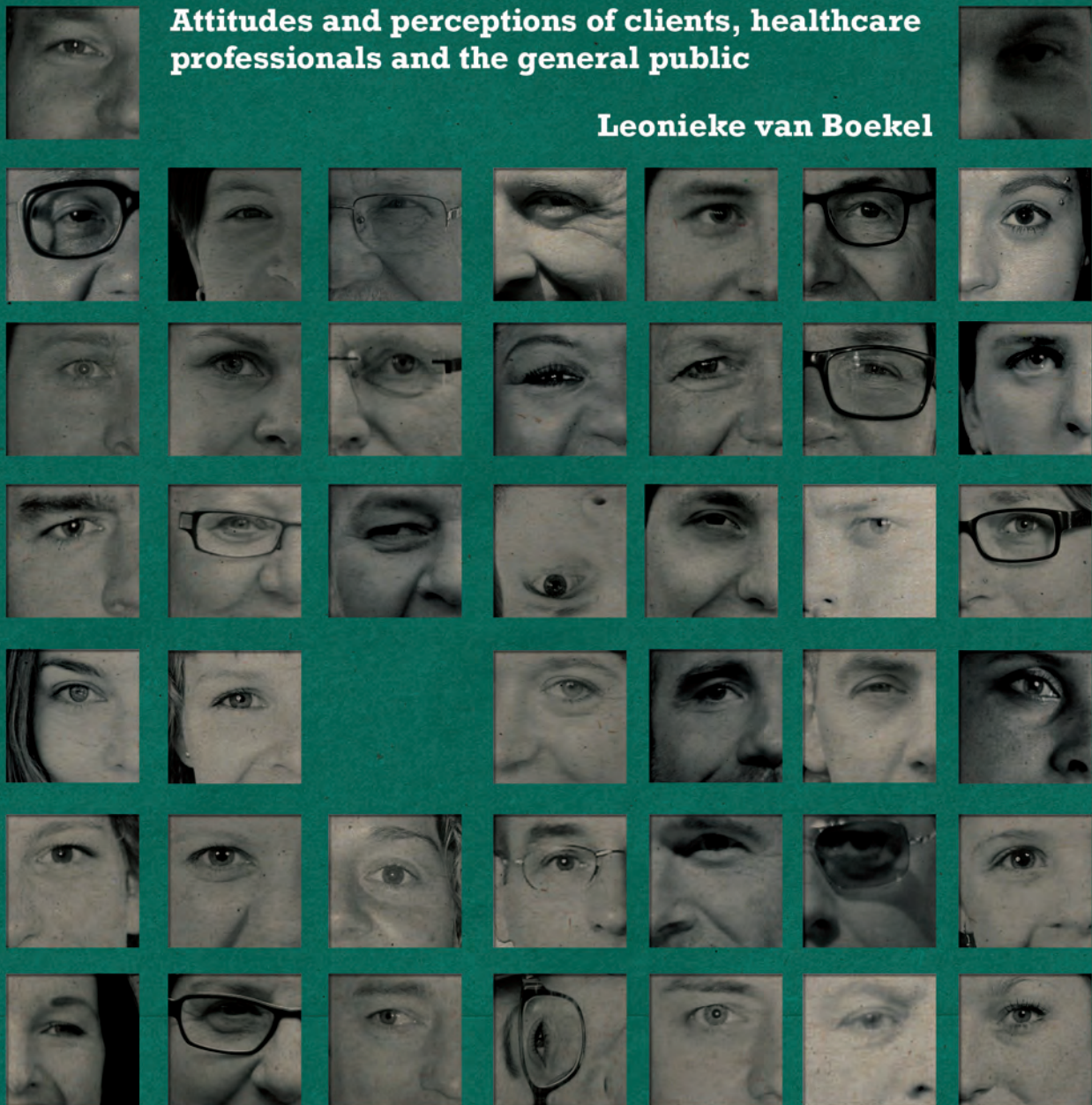




# Stigmatization of people with substance use disorders:

Attitudes and perceptions of clients, healthcare  
professionals and the general public

Leonieke van Boekel





# **Stigmatization of people with substance use disorders:**

*Attitudes and perceptions of clients, healthcare professionals  
and the general public*

**Leonieke van Boekel**

The research described in this thesis was performed at department Tranzo, Tilburg School of Social and Behavioral Sciences, Tilburg University, Tilburg, the Netherlands.



The printing was financially supported by Education and Research Institute of Tilburg School of Social and Behavioral Sciences

Cover lay-out: Peter van Genderen

Printed by: Ipskamp Drukkers BV, Enschede, the Netherlands

ISBN 978-94-6259-410-4

Copyright © 2014 L.C. van Boekel

No parts of this thesis may be reproduced, stored in a retrieval system, or transmitted, in any forms or by any means, electronically, mechanically, by photocopying, recording or otherwise, without the prior written permission of the author.

# **Stigmatization of people with substance use disorders:**

*Attitudes and perceptions of clients, healthcare professionals  
and the general public*

Proefschrift

ter verkrijging van de graad van doctor aan Tilburg University op gezag van de rector  
magnificus, prof. dr. Ph. Eijlander, in het openbaar te verdedigen ten overstaan van  
een door het college voor promoties aangewezen commissie in de aula van de  
Universiteit op

vrijdag 9 januari 2015 om 14.15 uur

door

Leonieke Christina van Boekel,  
geboren op 9 februari 1986  
te Mill en Sint Hubert

## **Promotiecommissie**

Promotores:

Prof. Dr. H.F.L. Garretsen

Prof. Dr. J. van Weeghel

Copromotor:

Dr. E.P.M. Brouwers

Overige leden:

Prof. Dr. P.A.E.G. Delespaul

Prof. Dr. P.J.C.M. Embregts

Prof. Dr. H. van de Mheen

Prof. Dr. H.G. Roozen

Prof. Dr. G. Thornicroft

## TABLE OF CONTENTS

<b>CHAPTER 1</b> .....	<b>7</b>
General introduction	
<b>CHAPTER 2</b> .....	<b>23</b>
Experienced and anticipated discrimination reported by individuals in treatment for substance use disorders	
<b>CHAPTER 3</b> .....	<b>41</b>
Public opinion on imposing restrictions to people with an alcohol- or drug addiction: A cross-sectional survey	
<b>CHAPTER 4</b> .....	<b>61</b>
Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: Systematic review	
<b>CHAPTER 5</b> .....	<b>99</b>
Healthcare professionals' regard towards working with patients with substance use disorders: Comparison of primary care, general psychiatry and specialist addiction services	
<b>CHAPTER 6</b> .....	<b>119</b>
Expectations and perceptions of healthcare professionals and clients of inequalities in healthcare provision for people with substance use disorders	
<b>CHAPTER 7</b> .....	<b>139</b>
Comparing stigmatizing attitudes towards people with substance use disorders between the general public, GPs, health professionals and clients	
<b>CHAPTER 8</b> .....	<b>167</b>
Discussion	
<b>SUMMARY</b> .....	<b>187</b>
<b>SAMENVATTING</b> .....	<b>195</b>
<b>DANKWOORD (ACKNOWLEDGEMENTS)</b> .....	<b>203</b>
<b>ABOUT THE AUTHOR</b> .....	<b>205</b>





# Chapter 1

General introduction

## **General introduction**

People with substance use disorders do not only face difficulties with their substance use. They are also confronted with negative responses from their social environment, such as denial, social rejection, and/or discrimination. Stigmatization is an umbrella term referring to the process in which negative attitudes may result in rejection or discrimination. In this dissertation the stigma attached to substance use disorders will be investigated from different perspectives.

It is important to define stigmatization and to distinguish the different phases of the process in which stigmatization may occur. Among the Greeks the term stigma originally referred to signs on the bodies of individuals with a lowered moral status, for instance slaves or criminals. Nowadays, stigma is referred to as the process in which individuals with undesired features or deviant behaviour are given lower status by society (1). The process of stigmatization starts when people or a group of people are 'labelled' based upon a certain characteristic such as ethnicity, religion, or having a mental illness. Labelling or stereotyping can be seen as an efficient way of categorizing information about social groups. One step further in the process of stigmatization individuals with a label are linked to undesirable outcomes, set apart, and perceived as deviant. As a result these individuals or groups may experience status loss or discrimination (2). Link and Phelan (3) have stressed the importance of a power difference between the stigmatized individual and the 'stigmatizer' as a prerequisite for stigmatization to occur. According to these authors, stigma may occur when all elements of stigmatization (labelling, stereotyping, separation, status loss, and discrimination) are present in a situation of power. This power can range from social, economic, to political power and for instance is present in the relationship between clients and clinicians.

The different concepts involved in the process of stigmatization will be described briefly. Two different forms of discrimination have been distinguished namely individual discrimination and structural discrimination. Individual discrimination refers to interaction between the "stigmatizer" and the "stigmatized" individual in which labelling, stereotyping and discrimination occurs (3, 4). Structural discrimination on the other hand embraces policies and institutional regulations that reduce the opportunities of a stigmatized group. Individual and structural discrimination may occur concurrently or separately. Examples of structural discrimination are reduced financial reimbursement for addiction treatment or restricting civil rights of a stigmatized group such as voting or taking care of children (5). Stigmatized individuals do not only face rejection and discrimination from society,

in some cases this may evolve into self-stigmatization. This implies that a stigmatized individual applies or internalizes common stereotypes and prejudice about themselves, resulting in a negative self-perception (6-8).

Stigma can have major consequences for the life opportunities of individuals with a stigmatized condition such as social isolation and marginalization (9). Previous studies on the stigma attached to mental illness in general have gained insight into the adverse consequences of stigma and experiences of discrimination on recovery and rehabilitation. Research has indicated that stigmatization, and even the expectation to be stigmatized, is associated with reduced quality of life and it can have an enduring effect on feelings of well-being (10-12). In addition, it emerged that experiences of rejection among people with mental illness are related to lower levels of empowerment and self-esteem and results in self-stigmatization (8, 13-15). As a consequence, people often conceal psychiatric problems and the reluctance to disclose these problems is high, for instance when applying for a job (16). Stigma also interferes with opportunities for employment and housing and may hinder social participation (2, 14). However, the question is: what came first? Lowered self-esteem may result in reduced social participation or reluctance to apply for a job. On the other hand experiences of discrimination or rejection will further decline feelings of self-esteem and empowerment. Finally, it has been established that stigma is a barrier for professional treatment seeking for mental health problems, including substance use problems (17-20). Moreover, once persons with mental illness have sought treatment for physical or mental health problems they may be confronted with disparities in the healthcare delivery (21). Inequalities in healthcare delivery for patients with mental illness may add to the greater risk for medical comorbidity and mortality among these patients (22-24).

The stigma attached to people with substance use disorders appears to be more severe and persistent compared to other mental illnesses. Studies investigating public opinions in different countries indicated that the public reports more fear for and more negative reactions to substance use problems compared to other stigmatized conditions such as depression, schizophrenia, or homelessness (25-27). According to a study on opinions of the British population about people with different mental health diagnoses, individuals with substance use disorders were perceived as unpredictable, dangerous and self-inflicted (28). People with substance use disorders are closely linked to criminal behaviour and are being regarded as in control over their addiction (29). Among the Dutch population people also appeared to be more negative about individuals with substance use disorders in comparison with other mental illness diagnoses (30).

In sum, evidence suggests that the stigma attached to substance use disorders is severe, but little is known about the underlying processes and driving forces behind this stigma. In order to be able to reduce the adverse outcomes and consequences of the stigma attached to substance use disorders, more insight is needed into attitudes and opinions from different perspectives. Therefore, the main objective of this dissertation is to investigate attitudes towards people with substance use disorders and to explore the perceptions about the consequences of stigmatization for healthcare delivery and rehabilitation of individuals with substance use disorders. Attitudes towards people with substance use disorders will be explored from different perspectives, namely the general public, general practitioners, healthcare professionals of general psychiatry- and specialized addiction services, and clients in treatment for substance use disorders. This provides the opportunity to compare attitudes and opinions between different stakeholders and to draw a more complete picture of the stigma surrounding substance use disorders.

#### *Factors that can contribute to stigmatization*

According to the attribution theory of stigmatization from Weiner and colleagues, causal attributions can clarify human motivations and emotions (31). Two main dimensions appeared to be of influence on people's judgments about an illness, namely stability and controllability of a disease. In general, mental illnesses are perceived as highly controllable (great responsibility for the person itself) and not stable (only minor improvements are expected over time) compared to physical illnesses or disorders (31-33). According to Brickman's model the perceived responsibility for a problem and the attribution of responsibility for a solution are of influence on peoples' helping or coping responses (34). Hence, the perceptions of responsibility and controllability over a condition can add to negative and stigmatizing attitudes. Especially in opinions about substance use disorders attribution beliefs, such as blaming the individuals for having substance use problems, appear to be of importance (35-37).

In addition to attribution beliefs, the perception of dangerousness seems to play a role in understanding negative attitudes (32, 38, 39). Especially in the case of substance use disorders it was found that people are more concerned that someone with an addiction can be a threat for their safety, and they are often perceived as dangerous and unpredictable (29, 35, 37, 40, 41). Furthermore, evidence has shown that mental illnesses evoke three core emotional responses among people, namely fear, anger, and pity, which are of influence on judgements and the tendency to keep social distance from individuals with a mental illness (36, 42-44). Familiarity or

contact with someone with a stigmatized condition is known to mitigate judgments due to more knowledge and experience with the stigmatized condition (45-48). Therefore, contact is often proposed as a strategy to reduce stigmatizing attitudes (49).

The system-justification approach provides an additional explanation for stigmatizing perceptions and beliefs (50, 51). The aforementioned beliefs that someone is personally responsible and the perception of dangerousness are not solely based on actual perceptions about persons with substance use disorders. According to the system-justification theory, beliefs and stereotypes also result from the interpretation of current and former social systems, public policies and arrangements (50). For instance, treatment of substance use disorders used to be hospitalized and in an area away from the society. This may have contributed to the belief that people with substance use disorders are dangerous and that society needs protection. Likewise, limited coverage of treatment costs by health insurances for addiction treatment may add to the belief that someone is personally responsible for having an addiction.

#### *Research questions of this dissertation*

The main objective of this dissertation is to investigate stigmatizing attitudes towards people with alcohol- or illicit drug use disorders from different perspectives. In addition, we explore the perception of stakeholders about the consequences of stigmatizing attitudes for healthcare provision and rehabilitation of these individuals. The following research questions are addressed in this dissertation:

- What is the level of experienced and anticipated discrimination among clients in treatment for substance use disorders and is this associated with social and clinical characteristics?
- What intentions does the Dutch general public have concerning imposing restrictions to individuals with substance use disorders and can an attribution model be applied to explain these intentions?
- What is known about the attitudes of healthcare professionals towards working with clients with substance use disorders and what is the impact of attitudes on healthcare delivery for these patients?
- What is the regard of healthcare professionals for working with clients with substance use disorders and is this different among healthcare professionals working in primary care vs. general psychiatry vs. addiction care?

- What are the expectations and perceptions of healthcare professionals and clients about inequalities in healthcare provision for clients with substance use disorders and is this different among these stakeholders?
- Which attitudes (operationalized as stereotypes, attribution beliefs, social distance and rehabilitation expectations) do the general public, healthcare professionals and clients have towards individuals with substance use disorders and do attitudes differ between these stakeholders?

### *Setting: substance related problems in the Netherlands*

According to the findings of the NEMESIS-2 study (52), the life-time prevalence of substance abuse or dependence in the Netherlands is around 19.1%, whereas the 12-months prevalence is 5.6%. The life-time prevalence of alcohol abuse was 14.3% and for alcohol dependence 2.0%. For drug abuse the life-time prevalence was lower with 3.8% and for drug dependence 2.2% (52). As already mentioned, stigma might contribute to delayed or not seeking treatment for mental- or substance related problems. In the Netherlands only one third (29%) of the people with substance use disorders seek treatment for their substance related problems or other psychiatric problems (52). The majority of the clients in the Netherlands is in treatment for alcohol related problems (46.5%), 16.0% is in treatment for opiate abuse, 15.4% for cannabis abuse, and 11.4% for cocaine abuse (53). The amount of people seeking treatment for gamma-hydroxybutyrate (GHB) use is still increasing (53).

Addiction care in the Netherlands is offered by non-governmental institutions, such as specialized addiction services, mental healthcare services, and private clinics. Currently policy aims to shift addiction care more to the general practice especially for less severe substance use problems (54). Treatment of substance use disorders in the Netherlands differs from psychological and behavioural interventions, to online or home-based treatment therapies and substitution treatment (55). The majority of treatment for substance use problems takes place ambulatory in an outpatient care setting (53). Treatment is mostly financed by health insurance although out-of-pocket payments have increased in recent years (55).

### *Study design and study sample*

The research questions were addressed using a cross-sectional and comparative study design. Self-reported questionnaires were distributed to different stakeholders involved in substance use disorders namely: general public, general practitioners, healthcare professionals of general psychiatry services and specialized addiction

services, and clients in treatment for substance use problems. The data were collected in the same time period across all stakeholders.

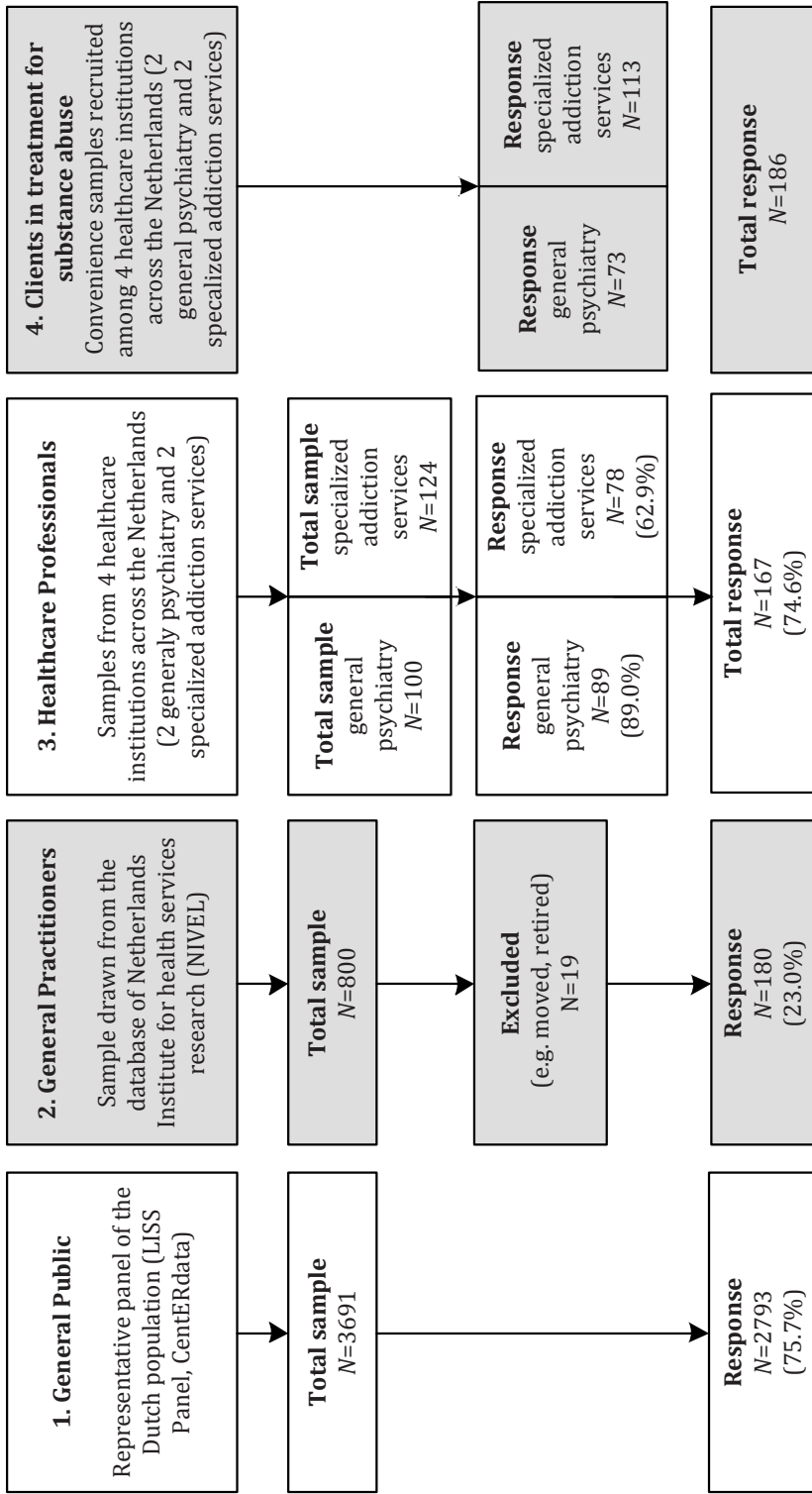
The data of the Dutch general public were derived from an existing nationally representative internet panel (Longitudinal Internet Studies for Social Sciences, LISS panel). The LISS panel is administered by CentERdata which is a Dutch research institute specialized in quantitative data collection. A monthly invitation to fill out an online questionnaire was sent to panel members and they were rewarded for their participation. For the current study a questionnaire was sent to a random selection of 3,691 panel members of 16 years and older. To increase the response rate, two reminders were sent to the panel members.

Data of general practitioners were collected among a random sample of 800 Dutch general practitioners derived from the database of the Netherlands institute for health services research (NIVEL). A personal invitation to fill out the questionnaire was sent to the general practitioners. General practitioners were reminded to return the questionnaire in order to increase the response rate.

Healthcare professionals were recruited among two general psychiatry services and two specialized addiction services across the Netherlands. These four organizations were asked to select 50 healthcare professionals of different divisions and with different functions. In total, 224 healthcare professionals working in four different organizations were invited to fill out a questionnaire and personal reminders were sent to increase the response rate.

Finally, recruitment of clients in treatment for substance use disorders took place within the same general psychiatry and specialized addiction services as the recruitment of healthcare professionals. Clients were invited to participate by employees of the organizations. Not all clients in treatment were able, or in some cases it was not appropriate to ask clients to participate. Therefore, a convenience sample of 186 individuals in treatment for alcohol use disorders or illicit drug use disorders was used. Figure 1 provides an overview of the sampling methods and the response rates per group of stakeholders.

Figure 1: Flowchart of sampling methods and response rates across the stakeholders





### *Measurements*

The questionnaire consisted of generic questions which were equal for all stakeholders and questions specifically geared to a group of stakeholders. Generic questions included stereotypical beliefs, emotional responses, attribution beliefs, social distance towards persons with substance use disorders, expectations about rehabilitation, and expectations about inequalities in healthcare provision. Among the general public specific questions were asked about approval of structural discrimination. Questions about attitudes and the medical condition regard scale (56) for working with clients with substance use disorders were included in the questionnaire for general practitioners and healthcare professionals. Among clients questions addressed clients' experiences with rejection and discrimination, and their expectations and experiences with inequalities in healthcare provision. Finally, the tendency to answer in a socially desirable way was assessed among all stakeholders except among clients. It was expected that questions about stigmatizing attitudes and opinions are sensitive to social desirability in answering and therefore the socially desirability scale of Crowne & Marlowe (57) was included. Familiarity with substance use disorders was also assessed among all stakeholders except clients. The level of contact report (46) was used to verify whether respondents knew someone with a substance use disorder in different levels of intimacy, ranging from a colleague to a family member.

### *Outline of the dissertation*

We will briefly describe the content of the different chapters of this dissertation. In chapter 2 the level of anticipated and experienced discrimination among clients in treatment for substance use disorders is investigated. On which occasions or in which situations (if any) have clients in treatment for substance use disorders been treated unfairly? In addition, the level of anticipated discrimination was explored. Anticipated discrimination refers to keeping away or avoiding certain situations, for instance starting an intimate relationship, because of fear to be rejected. The association between both forms of discrimination was assessed. Finally, the association of experienced and anticipated discrimination with social and clinical characteristics was studied.

The intentions of the Dutch general public to impose restrictions to people with a substance use disorder are investigated in chapter 3. In this study an attribution model was applied in order to predict intentions of the public to impose restrictions to individuals with a substance use disorder. The proposed restrictions that were examined have a major impact on life opportunities of individuals with

substance use disorders. The proposed restrictions included the prohibition to take care of children, exclusion from taking public office, not being permitted to have a drivers' license, and involuntary hospitalization.

Chapter 4 addresses attitudes of healthcare professionals to work with persons who have substance use disorders. Studies that have investigated attitudes of healthcare professionals to work with this specific group of clients were selected and described in a systematic literature review. Furthermore, explanations for attitudes and the consequences of healthcare professionals' attitudes on healthcare delivery for these clients were explored.

Chapter 5 elaborates on the attitudes of healthcare professionals to work with persons with substance use disorders. Healthcare professionals' regard to work with clients with a substance use disorder was assessed and a comparison was drawn between professionals working in different sectors namely, general practice, general psychiatry, and specialized addiction care. These healthcare professionals all have a crucial role in the identification and treatment of substance use disorders. Nevertheless, education, experience, and knowledge were expected to be very diverse between the healthcare professionals of these sectors. Finally, factors that contribute to regard of healthcare professionals were examined.

The expectations and perceptions of healthcare professionals and clients about inequalities in the healthcare provision for individuals with substance use problems are addressed in chapter 6. Since healthcare professionals as well as clients are involved in the process of healthcare provision it is meaningful to investigate their expectations and perceptions of inequalities in the healthcare provision for individuals with substance use disorders. For instance, do people with a substance use disorders receive healthcare of equally high standards and are these people given the same priority as other patients? In addition, perceptions of healthcare professionals and clients with inequalities in healthcare provision were studied.

Chapter 7 provides an overview of stigmatizing attitudes towards individuals with a substance use disorder from different perspectives. Stereotypical beliefs about persons with a substance use disorder, attribution beliefs, social distance and expectations about the chances for rehabilitation were considered among four groups of stakeholders. Opinions and attitudes of the general public, general practitioners, healthcare professionals of general psychiatry- and addiction care services and clients in treatment for substance use disorders were compared. These stakeholders obviously differ in their degree of familiarity, knowledge and experience with substance use disorders. This made it possible to explore the level of stigmatizing

attitudes among different stakeholders and to examine the influence of familiarity with substance use disorders.

Finally, in chapter 8 the main findings of this dissertation are described. In addition, the practical implications such as initiatives to reduce stigmatization and its consequences are discussed. Furthermore, major limitations of the study are mentioned as well as recommendations for future research.

## References

1. Goffman E. (1963). *Stigma: notes on the management of spoiled identity*. Englewood Cliffs, New Jersey: Prentice-Hall, inc.
2. Link B. G., Phelan J. C. (2006). Stigma and its public health implications. *Lancet*, 367(9509), 528-529.
3. Link B. G., Phelan J. C. (2001). Conceptualizing stigma. *Annual Review of Sociology*, 27, 363-385.
4. Link B. G., Yang L. H., Phelan J. C., Collins P. Y. (2004). Measuring Mental Illness Stigma. *Schizophrenia Bulletin*, 30(3), 511-541.
5. Corrigan P. W., Markowitz F. E., Watson A. C. (2004). Structural levels of mental illness stigma and discrimination. *Schizophrenia Bulletin*, 30(3), 481-491.
6. Rusch N., Corrigan P. W., Todd A. R., Bodenhausen G. V. (2010). Implicit Self-Stigma in People With Mental Illness. *Journal of Nervous and Mental Disease*, 198(2), 150-153.
7. Corrigan P. W., Watson A. C. (2002). The paradox of self-stigma and mental illness. *Clinical Psychology-Science and Practice*, 9(1), 35-53.
8. Corrigan P. W., Rafacz J., Rusch N. (2011). Examining a progressive model of self-stigma and its impact on people with serious mental illness. *Psychiatry Research*, 189(3), 339-343.
9. Thornicroft G. (2006). *Shunned: discrimination against people with mental illness*. New York: Oxford University Press Inc.
10. Alonso J., Buron A., Rojas-Farreras S., De Graaf R., Haro J. M., De Girolamo G. et al. (2009). Perceived stigma among individuals with common mental disorders. *Journal of Affective Disorders*, 118(1-3), 180-186.
11. Link B. G., Struening E. L., Rahav M., Phelan J. C., Nuttbrock L. (1997). On stigma and its consequences: Evidence from a longitudinal study of men with dual diagnoses of mental illness and substance abuse. *Journal of Health and Social Behavior*, 38(2), 177-190.
12. Markowitz F. E. (1998). The effects of stigma on the psychological well-being and life satisfaction of persons with mental illness. *Journal of Health and Social Behavior*, 39(4), 335-347.
13. Lundberg B., Hansson L., Wentz E., Bjorkman T. (2009). Are stigma experiences among persons with mental illness, related to perceptions of self-esteem, empowerment and sense of coherence? *Journal of Psychiatric and Mental Health Nursing*, 16(6), 516-522.
14. Rusch N., Angermeyer M. C., Corrigan P. W. (2005). The stigma of mental illness: Concepts, forms, and consequences. *Psychiatrische Praxis*, 32(5), 221-232.
15. Link B. G., Cullen F. T., Struening E. L., Shrout P. E. (2010). A modified labelling theory approach to mental disorders: An empirical assessment. *American Sociological Review*, 54, 400-423.
16. Wahl O. F. (1999). Mental health consumers' experience of stigma. *Schizophrenia Bulletin*, 25(3), 467-478.

17. Mojtabai R. (2010). Mental illness stigma and willingness to seek mental health care in the European Union. *Social Psychiatry and Psychiatric Epidemiology*, 45(7), 705-712.
18. Burgess D. J., Ding Y. M., Hargreaves M., Van Ryn M., Phelan S. (2008). The association between perceived discrimination and underutilization of needed medical and mental health care in a multi-ethnic community sample. *Journal of Health Care for the Poor and Underserved*, 19(3), 894-911.
19. Cunningham J. A., Sobell L. C., Sobell M. B., Agrawal S., Toneatto T. (1993). Barriers to treatment: Why alcohol and drug abusers delay or never seek treatment. *Addictive Behaviors*, 18(3), 347-353.
20. Grant B. F. (1997). Barriers to alcoholism treatment: Reasons for not seeking treatment in a general population sample. *Journal of Studies on Alcohol*, 58(4), 365-371.
21. Thornicroft G., Rose D., Kassam A. (2007). Discrimination in health care against people with mental illness. *International Review of Psychiatry*, 19(2), 113-122.
22. Kisely S., Smith M., Lawrence D., Maaten S. (2005). Mortality in individuals who have had psychiatric treatment: Population-based study in Nova Scotia. *The British Journal of Psychiatry: The Journal of Mental Science*, 187, 552-558.
23. Jones D. R., Macias C., Barreira P. J., Fisher W. H., Hargreaves W. A., Harding C. M. (2004). Prevalence, severity, and co-occurrence of chronic physical health problems of persons with serious mental illness. *Psychiatric Services*, 55(11), 1250-1257.
24. Jones S., Howard L., Thornicroft G. (2008). 'Diagnostic overshadowing': Worse physical health care for people with mental illness. *Acta Psychiatrica Scandinavica*, 118(3), 169-171.
25. Room R. (2005). Stigma, social inequality and alcohol and drug use. *Drug and Alcohol Review*, 24(2), 143-155.
26. Link B. G., Phelan J. C., Bresnahan M., Stueve A., Pescosolido B. A. (1999). Public conceptions of mental illness: labels, causes, dangerousness, and social distance. *American Journal of Public Health*, 89(9), 1328-1333.
27. Pescosolido B. A., Monahan J., Link B. G., Stueve A., Kikuzawa S. (1999). The public's view of the competence, dangerousness, and need for legal coercion of persons with mental health problems. *American Journal of Public Health*, 89(9), 1339-1345.
28. Crisp A. H., Gelder M. G., Rix S., Meltzer H. I., Rowlands O. J. (2000). Stigmatisation of people with mental illnesses. *British Journal of Psychiatry*, 177, 4-7.
29. Holma K., Koski-Jannes A., Raitasalo K., Blomqvist J., Pervova I., Cunningham J. A. (2011). Perceptions of addictions as societal problems in Canada, Sweden, Finland and St. Petersburg, Russia. *European Addiction Research*, 17(2), 106-112.
30. Van 't Veer J. T. (2006). *The Social Construction of Psychiatric Stigma: Perspectives from the Public, Patients and Family Members*. University of Twente, Enschede.
31. Weiner B., Perry R. P., Magnusson J. (1988). An Attributional Analysis of Reactions to Stigmas. *Journal of Personality and Social Psychology*, 55(5), 738-748.

32. Corrigan P., Markowitz F. E., Watson A., Rowan D., Kubiak M. A. (2003). An attribution model of public discrimination towards persons with mental illness. *Journal of Health and Social Behavior*, 44(2), 162-179.
33. Corrigan P. W. (2000). Mental health stigma as social attribution: Implications for research methods and attitude change. *Clinical Psychology-Science and Practice*, 7(1), 48-67.
34. Brickman P., Rabinowitz V. C., Karuza J., Coates D., Cohn E., Kidder L. (1982). Models of helping and coping. *American Psychologist*, 37, 368-384.
35. Schomerus G., Holzinger A., Matschinger H., Lucht M., Angermeyer M. C. (2010). Public attitudes towards alcohol dependence. *Psychiatrische Praxis*, 37(3), 111-118.
36. Schomerus G., Lucht M., Holzinger A., Matschinger H., Carta M. G., Angermeyer M. C. (2011). The stigma of alcohol dependence compared with other mental disorders: A review of population studies. *Alcohol and Alcoholism*, 46(2), 105-112.
37. Corrigan P. W., Lurie B. D., Goldman H. H., Slopen N., Medasani K., Phelan S. (2005). How adolescents perceive the stigma of mental illness and alcohol abuse. *Psychiatric Services*, 56(5), 544-550.
38. Martin J. K., Pescosolido B. A., Tuch S. A. (2000). Of fear and loathing: The role of 'disturbing behavior,' labels, and causal attributions in shaping public attitudes toward people with mental illness. *Journal of Health and Social Behavior*, 41(2), 208-223.
39. Feldman D. B., Crandall C. S. (2007). Dimensions of Mental Illness stigma: What about Mental Illness causes Social Rejection? *Journal of Social and Clinical Psychology*, 26, 137-154.
40. Angermeyer M. C., Dietrich S. (2006). Public beliefs about and attitudes towards people with mental illness: a review of population studies. *Acta Psychiatrica Scandinavica*, 113(3), 163-179.
41. Marie D., Miles B. (2008). Social distance and perceived dangerousness across four diagnostic categories of mental disorder. *Australian and New Zealand Journal of Psychiatry*, 42(2), 126-133.
42. Angermeyer M. C., Holzinger A., Matschinger H. (2010). Emotional reactions to people with mental illness. *Epidemiologia e Psichiatria Sociale*, 19(1), 26-32.
43. Angermeyer M. C., Matschinger H. (1997). Social distance towards the mentally ill: Results of representative surveys in the Federal Republic of Germany. *Psychological Medicine*, 27(1), 131-141.
44. Angermeyer M. C., Matschinger H. (2003). Public beliefs about schizophrenia and depression: similarities and differences. *Social Psychiatry and Psychiatric Epidemiology*, 38(9), 526-534.
45. Penn D. L., Guynan K., Daily T., Spaulding W. D., Garbin C. P., Sullivan M. (1994). Dispelling the stigma of schizophrenia - what sort of information is best. *Schizophrenia Bulletin*, 20(3), 567-578.
46. Holmes E. P., Corrigan P. W., Williams P., Canar J., Kubiak M. A. (1999). Changing attitudes about schizophrenia. *Schizophrenia Bulletin*, 25(3), 447-456.

47. Link B. G., Cullen F. T. (1986). Contact with the mentally ill and perceptions of how dangerous they are. *Journal of Health and Social Behavior*, 27(4), 289-302.
48. Corrigan P. W., Green A., Lundin R., Kubiak M. A., Penn D. L. (2001). Familiarity with and social distance from people who have serious mental illness. *Psychiatric Services*, 52(7), 953-958.
49. Corrigan P. W., River L. P., Lundin R. K., Penn D. L., Uphoff-Wasowski K., Campion J. et al. (2001). Three strategies for changing attributions about severe mental illness. *Schizophrenia Bulletin*, 27(2), 187-195.
50. Corrigan P. W., Watson A. C., Ottati V. (2003). From whence comes mental illness stigma? *International Journal of Social Psychiatry*, 49(2), 142-157.
51. Jost J. T., Banaji M. R. (1994). The Role of Stereotyping in System-Justification and the Production of False Consciousness. *British Journal of Social Psychology*, 33, 1-27.
52. De Graaf R., Ten Have M., Van Dorsselaer S. (2010). *De psychische gezondheid van de Nederlandse bevolking NEMESIS-2: Opzet en eerste resultaten*. Utrecht: Netherlands Institute of Mental Health and Addiction, Trimbos.
53. Wisselink D. J., Kuijpers W. G. T., Mol A. (2013). *LADIS, Landelijk Alcohol en Drugs Informatie Systeem: Kerncijfers Verslavingszorg 2012*. Houten: Stichting Informatie Voorziening Zorg.
54. GGz Nederland. (2013). *Een visie op verslavingszorg: focus op preventie en herstel. Visiedocument 2013*.
55. European Monitoring Centre for Drugs and Drug Addiction. (2012). Drug treatment overview for Netherlands. Retrieved February 20th 2013, from [www.emcdda.europa.eu/data/treatment-overviews/Netherlands](http://www.emcdda.europa.eu/data/treatment-overviews/Netherlands).
56. Christison G. W., Haviland M. G., Riggs M. L. (2002). The medical condition regard scale: Measuring reactions to diagnoses. *Academic Medicine*, 77(3), 257-262.
57. Crowne D. P., Marlowe D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*, 24, 349-354.





# Chapter 2

Experienced and anticipated discrimination reported by  
individuals in treatment for substance use disorders

Submitted as:  
Van Boekel, L.C., Brouwers, E.P.M., Van Weeghel, J., Garretsen, H.F.L. Experienced and  
anticipated discrimination reported by individuals in treatment for substance use  
disorders.

## **Abstract**

### *Background*

Experiences and expectations of discrimination may delay treatment seeking for substance use disorders and can be a barrier for successful recovery and rehabilitation.

### *Objectives*

The level of experienced and anticipated discrimination among individuals in treatment for substance use disorders was examined as well as the association between both concepts of discrimination. In addition, the association of experienced and anticipated discrimination with clinical and social characteristics was investigated.

### *Methods*

A cross-sectional survey was conducted in which individuals in treatment for substance use disorders ( $N=186$ ) completed a self-reported questionnaire about experienced and anticipated discrimination. Data collection took place in 2012. Descriptive statistics and chi-square analyses were carried out to investigate the level of experienced and anticipated discrimination and the association between both concepts. Linear regression analyses were used to investigate the association with clinical and social characteristics.

### *Results*

Individuals in treatment for substance use disorders reported high levels of experienced and anticipated discrimination. Respondents experienced most discrimination in family ties, intimate relationships and friendships. Experienced and anticipated discrimination were both positively correlated, whereas no association was found with clinical and social characteristics. An exception was a longer history of substance use problems which was related to more experienced discrimination.

### *Conclusions*

Experienced and anticipated discrimination were highly prevalent among individuals in treatment for substance use disorders. Attention in addiction treatment for adequate coping with discrimination may be needed in order to achieve successful social participation and rehabilitation of these individuals.

## Introduction

Substance use disorders evoke more negative attitudes among the general public compared to other mental illnesses such as depression (1-3). Explanations for these negative attitudes among the public are the perception of people with a substance use disorder as aggressive, unpredictable and personally responsible (1, 4). Accordingly, individuals who are in treatment for substance use disorders reported fairly high levels of rejection and were commonly confronted with stigmatizing attitudes (5). Stigmatization is a process that starts when an individual or a group of people with a certain condition, for instance having a substance use disorder, are separated and linked to undesirable outcomes. Subsequently when these people are set apart and as a consequence experience status loss or rejection this is referred to as discrimination (6).

In studies investigating discrimination of individuals with mental illness in general, two main concepts of discrimination are distinguished, namely experienced and anticipated discrimination. Experienced discrimination entails actual experiences of rejection or negative behaviour which can be hurtful, distressing, embarrassing or humiliating (7). Experienced discrimination asks people about occasions in which they felt rejected by people or institutions. Therefore it entails to some extent objective incidents of discrimination experiences although it is a self-report measure. Anticipated discrimination is defined as the expectation or fear to be discriminated against and as a consequence avoidance of certain situations (7, 8). This implies that individuals in advance do not participate in- or keep away from certain situations, such as applying for a job or starting an intimate relationship, because of the expectation to be rejected.

Studies that focus on individuals with substance use disorders or other mental illnesses have indicated that discrimination is linked to undesirable outcomes. The aforementioned forms of discrimination are related to social isolation and marginalization (7) and may hinder rehabilitation and evidently are a barrier for social participation. A study among illicit drug users showed that experiences of discrimination or rejection were associated with poorer levels of mental and physical health (9). Discrimination was also related to lower levels of empowerment and self-esteem and a higher tendency to conceal a diagnosis (10-12). Perceptions of discrimination in various life domains were linked to underutilization of mental health care (13). Therefore, stigma or fear of stigma might be a barrier for seeking addiction treatment (14-16). Even after treatment and in the recovery phase discrimination has an extensive impact such as reduced social participation, lower

feelings of well-being, and difficulties with finding employment and housing (6, 17, 18). Hence, discrimination delays treatment seeking for substance use disorders and can be a barrier for successful recovery and rehabilitation.

Experienced and anticipated discrimination has been assessed among persons with different diagnoses of mental illness (19, 20). However, experienced and anticipated discrimination have not been investigated among individuals with substance use disorders. Hence, it is unclear to which degree individuals with substance use disorders actually experience discrimination and avoid situations because of fear of discrimination. The main objective of this study is to determine the level of experienced and anticipated discrimination among individuals in treatment for substance use disorders, as well as the association between these two discrimination concepts. In addition, the association of discrimination with social and clinical characteristics of respondents will be investigated to gain more insight into the patterns of experienced and anticipated discrimination. Since the discrimination measures used in the current study are comparable to previous studies, this provides the opportunity to compare levels of anticipated and experienced discrimination among individuals in treatment for substance use disorders with other mental illness diagnoses, such as depression or schizophrenia. The stigma attached to substance use disorders appears to be more persistent and severe. Therefore, it is expected that the levels of experienced and anticipated discrimination among individuals with substance use disorders will be higher compared to individuals with other mental illnesses. The research questions of the present study are: 1) to what extent do individuals in treatment for substance use disorders experience and anticipate discrimination? 2) what is the association between experienced and anticipated discrimination? 3) what is the relation between experienced and anticipated discrimination and respondents' age and gender and social characteristics (marital status, education level and occupational status) and clinical characteristics (type of treatment service, type of treatment, type of substance use disorder and history of substance use problems)?

## **Methods**

### *Participants and recruitment*

Data were gathered in the spring of 2012 by means of a cross sectional survey. People in treatment for alcohol- or drug use disorders completed a self-reported questionnaire. Recruitment took place in two general mental health services and two specialist addiction services across the Netherlands. These four organizations were

asked to distribute the questionnaire among clients of different divisions and were asked to each include 50 clients. The only inclusion criterion was that clients were in treatment for substance use problems when filling out the questionnaire. Clients were invited to participate in the study by employees of the four organizations and participants received a small reward (chocolate bar or shower gel) for their participation. In case clients refused to participate, employees of the organizations were asked to write down age, gender and type of treatment in order to conduct non-response analyses.

### *Measures*

The primary outcome measures were experienced and anticipated discrimination. The items were derived from the Dutch version of the DISC-12 questionnaire which showed good psychometric properties (21). The DISC-12 is a semi-structured interview scale and in the present study the closed items of the scale were used as paper based questions. Experienced discrimination in the current study was assessed by 12 items for which respondents reported to which degree they felt treated unfairly because of their substance use problems. Each item asked about different life domains such as being treated unfairly by an employer, by friends, in an intimate relationship or by family members. All items were measured on a 5-point scale (1='never', 2='seldom', 3='sometimes', 4='regularly', 5='always') and also included the option 'not applicable'. In the present study, 8 comparable items from the first section of the DISC-12 were used. One item of the DISC-12 about unfair treatment when getting help for physical health problems was split into two separate items; one about experienced discrimination by the general practitioners and one about other healthcare professionals, such as the dentist. Furthermore, we included two extra items about being treated unfairly by (ex)-colleagues and by government institutions. An overall mean score of all 12 items measuring experienced discrimination was calculated in which 'not applicable' was coded as missing. In previous studies a dichotomous score was used in the publications for experienced and anticipated discrimination (19, 20). In order to be able to compare results with previous studies, a dichotomous score for separate items was used in addition to the overall mean score. In this dichotomous score 1 represented the feeling of having been treated unfairly (ranging from 2='seldom' to 5='always') and 0 indicated that respondents never felt treated unfairly in a particular life domain. Anticipated discrimination was measured with four items asking if respondents stopped themselves from doing things because of how others might respond to their substance use problems. These items were comparable to the second section of the DISC-12. Examples of items were 'have you stopped yourself

from applying for work' or 'have you concealed or hidden your substance use problems from others' (1='never' to 5='always', including the option 'not applicable'). An overall mean score for anticipated discrimination was calculated as well as an additional dichotomous score for separate items indicating if respondents felt anticipated discrimination.

The independent variables were the respondents' age, gender, and social characteristics (marital status, educational level, occupational status) and clinical characteristics (treatment service, type of treatment, type of substance use disorder, and history of substance use problems). Treatment service was categorized into 0='general mental health service' and 1='specialist addiction service'. Type of treatment was categorized as a proxy of severity with 'outpatient' (online, ambulatory, supply of methadone, or after-care) and 'inpatient' treatment (day treatment, clinical treatment, half-way house or supported living). Substance use disorders were categorized into 'alcohol use disorder', 'illicit drug use disorder' and 'multiple substance use disorders' when addicted to alcohol as well as drugs. History of substance use disorders was assessed by years that respondents reported having substance use problems. Marital status was categorized as 0='widowed, unmarried or divorced' and 1='married or living together'. Finally, occupational status was categorized into 'not working' (unemployed, disabled, housewife, retired or being a student) and 'working' (regular job, supported job, volunteer work).

### *Setting*

The 12-month prevalence of substance use problems in the Netherlands is 5.6% whereas the life-time prevalence is approximately 19.1% (22). Alcohol dependence is the most common type of substance use disorders. In 2012, the mean age of people with substance use problems who are in treatment was 41.2 years, 12.7% was younger than 25 years old and 16.5% older than 55 years (23). In the Netherlands, specialist addiction care is provided by non-governmental institutions, psychiatric hospitals and private clinics (24). Approximately one third of the persons with substance use problems seek treatment for substance use disorders (22). In 2012, the majority (76%) of clients with substance use problems was treated in outpatient care ambulatory (23). Addiction treatment is often multidisciplinary and ranges from psychological and behavioural interventions to home-based treatment therapies and substitution treatment (25).

