidelines also highlight the necessity for education and training: *"The support and training of health-care personnel requires a continuous effort (…). These requirements may include postgraduate training and certification, continuing education and licensing and the setting aside of funding for monitoring and evaluation."* (WHO, 2009: 15)

In the focus group in Flanders and BCR, the organization of a large-scale conference regarding substitution treatment in Belgium is a necessary first step to fill the gap in training.

> *"I think that the whole drug care – and I mean each person, each centre engaging substitution treatment – is in need of education and training. Yet, there have been no conferences with the theme "substitution". However, conferences could be very important for the education and training of general practitioners, psychiatrics, pharmacists, …."* (specialized centre, Flanders)

In Wallonia, the participants stress the importance of training on practical aspects. To them, using the experience of people who work on a daily basis with OST patients is by far the most useful training formula. This could have an impact on students' and professionals' stereotypes regarding addiction or OST patients. Specialized centres could be places for students' internships, as part of their basic training and for professional immersion.

> *"Practical aspects are essential and should be the objects of transmission to other professionals."* (specialized centre, Wallonia).

6.3.7. OST in prisons

In Wallonia and Brussels, the specific case of OST in prisons was discussed and all participants agree with the following WHO-guideline: *"Pharmacological treatment of opiate dependence should be accessible to all those in need, including those in prison and other closed settings."* (WHO, 2009:11)

The participants indicate that investing in prison care to continue treatment is very useful because, when patients leave the prison, they often relapse. Professionals should be able to follow their patients when they are imprisoned for a long period of time and keep seeing them after their release. The continuity of the treatment is primordial and the day of release an important turning point. On that last matter, the professionals' opinions again are consistent with the WHO guidelines: *"Policy makers and prison administrators should ensure appropriate links between prison health services and agonist maintenance treatment outside prison. Even small gaps in the continuity of treatment are distressing for the patient and may cause relapse into illicit opiate use. Therefore, opiate agonist maintenance*

treatment should be continuous on leaving prison. This means coordinating the day of discharge from prison with the day of commencement of opiate agonist treatment outside prison." (WHO, 2009: 12)

The participants are critical of the current situation regarding OST in prisons. In the experience of the participants, in most of the cases, the pharmacological detoxification treatments are maintained in prison. However, this is seldom the case for maintenance treatment and even less for the psychosocial support. The participants criticize the lack of social workers and specialized staff, like general practitioners and psychosocial professionals. The lack of OST implicates that, once a detainee is released from prison, the treatment services have to restart treatment. The participants recommended that prisoners should be able to keep their mutual insurance/mutuality because the state does not pay for substitution treatment.

Moreover, the participants criticize that the provision of OST is depending on the person who is in charge. Surprisingly, the participants are unaware of the technical protocol added to the ministerial circular of 2006 regarding OST in prisons (Ministerial Circular nr. 1785 of 18 July 18th 2006 on the drug problem in prisons), since they recommend the legal regulation of OST in prison. In the focus group in BCR, the participants added a plea for the improvement of prevention and the provision of harm reduction (needle and syringe exchange) to the plea for OST.

6.4. Discussion

The focus group technique has some limitations. The disadvantages mentioned most frequently are linked to the group dynamic. Group discussions may be dominated by one or more individuals (Macphail, 2001). Participants may feel pressured to conform to peers and/or dominant individuals in the group. The group dynamic may influence the attitudes of participating individuals (Bristol & Fern, 2003). Qualitative group techniques can also suffer from an inhibition of idea generation leading to focusing on a single idea early on in the discussion or it might be that one idea is elaborated on extensively in one group and only partially touched upon in another (Vander Laenen, 2009). Finally, since a focus group is a qualitative technique, it does not allow to gen-

eralise the results to a wider population (of in this case every provider of OST in Belgium). However, the report and its conclusions and recommendations will be discussed with the guidance committee as well, allowing for validating its results.

Chapter 7 Conclusions and recommendations

Freya Vander Laenen
Valérie Smet
Wouter Vanderplasschen

The aim of the SUBANOP-research was to provide an extensive and up-to-date overview of key elements of substitution treatment in Belgium. The study applied a multi-method research design, more specific, a combination of quantitative and qualitative methods.

7.1. OST in international literature

Research on the *pharmacological* part of treatment of opiate dependence is dominant in the literature on OST and generally seems to maintain high quality standards. Its focus mainly lies on the role and effectiveness of pharmacological interventions and the physiological aspects of addiction (instead of the psychosocial aspects).

In the literature, there is agreement about the effectiveness of pharmacological treatment, sufficient evidence exists with regard to the beneficial effects of MMT on treatment retention and heroin abstinence (Mattick et al., 2009), although these outcomes appeared to be dose-related.

Evidence has been found for adding (a minimal amount of) *psychosocial* care to pharmacological treatment, generating positive effects on treatment retention and opiate abstinence (Amato et al., 2011a&b; van den Brink, van de Glind & Schippers, 2012).

No answer can be given as to which type of *psychosocial* support proves to be the most effective. The existing research on psychosocial interventions seems to be very heterogeneous, and as a result, the conclusions for one type of intervention cannot be generalized to each type of psychosocial intervention. It mainly addresses the effectiveness of more structural forms of psychosocial interventions like 'contingency management' and other behavioral therapies. Little attention goes to the psychosocial component in 'treatment-as-usual'. In spite of the widespread occurrence of different types of psychosocial interventions for treating opiate dependence and the general consensus on the necessity

of at least a minimum amount of psychosocial support, limited research seems to exist on the definition and demarcation of the concept, its application and effectiveness.

With regard to training, literature shows that training of providers in methadone maintenance (and in addiction treatment at large) proves to be necessary as well as susceptible to improvement (Go et al., 2001; Walters et al., 2005).

7.2. General principles for the organisation of substitution treatment in Belgium

First of all, the general approach of opiate dependence and substitution therapy should be to focus on improvements in well-being and **quality of life** of clients, rather than based on the reduction of crime and the restriction of nuisance, especially as keeping client's confidence proves a very important success factor for substitution treatment. This basic principle was stressed in particular in the focus group in Flanders. The **positive working relationship** between a client and his key worker is the keystone to achieve the final treatment goals of the client and is, among other things, characterized by an affective and equal relationship between the client and the worker and shared decision-making about the treatment goals. Case management and a focus on clients' strengths and assets can help to realize this bond between client and caregivers (Vanderplasschen, Rapp, Wolf & Broekaert, 2004; RIOB, 2012). **Goal setting with clients** in substitution treatment will further be of major importance, because not seldom the goals of an individual client do not correspond with the expectations and objectives of staff working in substitution treatment programs. A personal treatment plan, based on an individual's needs, capabilities and expectations, will contribute to a client-centred treatment offer. In accordance with this focus, consensus exists that OST should involve **a comprehensive and holistic approach**, with attention for different life domains (Cleary et al., 2009; De Wree, De Ruyver & Pauwels, 2009; De Maeyer, Vanderplasschen & Broekaert, 2010), which is also being proposed by the World Health Organisation (WHO, 2009).

Outreach activities (e.g. accompanying clients to different organizations, visits at home) can be an important tool to get insight in the social

world of clients, their strengths and needs and to develop a positive relationship with them. Moreover, it is recommended by WHO, UNODC and UNAIDS (2009: 8) as "*an extraordinarily effective method of accessing intravenous drug users*" in particular, an often difficult group to access. In the light of the recent evolution towards more community-based mental health care in Belgium (art. 107 of the Hospital law), which promotes, among others, the integration of persons with mental health problems in society, outreach strategies are applied to support individuals in their direct environment and to reduce hospitalizations. Outreach activities are also a way to provide psychosocial support and to counterbalance potential barriers that hinder clients to ask for psychosocial support (e.g. feelings of shame to come to the treatment center, contacts with other drug users, mobility problems, …).

Second, substitution therapy should consist of diverse **client-centered approaches** which are in accordance with clients' demands (Trujols et al., 2011; De Maeyer et al., 2011b). The needs for psychosocial support are diverse and can range from being able to have a small chat, to the provision of practical support (e.g. having a daily occupation) or specific therapeutic sessions. Also during their treatment process specific treatment needs will vary and the focus may shift between different life domains. People suffering from opiate dependence are a heterogeneous group of individuals with different treatment needs, possibilities and expectations, illustrating the need for personalized psychosocial support, tailored to the specific capacities of a person. For clients, psychosocial support was not only restricted to structured, planned conversations, but also informal talks, resulting in an emotional commitment with the treatment setting, had a positive impact on their treatment process. Attention should also be paid to clients' features (a principle also put forward in the Delphi and the focus group). Therefore, differentiation of substitution therapy in accordance with these features and clients' demands should be established. An example of good practice seems to exist in Vancouver, where the concept of **stepped care** allows to differentiate between clients' needs (Parkes & Reist, 2010). More stable clients (stability on other Europ-ASI life domains) are being taken care of by GPs, whereas clients with more complex mental and social needs tend to be taken care of by hospitals (Vancouver has no system of specialized centres as is the case in Belgium). This differentiation is also important when it comes to additional psychosocial support (this is being discussed further under point 3). In terms of good practice, the

MSCC of Ghent refers stabilized clients to a GP, in close cooperation with a psychologist from the MSCC, who remains available for the psychosocial support of the client after referral.

On a legal level, the focus groups and the online survey of OST providers pointed out that there is a need for a **solid legal framework** for substitution therapy, in order to optimize the current Royal Decrees on the regulation of substitution treatment of 2004 and 2006. In this respect, the participants of the focus group in Flanders suggested linking a Ministerial Circular to the Royal Decrees, thereby establishing the tasks and responsibilities of the different providers.

The current Minister of Public Health and Social Affairs, Minister Onkelinx, ordered in 2011 the development of a new Royal Decree. The Federal Agency for Medicines and Health Products and the Federal Public Health Service developed a proposal for this decree, taking into account the preliminary outcomes of the SUBANOP-research. In December of 2012, the proposal was submitted to the privacy commission. The new Royal Decree is to be operational in July 2013.

7.3. The spread of OST provision

7.3.1. Type of providers and number of clients

On the basis of the phone survey, it appears that OST is mainly executed through **specialized centres** in Belgium**. Hospitals** provide OST as well, be it that they report less clients per week than the specialized centres. Pharmacists take up a special position as they can be both providers as well as administrators of OST. **Psychiatric departments of general hospitals** are dominant for OST in hospitals, although **psychiatric hospitals** are also very common. General hospitals tend to be providing OST the least. General practitioners are much less involved in the practice, in particular in Flanders.

Moreover, the participants in the focus groups indicated **a lack of acceptance** of OST clients and a lack of **knowledge** of OST by some (general and psychiatric) hospitals, general practitioners and pharmacists (Deering et al., 2011). More awareness and sensitization through trainings and education could improve the willingness to provide OST, they state. In the Flemish focus group, two reasons for this are given by

the participants; firstly the fear of nuisance caused by OST-clients and secondly, the impossibility of verifying the methadone or buprenorphine dose indicated by a client that was not treated by the provider before.

To develop a full-spectrum view on the OST provision the reported **number of clients** has to be taken into account, showing that the Belgian specialized centres receive the most clients, followed by pharmacists.

When we compare the number of clients reported by the different providers in the online survey, in Belgium the specialized centres receive the most clients per week, followed by the pharmacists. We do note that there is a chance that part of the clients reported by the pharmacists are being sent there by specialized centres. GPs report the lowest number of clients per week, although in Wallonia the GPs report receiving more clients than the Walloon hospitals. **Specialized centres** have **the highest number of clients per week**, and for this type of provider the **MSSC's** receive **the majority of clients.**

The number of clients per week that is treated in the hospitals is limited to less than 50 clients for all hospitals in Flanders participating in the online survey (N=12), and less than 100 clients for all responding Walloon hospitals (N=11). Presumably, the lack of acceptance of OST clients and the lack of knowledge with regard to opioid dependence and with regard to substitution in some (general and psychiatric) hospitals, GP and pharmacists discussed during the focus groups can explain the limited number of clients for these providers. *The limited number of patients that is receiving OST in Flemish (on average less than 2 clients per week) and in Walloon hospitals (on average less than 4 clients per week) is a remarkable result. In view of the limited number of clients treated in the (psychiatric) hospitals, improvement with regard to the provision of OST in (psychiatric) hospitals in Belgium seems indicated.*

The MSCC's in Flanders have significantly more OST clients on a weekly basis than the MSCC in Wallonia (2406 and 667 respectively). This confirms that in Flanders, opiate substitution treatment is mostly supplied by specific, low-threshold services for drug users (Lamkaddem & Roelands, 2010). However, some clients choose to follow substitution treatment through a general practitioner in order to limit contact

with other drug users in specialized centers and to restrict feelings of stigmatization and discrimination.

