

# Substance use problems among people with mild/borderline intellectual disability: Challenges to mainstream multidisciplinary specialist substance treatment in Norway

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Department of Mental Health, Norwegian University of Science and Technology (NTNU), RKB, Norway**Abstract**

**Aims:** This article aims to shed light on the prevalence of problem substance use in individuals with borderline or mild intellectual disability in Norway, the extent to which their problem use warrants multidisciplinary specialist substance treatment (MST) and whether they receive such treatment at present. **Method:** We employed a scoping review of international and Norwegian literature and made additional informal literature searches. **Results:** The prevalence of substance use problems among people with intellectual disability in Norway is uncertain. In spite of representing problem complexity of the kind that warrants MST and the entitlement of all population

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groups to such treatment, Norwegians with mild or borderline intellectual disability seem to receive treatment at this level only to a modest extent. **Conclusion:** In order to fit better with aims of Norwegian substance policy, there is a need for national research on the prevalence of substance use among people with intellectual disability. We also seem to need both effect studies and action research in order to strengthen screening and assessment routines and collaboration across competence areas and administrative levels and to develop treatment modalities that fit people in this population group.

### Keywords

intellectual disability, multidisciplinary, Norway, prevalence, substance, treatment

Existing knowledge on people with intellectual disability (ID) or borderline ID who have substance-related problems is far from exhaustive (van Duijvenbode et al., 2015). A diagnosis of intellectual disability implies the following criteria across diagnostic manuals: (a) significant reduction in intellectual functioning, (b) significant reduction in adaptive behaviour, and (c) symptoms having become manifest before adulthood (Søndena, 2009). Although research findings on the prevalence of substance use problems among the ID or borderline ID population are inconsistent, licit and illicit substance use among people who fulfil such criteria is suggested to be slightly more moderate than among people who do not fulfil them, and with psychiatric populations (McGillicuddy, 2006).

However, substance use in people with ID is not a minor behavioural problem that, as previously believed, is relatively easy to correct (van Duijvenbode et al., 2015). On the contrary, there is solid evidence that to people with ID or borderline ID substances pose an elevated risk of life quality deterioration or early death (Burgard, Donohue, Azrin, & Teichner, 2000; Carroll Chapman & Wu, 2012; McGillicuddy, 2006; van Duijvenbode et al., 2015). Although not all substance use among people with ID or borderline ID may imply abuse, the risk of abuse is relatively high in this population, which partially relates to the lack of appropriate prevention and treatment efforts in the area (Carroll Chapman & Wu, 2012). There are indications in the above-cited literature that

substance users with ID or borderline ID are likely to get less help with their substance problems than their non-ID counterparts.

Paradoxically, those individuals with ID who are described as most at risk of developing severe substance-related problems, namely prison inmates (Carroll Chapman & Wu, 2012), seem least likely to get help. Both international and Norwegian research indicates that they are often unknown to services (Søndena, 2009). According to Søndena, inmates with ID who participated in an inquiry conducted in prisons, had neither been in touch with specialist substance services nor with those ID specialist services that exist in each Norwegian county, and which are generally well prepared to meet the specific needs of people with ID. Further, they proved unlikely to have been in regular contact with primary ID services.

However, this problem is not discussed in Norwegian research literature on substance treatment. Norwegian research on intellectual disability also seems to have been silent on the issue. In light of recent health reforms in Norway, this merits further scrutiny.

In 2004, the Norwegian government launched multidisciplinary specialist substance treatment (MST). The reform aimed above all at addressing the complexity of substance problems (Skretting, 2010). Multidisciplinary specialised substance treatment has a statutory basis in the law of specialist health services (Norwegian Ministry of Health, 2004), which ensures the same rights and qualified services to anyone,

regardless of place of residence or type of health problem. It compels people from the health professions and psychosocially and socially educated professionals to cooperate in integrated ways. Entitlement to Norwegian MST rests on two major criteria: (a) a substance problem of some durability, and (b) the likeliness that the problem entails considerable reduction of life quality or reduced lifetime (Norwegian Directorate of Health, 2012a). Thus, lowered cognitive status in terms of ID or borderline ID does not per se exclude access to such treatment. Another question is whether mainstream services are fit for people in this population.