*Statistical analyses*

The analyses were carried out using SPSS version 19. A significance level of .05 was applicable for *p*-values. First descriptive statistics were used to illustrate the level of experienced and anticipated discrimination among individuals in treatment for substance use disorders. Internal consistency between the items measuring experienced and the items of anticipated discrimination was assessed by calculating Cronbach's alpha between the items. Cronbach's alpha above 0.8 was regarded as good internal consistency and above 0.7 as acceptable. Second, cross-tabulation with chi-square analysis was carried out to investigate the association between experienced and anticipated discrimination. In these analyses the dichotomous scores of experienced and anticipated discrimination were used indicating only whether respondents did or did not experience or anticipate discrimination. Finally, multiple linear regression analyses were conducted to investigate whether level of experienced and anticipated discrimination were predicted by independent variables (age, gender, type of treatment service, type of treatment, type of substance use disorder, history of substance use problems, marital status, education level and occupational status). Dummy variables were used for ordinal variables (education level and type of substance use disorder) and entered as separate blocks in the regression analyses. The other variables were continuous (age, history of substance use problems) or coded as dichotomous (gender, type of treatment service, type of treatment, marital status and occupational status). Multicollinearity between the independent variables was not a problem since all Pearson correlations were below 0.50. Variables with higher correlation were expected to be related, such as age and history of having substance use problems. The assumptions for linearity and homoscedasticity were checked and not violated. The Durbin-Watson tests indicated no correlated residual terms (1.946 for experienced discrimination and 1.743 for anticipated discrimination as dependent variables).

**Table 1:** Background data of the respondents

	% (N)	Mean (SD)	Range
Age		40.92 (12.33)	16-70
<b>Gender</b>			
men	67.7 (126)		
women	31.2 (58)		
<b>Level of education</b>			
low education	50.0 (93)		
middle-level education	36.6 (68)		
high education	11.3 (21)		
<b>Marital status</b>			
married	4.8 (9)		
living together	4.8 (9)		
unmarried	67.2 (125)		
divorced	19.4 (36)		
widowed	2.7 (5)		
<b>Occupational status</b>			
<i>Having a job</i>	23.7 (44)		
regular job or self-employed	11.8 (22)		
supported job, unpaid job	2.7 (5)		
volunteer work	9.1 (17)		
<i>No job</i>	66.7 (124)		
unemployed	20.4 (38)		
disabled or disease	42.5 (79)		
retired	0.5 (1)		
housewife	1.6 (3)		
student / school	1.6 (3)		
<b>Type of treatment service</b>			
general mental health service	39.2 (73)		
specialist addiction service	60.8 (113)		
<b>Type of substance use problems</b>			
alcohol use disorder	34.9 (65)		
drugs use disorder	33.3 (62)		
alcohol and drug use disorder	29.6 (55)		
<b>Type of treatment</b>			
<i>Outpatient</i>	45.2 (84)		
online or ambulatory	41.3 (75)		
after care	2.7 (5)		
ambulatory methadone maintenance program	2.2 (4)		
<i>Inpatient</i>	51.1 (95)		
day treatment program	6.5 (12)		
inpatient treatment	36.6 (68)		
half-way house / supported living Korsakoff	8.1 (15)		
History of having substance use problems in years		14.53 (10.70)	0-48

Note Total numbers in rows do not count to 100% due to missing responses.



## Results

In total 186 individuals in treatment for substance use disorders participated in the study of which 60.8% ( $N=113$ ) were treated in specialist addiction services and 39.2% ( $N=73$ ) in general mental health services. The non-response percentage was unclear since some clients were in a crisis situation or under the influence of substances which made it inappropriate or impossible to participate. Two thirds (67.7%,  $N=126$ ) of the respondents were men and the mean age of the respondents was 40.9 ( $SD=12.33$ ) years old. The majority of the respondents (89.8%,  $N=167$ ) was single or unmarried and 9.7% ( $N=18$ ) was married or living together with a partner. The majority (66.7%,  $N=124$ ) of the respondents had no job (were unemployed, disabled, retired, a housewife or a student). In total, 11.8% ( $N=22$ ) held a regular job or were self-employed and an equal percentage of respondents worked in a supported job or as a volunteer and of 9.7% ( $N=18$ ) the occupational status was unknown. The percentage of respondents with alcohol problems or illicit drug problems was almost equal (34.9% alcohol problems, 33.3% illicit drug use problems, 29.6% both alcohol and drug use problems). Slightly more than half of the respondents (51.1%,  $N=95$ ) received less intensive outpatient treatment and 45.2% ( $N=84$ ) received more intensive treatment. Detailed background information of the respondents can be found in table 1.

The internal consistency between the items measuring experienced discrimination was high (Cronbach's  $\alpha=0.90$ ) and for anticipated discrimination (Cronbach's  $\alpha=0.71$ ) was acceptable. As can be seen in table 2, respondents experienced the most discrimination in interpersonal interaction with family, friends, employers, and in intimate relationships. Discrimination by the family was experienced by 56.5% ( $N=105$ ) of the respondents, of which 24.2% ( $N=45$ ) reported having been treated unfairly by family 'regularly' or 'always' and 32.3% ( $N=60$ ) 'sometimes'. More than half of the respondents (54.9%;  $N=102$ ) reported having been treated unfairly 'sometimes' or even more frequently in intimate relationships. In making or keeping friends 57.6% ( $N=107$ ) felt treated unfairly 'sometimes' or more frequently. Concerning anticipated discrimination, almost half of the respondents (49.5%,  $N=92$ ) 'sometimes' or more frequently avoided an intimate relationship because they anticipated discrimination (table 3). Anticipated discrimination when applying for work was reported 'regularly' or 'always' by 23.2% ( $N=43$ ) of the respondents, whereas 25.3% ( $N=47$ ) reported 'regularly' or 'always' to anticipate discrimination in applying for courses or education. Concealment of substance use

disorders was very common; 37.6% ( $N=70$ ) concealed their diagnosis ‘regularly’ or ‘always’ and a quarter (25.3%,  $N=47$ ) ‘sometimes’ concealed their diagnosis.

**Table 2:** Experienced discrimination by several life domains

<i>Have you been treated unfairly because of substance use problems by these persons or in these situations?</i>	% ( $N$ ) seldom or never	% ( $N$ ) some-times	% ( $N$ ) regularly or always <sup>a</sup>	% ( $N$ ) not applicable
By family	38.2 (71)	32.3 (60)	24.2 (45)	4.3 (8)
In intimate relationships	38.7 (72)	32.3 (60)	22.6 (42)	5.4 (10)
Making or keeping friends	38.7 (72)	40.9 (76)	16.7 (31)	3.2 (6)
By employers	52.2 (97)	22.0 (41)	15.0 (28)	9.1 (17)
By neighbours	58.6 (109)	22.0 (41)	13.4 (25)	4.8 (9)
In social life	52.7 (98)	26.3 (49)	10.8 (20)	9.1 (17)
By government institutions	64.0 (119)	17.2 (32)	10.8 (20)	7.0 (13)
By current or former colleagues	56.4 (105)	25.8 (48)	8.6 (16)	8.6 (16)
With housing	61.3 (114)	18.3 (34)	6.4 (12)	11.8 (22)
By the general practitioner	77.4 (144)	14.0 (26)	4.3 (8)	3.2 (6)
By other healthcare professionals (e.g. dentist, in hospital, nurses)	78.0 (145)	14.0 (26)	4.3 (8)	3.2 (6)
By mental health- or specialized addiction care professionals	72.6 (135)	19.9 (37)	3.2 (6)	3.8 (7)

*Note* Total numbers in rows do not count to 100% due to missing responses.

<sup>a</sup> Items were sorted descending based upon the category experiencing discrimination regularly or always.

**Table 3:** Anticipated discrimination by several life domains

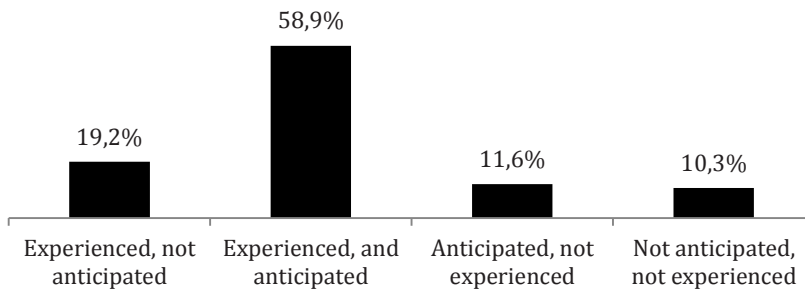
<i>Have you stopped yourself from doing things in the last 12 months because of how others might respond to you because of having substance use problems?</i>	% ( $N$ ) seldom or never	% ( $N$ ) some-times	% ( $N$ ) regularly or always	% ( $N$ ) not applicable
Have you stopped yourself from applying for work?	33.9 (63)	16.1 (30)	23.2 (43)	25.8 (48)
Have you stopped yourself from applying for education or training courses?	33.4 (62)	17.2 (32)	25.3 (47)	23.1 (43)
Have you stopped yourself from starting or having a close personal relationship?	31.8 (59)	21.0 (39)	28.5 (53)	17.2 (32)
Have you concealed or hidden your substance use problems from others?	32.3 (60)	25.3 (47)	37.6 (70)	2.7 (5)

*Note* Total numbers in rows do not count to 100% due to missing responses.

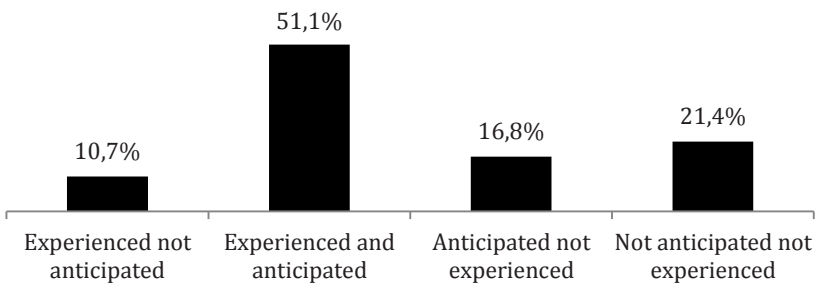
### *Association between experienced and anticipated discrimination*

Experienced and anticipated discrimination were examined both for employment and having an intimate relationship. Therefore, we assessed to which degree experienced discrimination was associated with anticipated discrimination in these two life domains. The dichotomous scores were used to indicate whether respondents ever felt experienced or anticipated discrimination. As can be seen in figure 1 and 2, the majority of the respondents reported experienced as well as anticipated discrimination in both life domains (58.9% for intimate relationships and 51.1% for employment). Some respondents (11.6% for intimate relationships and 16.8% for employment) did not experience discrimination in either of these life domains, although they did anticipate to be discriminated against when applying for work or starting an intimate relationship. The  $\chi^2$ -tests showed that experienced and anticipated discrimination were positively associated (intimate relationship  $\chi^2(1)=5.987$ ,  $p=0.014$ ; employment  $\chi^2(1)=21.275$ ,  $p=0.000$ ). The odds ratio indicated that someone who felt treated unfairly in an intimate relationship had 2.71 more chance to feel anticipated discrimination in this life domain. For 'employment' someone who had experienced discrimination was 6.09 times more likely to have avoided applying for work.

**Figure 1:** Percentages of experienced and anticipated discrimination in intimate relationships



**Figure 2:** Percentages of experienced and anticipated discrimination in employment



*Regression analyses to predict experienced and anticipated discrimination*

Two multiple regression analyses were performed to predict experienced and anticipated discrimination with social and clinical characteristics of respondents (age, gender, type of treatment service, type of treatment, type of substance use disorder, history of substance use problems, marital status, education level and occupational status). The model to predict scores on experienced discrimination explained 15.6% of the variance ( $R^2=0.156$ , adjusted  $R^2=0.057$   $F(11,94)=1.574$ ,  $p=0.119$ ). Respondents with a longer history of substance use disorders reported higher experienced discrimination. The model to predict anticipated discrimination explained a lower proportion of the variance ( $R^2=0.142$ , adjusted  $R^2=0.037$   $F(11,90)=1.349$ ,  $p=0.211$ ). None of the independent variables was a significant predictor for anticipated discrimination. In table 4 and table 5 more detailed results of the regression analyses are shown.

**Table 4:** Regression analysis to predict experienced discrimination

	B	SE	$\beta$	T	$p$
(constant)	1.95	0.55		3.56	0.00
gender <sup>a</sup>	-0.16	0.17	-0.01	-0.94	0.35
age	-0.01	0.01	-0.10	-0.63	0.53
marital status <sup>a</sup>	-0.11	0.28	-0.04	-0.40	0.69
occupational status <sup>a</sup>	-0.05	0.19	-0.02	-0.24	0.81
history of substance use problems	0.02	0.01	0.31	2.40	0.02*
type of treatment service <sup>a</sup>	0.19	0.16	0.12	1.20	0.24
type of treatment <sup>a</sup>	0.26	0.18	0.16	1.46	0.15
dummy middle level education <sup>a</sup>	-0.11	0.18	-0.07	-0.61	0.54
dummy high level education <sup>a</sup>	0.32	0.26	0.15	1.27	0.21
dummy drug use disorder <sup>a</sup>	-0.24	0.25	-0.14	-0.96	0.34
dummy multiple substance use disorders <sup>a</sup>	0.08	0.24	0.05	0.34	0.73

Note B=unstandardized coefficients, SE=standard error,  $\beta$ =standardized coefficients.  $R^2=0.156$ , Adjusted  $R^2=0.057$ ,  $p=0.119$ .

<sup>a</sup> Reference categories were men, unmarried / single / widowed, not working, general mental health service, outpatient treatment, low-level education and alcohol use disorder.

\*  $p \leq 0.05$ .

**Table 5:** Regression analysis to predict anticipated discrimination

	B	SE	$\beta$	T	<i>p</i>
(constant)	2.77	0.74		3.75	0.00
gender <sup>a</sup>	0.32	0.24	0.14	1.30	0.20
age	-0.01	0.01	-0.10	-0.59	0.55
marital status <sup>a</sup>	-0.50	0.37	-0.15	-1.34	0.18
occupational status <sup>a</sup>	-0.34	0.26	-0.14	-1.33	0.19
history of substance use problems	0.02	0.01	0.23	1.79	0.08
type of treatment service <sup>a</sup>	-0.07	0.22	-0.03	-0.32	0.75
type of treatment <sup>a</sup>	-0.08	0.24	-0.04	-0.32	0.75
dummy middle level education <sup>a</sup>	-0.04	0.24	-0.02	-0.16	0.87
dummy high level education <sup>a</sup>	0.21	0.34	0.08	0.63	0.53
dummy drug use disorder <sup>a</sup>	0.15	0.33	0.07	0.44	0.66
dummy multiple substance use disorders <sup>a</sup>	0.26	0.32	0.11	0.81	0.42

Note B=unstandardized coefficients, SE=standard error,  $\beta$ =standardized coefficients.  $R^2=0.142$ , Adjusted  $R^2=0.037$ ,  $p=0.211$ .

<sup>a</sup> Reference categories were men, unmarried / single / widowed, not working, general mental health service, outpatient treatment, low-level education and alcohol use disorder.

## Discussion

The results of this study show that individuals in treatment for substance use disorders both experience and anticipate high rates of discrimination. Especially in interpersonal interaction with family, friends, employers, and in intimate relationships discrimination was frequently experienced. The association between experienced and anticipated discrimination was high. In the field of employment and intimate relationships the majority of the respondents both experienced and anticipated discrimination. A small proportion anticipated discrimination without having experienced discrimination. Social characteristics such as occupational status, education level, and marital status were not related with the level of experienced or anticipated discrimination. Most of the clinical variables such as type of treatment service, type of treatment, and type of substance use disorder were also not associated with experienced and anticipated discrimination. However, having a longer history of substance use problems was found to be correlated with a higher level of experienced discrimination. This implicates that those individuals who suffer from substance use problems for a longer period experience more discrimination in several life domains.

The assessment of experienced and anticipated discrimination in this study was comparable to previous studies among individuals with other mental illnesses; therefore we are able to compare the level of discrimination between different diagnoses. The level of experienced and anticipated discrimination we found among individuals in treatment for substance use disorders, was substantially higher

compared to the level of reported discrimination among persons with schizophrenia and depression (19, 20). This finding mirrors the outcomes of studies investigating public attitudes, since it was found that individuals with substance use disorders evoke more negative reactions and rejection compared to other mental illnesses (1, 26, 27). Moreover, public stigma at the population level was found to be associated with the perception of discrimination among individuals with mental illness (28).

The association we found between a longer history of substance use problems and higher levels of experienced discrimination was also established among persons with major depressive disorder, schizophrenia and among persons in treatment for substance use disorders (5, 19, 29). However, we found no association between a longer history of substance use problems and anticipated discrimination. Previous episodes of mental health problems or being labelled as 'patient' for a longer period appear to be positively related to experiences of discrimination and rejection although not to the anticipation to be discriminated against. We found no association between the other clinical and social characteristics and experienced as well as anticipated discrimination. This was unexpected since discrimination in multiple domains, such as having a dual diagnosis or having legal problems in addition to a substance disorder appear to be related to more rejection experiences and more negative consequences (5, 30, 31). Furthermore, studies of various stigmatizing conditions indicated that discrimination experiences were related to reduced social participation and role characteristics such as unemployment (5, 14, 18, 19, 32). Another hypothesis on the contrary suggests that people in sheltered situations, for instance residential care, experience rejection less often compared to people outside a sheltered situation. An explanation is that people in sheltered situation are not daily confronted with colleagues and neighbours who are non-understanding and who may consider them as less competent (33).

In the interpretation of the results of this study the following limitations should be considered. Selection bias could have occurred since employees of the organizations judged which clients were approached to participate in the study. The questions intended for non-responding clients were not consistently filled out due to uncertainty whether clients actively refused to participate and in some situations it was considered inappropriate to even ask these questions. After the data collection, employees were asked whether the study sample of their organization was representative and which clients were unable or refused to participate. According to the employees, individuals who did not participate in the study probably had more problems in the societal or psychiatric sphere. When comparing age, gender, type of substance use disorder and type of treatment between our study sample and the total

amount of persons in treatment for substance use disorders in the Netherlands (23), it can be concluded that our study sample was representative. However, in 2012 76% of the people with substance use disorders were treated outpatient ambulatory in the Netherlands, compared to 41.3% in our study sample. This indicates that our study sample contained more clients with more severe (substance use) problems. Another limitation was that only people who are in treatment for substance use disorder were included in this study, whereas a great amount of people with substance use problems do not seek treatment (34, 35). In addition, persons who are treated in private clinics were not approached to participate. Finally, the cross-sectional nature of the study makes it impossible to draw conclusions about causal effects.

### *Conclusions and implications*

Individuals in treatment for substance use disorders experience and anticipate high levels of discrimination. Experienced discrimination was most frequently reported in personal relationships (in family ties, intimate relationships and friendships). Unexpectedly no association was found between social and clinical characteristics and experienced or anticipated discrimination. Additional evidence is needed in order to gain a better understanding of the association of experienced and anticipated discrimination among individuals with substance use problems and psychological concepts such as self-esteem, empowerment or self-efficacy. Since experienced and anticipated discrimination are highly prevalent, individuals with substance use disorders should be supported in coping with and becoming resilient to discrimination. In the treatment of substance use problems these aspects merit particular attention. Increased resilience and appropriate coping strategies may enhance successful personal recovery and social participation of individuals with substance use disorders.

## References

1. Crisp A. H., Gelder M. G., Rix S., Meltzer H. I., Rowlands O. J. (2000). Stigmatisation of people with mental illnesses. *British Journal of Psychiatry*, 177, 4-7.
2. Room R. (2005). Stigma, social inequality and alcohol and drug use. *Drug and Alcohol Review*, 24(2), 143-155.
3. Pescosolido B. A., Martin J. K., Long J. S., Medina T. R., Phelan J. C., Link B. G. (2010). "A Disease Like Any Other"? A Decade of Change in Public Reactions to Schizophrenia, Depression, and Alcohol Dependence. *American Journal of Psychiatry*, 167(11), 1321-1330.
4. Van Boekel L. C., Brouwers E. P. M., Van Weeghel J., Garretsen H. F. L. (2013). Public opinion on imposing restrictions to people with an alcohol- or drug addiction: a cross-sectional survey. *Social Psychiatry and Psychiatric Epidemiology*, 48(12), 2007-2016.
5. Luoma J. B., Twohig M. P., Waltz T., Hayes S. C., Roget N., Padilla M. et al. (2007). An investigation of stigma in individuals receiving treatment for substance abuse. *Addictive Behaviors*, 32(7), 1331-1346.
6. Link B. G., Phelan J. C. (2006). Stigma and its public health implications. *Lancet*, 367(9509), 528-529.
7. Thornicroft G. (2006). *Shunned: discrimination against people with mental illness*. New York: Oxford University Press Inc.
8. Angermeyer M. C., Beck M., Dietrich S., Holzinger A. (2004). The stigma of mental illness: Patients' anticipations and experiences. *International Journal of Social Psychiatry*, 50(2), 153-162.
9. Ahern J., Stuber J., Galea S. (2007). Stigma, discrimination and the health of illicit drug users. *Drug and Alcohol Dependence*, 88(2-3), 188-196.
10. Lundberg B., Hansson L., Wentz E., Bjorkman T. (2009). Are stigma experiences among persons with mental illness, related to perceptions of self-esteem, empowerment and sense of coherence? *Journal of Psychiatric and Mental Health Nursing*, 16(6), 516-522.
11. Rusch N., Angermeyer M. C., Corrigan P. W. (2005). The stigma of mental illness: Concepts, forms, and consequences. *Psychiatrische Praxis*, 32(5), 221-232.
12. Wahl O. F. (1999). Mental health consumers' experience of stigma. *Schizophrenia Bulletin*, 25(3), 467-478.
13. Burgess D. J., Ding Y. M., Hargreaves M., Van Ryn M., Phelan S. (2008). The association between perceived discrimination and underutilization of needed medical and mental health care in a multi-ethnic community sample. *Journal of Health Care for the Poor and Underserved*, 19(3), 894-911.
14. Angermeyer M. C. (2003). The stigma of mental illness from the patient's view - An overview. *Psychiatrische Praxis*, 30(7), 358-366.
15. Cunningham J. A., Sobell L. C., Sobell M. B., Agrawal S., Toneatto T. (1993). Barriers to treatment: Why alcohol and drug abusers delay or never seek treatment. *Addictive Behaviors*, 18(3), 347-353.



16. Grant B. F. (1997). Barriers to alcoholism treatment: Reasons for not seeking treatment in a general population sample. *Journal of Studies on Alcohol*, 58(4), 365-371.
17. Link B. G., Struening E. L., Rahav M., Phelan J. C., Nuttbrock L. (1997). On stigma and its consequences: Evidence from a longitudinal study of men with dual diagnoses of mental illness and substance abuse. *Journal of Health and Social Behavior*, 38(2), 177-190.
18. Alonso J., Buron A., Rojas-Farreras S., De Graaf R., Haro J. M., De Girolamo G. et al. (2009). Perceived stigma among individuals with common mental disorders. *Journal of Affective Disorders*, 118(1-3), 180-186.
19. Lasalvia A., Zoppei S., Van Bortel T., Bonetto C., Cristofalo D., Wahlbeck K. et al. (2012). Global pattern of experienced and anticipated discrimination reported by people with major depressive disorder: a cross-sectional survey. *Lancet*, 381(9860), 55-62.
20. Thornicroft G., Brohan E., Rose D., Sartorius N., Leese M. (2009). Global pattern of experienced and anticipated discrimination against people with schizophrenia: a cross-sectional survey. *Lancet*, 373(9661), 408-415.
21. Brohan E., Clement S., Rose D., Sartorius N., Slade M., Thornicroft G. (2013). Development and psychometric evaluation of the Discrimination and Stigma Scale (DISC). *Psychiatry Research*, 208(1), 33-40.
22. De Graaf R., Ten Have M., Van Dorsselaer S. (2010). *De psychische gezondheid van de Nederlandse bevolking NEMESIS-2: Opzet en eerste resultaten*. Utrecht: Netherlands Institute of Mental Health and Addiction, Trimbos.
23. Wisselink D. J., Kuijpers W. G. T., Mol A. (2013). *LADIS, Landelijk Alcohol en Drugs Informatie Systeem: Kerncijfers Verslavingszorg 2012*. Houten: Stichting Informatie Voorziening Zorg.
24. RIVM. (2013). *Volksgezondheid Toekomst Verkenning, Nationaal Kompas Volksgezondheid*. Bilthoven.
25. European Monitoring Centre for Drugs and Drug Addiction. (2012). Drug treatment overview for Netherlands. Retrieved February 20th 2013, from [www.emcdda.europa.eu/data/treatment-overviews/Netherlands](http://www.emcdda.europa.eu/data/treatment-overviews/Netherlands).
26. Angermeyer M. C., Dietrich S. (2006). Public beliefs about and attitudes towards people with mental illness: a review of population studies. *Acta Psychiatrica Scandinavica*, 113(3), 163-179.
27. Schomerus G., Holzinger A., Matschinger H., Lucht M., Angermeyer M. C. (2010). Public attitudes towards alcohol dependence. *Psychiatrische Praxis*, 37(3), 111-118.
28. Evans-Lacko S., Brohan E., Mojtabai R., Thornicroft G. (2012). Association between public views of mental illness and self-stigma among individuals with mental illness in 14 European countries. *Psychological Medicine*, 42(8), 1741-1752.
29. Cechnicki A., Angermeyer M. C., Bielanska A. (2011). Anticipated and experienced stigma among people with schizophrenia: its nature and correlates. *Social Psychiatry and Psychiatric Epidemiology*, 46(7), 643-650.

30. Evans-Lacko S., Thornicroft G. (2010). Stigma Among People with Dual Diagnosis and Implications for Health Services. *Advances in Dual Diagnosis*, 3(1), 4-7.
31. Stuber J., Galea S., Ahern J., Blaney S., Fuller C. (2003). The association between multiple domains of discrimination and self-assessed health: a multilevel analysis of Latinos and blacks in four low-income New York City neighborhoods. *Health Services Research*, 38(6 Pt 2), 1735-1759.
32. Van Brakel W. H., Anderson A. M., Mutatkar R. K., Bakirtzief Z., Nicholls P. G., Raju M. S. et al. (2006). The Participation Scale: Measuring a key concept in public health. *Disability and Rehabilitation*, 28(4), 193-203.
33. Dickerson F. B., Sommerville J. L., Origoni A. E. (2002). Mental illness stigma: an impediment to psychiatric rehabilitation. *Psychiatric Rehabilitation Skills*, 6(2), 186-200.
34. Grella C. E., Karno. M. P., Warda U. S., Moore A. A., Niv N. (2009). Perceptions of Need and Help Received for Substance Dependence in a National Probability Survey. *Psychiatric Services*, 60(8), 1068-1074.
35. Hasin D. S., Stinson F. S., Ogburn E., Grant B. F. (2007). Prevalence, correlates, disability, and comorbidity of DSM-IV alcohol abuse and dependence in the United States. Results from the national epidemiologic survey on alcohol and related conditions. *Archives of General Psychiatry*, 64(7), 830-842.

# Chapter 3

Public opinion on imposing restrictions to people with an alcohol- or drug addiction: A cross-sectional survey

Based on:

Van Boekel, L.C., Brouwers, E.P.M., Van Weeghel, J., Garretsen, H.F.L. (2013). Public opinion on imposing restrictions to people with an alcohol- or drug addiction: A cross-sectional survey. *Social Psychiatry and Psychiatric Epidemiology*, 48(12), 2007-2016.

## **Abstract**

### *Purpose*

Alcohol- and drug addiction tends to evoke disapproval and rejection among people. This study provides insight into the origin of people's negative attitudes towards these people. Corrigan's attribution model is used to examine intentions of the Dutch public to impose restrictions to people who are addicted to alcohol or illicit drugs.

### *Methods*

Data were derived from a cross-sectional survey among a representative panel of the Dutch population ( $N=2793$ ). Path analyses were conducted to test the influence of attribution beliefs, emotional responses and familiarity with addictions on people's intentions to impose restrictions to these people.

### *Results*

More than half of the respondents agreed with imposing restrictions to someone with an addiction such as excluding from taking public office or forbid to care for children. Corrigan's attribution model was partially applicable to explain people's intentions to impose restrictions, since only a rather small percentage of the variance in people's intentions was explained by the model. The perception of personal responsibility for an addiction and high expectancy of aggressiveness have a positive influence on intentions to impose restrictions. Feelings of anger and fear were also predictors of intentions to impose restrictions.

### *Conclusions*

The Dutch public showed high intentions to restrict people with an alcohol- or drug addiction which have an extensive impact on their life opportunities. Perceived aggressiveness, feeling of anger and fear, and perceived responsibility were associated with higher intentions to impose restrictions.

## Introduction

Stigmatization is a process that starts with labelling a person, or a group of persons based upon differences, for instance, religious beliefs, skin colour or mental health. Stigmatization continues when labelled persons are linked to undesirable characteristics, set apart and as a consequence experience status loss or discrimination (1). Research shows that people with an alcohol- or drug addiction are more often confronted with stigmatization compared to subgroups such as homeless people, criminal offenders or people with other mental illnesses (2, 3). For instance a Dutch study established that people were less willing to interact with someone with an addiction compared to persons with other mental illnesses, such as schizophrenia, dementia or depression (4). Evidence shows that people are concerned that persons with an addiction are a threat for their own and their children's safety (5), and are perceived as unpredictable and rated as to be blamed for their addiction (6). Stigmatization has an extensive impact on life opportunities such as social participation, employment and housing (1, 7-9) and is associated with diminished quality of life (10, 11). Furthermore, stigma or fear to be stigmatized may act as a barrier in treatment seeking and optimal health care for people with an alcohol or drug addiction (12, 13).

Structural discrimination is a form of stigma and is defined as institutional practices or policies that hinder or restrict the opportunities of a whole minority, even in the absence of individual prejudice or labelling (14, 15). Within the context of addiction, examples of structural discrimination are less financial reimbursement for treatment, or restricting people with an addiction to take care of children. Structural discrimination is distinctive from individual discrimination; for instance people might reject people with an addiction in situations concerning their personal life although they are in favour of funding treatment for addiction problems. Attitudes of the public have the potential to influence structural discrimination (14-17). Therefore, insight into attitudes and approval of the public to discriminate and restrict people with an addiction is needed to counteract stigma.

Corrigan and colleagues proposed an attribution model to examine the impact of attribution beliefs to predict discriminatory intentions towards people with mental illness in general (18). Discrimination in Corrigan's study was measured as intentions to help, avoid or segregate people with a mental illness. According to the attribution theory perception of responsibility for and controllability over a condition influences negative attitudes and stigmatization (18-21). Furthermore, in Corrigan's model perception of dangerousness was a predictor of discriminatory responses towards

people with mental illness in general (18). Mental illnesses mainly evoke three emotional responses which influence people's judgments: fear, anger and positive feelings such as pity (19, 22-24). Finally, familiarity with a certain condition, such as having someone with an addiction in the family, is known to mitigate attitudes due to more knowledge and experience (25-28). When applying Corrigan's model to someone with an addiction; it is expected that the perceived responsibility for their addiction will be higher in comparison with someone with a mental illness in general (6, 29, 30). Furthermore, perceived personal control is expected to be higher in addiction problems compared to other mental illness (31, 32). Finally, addiction problems are expected to evoke particularly negative emotional responses, such as anger and fear (22).

The aim of the present study was to examine intentions of the Dutch public to discriminate and restrict people who have are addicted to alcohol or illicit drugs by using Corrigan's attribution model (18). Discrimination in the present study was operationalized as intentions and approval of the public to impose restrictions to people with an addiction. Similar concepts were used in previous studies investigating public attitudes and opinions about restricting people with mental illness (3, 33, 34). Restrictions comprised excluding someone from taking public office, involuntary hospitalization, forbid to take of children, and no permission to have a drivers' licence. It is hypothesized that attributing the cause of an addiction as under personal control and high perceived responsibility, increases the intention to impose restrictions to people with an addiction. Additionally, high perceived aggressiveness and negative emotional responses are hypothesized to be positively associated with being in favour of imposing restrictions. Familiarity with addictions is expected to diminish intentions to impose restrictions.

### *Setting*

In the Netherlands non-governmental institutions offer specialized addiction care in a multidisciplinary setting combining somatic as well as mental health care (35). Some additional organizations, such as the municipal health services, psychiatric hospitals and private clinics, offer healthcare for people with addiction problems. The health insurance provides the main funding for addiction care in the Netherlands, although out-of-pocket payments are increasing since 2012 (35, 36). Different treatments for addiction problems exist such as psychological and behavioural interventions, home-based treatment therapies, and outpatient substitution treatment (36) The majority of people with addiction problems in the Netherlands are treated in outpatient care ambulatory (35).

The proposed restrictions used as outcome measure in the present study apply to some extent to current policies and regulations in the Netherlands. People with an addiction are allowed to fulfil public office although this is usually not socially accepted. People with an addiction can be hospitalized involuntary only in case someone is a threat for their own safety or the environment, a psychiatric disorder is manifest, and no other treatment options are possible (37). Raising children is possible for people with an addiction, although parents can be deprived from parental authority in case they are not able to take care of children or in case the safety for a child is at issue. People who indicate that they are in treatment, or ever treated for substance abuse, are compulsory tested by a physician before considered for a drivers' license. Driving under the influence of alcohol or drugs is prohibited in the Netherlands and a drivers' license can be mandatory suspended when arrested for drinking and driving. Other punitive measures resulting from driving under the influence are mandatory educational courses or ignition interlock devices.

## Methods

### *Sample and recruitment*

In February 2012, a cross-sectional survey was carried out among a nationally representative internet panel of the Dutch population. Data were collected among an existing panel (Longitudinal Internet Studies for Social Sciences, LISS) administered by CentERdata, which is a Dutch research institute specialized in data collection. Panel members receive questionnaires every month and completed questionnaires are rewarded. The panel is established in co-operation with Statistic Netherlands and a random sample was drawn of 10,150 addresses, using a random 10% sample of the population registers each year. Households are invited to participate in the panel and people without an appropriate computer or internet connection are provided equipment. The panel consists of 5000 households with 8280 panel members. For the present study an online questionnaire was sent to a random selection of 3691 individuals in age group  $\geq 16$  years. This subsample of the panel was assumed to be sufficient to conduct the proposed analyses. Two reminders were sent to panel members to increase the response rate. In total, 2793 respondents filled out the questionnaire (75.7%) of which 2791 (99.9%) questionnaires were completed. The mean age of the sample was 50.79 ( $SD=17.06$ ; median=52.00) and 1476 respondents (53%) were women. Table 1 shows additional background data of the study sample and comparative percentages of the distribution of age, gender and urbanity of place of residence among the overall Dutch population. Older respondents were

overrepresented in our study sample compared to the overall Dutch population. However, we expect only minor influences of age on attitudes of respondents to impose restrictions to people with an addiction.

**Table 1:** Background data of the study sample and comparison with overall Dutch population

	Mean ( <i>SD</i> ) study sample	Range study sample	<i>N</i> study sample	% study sample	% Dutch population <sup>a</sup>
Age	50.79 (17.06)	16 – 90	2793		
< 20 years			114	4.1	23.3
20-40 years			696	24.9	24.8
40-65 years			1385	49.6	35.7
65-80 years			518	18.5	12.1
> 80 years			80	2.9	4.1
Gender			2793		
men			1317	47.2	49.5
women			1476	52.8	50.5
Urbanization of place of residence <sup>b</sup>			2787		
very strongly urbanized			351	12.6	20.5
strongly urbanized			761	27.3	24.0
urbanized			655	32.5	18.1
slightly urbanized			575	20.6	18.6
not urbanized			445	16.0	18.8
Level of education <sup>c</sup>			2785		
low education			978	35.1	
middle education			945	33.9	
high education			862	31.0	
Nett income per month	1548.62 (3702.08)	0 – 183592	2639		

<sup>a</sup> According to numbers of Statistics Netherlands in 2012.

<sup>b</sup> Density of addresses in surroundings per m<sup>2</sup>: >2500=very strongly urbanized, 1500-2500=strongly urbanized, 1000-1500=urbanized, 500-1000=slightly urbanized, <500 not urbanized.

<sup>c</sup> Low education refers to primary education or pre-vocational secondary education. Middle education refers to pre-university education or secondary vocational education. High education refers to higher professional education or university education.

### Measures

Corrigan's model (18) measured people's intentions to reject, segregate or help people with a mental illness in general. Hypothetical case vignettes were used in Corrigan's study to measure the influence of different levels of controllability and dangerousness. In the present study discriminatory intentions were operationalized as 'intentions to impose restrictions to people with an addiction'. Respondents were asked to respond



in general if they impose restrictions to people with an addiction, instead of measuring intentions to impose restrictions to an individual as depicted in a hypothetical vignette. The outcome variable was measured as a latent construct with four indicator variables: 1) people with an addiction should be excluded from taking public office, such as being an alderman or teacher, 2) people with an addiction should be involuntary hospitalized to receive treatment, 3) people with an addiction should be forbidden to take care of children, 4) people with an addiction should not be permitted to have a drivers' license. The term 'addiction' referred to alcohol or illicit drug abuse in all questions. These items were measured with a five-point Likert scale (1=totally disagree to 5=totally agree) and higher scores indicated more intentions to impose restrictions. Cronbach's alpha of the four items was .70 based on 2791 individuals.

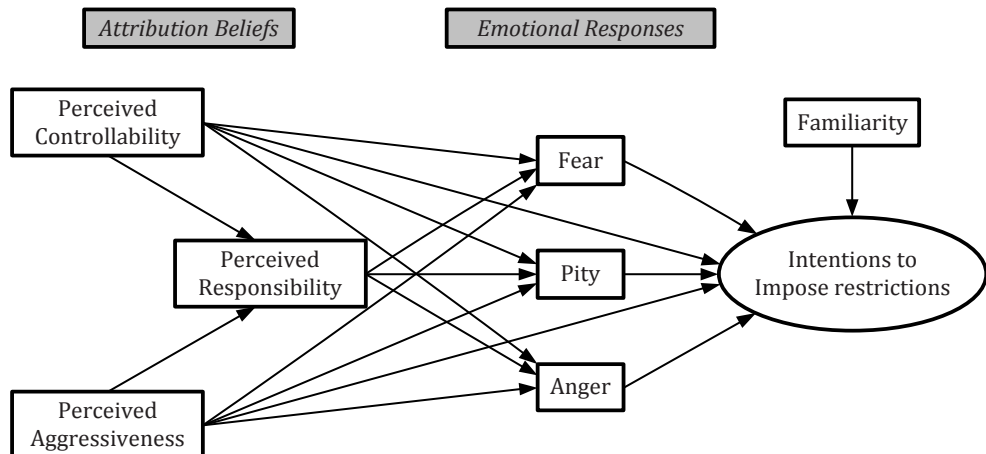
Attribution beliefs of respondents were assessed using adapted items of the Attribution Questionnaire (38, 39). Perceived controllability and perceived responsibility was measured asking respondents if they agreed with the following statements: 'someone with an addiction is in control of this addiction' and 'someone with an addiction is responsible for this' (1=totally disagree to 5=totally agree). Perceived dangerousness as applied in Corrigan's study was measured by agreement with the stereotype that people with an addiction tend to be aggressive (1=totally disagree to 5=totally agree). To investigate the emotional responses that people with an addiction evoke, the level of fear, anger and pity were assessed: I'm scared of / angry with / feel pity for someone with an addiction (1=never to 5=always). The level of contact report was used to assess familiarity of respondents with addiction (40). The items verified whether respondents knew someone with an addiction in different levels of intimacy: in their circle of acquaintances or within their family. A rank score of the most intimate situation was used (range 0-7).

### *Statistical analyses*

First, the amount and content of intentions to impose restrictions to people with an addiction were explored by conducting descriptive analyses using SPSS version 19. Pearson and Spearman correlation coefficients between variables were obtained in order to assess the assumption that multicollinearity was not present. The assumption that variables have a normal distribution was tested using skewness and kurtosis. Second, path analysis was used to test whether the attribution model was applicable to explain people's intentions to impose restrictions to people with an addiction (figure 1). Path analysis enables testing of causal models by estimating a number of regression equations at once. According to previous studies familiarity can have an

influence on emotional responses (18, 41). We only investigated the influence of familiarity on intentions to impose restrictions in order to prevent unnecessary complexity of the model. The attribution model was tested using AMOS version 19 (42). The Full Information Maximum Likelihood (FIML) procedure was used to obtain estimates with missing data. The percentage of missing data was less than 1% for the included variables. According to a general rule, the current sample size ( $N=2793$ ) was a convenient amount since 43 free parameters required a minimum of 860 cases (43, 44). The model was assumed to have a good fit considering the following cutoff values for fit indices: root mean square error of approximation (RMSEA) and standardized root mean square residual (SRMR)  $\leq 0.05$ , comparative fit index (CFI) and Tucker-Lewis index (TLI)  $\geq 0.90$ . (43-45).

**Figure 1:** Proposed attribution model to explain intentions to impose restrictions to people with an addiction



## Results

### *Intentions to impose restrictions to people with an addiction*

Almost half of the respondents (47.6%,  $N=1329$ ) agreed that someone with an addiction should be involuntary hospitalized for treatment and 65.7% ( $N=1832$ ) was of the opinion that these people should be excluded from taking public office. In total, 57.1% ( $N=1594$ ) of the respondents agreed to the statement that someone with an addiction should be forbidden to take care of children, and 62.2% ( $N=1734$ ) agreed that these people should not be permitted to have a drivers' license. Table 2 presents data of all the variables that were included in the model.

**Table 2:** Descriptives of intentions to impose restrictions, attribution beliefs, emotional responses and familiarity with addictions

<i>Imposing restrictions to people with an addiction</i>	<i>M(SD)<sup>a</sup></i>	<i>% disagree (N)</i>	<i>% nor agree nor disagree (N)</i>	<i>% agree (N)</i>
People with an addiction should be involuntary hospitalized to receive treatment.	3.46 (0.91)	13.1 (366)	39.3 (1097)	47.6 (1329)
People with an addiction should be excluded from taking public office, such as being an alderman or teacher.	3.74 (0.93)	9.7 (270)	24.7 (689)	65.7 (1832)
People with an addiction should be forbidden to take care of children.	3.68 (0.87)	6.7 (188)	36.2 (1009)	57.1 (1594)
People with an addiction should not be permitted to have a drivers' license.	3.74 (0.92)	8.5 (238)	29.3 (819)	62.2 (1734)
<i>Attribution beliefs</i>	<i>M(SD)<sup>a</sup></i>	<i>% disagree (N)</i>	<i>% nor agree nor disagree (N)</i>	<i>% agree (N)</i>
People with an addiction tend to be aggressive.	3.85 (0.69)	3.1 (86)	20.9 (585)	75.9 (2122)
Someone with an addiction is in control of this addiction.	2.60 (1.00)	54.3 (1516)	25.7 (718)	20.0 (559)
Someone with an addiction is responsible for this.	3.68 (0.82)	7.7 (215)	29.6 (828)	62.7 (1750)
<i>Emotional responses</i>	<i>M(SD)<sup>a</sup></i>	<i>% never or seldom (N)</i>	<i>% sometimes (N)</i>	<i>% often or always (N)</i>
I'm scared of someone with an addiction.	2.51 (0.83)	45.2 (1263)	47.7 (1332)	7.1 (198)
I'm angry with someone with an addiction.	2.48 (0.89)	48.4 (1352)	41.6 (1161)	10.0 (280)
I feel pity for someone with an addiction.	3.12 (0.97)	21.6 (603)	41.7 (1165)	36.7 (1025)
<i>Familiarity with addictions</i>	<i>% yes (N)</i>			
(Ex)-colleague(s) who have an addiction	14.1 (393)			
Working as a professional with people who have an addiction	6.1 (171)			
Acquaintance(s) who have an addiction	20.7 (577)			
Friend(s) who have an addiction	10.1 (281)			
Family member(s) who have an addiction	18.7 (523)			
Someone in household who has an addiction	1.6 (46)			
Having an addiction themselves or ever had an addiction	2.5 (71)			

<sup>a</sup>Scores ranged between 1 and 5.

**Table 3:** Correlations and covariances among all variables included in the path analysis (N=2193)

	1	2	3	4	5	6	7	8	9	10	11
1. Perceived aggression	<b>0.48</b>	-0.01	0.08	0.08	0.06	-0.01	0.02	0.10	0.10	0.13	0.13
2. Perceived controllability	-0.02	<b>1.01</b>	0.26	0.01	0.11	-0.15	-0.19	0.05	-0.01	0.04	0.02
3. Perceived responsibility	0.14**	0.31**	<b>0.67</b>	0.01	0.11	-0.17	-0.07	0.13	0.12	0.14	0.12
4. Feelings of fear	0.15**	0.02	0.02	<b>0.68</b>	0.23	0.12	-0.16	0.09	0.09	0.12	0.10
5. Feelings of anger	0.10**	0.12**	0.15**	0.31**	<b>0.80</b>	0.03	0.02	0.17	0.13	0.15	0.14
6. Feelings of pity	-0.02	-0.15**	-0.21**	0.15**	0.04	<b>0.93</b>	0.07	-0.04	-0.04	0.00	0.00
7. Familiarity	0.01	-0.09**	-0.04*	-0.09**	0.01	0.03	<b>4.81</b>	-0.19	-0.16	-0.11	-0.06
8. Involuntary hospitalized	0.17**	0.06**	0.18**	0.12**	0.21**	-0.04*	-0.10**	<b>0.82</b>	0.19	0.22	0.24
9. Excluded public office	0.15**	-0.01	0.16**	0.11**	0.15**	-0.04*	-0.08**	0.23**	<b>0.87</b>	0.34	0.36
10. Restriction childcare	0.22**	0.04*	0.19**	0.17**	0.19**	0.00	-0.06**	0.28**	0.42**	<b>0.76</b>	0.47
11. No drivers' license	0.21**	0.02	0.16**	0.13**	0.17**	0.00	-0.03	0.29**	0.42**	0.59**	<b>0.85</b>

Note Pearson correlation coefficients are below the diagonal, variances are on and covariances above the diagonal printed in bold.

\*  $p < 0.05$ .

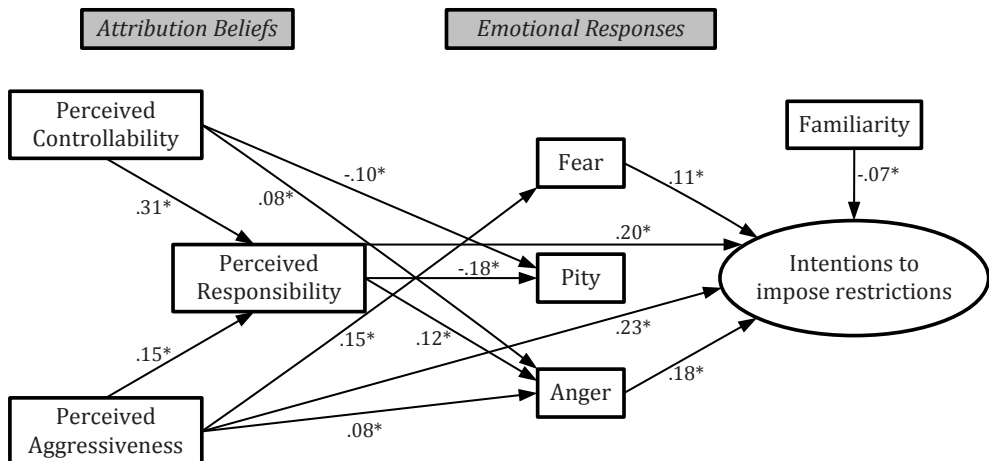
\*\*  $p < 0.01$ .

### Path analysis

Prior to the path-analysis the data were screened to investigate whether assumptions for path-analysis were satisfied. Table 3 shows the correlation-covariance matrix of all variables that were included in the path-analysis. Multicollinearity between variables was not present since correlations did not exceed 0.90. The assumption of normal distribution was satisfied since skewness of all variables was below 2 and kurtosis was below 7 (44, 46).