7.3.2. Geographical spread of OST provision

When we look at the geographical spread of OST, we find a limited provision of OST in specific areas. This is the case for West-Flanders, where only a few pharmacists and specialized centres provide OST and the inquired GPs don't seem to be providing OST. In Flanders, in the provinces of West-Flanders and Flemish Brabant, few pharmacists provide OST. In Wallonia, the German community and the Walloon Brabant have the least providing pharmacists and GPs.

There are more specialized centres in Flanders than in Wallonia and they tend to be geographically spread out more. In Flanders, 45 satellite centres provide OST in regions where there would otherwise have been no OST provision. In the Walloon part of the country, the number of satellite centres is limited to 3.

The geographical spread of centres indicates that this spread might be organized better in certain (parts of) provinces of Flanders and Wallonia. In order to develop recommendations on the optimal spread of OST, the provision of OST should be in accordance with (trends in) opiate substance use and with the characteristics of opiate users in the general population.

Belgian GPs tend to provide more OST for **maintenance** reasons than for **detoxification**. However, Belgian hospitals and specialized centres provide more OST for detoxification than they do for maintenance reasons.

Generally, not all specialized centres in Belgium provide OST for maintenance reasons, but in most provinces another centre in the same city will still be providing OST for maintenance. *OST for* maintenance *purposes could be spread better in the province of* West-Flanders, especially in the north and the west; in the south of the province of East-Flanders and in the *south of the Namur province and Luxemburg.*

7.3.2.1. Networking and cooperation

Networking and cooperation are thought to be essential elements of OST…

All specialized centres are part of a network which consists of several types of professionals and drug treatment services. Their network is the most diverse of all. All Flemish and 80% of the Walloon hospitals have contacts with other professionals or are part of a network. It mainly involves a network of drug treatment services. Flemish hospitals seem to cooperate more with drug treatment organizations on a provincial level, whereas Walloon hospitals prefer urban level drug care networks (which is not surprising in view of the urban concentration of specialized centres in the Walloon part of the country).[63]

Pharmacists very often do not have contacts with other professionals nor are they part of a network. When providing pharmacists participate in a network this mainly involves a specialized centre. In Wallonia, these networks involve GPs with OST expertise more often. Networks are more common for Flemish pharmacists (45.7%) than for Walloon pharmacists (30.0%). *Based on the results, it is fair to say that there is room for improvement of the current networks on OST: pharmacists should be part of a network on a systematic basis, in particular in view of the importance of pharmacists for (stabilized) OST clients.* This importance was stressed further in the interviews with OST clients in our study. From the interviews with clients, it became clear that clients who are referred to a pharmacist for the provision of their substitute drug, instead of daily collection in the specialized centres, were very positive about this evolution. Having the possibility to go to a pharmacist for the provision of their substitute, was appreciated mostly because this limited the contact with other drug users since they did not have to go to the treatment centre, the flexibility of the collecting hours and the fact that they got their medication for a couple of days and could take it home with them. The fact that clients had the opportunity to go to a local, anonymous pharmacist also reduces feelings of stigmatization. Finally, they are a source of emotional support.

[63] The survey response contained too little GPs who provide OST so no general conclusion can be drawn. In this context, it should be noted that, because of the limited response of the Flemish psychiatric departments of general hospitals and the general hospitals in the online survey, the results regarding networking for Flanders mainly apply for the psychiatric hospitals.

Although specialized centres provide psychosocial support themselves, they tend to refer clients further quite often to other providers of psychosocially assisted treatment. The providers they refer their clients to seem to be rather **specialized in specific life domains** of the client such as mental health, work, education and income. These specific life events can perhaps not be addressed adequately by the multidisciplinary team of the specialized centre which make referral to other providers necessary. Generally, the specialized centres mention referral to more than one type of provider of psychosocial support.

… although obstacles still hamper referral networking and cooperation

In the Delphi study and the focus groups, a number of experts mentioned that referral of clients with addiction problems is often hampered by waiting lists, prejudices in general health care and in the alcohol and drug field regarding individuals with dependency problems, co-morbidity etc. Furthermore, there is a high need for activities and low-threshold projects (e.g. drop-in-centre, day activities) in the broader society to enhance opiate-dependent individuals' social identity and their feeling of belonging to mainstream society, which should not purely be restricted to activities organized by specialized treatment centres, but these initiatives are rather limited in the current treatment offer.

7.3.3. OST in Belgian prisons

When we compare the prison data of the self-report from Todts et al. (2008) on the prevalence of (injecting) opiate users in Belgian prisons with the number of OST clients in prisons one can question the provision of OST in prisons.[64] This is in particular the case for maintenance therapy, in particular in some prisons. All prisons provide OST in Belgium, but not all provide maintenance. This is particularly the case in Flanders. In Flanders, 5 prisons report only providing detoxification (5/15). In the province of Limburg, prisons do not provide OST for maintenance. The two Brussels Central region prisons that responded to the survey both provide detoxification and maintenance. In Wallonia, one

[64] As a different methodology was used to inquire the Belgian prisons on substitution treatment (online survey only), the data on OST in prison are discussed separately.

of the ten prisons who answered the survey only provides OST for detoxification.

It is fair to say that this is not in line with the provisions of the Belgian law. The Belgian Prison Act of 2005 on the rights of prisoners provides a judicial basis for the right of health care that is equal to the health care in society and that is adapted to the specific needs of prisoners (art. 88). Moreover, art. 89 explicitly states that a prisoner has the right of continuity of health care, again on an equal basis as in society. This principle is made explicit with regard to OST in a technical protocol added to the ministerial circular of 2006 (Ministerial Circular nr. 1785 of 18 July 18th 2006 on the drug problem in prisons). As regards the psycho-social drug treatment in general, it is recognized that in practice, the current treatment offer is insufficient to guarantee the actual implementation of these rights (Van Malderen, 2012).

Maintenance treatment is provided less often than detoxification in Flemish prisons, although scientific evidence is available that maintenance results in lower opiate use inside prisons (Stallwitz & Stöver, 2007; Stevens, Stöver & Brentari, 2010). Also, maintenance therapy provided to prisoners with pre-incarceration histories of heroin addiction proved effective for the interruption of the cycle of relapse recidivism and re-incarceration, and methadone maintenance treatment initiated in prison was superior to counselling only (Kinlock, Gordon, Schwartz, Fitzgerald & O'Grady, 2009). In Wallonia and BCR, OST for maintenance and detoxification seemed to be distributed evenly.

Based on the legal principle of equality (in health care) and on scientific evidence proving the positive outcomes of substitution treatment in prison, we strongly recommend to expand the provision of maintenance to all Belgian prisons (Council of the European Union, 2012). In order to guarantee the continuity of care (at the time of entering prison and to guarantee optimal post-release follow-up), a case manager could be appointed (Vanderplasschen, Bloor & McKeganey, 2010).

7.3.4. Characteristics of OST-clients

The national registration reported 16974 OST clients between mid 2008 and mid 2009 (Ledoux et al., 2010). Farmanet (the electronic registration system of the National Institute for Health and Disability Insurance registering the number of extemporaneous mixtures delivered by Bel-

gian pharmacists) reported that 16 095 clients received at least one preparation of Methadone, and 2169 received at least one packing of Buprenorphine in the period from January 2010 to November 2010.

In total, women represent about one fourth of the population of OST clients (24.6%) (Ledoux et al., 2010). Moreover, in certain districts a considerable percentage of OST clients is **younger than 25**. For Flanders, this is the case in Aalst (44.3%), Oudenaarde (32.1%), Dendermonde (31.2%) and Roeselare (30.6%). In Wallonia, the youngest clients are most often found in Bastogne (31.6%), Arlon (31.2%), Tournai (25.9%) and Virton (25.8%).

Recent illicit drug use is still quite high amongst OST clients. About half of these clients continue to use heroin and one third continues to use cocaine. Clients who use heroin more than once a week are more likely to be in treatment in a Medical Social Specialized Centre (MSSC). **Frequent alcohol use** is much less common than illicit drug use during treatment, although 10% of the OST clients consume 9 or more glasses of alcohol a day (Ledoux, 2005). *The problematic alcohol use by some OST clients should be taken into account by therapists during treatment.* With regard to treatment satisfaction, the majority of the participants (70.6%) were slightly satisfied, while only 7.8% of the participants was slightly dissatisfied about their substitution treatment in general. However, almost a third of the participants was slightly dissatisfied with the specific interventions (e.g. support with their social and work situation) and more than one fifth of the participants were (slightly) dissatisfied about the psychologists' skills. In this context, a remark needs to be made that only a limited number of the participants (N=26) had experiences with psychologists during their substitution treatment. Furthermore, the results of this study demonstrate a high percentage of participants who wish to get support in different life domains, especially help at home, employment and recreational activities and who do not receive this kind of social support at the moment.

7.4. Prescription of medication

General conclusions regarding the absolute prevalence of Methadone or Buprenorphine prescription are hard to draw as too many possible combinations of medication were given by the respondents in the online survey.

In Belgium, in general, the combination of Methadone with Buprenorphine and Naloxon seems the dominant choice of medication for **detoxification**, followed by Methadone only and thirdly the combination of Methadone with Buprenorphine. The most common medication for **maintenance** seems to involve the combination of Methadone with Naloxon and Buprenorphine (37.2%), followed by Methadone (33.3%) and thirdly the combination of Buprenorphine with Naloxon (11.8%).

The review of the literature suggests that Methadone and Buprenorphine/Naloxon are the standard and safe medication for detoxification. For maintenance treatment, Methadone, Buprenorphine and Buprenorphine/Naloxon are the standard medications (van den Brink, Goppel & van Ree, 2003; van den Brink & Haasen, 2006; Soyka et al., 2011). In the WHO guidelines, Methadone is recommended over Buprenorphine, because it is more cost-effective. However, Buprenorphine has a slightly different pharmacological action; consequently, making both medications available may even attract greater numbers of people to treatment and may improve client-treatment matching (WHO, 2009:11).

Specialized centres, hospitals and GPs also report clients being referred to **pharmacists** for the administration of their OST medication. In the focus group in Flanders, participants stressed that the administration of medication should remain the responsibility of the medical staff, as the administration by non-medical staff, especially staff providing psychosocial support could jeopardize the relation with the client.

A distinction between Flanders and Wallonia was found in the way hospitals and specialized centres manage the provision of OST treatments. The majority of the responding Walloon institutions (5 hospitals and 5 specialized centres) do provide the substitution treatment under supervision only. However, more hospitals and specialized centres tend to provide take-home doses than is the case in Flanders. This could indicate why the grey market in Wallonia was identified as a challenging issue in the Walloon focus group and not in the Flemish or Brussels focus group.

The daily distribution of substitution medication often provide opportunities for treatment services to get in contact with clients, who are rather reluctant to the provision of a structured form of psychosocial support, and it is important to build up a positive work relationship

with the clients. Interviews with clients in substitution treatment showed that *regardless of their profession* (e.g. nurse, doctor, psychologist, pharmacist), all staff involved in the substitution treatment of a client might influence the treatment process of a client and is capable of developing a positive relationship with the client. Therefore, the provision of psychosocial support should not be restricted to psychologists and social workers.

7.5. Psychosocial support[65]

Recent reviews prove that the psychosocial component in the treatment of opiate dependent individuals is seen as an essential part of an integrated holistic treatment (Amato, Minozzi, Davoli, Vecchi, Ferri & Mayet, 2011a; Amato et al., 2011b; Mayet et al., 2010; Soyka et al., 2011).

In general, Belgian OST providers pay attention to this aspect. Psychosocial support consists of both social and psychosocial treatment, with the social support mainly focusing on various life domains (e.g. family, housing, health). Even providing GPs and pharmacists, who have limited time and means, seem to take into account these needs, by either providing psychosocial support themselves and/or by referring clients further. In this respect, more Flemish pharmacists provide psychosocial support (67.4%), than their colleagues in the BCR (44.4%) or Wallonia (21.0%).[66] Moreover, the secondary analyses of the Belspo-study (Ledoux, 2012) showed the important role of the pharmacist (difficulties in the working alliance with the pharmacist is more predictive of frequent heroin use than the therapeutic relationship with the medical practitioner). From the interviews with clients, the role of pharmacists as a source of emotional support became apparent as well.

