

Outcome and recidivism study of the Ghent drug treatment court

Conclusions and recommendations

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(outcome study)

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Context

*This document is an extensive summary of an outcome and recidivism study of the Ghent drug treatment court (hereafter DTC). The study was funded by the Belgian Science policy office and the Federal Justice department. The aim of this summary is to provide an overview of the main conclusions of the scientific research with an emphasis on the formulated policy recommendations based on the research findings. A full research report was published: Vander Laenen, F., Vanderplasschen, W., Wittouck, C., Dekkers, A., & De Ruyver, B. (2013). *Uitkomsten- en recidiveonderzoek van de Gentse drugbehandelingskamer*. Academia Press: Gent.*

1. Background and research aims

In May 2008 the first Belgian drug treatment court (DTC) was implemented in the judicial jurisdiction of Ghent to provide a specialized chamber on the level of the Court of First Amendment for defendants with substance dependency problems who did not engage in organised drug or drug related crime¹.

The implementation phase and the first year of operation was accompanied by a process evaluation (Colman et al. 2011; Vander Laenen, Colman, De Keulenaar & Thomaes, 2012a; Vander Laenen, Colman, De Keulenaar & Thomaes, 2012b).

The manifest benefit of the DTC project was shown in the results of the process evaluation. The present outcome and recidivism study is an extension of this process evaluation. In the *outcome study*, the outcomes and experiences of DTC clients (with specific attention for progress on different drug related life domains), the estimated public expenditures associated with the DTC project and the experiences of stakeholders from treatment services involved are examined. The *recidivism study* aims to examine the reoffending outcomes of DTC clients.

2. Methodology

A multi-method research design combining qualitative and quantitative methods was used (Dale, 1995).

A *systematic literature review* was conducted to identify outcomes of DTCs on substance use and drug related life domains on an international level. To examine the outcomes of the Ghent DTC on substance use and drug related life domains, a quantitative (retrospective) *file study* was conducted (De Wree, De Ruyver & Pauwels, 2009a; De Wree, Pauwels, Colman & De Ruyver, 2009b). The outcomes regarding substance use and drug related life domains of DTC clients in the Ghent judicial jurisdiction (n= 52) were compared with the outcomes regarding substance use and drug related life

¹ Pilot project Drug treatment court: Collaboration protocol between the minister of Justice, VZW Popov GGZ, the Ghent public prosecutor, the president of the Ghent Court of First Amendment and the President of the Ghent bar.

domains of probationers under supervision in a probation office in the Hasselt judicial jurisdiction (n= 48). In order to estimate the public expenditures associated with the Ghent DTC project, information from 9 semi-structured *interviews* with DTC actors were linked with the results of the “Drugs in Figures III’ study. In the aforementioned study, the *public expenditures* of the Belgian drug policy were calculated (Vander Laenen, De Ruyver, Christiaens & Lievens, 2011).

The *treatment plans and treatment trajectories* of (former) Ghent DTC clients (n=15) were studied. Semi-structured interviews were conducted with service and treatment providers who were involved in providing services to DTC-clients (n=22) and (former)DTC-clients (n=8) to map their experiences and perceptions on the DTC-project. In addition, a small sample of current Ghent DTC clients (n= 5) and Hasselt probation clients (n= 5) were interviewed to assess their perceptions of the impact of their DTC trajectory on evolutions in their substance use and on drug related life domains and their perception on the criminal justice system (CJS).

In the *recidivism study*, recidivism was defined as “any new judicial verdict (e.g. case closure based on policy decisions, amicable settlements, criminal-case mediations, and sentences) resulting from any type of criminal offending after the termination of the DTC trajectory”. Acquittals, technical case closure, or other technical verdicts were excluded as judicial verdicts. The criminal offending behaviour of DTC clients (n= 44) before and after their DTC trajectory was studied and compared with the criminal offending behaviour in two control groups. The first control group (n= 41) consisted of defendants who did not attend the introductory DTC hearing or who refused a DTC trajectory and thus their cases were processed according to standard criminal jurisprudence and procedures. The second control group (n= 59) consisted of defendants who were sentenced to a probation measure by the Hasselt court of first amendement. In all study groups, recidivism was studied during 18 months² following the sentencing of the defendant. Criminal offences committed during the DTC trajectory and which resulted in case closure based on policy decisions, amicable settlements, criminal-case mediations or sentences thus were considered as antecedents. In addition, it should be highlighted that the follow-up period of recidivism in the second control group started after the sentencing of the defendants and not after the probation supervision was terminated. Data regarding offending behaviour was gathered through the national judicial antecedent’s data base.

The most important limitation of both the outcome and recidivism study is the small sample size. Consequently, one should be cautious in generalizing the research findings.