The results of the path analysis showed an inadequate fit of the data with the attribution model as described in figure 1. The  $\chi^2$ -test was significant, indicating that the proposed model is significantly different from the data. Nevertheless, the large sample size may have an influence on the  $\chi^2$ -test. The fit indices also indicate an inadequate model ( $\chi^2=606.87$ ,  $df=34$ ,  $p<0.00$ ,  $RMSEA=0.078$  [90% confidence interval 0.07–0.08],  $SRMR=0.060$ ,  $CFI=0.847$ ,  $TLI=0.703$ ). The model explained 14.3% (squared multiple correlation estimate=0.143) of the variance of the intentions to impose restrictions to people with an addiction. Modification indices suggested a direct path from perceived responsibility to intentions to impose restrictions. Furthermore, a correlation between the emotional responses, fear, anger and pity was suggested. These modifications are justified on theoretical grounds. Therefore, the model was adapted by adding a directional path from perceived responsibility to intentions to impose restrictions and including correlation between emotional responses.

**Figure 2:** Modified model with standardized regression coefficients of significant paths



Note  $N=2793$ ; Correlations: Fear ↔ Pity: 0.16; Pity ↔ Anger: 0.08; Fear ↔ Anger: 0.31.

\* Significant at level  $p<0.001$ .

### *Modified model*

The modified model demonstrated a better fit to the data:  $\chi^2=176.00$ ,  $df=30$ ,  $p<0.00$ , RMSEA=0.042 [90% confidence interval 0.04–0.05], SRMR=0.029 CFI=0.961, TLI=0.914). Fit indices of the modified model satisfy the requirements for an appropriate model fit, although the  $\chi^2$ -test was still significant. Moreover, the Akaike's information criterion value, which is a relative measure of goodness of fit in model selection, decreased 422.87 compared to the initial model. This proves a substantial modification of the model. The squared multiple correlations of intentions to impose restrictions increased in the modified model to 18.7%. Figure 2 shows the significant paths in the modified model.

High perceived controllability and high perceived aggressiveness positively influenced the perception that someone is responsible for an addiction. Both variables accounted for 12% of the variation of perceived responsibility. Perceived aggressiveness increased feelings of fear, and to a smaller extent feeling of anger. Perceived responsibility mediated the effect of perceived aggressiveness on feelings of anger. Furthermore, perception of aggressiveness had a direct positive effect on imposing restrictions to someone with an addiction, which was mediated by perceived responsibility and feelings of fear and anger. However, perceived controllability did not have a direct effect on people's intentions to impose restrictions. The perception that someone is in control of an addiction increased feelings of anger and diminished feelings of pity. In addition, these effects were mediated by perceived responsibility. The direct path that we added to the modified model appeared to be significant; perceived responsibility was positively associated with imposing restrictions and was mediated by feelings of anger. The emotional responses anger and fear increased intentions to impose restrictions. These emotional responses showed a moderate correlation with one another. Finally, familiarity with addictions showed a small but significant diminishing effect on intentions to impose restrictions to people with an addiction. We did not include direct paths for familiarity on the other variables; nevertheless the correlation coefficients as shown in table 3 indicate a small negative correlation between familiarity and the perception of controllability and feelings of fear (Pearson correlation coefficient =-0.09;  $p<0.01$ ).

### **Discussion**

The Dutch public showed high intentions to impose restrictions to people with an addiction which have an extensive impact on life opportunities. Corrigan's attribution model was applicable to explain people's intentions to restrict people with an

addiction. Nonetheless, the attribution model explained only partially the variance in intentions to impose restrictions. Perceived aggressiveness and feelings of anger emerged to be important predictors of people's intentions to impose restrictions to someone with an addiction. In addition, the level of considered responsibility for an addiction appeared to have a direct positive effect on imposing restrictions, even after controlling for emotional responses. Familiarity with addictions, although significant, did not have a large influence on people's intentions to impose restrictions.

Public opinions about substance abuse seem somewhat different from the opinions and attitudes towards mental illness in general. The stigma surrounding substance abuse may be more associated with concerns regarding safety of other people as a consequence of substance abuse, since perceived aggressiveness was an important predictor of intentions to impose restrictions in this study. Our findings are in part consistent with the findings of Corrigan et al. (18) who used a similar model to explain intentions to help, avoid or segregate people with mental illness in general. Both studies found that perceived controllability was a predictor of the perception of responsibility and feelings of anger. However, the perception whether a condition is controllable was in both studies not a predictor of people's discriminatory intentions. Conversely, in our study anger appeared to be a stronger predictor of intentions to impose restrictions compared to feelings of fear, while in the study of Corrigan et al. feelings of fear emerged as a stronger predictor of discriminatory intentions towards people with mental illness in general (18). An explanation could be that people are better able to imagine having an addiction compared to being mentally ill, since most people ever have experienced heavy drinking. Misunderstanding can increase feelings of anger why people are not capable to stop substance use. The obscurity or ignorance surrounding mental illness may cause more feelings of fear. Finally, our findings indicate a rather small effect for familiarity with addictions on intentions to impose restrictions. This is remarkable since previous studies found more promising results for the positive effect of familiarity on attitudes and intentions to discriminate (25-27). In the Netherlands, illicit drug use is relatively more accepted as a normal part of the society (47), and this might contribute to the diminished effect of familiarity.

The perception of personal responsibility in our study turned out to be a stronger predictor of intentions to structurally discriminate compared to Corrigan's findings among mental illness in general. Addiction may evoke higher levels of responsibility and blame due to people's incomprehension why someone is not able to stop substance use. Previous studies found high perceptions of responsibility and blame for an addiction which was associated with more negative attitudes and discriminatory intentions (6, 29, 48).

The concept of responsibility for an addiction is closely linked to endorsement of addiction as a disease (16, 29). Evidence shows inconsistent findings for the effect of endorsing the disease concept about addiction on stigmatizing attitudes (16, 49-51). Pescosolido et al. (52) found no reduction, or even an increase in stigma over time as a consequence of endorsing biomedical causes of depression, schizophrenia and alcohol dependence. Conversely, attribution of mental illness to psychosocial causes might lead to more tolerant attitudes (53). Evidence suggests that the belief of potential danger as a consequence of mental illness in general might be a more important cause of stigma and rejection than endorsing biomedical causes (51, 54, 55). It is unclear whether seeing addiction as a disease and biomedical beliefs about the cause of addiction are identical concepts (16). However, further investigation of the effect of endorsing the disease concept in addiction is recommended since this might influence discriminatory intentions and stigma attached to addiction.

The large and representative study sample strengthens the results of this study. Although older respondents were somewhat overrepresented in the study sample, this was not expected to have an impact on the findings. The Dutch population is considered to be comparable to other populations in Western societies and subsequently we expect that the findings of this study apply to a large extent to other Western societies. Path analysis was an appropriate method to assess the applicability of the model. The extension of the attribution model with intentions to impose restrictions towards people with an addiction, provides more insight into public attitudes and acceptance of structural discrimination. In the questionnaire we asked people in general about their attitudes towards people with an addiction. No additional information was provided such as in hypothetical vignettes about what sort of addiction or concerning the onset or circumstances of an addiction. This provides better insight into structural discrimination, since structural discrimination is characterized as discrimination against a whole group instead of on an individual basis. The responses to the proposed restrictions in the present study might be influenced by social norms regarding substance use in general. In the Netherlands, and many other societies, using substances and driving is socially unacceptable, as is the case for consuming large amounts of substances when taking care of children. Nevertheless, imposing restrictions to people with an addiction are a barrier to successful rehabilitation and participation within the society.

The results of this study need to be discussed considering some limitations. Due to the cross-sectional study design we cannot draw any conclusions about causality. Secondly, in the questions no distinction was made between alcohol- or



illicit drug addiction through which respondents could not differentiate in their answers between these addictions. Previous studies indicate that attitudes towards drug addiction are even more negative compared to alcoholism (3, 6, 48). Additionally, only intentions of people to restrict someone with an addiction were measured, no actual behaviour was verified. However, several difficulties may arise in observing actual discriminatory responses in a research setting and intentions are considered to be good predictors of actual behaviour (56).

### *Conclusions*

Findings of this study provide insight into the origin of people's negative attitudes and intentions to structurally restrict people with an alcohol or illicit drug addiction. The majority of people agreed with restrictive policies and regulations that have an extensive impact on the life opportunities of people who have an addiction. Although more evidence is needed in order to further extend or adapt Corrigan's attribution model, this model was partially applicable to explain public opinions on restricting people with an addiction. The expectations that people with an addiction might be aggressive and public's feelings of anger and fear were associated with higher intentions to impose restrictions. Additionally, the perception that someone is responsible for an addiction, resulted in more intentions to impose restrictions. Findings of this study enable destigmatizing initiatives to increase public tolerance towards addiction problems.

## References

1. Link B. G., Phelan J. C. (2006). Stigma and its public health implications. *Lancet*, 367(9509), 528-529.
2. Room R., Rehm J., Trotter R. T., Ii, Paglia A., Üstün T. B. (2001). *Cross-cultural views on stigma, valuation, parity and societal values towards disability*. In TB Üstün, S Chatterji, JE Bickenbach et al Eds, *Disability and culture: Universalism and diversity* (pp. 247-291). Seattle: WA: Hofgrebe & Huber.
3. Pescosolido B. A., Monahan J., Link B. G., Stueve A., Kikuzawa S. (1999). The public's view of the competence, dangerousness, and need for legal coercion of persons with mental health problems. *American Journal of Public Health*, 89(9), 1339-1345.
4. Van 'T Veer J. T., Kraan H. F., Drossaert C. H. C., Modde J. M. (2005). Destigmatisering door deconcentratie? Een Nederlands bevolkingsonderzoek naar het stigma van psychiatrische patiënten. *Tijdschrift voor Psychiatrie*, 47(10), 659-669.
5. Holma K., Koski-Jannes A., Raitasalo K., Blomqvist J., Pervova I., Cunningham J. A. (2011). Perceptions of addictions as societal problems in Canada, Sweden, Finland and St. Petersburg, Russia. *European Addiction Research*, 17(2), 106-112.
6. Crisp A. H., Gelder M. G., Rix S., Meltzer H. I., Rowlands O. J. (2000). Stigmatisation of people with mental illnesses. *British Journal of Psychiatry*, 177, 4-7.
7. Angermeyer M. C. (2003). The stigma of mental illness from the patient's view - An overview. *Psychiatrische Praxis*, 30(7), 358-366.
8. Rusch N., Angermeyer M. C., Corrigan P. W. (2005). The stigma of mental illness: Concepts, forms, and consequences. *Psychiatrische Praxis*, 32(5), 221-232.
9. Link B. G., Cullen F. T., Struening E. L., Shrout P. E. (2010). A modified labelling theory approach to mental disorders: An empirical assessment. *American Sociological Review*, 54, 400-423.
10. Link B. G., Struening E. L., Rahav M., Phelan J. C., Nuttbrock L. (1997). On stigma and its consequences: Evidence from a longitudinal study of men with dual diagnoses of mental illness and substance abuse. *Journal of Health and Social Behavior*, 38(2), 177-190.
11. Alonso J., Buron A., Rojas-Farreras S., De Graaf R., Haro J. M., De Girolamo G. et al. (2009). Perceived stigma among individuals with common mental disorders. *Journal of Affective Disorders*, 118(1-3), 180-186.
12. Cunningham J. A., Sobell L. C., Sobell M. B., Agrawal S., Toneatto T. (1993). Barriers to treatment: Why alcohol and drug abusers delay or never seek treatment. *Addictive Behaviors*, 18(3), 347-353.
13. Grant B. F. (1997). Barriers to alcoholism treatment: Reasons for not seeking treatment in a general population sample. *Journal of Studies on Alcohol*, 58(4), 365-371.
14. Corrigan P. W., Markowitz F. E., Watson A. C. (2004). Structural levels of mental illness stigma and discrimination. *Schizophrenia Bulletin*, 30(3), 481-491.

15. Link B. G., Phelan J. C. (2001). Conceptualizing stigma. *Annual Review of Sociology*, 27, 363-385.
16. Beck M., Dietrich S., Matschinger H., Angermeyer M. C. (2003). Alcoholism: low standing with the public? Attitudes towards spending financial resources on medical care and research on alcoholism. *Alcohol and Alcoholism*, 38(6), 602-605.
17. Corrigan P. W., Kerr A., Knudsen L. (2005). The stigma of mental illness: Explanatory models and methods for change. *Applied & Preventive Psychology*, 11(3), 179-190.
18. Corrigan P., Markowitz F. E., Watson A., Rowan D., Kubiak M. A. (2003). An attribution model of public discrimination towards persons with mental illness. *Journal of Health and Social Behavior*, 44(2), 162-179.
19. Corrigan P. W. (2000). Mental health stigma as social attribution: Implications for research methods and attitude change. *Clinical Psychology-Science and Practice*, 7(1), 48-67.
20. Weiner B., Perry R. P., Magnusson J. (1988). An Attributional Analysis of Reactions to Stigmas. *Journal of Personality and Social Psychology*, 55(5), 738-748.
21. Brickman P., Rabinowitz V. C., Karuza J., Coates D., Cohn E., Kidder L. (1982). Models of helping and coping. *American Psychologist*, 37, 368-384.
22. Angermeyer M. C., Holzinger A., Matschinger H. (2010). Emotional reactions to people with mental illness. *Epidemiologia e Psichiatria Sociale*, 19(1), 26-32.
23. Angermeyer M. C., Matschinger H. (1997). Social distance towards the mentally ill: Results of representative surveys in the Federal Republic of Germany. *Psychological Medicine*, 27(1), 131-141.
24. Angermeyer M. C., Matschinger H. (2003). Public beliefs about schizophrenia and depression: similarities and differences. *Social Psychiatry and Psychiatric Epidemiology*, 38(9), 526-534.
25. Corrigan P. W., Edwards A. B., Green A., Diwan S. L., Penn D. L. (2001). Prejudice, social distance, and familiarity with mental illness. *Schizophrenia Bulletin*, 27(2), 219-225.
26. Corrigan P. W., Green A., Lundin R., Kubiak M. A., Penn D. L. (2001). Familiarity with and social distance from people who have serious mental illness. *Psychiatric Services*, 52(7), 953-958.
27. Penn D. L., Guynan K., Daily T., Spaulding W. D., Garbin C. P., Sullivan M. (1994). Dispelling the stigma of schizophrenia - what sort of information is best. *Schizophrenia Bulletin*, 20(3), 567-578.
28. Boyd J. E., Katz E. P., Link B. G., Phelan J. C. (2010). The relationship of multiple aspects of stigma and personal contact with someone hospitalized for mental illness, in a nationally representative sample. *Social Psychiatry and Psychiatric Epidemiology*, 45(11), 1063-1070.
29. Schomerus G., Lucht M., Holzinger A., Matschinger H., Carta M. G., Angermeyer M. C. (2011). The stigma of alcohol dependence compared with other mental disorders: A review of population studies. *Alcohol and Alcoholism*, 46(2), 105-112.

30. Corrigan P. W., Lurie B. D., Goldman H. H., Slopen N., Medasani K., Phelan S. (2005). How adolescents perceive the stigma of mental illness and alcohol abuse. *Psychiatric Services*, 56(5), 544-550.
31. Corrigan P. W., River L. P., Lundin R. K., Penn D. L., Uphoff-Wasowski K., Campion J. et al. (2001). Three strategies for changing attributions about severe mental illness. *Schizophrenia Bulletin*, 27(2), 187-195.
32. Crawford J., Heather N. (1987). Public-Attitudes to the Disease Concept of Alcoholism. *International Journal of the Addictions*, 22(11), 1129-1138.
33. Lauber C., Nordt C., Sartorius N., Falcato L., Rossler W. (2000). Public acceptance of restrictions on mentally ill people. *Acta Psychiatrica Scandinavica Supplementum*(407), 26-32.
34. TNS UK for the National Mental Health Development Unit. Department of Health. (2010). *Attitudes to Mental Illness 2010 Research Report JN 207028*.
35. RIVM. (2013). *Volksgezondheid Toekomst Verkenning, Nationaal Kompas Volksgezondheid*. Bilthoven.
36. European Monitoring Centre for Drugs and Drug Addiction. (2012). Drug treatment overview for Netherlands. Retrieved February 20th 2013, from [www.emcdda.europa.eu/data/treatment-overviews/Netherlands](http://www.emcdda.europa.eu/data/treatment-overviews/Netherlands).
37. Trimbos Instituut. (2007). [Alcoholinfo.nl](http://www.alcoholinfo.nl). Retrieved April 24th, 2013, from [www.alcoholinfo.nl](http://www.alcoholinfo.nl).
38. Corrigan P. W., Rowan D., Green A., Lundin R., River P., Uphoff-Wasowski K. et al. (2002). Challenging two mental illness stigmas: Personal responsibility and dangerousness. *Schizophrenia Bulletin*, 28(2), 293-309.
39. Reizenzein R. (1986). A structural equation analysis of Weiner's attribution—effect model of helping behavior. *Journal of Personality and Social Psychology*(50), 1123-1133.
40. Holmes E. P., Corrigan P. W., Williams P., Canar J., Kubiak M. A. (1999). Changing attitudes about schizophrenia. *Schizophrenia Bulletin*, 25(3), 447-456.
41. Angermeyer M. C., Matschinger H., Corrigan P. W. (2004). Familiarity with mental illness and social distance from people with schizophrenia and major depression: testing a model using data from a representative population survey. *Schizophrenia Research*, 69(2-3), 175-182.
42. Arbuckle J. (2010). *Amos (version 19.0)*. Chicago: SPSS.
43. Kline R. B. (2011). *Principles and Practices of Structural Equation Modeling* (3rd ed.). New York, NY: The Guilford Press.
44. Schreiber J. B. (2008). Core reporting practices in structural equation modeling. *Research in Social & Administrative Pharmacy*, 4(2), 83-97.
45. Kenny D. (2012). Measuring model fit. Retrieved September 6th 2012, from [www.davidakenny.net/cm/fit.htm](http://www.davidakenny.net/cm/fit.htm).

46. Curran P. J., West S. G., Finch J. F. (1997). The robustness of test statistics to normality and specification error in confirmatory factor analysis. *Psychological Methods*, 1, 16-29.
47. Van Der Sar R., Ødegard E., Rise J., Brouwers E. P. M., Van De Goor L. A. M., Garretsen H. F. L. (2012). Acceptance of illicit drug use in the Netherlands and Norway: A cross-national survey. *Drugs-Education Prevention and Policy*, 19(5), 397-405.
48. Crisp A., Gelder M., Goddard E., Meltzer H. (2005). Stigmatization of people with mental illnesses: a follow-up study within the Changing Minds campaign of the Royal College of Psychiatrists. *World Psychiatry*, 4(2), 106-113.
49. Leshner A. I. (1997). Addiction is a brain disease, and it matters. *Science*, 278(5335), 45-47.
50. Williamson L. (2012). Destigmatizing alcohol dependence: the requirement for an ethical (not only medical) remedy. *American Journal of Public Health*, 102(5), e5-8.
51. Martin J. K., Pescosolido B. A., Tuch S. A. (2000). Of fear and loathing: The role of 'disturbing behavior,' labels, and causal attributions in shaping public attitudes toward people with mental illness. *Journal of Health and Social Behavior*, 41(2), 208-223.
52. Pescosolido B. A., Martin J. K., Long J. S., Medina T. R., Phelan J. C., Link B. G. (2010). "A Disease Like Any Other"? A Decade of Change in Public Reactions to Schizophrenia, Depression, and Alcohol Dependence. *American Journal of Psychiatry*, 167(11), 1321-1330.
53. Pattyn E., Verhaeghe M., Secru C., Bracke P. (2013). Medicalizing versus psychologizing mental illness: what are the implications for help seeking and stigma? A general population study. *Social Psychiatry and Psychiatric Epidemiology*.
54. Jorm A. F., Griffiths K. M. (2008). The public's stigmatizing attitudes towards people with mental disorders: how important are biomedical conceptualizations? *Acta Psychiatrica Scandinavica*, 118(4), 315-321.
55. Read J., Law A. (1999). The relationship of causal beliefs and contact with users of mental health services to attitudes to the 'mentally ill'. *International Journal of Social Psychiatry*, 45(3), 216-229.
56. Ajzen I., Fishbein M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall.



# Chapter 4

Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: Systematic review

Based on:

Van Boekel, L.C., Brouwers, E.P.M. , Van Weeghel, J., Garretsen, H.F.L. (2013). Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: Systematic review. *Drug and Alcohol Dependence*, 131(1-2), 23-35

## **Abstract**

### *Background*

Healthcare professionals are crucial in the identification and accessibility to treatment for people with a substance use disorder. Objective was to assess health professionals' attitudes towards patients with substance use disorders and examine the consequences of these attitudes on healthcare delivery for these patients in Western countries.

### *Methods*

Pubmed, PsycINFO and Embase were systematically searched for articles published between 2000 and 2011. Studies evaluating health professionals' attitudes towards patients with substance use disorders and consequences of negative attitudes were included. An inclusion criterion was that studies addressed alcohol or illicit drug abuse. Reviews, commentaries and letters were excluded, as were studies originating from non-Western countries.

### *Results*

The search process yielded 1562 citations. After selection and quality assessment 28 studies were included. Health professionals generally had a negative attitude towards patients with substance use disorders. They perceived violence, manipulation, and poor motivation as impeding factors in the healthcare delivery for this patient group. Health professionals also lacked adequate education, training and support structures in working with patients with substance use disorders. Negative attitudes of health professionals diminished patients' feelings of empowerment and subsequent treatment outcomes. Health professionals are less involved and have a more task-oriented approach in the delivery of healthcare. As a consequence, they make shorter visits to these patients, show less personal engagement and diminished empathy.

### *Conclusions*

This review indicates that negative attitudes of health professionals towards patients with substance use disorders are common and contribute to suboptimal health care for these patients. However, few studies have evaluated the consequences of health professionals' negative attitudes towards patients with substance use disorders.



## Introduction

Although alcohol use is socially accepted in Western societies, substance use is a major public health problem. In Europe, 11.8% of all deaths in the age group 15-64 years are attributed to alcohol-related causes (1) and worldwide 4% of the causes of death are attributable to alcohol and illicit drug use (2). Furthermore, alcohol and illicit drug use accounts for 5.4% of the global burden of disease (3). Substance use problems are also a risk factor for other societal problems, such as absenteeism at work, accidents, and loss of productivity (4, 5). Although treatment enhances the likelihood to recover (6), only 24.1% of people with lifetime alcohol dependence ever seek treatment (7). Additionally, only 14.7% of people with a substance dependence received professional help in the past year (8). Patients do not often disclose or admit having a substance use problem (9). Since the majority of patients with substance use problems seek treatment in the first place for other problems (such as headaches), health professionals play a crucial role in the identification of these problems and the accessibility to treatment (10, 11).

Stigmatizing attitudes of health professionals towards people with substance use problems may negatively affect healthcare delivery and could result in treatment avoidance or interruption during relapse (12-14). Previous studies demonstrate the negative effects of stigma experiences among people in treatment for substance use disorders on recovery and feelings of self-efficacy (15, 16). Negative attitudes of health professionals towards patients with an alcohol- or other drug addiction are known to lead to poor communication between professional and patient, diminished therapeutic alliance, and misattribution of physical illness symptoms to substance use problems, also referred to as diagnostic overshadowing (17, 18). As known from stigma research in general, factors that could mitigate stigmatizing attitudes, are attribution beliefs and knowledge of and experience with a stigmatized condition (19-22). These factors may influence health professionals' attitudes towards patients with substance use disorders. Thus, overall the attitudes of health professionals have the potential to influence the diagnosis, treatment, and rehabilitation of substance use disorders.

Attitudes of health professionals towards patients with substance use disorders have been investigated among different disciplines and settings (23-25). A literature review of nurse's attitudes towards substance misusing patients revealed greater acceptance of these patients although a minority of nurses still regard these patients as immoral and unlikely to recover (24). However, no overview of recent evidence and findings is available about studies investigating attitudes of different health

professionals towards patients with substance use disorders. Therefore, the primary aim of this systematic review is to assess health professionals' attitudes towards patients with substance use problems in Western countries. Secondary aims are to describe which factors cause negative attitudes of health professionals towards these patients, and examine the impact of these negative attitudes on healthcare delivery.

## **Methods**

### *Search strategy*

The databases of Pubmed, Psycinfo, and Embase were systematically searched for articles published in English or Dutch between January 2000 and November 2011. These three databases were selected to cover biomedical literature from Pubmed as well as psychological literature from Psycinfo. Embase was chosen to broaden the search results to European journals since Pubmed mainly includes American journals. The particular time span was chosen since the aim was to assess recent evidence and findings addressing attitudes of health professionals' towards patients with substance use problems. To formulate search terms the Population, Intervention, Comparison and Outcomes approach (PICO) (26) was used to create groups of medical subject headings or text words: (1) population: health personnel, (2) intervention/exposure: substance use disorders, (3) comparison: was not applicable for the aim of this review, and (4) outcomes: attitudes of health personnel, healthcare delivery, (social) stigma. Health personnel represented health professionals in general and specific professions such as nurses and general practitioners. The second group of search terms described substance use disorders. In this systematic review, only alcohol and illicit drug abuse were included. Therefore, the subject directory "NOT" was used to exclude studies on smoking and tobacco. The last group of search terms comprised outcomes such as attitudes, healthcare delivery, motivation and work satisfaction, prejudice, and stigma. The outcomes group was subdivided into three categories since attitudes, healthcare delivery, and stigma were of interest. The subject directories "OR" and "AND" were used to separate synonyms and link the different search term groups, respectively. Using the specific search terms involved in each database, search strategies were very similar for each database (Table 1). Table 2 shows the specific inclusion and exclusion criteria.

**Table 1:** Search strategy for the present review

1) Population: Health personnel
#1 Health personnel
#2 Medical staff
#3 Nursing staff
#4 Nurses
#5 Physicians
#6 General practitioners
<i>#7 Psychiatrists<sup>a</sup></i>
<i>#8 Health professionals</i>
<i>#9 Psychologists</i>
<i>#10 Social workers</i>
<b>#11 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10</b>
2) Exposure: Substance use disorders
#12 Substance-related disorders
#13 Alcoholism
#14 Drug users
#15 Smoke (NOT)
#16 Tobacco (NOT)
<b>#17 #12 OR #13 OR #14 NOT #15 NOT #16</b>
4) Outcomes: Attitudes of health personnel, healthcare delivery, stigma
#18 Attitude of health personnel
<b>#19 #17 AND #18</b>
#20 Delivery of health care
#21 Health priorities
#22 Process assessment health care
#23 Quality of health care
<b>#24 #20 OR #21 OR #22 OR #23</b>
#25 Social stigma
#26 Stereotyping
#27 Social distance
#28 Social perception
Combining search term groups:
<b>#29 #25 OR #26 OR #27 OR #28</b>
<b>#30 #11 AND #17 AND #24 AND #29</b>
<b>#31 #19 AND #24</b>
<b>#32 #19 AND #29</b>
<b>#33 #30 OR #31 OR #32</b>

*Note* This strategy is related to the PubMed search. Very similar versions were used to search PsycInfo and Embase but adapted for the specific search terms used in these databases.

<sup>a</sup> The search terms printed in italics are not Mesh-terms.

**Table 2:** Inclusion and exclusion criteria for the present review

Inclusion criteria
<ul style="list-style-type: none"> <li>▪ Studies focusing on attitudes of healthcare professionals towards patients with substance use disorders (alcohol or illicit drug abuse).</li> <li>▪ Studies focusing on stigma, perception or healthcare delivery as a consequence of these attitudes.</li> <li>▪ Subjects of the study are health professionals or a combination of health professionals and (medical) students.</li> </ul>
Exclusion criteria
<ul style="list-style-type: none"> <li>▪ Studies primarily focusing on health professionals' attitudes towards a specific subgroup of substance abusers; e.g. pregnant women, sexual minorities, ethnic minorities because of 'double stigma'.</li> <li>▪ Studies primarily focusing on attitudes of health professionals towards screening and identification of substance use problems.</li> <li>▪ Studies primarily focusing on attitudes of health professionals towards interventions to treat substance use problems, e.g. methadone maintenance treatment, needle and syringe provision, 12-step programs.</li> <li>▪ Studies focusing only on medical students.</li> <li>▪ Studies conducted in Asia, Africa, and South America since substance use in these continents is culturally, historically and socially different from Europe, North America and Australia.</li> </ul>

### *Study selection*

Figure 1 shows a flowchart of the selection process. In the first selection phase, titles of all articles were screened based on three inclusion criteria: (1) focus on alcohol and/or drug abuse, (2) health professionals were subject of the study and (3) attitudes, explanations for negative attitudes, healthcare delivery, or stigma were considered. Any article that fulfilled two of the inclusion criteria, or that the reviewer was uncertain about, proceeded to the next selection phase. The first selection was done by LvB and a random selection of 10% of all titles was screened by a second reviewer (EB) which resulted in 94% agreement between the two reviewers. The second selection phase comprised independent judgement of the abstracts by two reviewers and in the last selection phase the full texts were assessed, again by two independent reviewers (LvB and HG, EB or JvW). Any disagreements in the selection of articles were resolved by discussion to reach consensus between the reviewers, or by consulting a third reviewer. Studies originating from Asia, Africa or South America were excluded in the last selection phase since substance use in these countries is socially, historically and culturally different from Western countries and therefore not suitable for this review (27-29). Studies which primarily focussed on attitudes of health professionals in a very specific setting or explicit subgroup of patients with

substance problems were also excluded since the aim was to provide an overview of health professional's attitudes in general. Finally, study quality of the articles was assessed using the quality indicators of Buckley et al. (30) as shown in table 3.

#### *Data extraction*

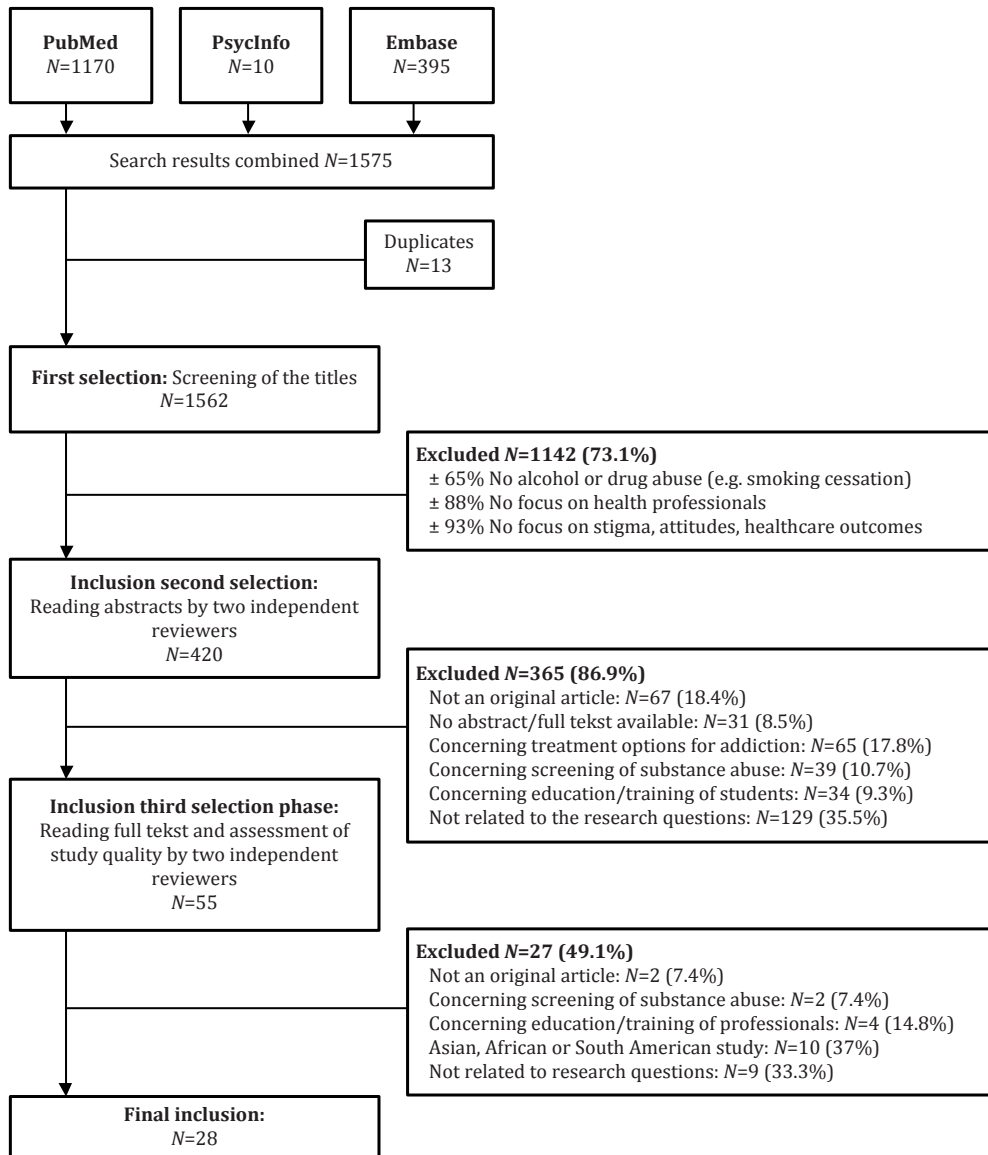
Data were extracted on the originating country and setting where the study was conducted, study population, sample size, study design, outcomes and measurements, and main results or conclusions (Tables 4 and 5). This was done by LvB and a second reviewer (HG, EB or JvW) verified the extracted data. Disparities were resolved by discussion and reviewing the original studies. For each study, results were extracted based on the following questions: 1) what attitudes and beliefs do different health professionals have about patients with substance use disorders? 2) what explanations are provided for negative attitudes of health professionals? 3) what are the consequences of these attitudes on healthcare delivery and quality of care for patients with substance use disorders? The results are reported in a thematic analysis because of the heterogeneity of the studies with regard to study population, design, and setting. The terms and definitions for patients or attitudes as used in the originating studies are used in this review.

**Table 3:** Quality indicators as developed by Buckley et al. 2009

- 
- Research question: is the research question(s) or hypothesis clearly stated?
  - Study subjects: is the subject group appropriate for the study being carried out.
  - Data collection methods: are the methods used reliable and valid for the research question and context?
  - Completeness of data: have subjects dropped out? Is the attrition less than 50%? Is the questionnaire response rate acceptable?
  - Control for confounding: have multiple factors or variables been removed or accounted for where possible?
  - Analysis of results: are the statistical or other methods of results analysis used appropriate?
  - Conclusion: is it clear that the data justify the conclusions drawn?
  - Reproducibility: could the study be repeated by other researchers?
  - Prospective: does the study look forwards in time rather than backwards
  - Ethical issues: were all relevant ethical issues addressed?
  - Triangulation: were results supported by data from more than one source?
- 

*Note* Studies were of acceptable quality when at least 7 indicators were met.

**Figure 1:** Flowchart of the literature selection process



## Results

### *Search results*

The search process yielded 1562 potentially relevant citations. After the first selection phase, 420 citations were included. Abstracts of these remaining citations were judged by two independent reviewers of which 55 citations proceeded to the next phase. In this phase, full texts of the remaining citations were examined leading to the final inclusion of 28 studies which met the inclusion criteria. Because all these studies fulfilled the quality criteria as defined by the quality indicators of Buckley et al. (30), equal weighting was assigned to each of these studies.

### *General findings*

Of the 28 studies, 12 were conducted in Australia, seven in the UK, five in the USA, one in Canada, and one in Ireland. Furthermore, one study was a cross-country comparison of eight European countries and one study compared health personnel's attitudes in the USA and the UK. Study populations varied between the 28 studies: seven studies compared a variety of different professionals. In addition, study populations included nurses ( $N=8$ ), professionals of addiction or mental healthcare institutions ( $N=7$ ), and physicians ( $N=4$ ). One study focussed on physicians as well as nurses. Five studies included patients as study population besides healthcare professionals. Twenty studies had a quantitative nature in which the Substance Abuse Attitude Scale (SAAS,  $N=5$ ) and the Alcohol and the Alcohol Problems Perception Questionnaire (AAPPQ,  $N=4$ ) were frequently used questionnaires. Five studies conducted interviews or focus groups, two studies included an implicit association tests, and in two studies observations were used. The qualitative studies generally focussed more on distal topics such as impeding factors in healthcare delivery to patients with substance use disorders, perceptions and motives of health professionals, and processes of empowerment and collaboration with patients.

**Table 4:** Characteristics and design of the studies

Study	Country	Study population	Sample size	Setting	Design
Alberget al. (2003)	UK	Non-specialized health care professionals (general nurses, social workers, community workers etc.)	N=189	Non specialized drug workers which attended training on drug related issues participated in the study.	Quantitative study evaluating the predictability of a model explaining therapeutic commitment by situational constraints, role security and role requirements (path analysis).
Brener et al. (2007) <sup>a</sup>	Australia	Health care workers (doctors and nurses)  IDU patients with hepatitis C virus (HCV)	N=60 health care workers and 2 of their clients  N=120 clients	Different treatment facilities around the Sydney metropolitan area: liver clinics, hospital drug health department, drug and alcohol treatment facilities and GPs which attract IDU patients.	Quantitative study combining explicit and implicit attitudes and considering attitudes of professionals as well as clients. Professionals' attitudes towards IDU and HCV patients. Patients' attitudes towards their professionals.
Brener et al. (2010a) <sup>a</sup>	Australia	Health care workers (doctors and nurses)	N=60 health care workers	Services that attract IDU patients around the Sydney metropolitan area such as needle and syringe programs, methadone clinics, drug user treatment facilities.	Quantitative study using attitudes of health professionals towards IDU patients to predict behaviours like feelings of worry and opinion whether IDU patients should disclose their hepatitis C status.



Study	Country	Study population	Sample size	Setting	Design
Brener et al. (2010b)	Australia	Drug using clients	Quantitative measures: N=92 clients. Qualitative interviews N=13	Residential rehabilitation facilities in Sydney.	Mixed methods, questionnaire for clients and qualitative interviews with clients as well as health care professionals.
		Health care workers of residential rehabilitation facilities	Qualitative interviews: N=8 health professionals		
Curtis and Harrison (2001)	Australia	Staff of different alcohol and other drug treatment facilities	N=57: N=9 nurses, N=7 psychologists, N=14 counsellors N=1 doctor N=26 consumers	Alcohol and other drug treatment facilities in a large regional city in New South Wales, Australia: inpatient detoxification unit, outpatient clinic, methadone maintenance clinic, residential detoxification and rehabilitation units	Qualitative study using in-depth interviews, participant observations and informal contact. Both clients' and health care professionals' perspective.
		Consumers of different alcohol and other drug treatment facilities			
Deans and Soar (2005)	Australia	Mental health professionals caring for clients with dual diagnosis	N=13 health professionals: N=10 nurses, N=1 social worker, N=1 psychiatrist, N=1 psychologist	Psychiatric service in Victoria, Australia. Health professionals who care for clients diagnosed with mental illness and a coexisting alcohol and other drug disorder (dual diagnosis).	Qualitative study using in-depth interviews with health professionals.
Ding et al. (2005)	USA	HIV-infected patients who are IDU	N=2864 HIV patients, only 17.1% was current IDU	Patients and physicians of a HIV Cost and Services Utilization Study. Patients were non-institutionalized and the physician they saw most recently or frequently was approached.	Quantitative study using a cross sectional survey. Both clients' and health care professionals' perspective.
		Primary HIV care physician of these patients	N=373 physicians of these patients (75% response rate)		

Study	Country	Study population	Sample size	Setting	Design
Ford et al. (2008) <sup>b</sup>	Australia	Nurses of a representative Australian sample	N=1605 nurses (50% response rate)	Representative sample of the Australian Capital Territory nurse population.	Quantitative study. Cross-sectional survey to investigate nurses' attitudes towards IDU patients and the impact of workplace drug and alcohol education on these attitudes.
Ford et al. (2009) <sup>b</sup>	Australia	Nurses of a representative Australian sample	N=1605 (50% response rate)	Representative sample of the Australian Capital Territory nurse population.	Quantitative study. Cross-sectional survey examining the association between workplace drug and alcohol education and nurses' therapeutic attitude and their intention to engage with IDU patients.
Ford (2011) <sup>b</sup>	Australia	Nurses of a representative Australian sample	N=311 nurses Part of a larger survey among N=1605 nurses	Representative sample of the Australian Capital Territory nurse population.	Study is part of a larger survey using quantitative measures. This paper presents interpretation of one open-ended question in this survey. Question focuses on interpersonal challenges in the nursing role for IDU patients.
Foster and Onyeukwu (2003)	UK	Forensic psychiatric nurses	N=63: ward managers, charge nurse, senior staff nurses, staff nurses and enrolled nurses. (53% response rate)	Forensic psychiatric nurses of an inpatient unit in outer London.	Quantitative study analysing forensic nurses' attitudes towards substance misusing forensic service users. Attitudes of forensic nurses were compared with other mental health professionals.

Study	Country	Study population	Sample size	Setting	Design
Gianetti et al. (2002)	Canada	Social work practitioners whose primary field of practice was not addictions	N=105	Social workers of a variety of settings: child welfare, health care gerontology, community mental health and criminal justice who graduated from University of Windsor (Canada).	Quantitative study among health professionals who did not primarily work with patients with an addiction.
Gilchrist et al. (2011)	Europe: GR, ES, BG, IT, SI, SK, PL and Scotland	Multidisciplinary sample of health professionals in 8 European countries: general nurses, psychiatrists, physicians, psychologists and social workers	N=866 health professionals: N=92 primary care, N=80 general psychiatry and N=81 specialist addiction services (73% response rate)	Health professionals of primary care, general psychiatry and specialist addiction services in 8 European countries.	Quantitative comparative study in which health professionals' regard towards different patient groups were compared.
Happell et al. (2002)	Australia	Registered Nurses	N=134 (44.3% response rate)	Health professionals of crisis and assessment treatment teams (CATT) in metropolitan Melbourne and in rural Victoria.	Quantitative study serving as a baseline measure of knowledge and attitudes of nurses to monitor effects of an educational program. Study only reports baseline measures.
Happell and Taylor (2001)	Australia	Nurses	N=106 (53% response rate)	Large private medical-surgical hospital with a specialized drug and alcohol unit in metropolitan Melbourne, Victoria, Australia.	Quantitative study investigating the impact of liaison service or advice by specialized nurses on attitudes and knowledge of general nurses about substance-abusing patients.

Study	Country	Study population	Sample size	Setting	Design
Howard and Holmshaw (2010)	UK	Mental health inpatient staff (multidisciplinary)	N=84; N=41 nurses, N=5 medical staff, N=5 occupational therapist, N=6 team leaders, N=16 health care assistants and N=11 other function (36% response rate)	Five mental health treatment wards and three residential mental health rehabilitation units.	Mixed methods with questionnaire survey and qualitative interviews. Aim was to explore perception and experiences of inpatient mental health staff in supporting inpatient service users experiencing both mental health problems and illicit substance use.
Kelleher and Cotter (2009)	Ireland	Doctors and nurses of the emergency department	N=66 doctors and nurses (46% response rate) N=44 staff nurse, N=14 clinical nurse manager, N=3 senior house officer, N=3 registrar, N=2 consultant	Emergency departments of three university teaching hospitals in Ireland.	Quantitative study investigating emergency department doctors and nurses' knowledge and attitudes regarding problematic substance use and substance users.
May et al. (2002)	USA	Practicing anaesthesiologists	N=512 (31% response rate)	Metropolitan medical college. Participants were active members of the American Society of Anaesthesiologists in Illinois and Wisconsin.	Quantitative survey to investigate attitudes on addiction and its treatment among anaesthesiologists.
McGillion et al. (2000)	UK	General practitioners (GPs)	N=112 (54% response rate)	GPs working in inner London area.	Quantitative study using questionnaires to examine attitudes and knowledge of GPs towards opiate misusers.

Study	Country	Study population	Sample size	Setting	Design
McLaughlin et al. (2006)	UK (Northern Ireland)	Health and social care professionals	N=35: N=9 nurses, N=14 GPs, N=3 health visitors, N=3 pharmacists, N=1 social worker, health promotion worker and health centre manager	Health or social care professionals that have experience with people that use illicit drugs were included. Purposive sampling was used: professionals that could contribute to the discussion from their specific background were included.	Qualitative study using interviews and focus groups. Participants were encouraged to raise other issues of pertinence to the research topic. A literature review was used to determine an interview schedule and questions.
Peckover et al. (2007)	UK	Qualified district nurses	N=18 (82% response rate)	Two different city based primary care trusts in Northern England with a culturally diverse and largely urban population marked by high levels of social disadvantage.	Qualitative study using semi-structured interviews. Examination of nurses' understanding and practices related to discrimination and inequality issues of drug misusers.
Pimikahana et al. (2002)	Australia	Mental health professionals	N=173: N=134 registered nurses, N=16 social workers, N=12 psychologists, N=3 psychiatrists and N=3 occupational therapists (46% response rate)	Professionals of crisis assessment and treatment teams in metropolitan Melbourne and in rural Victoria in Australia.	Quantitative study examining mental health professionals' knowledge and attitudes regarding drug and alcohol abuse and treating patients with these problems.

Study	Country	Study population	Sample size	Setting	Design
Rao et al. (2009)	UK	Health professionals	N=108: 58% qualified nurses, 13% health care assistants, 9% unknown profession (54% response rate)	Health professionals of 4 National Health Services in South East England. Two acute medical trusts and two mental health trusts.	Quantitative study to investigate differences in stigmatizing attitudes of health professionals towards forensic, schizophrenic and substance-abusing patients.
Russell et al. (2011)	USA and UK	Addiction treatment providers	N=591: N=372 UK and N=219 USA (response rate unknown due to opportunistic sampling)	Recruitment via associations, databases and subscribers of e-newsletters. All working in the addiction treatment.	Quantitative study comparing attribution beliefs of addiction treatment providers in de the USA and countries outside the USA.
Saitz et al. (2002)	USA	Residents and faculty physicians	N=144 primary care physicians: N=95 residents and N=49 faculty physicians (92% response rate)	Primary care internal medicine residents and faculty outpatient primary care practices of a residency program.	Quantitative survey assessing different experiences in caring for patients with depression, hypertension, alcohol, or drug problems.
Segal and Dittrich (2001)	USA	Patients who had visited psychiatric emergency services (PES) between 1985 and 1986	N=683 observations of patients who visited one of 9 PES (3.9% refusal rate)	Psychiatric emergency services in San Francisco Bay Area, Los Angeles or California Central Valley site.	Observations assessing all interactions, including telephone contacts, medical records and all information available to the clinician.
Strauser et al. (2009)	USA	Community-based rehabilitation service providers who were recruited during a 1-day workshop addressing psychiatric disabilities.	N=98: N=46 with bachelor's degree, N=52 master's degree (All participated)	Rehabilitation services in Midwestern USA states.	Quantitative study investigating differences in level of stigma between bachelors' and master degree rehabilitation service providers. Also work experience was taken into account.

Study	Country	Study population	Sample size	Setting	Design
Von Hippel et al. (2008)	Australia	Drug and alcohol nurses	N=44	Nurses of treatment facilities, needle and syringe exchange program and primary care facilities that care for IDU people in the Sydney metropolitan area.	Quantitative study using a questionnaire and implicit association test to test implicit attitudes towards people who use injecting drugs.

*Note* IDU=Injecting drug use; GPs=General practitioners; HIV=Human immunodeficiency virus; HCV=Hepatitis C Virus.  
<sup>a/b</sup> Same study sample.