However, both the quantitative study of clients and the qualitative interviews with clients showed that the number of participants that cited the wish to get some form of psychosocial support was higher than the number of participants that actually received some form of psychosocial support. Moreover, only 9 of the 15 Flemish prisons report

[65] In this context as well, we need to remark that, in view of the low response of the Flemish (psychiatric departments of) general hospitals in the online survey, the results regarding psychosocial support for Flanders mainly apply to the psychiatric hospitals.

[66] Pharmacists do not provide structural forms of psychosocial interventions; they have an important role as listener and caregiver (Vogt & Finley, 2009).

providing psychosocial support. In Wallonia (5/10) and Brussels Central Region (1/2), only half of the responding prisons provide psychosocial support. The interviews with clients also show that, in their experiences, limited attention is given to client-reported outcomes, starting from clients' own expectations and experiences (e.g. quality of life) and the focus is mainly on socially desirable outcomes (e.g. no illegal drug use, no criminal offences, employment) (De Maeyer, Vanderplasschen & Broekaert, 2009).

7.5.1. Psychosocial support is essential, with a focus on social support

The review of the literature has highlighted that there is no consensus as to what a basic psychosocial treatment should consist of (Griffith, Rowan-Szal, Roark & Simpson, 2000). Therefore, a lot of different types of interventions can be provided by professionals. This wide range of interventions could be explained by one of the recommendations participants of the focus groups have made. They, argue that it is important to give psychosocial support a specific individualized interpretation, **depending on the psychosocial needs** of the client. The Flemish and Walloon focus group also stressed the importance of client's stability to be taken into account for the determination of how and which support should be provided. *The psychosocial support in substitution therapy should be client-centred and should differentiate between different groups of clients.* Psychosocial *treatment* consists of both social and psychological treatment. The social support focuses on various life domains with an emphasis on the provision of solutions for housing and employment, the referral of clients to more specialized professionals and the provision of help with legal and administrative problems. The psychological support involves mostly trying to have an open and comprehensive attitude towards their clients or the referral of clients to psychiatrists or psychologists. In addition, it remains important to mark that the clients' satisfaction survey pointed out that clients seem to consider the provision of **social support** to be more important than psychological support. These results illustrated the high percentage of participants who wish to get support in different life domains, especially help at home, employment and recreational activities and who do not receive this kind of social support at the moment. The results regarding quality of life also illustrated the diverse support needs on different life

domains (e.g. leisure activities, social relations, financial situation). In the qualitative interviews, clients also expressed the desire to talk about the current situation and the future, rather than keep on digging in the past and telling that same old story again, why they started using drugs in the first place. *The psychosocial support of OST clients should consist of support on different life domains. Clients expect more social support, in particular help at home, employment and recreational activities, than is the case today.*

7.5.2. Support on a voluntary basis

The results of the focus groups and the interviews with clients pointed out that psychosocial support, valuable as it is, should always be provided on a voluntary base (WHO, 2009), especially since clients' motivation determines substitution treatment's success. In Flanders, psychosocial treatment in hospitals and specialized centres is much more mandatory than it is in Wallonia. In the focus group with Walloon OST providers, the principle of autonomy of the client was deemed of central importance.

7.5.3. The importance of cooperation and referral for psychosocial support

According to various participants of the three focus groups, **networking and high quality referral of clients across the different levels of care** is a necessary condition for active support (WHO, 2009).

Another important argument for high standard referral is the value **OST clients** attribute to the relationship with their caregiver (cfr. Infra). Optimal referral to the right channels in the appropriate service could avoid that clients treatment drop out out of frustration. Optimized referral is important as the clients satisfaction survey proved it seems to be an obstacle for OST, if clients are referred to different services, since it involves them having to start telling their story all over each time. Also in the qualitative interviews clients frequently mentioned the desire of a **case manager** (e.g. a central person or key social worker) they could rely on. Often participants have experienced a lot of turnover of staff in their substitution treatment, hampering their willingness to develop a trustful relationship with a professional in their treatment program or in other treatment services.

7.6. Prerequisites for improving (the quality of) OST

7.6.1. Registration of OST demand and provision

To allow monitoring and to optimize OST treatment, there is an urgent need for a systematic registration of the OST demand and provision. To meet this end, reliable data are required at two levels, on a structural level and on the level of clients.

7.6.1.1. Registration on a structural level

Registration on a structural level is aimed at generating epidemiological data to monitor and optimize the demand, provision and administration of OST which will favour both clients and providers. Two available databases could be used for this: Farmanet **(**National Institute for Health and Disability Insurance) and the Treatment Demand Indicator protocol. It is clear from the registration by **Farmanet** that the purpose of this data collection is oriented toward the financial management of substitution medication. However, with a minimum of extra work, the Farmanet database could provide valuable information for the monitoring of OST, as it already registers the OST medication delivered by pharmacists (with separate files for Methadone and Buprenorphine), the postal code of the pharmacist, the category of (medical) profession prescribing the medication (medical specialization), as well as the age of the client. Clients are registered anonymously with a unique code and every delivered prescription is registered separately, resulting in a very large file. *Combining the files on the different types of substitution medication in a central database, distinguishing between the use of these medications for pain management and for substitution reasons and between the use for detoxification and for maintenance purposes could allow a better insight into OST provision and administration. Collecting the identification of the prescriber could be used to detect possible fraud on a client and prescriber level. In case of the identification of the prescriber, the geographical spread of the providers could be inventoried. If this database would also contain the clients' place of residency, a comparison is possible between the geographical spread of demand/needs and the provision. However, changing the unique code into a numeric code*[67] *could allow the generation of epidemiological data regarding*

[67] At the moment, this unique code consists of both letters and numbers making it not accessible for spss-analysis; therefore a numeric coding is being suggested.

dosage, age of clients, prevalence of Methadone and Buprenorphine prescription and administering pharmacists. Furthermore, this database could allow the analysis of the workload of pharmacists with regard to OST. The National Institute for Health and Disability Insurance gathers information on the number of **'revalidation weeks'** per client for specialized centres as well, which could provide an insight in (the evolution of) the number of OST clients treated in specialized centres. The contacts during these revalidation weeks can also consist of purely psychosocial support, or may involve clients with other types of substance dependence (non-opioid or alcohol). As medication is registered as well, it gives an indication of the spread of clients who receive OST over the different specialized centres (phone interview, director MSSC Antwerp, 27/06/2012).

Currently, anonymous registration on a client level exists and is being developed further by means of the Treatment Demand Indicator protocol, developed by the EMCDDA and coordinated for Belgium by the Scientific Institute for Public Health (BMCDDA). The **Treatment Demand Indicator** (TDI)[68], which has to be filled in by all treatment centres that are registered with the National Institute for Health and Disability Insurance, provides anonymous information on clients entering addiction care (age, gender, address of residence, frequency of use, receiving substitution treatment, etc.). This database is a key to monitoring client's characteristics, involving information on specific life domains (cf. EuropASI), as well as treatment demand and will in the future be able to provide information on evolutions in substitution client profiles. *As to OST, this list should be completed with specific treatment orientation (detoxification /maintenance). Since the database only contains clients who start up treatment, no information is present as to whether clients continue substitution treatment, which leaves a knowledge gap concerning clients who continue substitution treatment.*

[68] In 2012, TDI involves the data of a pilot phase in 25 general and psychiatric hospitals for the period August 2011 until August 2012 and for 42 general and psychiatric hospitals for the period August 2012 – December 2013, and to all Flemish and Walloon providers with a National Institute for Health and Disability Insurance (RIZIV)-registration, all Flemish Centres of Mental Health care (CGG), all Walloon providers with a drug care registration of the Walloon government, the Brussels Capital Region drug care centres who have no RIZIV-registration (who are part of the ADDIBRU-network) and the centres for drug care of the Walloon Community who have no RIZIV-registration or Walloon government registration (who are part of the Eurotox-network). The TDI registration will, after the evaluation of the pilot phase and the advice of the services involved in the project, be put into operation in each hospitals in 2014.

Currently the TDI is not registered by treatment departments in prisons, independent GPs and group practices of GPs, independent psychiatrists and pharmacists, and it is only registered by a sample of general and psychiatric hospitals. *We therefore recommend to include all these providers in the TDI-registration in the future to allow for a full view on OST providers.*

7.6.1.2. Registration on the level of the client

The main purpose of a registration on a client level is to guarantee continuation of OST treatment in case of changes in treatment setting (hospitalisation, arrest and incarceration), as well as for monitoring clients in contact with various care providers. Another goal is the avoidance of interference between different types of medication (e.g. benzodiazepines and opiates, etc.). Furthermore, this registration could reduce the resistance of other providers than the specialized centres (e.g. hospitals, prisons) regarding the provision of OST treatment, as it could provide data on whether a client is already receiving OST treatment, treatment goal, dosage and medication used. The fourth main goal of registration on a client level involves the detection of potential abuse by clients (medical shopping) and by providers (prescription behaviour). For the latter purpose, the database of Farmanet could be used as an additional information source. The advantages of a central registration system on client level are mentioned in the WHO guidelines (2009:10). However, there is some hesitance to implement a central registration system including **identifiable client codes,** which was also discussed during the different focus groups. There was no agreement between the participants in the focus groups in Flanders, Wallonia and Brussels regarding an (electronic) central registration system of clients. Overall, the main fear of the participants in the focus group opposing an electronic central registration system of clients is that this system could be liable to issues of **privacy** and **professional secrecy**. The element of privacy also makes the WHO hesitant towards a central registration system (WHO, 2009: 10). All in all, it is clear that a central registration has important advantages. However, in view of the privacy concerns mirrored in literature and in practice, this issue warrants further discussion.

If a central registration is implemented, it should contain following data on a client level: **information on the prescribing practitioner**

(including contact details), **treatment goals**, **dosage**, **other medication being used** (in terms of interference with the substitution medication, as is for instance the case for benzodiazepines), and development as well as lowering of **tolerance** (Strang, Copenhagen, June 2012).

7.6.2. Training and education

The results of the providers' survey, the focus groups and the participants of the Delphi method as well as international scientific literature (Walters, Matson, Baer & Ziedonis, 2005) prove that, to guarantee optimal OST provision, training and education should be the highest priority. However, the results of the survey and of the focus groups show that there are still improvements to be made.

As was noted earlier, the relationship the client has with his or her caregiver is very valuable. Participants in the Delphi-study noted that staff can be trained in these skills by teaching them **client-centred communication** strategies, such as specific conversation skills, active and empathic conversation techniques, which will be experienced by clients as interested and empathic (Stewart et al., 2000). *Training should be organized for **all providers and all medical and non-medical staff involved** in OST practice, including prison staff, especially as insufficient knowledge can result in insufficient care (Go, Dykeman, Santos & Muxlow, 2011) or in rejection of OST clients. Training should consist **of all different aspects of opiate dependence** (pharmacological as well as psychosocial support, referral and the **available network** of (psychosocial) support for opiate-dependent individuals, present provision, etc.) (Stöver, 2011). Thus, in training of staff in substitution treatment there should not only be given attention to specific treatment methods and techniques, but also to how a solid, trustful therapeutic relation with clients can be established. Especially **pharmacists**, nurses, general practitioners, other **primary care workers, and staff in general and psychiatric hospitals** are in need of education and training on substitution treatment.* According to the participants of the three focus groups, one of the most important obstacles for the quality of OST-provision, is the lack of support for and training of *all* treatment providers. They have reported that pharmacists, general practitioners, other primary care workers, and hospitals are in need of education and training. Quite some arguments can be given in favour of training and education. First of all, 33.3% of the non-providing Flemish GPs in the online survey noted that a lack of expertise may be an obstacle to provide OST

or to restart providing it, while training for GPs and pharmacists does not seem to be organized on a frequent basis. Second, the organization of training and education, or maybe even better the adoption of training on opiate dependence in general in the university's curriculum, may result **in less resistance** against OST and OST clients, as well as in **pathways to more accessible and tailored support for these groups.** A system of trainee posts in specialized centres or specific psychiatric hospitals written into the university's curriculum was also suggested by the Walloon focus group. *To optimize knowledge on OST, the integration of courses (including training on all aspects of problem drug use and opiate dependence) in the **basic curriculum** of medical practitioners, psychologists, nurses, social workers and pharmacists is suggested, potentially even including **apprenticeships** for future providers (e.g. in specialized centres).*