The lack of help from adequate services also runs counter to the intentions of the so-called coordination reform (Norwegian Ministry of Health and Care Services, 2008). According to this reform, it is not given that specialised treatment must be provided merely in specialised, mainstream settings. Rather, the reform aims at increasing the number of primary services that have specialist expertise, something which could lower the threshold for patient groups that need specialist and multidisciplinary treatment, but who have previously not sought or been offered such help and have additional problems or diagnoses.

Even more recently, a government report on substance policy (Norwegian Ministry of Health and Care Services, 2011b) has emphasised the need to prioritise population groups who have particularly complex substance problems. In addition to a strong focus on children and youth and prevention of those situations that may cause intellectual disability before or after birth, this report explicitly mentions adults with intellectual disability and the mentally ill as priority groups.

Thus, Norway should be well equipped to handle substance-related problems among people with mild or borderline ID either at a mainstream specialist level or as the result of an intimate cooperation between the specialist level of substance treatment, specialist ID services and adequate primary service.

In this article, we explore a twofold research issue:

- What is the prevalence of problem substance use in people with intellectual disability in Norway?
- Does problem substance use in people with ID warrant multidisciplinary specialised substance treatment and to what extent do Norwegian individuals with mild or borderline intellectual disability receive multidisciplinary specialised substance treatment?

In the final part of the article we suggest possible solutions and themes for further research in the area.

### *Terminology*

In Norway, classification of intellectual disability relies on the ICD-10 manual (Norwegian Directorate of Health, 2016), which classifies an IQ below 20 as profound ID, between 20/25 and 35/40 as severe, between 35/40 and 50/55 as moderate, and between 50/55 and 69 as mild ID (hereafter referred to as MID). An IQ of 70–85 represents a borderline area. It is predominantly people with MID/borderline symptoms who are affected by use of psychoactive substances, as they are more likely to reside independently in the community and are therefore more exposed to substances than are people with a more severe ID status (Carroll Chapman & Wu, 2012).

With a cut-off between MID and borderline ID at an IQ of 70, Norwegian diagnostic practice deviates from many other countries that include people with an IQ below 80 in the MID category. Since a combination of biological and psychosocial factors are always involved in the ID status (Søndenaa, 2009), MID is a relatively negotiable phenomenon. The intellectual functioning of a person with an IQ of 70 will not differ significantly from the intellectual functioning of a person with an IQ of 74 (Holden, 2013), and is still somewhat dependent on the extent of parental and social support offered (Ringsby Jansson & Olsson, 2006). People in the borderline area of intellectual, adaptive and

executive disability may thus “move in and out” of the ID diagnosis (Holden, 2013). Most of the literature we retrieved for our literature review originates from countries with an IQ cut-off at 85, in line with DSM-IV criteria (American Psychiatric Association, 2000). Therefore, we found it in line with the purpose of our article to include literature on people with borderline intellectual disability in the discussions of our research issues.

Also, the term “substance dependency disorder”, as presented in the ICD-10 manuals (Norwegian Directorate of Health, 2016) may be inadequate in the current context (see McGillicuddy, 2006). Substance dependency according to this manual implies a comprehensive maladaptive and compulsory pattern of use that also may imply enhanced tolerance and withdrawal problems. With people with MID/borderline ID, the amount consumed or consumption frequency is not necessarily crucial. What really matters is how low cognitive functioning interferes harmfully with the properties of psychoactive substances. Therefore, the term “harmful use” employed in the ICD-10 manual (Norwegian Directorate of Health, 2016) may not adequately apply to the effects of substance use among people with MID or borderline ID. According to the cited manual, even “harmful use” is the result of comprehensive alcohol consumption. We have therefore employed terms for substance-related problems that do not necessarily imply a formal diagnosis, such as “substance-use problems”.

## Method

We found that a scoping literature review was the most appropriate method in order to answer our research questions. The overall aim of scoping reviews is to establish an overview of relevant literature in a specific area, without necessarily aiming at being exhaustive on the chosen topic (Grant & Booth, 2009).

A scoping review thus distinguishes itself from so-called systematic reviews. Normally, scoping reviews include neither inclusion nor

exclusion criteria, and quality assessment of the retrieved articles is skipped (Jesson, Matheson, & Lacey, 2011). Yet scoping and systematic reviews may be combined in order to be more specific (Malmedal, Iversen, & Kilvik, 2015). In our search for international literature on the topic, we predominantly searched for review articles, but also carried out searches that were more open. We employed both inclusion and exclusion criteria in our searches. Included were peer-reviewed texts in Norwegian or English published between 2000 and 2015 which mentioned the term “substance” in the abstract or among the keywords. We excluded articles that merely focused on challenging behaviours or general mental health problems among people with ID.