### *Attitudes of health professionals*

Generally, health professionals were found to have a negative attitude towards patients with substance use problems. A European study compared health professionals' attitude towards different patient groups in different European countries. Health professionals' regard for working with substance users, especially drug users, was consistently lower compared with other patients groups, such as patients with depression or diabetes (35). Attitudes of health and social care professionals towards illicit drug users were strongly negative. In a qualitative study reporting about six focus groups among health and social care professionals, the majority of in total 35 professionals preferred the care for these patients to be provided solely by addiction specialists; it emerged that most of these professionals feel unable or unwilling to empathize with patients who use illicit drugs (36). Another study found that nurses were poorly motivated and reported low levels of satisfaction to care for patients who use illicit drugs (37). A vignette study among health professionals showed that professionals held more stigmatizing attitudes towards patients with an active substance use disorder compared to patients with other mental illnesses; the professionals in that study were more positive about patients who are recovering from an addictive disorder compared to patients in relapse, and patients that were abstaining and working also evoked more positive attitudes (38).

In contrast, some studies specifically found positive attitudes of health professionals towards patients with substance use problems. In one study mental health professionals generally had positive and non-discriminatory attitudes towards patients with substance use disorders. These professionals held positive views on treatment interventions, and the majority rejected moral stereotypes about these patients (39). Positive attitudes towards patients with substance use disorders were also found in a study among primary care physicians (40).

Several studies investigated whether attitudes of health professionals differed per discipline and function. According to a comparative study, physicians not working in specialized addiction services reported the lowest regard, whereas professionals working in addiction services reported higher regard towards patients with substance use disorders (35). One study revealed that forensic psychiatric nurses had more negative attitudes towards substance misusers compared to other mental health professionals (41). Another study showed that anaesthesiologists' attitudes about patients with substance use disorders were generally more negative compared to attitudes of physicians who regularly care for these patients (42).

Five studies found that health professionals, who had more personal or work experience or contact with substance abuse, reported more positive or different



attitudes (42-46). Two studies showed that health professionals, who were more frequently in contact with people who use injecting drugs, expressed more positive explicit attitudes towards these people (43, 44). Another study found that anaesthesiologists with a personal history of addiction reported more positive attitudes towards patients suffering with these problems (42).

#### *Explanations for negative attitudes*

Several explanations for the negative attitudes of health professionals towards patients with substance use disorders have been identified. According to a qualitative study, nurses described the care for patients who use illicit drugs as emotionally challenging and potentially unsafe. Barriers in the care provision to these patients were violence, manipulation, and irresponsibility (47). A study among general practitioners also showed that patients with drug abuse problems are often perceived as manipulative, aggressive, rude, and poorly motivated (48). One study found that health professionals were of the opinion that caring for patients with dual diagnosis was complex and stressful, and they experienced frustration, resentment, and powerlessness in the care for this specific patient group (49).

Causal attribution beliefs emerged to play a role in health personnel's attitudes towards patients with substance use disorders. Stigma research has consistently demonstrated that causal attribution beliefs, such as high perceived controllability over a disease, cause more intolerant judgements and attitudes towards a disease (19, 22, 50, 51). Regarding substance use disorders, perceptions of high controllability over injecting drug use contributed to the negative attitudes of healthcare workers towards people who use injecting drugs (52). One study established that rehabilitation service providers viewed persons with a cocaine addiction as more responsible for their condition compared to persons with psychosis, AIDS, or depression (53).

The influence of education and training on health professional's attitudes towards patients with substance use disorders was investigated in several studies. In general, health professionals have low levels of knowledge about substance use disorders, and have the feeling they lack specific knowledge and skills in caring for this particular patient group (36, 45, 48, 49). A few studies established positive effects of training and education on health professional's attitudes and perceived knowledge in working with patients with substance use disorders (42, 44, 54, 55). Mental health professionals also reported training as a helping factor in working with patients who use illicit drugs (54).

Contextual factors such as time, organizational policy, feelings of professionals to work legitimate with patients with substance use disorders, and role support by colleagues, were found to influence the level of therapeutic commitment of health professionals; in that particular study, therapeutic commitment comprised willingness to work with alcohol users, perceived expectations and self-esteem, and work satisfaction (56). One study emphasised the effect of the work environment in health professionals' feelings of empowerment to work collaboratively during the treatment of patients. This in turn influences health professionals' ability to empower patients (57). Mental health professionals identified availability and accessibility of support structures and clinical supervision as essential factors in working with patients with dual diagnosis (54). Studies of Ford et al. also highlighted the importance of organizational and role support in improving health professionals' attitudes (37, 47, 58). Education has a positive influence on health professionals' attitudes, however this was counterproductive when perceived role support of colleagues was low. Hence, organizational and role support are significant factors in health professionals' attitudes (37).

#### *Consequences of attitudes on healthcare delivery*

Only a few studies investigated whether negative attitudes of health professionals have consequences on the healthcare delivery to patients with substance use disorders. One study confirmed that patients who reported greater perceived discrimination by health professionals and dissatisfaction with the treatment, were less likely to complete their treatment (52). Another study demonstrated that patients judged their health professionals as more favourable if health professionals expressed more positive attitudes towards their patients (43). Alternatively, Ding et al. (44) found no association between negative attitudes of physicians and patients reporting having problems with care, dissatisfaction with the care they receive, or perceived access to care.

Negative attitudes of health professionals may have a negative impact on the empowerment of patients, and as a consequence, influence treatment outcomes and patients' self-esteem. According to one study, clinicians unwittingly impose their beliefs and prejudice on patients with substance use disorders, resulting in impeding collaboration between professional and patient (57). A qualitative study revealed that nurses encountered difficulties in the care offered to patients with substance use disorders in comparison with other patients. The provided care was suboptimal and had a more avoidant approach, which may result in diminished personal engagement and empathy in the health care delivery. For example, nurses indicated to make

shorter visits, visit patients with substance use disorders more often in pairs, and to have a more task-oriented approach (59).

**Table 5:** Research tools, outcomes, main results, and conclusion of the studies

Study	Research tools and outcomes	Main results and conclusion
Albery et al. (2003)	<ul style="list-style-type: none"> <li>• Drug and Drug Problems Perceptions Questionnaire (DDPPQ)</li> <li>• Drug Problems Occupationally Perceived Questionnaire (DPOPOQ)</li> </ul> <p>Scales were used to measure and predict therapeutic commitment (TC) as outcomes variable. Indicators of TC were willingness in role, satisfaction in role and task-specific self-esteem. Other measures were situational constraints, role security and basic role requirements.</p>	<p>Therapeutic commitment (TC) of professionals to work with drug and alcohol misusers can be predicted by self-esteem, situational constraints and role support. Contextual factors and role support (process outcomes) play an important role in the levels of TC of health care professionals.</p>
Brenner et al. (2007) <sup>a</sup>	<ul style="list-style-type: none"> <li>• Professionals: Attitudes to IDU and HCV scale, controllability of IDU scale to measure perceptions of controllability. Wilson Conservatism scale to assess conservatism attitudes of professionals. Implicit association test assessing automatic activation of implicit attitudes.</li> <li>• Clients: Implicit association test and a question to assess explicit attitudes towards health care professionals.</li> </ul>	<p>More contact with IDU or HCV clients had a positive effect on explicit attitudes of health care professionals about these clients. HCV clients who attended services with more HCV positive people reported more favourable attitudes towards their health care professional.</p>
Brenner et al. (2010a) <sup>a</sup>	<p>Negative attitudes towards IDU patients were considered by measuring conservatism, perceived controllability, worries and concerns about IDU patients' behaviour and beliefs of health care professionals that IDU patients should be encouraged to disclose their HCV status to health care professionals.</p>	<p>More conservative health care professionals expressed more negative attitudes towards IDU clients because their perception of controllability of IDU was higher. Negative attitudes resulted in more worries and concerns about clients' behaviour and stronger belief that they should be encouraged to disclose their HCV status.</p>

Study	Research tools and outcomes	Main results and conclusion
Brener et al. (2010b)	<p>Treatment completion and motivation were assessed using clients' perception of staff discrimination.</p> <ul style="list-style-type: none"> <li>• Quantitative measures clients: drug and treatment history, severity of drug use, perceptions of staff discrimination and treatment motivations.</li> <li>• Qualitative measurements professionals and clients: perceptions of staff discrimination, impact of discrimination on treatment, interpretation by staff of findings on perceived discrimination by clients.</li> </ul>	<p>Clients' perception of staff discrimination predicted treatment drop out. The expectation of clients about stigmatizing attitudes of the society also influenced their experiences of discrimination. Health professionals were open to diminish their discriminatory behaviour as experienced by clients.</p>
Curtis and Harrison (2001)	<p>Topics covered in the interviews were: dimensions of empowerment, the way in which empowerment and power are currently used in the clinical setting. Furthermore, collaboration in alcohol and other drug treatment facilities, treatment philosophy and structure, interactions between physician and clients, marginal position of institutions and clients in the health care system were subject of this study.</p>	<p>Clinicians may be unwittingly imposing their beliefs and prejudices on clients and consequently unconsciously disempower the people they intend to empower. Collaboration between clinician and clients was not present. The work environment is not conducive to collaborative practice. Health professionals feel disempowered and were therefore not able to empower their clients.</p>
Deans and Soar (2005)	<p>Investigating experiences of a group of health professionals involved in caring for clients with dual diagnoses. Concepts included in interviews were motives, difficulties in caring for these clients, actions and reactions, perceptions of health professionals and physical characteristics of the work environment.</p>	<p>In recent years psychiatric services are more recognizing and treating dual diagnosis clients. However, no additional education for professionals is offered. Health professionals identified negative experiences, feelings of inadequacy, and a lack of knowledge. This study highlights the need for supervision and education of clinicians treating dual diagnosis patients.</p>

Study	Research tools and outcomes	Main results and conclusion
Ding et al. (2005)	<ul style="list-style-type: none"> <li>Physician survey: knowledge of HIV treatment and management, risk factors, physician stress, attitudes towards HIV-infected and IDU patients.</li> <li>Patient survey: health care quality was assessed by perceived access to health care, problems with health care, unmet nonmedical needs and patient satisfaction with care.</li> </ul>	<p>23.2% of HIV and IDU patients had physicians with negative attitudes towards IDU patients. More prevalent care for IDU patients, having higher knowledge and treating fewer patients per week were related to more positive attitudes. Physicians' attitudes were not associated with problems with care, satisfaction with care of patients, unmet needs or perceived access to care according to the patient survey.</p>
Ford et al. (2008) <sup>b</sup>	<ul style="list-style-type: none"> <li>Alcohol and Alcohol Problems Perception Questionnaire (AAPPQ)</li> </ul> <p>Therapeutic attitude measured with this scale including: motivation, satisfaction, self-esteem, role adequacy and legitimacy. Second measure was the disapproval of drug use scale to measure nurses' attitudes to illicit drug use. Finally, role support, education and workplace factors were measured.</p>	<p>Nurses struggled with the care for patients who use illicit drugs. Motivation, satisfaction, role support and education were low among nurses. Role support was an important predictor of therapeutic attitude. To improve nurses' attitudes the focus should be more on organizational support. Education without role support was counterproductive.</p>
Ford et al. (2009) <sup>b</sup>	<ul style="list-style-type: none"> <li>Alcohol and Alcohol Problems Perception Questionnaire (AAPPQ)</li> </ul> <p>Therapeutic attitude measured with this scale including: motivation, satisfaction, self-esteem, role adequacy and legitimacy. Workplace drug and alcohol education and experience with these patients group were also measured.</p>	<p>Only an effect of education on nurses' therapeutic attitudes was found when nurses had at least a moderate level of role support. Nursing workforce development needs to focus on strategies that provide role support for nurses who work with patients who use illicit drugs.</p>
Ford (2011) <sup>b</sup>	<p>Qualitative measure to assess which factors impede ability to provide nursing care to patients who use illicit drugs. This paper focuses on the interpersonal challenges that were reported by nurses in one particular open question about impeding factors.</p>	<p>Three themes emerged from the analysis: violence, manipulation and irresponsibility were impeding factor in the care for illicit drug users. Nurses described the care environment as emotionally challenging and potentially unsafe. Workplace education, organizational role support and security are recommended in order to achieve a harm minimization paradigm.</p>

Study	Research tools and outcomes	Main results and conclusion
Foster and Onyeukwu (2003)	<ul style="list-style-type: none"> <li>Substance Abuse Attitude Survey (SAAS)</li> </ul> <p>This scale measures treatment intervention, treatment optimism, permissiveness, non-moralism, and non-stereotypes.</p>	<p>The forensic psychiatric nurses had suboptimal attitudes towards substance misusers. Only permissiveness was a moderate score. The attitudes of the nurses of this study were lower compared to other mental health professionals. Female workers had higher non-moralistic attitudes. Staff nurses had less stereotypical views compared to ward managers and charge nurses. Black nurses reported higher treatment optimism compared to non-black nurses.</p>
Giannetti et al. (2002)	<p>Measurements were social workers' personal experiences and feelings about addicted clients, attitudes and beliefs concerning aetiology and treatment of addictions and knowledge about addictions.</p>	<p>Attitudes of social workers were moderate with regard to alcoholism. The disease model of addiction was believed by social workers. Knowledge was low and satisfaction to work with alcohol abusing patients was generally high. Education and work experience were important factors in the attitudes of social workers towards alcohol abusing patients.</p>
Gilchrist et al. (2011)	<ul style="list-style-type: none"> <li>Medical Condition Regard Scale (MGRS)</li> </ul> <p>This scale reflects biases, emotions and expectations a medical condition generates among caregivers. Regard was measured for several conditions, namely working with drugs, alcohol, diabetes and depression.</p>	<p>Health professionals' regard was lowest for patients with drug- and alcohol problems. No differences for gender, age or professional group. Psychologists, social workers, and professionals in the addiction services showed the highest regard. Lowest regard was found among physicians who did not work in specialized addiction services.</p>
Happell et al. (2002)	<ul style="list-style-type: none"> <li>Substance Abuse Attitude Survey (SAAS)</li> </ul> <p>This scale measures knowledge, attitudes, beliefs, regular practices and skills of nurses regarding the care for patients with substance use problems.</p>	<p>Nurses had adequate levels of knowledge and problem solving abilities regarding treatment of substance abuse. However, training programs should be offered to nurses particularly in relation to assessment and management of clients with dual diagnosis.</p>

Study	Research tools and outcomes	Main results and conclusion
Happell and Taylor (2001)	<p>Measurements were attitudes, confidence and perceived knowledge of nurses in relation to the care for clients with drug- and alcohol related problems. Also the use of liaison services and advice by specialized nurses of the drug and alcohol unit was analysed.</p>	<p>Half of the nurses consulted a liaison service or specialized nurse. Attitudes of nurses were neutral and no differences between nurses who did and did not use the service were found. However perceived knowledge was higher among nurses that used the service.</p>
Howard and Holmshaw (2010)	<ul style="list-style-type: none"> <li>• The co-occurring mental health and illicit substance use perceptions questionnaire</li> <li>• Drug and Drug Problems Perception Questionnaire (DDPPQ)</li> </ul> <p>Concepts were perceptions of aspects of providing care to inpatient mental health service users who use illicit substances. Also staff experiences, multidisciplinary working practices and problematic issues were investigated.</p>	<p>Staff who received training held less negative attitudes towards illicit substance users regardless their work experience or work setting. Support structures, clinical supervision, and further training should be more easily available and accessible to support health professionals in working with clients with co-occurring problems.</p>
Kelleher and Cotter (2009)	<ul style="list-style-type: none"> <li>• Substance Abuse Attitude Survey (SAAS)</li> </ul> <p>This scale measured five attitude subgroups: treatment intervention, treatment optimism, permissiveness, non-moralism, and non-stereotypes.</p>	<p>Professionals have appropriate attitudes for constructive working with substance users which may positively influence the quality of health care provision. Satisfactory level of knowledge was found among professionals, although some deficits. Despite positive attitudes there were opportunities to improve specific knowledge and services of professionals of emergency departments. .</p>
May et al. (2002)	<ul style="list-style-type: none"> <li>• Version of the Substance Abuse Attitude Survey (SAAS)</li> </ul> <p>This scale measured five attitudes subgroups: treatment intervention, treatment optimism, permissiveness, non-moralism, and non-stereotypes.</p>	<p>Compared to other physicians, anaesthesiologists had less positive attitudes towards addiction. More positive attitudes if (personal) experiences, formal training in substance abuse management and attendance at a twelve step meeting. Experience and education contributed to more positive attitude about addiction.</p>



Study	Research tools and outcomes	Main results and conclusion
McGillion et al. (2000)	Measurements were demographic information, attitudinal scale, a course of action scale and factors that may influence GPs involvement with drug misusers.	GPs easily perceived these drug misusers as manipulative, rude, poorly motivated and aggressive. They felt responsible for the detection of drug problems; although they felt they had not enough knowledge about these issues.
McLaughlin et al. (2006)	Professional experience with illicit drug users, differences of illicit drug users and other patients, perceived responsibility to care for illicit drug users, training needs in relation to illicit drug users, perceived care and treatment by illicit drug users.	Many professionals held negative views towards people that use illicit drugs and had little knowledge or skills to assist users with their problems. Minority of professionals reported positive views and were willing to care for these patients. Professionals were of the opinion that the care for this group should be undertaken by specialized services.
Peckover et al. (2007)	Practice experiences of discrimination or inequality issues facing drug misusing clients were asked. Furthermore, the district nursing role in helping such clients in terms of delivering care and allocating resources and their views about the potential influence of organizational strategy in overcoming discrimination.	Substance-misusing clients were found to be subject of reductionist approach in their health care provision. Nurses were not prepared to work with this group and perceived these patients as risky. Consequences for healthcare delivery to drug misusers were short visits of nurses, nurses visiting in pairs and more difficult access to health care for these patients. There is a need for improve education and training of nurses.
Pimikahana et al. (2002)	<ul style="list-style-type: none"> <li>• Substance Abuse Attitude Survey (SAAS)</li> </ul> This scale was used measuring five attitudes subgroups: treatment intervention, treatment optimism, permissiveness, non-moralism, and non-stereotypes.	Mental health professionals generally had positive and non-discriminatory attitudes toward drug and substance abuse. Respondents held positive views on treatment interventions, and reported disagreement on statements about permissiveness of drug and alcohol issues.

Study	Research tools and outcomes	Main results and conclusion
Rao et al. (2009)	<ul style="list-style-type: none"> <li>• The Attitude to Mental Illness Questionnaire (AMIQ)</li> </ul> <p>This scale was used to assess health professional's attitudes towards patients (vignettes) with forensic, schizophrenia and substance use disorder. Also differences between acute dependencies and people that are abstaining and working were investigated.</p>	<p>Health professionals held more negative and stigmatizing views of substance abusers compared to patients with other mental illness. A history of detention was found to be even more stigmatizing. Respondents expressed more positive attitudes towards people who recovered from an addictive disorder compared to patients in relapse. People who were abstaining and working also evoked more positive attitudes.</p>
Russell et al. (2011)	<ul style="list-style-type: none"> <li>• The Addiction Beliefs Scale</li> </ul> <p>This scale was used to measure beliefs that addiction is a disease, beliefs about aetiology and need for treatment and addicted individual's capacity for self-control. Also health professionals' experience, own substance use and personality were considered.</p>	<p>North American health professionals believed more strongly in the disease model compared to health professionals in Great Britain. Respondents who believed the disease model were more likely to had personal experience with addiction, increased work experience and more often worked in the profit-sector.</p>
Saitz et al. (2002)	<p>Measurements were level of professional satisfaction, perceived responsibility, confidence in clinical skills, attitudes, and interpersonal experience.</p>	<p>Physicians were significantly less satisfied when caring for patients with alcohol and drug problems compared to other illnesses. Perceived responsibility for addressing substance abuse and confidence in their intervention skills were high. They also held positive attitudes, although they had the feeling not to be successful in treating substance-abusing patients.</p>
Segal and Dittrich (2001)	<ul style="list-style-type: none"> <li>• The Art of Care Scale</li> <li>• The Technical Quality of Care Index</li> <li>• The Optimum Investment of Time Index</li> <li>• Severity Index of Substance Use</li> </ul> <p>Scales were used to assess quality of care, severity of psychiatric presentation, complexity of patients' clinical needs and clinician's attempt to engage in collaborative interaction.</p>	<p>Substance use cases received better quality of care in psychiatric emergency services compared to other patients on all 4 study criteria. However, attitudes of health professionals were not always positive towards this patient group.</p>
	<p>Clinician's attitudes toward the patients were also observed.</p>	

Study	Research tools and outcomes	Main results and conclusion
Strauser et al. (2009)	<ul style="list-style-type: none"> <li>The psychiatric disability attribution questionnaire (PDAQ)</li> </ul> <p>This scale measured perceptions of six categories of illness: AIDS, cocaine addiction, mental retardation, psychosis, depression and cancer. Perceived stability and controllability was measured for each condition. Also work experience and educational level were taken into account.</p>	<p>Community-based rehabilitation practitioners with a masters' degree had more negative stigma for certain disability groups (cocaine addiction, psychosis) than did practitioners with a bachelors' degree. However the stigma level that respondents reported was below the criteria for negative stigma. Unlike education level, years of work experience was not of influence on the level of reported stigma.</p>
Von Hippel et al. (2008)	<p>Measurements were prejudice toward IDU patients, job satisfaction and job intentions of nurses to change their present job. Also work experience, stress level at work and experiences of negative behaviours were assessed. Finally, nurses completed an implicit association test to measure implicit attitudes.</p>	<p>Among drug and alcohol nurses, implicit prejudice was a significant mediator for the relation between job stress and intention to change job. Nurses who experienced higher job stress levels also reported a higher intention to change their present job. The results showed that implicit attitudes may influence behaviour.</p>

Note IDU=Injecting drug use; GPs=General practitioners; HIV=Human immunodeficiency virus; HCV=Hepatitis C Virus.

<sup>a/b</sup> Same study sample.

## **Discussion**

We present an overview of recent evidence regarding attitudes of health professionals towards patients with substance use disorders. Most evidence indicated that health professionals generally have lowered regard, less motivation and feelings of dissatisfaction when working with this patient group (35-38). This was sometimes explained by the perception of health professionals that these patients are potentially violent, manipulative, or poorly motivated which may cause feelings of frustration, resentment and powerlessness among the professionals (47-49). Health professionals who more frequently work with or who have more contact with patients with substance use disorders, expressed more positive attitudes (43, 44). This is in line with the contact hypothesis which states that people who have more contact or have more experience with a stigmatized condition are more tolerant and have more positive attitudes towards these people (20, 21, 61).

In addition, several studies underlined the need for and positive effects of training and education of health professionals, in order to extend the knowledge, skills and self-efficacy of professionals in working with patients with substance use disorders (42, 44, 54). Moreover, the work environment and contextual factors seem to influence health professionals' attitudes towards patients with substance use disorders. Organizational support, such as role support, supervision, and possibilities to consult an expert, contributes significantly to an increased willingness and satisfaction to work with these patients. Furthermore, organizational support enhances self-esteem, perceived knowledge and feelings of empowerment among health professionals (37, 56, 57).

Negative attitudes of health professionals may reduce collaboration between professionals and patients. This may have an effect on feelings of empowerment and self-esteem of these patients, and subsequently influences treatment outcomes (57). Indications were found that health professionals have a more avoidant approach in the delivery of healthcare to patients with substance use disorders compared to other patients. As a result, health professionals make shorter visits, show less empathy and have diminished personal engagement when caring for these patients. This can lead to suboptimal healthcare delivery due to a more task-oriented approach of health professionals when working with patients with substance use disorders (59).

### *Strengths and limitations*

This systematic review offers a broad overview of the current evidence on health professionals' attitudes towards patients with substance use disorders. In addition, it

provides explanations as to why some health professionals have a negative attitude towards these patients. We found few studies that examine the consequences of negative attitudes of health professionals on healthcare delivery. Nevertheless, to investigate these consequences in more depth, studies using observations and perceptions from the patients' perspective are needed. However, this was beyond the scope of the present literature review. The inclusion of quantitative as well as qualitative studies strengthens the findings of this review.

Although the literature was systematically searched, it is possible that relevant studies were not found or included. Articles for which no abstract and no full text was available were excluded from the search. Another limitation was the restriction of the search results to articles in English and Dutch. Finally, the quality and results of the primary studies might be affected by selection bias since only motivated healthcare professionals participated in the primary studies (62). In addition, self-reported data and social desirability in answering questions often limits the quality and strengths of the results of the primary studies.

### *Conclusion*

In conclusion, in most examined studies health professionals were found to express negative attitudes towards patients with substance use disorders. Since health professionals play a crucial role in the identification of substance use problems and act as gate keepers to treatment, negative attitudes of these professionals are undesirable. Inadequate training, education and support structures in working with this particular patient group may contribute to negative attitudes. The findings of this review emphasise the need for additional studies to investigate the effects and consequences of negative attitudes of health professionals towards patients with substance use disorders. This may underline the necessity for interventions to change health professionals' attitudes. Longitudinal study designs that combine information about health professionals' attitudes, patients' perceptions of the treatment, treatment outcomes and collaboration between professionals and patients are recommended.

The results suggest that more and specific education and training of health professionals may be needed to improve the attitude of health professionals towards patients with substance use disorders. Health services and education institutions should consider whether this can be incorporated in current education and training facilities of health professionals. Although these findings are not striking knowledge about potential barriers and best practices how to implement education and training facilities for health professionals would be valuable. Finally, this review highlights the positive effects of organizational support and counselling opportunities for health

professionals in working with this particular patient group. Supporting structures and contextual preconditions for health professionals working with patients with substance use disorders may therefore improve the quality of healthcare delivery for these patients.

## References

1. World Health Organization, Edited By: Anderson P., Møller L., Galea G. (2012). *Alcohol in the European Union. Consumption, harm and policy approaches*: WHO.
2. World Health Organization. (2009). *Global Health Risks: Mortality and Burden of Disease Attributable to Selected Major Risks*: WHO.
3. World Health Organization. (2010). *ATLAS on substance use: Resources for the Prevention and Treatment of Substance Use Disorders*: WHO.
4. World Health Organization. (2003). *Investing in Mental Health*. Geneva: WHO, Department of Mental Health and Substance Dependence, Noncommunicable Diseases and Mental Health.
5. World Health Organization. (2011). *Global Status Report on Alcohol and Health*. Geneva: WHO.
6. Dawson D. A., Grant B. F., Stinson F. S., Chou P. S. (2006). Estimating the effect of help-seeking on achieving recovery from alcohol dependence. *Addiction*, 101(6), 824-834.
7. Hasin D. S., Stinson F. S., Ogburn E., Grant B. F. (2007). Prevalence, correlates, disability, and comorbidity of DSM-IV alcohol abuse and dependence in the United States. Results from the national epidemiologic survey on alcohol and related conditions. *Archives of General Psychiatry*, 64(7), 830-842.
8. Grella C. E., Karno. M. P., Warda U. S., Moore A. A., Niv N. (2009). Perceptions of Need and Help Received for Substance Dependence in a National Probability Survey. *Psychiatric Services*, 60(8), 1068-1074.
9. Substance Abuse and Mental Health Services Administration. (2011). *Results from the 2010 National Survey on Drug Use and Health: Summary of National Findings*. Rockville, MD: NSDUH
10. Mersy D. J. (2003). Recognition of Alcohol and Substance Abuse. *American Family Physician*, 67(7), 1529-1532.
11. Muhrer J. C. (2010). Detecting and Dealing with Substance Abuse Disorders in Primary Care. *The Journal for Nurse Practitioners*, 6(8), 597-605.
12. Ball S. A., Carroll K. M., Canning-Ball M., Rounsaville B. J. (2006). Reasons for dropout from drug abuse treatment: Symptoms, personality, and motivation. *Addictive Behaviors*, 31(2), 320-330.
13. Eaton L. (2004). Numbers starting treatment for drug misuse increase by 20% over two years. *British Medical Journal*, 329, 1066(7474).
14. Neale J., Tompkins C., Sheard L. (2008). Barriers to accessing generic health and social care services: a qualitative study of injecting drug users. *Health and Social Care in the Community*, 16(2), 147-154.
15. Luoma J. B., Twohig M. P., Waltz T., Hayes S. C., Roget N., Padilla M. et al. (2007). An investigation of stigma in individuals receiving treatment for substance abuse. *Addictive Behaviors*, 32(7), 1331-1346.

16. Schomerus G., Corrigan P. W., Klauer T., Kuwert P., Freyberger H. J., Lucht M. (2011). Self-stigma in alcohol dependence: Consequences for drinking-refusal self-efficacy. *Drug and Alcohol Dependence*, 114(1), 12-17.
17. Thornicroft G., Rose D., Kassam A. (2007). Discrimination in health care against people with mental illness. *International Review of Psychiatry*, 19(2), 113-122.
18. Palmer R. S., Murphy M. K., Piselli A., Ball S. A. (2009). Substance user treatment dropout from client and clinician perspectives: a pilot study. *Substance Use and Misuse*, 44(7), 1021-1038.
19. Corrigan P., Markowitz F. E., Watson A., Rowan D., Kubiak M. A. (2003). An attribution model of public discrimination towards persons with mental illness. *Journal of Health and Social Behavior*, 44(2), 162-179.
20. Corrigan P. W., Green A., Lundin R., Kubiak M. A., Penn D. L. (2001). Familiarity with and social distance from people who have serious mental illness. *Psychiatric Services*, 52(7), 953-958.
21. Penn D. L., Guynan K., Daily T., Spaulding W. D., Garbin C. P., Sullivan M. (1994). Dispelling the stigma of schizophrenia - what sort of information is best. *Schizophrenia Bulletin*, 20(3), 567-578.
22. Weiner B., Perry R. P., Magnusson J. (1988). An Attributional Analysis of Reactions to Stigmas. *Journal of Personality and Social Psychology*, 55(5), 738-748.
23. Au G. (2006). *A review of attitude of medical professionals toward substance abuse*. Paper presented at the International Conference on Tackling Drug Abuse, Conference Proceedings, Narcotics Division.
24. Howard M. O., Chung S. S. M. S. W. (2000). Nurses' attitudes toward substance misusers. I. Surveys. *Substance Use and Misuse*, 35(3), 347-365.
25. Moodley-Kunnie T. (1988). Attitudes and Perceptions of Health Professionals Toward Substance Use Disorders and Substance-Dependent Individuals. *Substance Use and Misuse*, 23(5), 469-475.
26. Liberati A., Altman D. G., Tetzlaff J., Mulrow C., Gotzsche P. C., Ioannidis J. P. A. et al. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate healthcare interventions: explanation and elaboration. *British Medical Journal*, 339.
27. Gureje O., Mavreas V., Vazquez-Barquero J. L., Janca A. (1997). Problems related to alcohol use: a cross-cultural perspective. *Culture, Medicine and Psychiatry*, 21(2), 199-211.
28. Room R. (2006). Taking account of cultural and societal influences on substance use diagnoses and criteria. *Addiction*, 101 Suppl 1, 31-39.
29. Room R., Janca A., Bennett L. A., Schmidt L., Sartorius N. (1996). WHO cross-cultural applicability research on diagnosis and assessment of substance use disorders: an overview of methods and selected results. *Addiction*, 91(2), 199-220.
30. Buckley S., Coleman J., Davison I., Khan K. S., Zamora J., Malick S. et al. (2009). The educational effects of portfolios on undergraduate student learning: a Best Evidence



- Medical Education (BEME) systematic review BEME Guide No. 11. *Medical Teacher*, 31(4), 282-298.
31. Brener L., Von Hippel W., Von Hippel C., Resnick I., Treloar C. (2010b). Perceptions of discriminatory treatment by staff as predictors of drug treatment completion: utility of a mixed methods approach. *Drug and Alcohol Review*, 29(5), 491-497.
  32. Happell B., Carta B., Pinikahana J. (2002). Nurses' knowledge, attitudes and beliefs regarding substance use: a questionnaire survey. *Nursing and Health Sciences*, 4(4), 193-200.
  33. Kelleher S., Cotter P. (2009). A descriptive study on emergency department doctors' and nurses' knowledge and attitudes concerning substance use and substance users. *International Emergency Nursing*, 17(1), 3-14.
  34. Von Hippel W., Brener L., Von Hippel C. (2008). Implicit prejudice toward injecting drug users predicts intentions to change jobs among drug and alcohol nurses. *Psychological Science*, 19(1), 7-11.
  35. Gilchrist G., Moskalewicz J., Slezakova S., Okruhlica L., Torrens M., Vajd R. et al. (2011). Staff regard towards working with substance users: A European multi-centre study. *Addiction*, 106(6), 1114-1125.
  36. Mc Laughlin D., Mc Kenna H., Leslie J., Moore K., Robinson J. (2006). Illicit drug users in Northern Ireland: perceptions and experiences of health and social care professionals. *Journal of Psychiatric and Mental Health Nursing*, 13(6), 682-686.
  37. Ford R., Bammer G., Becker N. (2008). The determinants of nurses' therapeutic attitude to patients who use illicit drugs and implications for workforce development. *Journal of Clinical Nursing*, 17(18), 2452-2462.
  38. Rao H., Mahadevappa H., Pillay P., Sessay M., Abraham A., Luty J. (2009). A study of stigmatized attitudes towards people with mental health problems among health professionals. *Journal of Psychiatric and Mental Health Nursing*, 16(3), 279-284.
  39. Pinikahana J., Happell B., Carta B. (2002). Mental health professionals' attitudes to drugs and substance abuse. *Nursing and Health Sciences*, 4(3), 57-62.
  40. Saitz R., Friedmann P. D., Sullivan L. M., Winter M. R., Lloyd-Travaglini C., Moskowitz M. A. et al. (2002). Professional satisfaction experienced when caring for substance-abusing patients. Faculty and resident physician perspectives. *Journal of General Internal Medicine*, 17(5), 373-376.
  41. Foster J. H., Onyeukwu C. (2003). The attitudes of forensic nurses to substance using service users. *Journal of Psychiatric and Mental Health Nursing*, 10(5), 578-584.
  42. May J. A., Warltier D. C., Pagel P. S. (2002). Attitudes of anesthesiologists about addiction and its treatment: a survey of Illinois and Wisconsin members of the American Society of Anesthesiologists. *Journal of Clinical Anesthesia*, 14(4), 284-289.
  43. Brener L., Von Hippel W., Kippax S. (2007). Prejudice among health care workers toward injecting drug users with hepatitis C: does greater contact lead to less prejudice? *International Journal of Drug Policy*, 18(5), 381-387.

44. Ding L., Landon B. E., Wilson I. B., Wong M. D., Shapiro M. F., Cleary P. D. (2005). Predictors and consequences of negative physician attitudes toward HIV-infected injection drug users. *Archives of Internal Medicine*, 165(6), 618-623.
45. Giannetti V. J., Sieppert J. D., Holosko M. J. (2002). Attitudes and knowledge concerning alcohol abuse: curriculum implications. *Journal of Health and Social Policy*, 15(1), 45-58.
46. Russell C., Davies J. B., Hunter S. C. (2011). Predictors of addiction treatment providers' beliefs in the disease and choice models of addiction. *Journal of Substance Abuse Treatment*, 40(2), 150-164.
47. Ford R. (2011). Interpersonal challenges as a constraint on care: The experience of nurses' care of patients who use illicit drugs. *Contemporary Nurse*, 37(2), 241-252.
48. Mc Gillion J., Wanigaratne S., Feinmann C., Godden T., Byrne A. (2000). GPs' attitudes towards the treatment of drug misusers. *British Journal of General Practice*, 50(454), 385-386.
49. Deans C., Soar R. (2005). Caring for clients with dual diagnosis in rural communities in Australia: The experience of mental health professionals. *Journal of Psychiatric and Mental Health Nursing*, 12(3), 268-274.
50. Brickman P., Rabinowitz V. C., Karuza J., Coates D., Cohn E., Kidder L. (1982). Models of helping and coping. *American Psychologist*, 37, 368-384.
51. Corrigan P. W. (2000). Mental health stigma as social attribution: Implications for research methods and attitude change. *Clinical Psychology-Science and Practice*, 7(1), 48-67.
52. Brener L., Von Hippel W., Kippax S., Preacher K. J. (2010a). The role of physician and nurse attitudes in the health care of injecting drug users. *Substance Use and Misuse*, 45(7-8), 1007-1018.
53. Strauser D. R., Ciftci A., O'sullivan D. (2009). Using attribution theory to examine community rehabilitation provider stigma. *International Journal of Rehabilitation Research*, 32 (1), 41-47.
54. Howard V., Holmshaw J. (2010). Inpatient staff perceptions in providing care to individuals with co-occurring mental health problems and illicit substance use. *Journal of Psychiatric and Mental Health Nursing*, 17(10), 862-872.
55. Happell B., Taylor C. (2001). Negative attitudes towards clients with drug and alcohol related problems: finding the elusive solution. *Australian and New Zealand Journal of Mental Health Nursing*, 10(2), 87-96.
56. Albery I. P., Heuston J., Ward J., Groves P., Durand M. A., Gossop M. et al. (2003). Measuring therapeutic attitude among drug workers. *Addictive Behaviors*, 28(5), 995-1005.
57. Curtis J., Harrison L. (2001). Beneath the surface: collaboration in alcohol and other drug treatment. An analysis using Foucault's three modes of objectification. *Journal of Advanced Nursing*, 34(6), 737-744.

58. Ford R., Bammer G., Becker N. (2009). Improving nurses' therapeutic attitude to patients who use illicit drugs: workplace drug and alcohol education is not enough. *International Journal of Nursing Practice*, 15(2), 112-118.
59. Peckover S., Chidlaw R. G. (2007). Too frightened to care? Accounts by district nurses working with clients who misuse substances. *Health and Social Care in the Community*, 15(3), 238-245.
60. Segal S. P., Dittrich E. A. (2001). Quality of care for psychiatric emergency service patients presenting with substance use problems. *American Journal of Orthopsychiatry*, 71(1), 72-78.
61. Corrigan P. W., Edwards A. B., Green A., Diwan S. L., Penn D. L. (2001). Prejudice, social distance, and familiarity with mental illness. *Schizophrenia Bulletin*, 27(2), 219-225.
62. Cuddeback G., Wilson E., Orme J. G., Combs-Orme T. (2004). Detecting and statistically correcting sample selection bias. *Journal of Social Service Research*, 30(3), 19-33.



# Chapter 5

Healthcare professionals' regard toward working with patients with substance use disorders: Comparison of primary care, general psychiatry and specialist addiction services

Based on:

Van Boekel, L.C., Brouwers, E.P.M., Van Weeghel, J., Garretsen, H.F.L. (2014).  
Healthcare professionals' regard towards working with substance use disorders: Comparison of primary care, general psychiatry and specialized addiction services.  
*Drug and Alcohol Dependence*, 134, 92-98.

## **Abstract**

### *Background*

Healthcare professionals are crucial in access to treatment for patients with substance use disorders. However, healthcare professionals often have negative attitudes towards this patient group. Healthcare professionals' regard for working with patients with substance use disorders was examined and three sectors in which professionals are working were compared.

### *Methods*

General practitioners (GPs;  $N=180$ ), healthcare professionals of general psychiatry ( $N=89$ ) and specialists in addiction services ( $N=78$ ) filled out a questionnaire in which regard for working with patients with substance use disorders was assessed. ANOVAs were used to compare the sectors and multiple linear regression analysis tested the association of regard with attribution beliefs, emotional reactions and other characteristics of healthcare professionals.

### *Results*

Regard for working with patients with substance use disorders was different between the three sectors (GPs  $M=42.00$ ; general psychiatry  $M=48.18$ ; addiction specialists  $M=55.41$ ;  $p=0.00$ ,  $\omega^2=0.40$ ). Attribution of personal responsibility and feeling of anger and fear were associated with lower regard scores. More familiarity with substance use problems, higher frequency of working with this patients group and more confidence in substance abuse treatment were positively associated with regard. Social desirability bias was present and was positively related to healthcare professionals' regard.

### *Conclusions*

Health care professionals of specialist addiction services showed higher regard for working with patients with substance use disorders compared to professionals of general psychiatry services and GPs. Improvement of education and shared care models in which healthcare professionals are supported by professionals specializing in addiction might address low regard.

## Introduction

Healthcare professionals often have negative attitudes towards patients with substance use disorders and perceive treatment of these patients as challenging, stressful and difficult (1-3). Gilchrist et al. (4) investigated healthcare professionals attitude and respect for working with patients with different medical diagnoses. It was found that healthcare professionals of eight different European countries had considerably lower regard for working with patients with substance use disorders compared to working with patients suffering from diabetes or depression. Furthermore, primary care professionals had lower regard towards working with this patient group compared to professionals of general psychiatry and specialist addiction services. Regard has been defined as biases, emotions, and expectations that a medical condition generates among professionals. Christison et al. (5) have developed a non-condition specific scale measuring regard of healthcare professionals toward any diagnostic condition and the consequences this can have on clinical behaviours. For instance, healthcare professionals were asked to what degree they find patients enjoyable, treatable, and worthy of medical resources (5).

Low regard of healthcare professionals for working with patients with substance use problems is undesirable and may delay treatment-seeking and diminish treatment effectiveness. In several countries, including the Netherlands, primary care professionals play a crucial role in the detection of and access to treatment for substance use problems, since they are gatekeepers to specialized treatment (6, 7). Only a small proportion of people with substance use problems seek treatment. For instance, in the United States only a quarter of people with lifetime alcohol dependence sought treatment (8, 9), and in the Netherlands less than one third of people with substance use problems sought treatment (10). One of the explanations for why people do not seek treatment may be denial and concealment of substance use problems and lack of confidence that treatment is effective (11). Additionally, anticipated stigmatization or fear of negative responses is a major reason why people do not seek professional help for mental health problems in general (12, 13). Moreover, negative attitudes of healthcare professionals may increase the chance of dropout or relapse during treatment (14, 15).

Evidence suggests that several factors may contribute to low regard among healthcare professionals for working with patients with substance use disorders. A first group of factors are personal characteristics of healthcare professionals. Professionals with fewer years of work experience showed more positive attitudes towards these patients compared to more experienced professionals (4, 16). More

familiarity with substance use problems has been found to be associated with more positive attitudes among healthcare professionals (17, 18). Personal drinking habits of healthcare professionals also appeared to be related to attitudes towards patients with substance use disorders (19). Population studies investigating public opinions towards people with substance use disorders have indicated a second group of factors that also could elucidate low regard of healthcare professionals. Attribution of personal responsibility for substance use problems and attributing these problems to personal weakness, contributed to negative attitudes in different populations (20, 21). Additionally, perceiving substance use problems as under personal control was associated with more negative opinions (22, 23). Healthcare professionals' confidence in success of treatment of substance use disorders is also expected to influence their attitude. Previous studies indicated that endorsement of substance use disorders as a disease generally elucidates more positive attitudes (24, 25). Finally, studies investigating stigma attached to mental illness in general have indicated that emotional reactions which patients evoke also play a role in attitudes and judgements of the public. Three different emotional reactions towards mental illness were distinguished: feelings of fear, anger and pity (26-28). All the aforementioned factors may contribute to low regard of healthcare professionals for working with patients with substance use disorders.

In the current study healthcare professionals' regard for working with patients with substance use disorders will be investigated by comparing three different sectors: primary care, general psychiatry and specialist addiction services. In the Netherlands, these three sectors are essential in healthcare delivery to patients with substance use disorders. The services vary in healthcare delivery from detection of substance abuse to treatment and rehabilitation. Sector is expected to be of influence on healthcare professionals' regard since it is linked to the amount of training to treat patients with substance use problems. Notably, professionals of specialist addiction services have explicitly chosen to work with this patient group. The frequency of working with patients with substance use disorders and affinity to work with these patients is expected to be different between the three sectors. We elaborate on the study of Gilchrist et al. (4) in which healthcare professionals' regard was compared in similar sectors. However, in our study we will investigate the association of healthcare professionals regard with attribution beliefs, emotional reactions and characteristics of the healthcare professionals. The objective of the present study is threefold: 1) to examine Dutch healthcare professionals' regard for working with patients with substance use disorders, 2) to compare regard, attribution beliefs and emotional reactions of professionals working in three different sectors



namely primary care, general psychiatry and specialist addiction services, and 3) to assess whether professionals' regard for working with patients with substance use disorders was associated with healthcare professionals' characteristics, attribution beliefs and emotional reactions.

## **Methods**

### *Sample and Recruitment*

The data were gathered in the spring of 2012 using questionnaires which were distributed to healthcare professionals of the three sectors. A random sample of 800 general practitioners (GPs) was drawn from a database of the Netherlands institute for health services research (NIVEL). GPs received a personal letter with an invitation to fill out a web questionnaire. Two reminders were sent to increase the response rate and the second reminder comprised a paper questionnaire with a prepaid envelope. We expected that GPs who did not respond to this reminder were unwilling to participate and therefore we were of the opinion that it was not worth sending a third reminder. In addition to the GPs, healthcare professionals of two general psychiatry and two specialist addiction services were recruited for the present study. The four organizations were asked to select at random a minimum of 50 healthcare professionals of different divisions. Three of the organizations randomly selected different teams or divisions and within these teams healthcare professionals were randomly approached to participate. One organization selected at random healthcare professionals of the entire organization. The organizations provided e-mail addresses of the healthcare professionals and an invitation to fill out the web questionnaire was sent to 224 healthcare professionals (general psychiatry  $N=100$ ; specialist addiction  $N=124$ ). Three personal reminders were sent by e-mail to increase the response rate.

### *Measures*

The questionnaires were the same for all healthcare professionals of the three sectors. However, urbanity of place of registered practice was only assessed among GPs and healthcare professionals of general psychiatry and addiction specialists were asked about their current function. Healthcare professionals' age, gender, work experience in their current profession and frequency of working with patients with substance use problems (1=never to 5=daily) were also verified. Throughout the questionnaire all questions referred to 'patients with an addiction' which at the start of the questionnaire was clearly explained as 'patients who have alcohol or illicit drug use problems'.

The primary outcome was the score on the Medical Condition Regard Scale (MCRS) which represents healthcare professionals' regard towards working with patients with substance use problems. The 11-item MCRS has previously been used in a multi-country study in 8 European countries to compare regard of healthcare professionals towards different medical conditions, including patients with substance use problems (4). The MCRS is proven to be reliable (coefficient alpha=0.87, test-retest reliability=0.84) and to be a valid instrument to assess regard for different medical conditions (5). Table 2 shows the separate items of the MCRS scale. All items were measured on a 6-point scale (1=strongly disagree to 6=strongly agree). We translated the MCRS into Dutch using the forward-backward method (29). Sum scores were calculated and for cases with (1 or 2) missing items, missing values were substituted by the mean score of the completed items. The range of possible scores on the MCRS was from 11 (lowest regard) to 66 (highest regard).

Attribution beliefs of healthcare professionals were assessed using comparable questions of the Attribution Questionnaire (30, 31) and the Attitudes and Beliefs about Alcoholism and Alcoholics Questionnaire (32). Perceived controllability and perceived responsibility were measured by two statements: 'someone with an addiction is in control of this addiction' and 'someone with an addiction is responsible for this'. In addition, respondents were asked to which degree they agreed that addiction could be treated successfully, whether addiction is a disease and whether addiction is a consequence of a weak personality. All these attribution belief items were measured using a 5-point scale (1=totally disagree to 5=totally agree). To investigate the emotional reactions that people with substance use disorders evoke, levels of fear, anger and pity were assessed. Respondents indicated to which degree they feel fear, anger or pity for someone with an addiction (1=never to 5=always).

