When things are getting out of hand: Prevalence, assessment, and treatment of substance use disorder(s) and violent behavior
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CHAPTER 10

General discussion
The current thesis consisted of two parts. Part I concentrated on the prevalence of substance use disorders among different types of perpetrators, i.e., perpetrators of intimate partner violence (IPV), perpetrators of general violence (GV), and perpetrators of sex offenses (SO); part II focused on problematic substance use in relation to IPV perpetration. More specifically, the main objectives in this part of the thesis were threefold: first, to investigate the validity of a screener to detect perpetrators and victims of IPV among patients in substance abuse treatment; second, to examine whether (combinations of) specific substance use disorders increased the risk for IPV perpetration and victimization among patients in substance abuse treatment, and third, to study the effectiveness of Integrated treatment for Substance abuse and Partner violence (I-StoP) among patients in outpatient substance abuse treatment and in outpatient forensic treatment. In the final chapter, findings and conclusions of the studies described in chapters 2 to 9 are summarized and discussed. Lastly, general considerations and clinical implications are presented, and the chapter concludes with suggestions for future research.

Summary and discussion of the main findings
In part I of this dissertation the prevalence of substance use disorders among different types of perpetrators was described. In Chapter 2 a study on the incidence of substance use disorders among IPV perpetrators in domestic violence treatment at a forensic outpatient treatment facility pointed out that 50% of 150 participants met criteria for one or more substance use disorders at the time of the offense they were treated for. On top of that, about two thirds of the patients who were diagnosed with a substance use disorder reported that they were intoxicated by alcohol or drugs at the time of the offense. Additional analyses demonstrated that substance abusing IPV perpetrators did not differ from non-substance abusing IPV perpetrators with regard to demographics and offense related variables. A major limitation of this study was that the data were subtracted from patient files and that no structured clinical interview was used to assess substance use disorders.

In chapter 3, the incidence of substance use disorders among different types of perpetrators (i.e., perpetrators of GV, IPV, SO, and ‘other’ offenses) was assessed. Patients who had an intake at a forensic outpatient treatment facility were first screened for substance use disorders with the Alcohol Disorder Identification Test (AUDIT; Saunders, Aasland, Babor, De la Fuente, & Grant, 1993) and the Drug Use Disorder Identification Test (DUDIT; Berman, Bergman, Palmstierna, & Schlyter, 2005; Dutch translation: Kraanen & Fluttert, 2008). After screening positive on any of the two screeners, the substance abuse section of the Structured Clinical Interview for DSM-IV Axis-I Disorders (SCID-I; First, Spitzer, Gibbon, & Williams, 1996; Dutch translation: Van Groenestijn, Akkerhuis, Kupka, Schneider,
& Nolen, 1998) was administered to classify substance use disorders. The results showed that 62% of GV perpetrators were diagnosed with any substance use disorder, which compares to 31% of IPV perpetrators, 9% of SO perpetrators, and 27% of ‘other perpetrators’. Significantly more GV perpetrators and less SO perpetrators were diagnosed with substance abuse and / or dependence than other perpetrators. In addition, 49% of GV perpetrators were intoxicated at the time of the offense, 25% of IPV perpetrators, 17% of SO perpetrators and 21% of ‘other perpetrators’. Significantly more GV perpetrators were intoxicated than other subtypes of perpetrators. In conclusion, substance use disorders are highly prevalent among patients in forensic mental health institutions and far more prevalent than in the general population, in which about 5% was diagnosed with any substance use disorder in the past year (De Graaf, Ten Have, & Van Dorsselaer, 2010). The figures in this study, however, were only based on self-report. On the one hand one could argue that ‘true’ prevalence rates may even have been higher since it is common that patients deny or trivialize their substance use; on the other hand, some participants were still awaiting trial, so they may have exaggerated substance use and use it as an excuse for committing IPV. It is noteworthy that the study in chapter 3 showed lower rates of substance use disorders among IPV perpetrators than the one in chapter 2 (31% and 50%, respectively). Two factors can account for this difference: first, the dropout rates in the second study were relatively high: over one-third of the patients that screened positive on AUDIT and / or DUDIT did not complete the SCID-I, while positive screening patients were likely to be diagnosed with substance related disorders; second, the results from the second study were obtained from self-report whereas the first study used patient files that included additional information, for example, police reports.

