FACULTY OF
PHARMACEUTICAL SCIENCES

Perceptions of pharmacists on opioids

Watteyne Adelien

A Master dissertation for the study programme Master in Pharmaceutical Care

Academic year: 2020 – 2021

GHENT
UNIVERSITY

Utrecht University

FACULTY OF
PHARMACEUTICAL SCIENCES

Perceptions of pharmacists on opioids

Watteyne Adelien

A Master dissertation for the study programme Master in Pharmaceutical Care

Academic year: 2020 - 2021

GHENT
UNIVERSITY

Utrecht University

This master's thesis was executed in a period where corona measures have influenced research and education activities in various ways. These unusual circumstances may have had an impact on this thesis to a greater or lesser extent, despite all the efforts of the student, daily supervisor(s) and promoters. This generic preamble aims to frame this and was approved by the faculty.

CONFIDENTIALITY AGREEMENT

The reader of this work is required to respect the confidentiality of the contents disclosed herein. Reproduction of the entire text or parts thereof is prohibited. You are kindly asked to return the copy of this work that was handed out to you back to the promoter, Prof. M. Bouvy.

The commissioners

Name: Prof. dr. De Bolle

Address: Ottergemsesteenweg 460,
9000 Ghent (Belgium)

Date and signature

10-5-2021

The promoter

Prof. dr. M. Bouvy

David de Wied building (room 4.62),

Universiteitsweg 99, Utrecht (The Netherlands)

Date and signature

10-2-2021

Name: Prof. dr. Lahousse

Address: Ottergemsesteenweg 460,
9000 Ghent (Belgium)

Date and signature

12-5-2021

The student

Adelien Watteyne

Markizaatstraat 64,

8980 Beselare (Belgium)

Date and signature

11-2-2021

ABSTRACT

Background: It has been confirmed that besides the United States and Canada, Europe is also currently facing an opioid crisis. This is not (yet) in the same magnitude and nature as the United States. Within Europe itself, Belgium is the country with the fourth highest opioid consumption per day per inhabitant. Therefore it goes without saying that measures need to be taken to reduce this opioid crisis. To know which measures Belgium needs, it is important not only to look at the prescribing behaviour of doctors, but also to know how pharmacists experience the dispensing of opioids in case of chronic non-malignant pain.

Objectives: This study aimed to gain insight into the knowledge of Dutch-speaking community pharmacists in Belgium (Flanders and Brussels-Capital-Region) about opioids and their perceptions of the benefits and risks of opioid use. It was also investigated whether the pharmacists' beliefs about opioids depended on the working method in practice and the background characteristics of the pharmacists and the pharmacy. The study was conducted simultaneously in the Netherlands in order to compare results between the two countries. The results will be used to develop appropriate support if needed, for example in the form of in-service training or interventions.

Methods: For this quantitative study, an online questionnaire was set up to investigate the individual beliefs, the dispensing behaviour and the background characteristics of the pharmacists. Because a questionnaire already existed for Dutch pharmacists, the questions were taken over and customised to the Belgian situation. This questionnaire was distributed via social media, via the newsletters of the professional associations and via direct mail to Flemish and Brussels pharmacists.

Results: It was established that the respondents to the questionnaire were a representative population for the total of 7.000 Flemish and Brussels and the 2.909 Dutch community pharmacists. In general, many similarities were seen between the Belgian and Dutch study. The respondents from both countries experienced that opioids are prescribed too much and too often due to a lack of alternative treatments for chronic non-malignant pain. Belgian pharmacists were more likely to see the benefits of the use compared to their colleagues across the border. In the linear regression to determine whether pharmacists' beliefs were associated with working methods and background characteristics, significant differences were seen between the two countries.

Conclusion: Even though the Belgian and Dutch studies gained more insight into pharmacists' perceptions of opioids, it could be concluded that more research is required. In the future, there should be better interaction between general practitioners, pharmacists, physiotherapists, nurses, addiction specialists and pain specialists. Only then patients with chronic non-malignant pain will be treated efficiently as possible and preferably without opioids or with the lowest possible dose.

SAMENVATTING

Achtergrond: Het is bevestigd dat naast de Verenigde Staten en Canada, nu ook Europa met een opioïdecrisis te kampen heeft. Dit is (nog) niet in de zelfde omvang en aard als de Verenigde Staten. Binnen Europa zelf is België het land met de vierde hoogste opioïdeconsumptie per dag per inwoner. Het spreekt dus voor zich dat er maatregelen moeten genomen worden om deze opioïdecrisis te reduceren. Om te weten aan welke maatregelen België behoefte heeft, mag er niet enkel gekeken worden naar het voorschrijfgedrag van artsen, maar is het ook belangrijk om te weten hoe apothekers het afleveren van opioïden bij chronische niet-maligne pijn ervaren.

Doelstellingen: Deze studie wilde inzicht verwerven in de kennis van de Nederlandstalige officina-apothekers in België (Vlaanderen en Brussels Hoofdstedelijk Gewest) over opioïden en hun percepties over de voordelen en risico's van opioïdegebruik. Er werd ook nagegaan of de overtuigingen van de apothekers omtrent opioïden afhankelijk waren van de werkmethode in praktijk en van de achtergrondkenmerken van de apothekers en de apotheek. De studie werd gelijktijdig in Nederland uitgevoerd om de resultaten tussen beide landen te kunnen vergelijken. De resultaten zullen worden gebruikt om zo nodig passende ondersteuning te ontwikkelen, bijvoorbeeld in de vorm van bijscholing of interventies.