Personal drinking habits of healthcare professionals were assessed by the following question: 'During the past 12 months, how many times did you drink alcoholic beverages?' (1=no alcohol consumption within the past 12 months and 7=almost every day). Since many questions inquired about regard and attitudes of healthcare professionals, socially desirable answers might be expected. The tendency to answer in a socially desirable way was assessed by means of a 10-item social desirability scale (33). An overall score was calculated in which high scores indicated a strong tendency to respond in a socially desirable way (range 0-10). To assess healthcare professionals' familiarity and contact with substance use problems, the Level of Contact Report was used (34). This scale consisted of seven items and verified whether respondents knew someone with an addiction in different levels of intimacy: in their circle of acquaintances or someone in their family. In the analyses a rank score

of the most intimate situation was used (range 0-7), in which a high score represented extensive or intimate familiarity with someone with an addiction.

### *Setting*

Specialized addiction care in the Netherlands is provided by non-governmental institutions, psychiatric hospitals and private clinics. Healthcare for substance use disorders is often multidisciplinary and combines somatic as well as mental healthcare (35). Treatment differs from psychological and behavioural interventions, to home-based treatment therapies and substitution treatment (36). In 2012, the majority (76%) of patients in the Netherlands was treated in outpatient ambulatory care (37). Approximately 40% of people with substance use problems in the Netherlands were referred to specialized addiction facilities by primary care and 13% entered specialized treatment by referral of general psychiatry services (37). This underlines the crucial role of primary care professionals in detecting substance use problems. Recently, a policy shift is taking place where patients with mild substance use problems are treated by primary care professionals assisted by professionals specialising in addiction problems (38).

### *Analyses*

SPSS version 19.0 was used to perform the analyses. Non-response in studies using questionnaires among GPs emerged to be rather high and it is recommended to check the representativeness of the sample (39, 40). We conducted non-response analyses to assess whether age, gender and urbanity of place of registered practice were significantly different for responding GPs and the total sample of GPs. Non-parametric chi-square tests were used since only overall frequency distributions of the total sample were available.

Next, Cronbach's alpha was calculated between the 11 items of the MCRS scale to examine internal consistency, which was considered as acceptable when  $\alpha > 0.8$ . Analyses of variances (ANOVAs) were used to investigate whether the MCRS scores were significantly different between the three sectors. Additionally, ANOVAs were carried out to investigate differences between the sectors in attribution beliefs, emotional reactions and professionals' characteristics. Post hoc Bonferroni tests were conducted to compare sectors in pairs and to correct for type I errors. Welch *F* and Games-Howell post hoc tests were conducted when the assumption of homogeneity of variance was violated. Omega<sup>2</sup> ( $\omega^2$ ) was calculated as effect size estimate and  $\omega^2 \leq 0.06$  was regarded as a small effect,  $\omega^2 > 0.06 < 0.14$  as a medium effect and  $\omega^2 \geq 0.14$  as a large effect.

Linear multiple regression analysis was performed to predict the score on MCRS with the sector in which professionals were working, attribution beliefs, emotional reactions and health care professional's characteristics (age, gender, work experience, frequency working with patients with substance use problems, alcohol consumption, familiarity with substance use problems and socially desirable answering). Sector in which professionals were working were included as dummy variables and GPs were the reference group. Model 1 included only sector as a predictor of MCRS score and in model 2 the remaining predictors were included as well as sector. Multicollinearity between the independent variables was not a problem since the VIF values were below 5 and tolerance was above 0.2. The plots showed that the assumptions for linearity and homoscedasticity were not violated. The Durbin-Watson test (1.877) indicated that residual terms were uncorrelated.

## Results

In total, 347 healthcare professionals (overall response rate 34.5%) participated in the present study including 180 GPs, 89 professionals of general psychiatry and 78 professionals of specialist addiction services. 19 GPs were excluded from the sample since they were not working as a GP anymore, were recently retired or their practice was moved and new addresses were unknown. In total, 23% ( $N=180$ ) of the remaining 781 GPs filled out the questionnaire, of which 57% were paper questionnaires. The non-response analyses indicated that the GPs who responded were not significantly different in age ( $p=0.502$ ), gender ( $p=0.113$ ) or urbanity of the place of the registered practice ( $p=0.727$ ) compared to the total sample of GPs who were invited to participate. The response rate among professionals in psychiatry services was 89% ( $N=89$ ) and among addiction care services 63% ( $N=78$ ). The majority of respondents of psychiatry services were nurses (76.4%), 9.0% worked as social workers, 5.6% as physicians, 4.5% as psychologists and 4.5% held another position. Among the professionals of addiction services 29.5% were nurses, 23.1% social workers, 20.5% psychologists, 7.7% physicians and 19.2% held another position, such as aftercare, prevention or a management position. Respondents' overall mean age was 45.58 ( $SD=10.43$ ) and 45.5% ( $N=158$ ) were men. Table 1 presents additional background information about the professionals per sector. The mean regard score among health care professionals was 46.63 ( $SD=8.51$ , range: 26-65). Internal consistency between the 11 items of the MCRS scale was appropriate ( $\alpha=0.88$ ). Table 2 shows the frequencies of healthcare professionals' agreement for the individual items of the MCRS.

**Table 1:** Background data of the respondents

	Sector in which professional are working		
	General Practitioners <i>N</i> =180	General Psychiatry services <i>N</i> =89	Addiction Specialists <i>N</i> =78
age <i>M</i> ( <i>SD</i> )	47.60 (9.47)	44.83 (11.10)	42.03 (10.69)
work experience in years <i>M</i> ( <i>SD</i> )	16.63 (9.86)	10.94 (9.11)	7.88 (6.75)
Gender	% ( <i>N</i> )	% ( <i>N</i> )	% ( <i>N</i> )
men	46.1 (83)	43.8 (39)	46.2 (36)
women	53.9 (97)	56.2 (50)	53.8 (42)
Urbanization of place of registered practice	% ( <i>N</i> )		
very strongly urbanized (>2500)	22.2 (40)		
strongly urbanized (1500-2500)	23.9 (43)		
urbanized (1000-1500)	15.6 (28)		
slightly urbanized (500-1000)	23.3 (42)		
not urbanized (<500)	15.0 (27)		
Function		% ( <i>N</i> )	% ( <i>N</i> )
nurse position		76.4 (68)	29.5 (23)
agogic position (e.g. social worker)		9.0 (8)	23.1 (18)
medical position (e.g. psychiatrist)		5.6 (5)	7.7 (6)
psychological position		4.5 (4)	20.5 (16)
other position (e.g. staff, aftercare)		4.5 (4)	19.2 (15)
Frequency working with patients with substance use disorders	% ( <i>N</i> )	% ( <i>N</i> )	% ( <i>N</i> )
never	-	-	1.3 (1)
few times per year	28.9 (52)	2.2 (2)	-
monthly	42.8 (77)	10.1 (9)	2.6 (2)
weekly	23.3 (42)	33.7 (30)	6.4 (5)
daily	5.0 (9)	53.9 (48)	89.7 (70)
Alcohol consumption / drinking habits	% ( <i>N</i> )	% ( <i>N</i> )	% ( <i>N</i> )
not at all in the last 12 months	4.5 (8)	3.4 (3)	3.8 (3)
1-2 times per year	4.0 (7)	1.1 (1)	2.6 (2)
once within 2 months	6.3 (11)	4.6 (4)	7.7 (6)
1-2 times per month	10.2 (18)	18.4 (16)	25.6 (20)
1-2 days per week	33.0 (58)	36.8 (32)	39.7 (31)
3-4 days per week	22.2 (39)	21.8 (19)	11.5 (9)
almost every day	19.9 (35)	13.8 (12)	9.0 (7)

**Table 2:** Scores on separate items of the Medical Condition Regard Scale (MCRS) per sector

	General Practitioners		General Psychiatry		Addiction Specialists	
	% disagree (N)	% agree (N)	% disagree (N)	% agree (N)	% disagree (N)	% agree (N)
Working with patients like this is satisfying.	69.4 (125)	28.9 (52)	41.6 (37)	57.3 (51)	9.0 (7)	91.0 (71)
Insurance plans should cover patients like this to the same degree that they cover patients with other conditions.	19.4 (35)	78.9 (142)	11.2 (10)	87.6 (78)	9.0 (7)	91.0 (71)
There is little I can do to help patients like this. <sup>a</sup>	65.6 (118)	32.8 (59)	85.4 (76)	13.5 (12)	96.2 (75)	3.8 (3)
I feel especially compassionate toward patients like this.	52.8 (95)	45.6 (82)	41.6 (37)	57.3 (51)	7.7 (6)	92.3 (72)
Patients like this irritate me. <sup>a</sup>	74.4 (134)	23.9 (43)	94.4 (84)	4.5 (4)	98.7 (77)	1.3 (1)
I wouldn't mind getting up on call nights to care for patients like this.	67.2 (121)	31.1 (56)	38.2 (34)	59.6 (53)	21.8 (17)	78.2 (61)
Treating patients like this is a waste of medical dollars. <sup>a</sup>	89.4 (161)	8.9 (16)	96.8 (86)	2.2 (2)	93.6 (73)	6.4 (5)
Patients like this are particularly difficult for me to work with. <sup>a</sup>	66.7 (120)	31.7 (57)	78.7 (70)	20.2 (18)	93.6 (73)	6.4 (5)
I can usually find something that helps patients like this feel better.	55.0 (99)	43.4 (78)	27.0 (24)	71.9 (64)	9.0 (7)	91.0 (71)
I enjoy giving extra time to patients like this.	45.6 (82)	52.8 (95)	31.5 (28)	67.4 (60)	7.7 (6)	92.3 (72)
I prefer not to work with patients like this. <sup>a</sup>	69.4 (125)	28.9 (52)	89.9 (80)	9.0 (8)	98.7 (77)	1.3 (1)

<sup>a</sup> Reverse-scored items.

**Table 3:** Means and ANOVAs to compare the three different sectors of professionals

	General Practitioners <sup>1</sup> <i>M (SD)</i>	General Psychiatry <sup>2</sup> <i>M (SD)</i>	Addiction Specialists <sup>3</sup> <i>M (SD)</i>	F (df)	<i>p</i>	$\omega^2$
Medical Condition Regard Scale	42.00 (6.86) <sup>*23</sup>	48.18 (7.02) <sup>*13</sup>	55.41 (5.35) <sup>*12</sup>	115.25 (2,340)	0.00	0.40
Someone with an addiction is responsible for this.	3.33 (0.81) <sup>*3</sup>	3.10 (0.84)	2.79 (0.92) <sup>*1</sup>	11.07 (2,344)	0.00	0.05
Someone with an addiction is in control of this addiction.	2.24 (0.74)	2.25 (0.70)	2.22 (0.83)	0.03 (2,344)	0.97	
Someone with an addiction can be treated successfully.	3.65 (0.61)	3.75 (0.73)	3.88 (0.62)	3.54 (2,343)	0.03	0.01
Addiction is a disease.	4.03 (0.67) <sup>*3</sup>	4.03 (0.83)	4.32 (0.66) <sup>*1</sup>	5.03 <sup>a</sup> (2,344)	0.01	0.02
Addiction is the consequence of weakness.	2.66 (0.86) <sup>*23</sup>	2.22 (0.82) <sup>*13</sup>	1.83 (0.80) <sup>*12</sup>	28.29 (2,344)	0.00	0.14
I feel anger for people with an addiction.	2.30 (0.83) <sup>*3</sup>	2.02 (0.77) <sup>*2</sup>	1.59 (0.69) <sup>*12</sup>	22.32 <sup>a</sup> (2,342)	0.00	0.11
I feel fear for people with an addiction.	1.99 (0.68) <sup>*3</sup>	2.03 (0.61) <sup>*2</sup>	1.73 (0.57) <sup>*12</sup>	5.79 (2,342)	0.00	0.03
I feel pity for people with an addiction.	3.24 (0.76) <sup>*23</sup>	2.72 (0.81) <sup>*1</sup>	2.86 (0.77) <sup>*1</sup>	15.29 (2,342)	0.00	0.08
Alcohol consumption / drinking habits.	5.09 (1.57)	5.05 (1.35)	4.65 (1.34)	2.53 (2,338)	0.08	0.01
Social desirability scale. <sup>b</sup>	5.85 (1.97)	5.87 (1.81)	5.95 (1.51)	0.07 <sup>a</sup> (2,336)	0.93	
Familiarity with addictions. <sup>c</sup>	3.26 (1.66) <sup>*3</sup>	3.79 (1.47)	4.23 (1.23) <sup>*1</sup>	11.66 (2,336)	0.00	0.06

<sup>\*</sup> Statistically significant ( $p < 0.01$ ) on post hoc Bonferroni or Games Howell test.

<sup>a</sup> Welch *F* and Games-Howell post hoc test were calculated since violation of the homogeneity of variance assumption.

<sup>b</sup> Overall score range 1-10 in which high scores represents high tendency to answer socially desirable.

<sup>c</sup> Overall score range 1-7 in which high scores represents extensive or intimate familiarity with someone with an addiction.

*ANOVAs to compare healthcare professionals in three sectors*

Regard of healthcare professionals turned out to be significantly different between the three sectors, with a large effect size ( $F(2,340)=115.25$ ,  $p=0.00$ ,  $\omega^2=0.40$ ). Professionals of addiction services showed the highest regard and GPs the lowest regard for working with patients with substance use problems. Professionals of psychiatry services held the middle position with scores that were significantly different from the other two sectors. Opinions about addiction as a consequence of someone's weakness were significantly different between all the sectors, with a medium effect size ( $F(2,344)=28.29$ ,  $p=0.00$ ,  $\omega^2=0.14$ ). Professionals of addiction services agreed to a lesser degree to this statement compared to general psychiatry professionals and GPs, who agreed the most. GPs and specialist addiction professionals were significantly different in their perception of responsibility for an addiction although the effect size was small ( $F(2,344)=11.07$ ,  $p=0.00$ ,  $\omega^2=0.05$ ). Specialist addiction professionals attributed less responsibility compared to GPs. GPs agreed to a lower extent that addiction is a disease compared to professionals of specialist addiction services, also with a small effect size ( $F(2,344)=5.03$ ,  $p=0.01$ ,  $\omega^2=0.02$ ). The emotional reactions to people with an addiction were significantly different between the professionals: specialist addiction professionals felt less anger and fear compared to the other professionals (anger  $F(2,342)=22.32$ ,  $p=0.00$ ,  $\omega^2=0.11$ ; fear  $F(2,342)=5.79$ ,  $p=0.00$ ,  $\omega^2=0.03$ ). The feelings of pity among professionals of different sectors were also significant although the effect size was small; GPs felt more pity compared to professionals of general psychiatry and specialist addiction services ( $F(2,342)=15.29$ ,  $p=0.00$ ,  $\omega^2=0.08$ ). Finally, GPs have less familiarity with addiction problems compared to professionals of specialist addiction services with a small effect size ( $F(2,336)=11.66$ ,  $p=0.00$ ,  $\omega^2=0.06$ ). The results of the ANOVAs are shown in table 3.

*Regression analysis to predict healthcare professionals' regard*

The regression model explained a significant amount of the variance in regard scores. The sector in which professionals were working explained 40% of the variance in regard scores ( $R^2=0.403$ , adjusted  $R^2=0.399$   $F(2,318)=107.239$ ,  $p=0.00$ ). The extended model with attribution beliefs, emotional reactions and professionals' characteristics explained 57% of the variance of professionals' regard ( $R^2=0.572$ , adjusted  $R^2=0.549$   $F(17,303)=23.868$ ,  $p=0.00$ ). Nevertheless, sector in which professionals were working was still a significant predictor of healthcare professionals' regard, in which professionals of psychiatry and addiction services showed higher regard compared to GPs (table 4). Furthermore, higher frequency of working with patients with addiction



problems, and having more confidence that someone with an addiction can be treated successfully, were associated with higher regard. On the contrary, attributing the responsibility for substance use problems to the person itself and feelings of fear and anger were associated with decreased regard for working with patients with a substance use disorder. Finally, a higher tendency to answer in a socially desirable way and familiarity with substance use problems were associated with higher regard among professionals working with patients with substance use disorders.

**Table 4:** Linear regression to predict scores on MCRS scale

	B	SE	$\beta$	T	<i>p</i>
(constant)	32.56	4.64		7.022	0.00
<b>Sector</b>					
dummy specialist addiction services <sup>a</sup>	6.30	1.27	0.31	4.948	0.00**
dummy general psychiatry services <sup>a</sup>	2.40	1.05	0.12	2.282	0.02*
<b>Demographic variables</b>					
age	0.01	0.05	0.01	0.225	0.82
gender <sup>b</sup>	0.30	0.70	0.02	0.426	0.67
work experience	-0.03	0.05	-0.04	-0.605	0.55
frequency working with patients with substance use disorders	1.64	0.43	0.22	3.838	0.00**
<b>Attribution beliefs</b>					
attribution of responsibility	-1.66	0.41	-0.17	-4.089	0.00**
attribution of controllability	0.49	0.48	0.04	1.036	0.30
addiction can be treated successfully	1.93	0.54	0.15	3.578	0.00**
addiction is a disease	0.54	0.49	0.05	1.113	0.27
addiction is a consequence of weakness	-0.60	0.39	-0.06	-1.512	0.13
<b>Emotional reactions</b>					
feelings of fear	-1.52	0.56	-0.11	-2.736	0.01**
feelings of pity	0.73	0.45	0.07	1.623	0.11
feelings of anger	-1.77	0.46	-0.17	-3.888	0.00**
<b>Professionals' characteristics</b>					
alcohol consumption / drinking habits	0.20	0.24	0.04	0.859	0.39
social desirability scale	0.41	0.18	0.09	2.281	0.02*
familiarity with addictions	0.67	0.22	0.12	3.072	0.00**

Note B=unstandardized coefficients, SE=standard error,  $\beta$ =standardized coefficients.  $R^2=0.403$  for step 1;  $\Delta R^2=0.170$  for step 2 ( $p<0.001$ ).

<sup>a</sup> General practitioners were the reference group.

<sup>b</sup> Men were the reference category.

\* Statistically significant ( $p<0.05$ ).

\*\* Statistically significant ( $p<0.01$ ).

## **Discussion**

### *Main findings*

Professionals of specialist addiction services showed higher regard for working with patients with substance use disorders compared to professionals of psychiatry services and GPs, who had the lowest regard. In addition, GPs agreed more that addiction is a consequence of someone's weakness and felt more pity for these patients. Professionals of addiction services felt significantly less anger for people with an addiction compared to professionals of the other two sectors. The differences in regard between the three sectors were persistent despite the effects of attribution beliefs, emotional reactions and healthcare professionals' characteristics on regard for working with patients with substance use disorders. As expected more familiarity with substance use disorders was associated with higher regard scores. However, it turned out that personal drinking habits of health professionals were not associated with regard scores. Socially desirable answering was positively associated with regard scores, and therefore the regard scores in this study might be overestimated.

### *Parallels and discrepancies with previous findings*

Our findings about the differences in regard between the three sectors were in line with the findings of Gilchrist et al. (4). However, one discrepancy with previous studies was that our regard scores among Dutch healthcare professionals were slightly higher. Although we were not able to compare regard scores statistically with previous studies, these studies used a similar scale to assess regard for working with patients with alcohol or drug dependence among professionals and medical students (4, 5). A longer history of drug use as well as larger acceptance of illicit drug use in general may explain the somewhat higher regard scores of healthcare professionals in the Netherlands (4, 41).

### *Explanations for differences in regard between sectors*

This study showed that differences between sectors in regard for working with patients with substance use disorders were not contributable to attribution beliefs, emotional reactions or other characteristics of health professionals. Nevertheless, characteristics of the patients and the sector itself may contribute to differences in regard. Education and consequently (perceived) knowledge about treating substance use problems might be less adequate among GPs (42, 43) and healthcare professionals of general psychiatry services (1, 44). Feelings of legitimacy to work with this patient group and contextual factors such as time and support are also different between

sectors and possibly have an effect on health professionals' attitudes (3). Furthermore, patient characteristics vary between sectors and might influence healthcare professionals' regard for working with patients with substance use disorders. For instance, patients' readiness and motivation to change as well as their receptivity for treatment (45, 46), is different for primary care, general psychiatry and specialized addiction services. Patients differ in their stages of change from not seeing a problem, to thinking about or preparing for change, to action and maintaining change (45). Involvement in the personal context of patients may also play a role in healthcare professionals' regard. In particular among GPs involvement in the personal context and emotional attachment, also referred to as personal continuity, is prevalent and highly valued (47, 48). A drawback of personal continuity is that assumptions are made in advance which again can have an influence on attitudes.

#### *Limitations of the study*

The results of this study should be interpreted considering the following limitations. The cross-sectional design made it impossible to draw causal inferences between the included variables. Another limitation is the comparison of GPs with two heterogeneous groups of healthcare professionals. Although comparing different functions was not the aim of the present study, evidence suggests that healthcare professionals' regard towards working with patients with substance use disorders differs per job function (4). The non-response analyses showed no bias in demographic characteristics between the responding GPs and the total sample, however the low response rate among GPs is a major limitation. Nevertheless, low response rates among GPs are prevalent due to lack of time and interest and therefore difficult to overcome (39, 49). The tendency of healthcare professionals to answer in socially desirable ways is also a limitation since it was related to higher regard scores. However, this underlines the importance to include a measure of social desirability in this field of research (50). Finally, in the questionnaire no differentiation was made between patients with alcohol vs. drug use problems whereby it is unknown whether healthcare professionals' regard is different by substance abuse types.

#### *Added value and practical implications*

The current study provides insight into regard for working with patients with substance use problems among healthcare professionals working in different sectors, taking into account the effects of attribution beliefs, emotional reactions and characteristics of healthcare professionals. The results showed that professionals of general psychiatry services and GPs had lower regard for working with patients with

substance use disorders compared to professionals of specialist addiction services. Low regard of healthcare professionals can have serious consequences for the accessibility to treatment and quality of care. Therefore, collaboration and integration of specialist addiction services in primary healthcare and general psychiatry care can be valuable, for instance, in shared care or assertive outreach models (51-54). Support provided by specialist addiction services potentially increases perceived knowledge and as a consequence confidence to treat patients with substance use disorders (42, 51). Additionally, integration of addiction services and primary healthcare may enhance identification and screening of substance use in primary healthcare settings. In the present study the number of GPs who indicated having a nurse practitioner in their practice specialising in substance use problems was very low. Further research is needed to gain more insight into the benefits of shared care and the effects this might have on attitudes and regard of healthcare professionals for working with patients with substance use disorders.

In conclusion, shared care models and support from addiction care services for primary healthcare and general psychiatry professionals may help to overcome low regard for working with patients with substance use disorders. In addition, more training and education about substance use disorders might address low regard among healthcare professionals for working with this patient group.

## References

1. Deans C., Soar R. (2005). Caring for clients with dual diagnosis in rural communities in Australia: The experience of mental health professionals. *Journal of Psychiatric and Mental Health Nursing*, 12(3), 268-274.
2. Ford R. (2011). Interpersonal challenges as a constraint on care: The experience of nurses' care of patients who use illicit drugs. *Contemporary Nurse*, 37(2), 241-252.
3. Van Boekel L. C., Brouwers E. P. M., Van Weeghel J., Garretsen H. F. L. (2013). Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: Systematic review. *Drug and Alcohol Dependence*, 131(1-2), 23-35.
4. Gilchrist G., Moskalewicz J., Slezakova S., Okruhlica L., Torrens M., Vajd R. et al. (2011). Staff regard towards working with substance users: A European multi-centre study. *Addiction*, 106(6), 1114-1125.
5. Christison G. W., Haviland M. G., Riggs M. L. (2002). The medical condition regard scale: Measuring reactions to diagnoses. *Academic Medicine*, 77(3), 257-262.
6. Mersy D. J. (2003). Recognition of Alcohol and Substance Abuse. *American Family Physician*, 67(7), 1529-1532.
7. Muhrer J. C. (2010). Detecting and Dealing with Substance Abuse Disorders in Primary Care. *The Journal for Nurse Practitioners*, 6(8), 597-605.
8. Hasin D. S., Stinson F. S., Ogburn E., Grant B. F. (2007). Prevalence, correlates, disability, and comorbidity of DSM-IV alcohol abuse and dependence in the United States. Results from the national epidemiologic survey on alcohol and related conditions. *Archives of General Psychiatry*, 64(7), 830-842.
9. Substance Abuse and Mental Health Services Administration. (2011). *Results from the 2010 National Survey on Drug Use and Health: Summary of National Findings*. Rockville, MD: NSDUH
10. De Graaf R., Ten Have M., Van Dorsselaer S. (2010). *De psychische gezondheid van de Nederlandse bevolking NEMESIS-2: Opzet en eerste resultaten*. Utrecht: Netherlands Institute of Mental Health and Addiction, Trimbos.
11. Grant B. F. (1997). Barriers to alcoholism treatment: Reasons for not seeking treatment in a general population sample. *Journal of Studies on Alcohol*, 58(4), 365-371.
12. Barney L. J., Griffiths K. M., Jorm A. F., Christensen H. (2006). Stigma about depression and its impact on help-seeking intentions. *Australian and New Zealand Journal of Psychiatry*, 40(1), 51-54.
13. Schomerus G., Angermeyer M. C. (2008). Stigma and its impact on help-seeking for mental disorders: What do we know? *Epidemiologia e Psichiatria Sociale*, 17(1), 31-37.
14. Ball S. A., Carroll K. M., Canning-Ball M., Rounsaville B. J. (2006). Reasons for dropout from drug abuse treatment: Symptoms, personality, and motivation. *Addictive Behaviors*, 31(2), 320-330.

15. Eaton L. (2004). Numbers starting treatment for drug misuse increase by 20% over two years. *British Medical Journal*, 329, 1066(7474).
16. Abed R. T., Neira-Munoz E. (1990). A survey of general practitioners' opinion and attitude to drug addicts and addiction. *British Journal of Addiction*, 85(1), 131-136.
17. Brener L., Von Hippel W., Kippax S. (2007). Prejudice among health care workers toward injecting drug users with hepatitis C: does greater contact lead to less prejudice? *International Journal of Drug Policy*, 18(5), 381-387.
18. Ding L., Landon B. E., Wilson I. B., Wong M. D., Shapiro M. F., Cleary P. D. (2005). Predictors and consequences of negative physician attitudes toward HIV-infected injection drug users. *Archives of Internal Medicine*, 165(6), 618-623.
19. Crothers C. E., Dorrian J. (2011). Determinants of Nurses Attitudes toward the Care of Patients with Alcohol Problems. *ISRN Nursing*.
20. Schomerus G., Lucht M., Holzinger A., Matschinger H., Carta M. G., Angermeyer M. C. (2011). The stigma of alcohol dependence compared with other mental disorders: A review of population studies. *Alcohol and Alcoholism*, 46(2), 105-112.
21. Van Boekel L. C., Brouwers E. P. M., Van Weeghel J., Garretsen H. F. L. (2013). Public opinion on imposing restrictions to people with an alcohol- or drug addiction: a cross-sectional survey. *Social Psychiatry and Psychiatric Epidemiology*, 48(12), 2007-2016.
22. Corrigan P., Markowitz F. E., Watson A., Rowan D., Kubiak M. A. (2003). An attribution model of public discrimination towards persons with mental illness. *Journal of Health and Social Behavior*, 44(2), 162-179.
23. Weiner B., Perry R. P., Magnusson J. (1988). An Attributional Analysis of Reactions to Stigmas. *Journal of Personality and Social Psychology*, 55(5), 738-748.
24. Beck M., Dietrich S., Matschinger H., Angermeyer M. C. (2003). Alcoholism: low standing with the public? Attitudes towards spending financial resources on medical care and research on alcoholism. *Alcohol and Alcoholism*, 38(6), 602-605.
25. Williamson L. (2012). Destigmatizing alcohol dependence: the requirement for an ethical (not only medical) remedy. *American Journal of Public Health*, 102(5), e5-8.
26. Angermeyer M. C., Holzinger A., Matschinger H. (2010). Emotional reactions to people with mental illness. *Epidemiologia e Psichiatria Sociale*, 19(1), 26-32.
27. Angermeyer M. C., Matschinger H. (2003). Public beliefs about schizophrenia and depression: similarities and differences. *Social Psychiatry and Psychiatric Epidemiology*, 38(9), 526-534.
28. Corrigan P. W. (2000). Mental health stigma as social attribution: Implications for research methods and attitude change. *Clinical Psychology-Science and Practice*, 7(1), 48-67.
29. World Health Organization. (2012). Process of translation and adaptation of instruments. Retrieved November 26th 2012, from [http://www.who.int/substance\\_abuse/research\\_tools/translation/en/](http://www.who.int/substance_abuse/research_tools/translation/en/).

30. Corrigan P. W., Rowan D., Green A., Lundin R., River P., Uphoff-Wasowski K. et al. (2002). Challenging two mental illness stigmas: Personal responsibility and dangerousness. *Schizophrenia Bulletin*, 28(2), 293-309.
31. Reizenzein R. (1986). A structural equation analysis of Weiner's attribution - affect model of helping behavior. *Journal of Personality and Social Psychology*, 50(6), 1123-1133.
32. Crawford J., Heather N. (1987). Public-Attitudes to the Disease Concept of Alcoholism. *International Journal of the Addictions*, 22(11), 1129-1138.
33. Crowne D. P., Marlowe D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*, 24, 349-354.
34. Holmes E. P., Corrigan P. W., Williams P., Canar J., Kubiak M. A. (1999). Changing attitudes about schizophrenia. *Schizophrenia Bulletin*, 25(3), 447-456.
35. RIVM. (2013). *Volksgezondheid Toekomst Verkenning, Nationaal Kompas Volksgezondheid*. Bilthoven.
36. European Monitoring Centre for Drugs and Drug Addiction. (2012). Drug treatment overview for Netherlands. Retrieved February 20th 2013, from [www.emcdda.europa.eu/data/treatment-overviews/Netherlands](http://www.emcdda.europa.eu/data/treatment-overviews/Netherlands).
37. Wisselink D. J., Kuijpers W. G. T., Mol A. (2013). *LADIS, Landelijk Alcohol en Drugs Informatie Systeem: Kerncijfers Verslavingszorg 2012*. Houten: Stichting Informatie Voorziening Zorg.
38. GGz Nederland. (2013). *Een visie op verslavingszorg: focus op preventie en herstel. Visiedocument 2013*.
39. Barclay S., Todd C., Finlay I., Grande G., Wyatt P. (2002). Not another questionnaire! Maximizing the response rate, predicting non-response and assessing non-response bias in postal questionnaire studies of GPs. *Family Practice*, 19(1), 105-111.
40. Templeton L., Deehan A., Taylor C., Drummond C., Strang J. (1997). Surveying general practitioners: does a low response rate matter? *British Journal of General Practice*, 47(415), 91-94.
41. Van Der Sar R., Ødegard E., Rise J., Brouwers E. P. M., Van De Goor L. A. M., Garretsen H. F. L. (2012). Acceptance of illicit drug use in the Netherlands and Norway: A cross-national survey. *Drugs-Education Prevention and Policy*, 19(5), 397-405.
42. Mc Keown A., Matheson C., Bond C. (2003). A qualitative study of GPs' attitudes to drug misusers and drug misuse services in primary care. *Family Practice*, 20(2), 120-125.
43. Mc Gillion J., Wanigaratne S., Feinmann C., Godden T., Byrne A. (2000). GPs' attitudes towards the treatment of drug misusers. *British Journal of General Practice*, 50(454), 385-386.
44. Howard V., Holmshaw J. (2010). Inpatient staff perceptions in providing care to individuals with co-occurring mental health problems and illicit substance use. *Journal of Psychiatric and Mental Health Nursing*, 17(10), 862-872.
45. Di Clemente C. C. (1999). Motivation for change: Implications for substance abuse treatment. *Psychological Science*, 10(3), 209-213.

46. Prochaska J. O., Di Clemente C. C., Norcross J. C. (1992). In Search of How People Change - Applications to Addictive Behaviors. *American Psychologist*, 47(9), 1102-1114.
47. Stokes T., Tarrant C., Mainous A. G., 3rd, Schers H., Freeman G., Baker R. (2005). Continuity of care: is the personal doctor still important? A survey of general practitioners and family physicians in England and Wales, the United States, and The Netherlands. *Annals of Family Medicine*, 3(4), 353-359.
48. Ridd M., Shaw A., Salisbury C. (2006). 'Two sides of the coin'--the value of personal continuity to GPs: a qualitative interview study. *Family Practice*, 23(4), 461-468.
49. Kellerman S. E., Herold J. (2001). Physician response to surveys - A review of the literature. *American Journal of Preventive Medicine*, 20(1), 61-67.
50. Henderson C., Evans-Lacko S., Flach C., Thornicroft G. (2012). Responses to mental health stigma questions: the importance of social desirability and data collection method. *Canadian Journal of Psychiatry*, 57(3), 152-160.
51. Matheson C., Pitcairn J., Bond C. M., Van Teijlingen E., Ryan M. (2003). General practice management of illicit drug users in Scotland: a national survey. *Addiction*, 98(1), 119-126.
52. Samet J. H., Friedmann P., Saitz R. (2001). Benefits of linking primary medical care and substance abuse services - Patient, provider, and societal perspectives. *Archives of Internal Medicine*, 161(1), 85-91.
53. Weisner C., Mertens J., Parthasarathy S., Moore C., Lu Y. (2001). Integrating primary medical care with addiction treatment - A randomized controlled trial. *Journal of the American Medical Association*, 286(14), 1715-1723.
54. Drake R. E., Essock S. M., Shaner A., Carey R. B., Minkoff K., Kola L. et al. (2001). Implementing dual diagnosis services for clients with severe mental illness. *Psychiatric Services*, 52(4), 469-476.



# Chapter 6

Expectations and perceptions of healthcare professionals and clients about inequalities in the healthcare provision for individuals with substance use disorders

Submitted as:

Van Boekel, L.C., Brouwers, E.P.M., Van Weeghel, J., Garretsen, H.F.L. Expectations and perceptions of healthcare professionals and clients about inequalities in the healthcare provision for individuals with substance use disorders.

## **Abstract**

### *Background*

Little is known about inequalities in healthcare provision for individuals with substance use disorders. The main objective of this study was to assess expectations and perceptions of inequalities in healthcare provision among healthcare professionals and clients in treatment for substance use disorders.

### *Method*

General practitioners, healthcare professionals of mental healthcare- and specialized addiction services, and clients in treatment for substance use disorders filled out a questionnaire in which expectations and perceptions of inequalities in healthcare provision were assessed. Descriptive statistics and ANOVAs were used to illustrate the expectations and perceptions of respondents and to compare groups of respondents.

### *Results*

Approximately one third of the respondents *expected* inequalities in healthcare provision, whereas *perceptions* of inequalities were less prevalent across all groups. Healthcare professionals were somewhat more negative in their expectations compared to clients.

### *Conclusion*

This study provides insights into *expectations* and *perceptions* of professionals and clients about inequalities in healthcare provision. Perceived knowledge among healthcare professionals might warrant attention as well as awareness of diagnostic overshadowing (misattribution of physical problems to substance abuse). However, more research is needed in order to gain a better understanding of inequalities in the healthcare provision for clients with substance use disorders.

## Introduction

Substance use disorders often evoke negative responses and the stigma attached to these disorders appears to be more persistent and severe compared to other mental illnesses such as depression or schizophrenia (1-3). Previous studies have found indications that stigmatization might also play a role in the healthcare provision to individuals with substance use problems. For instance, Gilchrist and colleagues (4) found that healthcare professionals, such as primary care physicians and psychiatrists, have a lower regard for work with patients with substance use disorders compared to patients with depression or diabetes. In addition, healthcare professionals often have negative attitudes towards working with this specific group of clients since treatment of these clients is perceived as more challenging, less satisfying, and more stressful (5-7). According to a review of inequalities in healthcare provision for people with severe mental illness in general, the stigma attached to mental illness is one of the factors that can contribute to these inequalities (8).

However, little is known about how inequalities manifest themselves in the health care provision for people with substance use disorders, nor about the perceptions of healthcare professionals and clients about these inequalities (5, 9). Research concerning discrimination and inequalities in healthcare provision has been more extensively conducted in the field of mental illness in general compared to the field of substance abuse (8, 10, 11). The following findings may provide a point of departure to investigate how health inequalities or discrimination become manifest in the healthcare provision for people with substance use disorders. First of all, stigma and fear of negative responses were found to contribute to delayed treatment seeking for mental illness and are therefore a barrier in the access to healthcare (11, 12). This barrier was also found for delayed treatment seeking, or not seeking treatment at all, for substance use problems (13, 14). Second, the interaction or relationship between healthcare professionals and clients with substance use disorders may be suboptimal and this can contribute to inequality in healthcare provision. Burti and Mosher (15) underline the importance of a positive therapeutic relationship between professionals and clients with mental health problems in order to achieve successful recovery and rehabilitation. Elements of a positive therapeutic relationship entail, for instance, collaboration, flexibility, empathy, confidentiality and minimization of status and power differences between professional and client. In addition, active client participation and involvement and autonomy in treatment planning are essential (15). Third, an expression of discrimination in the healthcare provision for mental illness is the so-called 'clinician bias or illusion'. This may occur when healthcare professionals'

attitudes, expectations and judgements about clients with mental illness are solely based on their own experiences with clients. Since clients who recover quickly or clients who recover without treatment are out of the scope of healthcare professionals, their view is limited to clients with more severe problems or diagnosis which may cause a clinician bias (11, 16). Finally, inequalities may occur in the treatment of physical and somatic health problems among people with mental health problems. Research has established that among people with mental illness, physical disorders are more prevalent and mortality risk is increased (17-19). Evidence suggests that people with mental illness or substance use problems are disadvantaged through disparities and inequalities in healthcare delivery (20). Besides lifestyle factors and medication effects, inequalities in the access to healthcare and lower quality of care contribute to poorer physical health conditions among people with mental illness (21). Examples of shortcomings include reduced access to physical healthcare services, physical complaints not being taken seriously by healthcare professionals or clients are being given a lower priority (11, 22, 23). Furthermore, failure or delayed diagnosis of physical health problems among people with mental illness is quite common and can contribute to poorer physical health outcomes (24). This phenomenon of incorrectly attributing physical symptoms and problems to mental illness is referred to as 'diagnostic overshadowing' (24).

Nevertheless, it remains unknown whether and to what degree the aforementioned inequalities in healthcare provision also play a role in the healthcare provision to individuals with substance use problems. In addition, it is unclear what perceptions healthcare professionals and clients with substance use problems have about inequalities in the healthcare provision. The main objective of the present study was to investigate expectations and perceptions among healthcare professionals and clients in treatment for substance abuse with regard to inequalities in healthcare provision. To obtain an insight into inequalities in healthcare provision, different stakeholders involved in the treatment of substance use problems were included. In The Netherlands general practitioners are crucial in the identification of substance abuse and are gatekeepers to more specialized treatment. In addition, healthcare professionals of mental and specialized addiction services treat people with substance use disorders regularly. Finally, client's expectations and perceptions need to be considered. The research questions were as follows: 1) What are the expectations of healthcare professionals and clients about inequalities in healthcare provision for people with substance use disorders? 2) What perceptions do healthcare professionals and clients have of inequalities in healthcare provision? 3) Do the

different healthcare professionals and clients differ in their expectations and perceptions of inequalities in healthcare provision?

## **Method**

### *Sample and recruitment*

The data from healthcare professionals (HCPs) as well as clients were gathered in the spring of 2012 by means of questionnaires. Participatory HCPs included general practitioners (GPs), mental healthcare professionals (MHPs) and addiction care professionals (ACPs). For a detailed description of the data-collection process among HCPs we refer to previously published work (25). The Netherlands Institute for Health Services Research (Nivel) provided a random sample of 800 GPs from their database. These GPs were invited to fill in a digital questionnaire. MHPs and ACPs were recruited from two mental health services and two specialized addiction services across The Netherlands. The four organizations together provided a sample of 224 healthcare professionals (MHPs  $N=100$ ; ACPs  $N=124$ ). Clients in treatment for substance use disorders were recruited from the same organizations. Healthcare professionals of the organization invited clients currently in treatment for substance use disorders to complete the questionnaire. A convenience sample of clients was used since clients were not always able to participate and in some cases it was considered inappropriate to invite them, for instance due to a crisis situation.

### *Measurements*

Since little research has focussed on inequalities in healthcare provision for persons with substance use disorders, questions were formulated based on the aforementioned indications as to how inequalities may become manifest in the healthcare provision for clients with mental illnesses. At the start of the questionnaire it was clearly mentioned that 'addiction' referred to alcohol and/or illicit drug abuse.

Expectations about inequalities in healthcare provision were assessed with three questions, namely if respondents expected that clients in treatment for substance abuse in general are being taken less seriously, receive lower quality of care, and are being given a lower priority compared to other clients. The Likert-type response categories ranged from 'definitely not' (1) to 'definitely' (5). These three questions were the same for all HCPs and clients.

The questions assessing perceptions of inequality in healthcare provision were different for HCP and clients and were adapted to the function of the HCP and the situation of clients. Table 1 provides an overview of all items and which group of

stakeholders were asked about which items. Likert-type response categories ranged from 'totally disagree' (1) to 'totally agree' (5). To interpret the answers, scores were categorized into 'disagreeing', 'neutral' and 'agreeing'. One item was based upon the Mental Illness Clinicians' Attitudes (MICA) scale (26). This scale was developed to assess attitudes of HCPs as well as students towards people with mental illness in general. One item of this scale was used in the present study. Namely, among HCPs diagnostic overshadowing was assessed by asking whether physical complaints among clients are more easily attributed to their substance use problems.

Background information on age and gender was collected on all respondents. Among HCPs the tendency to answer in a socially desirable way was assessed since the content of the questions might have been sensitive to this. The 10-item social desirability scale of Crowne and Marlowe (27) was used to measure socially desirable answering. A high score represents a strong tendency to respond in a socially desirable way (range 0-10). Current position and years of work experience were also assessed among HCPs. In addition, all HCPs were asked if they had attended specific (refresher) courses about substance use disorders. GPs were asked whether a nurse practitioner specializing in substance use problems was present in their practice. The clients in treatment for substance use disorders were asked about their disorders and their type of treatment. In addition, clients were asked how many years they had had problems with substance use.

### *Analyses*

The statistical analyses were performed using SPSS version 19. First, descriptive statistics were carried out to illustrate the background information of the respondents. Second, descriptive statistics were used to investigate the expectations of HCPs and clients about inequalities in healthcare provision. In order to compare the expectations of inequalities in healthcare provision between the different HCPs and clients, analyses of variances (ANOVA) were conducted. The post hoc Bonferroni test was used to compare the stakeholders in pairs and for correction of type I error. When the assumption of homogeneity of variance was violated the Welch *F* and Games-Howell post hoc test were carried out. An effect size measure omega squared ( $\omega^2$ ) was used which was interpreted as  $\omega^2 \leq 0.06$  small effect,  $\omega^2 > 0.06 < 0.14$  medium effect,  $\omega^2 \geq 0.14$  large effect (28). Since the questions about perceptions of inequalities in healthcare provision were not the same for all respondents, descriptive analyses were carried out to explore the level of experienced inequalities.

Independent sample T-tests were performed to compare the perceptions of HCPs of inequalities between HCPs who had attended extra courses and HCPs who

had not. In addition, the influence of having a nurse practitioner specializing in addiction within GPs' practices was assessed in the same way. In the T-test scores ranging from 1 to 5 were used. A probability level of  $p \leq 0.05$  was applicable for the independent T-tests and analysis of variances. Finally, to assess whether social desirability in answering played a role, Pearson product moment correlations were calculated between expectations and perceptions of inequalities and the tendency to answer in a socially desirable way. In cases where Pearson correlations exceeded 0.3, indicating a medium correlation effect, it was assumed that social desirability in answering was a serious bias.

## Results

In total, 347 healthcare professionals (180 GPs, 89 MHPs, and 78 ACPs) and 186 clients in treatment for substance use disorders completed the questionnaire. The response rate was lowest among GPs (23.0%), 89.0% of the MHPs responded and 62.9% among ACPs. Since a convenience sample was used among clients, no response rate was available for this group. Table 2 shows the background information of the respondents per group of stakeholders. Among the clients, 34.9% ( $N=65$ ) were addicted to alcohol, 33% ( $N=62$ ) to drugs and 29.6% ( $N=55$ ) were addicted to both alcohol and drugs. Among clients 41.3% ( $N=75$ ) received an ambulatory treatment or participated in an online program and 36.6% ( $N=68$ ) received in-patient treatment. A few respondents received aftercare (2.7%,  $N=5$ ), ambulatory methadone maintenance programme (2.2%,  $N=4$ ), a day-treatment programme (6.5%,  $N=12$ ), or were living in a half-way house or supported living (8.1%,  $N=15$ ). The majority were in treatment in specialized addiction services (60.8%,  $N=113$ ) and 39.2% ( $N=73$ ) in a general psychiatry service. The average number of years that clients had been suffering from substance use problems was 14.5 ( $SD=10.7$ ; range 0-48 years). Among HCPs almost half (45.4%  $N=157$ ) had attended (refresher) courses about substance abuse. More specific information about the HCPs, such as position and work experience, is shown in table 2.

**Table 1:** Overview of items per group of stakeholders

Expectations	GPs	MHPs	ACPs	Clients
Do you think that people with substance use problems in general are taken less seriously compared to other clients?	✓	✓	✓	✓
Do you think that people with substance use problems in general receive a lower quality care compared to other clients?	✓	✓	✓	✓
Do you think that people with substance use problems in general are given a lower priority compared to other clients?	✓	✓	✓	✓
Perceptions of healthcare professionals	GPs	MHPs	ACPs	Clients
I actively involve these clients in their own treatment.	✓	✓	✓	
I take these clients as seriously as other clients.	✓	✓		
These clients have lower priority for me.	✓	✓		
I address these clients in the same way as other clients.	✓	✓		
I attribute physical symptoms more easily to substance use problems among these clients.	✓	✓		
I have sufficient knowledge about substance abuse to help these clients.	✓	✓	✓	
I am attentive to possible substance use problems among all clients.	✓			
I'll always discuss substance use when I suspect substance use problems.	✓			
I find it difficult to recognize substance use problems among my clients.	✓			
I find it difficult to discuss substance use problems with my clients.	✓			
Perceptions of clients	GPs	MHPs	ACPs	Clients
I think healthcare professionals address me in an appropriate manner.				✓
I think that healthcare professionals take me seriously.				✓
Healthcare professionals take care that I am actively involved in decisions about my treatment.				✓
I think that healthcare professionals in general have sufficient knowledge about substance use problems.				✓
I think that healthcare professionals have confidence in me.				✓
I can rely on my general practitioner if necessary.				✓
I think that healthcare professionals are prejudiced because of my substance use problems.				✓
In general, healthcare professionals handle my substance use problems confidentially.				✓

*Note* The crosses indicate which data were available per item



**Table 2:** Background information of the respondents

	GPs N=180	MHPs N=89	ACPs N=78	Clients N=186
	M(SD)	M(SD)	M(SD)	M(SD)
Age	47.60 (9.47)	44.83 (11.10)	42.03 (10.69)	40.92 (12.33)
Work experience in current position in years	16.63 (9.86)	10.94 (9.11)	7.88 (6.75)	
Social desirability scale	5.85 (1.97)	5.87 (1.81)	5.95 (1.51)	
Gender	% (N)	% (N)	% (N)	% (N)
men	46.1 (83)	43.8 (39)	46.2 (36)	67.7 (126)
women	53.9 (97)	56.2 (50)	53.8 (42)	31.2 (58)
Position of healthcare professionals	% (N)	% (N)	% (N)	% (N)
nurse position		76.4 (68)	29.5 (23)	
agogenic position (e.g. social worker)		9.0 (8)	23.1 (18)	
medical position (e.g. psychiatrist)		5.6 (5)	7.7 (6)	
psychological position (e.g. psychologist)		4.5 (4)	20.5 (16)	
other position (e.g. prevention, aftercare)		4.5 (4)	19.2 (15)	
Attended (refresher) course(s) about substance use disorders	% (N)	% (N)	% (N)	% (N)
yes	52.8 (95)	33.7 (30)	41.0 (32)	
no	46.7 (84)	66.2 (59)	59.0 (46)	
Presence of a nurse practitioner specialized in substance abuse within primary practice	% (N)	% (N)	% (N)	% (N)
yes	23.3 (42)			
no	76.1 (137)			

Note Total numbers in rows do not add up to 100% due to missing responses.