Finally, in chapter 4 the literature concerning substance use disorders among SO perpetrators was reviewed. The results showed that half of the SO perpetrators had a history of any substance abuse and a quarter of the SO perpetrators were intoxicated at the time of the offense. Again, discrepancies between the various studies in this thesis were evident: the studies reviewed in chapter 4 demonstrated higher substance use disorder rates among SO perpetrators than the study in chapter 3 (i.e., 50% and 9%, respectively). There is a difference, though, in the type of offenses that may explain the results. In chapter 4 substance use disorders were studied in hands-on SO perpetrators, whereas most SO perpetrators in the study in chapter 3 committed hands-off sex offenses (such as downloading child pornography). However, since no other studies examined substance abuse among hands-off SO perpetrators, the question is whether these findings can be generalized to other hands-off SO perpetrator populations. In sum, the first three chapters of this thesis confirmed that substance abuse and offense often co-occur; the two studies that are reported in chapters 2 and 3 demonstrated that this is also the case in the Netherlands.
Part II of this thesis focused on substance use disorders in relation to IPV perpetration. In chapter 5, two studies delineated the validation and cross-validation of the Jellinek Inventory for assessing Partner Violence (J-IPV). This is a 4 items counting screening instrument to identify perpetrators and victims of IPV among patients in substance abuse treatment. The first study demonstrated that the J-IPV possessed good psychometric properties and could be used to detect any and severe IPV perpetration as well as IPV victimization among substance abusers. These results were replicated in the second study that was conducted in another substance use disorder treatment facility. This led to the conclusion that the J-IPV is an effective screening instrument for IPV perpetration and victimization during the intake for substance abuse treatment. After screening positive, IPV should be assessed further, for instance with the Revised Conflict Tactics Scales (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). The J-IPV, however, is not able to discriminate between IPV perpetration and IPV victimization, which is a limitation of the tool.

In chapter 6, the question was whether (combinations of) substance use disorders predicted IPV perpetration and victimization among patients in substance abuse treatment. A diagnosis of alcohol abuse or dependence in combination with cannabis and/or cocaine abuse or dependence predicted any IPV (perpetration and/or victimization) and severe IPV perpetration in male patients. Being diagnosed with both an alcohol and a cocaine related disorder predicted any IPV (perpetration and/or victimization) and severe IPV perpetration in female patients. Unfortunately, it was not possible to distinguish between any IPV perpetration and any IPV victimization since J-IPV, the screening instrument used to assess IPV, is not able to discriminate between any IPV perpetration and victimization. So this was a limitation of the study.

Chapter 7 presented the case study of Henry, a patient in forensic outpatient treatment who received I-StoP. I-StoP aims 1) to stop IPV perpetration and 2) to stop substance use or in case this cannot be achieved, to reduce substance use to safe levels. I-StoP was developed based on the assumption that alcohol intoxication causes IPV perpetration, which is in accordance with Leonard and Quigley’s (1999) proximal effects model. This is one of the three models formulated to explain the relationship between alcohol use and IPV perpetration. As for Henry, who was diagnosed with alcohol and cannabis dependence, he did refrain from IPV perpetration but not from substance use during the treatment. At 6 months follow-up he even started using MDA, a drug similar to MDMA (ecstasy). Although he continued using substances during the course of treatment, some skills had improved, such as problem solving and communication skills. It is therefore hypothesized that Leonard and Quigley’s (1999) spurious model (i.e., a third variable, such as Henry’s ineffective problem solving skills, is responsible for both IPV
perpetration and substance use) may, at least in certain cases, explain the link between alcohol and IPV. At the same time though, Henry’s partner Eric had decreased his substance use and had become more assertive, which presumably also contributed to the cessation of IPV. This case study underlined that although alcohol use and IPV perpetration may be causally related (some studies showed that giving up on alcohol led to cessation of IPV perpetration; for reviews see Murphy & Ting, 2010; Stuart, O’Farrell, & Temple, 2009), it is also noteworthy that other explanatory models may apply.