Still, there are certain **prerequisites** for this education and training. *First, training should be **organized on a regular base** and also needs to **be repeated**, as the effects of training seem to fade away. These conditions were stated in the focus groups in Flanders and Wallonia and it is stressed in international literature (Walters, Matson, Baer & Ziedonis, 2005).* Second, *a **financial compensation** or the development of an **e-learning tool** could respond to the GPs' and pharmacists' needs (e.g. lack of means and time). Moreover, the evaluation of online training for the provision of opioid substitution treatment by community pharmacists showed that online training is an appropriate and economical method of improving pharmacists' clinical skills with respect to this client group, and has the potential to reach a wider audience of pharmacists (Walters, Raymont, Galea & Wheeler, 2012).* Third, t*he organisation of training and education should be provided by **independent** organisations. Networks of specialised and non-specialised services could serve as networks for training and education as well.*

7.7. Recommendations for further research

The SUBANOP-study started with the aim to gain more insight in and optimize current practices of opiate substitution treatment in Belgium. Unfortunately, it soon appeared that available databases included several limitations, as they are often fragmented and not comprehensive. Although substitution treatment has been applied on a large scale for more than 15 years now, research on this topic has been limited. Based on het SUBANOP-study, several recommendations can be formulated

for further research. As described above, there is a clear need for a centralized and comprehensive database which allows to map the providers of substitution treatment and to monitor evolutions in treatment demand and practices over time. Such a registration should include specialized treatment centres, as well as (psychiatric wards in) general hospitals, general practitioners and pharmacists. Besides quantitative and longitudinal analyses of available services, it is recommended to explore these aspects further during in-depth qualitative research. This may include research among treatment providers who are rather reluctant to provide substitution treatment or (to refer to) psychosocial support. This may allow to identify existing concerns and thresholds among service providers and to look for solutions to take these obstructions away (Deering et al., 2012). Moreover, it will be important to explore the perspectives of (potential) service users in this type of research.

Besides centralized information on OST providers and the substitution treatment that is provided, it is necessary to collect more information on the characteristics and support needs of individuals participating in OST. Based on the registration of Farmanet, only limited information is available regarding these issues for the moment, but a number of registered variables need to be further refined and complemented with socio-demographic data (educational level, cultural background, …) and information regarding persons' living situation (e.g. daily activities, housing). Consequently, profiles of service users can be derived which allow to attune treatment – and psychosocial support in particular – to the needs of the target population. A recently published Belgian study regarding the quality of life of opiate dependent persons (N=159) 5 to 10 years after starting opiate substitution treatment (De Maeyer et al., in press) demonstrated that persons in long-term OST can be considered a very heterogeneous population with varying support needs, including three typical profiles: socially included individuals who have a job or structured day activity and who have some clear goals in life (N=95); socially excluded, but stabilized persons who often depend on welfare benefits, who have limited social relations and a rather poor quality of life (N=41); the third group consists of opiate dependent persons who live in rather marginalized situations, characterized by active and excessive drug use, low quality of life and feelings of insecurity (N=23).

The combination of treatment-related data (e.g. dosage, type of medication and treatment regimen) with client data may provide important information regarding the question which clients benefit most from, for example, treatment with Buprenorphine and which are their support needs. It is further important that such a registration is not limited to the situation at the start of treatment, but that the registration is updated regularly, in order that clients' changing needs and demands can be monitored, given the often long length of substitution treatment.

Besides a quantitative and longitudinal analyses of support needs and profiles of persons in substitution treatment, it is necessary to assess these and other aspects in greater detail based on qualitative research. This may reveal information on emerging treatment issues like the specific needs of older opiate dependent individuals who are considered 'elderly' at a much younger age than their non-opioid misusing peers. Also, few information is available on the needs of young, homeless poly substance users who are opiate dependent and often fall through the cracks of the social welfare and health care system. Other questions relate to the specific provision and organisation of OST, like dealing with aggressive behaviour, gender issues or the desirability of separate counters or agencies for stabilized persons who are no longer using excessively or do not longer live in marginalized situations. It is recommended to map the perspectives of service users, providers, treatment coordinators as well as policy makers in this discussion. Finally, additional research is advised regarding the nature and type of psychosocial support that opiate dependent persons need. The SUBANOP-study revealed that psychosocial support often takes diverse forms. Research regarding the effectiveness of specific forms of psychosocial support for persons treated in specialized outpatient centres, as well as for persons who receive their methadone through pharmacies is recommended. Moreover, given the strong association between treatment retention and outcomes, additional research is needed regarding treatment adherence and compliance of opiate dependent individuals and how these aspects can be enhanced. The client-provider relationship and how this supporting relation can be strengthened, deserves specific attention. Research needs to start from a view on opiate dependence as a complex and lasting problem, including attention for changing support needs and a focus on recovery. In the UK, but also in the US and Australia, the recovery movement is currently growing (Best, 2012), among others as a reaction toward the extremely low abstinence rates

after methadone treatment (Berridge, 2012). Recovery starts from a client-centred approach aimed at giving individuals' more control over their lives and having a good quality of life, despite the disabilities and limitations that are associated with drug dependence (Slade, Amering & Oades, 2008).

References

Abrishami, G. (2009). *Therapeutic alliance and outcomes in children and adolescents served in a community mental health setting*. Dissertation. Brigham.

Aharonovich, E., Hasin, D.S., Brooks, A.C., Liu, X.H., Bisaga, A., & Nunes, E.V. (2006). Cognitive deficits predict low treatment retention in cocaine dependent patients. *Drug and Alcohol Dependence, 81*(3), 313-322.

Alexander, & Luborsky (1986). The Penn Helping Alliance Scales. In Greenberg & Pinsof (Eds.), *The psychotherapeutic process: A research handbook* (pp. 325-366). New York: The Guildford Press.

Amato L, Davoli M, Perucci CA, Ferri M, Faggiano F, Mattick RP (2005). An overview of systematic reviews of the effectiveness of opiate maintenance therapies: available evidence to inform clinical practice and research. *Journal of Substance Abuse Treatment*. 28(4):321-329.

Amato, L. et al. (2011a). Psychosocial and pharmacological treatments versus pharmacological treatments for opioid detoxification. *Cochrane Database of Systematic Reviews*. (4).

Amato, L. et al. (2011b). Psychosocial combined with agonist maintenance treatments versus agonist maintenance treatments alone for treatment of opioid dependence. *Cochrane Database of Systematic Reviews*. (4).

Amato, L., Davoli, M., Perucci, C.A., Ferri, M., Faggiano, F., & Mattick, R.P. (2005). An overview of systematic reviews of the effectiveness of opiate maintenance therapies: Available evidence to inform clinical practice and research. *Journal of Substance Abuse Treatment, 28*(4), 321-329.

Amato, L., Minozzi, S., Davoli, M., Vecchi, S., Ferri, M., & Mayet, S. (2004). Psychosocial and pharmacological treatments versus pharmacological treatments for opioid detoxification. *Cochrane Database Systematic Review,*4 (CD005031).

Autrique, M., Vanderplasschen, W., Broekaert, E. & Sabbe, B. (2009). Practitioners' Attitudes Concerning Evidence-Based Guidelines in Belgian Substance Abuse Treatment. *European Addiction Research, 15*, 47-55.

Bachelor, A. (1995). Clients' perception of the therapeutic alliance: A qualitative analysis. *Journal of Counseling Psychology.* 42(3): 323-337.

Bao, Y, Liu, Z., Epstein, D.H., Du, C., Shi, J., & Lu, L. (2009). A meta-analysis of retention in methadone maintenance by dose and dosing strategy. *The American Journal of Drug and Alcohol Abuse, 35*(1), 28-33.

Barnett, P.G., & Hui, S.S. (2000). The cost-effectiveness of methadone maintenance. *The Mount Sinai Journal of Medicine, 67*(5-6), 365-374.

Barrowclough C., Meier P., Beardmore R. & Emsley R. (2010). Predicting therapeutic alliance in clients with psychosis and substance abuse. *The Journal of nervous and mental disease*. 198 (5): 373-377.

Berger, B.A. (1993). Building an effective therapeutic alliance: competence, trustworthiness, and caring. *American Journal of Hospital Pharmacy.* 50(11): 2399-2403.

Berridge, V. (2012). The rise, fall and revival of recovery in drug policy. *The Lancet*, 379, 22-23.

Best, D. (2012). *Addiction recovery: a movement for social change and personal growth in the UK*. Brighton: Pavilion Publishing.Bickman, L., Vides de Andrade, A.R., Lambert, W.E., Doucette, A., Sapyta, J., Boyd,S.A., Rumberger, D.T., Moore-Kurno, J, McDonough, L.C. & Rauktis, M. (2004). Youth therapeutic alliance in intensive treatment settings. *The journal of Behavioral Health & Service Research*. 31: 134-148.

Blatt, S.J., D'Afflitti, J.P. & Quinlan, D.M. (1976). Experiences of depression in normal young adults. *Journal of Abnormal Psychology.* 85: 383-389.

Bordin, E.S. (1979). The generalizability of the psychoanalytic concept of the working alliance. *Psychotherapy: Theory, Research and Practice*. 16:252-260.

Borenstein, M., Hedges, L. V., Higgins, J. P. T. & Rothstein, H. R. (2009). *Introduction to meta-analysis*. Chichester: John Wiley & Sons, Ltd..

Bouverne De Bie, M. (2005). Het OCMW en het recht op maatschappelijke dienstverlening. In J. Vranken, K. De Boyser & D. Dierickx (Eds.), *Armoede en sociale uitsluiting. Jaarboek 2005.* (pp. 203-216). Leuven: Acco.

Brener, L., Von Hippel, W., Kippax, S., Preacher, K.J., 2010. The role of physician and nurse attitudes in the health care of injecting drug users. *Substance Use & Misuse 45* (7-8), 1007-1018.

Bristol, T., & Fern, E.F. (2003). The effects of interaction on consumers' attitudes in focus groups. *Psychology and Marketing, 20*(5), 433-454.

Brocato, J., & Wagner, E.F. (2003). Harm reduction: A social work practice model and social justice agenda. *Health & Social Work, 28*(2), 117-125.

Broekaert, E., & Vanderplasschen, W. (2003). Towards the integration of treatment systems for substance abusers: Report on the second International Symposium on Substance Abuse Treatment and Special Target Groups. Journal of Psychoactive Drugs, 35(2), 237-245.

Brooner, R.K. & Kidorf, M. (2002). Using Behavioral Reinforcement To Improve Methadone Treatment Participation. *Science & Practice Perspectives*, *1*, 38-48.

Brun, C., & Rapp, R.C. (2001). Strengths-based case management: Individuals' perspectives on strengths and the case manager relationship. *Social Work, 46*(3), 278-288.

Camfield, L., Crivello, G., & Woodhead, M. (2009). Wellbeing research in developing countries: Reviewing the role of qualitative methods. *Social Indicators Research, 90*(1), 5-31.

Clark, N.C., Lintzeris, N., Gijsbers, A., Whelan, G., Dunlop, A., Ritter,. A & Ling, W.W. (2002). LAAM maintenance vs methadone maintenance for heroin dependence. *Cochrane Database of Systematic Reviews*. 2.

Cleary, M., Hunt, G., Matheson, S., Siegfried, N., & Walter, G. (2008). Psychosocial interventions for people with both severe mental illness and substance misuse. *Cochrane Database of Systematic Reviews*. (1).

Cleary, M., Hunt, G. E., Matheson, S., & Walter, G. (2009). Psychosocial treatments for people with co-occurring severe mental illness and substance misuse: systematic review. [Review]. *Journal of Advanced Nursing*. 65(2): 238-258.

Colpaert, K. (2012). Addiction severity, psychopathology and quality of life of persons who have started alcohol or drug treatment. Proefschrift ingediend tot het behalen van de academische graad van Doctor in de Pedagogische Wetenschappen. Academia Press: Gent.

Council of the European Union (2012). *Draft EU Drugs Strategy (2013-2020)*. 16693/12, Brussels, 23 November 2013. Retrieved from: http://register.consilium.europa.eu/pdf/en/12/st16/st16693.en12.pdf (04.01.2013)

Cowman, S. (1993). Triangulation – A means of reconciliation in nursing research. *Journal of Advanced Nursing, 18*(5), 788-792.