<sup>a</sup> Higher score represent higher social desirability in answering (range 0-10).

*Expectations about inequalities in healthcare provision*

Approximately one third of all respondents expected that individuals with a substance use disorder were being taken less seriously by healthcare providers (38.9%, N=205), received a lower quality of care (27.5%, N=145) and were being given a lower priority (28.4%, N=150) compared to other clients. As can be seen in table 3 the groups of stakeholders differed significantly in their expectations about inequalities in healthcare provision with medium effect sizes (taken less seriously  $F(3,220)=17.86$ ,  $\omega^2=0.08$ ; lower quality of care  $F(3,524)=21.41$ ,  $\omega^2=0.10$ ; given lower priority  $F(3,524)=20.28$ ,  $\omega^2=.10$ ). GPs were most pessimistic and clients were most optimistic in their expectations about inequalities in healthcare provision. When comparing all HCPs with clients it appeared that among HCPs 44.9% (N=154) thought clients with substance use disorders were being taken less seriously whereas among clients this percentage was 27.7% (N=51). The expectation that quality of care was lower for this particular group of clients was more frequently endorsed by HCPs (34.3%, N=118) compared to 14.7% (N=27) by clients, and for being given a lower priority this was 35.29% (N=121) by HCPs and 15.8% (N=29) by clients. Overall it appeared that HCPs expected more inequalities in healthcare provision compared to clients in treatment for substance abuse.

**Table 3:** Expectations about inequalities in healthcare provision

<i>Do you think that people with substance use disorders in general...?</i>	GPs <sup>1</sup>	MHPs <sup>2</sup>	ACPs <sup>3</sup>	Clients <sup>4</sup>	<i>F (df)</i>	<i>p</i>	<i>ω<sup>2</sup></i>
	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>			
... are taken less seriously compared to other clients <sup>a</sup>	3.37 (0.90) <sup>*24</sup>	2.70 (1.02) <sup>*13</sup>	3.28 (1.14) <sup>*24</sup>	2.70 (1.13) <sup>*13</sup>	17.86 <sup>b</sup> (3,220)	0.00	0.08
... receive a lower quality care compared to other clients <sup>a</sup>	3.19 (0.99) <sup>*24</sup>	2.57 (1.04) <sup>*1</sup>	2.91 (1.11) <sup>*4</sup>	2.36 (1.00) <sup>*13</sup>	21.41 (3,524)	0.00	0.10
... are given a lower priority compared to other clients <sup>a</sup>	3.19 (0.97) <sup>*24</sup>	2.55 (1.05) <sup>*1</sup>	2.90 (1.11) <sup>*4</sup>	2.39 (1.04) <sup>*13</sup>	20.28 (3,524)	0.00	0.10

\* Statically significant ( $p<0.05$ ) on Bonferroni or Games-Howell post hoc tests.

<sup>a</sup> Higher scores represent more agreement (range 1-5).

<sup>b</sup> Welch *F* and Games-Howell post hoc test were calculated since homogeneity of variance assumption was violated.

**Table 4:** Perceptions of inequalities in healthcare provision among healthcare professionals

	Overall HCP		GPs		MHPs		ACPs	
	% disagree	% agree	% disagree	% agree	% disagree	% agree	% disagree	% agree
I actively involve these clients in their own treatment.	0.3	91.5	0.6	84.0	-	100	-	98.7
I take these clients as seriously as other clients.	3.8	85.9	4.0	84.6	3.4	88.5	-	-
These clients have lower priority for me.	82.1	1.5	78.9	2.3	88.5	-	-	-
I address these clients in the same way as other clients.	5.7	79.3	5.7	78.2	5.7	81.6	-	-
I attribute physical symptoms more easily to substance use problems among these clients.	18.3	43.1	13.1	49.7	28.7	29.9	-	-
I have sufficient knowledge about substance abuse to help these clients.	18.2	54.4	28.6	34.3	13.8	58.6	-	94.9
I am attentive to possible substance use problems among all clients.			30.3	32.0				
I'll always discuss substance use when I suspect substance use problems.			5.1	73.7				
I find it difficult to recognize substance use problems among my clients.			22.3	37.1				
I find it difficult to discuss substance use problems with my clients.			56.0	21.1				

*Note* Response categories were combined into disagree, neutral and agree. Numbers do not add up to 100% since category 'neutral' is not displayed.

*Perceptions of inequalities among healthcare professionals*

Table 4 summarizes the percentages of HCPs that agreed or disagreed with the items assessing perceptions of inequalities in healthcare provision. Almost all HCPs (91.5%,  $N=311$ ) agreed that they actively involve clients in their treatment, take clients with substance use disorders as seriously as other clients (85.9%,  $N=225$ ) and disagree that these clients have a lower priority (82.1%,  $N=215$ ). A large majority of the HCPs (79.3%,  $N=207$ ) indicated they address these clients in the same way as other clients. Attributing physical symptoms more easily to substance use problems was frequently reported, especially by GPs, 49.7% ( $N=87$ ) of the GPs agreed that misattribution occurred.

Among MHPs misattribution of physical symptoms to substance abuse was perceived less frequently, with 29.9% ( $N=26$ ) agreeing with the statement. ACPs judged their knowledge about substance abuse as adequate, with 94.9% ( $N=74$ ) thinking they had sufficient knowledge to help clients with substance use problems. A smaller number of MHPs (58.6%,  $N=51$ ) were of the opinion that they have sufficient knowledge and among GPs only one third was satisfied about their level of knowledge (34.3%,  $N=60$ ).

*Perceptions of inequalities among clients*

As can be seen in table 5 the majority of the clients had relatively positive perceptions of inequalities in healthcare provision. About three-quarters (75.5%,  $N=139$ ) felt addressed in an appropriate manner by healthcare professionals and 79.3% ( $N=146$ ) agreed that they thought that HCPs take them seriously. Most clients (76.2%,  $N=141$ ) thought that HCPs actively involved them in decisions about their treatment. Some clients had doubts about the knowledge of healthcare professionals: 54.9% ( $N=101$ ) were of the opinion that knowledge among healthcare professionals was sufficient and 17.4% ( $N=32$ ) disagreed with this. Of the clients 64.1% ( $N=118$ ) thought that healthcare professionals had confidence in them and 73.6% ( $N=134$ ) indicated that they could rely on their GPs when necessary. A minority of 23.2% ( $N=43$ ) thought that healthcare professionals were prejudiced because of substance use problems and 80.3% ( $N=147$ ) thought that healthcare professionals handle their substance use problems confidentially.

**Table 5:** Perceptions of inequalities in healthcare provision among clients

	Clients	
	% disagree	% agree
I feel healthcare professionals address me in an appropriate manner.	11.4	75.5
I have the feeling that healthcare professionals take me seriously.	6.0	79.3
Healthcare professionals take care that I am actively involved in decisions about my treatment.	8.6	76.2
I have the feeling that healthcare professionals in general have sufficient knowledge about substance use problems.	17.4	54.9
I have the feeling that healthcare professionals have confidence in me.	11.4	64.1
I can rely on my general practitioner if necessary.	9.3	73.6
I have the feeling that healthcare professionals are prejudiced because of my substance use problems.	49.2	23.2
In general, healthcare professionals handle my substance use problems confidentially.	7.1	80.3

*Note* Response categories were combined into disagree, neutral and agree. Numbers do not add up to 100% since category neutral is not displayed.

### *Other considerations*

The results of the independent samples T-tests indicated that HCPs who attended and who had not attended (refresher) courses about addiction did not differ significantly in their expectations and perceptions of inequalities in healthcare provision. An exception was the level of perceived knowledge which was significantly higher among HCPs who had attended extra courses ( $M=3.65$ ,  $SD=.92$ ) compared to HCPs who had not attended extra courses about addiction ( $M=3.37$ ,  $SD=1.00$ ,  $t(334,5)=-2.65$ ,  $p=0.009$ ). No differences were found in expectations and perceptions of inequalities in healthcare provision between GPs who have a nurse practitioner specializing in addiction care and GPs who did not work with a nurse practitioner. The Pearson product moment correlations between social desirability in answering and the items measuring expectations and perceptions of inequalities in healthcare provision were all below 0.3. This indicated that social desirability bias in the answers of HCPs was not present.

### **Discussion**

Approximately one third of the HCPs and clients expected inequalities in the healthcare provision for people with substance use disorders. HCPs were more

negative in their expectations compared to clients. Notably, HCPs as well as clients reported little perceptions of inequalities in healthcare provision although their expectations about inequalities were more negative.

Obviously HCPs are in a position to compare the healthcare provision to clients with substance use disorders with other clients without substance use problems. Clients base their expectations solely on their own perceptions or of fellow clients' treatment. This may contribute to the more negative expectations among HCPs compared to clients. However, it is remarkable that HCPs have higher expectations about inequalities in healthcare provision whereas their perceptions are rather low. The findings of this study suggest that social desirability bias was not present in the answers of HCPs so this cannot clarify the low level of reported perceptions of inequality. A possible explanation might be that HCPs are aware of, or expect, unfair treatment of clients with substance use disorders among other HCPs, although they are not aware of inequalities in their own work. Nevertheless, regarding the low frequency of HCPs as well as clients reported perceptions of inequalities in healthcare provision our expectations that inequalities in healthcare provision are prevalent were not confirmed. If there were inequalities in healthcare provision this was expressed as diagnostic overshadowing and shortcomings in perceived knowledge of HCPs.

Previous studies have provided some suggestions or strategies on how to overcome inequalities in healthcare provision to people with mental illness or substance use disorders. First, two studies from the USA have stressed the importance of patient-centred care (29, 30). In this approach clients' needs and preferences are at the centre of the care given. More specifically shared decision making and self-management of clients with mental illness or substance use problems have been recommended (29). Considering our findings it appears that HCPs as well as clients are fairly satisfied with the active participation and involvement of clients in their treatment. Second, the integration of mental and addiction healthcare into other fields of healthcare, such as primary care, is also expected to enhance the quality of care for individuals with psychiatric disorders in general (8, 29). However, we found no indication that the presence of a nurse practitioner, specializing in addiction in general practice has a positive influence on experienced inequalities in healthcare provision among GPs. More research into shared care is needed to study potential benefits for the reduction of health inequalities. Third, according to our findings, diagnostic overshadowing might be a problem in the healthcare provision to people with substance use disorders. Previous studies have determined factors that may contribute to diagnostic overshadowing, such as inadequate knowledge among HCPs,

discriminatory attitudes, feelings of discomfort among HCPs, and poor communication between HCPs and clients (24, 31). In addition, in certain healthcare settings, such as emergency departments, diagnostic overshadowing might be more prevalent (31). Others have suggested that the responsibilities of HCPs should be stated more clearly and increased monitoring of clients with substance use disorders may also contribute to a reduction of diagnostic overshadowing (8).

To our knowledge this is the first study that investigated perceptions of inequalities in healthcare provision for clients with substance use disorders from the perspective of both HCPs and clients. The examination of expectations as well as perceptions provides insight into the way inequalities may become present in the healthcare provision for individuals with substance use disorders. However, the following limitations need to be considered. The sample of clients was a convenience sample which limits the generalizability of the client group. HCPs invited clients to participate in the study so selection bias may have occurred. In addition, a large number of people with substance use problems do not seek treatment and these people were not represented in our sample. This may have had an influence on the expectations and perceptions of clients about inequalities in healthcare provision which was found in this study, since only clients in treatment were included. Also the sample of HCPs had some restrictions, namely the heterogeneity of professions among HCPs of mental health and specialized addiction services. The low response rate by GPs also limits the generalizability, although low response rates by physicians are quite common due to lack of time or interest (32). Finally, the questions asked HCPs and clients about their expectations and perceptions of inequalities in healthcare provision. In other words, no objective measure of actual inequalities in healthcare provision to individuals with substance use disorders was used in this study.

In summary, inequalities in healthcare provision for clients with substance use disorders are undesirable since this may delay treatment seeking, and diminish both treatment outcomes and recovery from substance use problems. This study provides insight into the expectations and perceptions of both HCPs and clients with inequalities in healthcare provision. HCPs and clients reported little perception of inequality in the healthcare provision for people with substance use disorders. Nevertheless, to prevent or diminish inequalities in healthcare provision more knowledge is needed about the expression and appearance of inequalities in healthcare provision for individuals with substance use disorders. More research using objective measures, such as observations of the healthcare delivery process, is needed. In addition qualitative research is recommended since this may provide more insight into factors that contribute to inequalities in healthcare provision for clients

with substance use problems. Finally, future research should incorporate the perspectives of different stakeholders when studying inequalities in healthcare provision. A qualitative study into stigma attached to schizophrenia has demonstrated that clients, relatives and healthcare professionals all have different areas of attention, experiences and interests (23). This means that their views and perceptions are diverse.

### *Conclusion*

A great amount of HCPs and clients *expected* inequalities in healthcare provision for people with substance use disorders. HCPs were somewhat more negative in their expectations compared to clients. Notably, HCPs as well as clients reported little *perception* of inequalities in healthcare provision. According to the reported perceptions of inequalities in healthcare provision enhancement of the perceived level of knowledge among HCPs is recommended. In addition, diagnostic overshadowing can be a problem in healthcare provision to individuals with substance use disorders. Therefore, awareness of this phenomenon among HCPs is important. This study provides some insight into the perception of inequalities in the healthcare provision for individuals with substance use disorders. However, additional research using objective measures is essential in order to gain a better understanding of the presence and consequences of inequalities in the healthcare provision for clients with substance use disorders.



## References

1. Crisp A. H., Gelder M. G., Rix S., Meltzer H. I., Rowlands O. J. (2000). Stigmatisation of people with mental illnesses. *British Journal of Psychiatry*, 177, 4-7.
2. Room R., Rehm J., Trotter R. T., Ii, Paglia A., Üstün T. B. (2001). *Cross-cultural views on stigma, valuation, parity and societal values towards disability*. In TB Üstün, S Chatterji, JE Bickenbach et al Eds, *Disability and culture: Universalism and diversity* (pp. 247-291). Seattle: WA: Hofgrebe & Huber.
3. Schomerus G., Lucht M., Holzinger A., Matschinger H., Carta M. G., Angermeyer M. C. (2011). The stigma of alcohol dependence compared with other mental disorders: A review of population studies. *Alcohol and Alcoholism*, 46(2), 105-112.
4. Gilchrist G., Moskalewicz J., Slezakova S., Okruhlica L., Torrens M., Vajd R. et al. (2011). Staff regard towards working with substance users: A European multi-centre study. *Addiction*, 106(6), 1114-1125.
5. Van Boekel L. C., Brouwers E. P. M., Van Weeghel J., Garretsen H. F. L. (2013). Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: Systematic review. *Drug and Alcohol Dependence*, 131(1-2), 23-35.
6. Deans C., Soar R. (2005). Caring for clients with dual diagnosis in rural communities in Australia: The experience of mental health professionals. *Journal of Psychiatric and Mental Health Nursing*, 12(3), 268-274.
7. Ford R. (2011). Interpersonal challenges as a constraint on care: The experience of nurses' care of patients who use illicit drugs. *Contemporary Nurse*, 37(2), 241-252.
8. Lawrence D., Kisely S. (2010). Inequalities in healthcare provision for people with severe mental illness. *Journal of Psychopharmacology*, 24(4 Supplement), 61-68.
9. Wahl O., Aroesty-Cohen E. (2010). Attitudes of mental health professionals about mental illness: A review of the recent literature. *Journal of Community Psychology*, 38(1), 49-62.
10. Schulze B. (2007). Stigma and mental health professionals: A review of the evidence on an intricate relationship. *International Review of Psychiatry*, 19(2), 137-155.
11. Thornicroft G., Rose D., Kassam A. (2007). Discrimination in health care against people with mental illness. *International Review of Psychiatry*, 19(2), 113-122.
12. Cooper A. E., Corrigan P. W., Watson A. C. (2003). Mental illness stigma and care seeking. *The Journal of Nervous and Mental Disease*, 191(5), 339-341.
13. Cunningham J. A., Sobell L. C., Sobell M. B., Agrawal S., Toneatto T. (1993). Barriers to treatment: Why alcohol and drug abusers delay or never seek treatment. *Addictive Behaviors*, 18(3), 347-353.
14. Grant B. F. (1997). Barriers to alcoholism treatment: Reasons for not seeking treatment in a general population sample. *Journal of Studies on Alcohol*, 58(4), 365-371.

15. Burti L., Mosher L. R. (2003). Attitudes, values and beliefs of mental health workers. *Epidemiologia e Psichiatria Sociale*, 12(4), 227-231.
16. Hugo M. (2001). Mental health professionals' attitudes towards people who have experienced a mental health disorder. *Journal of Psychiatric and Mental Health Nursing*, 8(5), 419-425.
17. Harris E. C., Barraclough B. (1998). Excess mortality of mental disorder. *British Journal of Psychiatry*, 173, 11-53.
18. Jones D. R., Macias C., Barreira P. J., Fisher W. H., Hargreaves W. A., Harding C. M. (2004). Prevalence, severity, and co-occurrence of chronic physical health problems of persons with serious mental illness. *Psychiatric Services*, 55(11), 1250-1257.
19. Kisely S., Smith M., Lawrence D., Maaten S. (2005). Mortality in individuals who have had psychiatric treatment: Population-based study in Nova Scotia. *The British Journal of Psychiatry: The Journal of Mental Science*, 187, 552-558.
20. Mitchell A. J., Malone D., Doebbeling C. C. (2009). Quality of medical care for people with and without comorbid mental illness and substance misuse: systematic review of comparative studies. *The British Journal of Psychiatry: The Journal of Mental Science*, 194(6), 491-499.
21. De Hert M., Correll C. U., Bobes J., Cetkovich-Bakmas M., Cohen D., Asai I. et al. (2011). Physical illness in patients with severe mental disorders. I. Prevalence, impact of medications and disparities in health care. *World Psychiatry*, 10(1), 52-77.
22. Sullivan G., Han X. T., Moore S., Kotrla K. (2006). Disparities in hospitalization for diabetes among persons with and without co-occurring mental disorders. *Psychiatric Services*, 57(8), 1126-1131.
23. Schulze B., Angermeyer M. C. (2003). Subjective experiences of stigma. A focus group study of schizophrenic patients, their relatives and mental health professionals. *Social Science and Medicine*, 56(2), 299-312.
24. Jones S., Howard L., Thornicroft G. (2008). 'Diagnostic overshadowing': Worse physical health care for people with mental illness. *Acta Psychiatrica Scandinavica*, 118(3), 169-171.
25. Van Boekel L. C., Brouwers E. P. M., Van Weeghel J., Garretsen H. F. L. (2014). Healthcare professionals' regard towards working with patients with substance use disorders: Comparison of primary care, general psychiatry and specialist addiction services. *Drug and Alcohol Dependence*, 134C, 92-98.
26. Gabbidon J., Clement S., Van Nieuwenhuizen A., Kassam A., Brohan E., Norman I. et al. (2013). Mental Illness: Clinicians' Attitudes (MICA) scale-psychometric properties of a version for healthcare students and professionals. *Psychiatry Research*, 206(1), 81-87.
27. Crowne D. P., Marlowe D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*, 24, 349-354.
28. Cohen J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, New Jersey: Erlbaum.

29. Pincus H. A., Page A. E., Druss B., Appelbaum P. S., Gottlieb G., England M. J. (2007). Can psychiatry cross the quality chasm? Improving the quality of health care for mental and substance use conditions. *The American Journal of Psychiatry*, 164(5), 712-719.
30. Institute of Medicine Committee on Quality of Health in America. (2006). *Improving the Quality of Health Care for Mental and Substance Use Conditions: pp. 77-139*. Washington DC: National Academies Press Report.
31. Van Nieuwenhuizen A., Henderson C., Kassam A., Graham T., Murray J., Howard L. M. et al. (2013). Emergency department staff views and experiences on diagnostic overshadowing related to people with mental illness. *Epidemiol Psychiatr Sci*, 22(3), 255-262.
32. Barclay S., Todd C., Finlay I., Grande G., Wyatt P. (2002). Not another questionnaire! Maximizing the response rate, predicting non-response and assessing non-response bias in postal questionnaire studies of GPs. *Family Practice*, 19(1), 105-111.



# Chapter 7

Comparing stigmatizing attitudes towards people with substance use disorders between the general public, GPs, health professionals and clients

Submitted as:

Van Boekel, L.C., Brouwers, E.P.M., Van Weeghel, J., Garretsen, H.F.L. Comparing stigmatizing attitudes towards people with substance use disorders between the general public, GPs, health professionals and clients.

## **Abstract**

### *Background*

Substance use disorders are one of the most severely stigmatized conditions, however little is known about the nature of these stigmatizing attitudes.

### *Aims*

To assess and compare stigmatizing attitudes towards persons with an addiction among different stakeholders: general public, general practitioners, professionals of mental and addiction care services, and clients in treatment for substance abuse.

### *Methods*

Cross-sectional study ( $N=3326$ ) in which stereotypical and attribution beliefs, social distance and expectations about rehabilitation opportunities for individuals with substance use disorders were assessed and compared between stakeholders.

### *Results*

Individuals with substance use disorders elicited great social distance across all stakeholders. Stereotypical beliefs were not different between stakeholders whereas attribution beliefs were more diverse. Considering social distance and expectations about rehabilitation opportunities, the general public was most pessimistic, followed by general practitioners, healthcare professionals and clients. Stereotypical and attribution beliefs, as well as age, gender and socially desirable answering, were not associated with social distance across all stakeholders.

### *Conclusions*

The general public and general practitioners expressed more social distance and were more negative in their expectations about rehabilitation opportunities, compared to mental- and addiction care professionals and clients. Although stigmatizing attitudes were prevalent across all groups, no striking differences were found between stakeholders.

## Introduction

Having substance use problems is one of the most severely stigmatized conditions and more often evokes disapproval and negative opinions than other mental illnesses (1-4). Stigmatization refers to a process that starts when persons or a group of persons are labelled based upon certain characteristics, for instance homosexuality, skin colour, or having a substance use disorder. Subsequently labelled persons are linked to undesirable characteristics, so-called stereotypes, and as a consequence may experience status loss or discrimination. Stigmatization of substance use disorders has been investigated from different perspectives such as among the general public, healthcare professionals and clients in treatment for substance abuse. For instance, the Dutch general public showed high intentions to impose far-reaching restrictions to people with an alcohol- or drug addiction which minimizes their participation within society (5). Also among healthcare professionals negative attitudes exist for working with clients with an alcohol- or drug addiction (6-8). It was also found that experiences of rejection and anticipation of discrimination were prevalent among individuals in treatment for substance use disorders (9).

The stigma attached to addiction acts upon different life domains and can have major consequences for individuals with substance use disorders, as well as for their participation within society. First of all, a stigma can have adverse consequences for the quality of life of individuals and their life opportunities such as employment or housing opportunities (10-12). In addition, the stigma attached to addiction may prevent individuals from seeking help for substance use problems. Evidence has shown that in the USA only a quarter of people with lifetime alcohol dependence received treatment (13) and for drug dependence this was only 38% (14). Comparable percentages were found in a national survey among the Dutch population (15). It was demonstrated that stigma and fear of negative reactions are barriers for seeking treatment (12, 16, 17).

Although substance use disorders evoke strong negative attitudes which can have major consequences, there is a lack of knowledge about the nature of these stigmatizing attitudes. The objective of the present study is to investigate stigmatizing attitudes from different perspectives. Familiarity with stigmatizing conditions and contact with people who are subject to stigma are known to mitigate negative attitudes and contributes to more tolerance and understanding (18-20). Therefore, it is expected that attitudes towards individuals with an addiction will be less negative among people who have more experience or who are more frequently confronted with addiction problems. To examine the impact of familiarity on stigmatizing attitudes it is

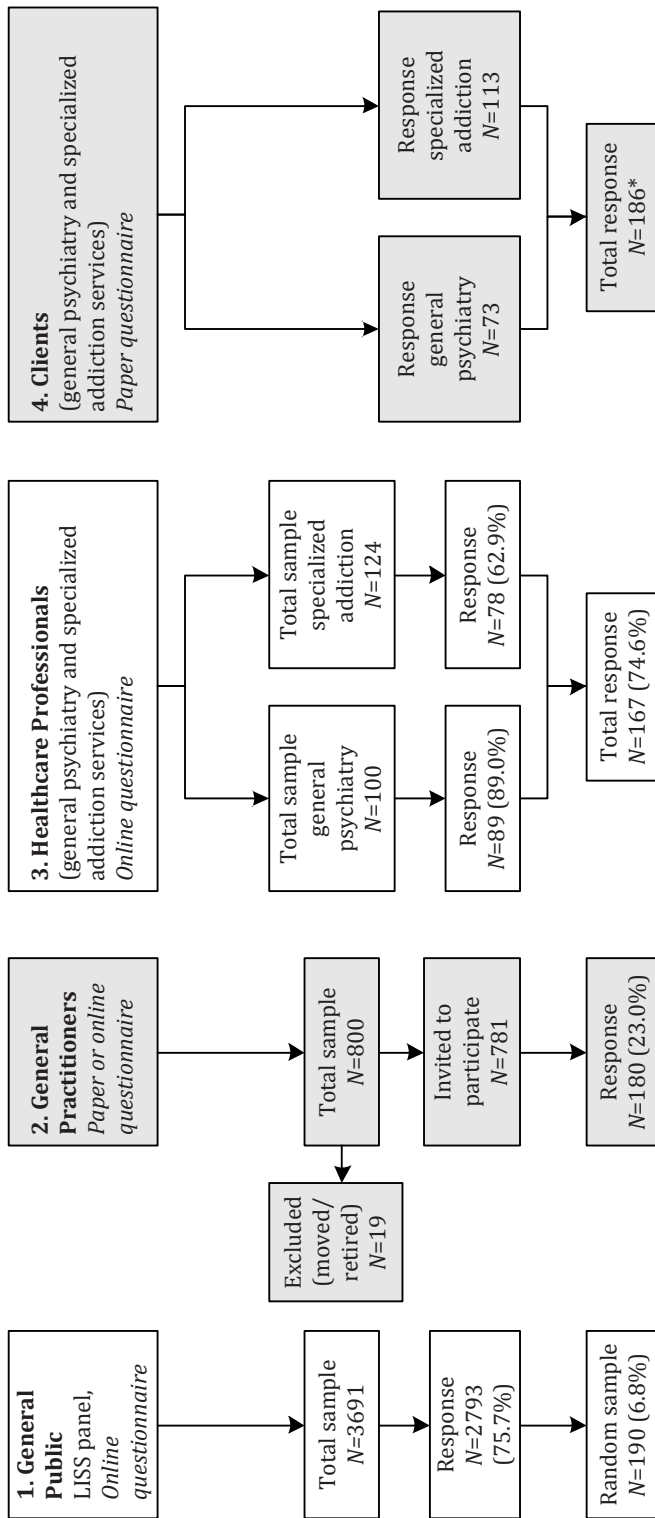
valuable to compare different groups of stakeholders or perspectives who, in varying degrees, are involved in addiction problems. In the present study we assess stigmatizing attitudes of stakeholders in a continuum of familiarity with addiction. The stakeholders range from almost no familiarity among the lay public, to professional experience in working with addiction, and personal experience with having substance use problems. Since, general practitioners act as gatekeepers to specialized treatment for substance abuse this is a crucial group of healthcare professionals. Obviously, professionals in mental health care and specialized addiction care are more involved in the healthcare provision for individuals with an addiction. Finally, the perspective of individuals in treatment for substance abuse is worthwhile to investigate since they have vivid experiences with addiction.

#### *Aims of the study*

The aim of the study is to investigate and compare stigmatizing attitudes towards people with substance use disorders from different perspectives, namely the general public, GPs, healthcare professionals who specialise in mental health or more specifically substance abuse, and clients in treatment for substance abuse. Since these groups of stakeholders vary to a great extent in their level of experience and contact with people with substance use disorders, it is worthwhile to compare their attitudes and to explore correspondent and deviant opinions. The research questions are as follows: 1) what are stigmatizing attitudes (operationalized as stereotypes, attribution beliefs, social distance and rehabilitation expectations) regarding people with substance use disorders? 2) what are the differences in stigmatizing attitudes between groups of stakeholders who differ in their level of familiarity with addiction problems? 3) which factors contribute to the tendency to maintain social distance from people with an addiction and do the groups of stakeholders differ? It is hypothesized that reduced familiarity with substance use disorders is associated with more stigmatizing attitudes.



**Figure 1:** Flowchart of data collection process and response percentages.



Note For the clients, response rate was not available since not being able to participate or refusal to participate was not administered.

## Methods

### *Procedure*

Respondents in four groups of stakeholders filled out a questionnaire which was distributed in 2012. Figure 1 shows detailed information about the data collection process and the response percentages among each group of stakeholders. For a detailed description of the data collection among the Dutch public and health professionals see also previous published studies (5, 8). Data from the Dutch public were collected among a nationally representative internet panel (Longitudinal Internet Studies for the Social Sciences, LISS panel) administered by CentERdata (Tilburg University, The Netherlands). Panel members receive questionnaires every month and were financially rewarded for filling out questionnaires. A random sample of 10150 addresses is drawn each year using a 10% random sample of population registers. For the present study, an online questionnaire was sent to a random sample of the panel consisting of 3691 individuals who were 16 years or older. Two reminders were sent to increase the response rate. In total, 2793 individuals (response rate 75.7%) participated.

GPs were recruited using a random sample of 800 GPs which was drawn from the database of the Netherlands institute for health services research (NIVEL). GPs received a personal letter with an invitation to fill out a web questionnaire. Two reminders were sent to increase the response rate and the final reminder comprised a paper questionnaire with a prepaid envelope. The response rate was 23.0% ( $N=180$ ).

Healthcare professionals were recruited via two large general psychiatry services and two specialized addiction services across the Netherlands. The general psychiatry services mainly focus on treatment of mental health problems, whereas specialized addiction services are mainly focussed on treating substance use problems. The four organizations each selected a minimum of 50 healthcare professionals. The organizations were asked to select professionals from diverse divisions and with different functions in order to recruit a representative sample. Three organizations selected divisions and within these divisions healthcare professionals were approached to participate. One organization selected healthcare professionals from the entire organization. In total, 224 healthcare professionals working in four different organizations were invited by e-mail to fill out a web questionnaire and personal reminders were sent. The response rate among healthcare professionals of general psychiatry and specialized addiction services was 74.6% ( $N=167$ ).

The recruitment of clients in treatment for alcohol and or drug abuse took place in the same four organizations. Employees of the four organizations approached clients to fill out a questionnaire. The employees were asked to select at random a minimum of 50 clients from different divisions. However, it appeared that it was not possible or appropriate to invite each client since some clients were under the influence or currently in a crisis situation. Since random sampling was unrealistic, a convenient sample was used consisting of 186 clients in treatment for alcohol and or drug abuse. The flowchart in figure 1 provides an overview of the response percentages for each group of stakeholders.

### *Measures*

The questions were equal for the respondents across the four groups of stakeholders. Throughout the questionnaire, all questions referred to 'someone with an addiction', which was clearly explained at the start of the questionnaire as 'people who are addicted to alcohol or illicit drugs'.

Attitudes and stigma towards people with an addiction were operationalized as 1) stereotypical beliefs, 2) attribution beliefs, 3) expectations with regard to rehabilitation chances and 4) social distance. Stereotypical beliefs about people with an addiction were assessed by seven items. The items enquired to what degree respondents agreed with stereotypes such as 'someone with an addiction' ... 'is intelligent', 'is criminal' or 'tends to cause disturbances'. Answer categories ranged from 1='totally disagree' to 5='totally agree'. The stereotypes were based upon previous research investigating opinions about psychiatric patients in the Netherlands (21).

Attribution beliefs regarding substance abuse were measured using five items which were based on questions from the Attribution Questionnaire (22, 23) and the Attitudes and Beliefs about Alcoholism and Alcoholics Questionnaire (24). Two statements measured the perception of controllability and responsibility for an addiction: 'someone with an addiction is in control of this addiction' and 'someone with an addiction is responsible for this'. Three statements assessed the degree to which respondents agreed that addiction could be treated successfully, whether addiction is a disease and whether addiction is a consequence of a weak personality. The answer categories ranged from 1='totally disagree' to 5='totally agree'.

To explore the level of perceived stigma within society respondents were asked their perception of the chances for individuals with an addiction to lead a normal life. Expectations of rehabilitation chances for people with an addiction were assessed asking respondents to what degree they thought someone with an addiction

can easily find a place to live, find a job, and have or maintain an intimate relationship compared to 'other' people. Answer categories ranged from 1='definitely not' to 5='definitely'.

Social distance determines the tendency of people to shun contact with persons with certain conditions (25). The items in this study were adapted to serve the purpose of this study. Respondents were presented with nine hypothetical situations in which they were confronted with a person with an addiction, all varying in levels of intimacy. For instance, 'would you be willing to have a person with an addiction to come and live next door to you' or 'sit next to you on the train'? Answer categories ranged from 1='definitely not' to 5='definitely', but recoded scores were used in further analyses. An overall mean score was calculated for the nine items measuring social distance and cases with 4 or more missing values were coded as missing. After recoding the separate items a high score indicated high social distance towards people with an addiction. The Cronbach's alpha for the nine items measuring social distance was 0.90 indicating appropriate internal consistency.

Finally, background information about the respondents was gathered which was different for each group of stakeholders. Socially desirable answers might be expected considering the nature and content of the questions. Therefore the tendency to answer in a socially desirable way was verified by means of the 10-item social desirability scale (26). Among the general public, data about the tendency to answer in a socially desirable way was available from a previous study which was conducted in the same panel. The information about socially desirable answering was available for 2189 respondents (78.4%). In addition, among the general public, age, gender, urbanization in place of residence, and level of education were assessed. Among the GPs, information was gathered about their age, gender, urbanization in place of registered practice, frequency of working with substance abuse, and their tendency for socially desirable answering. Background information on healthcare professionals comprised age, gender, position within the organization, type of healthcare organization, frequency of working with substance use problems, and also socially desirability in answering. Finally among clients, information was gathered about their age, gender, level of education, type of healthcare organization, type of substance use disorder and type of treatment. Socially desirable answering was not expected among clients and therefore this was not assessed. Table 1 provides an overview of the background information by group of stakeholders.

*Statistical analyses*

The study design was unbalanced due to very unequal sample sizes in the four groups of stakeholders. Non-parametric tests can be an alternative when assumptions for parametric testing are violated. However, non-parametric testing was not adequate since one objective was to investigate the association of social distance with stereotypical and attribution beliefs, using linear regression analyses. In addition, unequal sample sizes made it difficult to interpret the magnitude of significant results. Therefore, a random subsample of 190 individuals was drawn from the total sample of the general public. The results of the parametric analyses using the random subsample were compared with the nonparametric equivalents (Kruskal-Wallis and chi-square tests) using the total sample of the general public. Since results were similar, the results of the parametric tests using the subsample will be reported.

SPSS version 19.0 was used to conduct the analyses. For the analyses, a probability level of  $p \leq 0.01$  was applicable. First, to answer the first research question, descriptive analyses were carried out to explore stigmatizing attitudes across all stakeholders. Descriptive analyses were also used to illustrate the background information by group of stakeholders. The four groups were compared for mean age, gender and tendency to answer in a socially desirable way. Second, analyses of variance (ANOVAs) were conducted to compare stereotypical beliefs, attribution beliefs, expectations with regard to rehabilitation chances and social distance between the four groups of stakeholders. For the majority of the variables, the assumption of homogeneity of variance was violated. However, the ANOVA is fairly robust to violation of this assumption when sample sizes are equal which also supports our decision to use a random subsample of the general public. The robust Welch  $F$  test was used to correct for violation of the assumption of homogeneity of variances. To compare the groups of stakeholders in pairs, Games-Howell post hoc tests were used. The effect size estimate omega squared ( $\omega^2$ ) was used since  $\omega^2$  is robust in cases when one of the assumptions is being violated (27). The interpretation of  $\omega^2$  was as follows:  $\omega^2 \leq 0.06$  small effect,  $\omega^2 > 0.06 < 0.14$  medium effect, and  $\omega^2 \geq 0.14$  large effect.

Third, multiple linear regression analyses were performed to predict social distance towards people with an addiction. Predictor variables were age, gender, stereotypical beliefs, attribution beliefs and tendency to answer in a socially desirable way. The regression analyses were carried out separately for each group of stakeholders in order to detect differences in variables predicting social distance. To test whether the effects of the predictor variables on social distance were different for each group of stakeholders the unstandardized regression coefficients were compared according to the test recommended by Paternoster and colleagues (28). Pearson

correlation coefficients between the variables included in the regression analyses were obtained to investigate whether multicollinearity was present (see table 2). Multicollinearity was not a problem since Pearson correlations were all below 0.5, VIF values below 5, and tolerance values above 0.2.

## **Results**

In total the answers of 723 respondents were considered in the analyses. The mean age of the respondents was 45.61 years old ( $SD=13.50$ , range 16-85). Table 1 shows background information by group of stakeholders. The distribution of age and gender was not equal across the four groups. The percentage of women was higher among GPs and healthcare professionals, whereas among clients the percentage of men was higher. The mean age among healthcare professionals was lower compared to GPs and the general public, and clients were even younger. The tendency to answer in a socially desirable way was not significantly different between the groups.

### *Overall attitudes across all groups*

Respondents across all groups often had a neutral opinion on most of the stereotypes, such as people with an addiction are intelligent or tend to be criminal. However, as can be seen in figure 2, the stereotypes that people with an addiction tend to be aggressive and are self-neglecting prevailed among a great number of respondents. Figure 3 shows that across all groups respondents perceived the controllability over an addiction as low; whereas respondents are rather confident that addiction can be treated successfully. Across all groups, agreement that addiction is a disease was quite prevalent. Furthermore, respondents across all groups reported a high tendency to maintain social distance towards individuals with substance use disorders. The respondents were not very optimistic about the chances for individuals with substance use disorders to find a place to live, maintain a normal job or to have a relationship. Many respondents choose the option 'probably not possible' for finding a place to live (49.5%), for maintaining a normal job (52.0%) and having a relationship (41.4%).

**Table 1:** Background information of the respondents by group of stakeholders

	General Public	General Practitioners	Healthcare Professionals	Clients	<i>p</i>
	% (N)	% (N)	% (N)	% (N)	
Age M(SD)	49.06 (17.57)	47.60 (9.47)	43.52( 10.97)	40.92( 12.33)	≤.001 <sup>a</sup>
Gender					
men	50.0 (95)	46.1 (83)	44.9 (75)	67.7 (126)	≤.001 <sup>b</sup>
women	50.0 (95)	53.9 (97)	55.1 (92)	31.2 (58)	
Urbanization in place of practice					
very strongly urbanized	11.1 (21)	22.2 (40)			.018 <sup>b</sup>
strongly urbanized	31.6 (60)	23.9 (43)			
urbanized	20.0 (38)	15.6 (28)			
slightly urbanized	26.8 (51)	23.3 (42)			
not urbanized	10.5 (20)	15.0 (27)			
Level of education					
low education	37.4 (71)			50.0 (93)	≤.001 <sup>b</sup>
middle-level education	30.0 (57)			36.6 (68)	
high education	32.6 (62)			11.3 (21)	
Type of healthcare organization					
mental health service			53.3 (89)	39.2 (73)	.008 <sup>b</sup>
specialized addiction service			46.7 (78)	60.8 (113)	
Frequency working with substance abuse					
never		-	0.6 (1)		≤.001 <sup>b</sup>
few times per year		28.9 (52)	1.2 (2)		
monthly		42.8 (77)	6.6 (11)		
weekly		23.3 (42)	21.0 (35)		
daily		5.0 (9)	70.7 (118)		

	General Public	General Practitioners	Healthcare Professionals	Clients	p
	% (N)	% (N)	% (N)	% (N)	
Social desirability scale M(SD)	5.79 (2.07)	5.85 (1.97)	5.91 (1.67)		.852 <sup>a</sup>
Position of healthcare professionals					
nurse position			54.5 (91)		
agocic position (e.g. social worker)			15.6 (26)		
medical position (e.g. psychiatrist)			6.6 (11)		
psychological position			12.0 (20)		
other position (e.g. prevention, aftercare)			11.4 (19)		
Type of substance use disorder					
alcohol use disorder				34.9 (65)	
drugs use disorder				33.3 (62)	
alcohol and drug use disorder				29.6 (55)	
Type of treatment					
online or ambulatory				41.3 (75)	
after care				2.7 (5)	
ambulatory methadone maintenance				2.2 (4)	
day treatment program				6.5 (12)	
inpatient treatment				36.6 (68)	
half-way house / supported living				8.1 (15)	

Note Total numbers in rows do not add up 100% due to missing responses.

<sup>a</sup> Results of analysis of variance with the Welch Robust test were as follows: age F(3,355)=13.426, social desirability scale F(2,312)=0.161.

<sup>b</sup> Results of chi-square tests were as follows: gender  $\chi^2(3)=26.120$ , urbanization of place or residence / practice  $\chi^2(4)=11.891$ , level of education  $\chi^2(2)=24.011$ , type of healthcare organization  $\chi^2(1)=6.991$ , frequency working with substance abuse  $\chi^2(4)=190.765$ .



**Table 2:** Pearson correlations among all variables included in the regression analyses

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1														
2	0.14*													
3	-0.02	0.16*												
<b>Stereotypical beliefs</b>														
4	-0.26*	-0.13*	0.02											
5	-0.34*	-0.16*	-0.05	0.31*										
6	0.22*	0.03	-0.05	-0.08	-0.27*									
7	-0.23*	-0.13*	-0.05	0.25*	0.33*	-0.12*								
8	0.31*	0.16*	0.00	-0.11*	-0.27*	0.34*	-0.20*							
9	0.23*	0.03	0.05	-0.16*	-0.26*	0.23*	-0.21*	0.43*						
10	0.24*	0.09	0.04	-0.17*	-0.22*	0.20*	-0.19*	0.33*	0.29*					
<b>Attribution beliefs</b>														
11	0.18*	0.11*	-0.00	-0.12*	-0.08	0.07	-0.02	0.13*	0.17*	0.12*				
12	-0.04	0.03	0.03	0.07	0.16*	-0.03	0.12*	0.01	-0.07	0.04	0.34*			
13	-0.01	-0.08	0.08	0.06	0.07	-0.02	0.18*	0.00	-0.01	-0.02	0.16*	0.18*		
14	-0.03	-0.13*	0.05	0.09	0.06	-0.03	-0.04	-0.04	0.05	0.01	-0.17*	-0.20*	0.05	
15	0.28*	0.16*	0.03	-0.17*	-0.16*	0.13*	-0.09	0.24*	0.23*	0.27*	0.27*	0.16*	-0.05	-0.19*

\*  $p < 0.01$ 

1. Social distance; 2. Age; 3. Social desirability scale.

*Stereotypical beliefs:* 4. Are intelligent; 5. Are trustworthy; 6. Tend to be aggressive; 7. Able to maintain a regular job; 8. Tend to cause disturbances; 9. Are self-neglecting; 10. Tend to be criminal.

*Attribution beliefs:* 11. Perceived responsibility; 12. Perceived controllability; 13. Addiction can be treated successfully; 14. Addiction is a disease; 15. Addiction is the consequence of weakness.

### *Comparison of attitudes between stakeholders*

The groups of stakeholders were compared for their stereotypical beliefs, attribution beliefs, social distance and their expectations with regard to rehabilitation chances (see table 3). Although the ANOVA analyses showed significant differences in stereotypical beliefs between the stakeholders, the effect sizes indicated that these differences were rather small. No significant difference was found for the stereotype that people with an addiction are able to maintain a regular job. Overall, the general public and GPs were somewhat more negative in their stereotypical beliefs compared to healthcare professionals and clients.

More substantial differences between the stakeholders were found in their attribution beliefs (table 3). The general public disagreed more that addiction is a disease compared to GPs, healthcare professionals and clients ( $F(3,346)=36.39$ ,  $p\leq 0.001$ ,  $\omega^2=0.13$ ). Furthermore, the beliefs that addiction is the consequence of someone's weakness were significantly different between the stakeholders, with a medium effect size ( $F(3,397)=44.08$ ,  $p\leq 0.001$ ,  $\omega^2=0.15$ ). The general public, and GPs to a lesser extent, agreed more that addiction is the consequence of weakness compared to healthcare professionals and clients. The effect sizes for the remaining attribution beliefs indicated rather small differences between the stakeholders.

Social distance was significantly different between the stakeholders with a medium effect size ( $F(3,394)=38.01$ ,  $p\leq 0.001$ ,  $\omega^2=0.14$ ). The general public reported the highest level of social distance towards people with an addiction, followed by GPs, healthcare professionals and the least social distance was reported by clients. Expectations with regard to chances for people with an addiction to rehabilitate were also significantly different between stakeholders with medium effect sizes in the domain of finding a job and having a relationship (finding a job:  $F(3,392)=16.36$ ,  $p\leq 0.001$ ,  $\omega^2=0.08$ ; having an relationship:  $F(3,392)=20.62$ ,  $p\leq 0.001$ ,  $\omega^2=0.08$ ). The differences between stakeholders showed the same pattern that was found for social distance: clients reported more confidence that individuals with an addiction have possibilities to rehabilitate, whereas the general public and GPs expressed more doubts about these possibilities.

**Table 3:** Means and ANOVAs to compare stereotypical beliefs, attribution beliefs, social distance, and rehabilitation chances by group of stakeholders

	General Public <sup>1</sup> N=190	General Practitioners <sup>2</sup> N=180	Healthcare Professionals <sup>3</sup> N=167	Clients <sup>4</sup> N=186	F(df)	p	$\omega^2$
	M(SD)	M(SD)	M(SD)	M(SD)			
Mean score social distance <sup>a</sup>	3.89 (0.63) <sup>*34</sup>	3.72 (0.53) <sup>*34</sup>	3.38 (0.62) <sup>*12</sup>	3.22 (0.77) <sup>*12</sup>	38.01 (3,394)	≤0.001	0.14
Stereotypical beliefs <sup>b</sup>	M(SD)	M(SD)	M(SD)	M(SD)	F(df)	p	$\omega^2$
... are intelligent	2.84 (0.57) <sup>*34</sup>	3.00 (0.47)	3.08 (0.46) <sup>*1</sup>	3.16 (0.71) <sup>*1</sup>	9.59 (3,397)	≤0.001	0.04
... are trustworthy	2.04 (0.74) <sup>*34</sup>	2.22 (0.70) <sup>*34</sup>	2.51 (0.74) <sup>*12</sup>	2.49 (0.76) <sup>*12</sup>	16.95 (3,397)	≤0.001	0.06
... tend to be aggressive	3.88 (0.64) <sup>*34</sup>	3.86 (0.62) <sup>*34</sup>	3.56 (0.65) <sup>*12</sup>	3.57 (0.72) <sup>*12</sup>	13.25 (3,397)	≤0.001	0.05
... are able to maintain a regular job	2.88 (0.80)	3.03 (0.72)	2.95 (0.79)	3.05 (0.94)	1.66 (3,396)	0.175	0.00
... tend to cause disturbances	3.55 (0.75) <sup>*34</sup>	3.41 (0.66) <sup>34</sup>	3.17 (0.61) <sup>*12</sup>	3.12 (0.83) <sup>*12</sup>	13.49 (3,396)	≤0.001	0.05
... are self-neglecting	3.61 (0.70) <sup>*34</sup>	3.61 (0.66) <sup>*34</sup>	3.32 (0.61) <sup>*12</sup>	3.29 (0.88) <sup>*12</sup>	11.10 (3,397)	≤0.001	0.04
... tend to be criminal	2.96 (0.65) <sup>*234</sup>	2.67 (0.63) <sup>*1</sup>	2.60 (0.59) <sup>*1</sup>	2.71 (0.87) <sup>1</sup>	11.38 (3,397)	≤0.001	0.03

Table continues on next page.