We conducted searches from October 2013 to November 2015 in three steps, one for the first research issue of prevalence (Step 1), one for the issue of whether ID problem substance users warrant multidisciplinary treatment (Step 2), and one for the issue of the extent to which they receive such services (Step 3). At all steps, we read all abstracts in order to pick only those articles that were in accordance with our inclusion and exclusion criteria. We then downloaded the full text and carried out a new selection in accordance with the same criteria as earlier. We carried out the searches in MEDLINE, CINAHL, ERIC, PsycINFO, Swemed, Idunn, Google Scholar, PubMed and Scopus, employing the search terms *intellectual disability*, *prevalence*, *substance*, and *review*, alone and in combination. Norwegian equivalents of the same search terms were also employed. When appropriate, we added *Norway* and *Norwegian* as search terms. Out of 315 peer-reviewed articles, only six were review articles and proved most appropriate for research issue two, whereas some additional results from the open search were relevant for highlighting research issue one.

Since we retrieved few articles in those databases that specifically addressed ID in a Norwegian substance treatment context, we

made supplementary informal searches based on our existing knowledge, personal contacts and own academic networks (see Greenhalgh & Peacock, 2005). At this point, we had to include some research reports.

### *Brief presentation of review articles*

The newest review by van Duijvenbode et al. (2015) provides a selective and critical review of literature on prevalence, risk factors, screening, assessment, treatment issues and knowledge gaps. Carroll Chapman and Wu (2012) consider 15 articles dating from 2006 or later with 22 previous works. They address prevalence and gaps in existing knowledge about relevant subgroups. In addition, they identify prevention and treatment components that might benefit people with ID. McGillicuddy's (2006) review primarily refers to survey research on cigarette, alcohol and illicit drug use in adolescents and adults with ID/borderline ID, whereas Cocco and Harper (2002) have concentrated on identifying areas for further exploration and professional effort. Burgard et al. (2000) focus on prevalence and provide recommendations for future assessment and treatment. Degenhardt's (2000) review had limited value for our purposes as it bases itself on a limited dataset. All authors point to result inconsistency in existing literature and to some apparent methodological weaknesses that we address in a more detailed way in our section on prevalence.

### *Strengths and limitations of the current review*

Given the choice of using a scoping review, however, being exhaustive was not paramount to us, and there was much overlap between the reviews. By predominantly citing the review articles on international research in the area, we may have missed potential results that the review articles have not captured. A weakness is also that only one of the cited reviews

provides descriptions of how they proceeded to find literature.

One may also question the informal search methods we made use of in order to find relevant Norwegian literature. Given the lack of systematic focus on our research questions in a Norwegian context, we were dependent on information from sources other than the conventional databases, although informal searches may enhance the validity of literature reviews when evidence is complex (Greenhalgh & Peacock, 2005).

## **Results**

### *An unlabelled population is a challenge to estimation of prevalence and early identification*

Good population-based estimates for substance use or abuse among individuals with ID or borderline ID are non-existent (Carroll Chapman & Wu, 2012). Estimates in international literature on prevalence of ID substance use problems within the total population with ID vary between 0.5% and 5.2%. Such estimations normally rely on general ID prevalence estimates and thus face the same challenges. The samples are, for instance, often small and selective (Burgard et al., 2000) or there is extensive use of non-validated self-report measures (Carroll Chapman & Wu, 2012). Also, concept confusion impedes accurate estimation: substance-related estimates may disregard notable differences between MID and non-ID and between "substance use" and substance-use disorders (McGillicuddy, 2006). Besides, the attention in research to substance use in certain subgroups of individuals with MID/borderline ID, such as those who have co-occurring mental illness or are incarcerated, has been lower than the attention devoted to individuals with ID who do not belong to those subgroups (Carroll Chapman & Wu, 2012).

Finally, "diagnostic overshadowing" may cause underestimation of substance use prevalence among people with ID. "Diagnostic

overshadowing” refers to the diagnostic inaccuracy that may derive from such factors as clinicians’ stereotypical thinking and may result in attribution of most symptoms to the intellectual disability (Reiss, Levitan, & Szyszko, 1982). Yet, cognitive distortion per se may also entail diagnostic overshadowing. Clients with ID may for instance lack the skills to express themselves about additional health problems or there may be psychosocial hurdles in doing so (Jopp & Key, 2001). Estimates thus tend to merely represent “the tip of the iceberg” (van Duijvenbode et al., 2015) and seem to be a poor basis for comparison between countries.