In chapter 8, the first of two randomized controlled trials (RCTs) examined whether Integrated treatment for Substance abuse and Partner violence (I-StoP; Kraanen et al., 2008a; 2008b) was effective in treating IPV perpetration among IPV perpetrators in substance abuse treatment. I-StoP was compared to cognitive behavior therapy (CBT) for substance use disorders (SUD) including one session addressing IPV (CBT-SUD+). As expected, both I-StoP and CBT-SUD+ were effective in reducing substance use. Contrary to what was expected no differences were found between both conditions. In both cases, completers had hardly committed any IPV in the past 8 weeks at posttreatment, an outcome that makes the results not only statically significant but also clinically meaningful. The results were similar both for completers only and for the intention-to-treat (ITT) sample. A limitation of this study was the large dropout rate (about 60%). Although it is quite common that patients in substance abuse treatment terminate treatment prematurely (e.g., Stark, 1992), the dropout rates in this study were in the top range and led to underpowered completers analyses. The participants of the Jellinek RCT, however, were not only diagnosed with substance use disorders but were also involved in IPV, and this fact may account for the high dropout rate. On top of that, patients were not compensated for their participation in the study, as is often the case in US studies. As said earlier, contrary to what was expected, patients who received I-StoP did not show lower IPV perpetration rates than those allocated to CBT-SUD+. For completers in both conditions, however, it was hard to reduce IPV even further since they had almost completely refrained from IPV at posttreatment, which explains the unexpected result. Further, CBT-SUD+ included one session that addressed the primary intervention for IPV perpetration (i.e., the time-out procedure); it is not possible, therefore, to tell whether CBT-SUD without the IPV session would be as effective as I-StoP in reducing IPV. Since follow-up data are not available as yet, no conclusions can be drawn regarding long-term effects on IPV.

Finally, in chapter 9, a pilot RCT examined whether I-StoP was effective in a forensic outpatient treatment facility among IPV perpetrators with substance use disorders. Patients were randomly assigned to I-StoP or CBT addressing IPV perpetration (CBT-IPV). The results of the completers demonstrated that there
was a trend that patients who completed I-StoP committed less physical IPV at posttreatment compared to pretreatment and patients who completed CBT-IPV perpetrated significantly less physical IPV at posttreatment compared to pretreatment. Also, patients allocated to I-StoP reported lower substance use, meaning that they had reduced their amount of substance intake at posttreatment compared to pretreatment but they were not more days abstinent at posttreatment compared to pretreatment. It is promising that completers had almost completely refrained from physical IPV perpetration at posttreatment. There were no differences between both conditions. Again, the results of this pilot were weakened by the low number of participants and the high number of dropouts. Also, no follow-up data were available.

General considerations
The major strength of the studies discussed in this thesis is that they were conducted in routine clinical care, i.e., in outpatient forensic mental health care and outpatient substance abuse treatment facilities. However, research in clinical practice presents several challenges, in particular when research is conducted among patients with severe problems, as is the case when IPV perpetrators suffer from one or more substance use disorders. One such a challenge was that a large proportion of patients did not meet the fairly strict inclusion criteria used in the RCT’s, such as being currently in a relationship. During a pilot study, it became apparent that I-StoP did not meet the needs of individuals who were currently single. It was therefore considered necessary to use more stringent inclusion criteria. Also, for ethical reasons it was not possible to conduct an RCT with a waiting list control condition. Further, it was very difficult to engage these substance abusing IPV perpetrators in treatment, for example, because they often suffered from comorbid disorders (e.g., posttraumatic stress disorder), and psychosocial stressors (e.g., financial and work related problems). In some instances even, patients were removed from studies for safety reasons; and then, patients often did not show up for treatment sessions, which resulted in prolonged treatment duration.

Another complicating factor was working with therapists who, although cooperative, were not used to research-related activities; besides, they were short on time. Also, in several instances therapists happened to forget to administer questionnaires to patients or did not have the time to do so. Or, during the prevalence studies, they were already convinced that patients were not involved in IPV or substance abuse and so did not administer questionnaires, which led to data loss. Another complication is that since research in clinical practice takes several years it happens that new developments cannot be implemented in ongoing studies. One such an example is the schematic representation of the escalation process between partners (Van Lawick, 2008, cited in: Dutch Association for Psychiatry,
2009) that was included in the Dutch Guideline Familial Domestic Violence in Children and Adults (Dutch Association for Psychiatry, 2009) (see Figure 1). This tool was likely to be implemented in I-StoP had it been published before I-StoP was developed. On the other hand, implementation of this intervention in I-StoP would probably not have changed the outcome of the RCT’s.