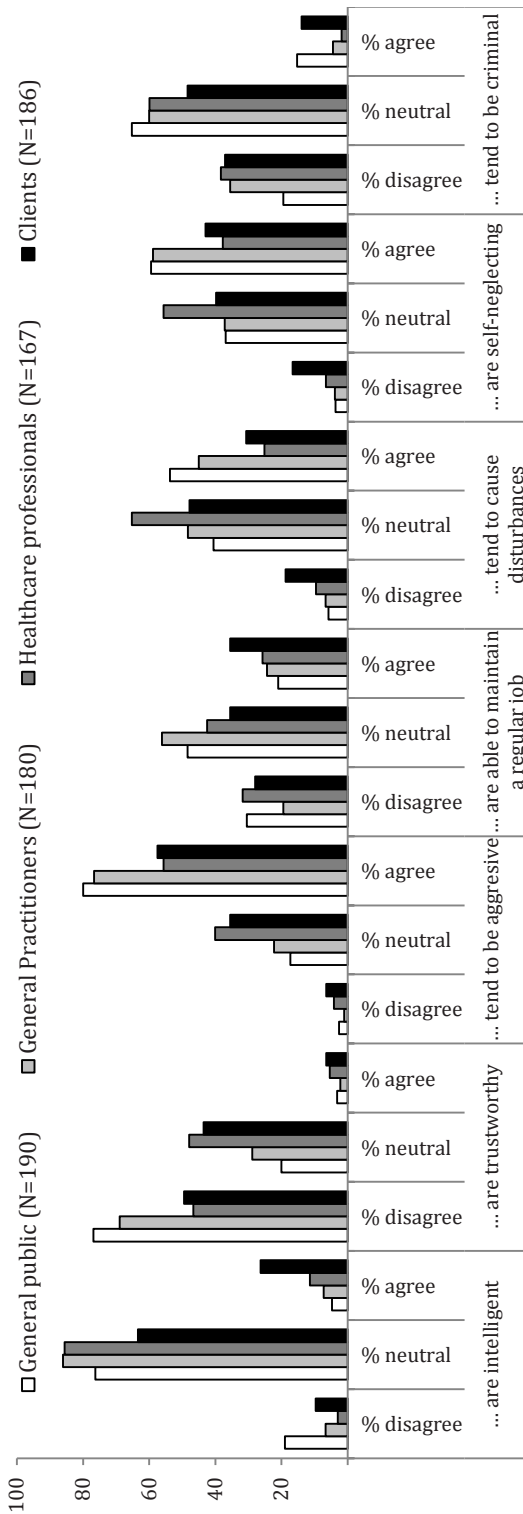
Attribution beliefs <sup>b</sup>	General Public <sup>1</sup> N=190	General Practitioners <sup>2</sup> N=180	Healthcare Professionals <sup>3</sup> N=167	Clients <sup>4</sup> N=186	F(df)	p	$\omega^2$
	M(SD)	M(SD)	M(SD)	M(SD)			
Someone with an addiction is responsible for this.	3.62 (0.85) <sup>*23</sup>	3.33 (0.81) <sup>*13</sup>	2.96 (0.89) <sup>*124</sup>	3.42 (1.06) <sup>*3</sup>	17.26 (3,397)	≤0.001	0.06
Someone with an addiction is in control of this addiction.	2.54 (1.03) <sup>*12</sup>	2.24 (0.74) <sup>*14</sup>	2.23 (0.76) <sup>*14</sup>	2.70 (1.19) <sup>*23</sup>	10.29 (3,396)	≤0.001	0.04
Someone with an addiction can be treated successfully.	3.81 (0.73)	3.65 (0.61)	3.81 (0.68)	3.81 (0.85)	2.64 (3,397)	0.049	0.00
Addiction is a disease.	3.22 (1.04) <sup>*234</sup>	4.03 (0.67) <sup>*1</sup>	4.17 (0.77) <sup>*14</sup>	3.78 (1.18) <sup>*13</sup>	36.64 (3,393)	≤0.001	0.13
Addiction is the consequence of weakness.	3.06 (0.96) <sup>*234</sup>	2.66 (0.86) <sup>*134</sup>	2.04 (0.83) <sup>*12</sup>	2.22 (1.11) <sup>*12</sup>	44.08 (3,397)	≤0.001	0.15
Rehabilitation expectation of chance to... <sup>b</sup>	M(SD)	M(SD)	M(SD)	M(SD)	F(df)	p	$\omega^2$
... find a place to live.	2.12 (0.79) <sup>*4</sup>	2.21 (0.83) <sup>*4</sup>	2.38 (0.91)	2.69 (1.05) <sup>*12</sup>	12.49 (3,392)	≤0.001	0.05
... maintain a normal job.	1.85 (0.67) <sup>*4</sup>	1.99 (0.75) <sup>*4</sup>	2.07 (0.75) <sup>*4</sup>	2.48 (1.04) <sup>*123</sup>	16.35 (3,392)	≤0.001	0.08
... have a relationship.	2.26 (0.91) <sup>*34</sup>	2.17 (0.80) <sup>*34</sup>	2.60 (0.95) <sup>*12</sup>	2.87 (1.06) <sup>*12</sup>	20.62 (3,392)	≤0.001	0.08

\* Statistically significant ( $p \leq 0.01$ ) on post hoc Games Howell to compare groups in pairs.

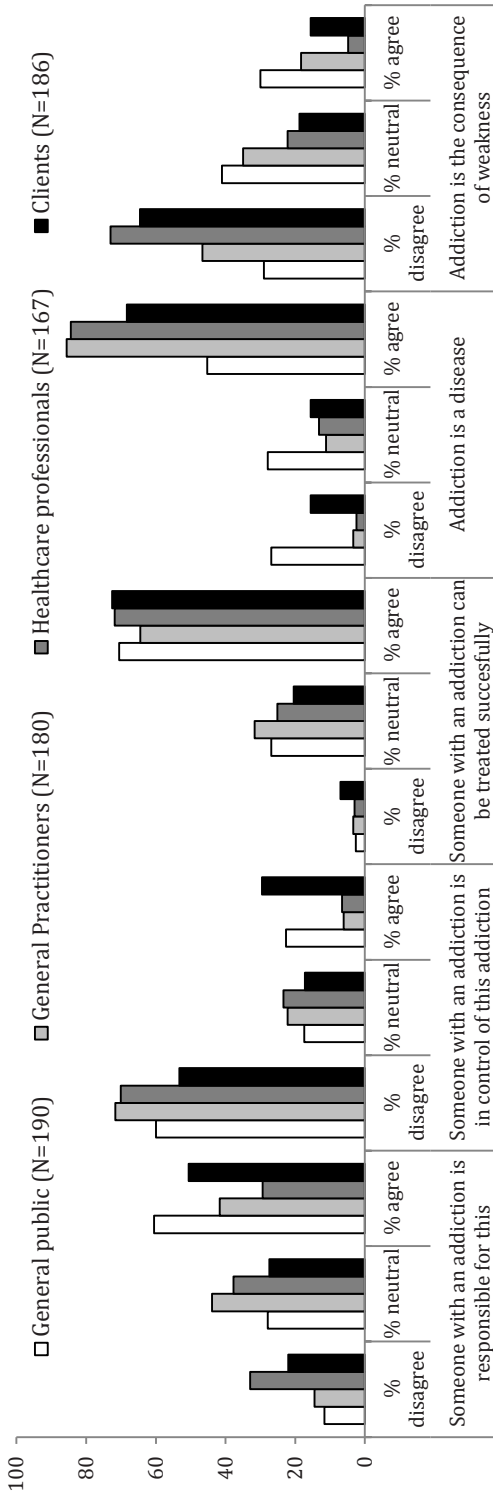
<sup>a</sup> Sum scores ranged from 1 to 5 in which higher scores represent more social distance.

<sup>b</sup> Scores ranged from 1 to 5 in which higher scores represent more agreement or more positive expectations for rehabilitation.

**Figure 2:** Stereotypical beliefs by group of stakeholders



**Figure 3:** Attribution beliefs by group of stakeholders



**Table 4:** Regression analyses to predict social distance by group of stakeholders

	General Public <sup>1</sup>				General Practitioners <sup>2</sup>			
	B	SE	$\beta$	T	B	SE	$\beta$	T
(constant)	2.65	0.69		3.833	3.73	0.75		4.996
age	0.00	0.00	-0.03	-0.368	0.00	0.01	0.02	0.228
gender <sup>a</sup>	0.14	0.11	0.10	1.313	0.08	0.09	0.07	0.839
social desirability scale	0.01	0.03	0.04	0.435	-0.01	0.02	-0.03	-0.366
<b>Stereotypical beliefs</b>	<b>B</b>	<b>SE</b>	<b><math>\beta</math></b>	<b>T</b>	<b>B</b>	<b>SE</b>	<b><math>\beta</math></b>	<b>T</b>
are intelligent	-0.14	0.10	-0.12	-1.440	-0.10	0.09	-0.09	-1.092
are trustworthy	-0.18	0.08	-0.19	-2.203	-0.11	0.07	-0.14	-1.514
aggressive	0.07	0.09	0.07	0.784	0.04	0.07	0.04	0.499
regular job	-0.09	0.07	-0.11	-1.254	0.00	0.06	0.00	0.021
disturbances	0.04	0.09	0.04	0.408	0.05	0.07	0.06	0.656
are self-neglecting	0.03	0.08	0.03	0.351	0.01	0.07	0.01	0.119
tend to be criminal	<b>0.16<sup>3</sup></b>	0.09	0.16	1.903	<b>0.15<sup>3</sup></b>	0.07	0.17	1.996
<b>Attribution beliefs</b>	<b>B</b>	<b>SE</b>	<b><math>\beta</math></b>	<b>T</b>	<b>B</b>	<b>SE</b>	<b><math>\beta</math></b>	<b>T</b>
responsibility	0.12	0.08	0.15	1.520	0.15	0.06	0.22	2.633*
controllability	-0.01	0.05	-0.01	-0.166	-0.04	0.06	-0.06	-0.667
can be treated successfully	0.07	0.07	0.08	1.029	<b>-0.15<sup>4</sup></b>	0.07	-0.17	-2.169
is a disease	0.03	0.05	0.04	0.585	-0.02	0.07	-0.03	-0.326
is consequences of weakness	0.09	0.06	0.13	1.498	-0.03	0.05	-0.05	-0.606

Table continues on next page.

	Healthcare Professionals <sup>3</sup>			Clients <sup>4</sup>				
	B	SE	β	T	B	SE	β	T
(constant)	4.34	0.75		5.801	1.98	0.79		2.510
age	0.00	0.00	-0.02	-0.321	0.00	0.01	0.00	-0.013
gender <sup>a</sup>	-0.02	0.09	-0.02	-0.202	0.01	0.15	0.01	0.083
social desirability scale	-0.04	0.03	-0.12	-1.625				
Stereotypical beliefs	B	SE	β	T	B	SE	β	T
are intelligent	-0.11	0.10	-0.08	-1.097	-0.02	0.10	-0.02	-0.193
are trustworthy	-0.12	0.06	-0.14	-1.787	-0.20	0.10	-0.20	-1.945
tend to aggressive	-0.04	0.07	-0.04	-0.494	0.05	0.11	0.04	0.480
regular job	-0.15	0.06	-0.19	-2.416	-0.07	0.08	-0.09	-0.906
disturbances	0.19	0.09	0.19	2.119	0.06	0.09	0.07	0.683
are self-neglecting	-0.06	0.09	-0.06	-0.642	0.11	0.09	0.12	1.232
tend to be criminal	<b>-0.19</b> <sup>12</sup>	0.08	-0.19	-2.450	0.04	0.09	0.05	0.487
Attribution beliefs	B	SE	β	T	B	SE	β	T
responsibility	0.13	0.05	0.19	2.421	0.03	0.07	0.04	0.394
controllability	0.05	0.06	0.06	0.743	0.00	0.07	0.00	0.036
can be treated successfully	<b>-0.17</b> <sup>4</sup>	0.07	-0.19	-2.382	<b>0.12</b> <sup>23</sup>	0.08	0.14	1.544
is a disease	0.16	0.06	0.20	2.507	0.12	0.06	0.18	1.969
is consequence of weakness	0.10	0.06	0.14	1.800	0.07	0.07	0.10	1.059

Note R<sup>2</sup>: General public=0.311, GPs=0.178, healthcare professionals=0.282, clients=0.212. Adjusted R<sup>2</sup>: General public=0.231, GPs=0.049, healthcare professionals=0.209, clients=0.117. B=unstandardized coefficients, SE=standard error, β=standardized coefficients. Significant different unstandardized beta coefficients are printed in bold with corresponding number of different group.

<sup>a</sup> Men were the reference category.

\* Statistically significant ( $p < 0.01$ ).



### *Predicting social distance towards individuals with an addiction*

Regression analyses to predict social distance with stereotypical and attribution beliefs were performed for each group of stakeholders separately. In table 4, the results of the regression analyses are displayed. The model to predict social distance with the predictor variables showed the best fit among the general public ( $R^2=.311$ , GPs  $R^2=.178$ , healthcare professionals  $R^2=.282$ , clients  $R^2=.212$ ). However, it appeared that among the general public, healthcare professionals, and clients, none of the predictor variables were significant predictors of social distance. Among GPs, the perception that someone with an addiction is personally responsible was associated with increased social distance. Furthermore, no association between social distance and age, gender, and the tendency to answer in a socially desirable way was found. Of the predictors in the study, some were significantly different between the stakeholders, although these predictors were not significantly associated with social distance (see table 4).

### **Discussion**

All stakeholders maintained great social distance towards individuals who have an addiction; especially the general public expressed a high tendency to maintain social distance towards this group. People with an addiction evoke stereotypes such as aggressiveness, causing disturbances, and being self-neglecting. The expectations about the chances for individuals with substance use disorders to find a place to live, to have a relationship and to maintain a normal job were moderately negative.

In general, although the differences were rather small, the public had the most negative views of people with an addiction, followed by GPs, healthcare professionals and clients. Stereotypical beliefs about people who have an addiction did not differ to a large extent between the stakeholders, while attribution beliefs differed more between the groups. The general public endorsed addiction less as a disease compared to the other groups of stakeholders and attributing addiction to a weak personality was more frequently reported by the general public and GPs. Social distance was also significantly different between the groups of stakeholders. The general public reported the greatest tendency to shun contact with persons who have an addiction, followed in order of diminishing social distance by GPs, healthcare professionals, and clients. The same pattern was found for expectations with regard to opportunities for individuals with substance use disorders to rehabilitate. Stereotypical beliefs and attribution beliefs did not predict social distance across all groups. An exception was perceived responsibility which was associated with

increased social distance among GPs. Age, gender, and socially desirable answering were not associated with social distance. This was surprising since previous evidence indicates that an older age was related to more social distance towards people with mental illnesses (29-31). For the effect of gender and social desirability on social distance, conflicting evidence exists (30, 32-34). Overall no striking differences were found between the stakeholders in their attitudes towards people who have an addiction.

Our findings are in line with the hypothesis that more contact and familiarity is associated with reduced social distance towards a stigmatized group (19, 35). In addition, we found that contact was associated with more positive expectations about the opportunities for individuals with an addiction to rehabilitate. However, contradictory findings were found in other studies comparing different stakeholders who vary in their degree of familiarity with a stigmatized condition. Few studies found the same pattern as we did, namely that more contact or familiarity was related to reduced social distance among different mental illness diagnoses and stakeholders (29, 36). However, an association of familiarity with stigmatizing attitudes was not always found. For instance, in two studies investigating social distance towards persons with schizophrenia and substance use disorders, familiarity was not related to social distance (33, 37). It has been suggested that, in particular, mental health professionals may be an exception to the contact hypothesis, since the majority of the clients they see are disabled and not feeling well (30, 38). This is also referred to as the clinician bias, namely that the view of health professionals is limited to patients who have more severe problems or diagnoses (39, 40). In addition, the effects of contact on attitudes depends on certain conditions such as equal status between persons and common goals (35, 41). These conditions may not be present in the contact between a health professional and clients. Hence, it is possible that the contact hypothesis is not applicable for all mental illness diagnoses, all types of contacts and all measures of stigmatizing attitudes.

The results of the present study show that endorsement of the disease concept for addiction and attributing addiction to personal weakness was different between the stakeholders. The general public disagreed more that addiction is a disease and agreed more that addiction is the consequence of someone's weakness. GPs also agreed more that personal weakness is a cause of addiction compared to the other stakeholders. Differences in attribution beliefs were also found in a Finnish study that compared the population, professionals and clients in their support for different models of addiction and perceptions of responsibility and controllability (42). Van Dorn and colleagues (37) who compared perceptions of the causes of

schizophrenia also found variation in these perceptions between stakeholders. Clients were more likely to endorse 'own bad character' as a cause of schizophrenia (37). Differences in attribution beliefs between stakeholders are not remarkable since historically diverse causal models of addiction have been supported. However, nowadays the treatment of substance abuse is a combination of approaches such as the medical, psychological and sociocultural explanation of addiction (43). The focus in treatment is now more on the clients' responsibility and empowerment. However, this change in approach of addiction might be noticed to a different degree by the stakeholders. In sum, attribution beliefs might be dependent on the mental illness diagnosis, familiarity and knowledge about a diagnosis, and cultural values and standards.

In the interpretation of the results, attention should be paid to the following limitations. The generalizability of clients' attitudes and opinions was rather limited since only people in treatment for substance abuse were included. A great number of people with substance use problems do not seek treatment and were not represented in our sample. The heterogeneity in professions in the subsample of healthcare professionals of mental and addiction care was another limitation. Although low response rates among GPs are highly prevalent in general, mostly due to lack of time or interest (44), the low response rate among GPs limited the representativeness of this subsample. Furthermore, the cross-sectional design made it impossible to investigate causality between the variables. Finally, attitudes and opinions about people with substance use disorders were assessed in general, by which the difference in attitudes that alcohol vs. drug abuse evoke were unknown. However, the comparison of different groups of stakeholders provides the opportunity to compare attitudes between groups who differ in their familiarity and involvement with people who have an addiction. Furthermore, the inclusion of the client perspective was a surplus in investigating stigmatizing attitudes. Adding a scale to assess social desirability in answering and the fact that questions were not asked face-to-face strengthens the results of this study since these factors may contribute to more tolerant answers (32).

In conclusion, all stakeholders expressed a strong tendency to maintain social distance towards individuals who have substance use disorders. Although no striking differences were found between the attitudes of stakeholders, the contact hypothesis was confirmed; stakeholders with less familiarity reported a greater desire for social distance compared to stakeholders who are more closely associated with substance abuse. The present study provides insight into stigmatizing attitudes towards persons with substance use problems from different perspectives. However, no predictors

were found for the desired social distance. This underlines the necessity to further investigate attitudes towards persons with an addiction. In particular, qualitative research might be a useful method to explore factors that contribute to negative attitudes. Evidence for strategies and interventions to reduce stigma related to substance abuse is rather limited (45). A deep understanding of factors that contribute to stigma attached to addiction is essential in the development of evidence-based anti-stigma interventions.

## References

1. Room R., Rehm J., Trotter R. T., Ii, Paglia A., Üstün T. B. (2001). *Cross-cultural views on stigma, valuation, parity and societal values towards disability*. In TB Üstün, S Chatterji, JE Bickenbach et al Eds, *Disability and culture: Universalism and diversity* (pp. 247-291). Seattle: WA: Hofgrebe & Huber.
2. Pescosolido B. A., Monahan J., Link B. G., Stueve A., Kikuzawa S. (1999). The public's view of the competence, dangerousness, and need for legal coercion of persons with mental health problems. *American Journal of Public Health*, 89(9), 1339-1345.
3. Crisp A. H., Gelder M. G., Rix S., Meltzer H. I., Rowlands O. J. (2000). Stigmatisation of people with mental illnesses. *British Journal of Psychiatry*, 177, 4-7.
4. Schomerus G., Lucht M., Holzinger A., Matschinger H., Carta M. G., Angermeyer M. C. (2011). The stigma of alcohol dependence compared with other mental disorders: A review of population studies. *Alcohol and Alcoholism*, 46(2), 105-112.
5. Van Boekel L. C., Brouwers E. P. M., Van Weeghel J., Garretsen H. F. L. (2013). Public opinion on imposing restrictions to people with an alcohol- or drug addiction: a cross-sectional survey. *Social Psychiatry and Psychiatric Epidemiology*, 48(12), 2007-2016.
6. Gilchrist G., Moskalewicz J., Slezakova S., Okruhlica L., Torrens M., Vajd R. et al. (2011). Staff regard towards working with substance users: A European multi-centre study. *Addiction*, 106(6), 1114-1125.
7. Van Boekel L. C., Brouwers E. P. M., Van Weeghel J., Garretsen H. F. L. (2013). Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: Systematic review. *Drug and Alcohol Dependence*, 131(1-2), 23-35.
8. Van Boekel L. C., Brouwers E. P. M., Van Weeghel J., Garretsen H. F. L. (2014). Healthcare professionals' regard towards working with patients with substance use disorders: Comparison of primary care, general psychiatry and specialist addiction services. *Drug and Alcohol Dependence*, 134C, 92-98.
9. Luoma J. B., Twohig M. P., Waltz T., Hayes S. C., Roget N., Padilla M. et al. (2007). An investigation of stigma in individuals receiving treatment for substance abuse. *Addictive Behaviors*, 32(7), 1331-1346.
10. Alonso J., Buron A., Rojas-Farreras S., De Graaf R., Haro J. M., De Girolamo G. et al. (2009). Perceived stigma among individuals with common mental disorders. *Journal of Affective Disorders*, 118(1-3), 180-186.
11. Link B. G., Phelan J. C. (2006). Stigma and its public health implications. *Lancet*, 367(9509), 528-529.
12. Angermeyer M. C. (2003). The stigma of mental illness from the patient's view - An overview. *Psychiatrische Praxis*, 30(7), 358-366.
13. Hasin D. S., Stinson F. S., Ogburn E., Grant B. F. (2007). Prevalence, correlates, disability, and comorbidity of DSM-IV alcohol abuse and dependence in the United

- States. Results from the national epidemiologic survey on alcohol and related conditions. *Archives of General Psychiatry*, 64(7), 830-842.
14. Compton W. M., Thomas Y. F., Stinson F. S., Grant B. F. (2007). Prevalence, correlates, disability, and comorbidity of DSM-IV drug abuse and dependence in the United States - Results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Archives of General Psychiatry*, 64(5), 566-576.
  15. De Graaf R., Ten Have M., Van Dorsselaer S. (2010). *De psychische gezondheid van de Nederlandse bevolking NEMESIS-2: Opzet en eerste resultaten*. Utrecht: Netherlands Institute of Mental Health and Addiction, Trimbos.
  16. Van Der Pol P., Liebrechts N., De Graaf R., Korf D. J., Van Den Brink W., Van Laar M. (2013). Facilitators and barriers in treatment seeking for cannabis dependence. *Drug and Alcohol Dependence*, 133(2), 776-780.
  17. Grant B. F. (1997). Barriers to alcoholism treatment: Reasons for not seeking treatment in a general population sample. *Journal of Studies on Alcohol*, 58(4), 365-371.
  18. Corrigan P. W., Edwards A. B., Green A., Diwan S. L., Penn D. L. (2001). Prejudice, social distance, and familiarity with mental illness. *Schizophrenia Bulletin*, 27(2), 219-225.
  19. Corrigan P. W., Green A., Lundin R., Kubiak M. A., Penn D. L. (2001). Familiarity with and social distance from people who have serious mental illness. *Psychiatric Services*, 52(7), 953-958.
  20. Penn D. L., Guynan K., Daily T., Spaulding W. D., Garbin C. P., Sullivan M. (1994). Dispelling the stigma of schizophrenia - what sort of information is best. *Schizophrenia Bulletin*, 20(3), 567-578.
  21. Van 'T Veer J. T., Kraan H. F., Drosseart S. H., Modde J. M. (2006). Determinants that shape public attitudes towards the mentally ill: a Dutch public study. *Social Psychiatry and Psychiatric Epidemiology*, 41(4), 310-317.
  22. Corrigan P. W., Rowan D., Green A., Lundin R., River P., Uphoff-Wasowski K. et al. (2002). Challenging two mental illness stigmas: Personal responsibility and dangerousness. *Schizophrenia Bulletin*, 28(2), 293-309.
  23. Reizenzein R. (1986). A structural equation analysis of Weiner's attribution - affect model of helping behavior. *Journal of Personality and Social Psychology*, 50(6), 1123-1133.
  24. Crawford J., Heather N. (1987). Public-Attitudes to the Disease Concept of Alcoholism. *International Journal of the Addictions*, 22(11), 1129-1138.
  25. Whatley C. D. (1959). Social Attitudes toward Discharged Mental Patients. *Social Problems*, 6(4), 313-320.
  26. Crowne D. P., Marlowe D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*, 24, 349-354.
  27. Volker M. A. (2006). Reporting effect size estimates in school psychology research. *Psychology in the Schools*, 43(6), 653-672.

28. Paternoster R., Brame R., Mazerolle P., Piquero A. (1998). Using the correct statistical test for the quality of regression coefficients. *Criminology*, 36(4), 859-866.
29. Jorm A. F., Griffiths K. M. (2008). The public's stigmatizing attitudes towards people with mental disorders: how important are biomedical conceptualizations? *Acta Psychiatrica Scandinavica*, 118(4), 315-321.
30. Jorm A. F., Oh E. (2009). Desire for social distance from people with mental disorders: A review. *Australian and New Zealand Journal of Psychiatry*, 43 (3), 183-200.
31. Angermeyer M. C., Matschinger H. (1997). Social distance towards the mentally ill: Results of representative surveys in the Federal Republic of Germany. *Psychological Medicine*, 27(1), 131-141.
32. Henderson C., Evans-Lacko S., Flach C., Thornicroft G. (2012). Responses to mental health stigma questions: the importance of social desirability and data collection method. *Canadian Journal of Psychiatry*, 57(3), 152-160.
33. Janulis P., Ferrari J. R., Fowler P. (2013). Understanding public stigma toward substance dependence. *Journal of Applied Social Psychology*, 43(5), 1065-1072.
34. Norman R. M. G., Sorrentino R. M., Windell D., Manchanda R. (2008). The role of perceived norms in the stigmatization of mental illness. *Social Psychiatry and Psychiatric Epidemiology*, 43(11), 851-859.
35. Allport G. W. (1954). *The nature of prejudice*. Cambridge: Addison-Wesley.
36. Grausgruber A., Meise U., Katschnig H., Schony W., Fleischhacker W. W. (2007). Patterns of social distance towards people suffering from schizophrenia in Austria: a comparison between the general public, relatives and mental health staff. *Acta Psychiatrica Scandinavica*, 115(4), 310-319.
37. Van Dorn R. A., Swanson J. W., Elbogen E. B., Swartz M. S. (2005). A comparison of stigmatizing attitudes toward persons with schizophrenia in four stakeholder groups: Perceived likelihood of violence and desire for social distance. *Psychiatry-Interpersonal and Biological Processes*, 68(2), 152-163.
38. Nordt C., Rossler W., Lauber C. (2006). Attitudes of mental health professionals toward people with schizophrenia and major depression. *Schizophrenia Bulletin*, 32(4), 709-714.
39. Hugo M. (2001). Mental health professionals' attitudes towards people who have experienced a mental health disorder. *Journal of Psychiatric and Mental Health Nursing*, 8(5), 419-425.
40. Thornicroft G., Rose D., Kassam A. (2007). Discrimination in health care against people with mental illness. *International Review of Psychiatry*, 19(2), 113-122.
41. Corrigan P. W., Mueser K. T., Bond G. R., Drake R. E., Solomon P. (2008). *Principles and practice of psychiatric rehabilitation: An empirical approach*. New York: The Guilford Press.
42. Koski-Jannes A., Hirschovits-Gerz T., Pennonen M. (2012). Population, professional, and client support for different models of managing addictive behaviors. *Substance Use and Misuse*, 47(3), 296-308.

43. Center for Substance Abuse Treatment. (1997). *A Guide to Substance Abuse Services for Primary Care Clinicians. Treatment Improvement Protocol (TIP) Series, No. 24*. Rockville (MD).
44. Barclay S., Todd C., Finlay I., Grande G., Wyatt P. (2002). Not another questionnaire! Maximizing the response rate, predicting non-response and assessing non-response bias in postal questionnaire studies of GPs. *Family Practice*, 19(1), 105-111.
45. Livingston J. D., Milne T., Fang M. L., Amari E. (2011). The effectiveness of interventions for reducing stigma related to substance use disorders: a systematic review. *Addiction*, 107, 39-50.



# Chapter 8

Discussion

## **Discussion**

People with substance use disorders are often confronted with rejection, ignorance and disapproval. Evidence has shown that substance use disorders may evoke more negative attitudes compared to other mental illnesses such as depression or schizophrenia (1-3). Stigmatization and negative attitudes can have major consequences on people's lives. Studies on stigma of people with mental illness found that stigmatization was related to reduced feelings of well-being (4-6), diminished feelings of empowerment and self-esteem, and self-stigmatization (7-10). It is believed to also reduce the life opportunities of a stigmatized individual such as employment, housing, intimate relationships, and social participation (8, 11). Furthermore, stigma can be a barrier for seeking treatment for substance use disorders (12-14). Hence, stigmatization is undesirable since it has a major impact on the lives of individuals with a stigmatized condition.

Although a few studies have generated insight in the stigma attached to substance use disorders, little is known about the magnitude of the problem. A deeper understanding of the factors that contribute to the stigma as well as evidence indicating the level of the stigma of people with substance use disorders is essential in order to reduce stigma and its consequences. To examine the problem of stigma concerning people with substance use disorders, in this dissertation, the attitudes of different stakeholders were investigated in order to draw a more complete picture of the situation from different perspectives. In addition, perceptions about the consequences of the stigma attached to substance use disorders were investigated. Attitudes towards people with substance use disorders were assessed among the clients in treatment for substance use disorders, the Dutch general public, general practitioners, and healthcare professionals of general psychiatry services and specialized addiction services.

The research questions that were formulated were as follows:

- What is the level of experienced and anticipated discrimination among clients in treatment for substance use disorders and is this associated with social and clinical characteristics?
- What intentions does the Dutch general public have concerning imposing restrictions to individuals with substance use disorders and can an attribution model be applied to explain these intentions?

- What is known about the attitudes of healthcare professionals towards working with clients with substance use disorders and what is the impact of attitudes on healthcare delivery for these patients?
- What is the regard of healthcare professionals for working with clients with substance use disorders and is this different among healthcare professionals working in primary care vs. general psychiatry vs. addiction care?
- What are the expectations and perceptions of healthcare professionals and clients about inequalities in healthcare provision for clients with substance use disorders and is this different among these stakeholders?
- Which attitudes (operationalized as stereotypes, attribution beliefs, social distance and rehabilitation expectations) do the general public, healthcare professionals and clients have towards individuals with substance use disorders and do attitudes differ between these stakeholders?

First the main findings will be described per research question, followed by an overall reflection of the results of this dissertation. Second, attention will be drawn to the methodological limitations that should be considered when interpreting the findings of this dissertation. Third, recommendations and considerations for further research will be provided. Finally, practical implications and strategies to positively influence attitudes towards people with substance use disorders will be given as well as recommendations for anti-stigma initiatives.

### **Main findings**

Individuals in treatment for substance use disorders experienced and anticipated high rates of discrimination. Discrimination was experienced most frequently in interaction by close relatives, i.e. family, friends or in intimate relationships. Experienced discrimination by healthcare professionals was less frequently reported by individuals with substance use disorders. Both forms of discrimination, experienced and anticipated, were highly correlated. Notably, no association was found between experienced and anticipated discrimination and social and clinical characteristics, such as marital status, occupational status, education level, type of treatment and type of substance use disorder. However, clients who reported a longer history of substance use disorders were found to report a higher degree of experienced discrimination.

More than half of the Dutch general public agreed with statements imposing restrictions to individuals with substance use disorders. The proposed restrictions

could have far-reaching consequences for people with a substance use disorder, such as the prohibition to take care of children and involuntary hospitalization. It appeared that especially the perception that someone is personally responsible for having a substance use disorder and expectations of aggressiveness were critical in the intentions to impose restrictions. In addition, feelings of anger and fear contributed to higher intentions among the general public to impose restrictions. Although familiarity with substance use disorders was negatively associated with intentions to impose restrictions, this influence was not very large. These findings provide insight into the origin of the high intentions of the public to restrict life opportunities for people with substance use disorders.

The results of the systematic literature review showed that healthcare professionals in general had rather negative attitudes towards patients with substance use disorders. The feeling that patients were not motivated, manipulative and might be violent played a role in the negative attitudes of healthcare professionals to work with this group of patients. Education and training of healthcare professionals and support structures in the healthcare organization were often inadequate which can contribute to negative attitudes. Although few studies have investigated the consequences of healthcare professionals' negative attitudes on healthcare delivery, we found indications that negative attitudes of healthcare professionals may result in suboptimal healthcare for patients with substance use disorders.

Healthcare professionals' regard, which refers to biases, emotions and expectations that people with substance use disorders generate among professionals (15), was investigated for professionals working in different sectors. Regard of healthcare professionals towards working with patients with substance use disorders was significantly different between general practitioners, professionals of general psychiatry services, and professionals of specialized addiction services. The differences between professionals of the three sectors were consistent regardless the effects of attribution beliefs, emotional responses and other characteristics on regard scores. Healthcare professionals of specialized addiction services showed the highest regard whereas general practitioners reported the lowest regard for working with this patient group. However, the response rate among general practitioners was low. In accordance with the study among the general public, it was found that attribution of substance use disorders to personal responsibility and feelings of anger and fear among professionals were negatively associated with regard scores. Furthermore, familiarity with substance use disorders, a higher frequency of working with patients with substance use disorders, and confidence in the treatment of substance use disorders was associated with higher regard scores.

Both healthcare professionals and clients expected inequality in the healthcare provision for people with substance use disorders. Healthcare professionals expected to a larger extent, compared to clients, that someone with a substance use disorder is being taken less seriously, receives a lower quality of care, and is being given a lower priority compared to other patients without substance use disorders. Remarkably, both healthcare professionals and clients were rather positive in their answers about their own perceptions or experiences with inequality in the healthcare provision for clients with substance use disorders. Nevertheless, some healthcare professionals thought their level of knowledge about substance use disorders was insufficient. In addition, healthcare professionals reported that it might occur that (physical) symptoms of clients with substance use disorders are more easily attributed to their substance use problems (also referred to as ‘diagnostic overshadowing’).

People with substance use disorders elicited great social distance across all groups, i.e. the general public, general practitioners, healthcare professionals of general psychiatry and specialized addiction services, and clients in treatment for substance use disorders. In addition, people with a substance use disorder evoke stereotypes such as being aggressive, causing disturbances and being self-neglecting. All stakeholders expressed low expectations regarding rehabilitation chances for individuals with substance use disorder. The magnitude of stigmatizing attitudes was widespread across all stakeholders, however no large differences were found between the groups of stakeholders. The general public and general practitioners were more negative in their attitudes towards people with substance use disorders compared to healthcare professionals of general psychiatry- and specialized addiction services and clients.

### **Reflection on the main findings**

The main objective of this dissertation was to examine stigmatizing attitudes towards people with substance use disorders from different perspectives. The target groups under study differed across the chapters of this dissertation from clients in treatment for substance use disorders, to the Dutch general public, and healthcare professionals involved in the treatment of substance use disorders.

#### *Stigmatizing attitudes towards people with substance use disorders*

The results of this dissertation show that stigmatizing attitudes towards individuals with substance use disorders were widespread across all stakeholders. People with

substance use disorders evoke great disapproval, rejection and negative attitudes, which is in line with previous findings (1, 3, 16). The Dutch general public showed high intentions to impose restrictions to people with a substance use disorders which have a major impact on their life opportunities. In other words, the Dutch general public supports to a great extent policies and regulations that can be interpreted as structural discrimination. Among the other stakeholders stigmatizing attitudes were also prevalent. All stakeholders, and in particular the general public and general practitioners, maintained great social distance towards individuals with substance use disorders. The stakeholders were negative in their expectations that someone with a substance use disorder can find a place to live, have a relationship and is able to maintain a normal job.

We found a few factors that were related to the widespread negativity surrounding people with substance use disorders. The perception that people with substance use disorders are personally responsible for their problems was a strong predictor of stigmatizing attitudes. Previous studies also found that the perception of 'personal responsibility' or 'blame' and the expectation of personal control in substance use disorders contributed to negative attitudes (16, 17). One explanation may be that people are better able to imagine having substance use problems compared to having another mental illness, since most people have experiences with drinking themselves. Therefore, substance use disorders may evoke a higher level of perceived responsibility and blame compared to other mental illnesses, due to the fact that people do not understand why someone is not able to just stop using substances. Another factor that contributed to negative attitudes towards people with substance use disorders were the perception that these people are aggressive and related to this, elicit feelings of fear and anger. Other studies also determined an association between feelings of dangerousness and aggressiveness and negative attitudes towards people with substance use disorders (16, 18).

We investigated whether and to which degree people with substance use disorders are affected by negative attitudes and discrimination. It appeared that the negative attitudes towards people with a substance use disorder were in agreement with the level of experienced and anticipated discrimination among clients. When comparing our findings with other mental illnesses, such as schizophrenia or depression, it appeared that clients in treatment for substance use disorders experienced and anticipated higher levels of discrimination (19, 20). This suggests that the public stigma of people with substance use disorders is not an abstract phenomenon, but manifests itself in the experiences and anticipations whom it concerns. Unexpectedly, no association was found between the level of experienced

and anticipated discrimination and social and clinical factors, such as marital status, education level, occupational status, or severity of the treatment. Nevertheless, individuals with substance use disorders experienced and anticipated higher levels of discrimination compared to individuals with other mental illnesses. However, they are less disconcerted by this, since no association was found between experienced and anticipated discrimination and social or clinical functioning.

Nevertheless, the widespread stigmatizing attitudes towards people with substance use disorder may hinder rehabilitation and recovery. All stakeholders were negative in their expectations of the chances for individuals with substance use disorders to find a place to live, to have a relationship and to maintain a regular job. Additionally, it was found that individuals in treatment for substance use disorders felt treated unfairly to a large extent by their close relatives, i.e. family, friends and in intimate relationship. These findings imply that people with current or former substance use problems are often confronted with disapproval and obstacles which hinder rehabilitation and recovery.

#### *Attitudes towards people with substance use disorders among healthcare professionals*

The findings of the systematic literature review showed that healthcare professionals have predominantly negative attitudes towards working with patients with substance use disorders. Although there are some indications that this results in suboptimal healthcare delivery (21-24), from previous research little is known about the consequences of negative attitudes among healthcare professionals.

Both healthcare professionals and clients had negative expectations about inequalities in the healthcare provision for people with substance use disorders. However, healthcare professionals perceived only a few inequalities in their own work with patient with substance use disorders. An explanation for this inconsistency between healthcare professionals' expectations and perceptions about inequalities in the healthcare provision might be that they expect or perceive unfair treatment of clients with substance use disorders among their colleagues.

Individuals in treatment for substance use disorders reported low levels of experienced discrimination in their contacts with different healthcare professionals, e.g. general practitioners, dentists or professionals of mental- and addiction care services. In our study we did not use observations of the contact between healthcare professionals and clients with substance use disorders. Therefore it remains unclear whether unfair treatment actually occurred. It might be that unfair treatment did occur, although clients were not so much affected by this. This may clarify the low level of experienced discrimination which was found. Self-stigmatization can also

contribute to the low level in which clients felt treated unfairly by healthcare professionals. For instance, because of self-stigmatization clients may expect, or even think they deserve a different or unfair treatment, causing low levels of experienced discrimination.

In sum, we found no alarmingly negative attitudes among healthcare professionals towards persons with substance use disorders. In addition, individuals in treatment for substance use disorders experienced only low levels of being treated unfairly by healthcare professionals. Nonetheless, there is still room for improvement regarding the attitudes of healthcare professionals towards people with substance use disorders. In particular, there is a need to offer (extra) support to work with this specific patient group to enhance the level of perceived knowledge of healthcare professionals. Healthcare professionals working in different sectors also differed in their attitudes to work with patients with substance use disorders. This should be kept in mind when providing support for healthcare professionals to work with this patient group. For instance, general practitioners reported the lowest regard to work with patients with substance use disorders.

#### *Differences between stakeholders*

Throughout this dissertation stigmatizing attitudes towards people with substance use disorders are studied among different stakeholders. This provides us the opportunity to compare differences in attitudes between stakeholders. The general public expressed the most negative attitudes towards people with substance use disorders, followed in order of diminishing negative attitudes by general practitioners, healthcare professionals of general psychiatry and specialized addiction services, and clients. This can be explained by the lower level of familiarity among the general public with substance use disorders, contributing to less positive attitudes (25, 26). In addition, healthcare professionals, especially healthcare professionals of specialized addiction services, have chosen to work with patients with substance use disorders and are more frequently in contact with these patients. Although we found no striking differences in the stigmatizing attitudes between the stakeholders, in particular social distance and attribution beliefs were different between stakeholders. The general public and general practitioners viewed substance use disorders more as a consequence of someone's weakness. Furthermore, the disease concept was endorsed to a different degree by the stakeholders: healthcare professionals of general psychiatry and specialized addiction services agreed the most that substance use disorders are a disease.



Significant differences were also found in the regard scores of healthcare professionals working in different sectors. Healthcare professionals working in specialized addiction services, and professionals of general psychiatry services to a lesser extent, had more positive attitudes towards working with this patient group compared to general practitioners. This finding was in line with Gilchrist and colleagues (27) who also found that staff working in general practice was more negative compared to staff of general psychiatry and specialized addiction services. Obviously, healthcare professionals working in addiction treatment have more experiences and are more familiar with substance use disorders. In addition, they have explicitly chosen to work with substance use disorders in contrast to general practitioners.

Our findings are in accordance with the assumption that people who are more familiar or have more knowledge and experience with a stigmatized condition are less negative in their judgements (25, 28). However, the differences that we found, especially between the general public vs. healthcare professionals and clients, were not that large for some of the measurements. The positive association between familiarity and stigmatizing attitudes might be more complicated. Previous studies who compared stigmatizing attitudes between stakeholders varying in degree of familiarity with a stigmatized condition, have found mixed results. Two studies found the same pattern as was found in this dissertation (29, 30) and two studies found no association between familiarity and social distance (31, 32). At this point it should be noted that equal status and common goals between people are known as prerequisites for a positive effect of contact on attitudes (28, 33). Especially in the relationship between clients and healthcare professionals these conditions will not always be present. Furthermore, it has been suggested that healthcare professionals in certain situations are even more negative in their attitudes since the majority of the clients they encounter are disabled, in a period of ill-functioning or not feeling well (34-36). This so-called 'clinician bias' might reduce the expected effect of contact and familiarity on stigmatizing attitudes of healthcare professionals.

### **Methodological considerations**

A cross-sectional comparative study design was used to address the research questions. Because the strengths and limitations have been discussed in the separate chapters, only the main considerations regarding the methodologies will be discussed below.

### *Study design and measurements*

The inclusion of different perspectives to examine stigmatizing attitudes towards people with substance use disorders is a strong point of this study. This provided the opportunity to compare groups who differ in their degree of familiarity, experiences and involvement in substance use disorders. Especially the inclusion of the client perspective was an added value since these are the people whom it concerns and few studies have focussed on this perspective. A limitation of the cross-sectional comparative study design was that data collection was different between the groups of stakeholders. Due to the cross-sectional study design it was impossible to investigate causality between variables. Therefore, it remains unknown for example whether attribution beliefs result in stigmatizing attitudes or whether stigmatizing attitudes have an effect on attribution beliefs.

Considering the measurements, another strength of the study was the inclusion of a social desirability scale in the questionnaire. Measuring social desirability in research on stigma and attitudes is underused although the importance of this measure has been underlined (37). In chapter 5 it appeared that socially desirability in answering was related to higher regard scores among healthcare professionals. We only measured the tendency to answer in a socially desirable way; scores were not adapted or controlled for this influence of socially desirability. However, we verified that it played a role in the answers of healthcare professionals. The fact that questions were not asked face-to-face may have diminished the bias of socially desirable answering.

A limitation of the questionnaire was that no distinction was made between attitudes towards individuals with alcohol use disorders versus individuals with different drug use disorders. According to previous findings drug use disorders evoke more negative attitudes and opinions compared to alcohol use disorders (3, 16, 38). In addition, it has been determined that public perceptions are very different for different substances and addictions (39). Since this was one of the first studies that focussed on stigma attached to people with substance use disorders, it was decided to measure stigmatizing attitudes towards people with substance use disorders in general. As a consequence, it remains unknown whether attitudes are different for individuals with alcohol vs. drug use disorders.

Finally, attitudes, beliefs, and opinions regarding individuals with substance use disorders were subjectively assessed and all measures were based upon self-reported data. No objective measurements, such as observations of actual behaviours, were used.

### *Study samples*

The response rate among the internet panel, used to collect data among the Dutch general public, was high (75.7%). In addition, it was a large and representative study sample which strengthens the findings across this group. The advantage of collecting data among this internet panel was that we were able to combine our data with previous information collected among the panel members.

The study sample of clients in treatment for substance use disorders had limitations. First, the study sample of clients was a convenience sample. Healthcare professionals invited clients to participate in the study, which may have resulted in selection bias. Some clients were in a crisis situation or under the influence of substances and therefore healthcare professionals judged whether a client was capable and whether it was appropriate to approach them to participate. According to the healthcare professionals, individuals who were not approached to participate probably had more psychiatric or societal problems compared to the individuals who participated. Second, in the study sample only clients who were in treatment were included by which individuals who do not seek treatment for substance use disorders were not considered. Third, clients in treatment in private clinics were not taken into account. Fourth, individuals who have had substance use disorders in the past were not considered, although they might still be affected by or experience stigmatization. This is also referred to as 'stigmatization despite recovery'. We compared age, gender, type of substance use disorder and type of treatment of our convenience sample with data of all people *in* treatment for substance use disorders in the Netherlands (40). This suggested that the representativeness of our study sample was fairly good although people in outpatient ambulatory treatment were unrepresented. This may imply that people in our study sample had more severe substance use problems.

In the study sample of general practitioners the main limitation was the low response rate of 23%. Low response rates among physicians and general practitioners are common due to limited time or interest (41, 42). Non-response analyses were conducted for demographic characteristics and no differences were found in these characteristics among responding and non-responding general practitioners. Still it may have limited the representativeness of the sample of general practitioners.