A difficulty related to prevalence estimation of substance use problems among ID/borderline ID in Norway is that general ID prevalence figures merely reflect so-called “administrative” ID, that is, people with ID who receive support from primary services because of an established ID diagnosis. Moreover, the prevalence of administrative ID in Norway varies within and between regions because service provision is unevenly distributed, but an average of 0.42–0.48 per 100 inhabitants has been reported (Søndena, Rasmussen, Nøttestad, & Lauvrud, 2010). Yet, as many people with mild ID are unknown to authorities, “administrative” ID shapes a contrast to “true” ID. “True ID” refers to those who fulfil ICD-10 or DSM-IV criteria for ID but who do not receive or need help from such services (Søndena et al., 2010). In Norway, as elsewhere, many individuals who fulfil ID criteria and use substances in harmful ways are also likely to avoid services in spite of a need for qualified help (Carroll Chapman & Wu, 2012). Some people with MID avoid services because they find the ID diagnosis undesirable (Holden, 2013; Kittelsaa, 2014), and others live lives that are not compatible with the obligations implied in being a formal service receiver (Ringsby Jansson & Olsson, 2006). However, services may also avoid people who fulfil ID criteria but remain undiagnosed because professionals conceptualise them as troublesome (Myrbakk & Søndena, 2010).

Drawing on the Norwegian municipality registers of merely “administrative” ID service receivers and on WHO estimates on “true” ID, the National Institute on Intellectual Disability and Community (NAKU, 2010) has suggested that 1–3% of the general population in Norway fulfil ID criteria, which according to 2009 figures represents a population of 48,000–124,000 individuals.

In estimating how many of those individuals have substance-use problems, prisons may be one of the most relevant venues for estimation of “true” and so far hidden ID problem substance abuse. There is an established link between ID substance use and involvement in the justice system (Carroll Chapman & Wu, 2012). Søndena, Rasmussen, Palmstierna, and Nøttestad (2008) found that 10% of the total Norwegian prison population have ID. The annual average of inmates in Norwegian prisons is 3710 (Norwegian Correctional Service, 2014). The cited percentage share would thus include about 370 individuals. Still, we do not know how many of them use substances in problematic ways. National research reports on inmates’ living conditions (Revold, 2014) or mental health status (Cramer, 2014) do not provide information on this. We therefore conclude that further research is necessary to establish more reliable Norwegian estimates.

### *People with MID/borderline ID with substance use problems warrant multidisciplinary specialised treatment*

We still do not know much about why people with ID have problems with substances and how their use patterns develop (McGillicuddy, 2006). There is not necessarily any difference between ID problem substance users and non-ID problem substance users in all respects. For instance, ID problem substance users, like their non-ID counterparts, often seem to have grown up in childhood environments that have been socio-demographically and psychosocially disadvantaged (Burgard et al., 2000; Carroll

Chapman & Wu, 2012). As is often the case also for people without ID, the risk of developing problem substance use among people with MID/borderline ID increases if one is male, young, already involved in the criminal justice system and meets the criteria for psychiatric disorder (Carroll Chapman & Wu, 2012).

Despite such between-group similarity, some apparent dissimilarities also exist. For instance, the amount of the substance consumed is less important in the ID population than in non-ID populations with regard to risk of developing problem substance use (Cocco & Harper, 2002). Some even argue that any substance use *is* problem substance use in people with ID (van Duijvenbode et al., 2015) in contrast to most people who are not intellectually disabled.

Nevertheless, it is widely acknowledged that the lowered intellectual, executive and adaptive functioning that is inherent in an ID diagnosis enhances the risk of adverse effects of substance use. Alcohol at least may have more adverse effects on people with ID than on non-ID counterparts (Degenhardt, 2000). Besides, people with ID have reduced knowledge of such effects, in contrast to non-ID populations (McGillicuddy, 2006). Both factors make substance use more hazardous to people with ID than to people without ID.

As executive dysfunction is more likely in people with ID compared to people without ID, people with ID may also experience a higher degree of dysfunctional self-regulation and impulse control when using substances (McGillicuddy, 2006; van Duijvenbode et al., 2015). This may also apply to problem-solving skills (Burgard et al., 2000).