Methoden: Voor dit kwantitatieve onderzoek werd een online vragenlijst opgesteld om de overtuigingen, het aflevergedrag en de achtergrondkenmerken van de apothekers na te gaan. Omdat er reeds een vragenlijst was ontwikkeld voor de Nederlands apothekers, werden de vragen overgenomen en aangepast aan de Belgische situatie. Deze vragenlijst werd verspreid via sociale media, via de nieuwsbrieven van de beroepsverenigingen en via directe mails naar de Vlaamse en Brusselse apothekers.

Resultaten: Er werd vastgesteld dat de respondenten van de vragenlijst een representatieve populatie vormden voor de in totaal 7.000 Vlaamse en Brusselse en de 2.909 Nederlandse officina-apothekers. In het algemeen werden tussen de Belgische en de Nederlandse studie veel overeenkomsten gezien. De respondenten van beide landen ondervonden dat opioïden te veel en te vaak worden voorgeschreven door een tekort aan alternatieve behandelingen voor chronische niet-maligne pijn. De Belgische apothekers zagen vaker de voordelen in van het gebruik vergeleken met hun collega's over de grens. Bij de lineaire regressie om te bepalen of de overtuigingen van de apothekers geassocieerd waren met de werkmethodes en de achtergrondkenmerken, werden er significante verschillen gezien tussen de twee landen.

Conclusie: Hoewel de Belgische en Nederlandse studies meer inzicht hebben verschaft in de percepties van apothekers over opioïden, kon er toch geconcludeerd worden dat meer onderzoek nodig is. In de toekomst zou een betere wisselwerking moeten plaatsvinden tussen huisartsen, apothekers, fysiotherapeuten, verpleegkundigen, verslavingsartsen en pijnspecialisten. Alleen dan zullen patiënten met chronische niet-maligne pijn zo efficiënt mogelijk behandeld worden en bij voorkeur zonder opioïden of met de laagst mogelijke dosis.

ACKNOWLEDGEMENTS

In September 2020, I received the unpleasant news that due to the corona epidemic, all Erasmus exchanges were cancelled from UGent. Even though I felt this coming, I was very disappointed and had the feeling that I would not be able to experience part of my education as planned. When I received an e-mail two months later asking if I would like to have an alternative foreign experience through video calls, I did not hesitate one second. Although I would never experience Utrecht in real life, I could still be part of a Dutch study. That way, I could stay safely at home, but still be part of the Master thesis that I wanted. With this word of thanks, I would like to address all those who have helped in the realisation of this master thesis.

First of all I would like to thank my Dutch supervisor prof. dr. M.L. Bouvy and the University of Utrecht for the great opportunity to realise an online Erasmus. I found it fantastic to be allowed to choose the subject myself. The problem of the European opioid crisis is a subject that appealed to me from the very beginning and that I have enjoyed studying. Therefore, I hope that with this master thesis, I can offer new insights to reduce the opioid crisis and that both the prescription and delivery of opioids can be done more efficiently.

Secondly, I would like to thank my Flemish supervisor prof. dr. apr. K. Boussery and Ghent University for also standing behind the principle of an Online Erasmus. During the semester, I could always go to prof. dr. apr. K. Boussery with my questions and concerns.

I would also like to thank dr. apr. E. Mehuys for the advice and many tips about submitting a project to the ethics committee. For information on the differences between Belgian and Dutch pharmacies, I could always turn to apr. L. Claes.

Furthermore, I would like to thank the Dutch pharmacist E. Jansen-Groot Koerkamp and dr. apr. M. Heringa for their guidance and for helping me with the questionnaire and the analysis of the data. I would also have liked to thank E. Koster and D. Philbert from Utrecht University for the monthly online meeting and the manuals and tips.

Next, a sincere thank you goes to all the community pharmacists that took the time to complete my questionnaire. Because of their honest answers to the questionnaire, I had reliable information to add to this master thesis. I would also like to thank the professional associations who published my article with the link to the questionnaire in their newsletter.

Finally, I would like to thank my family and my boyfriend Joni for supporting me during this period and taking care of me when necessary. Especially my mother and my boyfriend for always listening to me and supporting me in everything I do. Even though my boyfriend was busy with his job and other activities, he made time to read my master thesis several times. I would also like to thank all my friends with whom I have met up 'coronaproof' the semester to clear my head and relax.

LIST OF USED ABBREVIATIONS

5-HT3	Serotonin type 3
AC	Adenylyl Cyclase
Ach_m	Muscarinic acetylcholine
APB	Algemene Pharmaceutische Bond (NE)
	General Pharmaceutical Association (EN)
ATP	Adenosine TriPhosphate
BAF	Brabants Apothekers Forum (NE)
	Brabants Pharmacists Forum (EN)
BCFI	Belgisch Centrum voor Farmacotherapeutische Informatie (NE)
	Belgian Centre for Pharmacotherapeutic Information (EN)
Ca2+	Calcium
cAMP	cyclic Adenosine MonoPhosphate
CDC	Centre for Disease Control
CM	Commentaren Medicatiebewaking (NE)
	Comments Medication monitoring (EN)
D2	Dopaminergic
DDDs	Defined Daily Doses
DOR	δ-opioid receptor, delta opioid receptor
GFD	Gedeeld Farmaceutisch dossier (NE)
	Shared Pharmaceutical Record (EN)
GIP	Genees- en hulpmiddelen Informatie Project (NE)
	Medicines and Medical Devices Information Project (EN)
GPCR	G-Protein Coupled Receptor
H1	Histamine type 1
HARM	Hospital Admissions Related to Medication
HBM	Health Belief Model
IASP	International Association for the Study of Pain
IBS	Irritable Bowel Syndrome
INCB	International Narcotics Control Board
IPCI	Integrated Primary Care Information
IPSA	Instituut voor Permanente Studie voor Apothekers (NE)
	Institute for Continuous Study for Pharmacists (EN)
IR	Immediate Release
IVM	Instituut Verantwoord Medicijngebruik (NE)
	Institute for Responsible Use of medicines (EN)
K+	Potassium
KAVA	Koninklijke Apothekersvereniging van Antwerpen (NE)
	Royal Pharmacists' Association of Antwerp (EN)
KLAV	*Koninklijk Limburgs Apothekers* Verbond (NE)
	Royal Limburg Pharmacists Association (EN)
KMO	Kaiser-Meyer-Olkin
KNMP	Koninklijke Nederlandse Maatschappij ter bevordering der Pharmacie (NE)
	Royal Dutch Society for the Advancement of Pharmacy (EN)
KOR	κ-opioid receptor, kappa opioid receptor