The principle goal of this thesis was to study the effectiveness of I-StoP, a newly developed treatment protocol addressing both substance abuse and IPV perpetration in order to reduce IPV perpetration. Assessing IPV when evaluating I-StoP, however, met with several challenges. To assess IPV, the CTS2 (Straus et al., 1996) was used, which is the most used instrument to measure IPV (Straus, 2007). Although the psychometric properties of the CTS2 are good (e.g., Straus, 2004; Newton, Connelly, & Landsverk, 2001; Vega & O’Leary, 2007), the instrument has some limitations. For example, although the CTS2 measures the prevalence of acts of IPV during a certain period of time, not all possible violent acts are included. Biting and pinching for instance do not occur in the physical violence subscale and the verbal violence subscale does not include controlling behaviors. In addition, in the two RCTs described in this thesis, patients were only included if they were still in a relationship with the abused partner (at the pretreatment assessment), since assessment of actual IPV is useless when no intimate partner is present. Patients however who do not have a partner may also benefit from I-StoP. This is why other ways have to be found to measure treatment success. Further, the outcomes of the RCTs presented in this thesis are based on participants’ self-report. Although other options such as police reports or data obtained from a partner also have shortcomings (i.e., not all incidents of IPV are reported to the police (e.g., Rosenfeld, 1992; Van der Veen & Bogaerts, 2010) and partners may also deny IPV (e.g., Heckert & Gondolf, 2000)), self-report of sensitive subjects such as IPV and substance use may result in lower prevalence figures.

An issue both theoretically and practically important is the nature of the relationship between IPV and alcohol use. In chapter 7, three models have been proposed: 1) the proximal effects model (alcohol use, mediated through psychopharmacological effects of alcohol on cognitive processing, results in IPV perpetration), 2) the indirect effects model (alcohol use negatively influences the relationship and creates a hostile environment in the long term), and 3) the spurious model (a third variable, such as impulsivity, is responsible for both alcohol use and IPV perpetration). Although many researchers adhere to the proximal effects model to explain the relationship between substance use and IPV perpetration, the results of the forensic mental health RCT and the case study remind us that the spurious model should not be overlooked.
Clinical implications
The studies described in the first part of this thesis emphasized that substance use disorders are highly prevalent among perpetrators. Since substance abuse is a significant dynamic risk factor that increases the likelihood for recidivism if present (Andrews & Bonta, 2010), it is important to assess substance abuse among perpetrators and, if necessary, offer treatment. Further, it has been demonstrated, that, also in the Netherlands, IPV perpetration and victimization are prevalent among patients in substance abuse treatment. Several important steps can be taken to prevent further IPV. First, perpetrators and victims should be identified in an early stage. Second, the issue of IPV should be made more openly talked about as for patients and therapists alike (Dutch Association for Psychiatry, 2009). Two studies presented in this thesis demonstrated that the J-IPV is a valid instrument to screen for IPV in patients in substance abuse treatment. It is therefore recommended to routinely administer the J-IPV during intake to patients entering substance abuse treatment. If at least one of the questions is answered in the
affirmative, IPV should be assessed further, either by way of an interview or for example by completing self-report questionnaires such as the CTS2 (Straus et al., 1996). Consequently, patients should be given psycho-education regarding the relationship between substance use and IPV perpetration and should be motivated to stop IPV perpetration in addition to changing substance use. Additionally, a team of therapists should discuss whether patients should (also) be referred to a specialized treatment institute, depending on the severity of IPV.

In addition, it was found that patients entering substance abuse treatment who were diagnosed with specific combinations of substance use disorders are more likely to be a perpetrator or a victim of IPV than patients diagnosed only with an alcohol use disorder. More specifically, male patients, with an alcohol use disorder and a cannabis and/or cocaine use disorder were associated with any IPV perpetration and/or victimization and severe IPV perpetration. Female patients, with both an alcohol and cocaine related disorder were associated with any IPV perpetration and/or victimization and severe IPV perpetration. In sum, it is recommended to routinely screen all patients entering substance abuse treatment for IPV perpetration and victimization. If however not enough time or resources are available, therapists should pay particular attention to IPV among patients with the aforementioned substance related diagnoses.