3. Research results

3.1. Results of the outcome study

3.1.1. The outcomes of foreign DTCs

Previous literature reviews focused almost exclusively on the effect of DTCs on criminal offending. Only in second instance, the effect of DTCs on substance use was considered. Attention for the effect of DTCs on drug related life domains was lacking. The impact of DTCs on recidivism, and drug related crime in particular, is moderately positive both during and after a DTC trajectory (Belenko, 1999, 2001; Brown, 2010a; GAO, 2005; Mitchell, Wilson, Eggers & MacKenzie, 2012; Shaffer, 2011; Wilson, Mitchell & MacKenzie, 2006). The effects of DTCs on substance use are less consistent. Urine test results show a reduction in drug use during a DTC trajectory (Belenko, 1999, 2001; Brown,

² Detention periods of the respondents were not taking into account to determine de follow-up period.

2010a; GAO, 2005), however information regarding the continuation of this reduced drug use after a DTC is lacking. Conflicting results on self-reported drug use during and after a DTC trajectory are reported (GAO, 2005).

Few DTC evaluation studies were found in which other drug related life domains, such as family relations, employment, housing and health, were considered as outcome measures. As a result, little or no information is available regarding the effect of DTCs on the majority of these life domains. In addition, studies not using a comparison group demonstrated the most beneficial results on these life domains. Studies using a comparison group often found no effect on these life domains. Family relationships and employment ameliorated if **specific interventions** targeting these life domains were provided. Information regarding the long term impact of DTCs on drug related life domains is lacking (Wittouck, Dekkers, De Ruyver, Vanderplasschen & Vander Laenen, 2013).

Table 2. The results of the included studies according to study design and outcomes measure*

	Drug use	Alcohol use	Family (and social) relationships	Employment	Income	Mental health	Physical health
Observation studies							
Johnson et al. (2011)	+						
Freeman (2003)	+		+			+	+
(Randomized) controlled studies treated as observational studies†							
Dakof et al. (2010)	+	+	+	+		+	+
Dakof et al. (2009)			+				
Marlowe et al. (2009)	+						
Leukefeld et al. (2007)	+	+		+	+		
Eibner et al. (2006)		+					
Marlowe et al. (2005)	+ (-)	+	=	=		=	+
Controlled studies							
Burrus et al. (2011)			+				
Worcel et al. (2008)			+				
Marinelli-casey et al. (2008)	+	=	=	=		=	=
Boles et al. (2007)			+				
Ashford (2004)			=				
Brewster (2001)	=			=			
Randomized controlled studies							
Gottfredson et al. (2005)	+	+	=	=	+	=	=
Deschenes et al. (1995)	+			-			
* A '+' indicates a significant difference in favor of the DTC, a '-' indicates a significant difference in favor of the control group, a '=' indicates no significant difference between the DTC and the control group, and 'grey' indicates that the outcome variable was not reported.							
† In these studies the outcomes of different types of DTCs were compared.							

3.1.2. The outcomes of the Ghent drug treatment court on substance use and drug related life domains

During the data gathering phase of the file study it was observed that information regarding substance use and drug related life domains was not systematically recorded within the criminal justice system. As a result, only a few outcome variables could be examined (e.g. current drug use, receiving drug treatment, current housing, current employment, having debts, receiving financial counselling).

The results showed that significantly more DTC clients were in prison (awaiting sentence), had unstable housing, and received less financial counselling at the start of their DTC trajectory when compared to Hasselt probationers, which could indicate that Ghent DTC clients suffer more complex (drug related) problems.

Significantly more *Ghent DTC clients* were employed, in drug treatment and receiving financial counselling at the end of their DTC trajectory. In addition, significantly more DTC clients were compliant to substitution treatment, at the end of their DTC trajectory.

A reduction in heroin use and frequency of drug use in general was found for *Hasselt probationers*. Significantly more Hasselt probationers were in drug treatment, and significantly more Hasselt probationers were compliant to substitution treatment.

Significantly more Ghent DTC clients were **employed** *in comparison* with the Hasselt probationers. In addition, the **time interval** between the criminal offence(s) for which they were charged (for the DTC group) or sentenced (for the probation group) and the start of the DTC or the probation trajectory was significantly shorter for DTC clients. On average, respectively six months and 22 months passed between the criminal offence(s) and the start of the DTC or the probation trajectory.

Tabel 2. The results of the file study according to analysis, namely differences between the pre- and posttest results for the DTC and the probation group separately and the differences between the DTC and the probation group at posttest.