KOVAG	Koninklijk Oost-Vlaams ApothekersGilde (NE)
	Royal East Flamish Pharmacists' Guild (EN)
LSP	Landelijk Schakelpunt (NE)
	National Switch Point (EN)
MFO	Medisch-Farmaceutisch Overleg (NE)
	Medical-Pharmaceutical Consultation (EN)
MOR	μ-opioid receptor, mu opiod receptor
NHG	Nederlandse Huisartsen Genootschap (NE)
	Dutch General practitioners Society (EN)
NMDA	N-methyl-d-aspartate
NOR	Nociception opioid receptor
NSAID	Non Steroid Anti-Inflammatory Drug
OBD	Opioid-induced Bowel Dysfunction
OIH	Opioid-Induced Hyperalgesia
OIRD	Opioid-Induced Respiratory Depression
ORT	Opioid Risk Tool
PCA	Principal Component Analysis
REM	Rapid Eye Movement
RIZIV	Rijksinstituut voor Ziekte- en Invaliditeitsverzekering (NE)
	National Institute for Sickness and Disability Insurance (EN)
ROO	Rapid Onset Opioids
SPSS	Statistical Package for the Social Sciences
SR	Slow Release
TAPTOE	Tackling And Preventing The Opioid Epidemic
UPPER	Utrecht Pharmacy Practice network for Education and Research
US	United States
VAN	Vlaams ApothekersNetwerk (NE)
	Flemish Pharmacists Network (EN)
WHO	World Health Organisation
ZOR	ζ-opioid receptor, zeta opioid receptor

1 INTRODUCTION

1.1 PREFACE

Opioids are well-known drugs because they are a proper treatment for severe pains. Yet they are often put in a bad light because of their many side effects, dependence and addiction problems. Today, opioids are still too often prescribed and too widely used. As illustrated in Figure 1.1, Belgium ranks sixth in terms of the highest daily opioid intake per inhabitant. The Netherlands ranks seventh.

Because of these shocking results, a consortium was founded in the Netherlands. This consortium was named Tackling and Preventing the Opioid Epidemic (TAPTOE) and its goal is to ensure that the opioid problem of the Netherlands does not follow in the footsteps of the United States. (1) Research will be done on the prescribing behaviour of doctors and the perceptions of doctors, pharmacists and patients about opioids. During the research period from 2019 to 2024, it is intended that measures will be drawn so that the use of opioids is reduced to only cases where no other type of drug is still useful and where therefore only opioids can be used as a last resort. (1) The expertise centre SIR Institute for Pharmacy Practice and Policy and three Dutch universities are part of the TAPTOE consortium, namely Utrecht University, Radboud University Nijmegen and Leiden University. (1) Professor dr. M.L. Bouvy heads the TAPTOE research. (2)

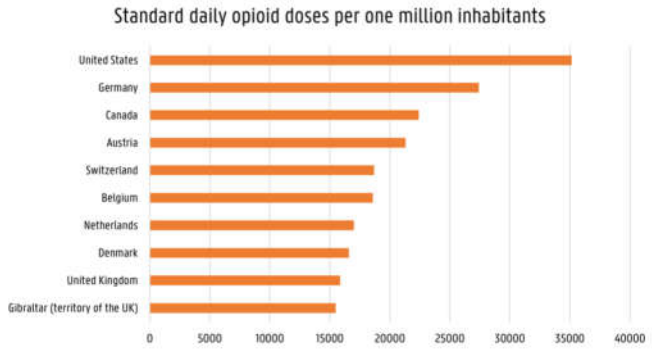


Figure 1.1: Schematic representation of the top 10 countries with the highest opioid consumption, expressed as the number of standard daily opioid doses per one million inhabitants per day. The figure is based on data from the International Narcotics Control Board (INCB) for the period 2016-2018. Full data for all countries, territories and regions can be found on the INCB site. (58)

Because of the covid-19 pandemic all Erasmus projects to the Netherlands were cancelled, the new type of project 'Online Erasmus' arose. This means that research is done in the home country but that the student is supervised by a Dutch supervisor and that the research is connected to a Dutch study. In this case, the student stays in Belgium, where the data is also collected but the supervision is done by professor dr. M.L. Bouvy from the University of Utrecht. In this thesis, research will be done on the beliefs and current practices of the Dutch-speaking community pharmacists in Belgium (Flanders and Brussels-Capital-Region) regarding opioids. Even though this research is not officially part of the TAPTOE project, a comparison can be made between the perceptions of Belgian pharmacists and the perceptions of Dutch pharmacists about opioids.