The healthcare professionals of general psychiatry and specialized addiction services were heterogeneous groups with healthcare professionals in diverse functions. Although our aim was to include a diverse group of healthcare professionals, the distribution of healthcare professionals from different functions and divisions was not equal across all organizations. In addition, the healthcare

organizations provided a selection of healthcare professionals or divisions which may have limited the generalizability.

### **Implications for future research**

Although the findings provide insight in the magnitude and content of stigmatizing attitudes towards people with substance use disorders, little is known about the consequences of stigmatizing attitudes. This study established that individuals with substance use disorders experience and anticipate high levels of discrimination and rejection, especially in interpersonal interactions with family, friends or in intimate relationships. However, it remains unknown to what extent and how individuals with substance use disorders are limited in their behaviour and feelings of well-being as a result of stigmatization. The consequences and effects of stigma and discrimination for individuals with substance use disorders need to be studied as many questions remain unanswered. For instance, questions regarding the associations between experienced and anticipated discrimination with feelings of empowerment, self-esteem, self-efficacy, or social capital among individuals with substance use disorders. Research on these associations has been conducted among individuals with mental illness. For instance, there is evidence that social capital is negatively associated with experienced discrimination among individuals with depression and severe mental illness (43, 44). A study among people with bipolar disorder and depression established that self-stigmatization was related to lower levels of empowerment and higher levels of perceived discrimination (45). However, little is known whether or to what degree these associations also apply to individuals with substance use disorders. Comparing different diagnoses of mental illnesses can provide a deeper understanding of the effect of stigma and discrimination on the individual's actions and quality of life.

Gathering knowledge about the consequences of stigmatization is of importance in order to prepare clients, or make clients resilient to stigmatization. Related to this, attention should be paid to the incorporation of coping strategies and stigma resilience in the treatment and rehabilitation process of individuals with substance use disorders. Moreover, experiences and opinions of individuals who do not seek treatment for substance use disorders should be studied. Research among people with mental health problems in general found a small to moderate negative effect of stigma on help seeking intentions (46). More insight into stigmatization as a barrier for treatment seeking among people with substance use disorders is needed. In addition, it is recommended to study different subgroups of people with substance

use disorders since the effect of stigmatization might be different for subgroups. Studying stigmatization from the perspective of family members of individuals with substance use disorders can also contribute to a better understanding of the consequences of stigmatization.

Regarding the consequences of stigmatization for healthcare delivery to patients with substance use disorders, implications for future research can be formulated. This dissertation examined perceptions of healthcare professionals and clients about inequalities in healthcare provision; however no objective measures were used. Therefore, it would be valuable to study inequalities in the healthcare provision for individuals with substance use disorders with objective measures. Observations of the healthcare provision process or assessing treatment outcomes would be valuable. Qualitative research can be useful to gain more insight in how inequalities may become manifest and underlying factors that contribute to inequalities. On a more practical level, evidence is needed about the added value and benefits of shared care initiatives in general practice. What is the best method to integrate specialized addiction treatment into general practice and how can we support professionals in general practice in the treatment of patients with mild substance use disorders? To improve the efficiency and to reduce costs in healthcare, substitution of specialized care to general practice is nowadays more common. This provides the opportunity to study methods to ameliorate attitudes and knowledge among primary care professionals to work with patients with substance use disorders.

Finally, longitudinal research into stigmatizing attitudes and discriminatory actions is necessary to monitor the effects of initiatives for destigmatization. This applies to research into attitudes of the general public as well as monitoring attitudes of other stakeholders, such as healthcare professionals or individuals with substance use disorders.

### **Implications for anti-stigma initiatives**

The results of this study indicate that the perception of aggressiveness and being held personally responsible (blame) are important underlying factors of negative attitudes towards individuals with substance use disorders. In addition, emotional responses, such as feelings of anger and fear, play a role in the stigmatization of substance use disorders. Familiarity and contact with individuals with substance use disorders were associated with more positive attitudes. Recently, a practical guide has been developed containing an overview of current knowledge and strategies in the

Netherlands regarding anti stigma initiatives (47). One recommendation is that in order to diminish stigmatization of mental illness in general, the attention should be given simultaneously to public stigma and self-stigmatization. To change a social phenomenon as complex as stigmatization, concerted action is needed and everyone involved should be aware of the necessity to change stigma. Several strategies for anti-stigma have been proposed such as contact and education. In addition, normalization of mental illness and emphasizing the vulnerability of people to have mental problems is important (47). This guideline and the aforementioned findings of this dissertation may provide a starting point for anti-stigma initiatives, aiming to reduce negative opinions and attitudes about substance use disorders.

From the results among healthcare professionals it can be concluded that some healthcare professionals have the feeling they lack knowledge and support to work with patients with substance use disorders. Especially among general practitioners, additional training and education is likely to enhance perceived knowledge, satisfaction, and confidence in the treatment of this patient group. Support from professionals of specialized addiction services for general practitioners, for instance as shared care, might increase their level of confidence and knowledge in the healthcare delivery to patients with substance use disorders. Finally, awareness among healthcare professionals about their own perceptions and attitudes is of importance (47).

Experienced and anticipated discrimination were highly prevalent among clients with substance use disorders. Especially in interpersonal contacts with family and friends, clients had the feeling they had been treated unfairly because of their substance use disorder. These aspects merit particular attention in the treatment of substance use disorders. For example, offering advice how to deal with discrimination and negative attitudes during the treatment of substance use disorders. Having adequate coping skills or stigma resilience may improve the rehabilitation and participation of these individuals in the society.

## **Conclusion**

Stigmatizing attitudes towards people with a substance use disorders were prevalent across all stakeholders, i.e. the general public, general practitioners, healthcare professionals of general psychiatry services and specialized addiction services, and clients in treatment for substance use disorders. Stakeholders who were more familiar with substance use disorders had more positive attitudes. The perception of 'personal responsibility' for having substance use problems and perceived aggressiveness of

people with substance use disorders were strongly related to having more negative attitudes. Individuals with substance use disorders experienced and anticipated high levels of discrimination, in particular by their close relatives. We found no alarmingly negative attitudes among healthcare professionals, although there is still room for improvement regarding the attitudes of healthcare professionals towards working with patients with substance use disorders. Additionally, individuals in treatment for substance use disorders reported low levels of being treated unfairly by healthcare professionals. However, healthcare professionals should be supported to work with patients with substance use disorders in order to increase their level of perceived knowledge and their attitudes to work with this group of patients.

More research is needed to determine the consequences of stigmatizing attitudes on rehabilitation and recovery of people with substance use disorders. Finally, anti-stigma interventions should be initiated and evaluated, to reduce (the consequences of) stigmatizing attitudes towards people with substance use disorders. At this moment anti-stigma initiatives focussed on attitudes towards people with substance use disorders are scarce.

## References

1. Room R. (2005). Stigma, social inequality and alcohol and drug use. *Drug and Alcohol Review*, 24(2), 143-155.
2. Link B. G., Phelan J. C., Bresnahan M., Stueve A., Pescosolido B. A. (1999). Public conceptions of mental illness: labels, causes, dangerousness, and social distance. *American Journal of Public Health*, 89(9), 1328-1333.
3. Pescosolido B. A., Monahan J., Link B. G., Stueve A., Kikuzawa S. (1999). The public's view of the competence, dangerousness, and need for legal coercion of persons with mental health problems. *American Journal of Public Health*, 89(9), 1339-1345.
4. Alonso J., Buron A., Rojas-Farreras S., De Graaf R., Haro J. M., De Girolamo G. et al. (2009). Perceived stigma among individuals with common mental disorders. *Journal of Affective Disorders*, 118(1-3), 180-186.
5. Link B. G., Struening E. L., Rahav M., Phelan J. C., Nuttbrock L. (1997). On stigma and its consequences: Evidence from a longitudinal study of men with dual diagnoses of mental illness and substance abuse. *Journal of Health and Social Behavior*, 38(2), 177-190.
6. Markowitz F. E. (1998). The effects of stigma on the psychological well-being and life satisfaction of persons with mental illness. *Journal of Health and Social Behavior*, 39(4), 335-347.
7. Lundberg B., Hansson L., Wentz E., Bjorkman T. (2009). Are stigma experiences among persons with mental illness, related to perceptions of self-esteem, empowerment and sense of coherence? *Journal of Psychiatric and Mental Health Nursing*, 16(6), 516-522.
8. Rusch N., Angermeyer M. C., Corrigan P. W. (2005). The stigma of mental illness: Concepts, forms, and consequences. *Psychiatrische Praxis*, 32(5), 221-232.
9. Link B. G., Cullen F. T., Struening E. L., Shrout P. E. (2010). A modified labelling theory approach to mental disorders: An empirical assessment. *American Sociological Review*, 54, 400-423.
10. Corrigan P. W., Rafacz J., Rusch N. (2011). Examining a progressive model of self-stigma and its impact on people with serious mental illness. *Psychiatry Research*, 189(3), 339-343.
11. Link B. G., Phelan J. C. (2006). Stigma and its public health implications. *Lancet*, 367(9509), 528-529.
12. Mojtabai R. (2010). Mental illness stigma and willingness to seek mental health care in the European Union. *Social Psychiatry and Psychiatric Epidemiology*, 45(7), 705-712.
13. Cunningham J. A., Sobell L. C., Sobell M. B., Agrawal S., Toneatto T. (1993). Barriers to treatment: Why alcohol and drug abusers delay or never seek treatment. *Addictive Behaviors*, 18(3), 347-353.
14. Grant B. F. (1997). Barriers to alcoholism treatment: Reasons for not seeking treatment in a general population sample. *Journal of Studies on Alcohol*, 58(4), 365-371.



15. Christison G. W., Haviland M. G., Riggs M. L. (2002). The medical condition regard scale: Measuring reactions to diagnoses. *Academic Medicine*, 77(3), 257-262.
16. Crisp A. H., Gelder M. G., Rix S., Meltzer H. I., Rowlands O. J. (2000). Stigmatisation of people with mental illnesses. *British Journal of Psychiatry*, 177, 4-7.
17. Schomerus G., Lucht M., Holzinger A., Matschinger H., Carta M. G., Angermeyer M. C. (2011). The stigma of alcohol dependence compared with other mental disorders: A review of population studies. *Alcohol and Alcoholism*, 46(2), 105-112.
18. Holma K., Koski-Jannes A., Raitasalo K., Blomqvist J., Pervova I., Cunningham J. A. (2011). Perceptions of addictions as societal problems in Canada, Sweden, Finland and St. Petersburg, Russia. *European Addiction Research*, 17(2), 106-112.
19. Lasalvia A., Zoppei S., Van Bortel T., Bonetto C., Cristofalo D., Wahlbeck K. et al. (2012). Global pattern of experienced and anticipated discrimination reported by people with major depressive disorder: a cross-sectional survey. *Lancet*, 381(9860), 55-62.
20. Thornicroft G., Brohan E., Rose D., Sartorius N., Leese M. (2009). Global pattern of experienced and anticipated discrimination against people with schizophrenia: a cross-sectional survey. *Lancet*, 373(9661), 408-415.
21. Brener L., Von Hippel W., Kippax S. (2007). Prejudice among health care workers toward injecting drug users with hepatitis C: does greater contact lead to less prejudice? *International Journal of Drug Policy*, 18(5), 381-387.
22. Brener L., Von Hippel W., Kippax S., Preacher K. J. (2010a). The role of physician and nurse attitudes in the health care of injecting drug users. *Substance Use and Misuse*, 45(7-8), 1007-1018.
23. Curtis J., Harrison L. (2001). Beneath the surface: collaboration in alcohol and other drug treatment. An analysis using Foucault's three modes of objectification. *Journal of Advanced Nursing*, 34(6), 737-744.
24. Peckover S., Chidlaw R. G. (2007). Too frightened to care? Accounts by district nurses working with clients who misuse substances. *Health and Social Care in the Community*, 15(3), 238-245.
25. Corrigan P. W., Green A., Lundin R., Kubiak M. A., Penn D. L. (2001). Familiarity with and social distance from people who have serious mental illness. *Psychiatric Services*, 52(7), 953-958.
26. Link B. G., Cullen F. T. (1986). Contact with the mentally ill and perceptions of how dangerous they are. *Journal of Health and Social Behavior*, 27(4), 289-302.
27. Gilchrist G., Moskalewicz J., Slezakova S., Okruhlica L., Torrens M., Vajd R. et al. (2011). Staff regard towards working with substance users: A European multi-centre study. *Addiction*, 106(6), 1114-1125.
28. Allport G. W. (1954). *The nature of prejudice*. Cambridge: Addison-Wesley.
29. Grausgruber A., Meise U., Katschnig H., Schöny W., Fleischhacker W. W. (2007). Patterns of social distance towards people suffering from schizophrenia in Austria: a comparison between the general public, relatives and mental health staff. *Acta Psychiatrica Scandinavica*, 115(4), 310-319.

30. Jorm A. F., Griffiths K. M. (2008). The public's stigmatizing attitudes towards people with mental disorders: how important are biomedical conceptualizations? *Acta Psychiatrica Scandinavica*, 118(4), 315-321.
31. Janulis P., Ferrari J. R., Fowler P. (2013). Understanding public stigma toward substance dependence. *Journal of Applied Social Psychology*, 43(5), 1065-1072.
32. Van Dorn R. A., Swanson J. W., Elbogen E. B., Swartz M. S. (2005). A comparison of stigmatizing attitudes toward persons with schizophrenia in four stakeholder groups: Perceived likelihood of violence and desire for social distance. *Psychiatry-Interpersonal and Biological Processes*, 68(2), 152-163.
33. Corrigan P. W., Mueser K. T., Bond G. R., Drake R. E., Solomon P. (2008). *Principles and practice of psychiatric rehabilitation: An empirical approach*. New York: The Guilford Press.
34. Jorm A. F., Oh E. (2009). Desire for social distance from people with mental disorders: A review. *Australian and New Zealand Journal of Psychiatry*, 43 (3), 183-200.
35. Nordt C., Rossler W., Lauber C. (2006). Attitudes of mental health professionals toward people with schizophrenia and major depression. *Schizophrenia Bulletin*, 32(4), 709-714.
36. Thornicroft G., Rose D., Kassam A. (2007). Discrimination in health care against people with mental illness. *International Review of Psychiatry*, 19(2), 113-122.
37. Henderson C., Evans-Lacko S., Flach C., Thornicroft G. (2012). Responses to mental health stigma questions: the importance of social desirability and data collection method. *Canadian Journal of Psychiatry*, 57(3), 152-160.
38. Crisp A., Gelder M., Goddard E., Meltzer H. (2005). Stigmatization of people with mental illnesses: a follow-up study within the Changing Minds campaign of the Royal College of Psychiatrists. *World Psychiatry*, 4(2), 106-113.
39. Blomqvist J. (2009). What is the worst thing you could get hooked on? Popular images of addiction problems in contemporary Sweden. *Nordic Studies on Alcohol and Drugs*, 26(4), 373-398.
40. Wisselink D. J., Kuijpers W. G. T., Mol A. ( 2013). *LADIS, Landelijk Alcohol en Drugs Informatie Systeem: Kerncijfers Verslavingszorg 2012*. Houten: Stichting Informatie Voorziening Zorg.
41. Barclay S., Todd C., Finlay I., Grande G., Wyatt P. (2002). Not another questionnaire! Maximizing the response rate, predicting non-response and assessing non-response bias in postal questionnaire studies of GPs. *Family Practice*, 19(1), 105-111.
42. Kellerman S. E., Herold J. (2001). Physician response to surveys - A review of the literature. *American Journal of Preventive Medicine*, 20(1), 61-67.
43. Webber M., Corker E., Hamilton S., Weeks C., Pinfold V., Rose D. et al. (2014). Discrimination against people with severe mental illness and their access to social capital: findings from the Viewpoint survey. *Epidemiol Psychiatr Sci*, 23(2), 155-165.

44. Zoppei S., Lasalvia A., Bonetto C., Van Bortel T., Nyqvist F., Webber M. et al. (2014). Social capital and reported discrimination among people with depression in 15 European countries. *Social Psychiatry and Psychiatric Epidemiology*.
45. Brohan E., Gauci D., Sartorius N., Thornicroft G. (2011). Self-stigma, empowerment and perceived discrimination among people with bipolar disorder or depression in 13 European countries: The GAMIAN-Europe study. *Journal of Affective Disorders*, 129(1-3), 56-63.
46. Clement S., Schauman O., Graham T., Maggioni F., Evans-Lacko S., Bezborodovs N. et al. (2014). What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. *Psychological Medicine*, 1-17.
47. Kienhorst G. (2014). *Wegwijzer stigmabestrijding in de GGz: Gids naar praktijken die werken. Lessen, praktijken en voorbeelden*: Kenniscentrum Phrenos, Stichting Samen Sterk zonder Stigma, GGz Drenthe, Kim Helmus.



# Summary

## Summary

Stigmatization is a process in which individuals with an undesired condition or deviant behaviour are given lower status by the society. Individuals or a group of persons with a certain condition, are being 'labelled', set apart and as a consequence experience status loss or discrimination. Stigmatization can have several adverse consequences such as reduced quality of life, lower levels of feelings of well-being and empowerment. In addition, stigma may be a barrier in opportunities for employment, housing, friendships, and intimate relationships, and it can hinder social participation. Evidence has shown that the stigma attached to substance use disorders is more persistent and severe than other conditions such as depression or schizophrenia. To summarize, stigmatization might have major consequences for the life opportunities of individuals with a substance use disorder.

The main objective of this dissertation is to investigate stigmatizing attitudes towards people with substance use disorders from different perspectives, namely the general public, general practitioners, healthcare professionals of general psychiatry- and specialized addiction services, and clients in treatment for substance use disorders. Furthermore, perceptions of the consequences of stigmatization for healthcare delivery and rehabilitation of individuals with substance use disorders are examined. Attitudes and perceptions of the different stakeholders are considered and being compared, in order to draw a more complete picture of the stigma attached to substance use disorders. The research questions addressed in the separate chapters are as follows:

- What is the level of experienced and anticipated discrimination among clients in treatment for substance use disorders and is this associated with social and clinical characteristics?
- What intentions does the Dutch general public have concerning imposing restrictions to individuals with substance use disorders and can an attribution model be applied to explain these intentions?
- What is known about the attitudes of healthcare professionals towards working with clients with substance use disorders and what is the impact of attitudes on healthcare delivery for these patients?
- What is the regard of healthcare professionals for working with clients with substance use disorders and is this different among healthcare professionals working in primary care vs. general psychiatry vs. addiction care?

- What are the expectations and perceptions of healthcare professionals and clients about inequalities in healthcare provision for clients with substance use disorders and is this different among these stakeholders?
- Which attitudes (operationalized as stereotypes, attribution beliefs, social distance and rehabilitation expectations) do the general public, healthcare professionals and clients have towards individuals with substance use disorders and do attitudes differ between these stakeholders?

A cross-sectional comparative study design is used to answer the research questions. Data collection took place among the different groups of stakeholders who filled out a questionnaire. First, a nationally representative internet panel (Longitudinal Internet Studies for Social Sciences, LISS panel) is used to collect data among the Dutch general public. The panel is administered by CentERdata, a Dutch research institute. In total, 2793 panel members participated (75.7%) in the study. Second, a random sample of 800 general practitioners is drawn from the database of the Netherlands institute for health services research (NIVEL). The response rate is 23%, resulting in 180 general practitioners who participated. Third, healthcare professionals are recruited from two general psychiatry services and two specialized addiction services across the Netherlands. In total, 167 healthcare professionals, which is 74.6% of the healthcare professionals that are approached to participate, working in these four different organizations participated. Fourth, client in treatment for substance use disorders are recruited in the same four organizations. A convenience sample of 186 individuals in treatment for alcohol- or illicit drug use disorders is used.

In **chapter 2** the level of experienced and anticipated discrimination among clients in treatment for substance use disorders are investigated. Furthermore, the association between both forms of decimation with social and clinical characteristics, such as educational level, marital status, occupational status, type of substance use disorder and treatment, are considered.

Clients experienced and anticipated high rates of discriminations and both forms are highly correlated. Experienced discrimination is highest in interpersonal interactions with family, friends and intimate relationships. We found no association between experienced and anticipated discrimination and social and clinical characteristics. Except having a longer history of substance use problems, this is related to higher levels of experienced discrimination. When comparing these findings with previous studies among clients in treatment for other mental illnesses, the level

of experienced and anticipated discrimination among individuals with substance use disorders is higher.

Public opinions towards imposing restrictions to individuals with substance use disorders are described in **chapter 3**. Respondents of the Dutch general public sample are asked whether they agree with statements about imposing the following restrictions to people with a substance use disorder: the prohibition to take care of children, exclusion from taking public office, not being permitted to have a drivers' license, and involuntary hospitalization. An attribution model is used to examine which attribution beliefs and emotional responses contributed to the intentions of the public to impose restrictions.

The majority of the respondents agree with imposing restrictions to people with substance use disorders, which can have far-reaching consequences for these people. The perception that someone is personally responsible for having a substance use disorder and the expectation that people are aggressive, contributes to more intentions to impose restrictions. Furthermore, feelings of anger and fear are related to higher intentions to impose restrictions. Finally, familiarity with substance use disorders is negatively associated with respondents' intentions to impose restrictions.

The findings of a systematic literature review are described in **chapter 4**. For this review three databases are systematically searched for studies that focus on attitudes of healthcare professionals towards working with patients with substance use disorders. Furthermore, studies which consider the consequences of healthcare professionals' attitudes on healthcare delivery are selected. After a thorough literature search and a careful selection process and quality assessment, 28 studies are included.

Healthcare professionals generally express negative attitudes towards patients with substance use disorders. The perception of violence, manipulation and poor motivation play a role in the negative attitudes of healthcare professionals to work with patients with substance use disorders. Inadequate training and education as well as a lack of support structures in working with this patient group might play a role in the negative attitudes of healthcare professionals. Although only a few studies evaluate the consequences of healthcare professionals' negative attitudes on the rehabilitation of people with substance use disorders, indications are found that it contributes to suboptimal healthcare delivery.

In **chapter 5**, regard of healthcare professionals is compared between professionals working in three different sectors, namely general practitioners, professionals working in general psychiatry and professionals of specialized addiction services.



Regard refers to biases, emotions and expectations that patient with substance use disorders generate among professionals. Furthermore, the associations between regard scores and attribution beliefs, emotional responses and other characteristics of healthcare professionals are examined.

Regard scores are significantly different between the healthcare professionals of the three different sectors. Healthcare professionals of specialized addiction services express the highest regard for working with patients with substance use disorders, followed by professionals of general psychiatry. General practitioners report the lowest regard score, although the response rate in this group is rather low. The differences between the healthcare professionals of the different sectors are persistent despite the effects of attribution beliefs, emotional responses and other characteristics. The perception that someone is personally responsible for having a substance use disorder, as well as feelings of anger and fear, are associated with lower regard scores.

Expectations and perceptions of healthcare professionals and clients about inequalities in the healthcare provision for individuals with substance use disorders are examined in **chapter 6**. General practitioners and healthcare professionals of general psychiatry- and specialized addiction services, as well as clients in treatment are asked whether they expect that people with a substance use disorder in general are being taken less seriously, receive lower quality of care, and are given a lower priority compared to other patients. Furthermore, they are asked whether they perceive inequalities in the healthcare provision to clients with substance use disorders.

Approximately one third of the healthcare professionals and clients expect inequality in the healthcare provision for people with substance use disorders. Healthcare professionals are somewhat more negative in their expectations compared to clients. Notably, both groups report few perceptions of inequality in the healthcare provision for people with substance use disorders. This is remarkable since the expectations are more negative. Perceived knowledge among healthcare professionals needs attention. In addition, diagnostic overshadowing (misattribution of physical problems to substance use disorders) might occur.

In **chapter 7** stigmatizing attitudes towards people with substance use disorders are assessed and compared across the different groups of stakeholders. The stakeholders comprise the Dutch general public, general practitioners, healthcare professionals of general psychiatry- and specialized addiction services, and clients in treatment for

substance use disorders. Stigmatizing attitudes are operationalized as stereotypical beliefs, attribution beliefs, social distance, and expectations about rehabilitation opportunities for individuals with substance use disorders.

Stigmatizing attitudes towards people with substance use disorders are widespread across all stakeholders. Individuals with substance use disorders elicited great social distance and evoke stereotypes such as being aggressive, causing disturbances and being self-neglecting. All stakeholders are pessimistic in their expectations regarding rehabilitation opportunities for individuals with substance use disorders. The general public is most pessimistic and negative, followed by general practitioners, healthcare professionals of general psychiatry- and specialized addiction services and clients. Although stigmatizing attitudes are prevalent across all stakeholders, no striking differences are found between the groups of stakeholders.

The main findings are summarized and reflected on in **chapter 8**. In addition, implications for future research and anti-stigma initiatives are discussed. The main objective of this dissertation is to examine stigmatizing attitudes towards people with substance use disorders from different perspectives. Furthermore, perceptions and expectations about the consequences of stigma attached to substance use disorders are considered. A few main points of interest emerge from the findings.

First, stigmatizing attitudes towards individuals with substance use disorders are prevalent across all stakeholders. In particular, the general public and general practitioners maintain great social distance. The perception that someone is personally responsible for having a substance use disorder, as well as the perception that these people are aggressive, contributes to stigmatizing attitudes. Moreover, feelings of anger and fear increase stigmatization among the stakeholders.

Second, in agreement with the high level of stigmatizing attitudes across all stakeholders, it appears that clients experience and anticipate high levels of discrimination. Clients experience the most discrimination by their close relatives, i.e. family, friends, and in intimate relationships. Unexpectedly, experienced discrimination is not associated with social or clinical characteristics. Although individuals with substance use disorders experience and anticipate more discrimination, compared to people with other mental illnesses, it seems they are less disconcerted.

Third, we found no alarmingly negative attitudes among healthcare professionals to work with patients with substance use disorders. In addition, clients in treatment for substance use disorders report low levels of being treated unfairly by healthcare professionals. Nevertheless, attitudes of healthcare professionals need

further improvement and attention. In particular, providing support to work with patients with substance use disorders may contribute to a higher level of perceived knowledge and more positive attitudes among healthcare professionals

Fourth, more familiarity with substance use disorders is associated with more positive attitudes. The general public expresses the most negative attitudes, followed in order of diminishing negative attitudes by general practitioners, healthcare professionals of general psychiatry and specialized addiction services, and clients in treatment for substance use disorders. However, no striking differences are found in the attitudes of the different stakeholders.

More research is needed to unravel the consequences of stigmatizing attitudes for individuals with substance use disorders and to investigate whether its influence on the healthcare provision for these clients. The use of different measurements (such as qualitative research or observations) in future research can provide more insight into the concrete consequences of stigmatizing attitudes. The findings of this dissertation can serve as input for anti-stigma initiatives, which at this moment are scarce for the target group consisting of people with substance use disorders.



# Samenvatting

## Samenvatting

Stigmatisering is een proces waarin een individu met een afwijkende conditie, of met afwijkend gedrag, als minderwaardig wordt gezien door anderen in de samenleving. Een individu met een bepaalde conditie wordt 'gelabeld' en buiten gesloten. Als gevolg daarvan kan iemand zijn of haar status verliezen en discriminatie ervaren.

Stigmatisering kan ernstige gevolgen hebben, zoals een verminderde kwaliteit van leven en welbevinden, en ook een verminderd gevoel van eigen kracht en regie. Daarnaast kan stigmatisering een barrière vormen bij de zoektocht naar een baan, een woning, en bij het aangaan van vriendschappen of intieme persoonlijke relaties. In bredere zin kan stigmatisering deelname aan de samenleving belemmeren. Gebleken is dat dat het stigma dat aan mensen met een verslaving kleeft hardnekkiger en ernstiger is dan bij andere condities, zoals depressie of schizofrenie. Stigmatisering kan verregaande consequenties hebben voor het leven en de mogelijkheden van mensen met een alcohol- en/of drugsverslaving.

Het belangrijkste doel van dit proefschrift is om stigmatiserende attitudes ten opzichte van mensen met een alcohol- of drugsverslaving in kaart te brengen. Attitudes zijn onderzocht bij verschillende groepen, namelijk de algemene bevolking, huisartsen, hulpverleners in de geestelijke gezondheidszorg (GGz) en verslavingszorg, en cliënten in behandeling voor een verslaving. Daarnaast is onderzocht welke percepties men heeft over de gevolgen van stigmatisering voor de hulpverlening en rehabilitatie van mensen met een verslaving. Om een zo compleet mogelijk beeld te krijgen van het stigma rond mensen met een verslaving, zijn attitudes en percepties van de bovenstaande groepen stakeholders in beschouwing genomen en met elkaar vergeleken. De onderzoeksvragen die ten grondslag liggen aan dit proefschrift zijn als volgt:

- In hoeverre ervaren en anticiperen cliënten, in behandeling voor een verslaving, discriminatie en is dit gerelateerd aan sociale en klinische factoren?
- Wat zijn intenties van de Nederlandse bevolking om restricties op te leggen aan mensen met een verslaving en in hoeverre kan een attributie-model deze intenties van de bevolking verklaren?
- Wat is bekend over attitudes van hulpverleners om te werken met patiënten met een verslaving en welke gevolgen hebben deze attitudes voor de hulpverlening voor deze patiënten?

- In welke mate zijn hulpverleners toegewijd of betrokken ('regard') wanneer zij werken met patiënten met een verslaving en is dit verschillend voor huisartsen, hulpverleners in de GGz, en hulpverleners in de verslavingszorg?
- Wat zijn de verwachtingen en percepties van hulpverleners en cliënten ten aanzien van ongelijkheid in de hulpverlening voor mensen met een verslaving, en zijn er wat dat betreft verschillen tussen hulpverleners en cliënten?
- Welke attitudes (geoperationaliseerd als stereotypes, attributie overtuigingen, sociale afstand en verwachtingen wat betreft rehabilitatie kansen) hebben de algemene bevolking, huisartsen, hulpverleners in de GGz- en verslavingszorg, en cliënten ten opzichte van mensen met een verslaving en zijn er verschillen tussen deze stakeholders?

Een cross-sectionele studie met daarin een vergelijking tussen verschillende groepen is gebruikt om de onderzoeksvragen te beantwoorden. Stakeholders van verschillende groepen hebben een vragenlijst ingevuld. Allereerst is een nationaal, representatief internet-panel gebruikt (Longitudinaal Internetpanel voor Sociale Studies, LISS panel) voor de dataverzameling bij de Nederlandse bevolking. In totaal vulden 2793 (responspercentage 75.7%) panelleden de vragenlijst in. Ten tweede is een steekproef van 800 huisartsen gebruikt. Deze steekproef is getrokken uit het databestand van het Nederlandse instituut voor gezondheidszorgonderzoek (NIVEL). Het responsepercentage bij huisartsen is 23%. Dit betekent dat 180 huisartsen de vragenlijst hebben ingevuld. Ten derde zijn hulpverleners benaderd via twee GGz-instellingen en twee verslavingszorginstellingen. In totaal namen 167 hulpverleners, 74.6% van het totale aantal benaderde hulpverleners van deze vier instellingen, deel aan de studie. Tot slot zijn cliënten in behandeling voor een verslaving uitgenodigd om deel te nemen aan het onderzoek. Een steekproef van 186 cliënten, van dezelfde vier instellingen (convenient sample), hebben een vragenlijst ingevuld.

**Hoofdstuk 2** beschrijft in hoeverre cliënten, in behandeling voor een verslaving, discriminatie ervaren en anticiperen. Daarnaast is het verband tussen ervaren en geanticiperde discriminatie onderzocht. Tevens is gekeken naar de samenhang tussen beide vormen van discriminatie ten opzichte van sociale en klinische factoren, zoals het opleidingsniveau, de burgerlijke status, de arbeidssituatie en het type verslaving.

Het bleek dat cliënten in hoge mate discriminatie ervaren en ook in hoge mate discriminatie anticiperen. Beide discriminatievormen hingen sterk met elkaar samen.

Clënten voelden zich het vaakste ongelijk behandeld in interpersoonlijke interacties met familie, vrienden of in intieme relaties. Ervaren en geanticipeerde discriminatie waren niet gerelateerd aan sociale en klinische factoren. Echter cliënten die aangaven al langere tijd verslavingsproblemen te hebben, rapporteerden ook meer ervaringen met discriminatie. Als de resultaten vergeleken worden met andere onderzoeken bij cliënten met psychiatrische diagnoses, blijkt dat cliënten met een verslaving meer discriminatie ervaren en hierop anticiperen.

De publieke opinie over het opleggen van restricties voor mensen met een verslaving staat beschreven in **hoofdstuk 3**. Respondenten uit het landelijke panel zijn gevraagd in hoeverre zij instemmen met het opleggen van de volgende restricties voor mensen met een verslaving: geen publieke functie vervullen, niet voor kinderen zorgen, onvrijwillige opname voor behandeling, en een verbod om een rijbewijs te hebben. Deze restricties zouden verregaande gevolgen hebben voor mensen met een verslaving. Door middel van een attributie-model is gekeken of de intenties van de Nederlandse bevolking te verklaren zijn. In dit model wordt bijvoorbeeld gekeken naar de mate waarin respondenten vinden dat iemand zelf verantwoordelijk is voor een verslaving en de emotionele reacties die iemand met een verslaving oproept.

De meerderheid van de respondenten is het eens met het opleggen van de voorgestelde restricties voor mensen met een verslaving. De perceptie dat iemand zelf verantwoordelijk is voor een verslaving en de verwachting dat deze mensen agressief zijn, is gerelateerd aan de intentie om restricties op te leggen. Daarnaast spelen emotionele gevoelens van angst en boosheid een rol in de mate waarin mensen restricties op willen leggen. Bekendheid met verslavingsproblemen draagt bij aan verminderde intenties om restricties op te leggen.

De bevindingen van het systematische literatuuronderzoek zijn beschreven in **hoofdstuk 4**. Drie databases zijn systematisch doorzocht om studies, gericht op attitudes van hulpverleners ten aanzien van het werken met patiënten met een verslaving, te selecteren. Ook zijn studies geïnccludeerd die kijken naar de consequenties van attitudes van hulpverleners voor de hulpverlening. Na een uitgebreide literatuurselectie en zorgvuldige kwaliteitsbeoordeling zijn uiteindelijk 28 studies geïnccludeerd.

Hulpverleners blijken over het algemeen een negatieve attitude te hebben ten opzichte van patiënten met een verslaving. De perceptie dat deze mensen agressief en manipulatief zijn, maar ook de perceptie dat mensen weinig gemotiveerd zijn speelde een rol. Onvoldoende training en opleiding maar ook een tekort aan ondersteuning



van hulpverleners om met deze patiënten te werken, dragen bij aan een negatieve attitude. Weinig studies waren gericht op de gevolgen van negatieve attitudes van hulpverleners op de rehabilitatie van mensen met een verslaving. Desalniettemin vonden we aanwijzingen dat negatieve attitudes van hulpverleners kunnen leiden tot suboptimale hulpverlening voor mensen met een verslaving.

**Hoofdstuk 5** gaat in op de toewijding ('regard') van hulpverleners tijdens het werken met patiënten met een verslaving. Tevens is een vergelijking gemaakt tussen drie verschillende categorieën hulpverleners, namelijk huisartsen, hulpverleners in de GGz en hulpverleners in de verslavingszorg. Regard is gedefinieerd als vooroordelen, emoties en verwachtingen die patiënten met een verslaving oproepen bij hulpverleners. Ook is gekeken naar de associaties tussen regard met attributie overtuigingen, emotionele reacties en andere karakteristieken van de hulpverleners.

Regard is significant verschillend tussen de hulpverleners van de drie sectoren. Hulpverleners werkzaam in de verslavingszorg scoren het hoogste op regard, gevolgd door GGz-hulpverleners. Huisartsen rapporteren de laagste regard score, al is het responspercentage laag in deze groep. De verschillen bleven in stand nadat gecontroleerd is voor attributie overtuigingen, emotionele reacties en andere karakteristieken. De perceptie dat iemand zelf verantwoordelijk is voor een verslaving, en gevoelens van angst en boosheid hangen samen met een lagere regard score.

Verwachtingen en percepties van zowel hulpverleners als cliënten wat betreft ongelijkheid in de hulpverlening voor mensen met een verslaving staan beschreven in **hoofdstuk 6**. Huisartsen, GGz-hulpverleners en hulpverleners in de verslavingszorg, als ook cliënten werd gevraagd in hoeverre zij verwachten dat iemand met een verslaving minder serieus wordt genomen, minder goede zorg krijgt en minder prioriteit krijgt in vergelijking met andere patiënten. Daarnaast is gevraagd welke percepties zij hebben wat betreft de ongelijke behandeling van mensen met een verslaving in de hulpverlening.

Ongeveer 30% van de hulpverleners en cliënten verwachten dat sprake is van ongelijkheid in de hulpverlening voor mensen met een verslaving. Hulpverleners zijn nog iets negatiever in hun verwachtingen dan cliënten. Opvallend is dat zowel hulpverleners als cliënten positieve percepties hebben over ongelijkheid in de hulpverlening. Dit is opvallend omdat de verwachtingen vrij negatief zijn. Het blijkt dat hulpverleners hun kennis over verslaving soms niet voldoende vinden. Ook komt

het voor dat fysieke problemen bij mensen met een verslaving sneller worden toegeschreven aan hun verslavingsproblemen.

**Hoofdstuk 7** bevat een inventarisatie en vergelijking van de stigmatiserende attitudes vanuit het oogpunt van de verschillende stakeholders. De groepen stakeholders die in dit hoofdstuk worden onderscheiden zijn: de Nederlandse bevolking, huisartsen, hulpverleners van GGz- en verslavingszorginstellingen en cliënten in behandeling voor een verslaving. Stigmatiserende attitudes zijn geoperationaliseerd als stereotyperende gedachtes, attributie overtuigingen, sociale afstand en verwachtingen wat betreft de mogelijkheden voor rehabilitatie voor mensen met een verslaving.

Stigmatiserende attitudes ten opzichte van mensen met een verslaving komen veel voor bij alle stakeholders. Mensen met een verslaving roepen veel sociale afstand op en ontlokken stereotyperende gedachten zoals agressie, veroorzaken van overlast en zichzelf verwaarlozen. De verwachtingen van alle stakeholders zijn pessimistisch wat betreft de slagingskans voor rehabilitatie bij mensen met een verslaving. De algemene bevolking is het meest pessimistisch en negatief, gevolgd door huisartsen, hulpverleners van de GGz en verslavingszorg en tot slot cliënten. Hoewel stigmatiserende attitudes veel voorkomen zijn er geen opvallend grote verschillen tussen de groepen stakeholders.

De belangrijkste bevindingen van dit proefschrift zijn samengevat en besproken in **hoofdstuk 8**. In dit hoofdstuk wordt ook ingegaan op aanbevelingen voor vervolgonderzoek en aanbevelingen voor anti-stigma initiatieven. Het belangrijkste doel van dit proefschrift is het in kaart brengen van stigmatiserende attitudes ten opzichte van mensen met een verslaving vanuit verschillende perspectieven. Hierbij zijn ook percepties en verwachtingen wat betreft de gevolgen van stigmatisering in ogenschouw genomen. Een aantal belangrijke bevindingen zijn naar voren gekomen in dit proefschrift.

Allereerst komen stigmatiserende attitudes ten opzicht van mensen met een verslaving veel voor. In het bijzonder de algemene bevolking en huisartsen behouden veel sociale afstand tot mensen met een verslaving. De perceptie dat iemand persoonlijk verantwoordelijk is voor een verslaving en de verwachting dat mensen agressief zijn, zorgen voor meer stigmatiserende attitudes. Ook gevoelens van angst en boosheid spelen een rol in stigmatiserende attitudes.

Ten tweede komen de frequente ervaringen van cliënten met discriminatie overeen met de hoge mate van stigmatiserende attitudes van de andere stakeholders. Cliënten voelen zich in grote mate ongelijk behandeld door hun directe omgeving,

zoals familie, vrienden en in intieme relaties. Opvallend genoeg blijkt dat ervaren en geanticiperde discriminatie bij cliënten niet gerelateerd is aan sociale en klinische factoren. Hoewel cliënten dus meer discriminatie ervaren en anticiperen, lijkt het alsof ze hierdoor niet uit het veld worden geslagen.

Ten derde vinden we bij hulpverleners geen opvallend negatieve attitudes wat betreft het werken met patiënten met een verslaving. Cliënten in behandeling voor een verslaving voelen zich slechts in kleine mate ongelijk behandeld door hulpverleners. Desalniettemin is er ruimte voor verbetering van de attitudes van hulpverleners in het werken met patiënten met een verslaving. Met name begeleiding en ondersteuning van hulpverleners tijdens het werken met deze patiënten kan bijdragen aan een verbetering van het kennisniveau en meer positieve attitudes bij hulpverleners.

Ten vierde kunnen we vaststellen dat bekendheid met verslaving samenhangt met positievere attitudes. De algemene bevolking is namelijk het meest negatief in hun attitudes, gevolgd door huisartsen, GGz- en verslavingszorg hulpverleners en cliënten. Echter vinden we geen opvallende verschillen in de attitudes van de verschillende groepen stakeholders.

Vervolgonderzoek is nodig om de consequenties van stigma voor de rehabilitatie van mensen met een verslaving te bepalen. Ook is meer inzicht nodig in de mogelijke gevolgen van stigmatisering, zoals consequenties die het kan hebben op de hulpverlening voor mensen met een verslaving. Het is aan te raden om verschillende meetinstrumenten (zoals observaties of kwalitatief onderzoek) te gebruiken in vervolgonderzoek. Dit kan meer inzicht verschaffen in de concrete gevolgen van stigmatisering. De bevindingen van dit proefschrift leveren input op voor anti-stigma initiatieven. Anti-stigma initiatieven zijn tot nu toe schaars voor deze doelgroep, mensen met een alcohol- of drugsverslaving.



## Dankwoord

Daar is het dan het dankwoord, waar veel mensen misschien als eerste naar toe bladeren. Ik ben super blij en trots dat het proefschrift hier nu ligt. Volgens mij had ik me geen beter promotietraject kunnen wensen.

Dat mijn promotietraject zo voorspoedig is verlopen komt voor een groot deel door mijn begeleiders, Henk Garretsen, Evelien Brouwers en Jaap van Weeghel. Heel veel dank! Jullie vormden een perfect begeleidingsteam. Jullie lieten me heerlijk zelfstandig aan de slag gaan en zodra ik iets op papier had staan kwamen jullie met waardevolle suggesties of aanvullingen. Henk en Jaap met ontzettend veel kennis over verslaving en stigma en lettend op de grote lijn. Evelien (of in Henk jargon *collega Brouwers*) die mijn stukken tot in detail las en ons elke keer terugriep: wat is nou eigenlijk de onderzoeksvraag? Henk, ik had al veel bijnamen maar *bikkel* moet ik misschien maar op mijn CV zetten! Bedankt voor jullie begeleiding en gezelligheid, ik had het niet beter kunnen treffen. Ien van de Goor, dank je wel voor jouw ondersteuning in het begin van mijn promotieonderzoek.

Novadic-Kentron, Brijder Verslavingszorg, Dijk en Duin, GGzE en CentERdata bedankt voor het mogelijk maken van de dataverzameling. In het bijzonder Cor Verbrugge, Elsbeth de Ruijter, Simone Gillissen en Albert Dijkhuizen, bedankt voor jullie hulp bij het verspreiden en inzamelen van de vragenlijsten.

Veel dank ook aan alle leden van de stigmawerkgroep voor het kritisch meedenken in mijn onderzoek. Ik heb veel gebruik gemaakt van jullie uitgebreide kennis en enthousiasme. O- en P-groepjes (Rosalie, Arthur, Bram, Maartje, Diana, Noud, Miel, Hilde, Loraine, Rob, Kim, Tineke en Rosa) bedankt voor jullie feedback en bruikbare opmerkingen. Charlotte, Lieke, Meriam, Karlijn, Margot, en alle collega's van Geestdrift en de werkplaats Verslaving bedankt voor het sparren.

Thank you to all SoRAD-colleagues of Stockholm University for making my research visit so successful. I had a wonderful time in Stockholm. In particular, Eva Samuelsson, Jessica Storbjörk and Jan Blomqvist, thank you for arranging everything and making me feel so welcome. I really hope we can work together in the future so I can use my permanent visa to visit Sweden!

Mijn promotietijd was vooral zo leuk door alle Tranzuele collega's. Als normale ('regular') AiO die er vijf dagen in de week is, heb je wel wat gezelligheid nodig. En die was er gelukkig meer dan genoeg. Maartje, Loraine, Charlotte, Lieke en David, jullie waren super gezellige roomies. Het was heerlijk om tussen het werken door met jullie te kletsen over de grootste (on)zin, samen verse koffie te drinken, en te lachen om onze telefoon als bowlingbal. Excuses dat jullie mijn ontzettende harde typestijl aan hebben moeten horen. Een geluiddempend toetsenbord zou echt een gat in de markt zijn! (Super) Marjan bedankt voor de gezelligheid in jouw sjeesauto. Noud, onze teambuildingsdag was echt de beste allertijden en ik zal mijn initialen nooit opschrijven zonder aan jou te denken.

Charlotte en Loraine, jullie hebben het proces naar de promotie van zo dichtbij meegemaakt, ik ben blij dat jullie mijn paranimfen zijn.

Goulash (Judith, Karen, Francine, Eline en Eva) wat was het fijn om met jullie samen te werken in Maastricht. Jullie hebben me zeker gemotiveerd om te promoveren en ook jullie ervaringsdeskundigheid kwam goed van pas. Op naar het volgende goulash etentje met alleen maar doctors en kleine doctors in spé.

Tot slot, (schoon)familie en vrienden, bedankt voor jullie nuchtere kijk op mijn onderzoek. De term stigma is intussen wel ingeburgerd en vliegt nog al eens te pas en onpas over tafel. Peter, super fijn dat jij de kaft van het proefschrift zo prachtig hebt ontworpen. Robbert, geen 'preliminerrrie results' meer maar gewoon keiharde resultaten. Ik weet dat je trots bent op je vrouwke, ik ben vooral heel blij en trots jouw vrouwke te zijn.

Leonieke van Boekel, september 2014.


**About the author**

Leonieke van Boekel (Mill, the Netherlands, February 9<sup>th</sup> 1986) graduated from pre-university education at Udens College in 2004. She studied Health Sciences at Maastricht University from 2004 until 2009. In 2009 she graduated with a master degree in Public Health (specialized in Health Education and Promotion) at Maastricht University. From 2009 until 2011 she worked as a research and education assistant at the department of Health Promotion of Maastricht University. In March 2011 she started her PhD research at Tilburg University, department Tranzo. In her PhD dissertation she studied stigmatization of people with substance use disorders. Attitudes and perceptions of clients, healthcare professionals and the Dutch general public towards people with substance use disorders were compared. During her PhD research she participated in the European Graduate School in Addiction Research (ESADD) which is coordinated by Technische Universität Dresden. As part of this course she worked at Stockholm Universitet, department SoRAD. Currently, she is affiliated at Free University Amsterdam (VU) as a post-doctoral researcher.









**People with substance use disorders are often confronted with negative responses from their social environment, such as social rejection, denial, or discrimination.**

**In this dissertation stigmatizing attitudes towards people with substance use disorders are investigated from different perspectives; namely the Dutch general public, general practitioners, healthcare professionals of general psychiatry- and specialized addiction services, and clients with substance use disorders. Stigmatizing attitudes towards individuals with substance use disorders are prevalent across all these groups. Familiarity with substance use disorders is related to less stigmatizing attitudes. On the other hand, the perception that someone is personally responsible for a substance use disorder, as well as the perception that these people are aggressive, contributes to more negative attitudes towards people with substance use disorders.**