	DTC pre-post	Probation pre-post	DTC vs Probation (post)
Substance use			
Heroin	=	+	=
Amphetamine	=	=	=
Cannabis	=	=	=
Method			
Frequency			
Alcohol			
Treatment			
Methadone	+	+	=
Drug treatment	+	+	=
Financial counselling	+	=	=
Life domains			
Housing	=	=	=
Employment	+	=	DTC
Debts	+	=	=
Social security			
Family and social relations			
Leisure time activities			
Mental health			
Physical health			
Legend DTC and probation pre-post			
A '=' indicates no observed significant differences between the pre- and posttest, A '-' indicates a significant deterioration from pre- to posttest, A '+' indicates a significant improvement from pre- to posttest and a shading indicates that there were insufficient data present to conduct a reliable test.			
Legend DTC vs Probation (post)			
A 'DTC' or 'probation' indicates that the observed significant difference was in favor of respectively the DTC or the probation group, A '=' indicates no observed significant differences between the study groups at posttest and a shading indicates that there were insufficient data present to conduct a reliable test.			

3.1.3. The public expenditures and possible benefits of the Ghent DTC project

Public expenditure for staff and operation associated with the DTC project (including prosecution and sentencing level and the independent drugs workers team) is limited. The minimal and maximal public expenditure related to the DTC project in the year 2008 was estimated €104.525,8 and €120.797,1 (Vander Laenen et al., 2011). A DTC entails not only additional public costs. International costs-benefits analyses of other DTCs have shown that they are associated with less expenditure on each level of the CJS because recidivism is reduced, and more tax income can be expected from (former) drug users who are more likely to be employed after a DTC trajectory (GAO, 2005; Logan et al., 2004).

3.1.4. The content of treatment plans and the process of the treatment trajectories of (former) DTC clients

DTC-clients develop a treatment plan together with the independent drugs worker who is a counsellor and who holds professional confidentiality. Objectives regarding specific problems on different life domains, as experienced by the DTC client, are formulated. The analysis of the treatment plans of (former) DTC clients shows that every treatment plan is unique and is **tailored** to the **specific and individual needs** of the DTC client in question. For some life domains, namely substance use, housing, employment and income, a goal is formulated by (almost) all DTC clients. Diversity also exists in how DTC clients try to achieve the objectives in their treatment plan, as in the extent to which they (partly) succeed in achieving these objectives.

The analysis of the **objectives** in the treatment plans revealed that it was not always clear if the formulated objectives represented the needs of the DTC clients or the expectations of DTC actors. In addition, the objectives in the treatment plans were not always formulated concretely or targeting a direct problem approach since clear intermediate and final objectives are sometimes lacking. This lack of clarity can complicate the judicial monitoring and evaluation by the DTC judge.

3.1.5. The experiences of involved counsellors

As in the process evaluation of the Ghent DTC (Colman et al., 2011), (drug) counsellors and independent drugs worker expressed their satisfaction with the DTC approach. They thought that the DTC provided an important opportunity for drug using offenders to address their underlying (dependency) problems. They viewed the individualised treatment approach, covering a range of different problems their clients faced and aiming at reintegration, as important too. The individual needs of the DTC client are considered resulting in appropriate and specific referrals to general and specialized (drug) treatment services (Logan et al., 2004). Changing the focus of the criminal justice system away from the client as an ‘offender’ towards a substance user was considered an important added bonus of the DTC, as previously shown in Belgian research regarding clients receiving substitution treatment (Vander Laenen et al., 2013). Counsellors frequently observed progress on different life domains after the start of a DTC trajectory. They appreciated the **personalised judicial monitoring** which is reflected in the fact that every DTC client is assigned to a DTC judge and prosecutor whom monitor him/her during his/her entire DTC trajectory. In addition, the counsellors valued the support DTC client received from the independent drugs worker during their DTC trajectory. Indeed the **independent drugs workers** are the **intermediary** between the criminal justice system, treatment services and the DTC client.

Working ‘under **judicial pressure**’ was not experienced as problematic by (drug) counsellors, as was found in the process evaluation (Colman et al., 2011). On the contrary, the rigorous judicial monitoring activates and motivates DTC clients to address their problems more closely and to undertake actions faster (McIvor, 2009). The frequent follow-up hearings make the judicial system visible and nearby, and allow the court to be able to react quickly if relapse or problems with the implementation of the treatment plan occur. The external pressure did not beneficially influence all DTC clients. Some dropped out due to this pressure (Evans, Li & Hser, 2009).

The number of DTC clients in treatment services in the Ghent region is relatively low. Contrary to what was expected during the process evaluation (Colman et al., 2011), the DTC does **not** seem to **directly influence waiting list**. The latter can be explained by the observation that DTC clients often have a treatment history in non-drug specific outpatient treatment services. As a result, these DTC clients are not considered as new clients by these services. In addition, non-drug specific outpatient treatment services have rarely waiting lists. In addition, the small influx of DTC clients to drug specific outpatient treatment services has little effect on their waiting lists since these are limited in general. The existing waiting lists of inpatient (non-)drug specific treatment services are not related to the DTC implementation. The Ghent region is characterized by a broad network of divergent treatment services. As a result, DTC clients can be referred functionally to these services thus limiting over-questioning of specific services. The capacity of treatment services can be insufficient to manage the influx of DTC clients in regions where a broad network of divergent treatment services is lacking.