1.2 PAIN

To understand exactly how opioids work, some information must first be given about pain. Pain is a feeling that normally everyone has experienced at some point in their lives. The International Association for the Study of Pain (IASP) defines pain as "*An unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage*". (3) How pain is experienced depends on two aspects: first, pain is influenced by the injury itself (the cause of pain) but it is also linked to the behaviour, personality, environment and genetic factors of the person who has suffered the injury. The perception of pain is therefore always subjective. (4)

The aim of pain is to limit damage to the body and thus to maintain a high quality of life. For example, if someone wants to go for a long walk but suddenly starts to feel pain in his legs, he will probably either have to rest for a while or abandon the walk. If the person is still in pain in the days following the hike, he will instinctively not go on the next hike but rather rest a little more. Pain protects the body, so it is vital that pain can be experienced. When a person no longer feels pain, for example because of the leprosy disease or because the person takes a large number of painkillers, that person can overburden his body and this can cause irreversible damage.

The following pages will focus on the different types of pain and on how pain originates. Because the research of this master thesis is about opioids in chronic non-malignant pain, extra information will also be given about what exactly the difference is between acute and chronic pain. Last of all in section 1.2 will be explained how chronic pain is treated and what the guidelines are.

1.2.1 Types of pain

Pain can be divided into acute and chronic pain, which is discussed in 1.2.3. On the other hand, pain can be divided on the basis of the underlying mechanism. (5) The nociceptive pain, the neuropathic pain and the nociplastic pain are the three types of pain. Cancer pain or malignant pain is generally part of neuropathic pain but it can also express itself as a combination of neuropathic and nociceptive pain. (6) In this master thesis, only opioids are studied in the case of non-malignant pain, so cancer pain will not be discussed further.

1.2.1.1 Nociceptive pain

Nociceptive pain or tissue pain is, as the word itself states, pain caused by a tissue injury. Based on which tissue (muscle, skin, joints or organs) is damaged, the terminology is even more narrow. Acute nociceptive somatic pain refers to damage to the muscles, skin, joints or interstitial tissue. Examples of the latter pain are:

headache, burn and sprain. Pain due to organ injury is called acute nociceptive visceral pain. Examples of this kind of pain are: appendicitis, colic and myocard infarct. (4) The term chronic nociceptive pain refers to nociceptive pain that lasts longer than three months, that is when the acute pain begins to become chronic. Chronic lower back pain is an example of chronic nociceptive pain. (5)

1.2.1.2 Neuropathic pain

Synonyms for neuropathic pain are nerve pain or neuralgia. The pain is caused by damage or disease of the somatosensory nervous system. Tumours can be given as an example because they can cause damage to this nervous system. This can be damage to a single nerve but it can also be damage to a nerve bundle, the brain or the entire spinal cord. (7) Dental pain, sciatica pain, diabetic or post-herpetic neuropathy are examples of neuropathic pain. (4) Neuropathic pain feels similar to a burning sensation with tingling and the skin is very sensitive to touch. Both acute neuropathic pain and chronic neuropathic pain exist but it is almost always chronic because the pain may persist for months or years. (7)

1.2.1.3 Nociplastic pain

In nociplastic pain, a change in the nociceptive processes occurs without being able to determine any tissue damage or disease or damage to the nervous system. (5) Nociplastic pain belongs to chronic pain because the pain always lasts for a long time. Nociplastic pain is a relatively new term and more research is needed to learn more about this type of pain. It is assumed that the initial stimulus that led to the pain has already disappeared, but the pain still persists. Examples of this type of pain are: fibromyalgia, irritable bowel syndrome (IBS) and bladder pain syndrome. (8) It is suspected that certain factors, such as personality and environment, may be responsible for triggering this pain. (9)

1.2.2 Pain conduction

Peripheral damage can be sensed by the brain so that the person experiences the feeling of pain and can react to this. How exactly this happens, is explained through the three steps of pain conduction: transduction, transmission and perception. It is important to know that this pain conduction occurs with nociceptive pain but not with neuropathic pain or with nociplastic pain. As mentioned in 1.2.1.1, nociceptive pain does involve tissue damage. This tissue damage can initiate the process of pain conduction. In neuropathic pain (see 1.2.1.2), the neurons are damaged and this causes the pain. In nociplastic pain (see 1.2.1.3), there is no damage at all. (10)

1.2.2.1 Transduction

Transduction means that the nociceptors are activated. Nociceptors or pain receptors are free naked nerve endings spread throughout all organs and tissue, with the exception of the brain. The nociceptors can detect peripheral damage and when the damaging stimulus is sufficiently intense, the nociceptors will be activated. These receptors are part of the exteroreceptors in the skin and subcutaneous tissue. Their name comes from the Latin verb 'nocere', which means 'to cause damage'. There are different types of nociceptors, all of which have different sensing abilities. Thermal nociceptors sense temperature, mechanical nociceptors sense pressure and chemical nociceptors sense substances that are released when damaged. (11)

1.2.2.2 Transmission

The second step is transmission. Transmission actually consists of two parts: the ascending and the descending pathway. The ascending pathway leads from the periphery to the brain and the descending pathway starts from the brain and slows down the pain stimulus. When the nociceptors are activated, action potentials will be generated. The pain stimulus will be transmitted from the nociceptors via nerve fibres and via neurotransmitters to the brain. (10) If pain is experienced through the ascending pathway, the body will take a rest so that recovery is possible. The descending pathway will ensure that the pain stimulus is slowed down and that it is still possible to react to pain. (10) As an example, if a person accidentally puts his hand on a cooking fire, painful burns will occur. As a reflex, he will immediately pull his hand away.