When it comes to adaptive functioning, people with ID may have more misleading expectations related to the effect of substances than have people without ID (Cocco & Harper, 2002). Also, their lowered capacity to cope with social stress or demands in normative society, compared to the remaining population, is a salient risk factor for substance use problems (Carroll Chapman & Wu, 2012; van Duijvenbode et al., 2015).

Furthermore, a significant number of people with MID experience social isolation and may therefore look toward substance use to establish social ties (Burgard et al., 2000; Degenhardt, 2000; Cocco & Harper, 2002). Sexual exploitation represents one of the ultimate risks that alcohol or illicit substances may mediate (Carroll Chapman & Wu, 2012).

Since prevalence of mental health problems is higher among people with ID than in the general population, the association between mental health problems and substance use is also strong among people with ID (Carroll Chapman & Wu, 2012). In addition, substance use may increase the cognitive impairment attached to the ID diagnosis, which may contribute to mood changes, increased mental confusion and enforced dementia development (Carroll Chapman & Wu, 2012).

As important as the social and psychological risk factors that accompany ID substance use, however, is that people with ID substance use are at a more elevated risk of adverse medical and neurobiological effects than non-ID users (Carroll Chapman & Wu, 2012; van Duijvenbode et al., 2015). Substance use may exacerbate such issues as cardiovascular, respiratory and gastrointestinal problems (Carroll Chapman & Wu, 2012; Degenhardt, 2000). The risk of toxic interaction between psychoactive substances and psychotropic medication is also considerable (Burgard et al., 2000; Degenhardt, 2000).

The above overview suggests that ID problem substance use, because of its complexity and severity, warrants substance treatment at a specialist level. We will address the implications of this in the discussion section.

### *Norwegian individuals with ID/borderline ID do not generally receive or remain in multidisciplinary specialised treatment*

We found no clear answers to the question of whether Norwegian individuals with ID receive treatment according to MST. There is

generally little systematic knowledge in Norway about the composition of the inpatient population in MST, the severity of their problems and their level of functioning (Lilleeng & Bremnes, 2012).

An international systematic review article on risk factors for dropout from addiction treatment (Brorson, Arnevik, Rand-Hendriksen, & Duckert, 2013) seemed relevant for dealing with the question of whether people with ID/borderline ID are included in MST. The review includes four articles stemming from a Norwegian context and describes cognitive deficit as one of the four most consistent risk factors for dropout from mainstream substance treatment facilities. The authors define cognitive deficit as failure to master attention, memory, abstract reasoning and verbal skills, but it is unclear whether the reported cognitive deficits qualify for an ID diagnosis.

Another publication that seems relevant for our question on MST provision is a report from a longitudinal study carried out at the Norwegian Institute for Alcohol and Drug Research SIRUS (Lauritzen, Ravndal, & Larsson, 2012). Indeed, the report is on patients with comprehensive substance problems in several kinds of addiction treatments from 1998 until 2009. The results therefore partly date from a period before MST was established. Nevertheless, psychometric tests that the researchers conducted both at baseline and at follow-up suggest that 62% of the total study sample of 481 patients had exhibited comprehensive cognitive or adaptive problems in primary and secondary school. Yet, because the researchers did not use instruments that were suitable for diagnosing ID, we do not know how many of those in the sample would qualify for an ID diagnosis or a borderline status.

Those results thus underscore the importance stated by Brorson et al. (2013) of qualified assessment routines on cognitive functioning at both admission and discharge from substance treatment.

A recent study from mid-Norway, based on interviews with staff in primary services

designed for people with ID, suggests that to the extent that people with ID are included in MST, they are hospitalised merely for detoxification (Røstad, 2015). This is in line with suggestions in international literature that problem substance users with ID, to the extent that they are known to services, are more likely to get help with substance-related problems in non-addiction settings, mental health services or generic ID community services than in mainstream substance treatment facilities (Slyater & Steenrod, 2009). Yet ID services have generally been poorly equipped with competence on substance misuse (Carroll Chapman & Wu, 2012). We did not find any literature to indicate that the situation is different in Norway.