Counsellors could not unequivocally describe the profile of DTC clients, they did however point out the **severe and multiple problems** of DTC clients on different life domains. Though counsellors recognized that non-DTC clients using their services also experienced severe and multiple problems.. As a result, treatment provision and treatment completion does not differ between DTC and non-DTC clients. Counsellors respect the pace of every individual client; DTC clients who have already formulated desired objectives in the DTC treatment plan can start a treatment trajectory more easily. Some counsellors indicate that after completion of their DTC trajectory some DTC clients discontinue treatments initiated during their DTC trajectory. In these cases, judicial pressure can facilitate treatment retention.

Counsellors identified the differences in the goal and the pace of the criminal justice system compared to that of treatment services as a **challenge** of the DTC project. In addition the limited continuation of care and support for DTC clients after they have completed their DTC trajectory, which means that DTC clients receive limited structural follow-up and **monitoring**, was seen as a challenge. A partnership between the criminal justice system and treatment services can be complicated by the different objectives they set (Hough, 2002, De Ruyver et al., 2009). Counsellors were not always sure if shared **professional confidentiality** applied in their contacts with the independent drugs worker. The independent drugs workers reported the importance of the availability of a team on which they can rely. As in the process evaluation (Colman et al., 2011), several respondents indicated that the lack of a **DTC coordinator**, enabling support and stimulating partnerships between the drug specific and the non-drug specific treatment services, was a gap in the Ghent DTC model.

3.1.6. The experiences of (former) DTC clients

The *DTC clients* who were interviewed for this study viewed the opportunity to address their problems as a **positive** element of the DTC. The contacts with the independent drugs worker and the DTC judge were also seen as positive, especially since they were attentive for the personal circumstances of the DTC clients. In addition, the comprehension of drug issues of DTC actors, receiving several opportunities, the frequent follow-up hearings, the contacts with the independent drugs worker, and the humanity and reinforcement of the judicial actors were seen as positive elements in a DTC trajectory.

The judicial **pressure** experienced by DTC clients during their trajectory can be regarded as both an advantage and a disadvantage. Some DTC clients experienced this pressure positively as the big stick and a motivational factor to be an active participant in the DTC programme. Other clients could not adequately cope with this pressure increasing the risk of dropping out the programme.

The public nature of the hearings and the resulting involuntarily contact with other (former) substance users, the frequent hearings in combination with vocational activities and the long waits before it was their turn to appear for the judge were reported by some clients as **obstacles** to DTC participation.

Not all interviewed probation clients experienced that judicial actors had attention for their underlying problems. Some respondents experiences that judicial actors were focused on mere (severe) penalisation. While this was not always the case in previous experiences with probation sentences, the interviewed probation clients had positive contacts with their current probation officer. This positive contact was characterised by mutual respect. In addition it was reported that probation officers provided both practical and emotional support and was not judgemental towards them. The probation clients reported the long follow-up period enabled the development of a good working relationship based on a clear understanding of individual circumstances and the context surrounding them. This was particularly useful when difficulties or problems occurred during the probation sentence.

The **judicial measure** directly influenced substance use which generated an **indirect** influence on the other drug related life domains Contact with the criminal justice system can thus be regarded as a “turning point” in the substance usage career of an individual (Sampson & Laub, 1993). However the judicial measure was a necessary though as a turning point it was seen as insufficient on its own to facilitate the full process of change of the respondents. During the process of change the judicial actors have an important supervising and supporting role. The respondents expect judicial actors to intervene when problems (are likely to) occur and reinforce progress when it has been made. A judicial measure may motivate in the short-term but *personal motivation* is needed to sustain and develop long-term change.

Next to the personal motivation of the judicial client, the influence of the *societal context* on the process of the change should not be underestimated. A mere focus on individual recovery in problematic substance users will not be sufficient in a judicial measure. In addition, drug policy should include a focus on **social inclusion and reintegration** of substance users. Attention should be given to their individual role in society and to all life domains (such as health, employment and day and leisure time activities) resulting in a life free of stigmatisation and discrimination (Colman & Vander Laenen, 2012; Sumnall & Brotherhood, 2012).

3.2. Results of the recidivism study

Criminal offending was reduced in 80% of the respondents in the DTC study group (n=44). **Three quarters of these respondents did not reoffend** during the first 18 months after their DTC trajectory and the other 25% reoffended less on an annual basis. Criminal offending increased during the first 18 months after their DTC trajectory in 20% of the DTC respondents.