1.2.2.3 Perception

Pain perception is the last step of pain conduction. The signal arrives in the brain and causes the pain to be experienced. (10) It is also important to distinguish pain experience and nociception. Nociception means that a harmful stimulus is received that provokes pain. The pain experience comes from the combination of the result of that stimulus and the modulation of affective components. As mentioned in 1.2, pain is complex because the perception of pain is linked to the objective pain stimulus and to subjective psychosocial characteristics. (11) It is certain that in a depressed person, the pain is experienced more strongly because the ascending pathway expresses itself more than the descending pathway. This is especially true in the case of chronic pain but chronic pain causes a person to become more depressed and anxious. (9)(10) When a person cannot or does not want to show his/her pain to those around him/her, the descending trajectory will take over. This person will experience the pain as less intense. As a result, the body can recover less and there is a greater chance of developing chronic pain. (10) All these elements will determine how the perception of pain is for this person.

1.2.3 Chronic pain

IASP explained chronic pain as "*pain that lasts or recurs for more than three months*". (3) As mentioned in section 1.2.1, the three types of pain can all manifest as chronic pain. A combination of these types is also possible. (12) According to a study on chronic pain in Europe, the prevalence of chronic pain amongst adults is 23% in Belgium and 18% in the Netherlands. On average, 19% of the European adult population suffers from chronic pain. (13) Chronic pain is the result of acute pain caused by damage to tissues, organs and/or joints. Chronic pain can be explained by the phenomenon of sensitisation. The body experiences a pain stimulus that causes neurological changes in the central nervous system. When the pain stimulus does not disappear or returns repeatedly, these neurological changes become structural and new neuronal connections are formed. (10) Because of this, chronic pain is difficult to treat.

1.2.4 Treatment

Both chronic pain and acute pain are in general not easy to treat because of interindividual differences (see 1.2.2.3). Because of the structural neurological changes, chronic pain is even more difficult to treat than acute pain (see 1.2.3). For this reason, it is important to treat acute pain as quickly and as well as possible so that chronic pain cannot develop. Acute pain treatment will not be discussed further, because all research questions of this thesis relate with chronic pain.

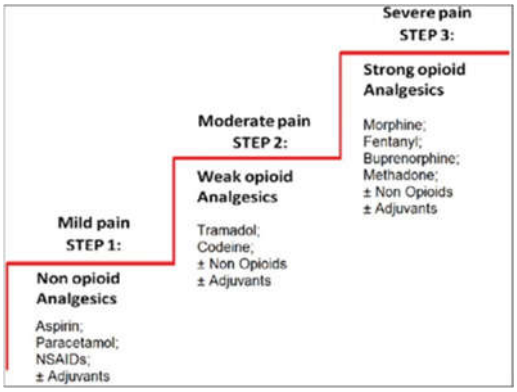


Figure 1.2: WHO pain ladder: medicamentous treatment scheme for pain, originally cancer pain. (76)

At present, there are several guidelines for treating chronic pain. This has not always been the case. In order to understand how these guidelines were drawn up, it is necessary to discuss the principle of the 'pain ladder' in more detail. In 1986, the World Health Organisation (WHO) drew up a ladder with three steps so that healthcare providers could treat pain correctly. The pain ladder, as seen in Figure 1.2, was originally only used to treat cancer pain. So the patient started at the bottom and is prescribed paracetamol or a Non Steroid Anti Inflammatory Drug (NSAID). If the pain does not abate, one step higher will be taken. Only at the very top are the strong opioids mentioned. Today, this pain ladder is not only used for cancer pain but for all kinds of pain. (10) As a result, many opioids are prescribed (unnecessarily) and more and more patients experience the adverse effects of opioids such as dependence and addiction. Because of this problem, Domus Medica and the Nederlands Huisartsen Genootschap (NHG) each drew up their own guidelines for chronic pain

without using the WHO pain ladder. (10) In their guidelines, opioids are also mentioned but only at later stages compared to the pain ladder. Unfortunately, the pain ladder is still too widely used in practice, which means that the opioid problem continues to get out of hand. (10)

Both the Domus Medica and NHG guidelines indicate that the treatment of chronic pain requires a multidisciplinary approach. On the one hand, the condition should be managed non-medicinal and on the other hand, medication must relieve the pain. As non-medical treatments Domus Medica recommends physical therapy, manual therapy and physiotherapy, psychological interventions and acupuncture. (14) The medical part of the treatment is divided according to the different types of pain. For nociceptive pain, the Belgian Centre for Pharmacotherapeutic Information (BCFI), Domus Medica and NHG (see Table 1.1) recommend in a fixed daily schedule paracetamol, because this comfort drug has an excellent benefit/risk ratio. (5)(14)(15) If paracetamol does not inhibit the pain sufficiently, a low-dose NSAID can be added for a short period or can replace the paracetamol. Opioids have only a limited place in this pain treatment. But if paracetamol and NSAID do not work sufficiently, opioid analgesics can be considered for a short period of time. (5) It is already proven that long-term opioid therapy is no more effective than non-opioids in relieving pain but they do cause more side effects. (16) For chronic neuropathic pain, opioids have no place but antidepressants and antiepileptic drugs are often prescribed to relieve pain. (5)(14) Nociplastic pain also needs a drug-based pain management. Because not much is known about this pain, people with nociplastic pain are treated with different analgesics (paracetamol, NSAID, opioids) and even non-analgesics for pain such as antidepressants, antiepileptics, corticosteroids, benzodiazepines … (9) For non-malignant pain, it is not recommended to take several opioids at the same time, as this does not add any value to the pain relief. (17)

Table 1.1: NHG-guidelines: roadmap for treating chronic nociceptive pain. (15)