Furthermore, both I-StoP and CBT-SUD+ proved to be effective in reducing IPV perpetration as well as substance use among IPV perpetrators in substance abuse treatment. Since no differences between I-StoP and CBT-SUD+ were found, it seems logical to refer IPV perpetrators in substance abuse treatment to CBT-SUD+. It is possible, however, that I-StoP has delayed effects and that more patients who received CBT-SUD+ relapse into IPV perpetration than those patients who received I-StoP, since the skills acquired with I-StoP prevent them from relapsing. Thus follow-up results are needed to provide more insight into this matter. Until then, the present results of both treatment protocols are promising, since no evidence-based treatments (EBT) addressing IPV perpetration have emerged since Babcock, Green, and Robie (2004) and Feder and Wilson (2005) reviewed all studies on the treatment of IPV perpetrators and concluded that no EBT were available at that time.

It is harder to advise on the treatment of substance abusing IPV perpetrators in forensic mental health treatment, since both I-StoP and CBT-IPV reduced IPV perpetration (the primary treatment goal for this type of patients) to almost zero and no differences were found between conditions. Possibly, I-StoP may be effective in reducing both substance use and IPV among patients who are already to some extent motivated to change substance use. In any case, instead of adhering to a ‘one-size-fits-all’ approach, it is important to tailor treatment to an individual-
ized case formulation as advocated by Murphy and Eckhardt (2005), and as was also demonstrated in the case study presented in chapter 7. The outcome of such an individualized case formulation may very well be that substance abusing IPV perpetrators are allocated to I-StoP. To conclude, the same case study implied that Henry’s partner Eric contributed to the escalations in the relationship through his excessive substance use and his lack of assertiveness when sober. This makes out a good case for inviting the partner to at least some sessions and to pay attention to the interaction between both partners.

Suggestions for future research
Compared to research on, for example, depression or anxiety disorders, research on perpetrators is still in its infancy. This thesis therefore generates numerous suggestions for future research. The most important suggestions refer to the treatment of IPV perpetrators. In the first place, no follow-up data exist concerning the two RCT’s described in this thesis. Although the results of the studies are promising (at posttreatment, almost no IPV had been perpetrated in the preceding eight weeks), it is too early to conclude that the treatments are effective in the long term. Second, both RCT’s should be replicated with larger sample sizes. Third, more research is needed on the relationship between drug use and IPV perpetration and its treatment. Fourth, research on the effectiveness of other IPV treatments is needed as well. For example, studies of behavioral couples therapy addressing IPV have demonstrated favorable results (Stith, Rosen, McCollum, & Thomsen, 2004; O’Leary, Heyman, & Neidig, 1999). Further, new treatments tailored to the needs of individuals should be developed. For instance, subtypes of IPV perpetrators (i.e., family only, borderline dysphoric, and antisocial IPV perpetrators; Holtzworth-Munroe & Stuart, 1994), could be the focus, or the dynamics of IPV (intimate terrorism, common couple violence, mutual violent control, and violent resistance; Johnson, 1995; 1999; Johnson & Leone, 2000), or differences in attachment styles (securely attached versus anxious attached IPV perpetrators (Buck, Leenaars, Emmelkamp, & Van Marle, 2012; in press)). Fifth, research is needed on predictors of treatment success of (substance abusing) IPV perpetrators and on predictors of dropout. Sixth, the J-IPV has proven to be successful at screening for IPV perpetrators and victims among patients in substance abuse treatment. Future research should focus on studying the validity of the J-IPV in other settings. To illustrate, in forensic outpatient treatment, IPV perpetration is not routinely assessed in patients who are referred for other offenses. Finally, although certain substance use disorder combinations in patients in substance abuse treatment are associated with IPV perpetration and victimization, other researchers identified other risk factors, such as depression or drinking days (Chermack et al., 2008). Future research on predictors for IPV perpetration and victimization should study other potential risk factors in addition to (combinations of) substance use disorders.
Conclusions
The studies described in the first part of this thesis emphasized that substance use disorders and criminal behavior often go hand in hand, also in the Netherlands. The second part of this thesis focused specifically on substance abusing IPV perpetrators. It brought forth a valid screener to identify IPV perpetrators and victims in substance abuse treatment. Also, it was demonstrated that certain combinations of substance use disorders are risk factors for IPV among patients in substance abuse treatment. Finally, the effectiveness of I-StoP was investigated and the treatment of a patient receiving I-StoP has been described. Although this thesis contributed to insight into the relationship between substance use and criminal behavior and treatment of substance abusing IPV perpetrators, it became also apparent how complex the subject matter is. Research presented in this thesis is a step in the right direction, but it is only a start. Much more research on the relationship between substance use and criminal behavior in general and substance use and IPV perpetration in particular is needed to achieve the ultimate goal, preventing recidivism.