In DTC respondents with an extensive criminal history (= more than 20 past convictions leading to a sentence, a case closure based on policy decisions, an amicable settlement or a criminal-case mediation) (n= 12), an improvement in criminal offending was found for the majority of these respondents. Five of these respondents did not reoffend, criminal offending decreased in another five respondents and increased in two respondents. This finding confirms the added value of the DTC since judicial measures traditionally have little impact on this offender group.

The *comparison* of reoffending in the *DTC group* with reoffending in the *two control groups*, e.g. defendants who did not attend the introductory DTC hearing or who refused a DTC trajectory and thus their cases were processed according to standard criminal procedures (control group 1, n= 41) and defendants who were sentenced to a probation sentence by the Hasselt court of First Amendment³ (control group 2, n= 59), shows that the DTC respondents reoffended significantly less than respondents in the two control groups. Reoffending was observed in 38,6% of the DTC respondents and in 56,1% and 57,6% of the respondents in respectively control group 1 and 2. DTC clients had however a more complex drug using and offending history. The DTC clients were more likely to be heroin users, and the average number of previous convictions, the average duration of the criminal career, the average duration of detentions and the prevalence of different types of offences committed was significantly higher in the DTC respondents when compared to the respondents in control group 2 (probation sentences). Significant differences between the DTC respondents and the respondents in control group 1 (standard processing) were found regarding two offence types, namely deception offences and vandalism, property damage and arson offences. The profile of the DTC group and the first control group is thus more or less comparable. The profile of the DTC respondents was matched to the profile of each control group in order to assess the *recidivism risk* after a DTC trajectory in comparison with the two control groups. The analysis showed that the recidivism risk is 3.4 times **lower** after a **DTC trajectory** in comparison with control group 2 (probation sentence) and 2.9 times lower in comparison with control group 1 (standard processing).

When reoffending is observed, a DTC reoffender, even after matching the profile of DTC reoffenders with the profile of reoffenders in the control groups, commits significantly more offences (N= 17) than recidivists in control group 2 (probation sentences, N= 34). The frequency of reoffending in DTC reoffenders did however not differ from the frequency of reoffending in control group 1 (standard processing, N= 23). No significant differences regarding the time taken to reoffend⁴ were found between DTC reoffenders and reoffenders in control group 1 (standard processing). Reoffenders in both the DTC group and the standard processing control group reoffended fast. For instance, 70% of reoffending DTC respondents reoffend within the first six months after their DTC trajectory.

³ This does not necessarily mean that the probation supervision already started during the follow-up period. For this study group it lasted on average more or less a year before the probation supervision started.

⁴ The time taken to reoffend could not be calculated for control group 2 (probation sentence) since necessary information, namely the date when the charges arrived at the office of the public prosecutor, was lacking.

We can therefore cautiously conclude that a DTC trajectory is associated with **less recidivism** during the first 18 months after the DTC trajectory when compared to being sentenced to a probation measure or being processed according to standard criminal courts and procedures. The same is true for DTC respondents with an extensive criminal history. However, for DTC respondents who **reoffend their rate of reoffending is at the same level or is more frequent than respondents in the control groups.**