Dale, A.E. (1995). A research study exploring the patients view of quality-of-life using the case-study method. *Journal of Advanced Nursing, 22*(6), 1128-1134.

De Maeyer, J., Vanderplasschen, W. & Broekaert, E. (2010). Quality of life among opiate-dependent individuals: A review of the literature. *International Journal of Drug Policy.* 21(5): 364-380.

De Ruyver, B., Bosman, G., Bullens, F., & Vander Laenen, F. (2001). *Evaluatie van de medisch sociale opvangcentra voor druggebruikers. Deelrapport Gent-Oostende*. DWTC, Universiteit Gent.

De Wree, E., De Ruyver, B. & Pauwels, L. (2009). Criminal justice responses to drug offences: Recidivism following the application of alternative sanctions in Belgium. *Drugs-Education Prevention and Policy.* 16(6): 550-560.

Debehets, J. (2011). Methadonsubstitutiebehandeling in de gevangenis: een empirisch onderzoek (thesis).

Deering, D.E.A., Sheridan, J., Sellman, J.D., Adamson, S.J. Pooley, S., Robertson, R., & Henderson, C. (2011). Consumer and treatment provider perspectives on reducing barriers to opioid substitution treatment and improving treatment attractiveness. *Addictive Behaviors 36,* 636-642.

Deering, D., Horn, J. & Frampton, C. (2012). Clients' perceptions of opioid substitution treatment: An input to improving the quality of treatment. *International Journal of Mental Health Nursing, 21*(4), 330-339.Denning, P. (2001). Strategies for implementation of harm reduction in treatment settings. *Journal of Psychoactive Drugs, 33*(1), 23-26.

de los Cobos, J.P., Fidel, G., Escuder, G., Haro, G., Sánchez, N., Pascual, C., … Trujols, J. (2004). A satisfaction survey of opioid dependent clients at methadone treatment centres in Spain. *Drug and Alcohol Dependence, 73*(3), 307-313.

de los Cobos, J.P., Valero, S., Haro, G., Fidel, G., Escuder, G., Trujols, J., & Valderrama, J.C. (2002). Development and psychometric properties of the Verona service satisfaction scale for methadone-treated opioid-dependent patients (VSSS-MT). *Drug and Alcohol Dependence, 68*(2), 209-214.

De Maeyer, J., Vanderplasschen, W. & Broekaert, E. (2009). Exploratory Study on Drug Users' Perspectives on Quality of Life: More than Health-Related Quality of Life? Social Indicators Research, 90, 1, 107-126

De Maeyer, Vanderplasschen & Broekaert (2010).

De Maeyer, J., Vanderplasschen, W., Lammertyn, J., van Nieuwenhuizen, C., Sabbe, B. & Broekaert, E. (2011). Current quality of life (QoL) and its determinants among opiate-dependent individuals five to ten years after starting methadone treatment. *Quality of Life Research, 90*(1), 139-150.

De Maeyer, J., Vanderplasschen, W., Camfield, L., Vanheule, S., Sabbe, B., & Broekaert, E. (2011a). A good quality of life under the influence of methadone: A qualitative study among opiate-dependent individuals. *International Journal of Nursing Studies*, *10*, 1244-1257.

De Maeyer, J., Vanderplasschen, W., Lammertyn, J., van Nieuwenhuizen, C., Sabbe, B., & Broekaert, E. (2011b). Current quality of life and its determinants among opiate-dependent individuals five years after starting methadone treatment. *Quality of Life Research, 20*(1), 139-150.

De Maeyer, J., Van Nieuwenhuizen, C., Bongers, I., Broekaert, E. & Vanderplasschen, W. (in press). Profiles of quality of life in opiate-dependent individuals after starting methadone treatment: a latent class analysis. International Journal of Drug Policy.

Dixon-Woods, M., Kirk, D., Agarwal, S., Annandale, E., Arthur, A., Harvey, J. et al. (2005). *Vulnerable groups and access to health care: a critical interpretive review.* National co-ordinating centre for NHS Service Delivery and organization R&D, ref type: report.

Drumm, R., Bride, D., Metsch, L., Page, J., Dickerson, K., & Jones, B. (2003). "The rock always comes first": Drug users' accounts about using formal health care. *Journal of Psychoactive Drugs, 35*(4), 461-469.

Dunning, H., Williams, A., Abonyi, S., & Crooks, V. (2008). A mixed method approach to quality of life research: A case study approach. *Social Indicators Research, 85*(1), 145-158.

Dutra, L., Stathopoulou, G., Basden, S. L., Leyro, T. M., Powers, M. B. & Otto, M. W. (2008). A Meta-Analytic Review of Psychosocial Interventions for Substance Use Disorders. *American Journal of Psychiatry, 165*(2), 179-187.

Elliott, R., Watson, J.C., Bohart, A.C., & Greenberg, L.S. (2011). Empathy. *Psychotherapy, 48*, 43-49.

European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) (2010a). *Harm reduction: evidence, impacts and challenges. Monograph*. EMCDDA, Lisbon.

European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) (2010 b). *Annual report on the state of the drugs problem in Europe*. Lisbon.

European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) (2009). *Annual report: 2009 Annual report of the state of the drugs problem in Europe.* Luxembourg: Office for Official Publications of the European Communities.

EMCDDA (2000). *Annual report on the state of the drugs problem in the European Union*. Lisbon.

EMCDDA (2005). Selected Issue 1: Drug-related public nuisance-trends in policy and preventive measures, In: Annual report 2005: Selected issues. Luxemburg: Bureau voor officiële publicaties der Europese Gemeenschappen.

EMCDDA (2012).Insights; Social reintegration and employment: evidence and interventions for drug users in treatment

Faggiano, F., Vigna-Taglianti, F., Versino, E. & Lemma, P. (2003). Methadone maintenance at different dosages for opioid dependence. *Cochrane Database of Systematic Reviews*. (3).

Farmanet (2010). Database [aantal verpakkingen en magistrale bereidingen Methadon en Buprenorfine tussen 1 januari 2010 en 30 november 2010], unpublished database, mail communication dd. 12 maart 2012.

Ferri, M., Davoli, M. & Perucci, C.A. (2011). Heroin maintenance for chronic heroin-dependent individuals. *Cochrane Database of Systematic Reviews*. (12).

Fischer, B., Rehm, J., Kim, G., & Kirst, M. (2005). Eyes wide shut? – A conceptual and empirical critique of methadone maintenance treatment. *European Addiction Research, 11*(1), 1-9.

Fischer, B., Rehm, J., & Kim, G. (2001a). Quality of Life (QoL) in illicit drug addiction treatment and research: Concepts, evidence and questions. In Westermann, B., Jellinek, C., & Belleman, G. (Eds.), *Substitution: Zwischen Leben und Sterben* (pp. 21-40). Weilheim: Beltz Deutscher Studien Verlag.

Fischer, B., Rehm, J., & Kim, G. (2001b). Whose quality of life is it, really? *British Medical Journal, 322,* 1357-1360.

Fountain, J., & Griffiths, P. (1999). Synthesis of qualitative research on drug use in the European Union: Report on an EMCDDA project. *European Addiction Research, 5*(1), 4-20.

Frank, A. F., & Gunderson, J. G. (1990). The role of the therapeutic alliance in the treatment of schizophrenia: Relationship to course and outcome. *Archives of General Psychiatry.* 47(3):228-236.

Gaston, L., & Marmar, C. R. (1994). The California Psychotherapy Alliance Scales. In: Horvath & Greenberg (Eds.). *The working alliance: Theory, research, and practice*. New York: John Wiley & Sons: 85-108.

Glueckauf, R. L., Liss, H. J., McQuillen, D. E., Webb, P. M., Dairaghi, J., & Carter, C. B. (2002). Therapeutic alliance in family therapy for adolescents with epilepsy: An exploratory study. *American Journal of Family Therapy.* 30(2):125-139.

Go, F., Dykeman, M., Santos, J., & Muxlow, J. (2011). Supporting clients on methadone maintenance treatment: a systematic review of nurse's role. *Journal of Psychiatric and Mental Health Nursing*. 18(1): 17-27.

Goossens, F. (2012). Verslaving: Maatschappelijke gevolgen. Overlast, geweld, verwervingscriminaliteit, verkeersongevallen en ziekteverzuim. Trimbos-instituut: Utrecht

Griffith, Rowan-Szal, Roark & Simpson (2000)

Hassan, F., Keeney, S., & McKenna, H. (2000). Research guidelines for the Delphi survey technique. *Journal of Advanced Nursing, 32*(4), 1008-1015.

Havens, L. L., & Ghaemi, S. N. (2005). Existential Despair and Bipolar Disorder: The Therapeutic Alliance as a Mood Stabilizer. *American Journal of Psychotherapy.*59(2): 137-147.

Hedrich, D., Pirona, A. & Wiessing, L. (2008). From margin to mainstream: The evolution of harm reduction responses to problem drug use in Europe. *Drugs-Education Prevention and Policy.* 15(6): 503-517.

Hesse, M., Vanderplasschen, W., Rapp, R. C., Broekaert, E., & Fridell, M. (2007). Case management for persons with substance use disorders. *Cochrane Database of Systematic Reviews.* (4).

Hoge Gezondheidsraad (2006). Advies betreffende substitutiebehandelingen bij opiaatgebruikers. Dossiernummer HGR nr 8178. Retrieved from: http://www.health.fgov.be/internet2Prd/groups/public/@public/@shc/documents/ie2divers/9184410.pdf (13/10/2012)

Kinlock, T., Gordon, M., Schwartz, R., & O'Grady, K. (2006). A study of methadone maintenance for male prisioners:3 month post release outcomes. *Criminal Justice and Behaviour.* 35: 34-47.

Kinlock, T. W., Gordon, M. S., Schwartz, R. P., Fitzgerald, T. T. & O'Grady, K. E. (2009), A randomized clinical trial of methadone maintenance for prisoners: results at 12 months postrelease, *Journal of Substance Abuse Treatment*. 37: 277-285.

Kolind, T. (2007). Form or content: The application of user perspectives in treatment research. *Drugs – Education Prevention and Policy, 14*(3), 261-275.

Kuckartz, U. (1998). WinMAX: Scientific text analysis for the social sciences, User's guide. Berlin: Udo Kuckartz, BSS.

Lamkaddem, B., & Roelands, M. (2010). Belgian national report on drugs 2009. New developments, trends, and in-depth information on selected issues. Brussels: Scientific Institute of Public Health.

Ledoux Y. (1994). Evaluatie-onderzoek van een substitutietherapie in Brussel. Resultaten van een onderzoek via "Réseau d'Aide au Toxicomanes", 1989-1993. Eerste resultaten. *VAD Berichten. Periodiek van de Vereniging voor Alcohol en andere Drugproblemen*. 2:2-11.

Ledoux Y. (with collaboration of Brohée J.P. and Lagrain J.) (2005). *Evaluation de la délivrance de méthadone en Belgique*. Gent: Academia Press.

Ledoux Y., Brohée J.P, Lagrain J., Spago B., Vansnick L., Vermeire L. (2010), Epidemiology of substitution treatments in Belgium. Years 2006 to 2009.

Dynamic descriptive and analytic approaches. Final report. Substitution Treatments National Registry (STNR). 228 p. 2010. (Published in French:Ledoux Y., Brohée J.P, Lagrain J., Spago B., Vansnick L., Vermeire L., Epidémiologie des traitements de substitution en Belgique. Années 2006 à 2009. Approches dynamiques descriptives et analytiques, Rapport final. Enregistrement des traitements de Substitution (ENTS). 228 p. 2010.)

Ledoux Y., Basic epidemiology of opiate misuse substitution treatment in Belgium. Journal de Pharmacie de Belgique 2012 (3); p 30-39.

Ledoux Y. (2012), Basic epidemiology of opiate misuse substitution treatment in Belgium. Farmaceutisch Tijdschrift voor België 2012 (3); p. 30-39.

Ledoux, Y. (2012). Complementary analysis of the National Substitution Treatment Registry (IPhEB), unpublished document.

Leiter, M.P., Harvie, P., Frizzell, C. (1998) The correspondence of patient satisfaction and nurse burnout. *Social Science & Medicine, 47*,1611-1617.

Lilly, R., Quirk, A., Rhodes, G., & Stimson, G.V. (2000). Sociality in Methadone Treatment: understanding methadone treatment and service delivery as a social process. *Drugs: education, prevention and policy, 7*(2),163-178.