Beyond the hurdles for adequate service provision that we address in the section on prevalence, there seems to be little knowledge about other factors that may reduce availability of substance treatment in Norway for people with MID or borderline ID. To our knowledge, it is only when one is incarcerated or admitted into psychiatric institutions that services generally become aware of individuals who fulfil ID criteria and exhibit substance problems (Røstad, 2015; Søndena, 2009).

## Discussion

In this article, we have looked at the extent to which problem substance use in people with intellectual disability ID is prevalent in Norway. Research from correctional settings (Søndena, 2009) and ID services (Nordlandsykehuset, 2013; Røstad, 2015) indicates that we are dealing with a partially hidden problem.

We also have explored whether problem substance use among people with ID warrants multidisciplinary specialist treatment according to MST principles. We conclude that the complexity of substance use problems among people with ID warrants treatment that involves medical, social and psychological professional competence. Our attempt at finding literature concerning our research issue on how many people with ID actually receive multidisciplinary



specialist substance treatment in Norway yielded few results, most likely due to the suggested hiddenness of the problem.

Our findings thus run counter to the principles underpinning the reform behind MST in Norway that there should be broad access to multidisciplinary specialist substance treatment for anyone who needs it (Norwegian Ministry of Health, 2004). An obligation rests on Norwegian authorities to provide better knowledge and better services in the future to people with MID or borderline ID who use substances in harmful ways.

Firstly, knowledge about the relation between the type of cognitive deficit and various treatment modalities must be improved. Such knowledge is partially lacking in many countries (Brorson et al., 2013; van Duijvenbode et al., 2015). Not all ideology shifts in mainstream substance treatment are compatible with having a cognitive deficit. For instance, there is a strong emphasis in current Norwegian mainstream MST on communication and rational skills (Brorson et al., 2013; Lauritzen et al., 2012). Such approaches are of limited value for patients with ID (Burgard et al., 2000; Degenhardt, 2000).

Secondly, possibilities for tailoring services to the needs of people with ID with regard to duration, content and intensity of treatment must be established. A central tool for achieving this may be the “individual care plan”, which entitles patients with complex health problems to empowering and well-coordinated services (Norwegian Directorate of Health, 2012b). Success factors in professional work with substance users who have ID are consistent follow-up, small caseloads, team management and a certain amount of outreach activity (Hangan, 2006). Although some level of inpatient treatment is recommended for people with ID (Degenhardt, 2000), tailoring may also result in outpatient solutions.

Thirdly, methods that are already in use need to be refined. The fact that medical competence is more strongly represented in MST than in former Norwegian substance treatment could benefit

patients with ID, particularly by enhancing general competence among staff on how substances interfere with lowered cognitive functions. Additionally, pharmacotherapy is regarded as a relatively promising part of substance treatment that involves people with ID (Degenhardt, 2000). So are 12-step programmes, skills training, education programmes, goal-setting approaches, etc. (Degenhardt, 2000). In mainstream Norwegian MST, there is already a certain focus on 12-step programmes (Vederhus, Kristensen, Tveit, & Clausen, 2008). Psychoeducation approaches are also in use in such settings as a part of mentalisation-based treatment (Arefjord, Karterud, & Lossius, 2014). Approaches based on behavioural therapy, such as “contingency management”, have also been tested out within the framework of Norwegian MST (Holth, 2008). Yet adjustment of such modalities to the needs of people with lowered cognitive functions is needed.

Moreover, there is a need for substance treatment to identify the often hidden comorbidity that tends to accompany an ID diagnosis (Hassiotis et al., 2008). Because other symptoms could overshadow the effects of the intellectual disability disorder on health, social functioning and cognitive skills, one actually needs to regard specific cognitive impairments as primary disorders, and co-occurring substance abuse or other mental disorders as secondary disorders (see Brorson et al., 2013). Non-addiction ID services certainly have not always been equipped for discovering and meeting challenges related to the patient group’s use of substances (Carroll Chapman & Wu, 2012). Yet, to our knowledge, there is within adequate Norwegian help services also a general lack of concomitant competence on substance treatment and intellectual disability.

Although there seems to be a lack of cross-level coordination of services in Norway around people with ID who have additional disorders, some promising experiments exist. Nordlandsykehuset (2013) found that cross-level collaboration between services at the regional level that were specialised for ID and providers

of psychiatric aid may be successful as long as they involve integrative knowledge and flexible utilisation of legal frames. Overall, health services should be consecutive and flexible and prioritise people with complex substance and mental health problems (Norwegian Ministry of Health Care, 2012c). The governmental decree that primary services must also provide specialist expertise (Norwegian Ministry of Health and Care Services, 2008) promises improved cross-level and cross-competence effort.