4. Policy recommendations

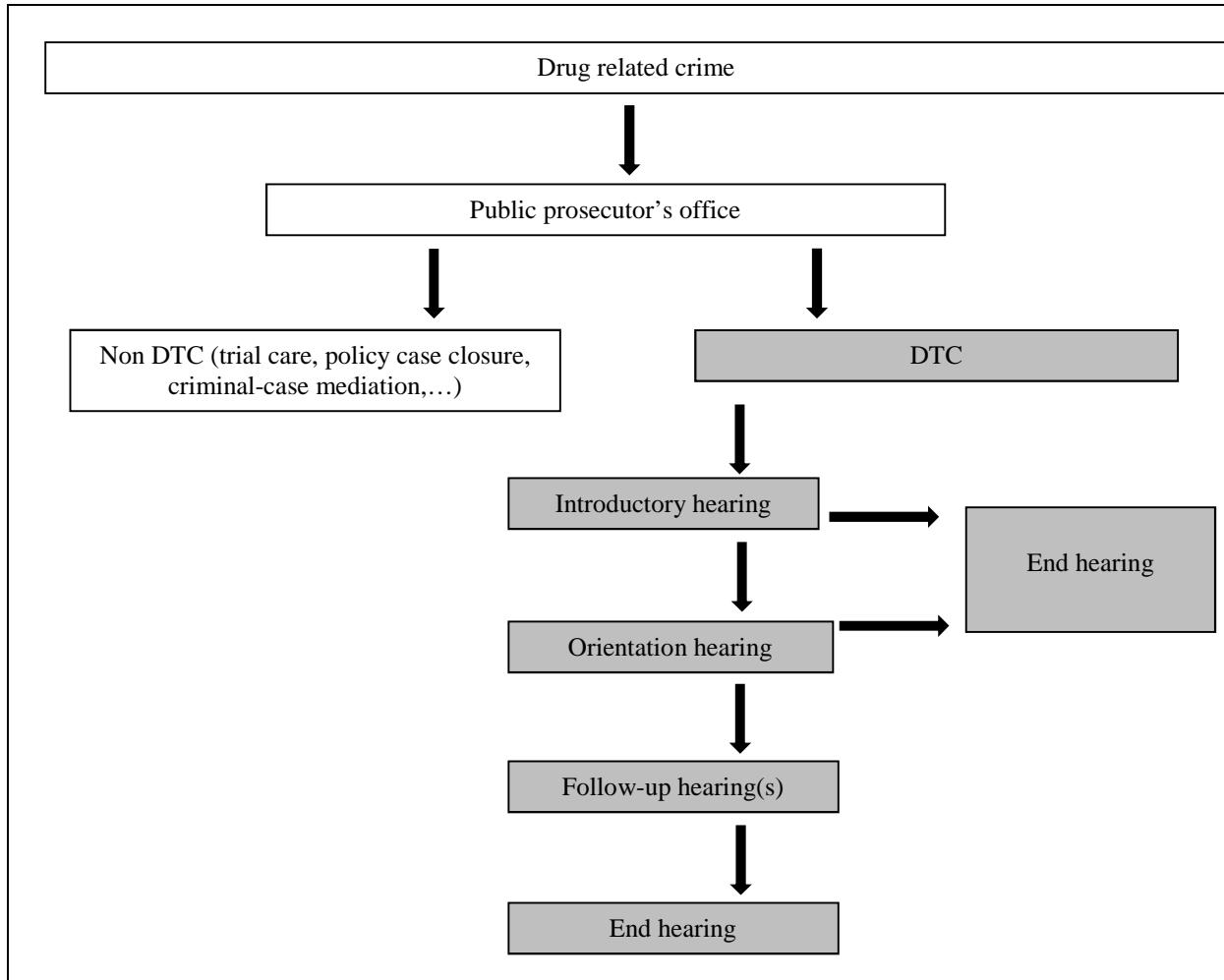
4.1. Continuation of the DTC project in the judicial jurisdiction of Ghent by an optimisation of the DTC specific preconditions

4.1.1. Continuation of the Ghent DTC project

The results of the present study show the added value of the Ghent DTC. In *formal judicial terms*, the DTC is a head of the game both in the run up to a DTC trajectory as during a DTC trajectory. Furthermore, the risk of recidivism is lower after a DTC trajectory when compared to a probation sentence or to standard processing without probation supervision. In *terms of content*, the DTC provides an opportunity to address problems with substance use and other life domains as experienced by DTC clients. Moreover, the Ghent DTC is associated with a limited additional public expenditure. It can be expected that this additional public expenditures will generate even more benefits, such as a reduction in offending and substance use thus associated with less expenditures for the criminal justice system and health care in the medium and longer-term.

The usefulness of the DTC project, as shown in both the outcome and the recidivism study, suggests that it would be useful to continue the DTC in the judicial jurisdiction of Ghent. However, when continuing the DTC project one should consider the following recommendations in order to further optimise the impact and operation of the DTC project. The recommendations are structured according to the different types of hearings associated with a DTC trajectory, namely the introductory hearing, the orientation hearing, the follow-up hearings and the end hearing.

Tabel 3: Schematic representation of the DTC course



4.1.2. Optimisation of the DTC specific preconditions

A delineated inflow based on judicial criteria

Judicial and diagnostic criteria are used interchangeably within the current system of decision making about referrals to the DTC⁵. Judicial actors are not trained to undertake assessments of problematic substance use. Referral to the DTC should be based on mere judicial criteria, and mixing judicial and diagnostic criteria should be avoided.

This study shows that a DTC trajectory was not appropriate for some DTC clients. Marlowe and colleagues (2006) found that intensive judicial supervision, as the DTC, offers little additional benefits for low risk defendants (= no extensive treatment en criminal history) when compared to standard processing (Marlowe, Festinger, Lee, Dugosh & Benasutti, 2006). At the stage of referring defendants to the DTC, it is difficult to determine if a defendant is suitable for the DTC when he/she has not yet appeared before the DTC. This assessment needs a targeted exploratory orientation meeting.

A targeted orientation to treatment services based on concrete, feasible and verifiable objectives for those life domains experiences as problematic by DTC clients.