Lingely-Pottie, P., & McGrath, P. J. (2006). A therapeutic alliance can exist without face-to-face contact. *Journal of Telemedicine and Telecare*. 12(8): 396-399.

Lovi, R., Barr, J., 2009. Stigma reported by nurses related to those experiencing drug and alcohol dependency: a phenomenological Giorgi study. *Contemporary Nurse 33* (2), 166-178.

Macphail, A. (2001). Nominal Group Technique: a useful method for working with young people. *British Education Research Journal*, *27*(2), 161-170.

Madden, A., Toby, L., Bath, N., & Winstock, A.R. (2008). Satisfaction guaranteed? What clients on methadone and Buprenorphine think about their treatment. *Drug and Alcohol Review, 27*, 671-678.

Marsden, J. (2012). *Improving outcomes with adaptive interventions*. Oral presentation at the IOTOD Meeting on 29 May 2012: Brussels.

Martin, D.J., Garske, J.P., & Davis,M.K. (2000). Relation of the therapeutic alliance with outcome and other variables: a meta-analytical review. *Journal of Consulting and Clinical Psychology, 68*(3), 438-450.

Masson, C.L., Barnett, P.G., Sees, K.L., Delucchi, K.L., Rosen, A., Wong, W.& Hall, S.M. (2004. Cost and cost-effectiveness of standard methadone maintenance treatment compared to enriched 180-day methadone detoxification. *Addiction.* 99(6): 718-726.

Mattick, R.P., Kimber, J., Breen, C. & Davoli, M. (2008). Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence. *Cochrane Database of Systematic Reviews*.(2).

Mattick, R.P., Breen, C., Kimber, J. & Davoli, M. (2009) Methadone maintenance therapy versus no opioid replacement therapy for opioid dependence. *Cochrane Database of Systematic Reviews*. (3).

Mayet, S., Farrell, M., Ferri, M., Amato, L., & Davoli, M. (2010). Psychosocial treatment for opiate abuse and dependence. *Cochrane Database of Systematic Reviews*. (4).

McLellan, A.T. (2002). Editorial: have we evaluated addiction treatment correctly? Implications from a chronic care perspective. *Addiction 97*, 249-252.

McLellan, A.T., Arndt, I.O., Metzger, D.S., Woody, G.E., & O'Brien, C.P. (1993). The effects of psychosocial services in substance-abuse treatment. *JAMA – Journal of the American Medical Association, 269*(15), 1953-1959.

McIlrath, C., Keeney, S., McKenna, H., & McLaughlin, D. (2009). Benchmarks for the effective primaray care-based nursing services for adults with depression:a Delphi study. Journal of Advanced Nursing, 66, 269-281.

Meier, P. S., Barrowclough, C., & Donmall, M. C. (2005). The role of the therapeutic alliance in the treatment of substance abuse: A critical review of the literature. *Addiction*. 100(3): 304-316.

Meier, P. S., Donmall, M. C., Barrowclough, C., McElduff, P., & Heller, R. F. (2005). Predicting the early therapeutic alliance in the treatment of drug abuse. *Addiction* 100(4): 500-511.

Meier, P. S., Donmall, M. C., McElduff, P., Barrowclough, C., & Heller, R. F. (2006). The role of the early therapeutic alliance in predicting drug treatment dropout. Drug and Alcohol Dependence. 83(1): 57-64.

Meyers, R.J. & Squires, D. D. (2001). *Community Reinforcement Approach: A Guideline Developed for the Behavioral Health Recovery Management*. Albuquerque: University of New Mexico, Center on Alcoholism, Substance Abuse, and Addictions.

Miller, S.D. & Duncan, B.L. (2004). *The Outcome and Session Rating Scales: administration and scoring manual*. Chicago, Illinois: ISTC.

Ministry of Health (2008). *Practice Guidelines for Opioid Substitution Treatment in New Zealand 2008*. Wellington: Ministry of Health.

Minozzi, S., Amato, L., Vecchi, S., Davoli, M., Kirchmayer, U. & Verster, A.(2011). Oral naltrexone maintenance treatment for opioid dependence. *Cochrane Database of Systematic Reviews*. (4).

Mitchesob, L., McCambridge, J. & Byrne, S. (2007). Pilot cluster-randomised trail of adjunctive motivational interviewing to reduce crack cocaine use in clients on methadone maintenance. *European Addiction Research*. 13(1):6-10.

Moller, L., Karymbaeva, S., Subata, E. & Kiaer, T. (2009). *Evaluation of patients in opioid substitution therapy in the Kyrgyz Republic*. Copenhagen: World Health Organization Regional Office for Europe.

Montagne, M. (2002). Appreciating the user's perspective: Listening to the "methadonians". *Substance Use & Misuse, 37*(4), 565-570.

National Collaborating Centre for Mental Health (2008). *Drug Misuse. Psychosocial interventions. National Clinical Practice Guideline Number 51.* British Psychological Society & The Royal College of Psychiatrists: Leicester & London.

National Institute for Health and Clinical Excellence (2007). *Drug misuse: Psychological interventions.* London: NICE.

National Treatment Agency for Substance Misuse (2010). *A framework and toolkit for implementing NICE-recommended treatment interventions. Routes to recovery: psychosocial interventions for drug misuse.* London.

Neale, J., Allen, D., & Coombes, L. (2005). Qualitative research methods within the addictions. *Addiction, 100*(11), 1584-1593.

Norcross, J.C., & Wampold, B.E. (2011). Evidence-based therapy relationships: research conclusions and clinical practices. *Psychotherapy, 48,* 98-102.

Parkes, T. & Reist, D. (2010). *British Columbia Methadone Maintenance Treatment Program A Qualitative Systems Review* – University of Victoria, Center for addiction research BC

Pelc, I., Nicaise, P., Corten, P., Bergeret, I., Baert, I., Alvarez Irusta, L., … & Meuwissen, K. (2005). *Les traitements de substitution en Belgique. Développement d'un modèle d'évaluation des diverses filières de soins et des patients.* Gent, Academia Press.

Permanente Coördinatie Algemene Cel Drugsbeleid (2010). Gemeenschappelijke Verklaring van de Interministeriële Conferentie Drugs. Retrieved from: http://www.belspo.be/belspo/organisation/Call/forms/drug2011/IMC%20drugsalgemene%20verklaring%2025%20januari%202010.pdf.

Peterson, J., Schwartz, R.P., Mitchell, S.G., Reisinger, H.S., Kelly, S.M., O'Grady, K.E., … Agar, M.H. (2010). Why don't out-of-treatment individuals enter methadone treatment programmes? *International Journal of Drug Policy, 21,* 36-42.

Petry, N. M., & Bickel, W. K. (1999). Therapeutic alliance and psychiatric severity as predictors of completion of treatment for opioid dependence. *Psychiatric Services*. 50(2): 219-227.

Polkinghorne, D.E. (2005). Language and meaning. Data collection in qualitative research. *Journal of Counseling Psychology, 52*(2), 137-145.

Priebe, S., Huxley, P., Knight, S., Evans, S., (1999). Application and results of the Manchester Short Assessment of Quality of Life (MANSA). *International Journal of Social Psychiatry, 45*, 7-12.

Priebe, S., Reininghaus, U., McCabe, R., Burns, T., Eklund, M., Hansson, L., … Wang, D. (2010) Factors influencing subjective quality of life in patients with schizophrenia and other mental disorders: A pooled analysis. *Schizophrenia Research, 121*(1-3), 251-258.

Rigter, H., van Gageldonk, A., Ketelaars, T. & van Laar, M. (2004). *Hulp bij probleemgebruik van drugs. Stand van wetenschap voor behandelingen en andere interventies.* Achtergrondstudie Nationale Drug Monitor. Utrecht: Trimbos-instituut.

RIOB (2012). *Richtlijn opiaatonderhoudsbehandelingen.*

Rothman, D. B. (2007). The role of the therapeutic alliance in psychotherapy with sexual offenders. *Dissertation Abstracts International: Section B: The Sciences and Engineering*.

Ruefli, T., & Rogers, S.J. (2004). How do drug users define their progress in harm reduction programs? Qualitative research to develop user-generated outcomes. *Harm Reduction Journal,* doi: 10.1186/1477-7517-1-8.

Ryan, G.W., & Bernard, H.R., (2003). Data management and analysis methods. In N.K. Denzin & Y.S. Lincoln (Eds.), *Collecting and interpreting qualitative materials, Second edition* (pp. 259-309). London: Sage Publications.

Schwartz, R.P., Kelly, S.M., O'Grady, K.E., Gandhi, D., & Jaffe, J.H. (2011). Interim methadone treatment compared to standard methadone treatment: 4-month findings. *Journal of Substance Abuse Treatment, 41*, 21-29.

Sels, P., Goubin, E., Meulemans, D. & Sanne, L. (2009). *Het sociaal huis. Werken aan een toegankelijke dient- en hulpverlening.* Brussel: Politeia.

Semrau, M. Barley, E.A., Law, A. & Thornicroft, G. (2011). Lessons learned in developing community mental health care in Europe. *World Psychiatry.* 10:217-225.

Skulmoski, G. J., Hartman, F. T., & Krahn, J. (2007). The Delphi method for graduate research. *Journal of Information Technology and Education*, *6*, 1-21.

Slade, M., Amering, M. & Oades, L. (2008). Recovery: an international perspective. *Epidemiologia e Psichiatria Sociale*, 17(2),128-137.Soyka, M., Kranzler, H. R., van den Brink, W., Krystal, J., Moller, H. J., Kasper, S. & the WSFPB Task Force (2011). The World Federation of Societies of Biological Psychiatry (WFSBP) Guidelines for the Biological Treatment of Substance Use and Related Disorders. Part 2: Opioid dependence. *World Journal of Biological Psychiatry.* 12(3): 160-187.

Solberg, U., Burkhart, G. & Nilson, M. (2002). An overview of opiate substitution treatment in the European Union and Norway. *International Journal of Drug Policy.* 13: 477-484.

Stallwitz, A. & Stöver, H. (2007). The impact of substitution treatment in prisons – A literature review. International Journal of Drug Policy. 18: 464-474

Stevens A., Stover, H. & Brentari, C. (2010). Criminal justice Approaches to Harm Reduction in Europe. In: EMCDDA. Harm reduction: evidence, impacts and challenges. Lisbon: 379-402

Stewart, M., Brown, J.B., Donner, A., McWhinney, I.R., Oates, J., Weston, W.W., & Jordan, J. (2000). The impact of patient-centered care on outcomes. *Journal of family practice, 49*(9), 796-804.

Stover, H. (2011). Barriers to Opioid Substitution Treatment Access, Entry and Retention: A Survey of Opioid Users, Patients in Treatment, and Treating and Non-Treating Physicians. *European Addiction Research*. 17(1): 44-54.

Ti, L., Tzemis, D. & Buxton, J.A. (2012). Engaging people who use drugs in policy and program development: A review of literature. *Substance abuse treatment, prevention, and policy, 7*(47).

Todts, S., Van Meir, J. (in press). *Het gebruik van psychofarmaca in Belgische penitentiaire inrichtingen, 2011. Brussel*: Dienst Gezondheidszorg Gevangenissen.

Trujols, J., Sinol, N., Iraurgi, L., Batlle, F., Guàrdia, J., de los cobos, J.P. (2011). Patient and clinician's ratings of improvement in methadone-maintained patients: Differing perspectives? *Harm Reduction Journal, 8*(23).

Uchtenhagen, A. & Schaub, M. (2011). *Minimum Quality Standards in Drug Demand Reduction EQUS*. Research Institute for Public Health and Addiction: Zurich. Retrieved from http://www.isgf.ch/fileadmin/downloads/EQUS_final_report.pdf (29/09/2012)

UNODC (2008). *World drug report*. New York.

UNODC (2011). *World drug report*. New York.

VAD (2010). *Dossier heroïne*.

Vanagas, G., Padaiga, Z. & Bagdonas, E. (2010). Cost-utility analysis of methadone maintenance treatment in Lithuania. *Medicina (Kaunas)*.46(4):286-92.

van den Brink, W., Goppel, M. & van Ree, J. M. (2003). Management of opioid dependence. *Current Opinion in Psychiatry*. 16(3): 297-304.

van den Brink, W. & Haasen, C. (2006). Evidenced-based treatment of opioid-dependent patients. *Canadian Journal of Psychiatry – Revue Canadienne de Psychiatrie*. 51(10): 635-646.

van den Brink, W., van de Glind, G. & Schippers, G. (2012). Concept multidisciplinaire richtlijn opiaatverslaving. conceptversie ten behoeve van de commentaarfase.