Chronic nociceptive pain
Step 1: paracetamol
Step 2: NSAID • diclofenac gel 1 to 3% or ibuprofen gel 5% on the skin for localised muscle or joint pain • oral (possibly rectal or intramuscular) naproxen, ibuprofen or diclofenac, depending on patient characteristics
Step 3: Tramadol (weak-acting opioid)
Step 4: Strong-acting opioids (oral or patch): morphine or fentanyl
Step 5: Subcutaneous or intravenous administration of strong-acting opioids

In the study on chronic pain in Europe, it was found that of all patients treated with a drug, 44% took NSAID, 23% a weak opioid, 18% paracetamol and 5% a strong opioid. The remaining number of patients took non-analgesics. In Belgium 23% took an opioid (weak or strong), in the Netherlands only 19%. (13)

1.3 OPIOIDS

As previously mentioned, opioids can be used to combat chronic pain. Opioids are derived from the plant Papaver Somniferum and act on opioid receptors. They are often called 'morphinomimetics' because of the analgesic effect of morphine (see 1.3.4.1). Opioids can also be used for other medical purposes, for example against diarrhoea, against coughs or as an anaesthetic. Unfortunately, opioids do not have only advantages but also many disadvantages. Opioids can be divided according to several aspects: opioids differ from each other in origin, in potency and in duration and speed of action. A distinction can also be made between opioid agonists, partial agonists and antagonists. This master thesis only examines perceptions about opioid agonists, so it does not further explore partial agonists and antagonists.

1.3.1 Papaver Somniferum

The Papaver Somniferum belongs to the Papaveraceae family of plants. The name 'somniferum' comes from the Latin word 'somnum', which means 'dream'. This refers to when too much juice of the plant is ingested, it can lead to unconsciousness or even death.

The psychoactive substance opium can be extracted from the plant. Opium is the thickened milk juice of the unripe fruit capsule and it contains 20-30% alkaloids. (18) An alkaloid is an organic compound from plants that contains a nitrogen and is often toxic. The German pharmacist Friedrich Wilhelm Adam Sertürner was the first to discover how to isolate alkaloids from opium. He named his first isolated natural opioid after Morpheus, the Greek god of sleep, and gave it the name 'morphine'. So both the name of the plant and the name of the isolated substance morphine, refer to the sedative side effect. Codeine can also be isolated from opium and it is often used in cough syrups against tickling coughs. But on the Belgian market it can also occur in combination preparations with non-opioid analgesics against pain. (17)

1.3.2 Classification according to origin

Opioids can be divided into three groups: the natural, the semi-synthetic and the synthetic opioids. The word 'opiates' refers to natural and synthetic products with a similar structure and pharmacological action to morphine. The term 'opioids' is broader, as it refers to all substances that act on the opioid receptors, no matter what their structure or effect is. (10)(19) As mentioned earlier, the natural opioids, such as morphine and codeine can be isolated from opium. The semi-synthetic opioids are derived from the natural ones. Some examples are buprenorphine, oxymorphone, hydrocodone, hydromorphone and oxycodone. As the name suggests, the synthetic opioids are produced entirely synthetically, so the Papaver is no longer used. (10) The goal of creating opioids

via synthesis was to retain the analgesic effect but to modify the molecule so that the opioid would not be more or less addictive. The opposite occurred: scientists synthesized opioids that were even more addictive than the natural or semi-synthetic ones. For example, Janssen Pharmaceutica synthesised fentanyl because it is 50 to 100 times more powerful than morphine. It is therefore used for severe pain. However, it was soon discovered that a very small dose can produce a high feeling and so fentanyl soon entered the drug world. (20) Synthetic opioids are divided into different classes: Morphinans, Phenylpiperidines, Benzomorphans, Methadones and Propionanilides. (21)

1.3.3 Opioid receptors

In a body, opioid receptors can be found in three places: mainly in the brain, in the spinal cord and in the digestive system. Not only the above mentioned (exogenous) opioids bind to these receptors but also the endogenous opioids that humans produce themselves. These endogenous opioid peptides are created at the level of the central nervous system and peripheral tissues. There are five types: enkephalins, endorphins, dynorphins, endomorphins and nociception/orphanin. (19)(22)

In the early 1950s, it was already discovered that opioids would act on receptors. But it is only since 1965 that it has been concluded that there are multiple opioid receptors. Five classes are known today: delta (DOR), kappa (KOR), mu (MOR), nociceptin receptor (NOR) and zeta (ZOR). However, studies and research often only mention the first three classes because little is known about the NOR and ZOR and there are doubts as to whether they really belong to the opioid receptors. (23) The name of these classes of receptors comes from the molecule that was first discovered to bind to that receptor. Some examples: morphine binds to MOR, ketazocine binds to KOR. In every mammal, the ratio between the classes of opioid receptors is different. A human body contains approximately equal amounts of MOR, DOR and KOR: 29% MOR, 34% DOR and 37% KOR. (24) The most opioid molecules are not specific to bind to one class of opioid receptor. As example morphine binds relatively 50 times less strongly to the DOR and 176 x less strongly to the KOR compared to its binding strength with MOR. (25) When a MOR is bound, different effects can occur: analgesic effect, euphoria, respiratory depression, sedation, constipation and nausea. (25) Because of their analgesic effect, opioids can be used to treat chronic pain. Binding to the DOR and KOR is also thought to provide pain relief. (26) DOR agonists can also cause euphoria and KOR agonists can cause miosis, sedation and dysphoria (= gloomy feeling). (25)

1.3.4 Effects

As mentioned in the paragraph above, an opioid that binds to different classes of opioid receptors can also induce different effects. Some effects are desirable such as analgesic action but opioids can also produce many undesirable side effects. In this section, the most common effects of opioids were briefly explained.