The exploratory orientation meeting with the independent drugs workers offers insight in the individual life circumstances of the DTC clients. Following this the DTC client, in cooperation with

⁵ Internal policy of the Ghent public prosecutor's office regarding drug related crime.

the independent drugs worker, is able to formalize a treatment plan that is **tailored to his/her individual needs**. The DTC client proposes his/her treatment plan to the judicial actors during the orientation hearing. When these actors agree with the treatment plan, the DTC trajectory can start. When they do not agree a treatment plan, a new exploratory orientation meeting between the DTC client and the independent drugs worker takes place.

The identification of problematic life domains should be based on objective indicators and on the needs and objectives expressed by the DTC client. This will enable and empower the DTC client, in cooperation with the independent drugs worker, to formulate concrete and feasible intermediate and final objectives. Screening instruments, such as the GAIN-quick (Global Appraisal of Individual Needs; Gotham et al., 2008) or the ASI-Lite, a short version of the ASI (Addiction Severity Index, McLellan, Luborsky, Woody & O'Brien, 1980) could be used to identify problematic life domains. Leaving blank certain life domains because they are not experienced as problematic by the DTC client should not be problematized. If no problematic life domains are identified and thus no objectives are formulated an end hearing should take place since judicial monitoring cannot be justified in this case. Client-driven and customized care are important key concept to ensure a personalized treatment plan based on the individual needs, capacities and expectations of the DTC client. Moreover, it is important to address all problematic areas of DTC clients lives, whether or not simultaneously, to avoid problems mutually interacting and thus creating new problems or strengthening existing problems ("**holistic care**") (Cleary, Hunt, Matheson & Walter, 2009; De Wree et al., 2009a, De Maeyer, Vanderplasschen & Broeckaert, 2010). Working with objectives **formulated by DTC clients themselves** makes sure that not only the societal relevant life domains but also the life domains relevant for the individual receive sufficient attention (De Maeyer et al., 2011). Consequently, the systematic monitoring and the self-goal-setting can further motivate and empower DTC clients to complete their DTC trajectory as an active participant.

It is important to subdivide the goals into concrete **intermediary objectives** (for instance, when, how and which treatment services should be contacted by the DTC clients) and **final objectives**. This subdivision will clarify how and when DTC clients should achieve their goals. Concrete and verifiable intermediary and final goals enables the independent drugs worker to refer DTC clients to the appropriate drug specific and non-drug specific assistance and treatment services. In addition, the treatment plan enables the DTC judge to verify if DTC clients achieve their intermediary or final goals.

Targeted judicial monitoring of the goals in the treatment plan

The treatment plan can be used as a checklist by the DTC judge to monitor DTC clients' progress over the various hearings. If an intermediary or final goal is achieved, the DTC judge should record this. Systematic judicial monitoring of goals formulated by the DTC clients themselves offers benefits. First, thus a consistent and uniform judicial monitoring can be guaranteed even if multiple DTC judges are involved. Second, implementation difficulties associated with the treatment plan can be detected early in the DTC trajectory possibly necessitating a re-orientation phase. During a re-orientation, the independent drugs worker and the DTC client have an extensive meeting after which new feasible intermediate and final goals are formulated by the DTC client in cooperation with the independent drugs worker. These goals are presented to the judicial actors. It should be avoided that judicial actors take on the role of the independent drugs worker by reformulating unfeasible

intermediary and final goals together with the DTC client. Judicial actors should intervene when DTC clients do not comply with the DTC programme.

This **individualized approach** should not only be ensured during the orientation phase, but also during the follow-up phase (and later on the end phase) of a DTC trajectory. The frequency of follow-up hearings and the length of the follow-up period should be tailored to the individual needs of the DTC client (Wenzel, Longshore, Turner & Ridgely, 2001; Marlowe et al., 2006; Sheidow et al., 2012; Taxman, 1999). As describes above, one should tailor the intensity of judicial supervision to the (drug) treatment and criminal history of a defendant if one aims changing the behavioural pattern of a defendant (Marlowe et al., 2006). The complexity of problems experienced by DTC clients is a barrier to determining the necessary number of follow-up hearings in advance. An **extinctive frequency** of follow-up hearings based in the individual needs of the DTC client and the course of the trajectory can be introduced.

The sentencing should be tailored to the course of the DTC trajectory and enable a continuation of voluntary treatment

The DTC trajectory should be completed with due care and with an individualised approach once the objectives have been achieved.

When the course of the DTC trajectory reveals that certain objectives are not feasible during the timing of a DTC trajectory one could consider sentencing the defendant to a probation measure in order to further address these specific objectives.