Vander Laenen, F., The Nominal Group Technique, a participative research technique holding great potential for criminology, in Cools, M., De Kimpe, S., De Ruyver, B., Easton, M., Pauwels, L., Ponsaers, P., Vander Beken, T., Vander Laenen, F., Vande Walle, G., Vermeulen, G. (eds.) (2009). *Gofs Research Paper Series, Contemporary Issues in the Empirical Study of Crime.* Maklu: Antwerpen:109-134.

Vander Laenen, F. (2011). How drug policy should (not) be: institutionalised young people's analysis. *International Journal of Drug Policy*, 22, 6, 491-497.

Vanderplasschen, W., Bloor, M. & McKeganey, N. (2010). Long-term outcomes of aftercare participation following various forms of drug abuse treatment in Scotland. *Journal of Drug Issues*, 40(3), 703-728.

Vanderplasschen, W., Wolf, J., Rapp, R. C. & Broekaert, E. (2007). Effectiveness of different models of case management for substance-abusing populations. *Journal of Psychoactive Drugs*. 39(1): 81-95.

Vanderplasschen, W., & De Maeyer, J. (2007). The practice of case management for substance abusers: What's in a name? *Adiktologie, 7*(4), 460-469.

Vanderplasschen, W., Rapp, R.C., Pearce, S., Vandevelde, S. & Broekaert, E. (in press). Mental health, recovery and the community. *The Scientific World Journal*.

Van Malderen, S. (2011). Drugs and prisons, In Deben, L. et al (eds.) (2011). *Drugwetgeving 2011*. (Larcier, Wet en Duiding), Larcier, Gent:110-136.

Veilleux, J. C., Colvin, P.J., Anderson, J., York, C., Heinz, A.J. (2010). A review of opioid dependence treatment: Pharmacological and psychosocial interventions to treat opioid addiction. *Clinical Psychology Review*. 30(2): 155-166.

Vogt, E. M. & Finley, P.R. (2009). Heart of Pharmacy: A Course Exploring the Psychosocial Issues of Patient Care. *American Journal of pharmaceutical education*, 73(8), art. 149:1-6

Walters, S.T., Matson, S.A., Saer, J. & Ziedonis, D.M. (2005). effectiveness of workshop training for psychosocial addiction treatments: a systematic review. *Journal of Substance Abuse Treatment*. 29: 283-293.

Walters, C., Raymont, A., Galea, S. & Wheeler, A. (2012). Evaluation of online training for the provision of opioid substitution treatment by community pharmacists in New Zealand. *Drug and Alcohol Review, 31*(7), 903-910.

Washton A.M. A (1996). *Psychotherapeutic and Skills-Training Approach to the Treatment of Drug Addiction*. NIDA.

World Health Organization (2009). *Guidelines for the psychosocially assisted pharmacological treatment of opiod dependence.* Geneva: World Health Organisation.

World Health Organisation (WHO/UNODC/UNAIDS) (2004). *Position paper. Substitution maintenance therapy in the management of opioid dependence and HIV/AIDS prevention.* Geneva: World Health Organisation.

Wiklund, I. (2004). Assessment of patient-reported outcomes in clinical trials: The example of health-related quality of life. *Fundamental & Clinical Pharmacology, 18*(3), 351-363.

Wilson, K., MacIntosh, J. & Getty, G. (2007). 'Tapping a tie': succesful partnerships in managing addictions with methadone. *Issues in Mental Health Nursing*. 28:977-996.

Winhusen, T. M. & Kropp, F. (2003). Psychosocial treatments for women with substance use disorders. *Obstetrics and Gynecology Clinics of North America*. 30(3): 483-499

WHO, UNODC & UNAIDS (2009). Technical Guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users. WHO: Geneva.

Appendix I.
List of selected studies 2000-2012

English literature – Studies with a (partial) psychosocial orientation

N°	Study: Author(s) + date	Title	Type	Orientation
1	Amato, L., Minozzi S., Davoli M., Vecchi, S., Ferri, M.M.F. & Mayet, S. (2011a)	Psychosocial and pharmacological treatments versus pharmacological treatments for opiate detoxification	CSR	Ps
2	Amato, L., Minozzi, S., Davoli, M., Vecchi, S., Ferri, M. & Mayet, S. (2011b)	Psychosocial combined with agonist maintenance treatments versus agonist maintenance treatments alone for treatment of opiate dependence	CSR	Ps
3	Carroll, K. M., & Onken, L. S. (2005)	Behavioral Therapies for Drug Abuse	LR	Ps
4	Castells, X., Kosten, T. R., Capella, D., Vidal, X., Colom, J. & Casas, M. (2009)	Efficacy of Opiate Maintenance Therapy and Adjunctive Interventions for Opiate Dependence with Comorbid Cocaine Use Disorders: A Systematic Review and Meta-Analyses of Controlled Clinical Trials	MA	Ph + Ps
5	Cleary, M., Hunt, G. E., Matheson, S. & Walter, G. (2009)	Psychosocial treatments for people with co-occurring severe mental illness and substance misuse: systematic review	SR	Ps
6	Cleary, M., Hunt, G., Matheson, S., Siegfried, N. & Walter, G. (2008)	Psychosocial interventions for people with both severe mental illness and substance misuse	SR	Ps
7	Dutra, L., Stathopoulou, G., Basden, S. L., Leyro, T. M., Powers, M. B. & Otto, M. W. (2008)	A Meta-Analytic Review of Psychosocial Interventions for Substance Use Disorders	MA	Ps
8	Go, F. Dykeman, M., Santos, J. & Muxlow, J. (2011)	Supporting clients on Methadone maintenance treatment: a systematic review of nurse's role	SR	Ps
9	Griffith, J. D., Rowan-Szal, G. A., Roark, R. R. & Simpson, D. D. (2000).	Contingency management in outpatient Methadone treatment: a meta-analyses	MA	Ps
10	Hesse, M., Vanderplasschen, W., Rapp, R., Broekaert, E. & Fridell, M. (2007)	Case management for persons with substance use disorders.	SR	Ps
11	Horsfall, J., Cleary, M., Hunt, G. & Walter, G. (2009)	Psychosocial Treatments for People with Co-occurring Severe Mental Illnesses and Substance Use Disorders (Dual Diagnosis): A Review of Empirical Evidence	LR	Ps
12	Lussier, J. P., Heil, S. H., Mongeon, J. A., Badger, G. J. & Higgins, S. T. (2006)	A meta-analyses of voucher-based reinforcement therapy for substance use disorders	MA	Ps
13	Mayet, S., Farrell, M., Ferri M., Amato, L. & Davoli, M. (2010)	Psychosocial treatment for opiate abuse and dependence	CSR	Ps

N°	Study: Author(s) + date	Title	Type	Orientation
14	Nunes, E. V., Rothenberg, J. L., Sullivan, M. A., Carpenter, K. M. & Kleber, H. D. (2006)	Behavioral Therapy to Augment Oral Naltrexone for Opiate Dependence: A Ceiling on Effectiveness?	SR	Ps
15	Prendergast, M., Podus, D., Finney, J., Greenwell, L. & Roll, J. (2006).	Contingency management for treatment of substance use disorders: a meta-analyses	MA	Ps
16	Roozen, H. G., Boulogne, J. J., van Tulder, M. W., van den Brink, W., De Jong, C. A. J. & Kerkhof, A. (2004)	A systematic review of the effectiveness of the community reinforcement approach in alcohol, cocaine and opiate addiction	SR	Ps
17	Roozen, H. G., de Waart, R. & van der Kroft, P. (2010).	Community reinforcement and family training: an effective option to engage treatment-resistant substance-abusing individuals in treatment	SR	Ps
18	Soyka, M., Kranzler, H.R., van den Brink, W., Krystal, J., Möller, H-J. & Kaspers, S. (2011)	The World Federation of Societies of Biological Psychiatry (WFSBP) Guidelines for the Biological Treatment of Substance Use and Related Disorders. Part 2: Opiate dependence	SR	Ph + Ps
19	Sword, W., Jack, S., Niccols, A., Milligan, K., Henderson, J. & Thabane, L. (2009).	Integrated programs for women with substance use issues and their children: a qualitative meta-synthesis of processes and outcomes	SR	Ps
20	Terplan, M. & Lui, S. (2007)	Psychosocial interventions for pregnant women in outpatient illicit drug treatment programs compared to other interventions.	SR	Ps
21	Vanderplasschen, W., Wolf, J., Rapp, R. C. & Broekaert, E. (2007)	Effectiveness of different models of case management for substance-abusing populations	SR	Ps
22	Veilleux, J. C., Colvin, P. J., Anderson, J., York, C. & Heinz, A. J. (2010)	A review of opiate dependence treatment: Pharmacological and psychosocial interventions to treat opiate addiction	LR	Ph + Ps
23	Waldron, H. B. & Turner, C. W. (2008).	Evidence-Based Psychosocial Treatments for Adolescent Substance Abuse	MA	Ps
24	Walters, S. T., Matson, S. A., Baer, J. S. & Ziedonis, D. M. (2005).	Effectiveness of workshop training for psychosocial addiction treatments: A systematic review	SR	Ps
25	Winhusen, T. M. & Kropp, F. (2003)	Psychosocial treatments for women with substance use disorders	LR	Ps

Ps	Psychosocial orientation
Ph	Pharmacological
MA	Meta-analyses
CSR	Cochrane Systematic Review
SR	Systematic Review
LR	Literature Review
RCT	Randomized controlled trial

French literature – Studies with a (partial) psychosocial orientation

N°	Study: Author(s) + date	Title	Type	Orientation
1	Ballon, N., Roy, C., Lacoste, J., Dima, D., Desbois, B. & Charles-Nicolas, A. (2003).	Application des thérapies comportementales aux addictions: Expérience d'une unité de substitution à Fort de France (Martinique).	Primary study	Ps
2	De Wulf, I., Duquet, N., Saevels, J., Puttemans, MK., Allard, L., Bogaert, J., Brohee, JP., Karadag, EN., Lagrain, J., Ledoux, MY., Remy, C. & Verrando R. (2009).	Accompagnement des patients en traitement de substitution aux opiacés. Conseil & accompagnement en officine	Review	Ph + Ps
3	Eymard, C. (2007).	L'accompagnement à l'observance thérapeutique des personnes toxicomanes sous traitement de substitution en situation de précarité	Primary study	Ps
4	Ledoux, Y., Brohéé, J-P. & Lagrain, J. (2005)	Evaluation de la délivrance de Méthadone en Belgique	Primary study	Ph+Ps
5	Pelc, I., Nicaise, P., Corten, P, Bergeret, I., Baert, I., Alvarez Irusta, L, Casselman, J. & Meuwissen, K. (2005)	Les traitements de substitution en Belgique. Développement d'un modèle d'évaluation des diverses filières de soins et des patients	Primary Study	Ph
6	Reggers, J., Somers, L., Richy, F., Van Deun, P., Sabbe, B. & Ansseau, M. (2006)	Intérêt des traitements de substitution dans la dépendance aux opiacés	Primary study +MA	Ph+Ps

Dutch literature – Studies with a (partial) psychosocial orientation

N°	Study: Author(s) + date	Title	Type	Orientation
1	Roozen, H.G., Kerkhof, A.J.F.M. & van den Brink, W. (2000)	Ervaringen met een terugvalpreventieprogramma (cra) gecombineerd met Naltrexon bij opiaatafhankelijken: effect op verslavingsgedrag en predictieve waarden van psychiatrische comorbiditeit.	Primary study	Ph+Ps
2	Rigter, H., van Gageldonck, A., Ketelaars, T. & Van Laar, M. (2004)	Hulp bij probleemgebruik van drugs. Stand van wetenschap voor behandelingen en andere interventies. Achtergrondstudie Nationale Drug Monitor	LR	Ph+PS
3	VAD (2005)	Dossier Buprenorphine, aanbevelingen voor het gebruik ban Buprenorphine – hoog gedoseerd – in de behandeling van opiaatafhankelijkheid	LR	Ph+Ps
4	Merkx, M. & Alderliefste, G. (2005)	Medische behandeling van opiaatafhankelijkheid met methadon: Doseren onder Toezicht. Een poging tot kwaliteitsverbetering in een verslavingszorginstelling	PS	Ph
5	Casselman, J., Stöver, H. & Hennebel, L. (2006)	Substitutiebehandeling binnen en buiten de gevangenis in België en Nederland	PS	Ph+Ps
6	VAD (2006)	Gecontroleerde heroïneverstrekking	LR	Ph+Ps