The above conclusion that services have to fit the needs of people with ID and borderline ID in order to improve virtual access and prevent dropout will require improved assessment routines at more system levels (Brorson et al., 2013).

Longitudinal studies show that many patients in MST who report cognitive deficiency have trouble with treatment compliance and utilisation of aftercare, although many of them most probably do not qualify for an ID diagnosis (see Lauritzen et al., 2012). Mild intellectual disability is a negotiable status and could be reversible in some cases provided adequate stimuli. Therefore, assessment of cognitive functioning in a broader sense than merely ID must be established as part of treatment in order to adjust both treatment and aftercare to the specific needs of people with lowered cognitive functioning (Brorson et al., 2013).

There is also a need for identification of cognitive functioning as early in the life course as possible (Norwegian Ministry of Health and Care Services, 2011b). Although identification of ID in children is difficult, because symptoms of MID often manifest only in adolescence and typically in the encounter with the correction system, early identification of cognitive deficiency of a less severe kind is purposeful.

Another issue when it comes to harmful use of substances among people with MID/borderline ID is the use of restraint. It may or may not represent an option. Norway has had regulations on the use of restraint measures in the care

of people with ID since 1999. This Act made it necessary for all practice involving the application of restraints to be formally registered and thoroughly documented. The Act applies to prevention of harmful incidents by the use of seclusion, physical restraint or mechanical restraints. It has divided restraint measures into two types, (a) emergency situations where it could not have been predicted that restraints were needed and (b) planned interventions with some predictability where restraint measures were included as a part of the individual care plan. The Act requires that a registered nurse is present in all those cases that include restraint measures as a part of care.

The intentions behind the Norwegian legislation on restraint were twofold: (a) preventing persons with ID from harming themselves or others, and (b) minimising the use of restraints in the care of people with ID (Søndena, Dragsten, & Whittington, 2015). Norway ratified the UN Convention on the Rights of Persons with Disabilities in 2013 (United Nations Enable, 2013). According to the cited law, primary services may only exceptionally employ force in terms of physical restraint (mechanical, medicinal and seclusion restraint). Further, services are obliged to avoid coercive measures or measures that deprive persons of their liberty and integrity (United Nations, 2006). Governmental authorities, in cooperation with ID specialist services, review the use of restraint in annual reports.

Compulsory treatment of people with ID is also a highly disputed issue in Norway and in the other Nordic countries (Rommetveit & Tollefsen, 2014). A central argument is that it counteracts prevailing ideals such as self-determination in ID professional work (Carroll Chapman & Wu, 2012). A paramount principle in Norwegian governmental substance policy is also that authorities should respond to people who have substance problems with healthcare rather than with punitive reactions (Norwegian Ministry of Health and Care services, 2011b).

Røstad (2015) carried out a study on the experiences of staff in primary services for

people with ID and who had handled MID/borderline ID problem substance users with co-occurring psychiatric disorder. Certain elements of restraint, with basis in law (Norwegian Ministry of Health and Care Services, 2011a), were included in this approach.

Interestingly, the results from the cited study by Røstad (2015) suggest that enforcement proved to promote improvement of skills among ID service staff on problem substance use. The situation of the service users also improved in a wide range of life areas, including substance use, psychiatric comorbidity and more general behavioural problems. During the initial phase of contact with their service providers, the ID service users were resistant both to their newly acquired ID diagnosis and service provision. They generally tried to escape situations in which service staff tried to approach them. As a function of time, however, they, to an increasing extent, could both profit from and appreciate the service. Use of restraint was reduced correspondingly.

The results from the cited study clearly indicate that the appropriateness of restraints in substance use prevention is highly dependent on the extent to which one may reduce initial threats to life and health (Røstad, 2015).

## Recommendations for further research

National research and practice development is in demand in this area to fulfil national policy aims. We need research on the prevalence of ID substance use in Norway and evaluation of existing screening and assessment practices. Action research is also needed in order to further develop existing and future care and treatment practices. Such research could pursue and further adjust conclusions from both national and international research that cross-level and multi-disciplinary approaches are key elements in successful substance treatment for people with ID. Effect studies should be a part of this. Integration of the three research types into a parallel process could be fruitful.

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