1.3.4.1 Analgesic

When an opioid binds to an opioid receptor (MOR, KOR and/or DOR), both the descending and ascending pathways are affected in the transmission of pain (see 1.2.2.2). Opioids will inhibit the ascending pathway and stimulate the descending pathway. (10) How the mechanism works at descending pathway has not yet been clarified, in contract to the ascending pathway. The inhibition of the ascending pathway happens at the synapses in the dorsal horn of the spinal cord, as shown in Figure 1.3. The opioid receptor is a G-protein coupled receptor (GPCR) that is important in signal transduction. When an opioid binds to this GPCR, the receptor will undergo a conformational change. This will cause the enzyme adenylyl cyclase (AC) to become less active. Normally, this enzyme converts Adenosine Triphosphate (ATP) to cyclic Adenosine Monophosphate (cAMP) in the cell. cAMP is a second messenger that is responsible for many biochemical processes in the cell. When the activation of adenylyl cyclase decreases, less cAMP will be formed. This will lead to inhibition of the calcium (Ca2+) channels and activation of the potassium (K+) channels. This change will result in less nociceptive neurotransmitters (noradrenaline, acetylcholine and substance P) being secreted into the synapse. Postsynaptic hyperpolarization of the cell membrane will occur and no action potentials will arise. This will reduce the transmission of the pain stimulus. (10)(27)(28) This means that an opioid user feels less pain but does not feel that the body actually wants to rest to recover from the pain. So an opioid user will more easily force his body, which can lead to (irreversible) damage.

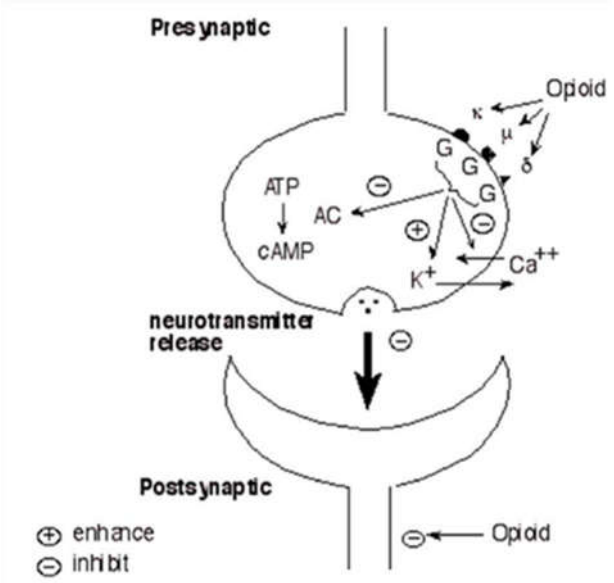


Figure 1.3: Mechanism of action of opioids at the level of the synapse in the spinal cord. (77)

1.3.4.2 Constipation

When an opioid binds to its receptors in the gastrointestinal tract, it can cause various gastrointestinal problems. The most common gastrointestinal side effect is opioid-induced constipation, which is further explained in the following paragraph. Opioid-induced bowel dysfunction (OBD) and abdominal pain are also side effects that can occur. OBD affects 10-20% of adult opioid users. (29)

Any opioid, whether weak or strong, that binds to the MOR will increase the tone of the intestinal smooth muscle and reduce gastrointestinal motility. This allows more water to be absorbed from the intestines and will result in hard, dry stools. (30) Opioids can also bind on the central MOR and on the ileal KOR which would also contribute to the constipation. (28) It should also be mentioned that constipation can be seen as a benefit. For example, in 1969 Paul Janssens synthesised an opioid agonist and gave it the brand name Imodium®. Loperamide (Imodium®) has a high affinity for the intestinal MOR. (31) Based on the mechanism of action explained above, it is therefore not surprising that it can serve as an anti-diarrhoeal drug. (29) The bioavailability of Loperamide is low due to high absorption from the gut and the first pass effect. As a result, only a very limited amount reaches the central MOR and there are hardly any systemic effects. (32)

In opioid-induced constipation, habituation does not occur, which means that this side effect does not disappear after several weeks of opioid intake. For this reason, Commentaren Medicatiebewaking (CM) and Koninklijke Nederlandse Maatschappij ter bevordering der Pharmacie (KNMP) compiled practical advice on when it is better to give a laxative with the opioid. CM and KNMP recommend that every time an opioid is used for more than one day, a laxative should be used preventively, such as the osmotic laxatives lactulose or macrogol. If the result is insufficient, a contact laxative such as sennosides or bisacodyl can be added. Only if a clear reason can be given why a laxative should not be added in a particular case may this advice be ignored. (33)(34)(30)(35) It should of course be remembered that constipation can also be reduced by a non-medicinal approach such as drinking plenty of water and consuming high-fibre food. (36)

Prof. dr. M. Bouvy and other scientists have already investigated in 2016 the use of laxative co-medication among patients who went to collect an opioid from Dutch pharmacies for the first time. The aim of the study was to find out to what extent and for what reason a laxative was not delivered to the opioid user. About 75% of the first-time opioid users did take a laxative with their opioid. The main reason why the remaining 25% did not take a laxative was because the prescriber or the patient did not see it as necessary. This study also showed that after taking opioids for a few days (3-14 days), 10,6% of the patients who took laxatives and 20,7% of the non-laxative users were obstructed. (37)

The Hospital Admissions Related to Medication (HARM) and Integrated Primary Care Information (IPCI) studies examined a variety of drug-related hospital admissions in the Netherlands with the aim of reducing these unnecessary admissions. They also examined how many people with severe constipation were admitted to hospital as a result of taking an opioid without a laxative. HARM and IPCI identified 194 potentially avoidable admissions, 11 (5,7%) of which were due to the use of opioids without a laxative. (34)