N°	Study: Author(s) + date	Title	Type	Orientation
7	van Gageldonk, A., Ketelaars, T. & van Laar, M. (2006).	Hulp bij probleemgebruik van drugs. Wetenschappelijk bewijs voor werkzaamheid of effectiviteit van interventies in de verslavingszorg. Actualisering van de NDM achtergrondstudie uit 2004.	LR	Ph+Ps
8	VAD (2010)	Dossier heroïne	LR	Ph+Ps
9	van Vliet, E., de Weert, G., van Elst, D., Schrijvers, G. & Stigter, R. (2010)	Patiënttevredenheid met het Utrechtse methadonprogramma	PS	Ph+Ps
10	Witteveen, E. & van Santen, G. (2011)	Belemmeringen voor methadonbehandeling in Amsterdam. Reflecties ter verbetering van het bereik	Ps	Ph+Ps

English literature with a pharmacological orientation

N°	Study: Author(s) + date	Title
1	Adi, Y., Juarez-Garcia, A., Wang, D., Jowett, S., Frew, E., Day, E. et al. (2007).	Oral naltrexone as a treatment for relapse prevention in formerly opiate-dependent drug users: a systematic review and economic evaluation
2	Amato, L., Davoli, M., Ferri, M., Gowing, L. & Perucci, C. A. (2004).	Effectiveness of interventions on opiate withdrawal treatment: an overview of systematic reviews
3	Amato, L., Davoli, M., Minozzi, S., Ali, R. & Ferri, M. (2005)	Methadone at tapered doses for the management of opiate withdrawal.
4	Amato, L., Davoli, M., Perucci, C. A., Ferri, M., Faggiano, F. & Mattick, R. P. (2005).	An overview of systematic reviews of the effectiveness of opiate maintenance therapies: available evidence to inform clinical practice and research
5	Bao, Y. P., Liu, Z. M., Epstein, D. H., Du, C., Shi, J. & Lu, L. (2009).	A Meta-Analyses of Retention in Methadone Maintenance by Dose and Dosing Strategy
6	Barnett, P. G., Rodgers, J. H. & Bloch, D. A. (2001).	A meta-analyses comparing Buprenorphine to Methadone for treatment of opiate dependence
7	Berglund, M. (2005).	A better widget? Three lessons for improving addiction treatment from a meta-analytical study
8	Carney, T., Myers, B.J.& Louw, J. (2011)	Brief school-based interventions and behavioural outcomes for substance-using adolescents (Protocol)
9	Clark, N.C., Lintzeris, N., Gijsbers, A., Whelan, G., Dunlop, A., Ritter, A. & Ling, W.W. (2002)	LAAM maintenance vss. Methadone maintenance for heroin dependence.
10	Connock, M., Juarez-Garcia, A., Jowett, S., Frew, E., Liu, Z., Taylor, Rj., Fry-Smith, A., Day, E., Lintzeris, N., Roberts, T., Burls, A. & Taylor, R. S. (2007)	Methadone and Buprenorphine for the management of opiate dependence: a systematic review and economic evaluation
11	Davids, E. & Gastpar, M. (2004).	Buprenorphine in the treatment of opiate dependence
12	Day, E., Ison, J.& Strang, J. (2005)	Inpatient versus other settings for detoxification for opiate dependence.
13	Degenhardt, L., Bucello, C., Mathers, B., Briegleb, C., Ali, H., Hickman, M. et al. (2011)	Mortality among regular or dependent users of heroin and other opiates: a systematic review and meta-analyses of cohort studies

N°	Study: Author(s) + date	Title
14	Doran, C. M. (2008).	Economic Evaluation of Interventions to Treat Opiate Dependence
15	Faggiano, F., Vigna-Taglianti, F., Versino, E. & Lemma, P. (2003)	Methadone maintenance at different dosages for opiate dependence.
16	Fareed, A., Vayalapalli, S., Casarella, J., Amar, R. & Drexler, K. (2010).	Heroin Anticraving Medications: A Systematic Review.
17	Fareed, A., Vayalapalli, S., Stout, S., Casarella, J., Drexler, K. & Bailey, S. P. (2011).	Effect of Methadone Maintenance Treatment on Heroin Craving, a Literature Review
18	Farre, M., Mas, A., Torrens, M., Moreno, V. & Cami, J. (2002)	Retention rate and illicit opiate use during Methadone maintenance interventions: a meta-analyses
19	Fatseas, M., Denis, C., Lavie, E., & Auriacombe, M. (2010).	Relationship between anxiety disorders and opiate dependence-A systematic review of the literature: Implications for diagnosis and treatment
20	Ferri, M., Davoli, M., Perucci, C.A. (2011)	Heroin maintenance for chronic heroin-dependent individuals
21	Gowing, L. R., Farrell, M., Bornemann, R., Sullivan, L. E., & Ali, R. L. (2006)	Methadone treatment of injecting opiate users for prevention of HIV infection
22	Gowing, L., Ali, R., White, J,M. (2009)	Opiate antagonists with minimal sedation for opiate withdrawal.
23	Gowing, L., Ali, R., White, J.M. (2010)	Opiate antagonists under heavy sedation or anesthesia for opiate withdrawal.
24	Gowing, L., Ali, R., White, J.M. (2009)	Buprenorphine for the management of opiate withdrawal.
25	Gowing, L., Farrell, M., Ali, R., White, J.M. (2009)	Alpha2-adrenergic agonists for the management of opiate withdrawal.
26	Gowing, L., Farrell, M., Bornemann, R., Sullivan Lynn, E., & Ali, R. (2008)	Substitution treatment of injecting opiate users for prevention of HIV infection
27	Haasen, C., & van den Brink, W. (2006)	Innovations in agonist maintenance treatment of opiate-dependent patients
28	Gowing, L.F., Farell, M. et al. (2011)	Oral substitution treatment of injecting opiate users for prevention of HIV infection
29	Helm, S., Trescot, A. M., Colson, J., Sehgal, N., & Silverman, S. (2008).	Opiate Antagonists, Partial Agonists, and Agonists/Antagonists: The Role of Office-Based Detoxification
30	Holloway, K. R., Bennett, T. H., & Farrington, D. P. (2006)	The effectiveness of drug treatment programs in reducing criminal behavior: A meta-analyses
31	Horspool, M. J., Seivewright, N., Armitage, C. J., & Mathers, N. (2008)	Post-treatment outcomes of Buprenorphine detoxification in community settings: A systematic review
32	Johansson, B. A., Berglund, M., & Lindgren, A. (2006)	Efficacy of maintenance treatment with naltrexone for opiate dependence: a meta-analytical review
33	Johansson, B. A., Berglund, M., & Lindgren, A. (2007).	Efficacy of maintenance treatment with Methadone for opiate dependence: A meta-analytical study
34	Kahan, M., Srivastava, A., Ordean, A., & Cirone, S. (2011)	Buprenorphine New treatment of opiate addiction in primary care.

N°	Study: Author(s) + date	Title
35	Kirchmayer, U., Davoli, M., Verster, A. D., Amato, L., Ferri, M., & Perucci, C. A. (2002)	A systematic review on the efficacy of naltrexone maintenance treatment in opiate dependence
36	Larney, S. (2010)	Does opiate substitution treatment in prisons reduce injecting-related HIV risk behaviours? A systematic review
37	Larney, S., Dolan, K. (2009)	A Literature Review of International Implementation of Opiate Substitution Treatment in Prisons: Equivalence of Care?
38	Ling, W., & Wesson, D. R. (2003)	Clinical efficacy of Buprenorphine: comparisons to Methadone and placebo
39	Lobmaier, P., Gossop, M., Waal, H., & Bramness, J. (2010)	The pharmacological treatment of opiate addiction-a clinical perspective
40	Lobmaier, P., Kornor, H., Kunoe, N., Bjørndal, A. (2008)	Sustained-Release Naltrexone For Opiate Dependence.
41	Mattick, R.P, Kimber, J., Breen, C., Davoli, M. (2008)	Buprenorphine maintenance versus placebo or Methadone maintenance for opiate dependence
42	Mattick, R.P., Breen, C., Kimber, J., Davoli, M. (2009)	Methadone maintenance therapy versus no opiate replacement therapy for opiate dependence.
43	Mayet, S., Farrell, M., Mani, S.G. (2010)	Opiate agonist maintenance for opiate dependent patients in prison.
44	Meader, N. (2010)	A comparison of Methadone, Buprenorphine and alpha2 adrenergic agonists for opiate detoxification: A mixed treatment comparison meta-analyses
45	Meier, P., & Barrowclough, C. (2009).	Mental health problems: Are they or are they not a risk factor for dropout from drug treatment? A systematic review of the evidence
46	Minozzi, S., Amato, L., Davoli, M. (2009)	Maintenance treatments for opiate dependent adolescent
47	Minozzi, S., Amato, L., Davoli, M. (2009)	Detoxification treatments for opiate dependent adolescents
48	Minozzi, S., Amato, L., Vecchi, S., Davoli, M. (2008)	Maintenance agonist treatments for opiate dependent pregnant women.
49	Minozzi, S., Amato, L., Vecchi, S., Davoli, M. (2011)	Psychosocial treatments for drugs and alcohol abusing adolescents (Protocol)
50	Minozzi, S., Amato, L., Vecchi, S., Davoli, M., Kirchmayer, U., Verster, A. (2011)	Oral naltrexone maintenance treatment for opiate dependence
51	Pani, P.P., Vacca, R., Trogu, E., Amato, L., Davoli, M. (2010)	Pharmacological treatment for depression during opiate agonist treatment for opiate dependence
52	Simoens, S., Matheson, C., Bond, C., Inkster, K. & Ludbrook, A. (2005).	The effectiveness of community maintenance with Methadone or Buprenorphine for treating opiate dependence
53	Solberg, U., Burkhart, G., & Nilson, M. (2002).	An overview of opiate substitution treatment in the European Union and Norway
54	Srivastava, A., Kahan, M., & Ross, S. (2008)	The effect of Methadone maintenance treatment on alcohol consumption: A systematic review
55	Stöver, H., Michels, I.I. (2010)	Drug use and opiate substitution treatment for prisoners

N°	Study: Author(s) + date	Title
56	van den Brink, W. & Haasen, C. (2006).	Evidenced-based treatment of opiate-dependent patients
57	Turnbull, C. & Osborn, D.A (2012)	Home visits during pregnancy and after birth for women with an alcohol or drug problem
58	van den Brink, W., & van Ree, J. M. (2003)	Pharmacological treatments for heroin and cocaine addiction
59	van den Brink, W., Goppel, M., & van Ree, J. M. (2003)	Management of opiate dependence

Appendix II.
Phone and online survey. Methods and databases per provider

provider	population	database	methodology
GPs	Sample	List FPS Health (*see website + mail Friday 26/08 with URL*)	Quantitative data collection // provision mapping (representative => purely objective/scientific) 1) Sampling method 2) Phone call: participation yes/no ⇨ Option: interview online (send URL Lime survey) or by telephone (now or later)
Pharmacist	Sample	RIZIV/INAMI	Quantitative data collection // provision mapping (representative => purely objective/scientific) 1) Sampling method 2) Phone call: participation yes/no ⇨ Option: interview online (send URL Lime survey) or by telephone (now or later)
Specialized centers	all	Dependent on the region VL/BXL/WAL List VAD List Fedito BXL List Fedito Wallone	1) Contact MSOC/MASS ⇨ Face to face interview (with director and/or member of the steering committee) in order to **a)** fill in the questionnaire for the center and **b)** map the situation in the province (*by showing the inventory of the other specialized centers, of the hospitals, by asking other questions on networking etc.) (b = bottom-up / qualitative data collection on the provision in the province => to compare with quantitative data collection*) 2) Other specialized centers (providing OST) ⇨ Face to face interview (with director and/or member of the steering committee)
Hospitals	all	List FPS Health (*see mail Friday 26/08 => excel doc*)	1) Starting point: hospitals that provide OST (cf. interview with MSOC/MASS) ⇨ face to face – interview (target number = all // cf. feasibility => in combination with telephone interview 2) Call other hospitals on the list to ensure they do not provide OST