Completing a DTC trajectory too soon even if the objectives are achieved can increase the recidivism risk since the DTC reinforcement is too suddenly removed. An **extinctive frequency** of follow-up hearings can thus also be applied to ensure the continuation of positive reinforcement by offering the possibility of some follow-up hearings after achieving the objectives set in the treatment plan. A sustained judicial monitoring can be appropriate for those defendants who lack the support of a(n) (in)formal network (Koeter, 2000, 2006; De Ruyver et al., 2008a). Thus extrinsic motivation can gradually change into a more personal **motivation**. Over time motivational factors for behavioural change can be found in the surroundings of the defendant whereas these initially were grounded in a judicial context.

Every DTC session should be divided in four separate areas according to the different types of DTC hearings, namely introductory, orientation, follow-up and end hearings. Thus contact with (former) substance users and long waits before DTC appearance can be avoided as much as possible.

The need of a systematic, structured and uniform registration of client data

The judicial databases used in the recidivism study, the national antecedents database and SIPAR, are not user-friendly for research purposes. Judicial databases which enable easy access and data processing is needed to be able to understand in detail how effective interventions such as DTCs are.

The file study showed that Ghent DTC actors register few client data. As a result the outcomes on some life domains could not be studied. In particular the areas poorly registered were method and frequency of substance use, alcohol use, physical and mental health, family and social relations, income, leisure time activities and details of cohabitation. Developing a systematic, structured and uniform registration method for DTC actors is necessary. When embedded in and tailored to the DTC operation this registration method would be associated with a minimal workload. The assistants of the public prosecutor can register data regarding the criminal history of the DTC clients when they

prepare the files for introductory hearing. The DTC judge can register data regarding the course of the DTC trajectory on the checklist he/she uses to monitor the DTC trajectory. The independent drugs workers can register client data regarding substance use and drug related life domains during the orientation and end phase using the treatment plan. This registration will enable judicial monitoring of evolutions on *client level* regarding substance use and drug related life domains over the various DTC hearings. In addition this registration can serve a thorough *outcome evaluation* of DTCs.

4.2. Expansion of the DTC project to other judicial jurisdictions if some external and DTC specific conditions are met

4.2.1. Conditions *before* the implementation of a DTC

When an expansion of the DTC project to other jurisdictions is considered, the required external conditions to ensure an optimal partnership between the criminal justice system and treatment services should be fulfilled *before* the DTC implementation phase starts. The scientific report “Study into the essential and additional conditions for the interaction between justice and treatment” contains a scenario regarding the finalization of these external conditions (De Ruyver et al., 2009). The most essential conditions are a clear task and role definition (including the impact of professional confidentiality), setting clear and written arrangements and the presence of a sufficiently comprehensive, diverse and spread treatment supply. Only when these conditions are fulfilled one can consider the implementation of a DTC.

4.2.2. Preconditions *during* the implementation of a DTC

When the implementation phase can be proceeded some *DTC specific* conditions should be fulfilled from the outset of the DTC implementation. These DTC specific condition consist of both substantive (for instance the presence of an independent drugs worker) and formal judicial (for instance the provision of follow-up hearings) features which are key components of a DTC (Colman et al., 2011). Thus teething problems and registration difficulties and deficiencies which were associated with the implementation of Ghent DTC can be avoided.

As was presented in the process evaluation study (Colman et al., 2011), the necessity of funding a **DTC coordinator** is stressed, especially since the importance of structural support and a uniform expansion of the DTC project to various judicial jurisdictions (Bull, 2005; Edmunds, Hough, Turnbull & May, 2005; De Ruyver et al., 2008a; Colman, Vander Laenen & De Ruyver, 2010).

The absence of the **independent drugs worker** would jeopardize the added value of a DTC. The independent drugs worker is without doubt the cornerstone of the DTC project, as was shown in the present outcome study and in the process evaluation study (Colman et al., 2011).

The abovementioned recommendations and the recommendations formulated in the process evaluation (Colman et al., 2011) should be considered to ensure an optimal en structured expansion of the DTC project.

4.2.3. Systematic outcome study

Currently an opportunity for the systematic examination of DTC outcomes is present since exploratory meetings are being organized in 2013 in which a possible expansion of the Ghent DTC project to other jurisdictions is to be discussed. If more DTCs are to be implemented, they should be accompanied with a longitudinal controlled outcome evaluation. Thus an evidence-based drug policy regarding DTCs can be developed and a cost-efficiency-effectiveness-analysis can be carried out. The importance of a systematic, structured and continued **registration** of data regarding DTC clients cannot be overemphasized.

The recently revised and published 'EU Drugs Strategy 2013-2020' explicitly refers to the need for scientific studies to evaluate interventions. Drug policies and actions based on these policies should be underpinned with the scientific results of these studies: "*Actions must be evidence-based, scientifically sound and cost-effective, and aim for realistic and measurable results that can be evaluated*" (Commission of the European Union, 2012, p. 9).

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