1.3.4.3 Nausea and vomiting

Opioids are also known for their nausea and emesis. This side effect occurs mainly in the first weeks of treatment or when increasing the opioid dose too quickly (36). Nevertheless, this side effect is one of the main reasons why patients stop their opioid treatment or occasionally deliberately fail to take a dose. (38) Three mechanisms are thought to underlie opioid-induced nausea and vomiting, see Figure 1.4. First, opioids may act directly on the opioid receptors of the chemoreceptor trigger zone in the brain. Opioids can bind to MOR and DOR in the central nervous system and can signal to the vomiting centre via serotonin type 3 (5-HT3) and dopaminergic (D2) receptors. The longer the opioid is taken, the more tolerance there will be to vomiting. (38) Second, opioids may bind to the MOR of the vestibular epithelium and increase the sensitivity of the balance organ. Via the histamine type 1 (H1) and muscarinic acetylcholine (Ach_m) pathways, the signal is received by the vomiting centre. (38) Third, opioids can bind to MOR and KOR of the gastrointestinal tract and cause inhibition of intestinal motility. This signal is transmitted to the vomiting centre via the 5-HT3 pathways. (38)(39) Because patients often vomit in episodes and/or vomit when they have already stopped opioid treatment, it is suspected that the cortex also plays a role. (38)

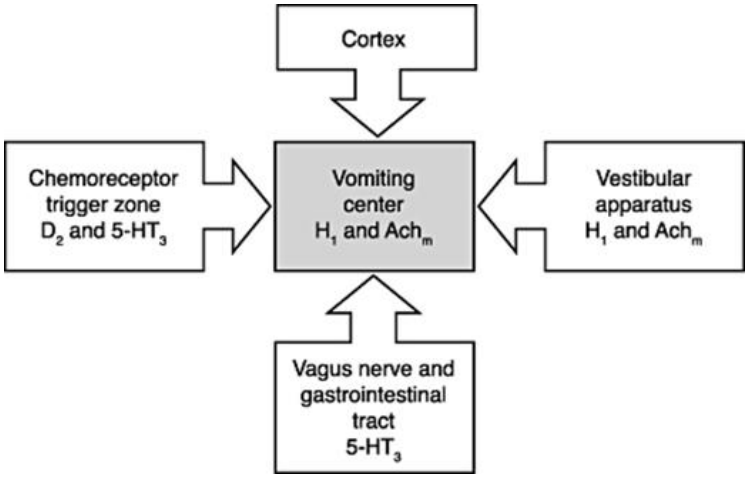


Figure 1.4: Triggering the vomiting centre of the brain can be done in several ways. All of these ways will lead to opioid-induced nausea and vomiting. (78)

1.3.4.4 Sedation

When an opioid acts on the KOR and/or the MOR of the central nervous system, it can cause fatigue, sleepiness, drowsiness, sedation and tiredness. (40)(41) There are still many questions about how exactly the mechanism works and many research remains to be done. However, opioids are suspected of reducing the Rapid Eye Movement (REM) sleep and thus disrupting the normal sleep-wake cycles. (42) Normally, an opioid user

becomes tolerant to the sedative effects after just a few days. (41) Thus, when sedation persists or recurs, thoughts should be given to an opioid overdose, a delayed opioid breakdown or an increased effect through interaction with other medicines. (36) Older people are more likely to experience these sedative adverse effects. As opioids cause drowsiness and dizziness, it is recommended not to drive for the first two weeks. Alcohol can increase the sedative effect, so it is recommended that the patient limits its use. (36)

1.3.4.5 Hyperalgesia

Hyperalgesia is a neurological disorder, in which there is a generalised increased sensitivity (hypersensitivity) to pain. Thus, a pain stimulus is present and causes a pain response, but patients with hyperalgesia will feel this pain more intensely. Opioids can cause or enhance hyperalgesia and then the phenomenon is called Opioid-Induced Hyperalgesia (OIH). OIH has certainly been demonstrated in acute postoperative pain. In chronic pain, it is more controversial but also possible. (36) OIH occurs with both acute use and chronic use; with both low doses and high doses; with both short-acting opioids and long-acting ones; with both peripheral and central administration. (43) The mechanism behind OIH is not yet fully known. There is a whole range of possible mechanisms. For example, it is apparently suspected that there would be an imbalance between the ascending and descending pathways (see 1.3.4.1). (43)(44)(45) An often proposed mechanism is that OIH would have something to do with the central glutaminergic system in which the excitatory neurotransmitter N-methyl-d-aspartate (NMDA) would play a role. (44)(45) Presumably, the effect of OIH lasts for days to weeks.

OIH is very difficult to demonstrate because it is not possible to know whether the patient is in pain because he is taking a too low dose of opioid or because he has OIH. (10) To treat OIH the following two methods should be applied: on the one hand, the opioid dose should be reduced or another opioid should be given. On the other hand, adjuvant therapy should be added to reduce nociceptive sensitization. This adjuvant therapy is still under investigation but currently NMDA receptor antagonists provide the best evidence. (10)(43)

1.3.4.6 Respiratory depression

Both a bound MOR and a bound DOR could cause respiratory depression. When respiration is suppressed, less deep and less frequent breathing will occur. This could lead to a brain hypoxia and can be lethal. Therefore, it is considered the most dangerous side effect of opioids. (46) Because the KOR has only a weak effect on respiration, this offers hope for the development of safer analgesics. (25) Exactly how opioids cause respiratory depression has not been fully elucidated.

Opioid-induced respiratory depression (OIRD) usually occurs at high doses (overdose) or in combination with other drugs that also suppress breathing such as benzodiazepines. Treatment of an OIRD relies on the administration of an opioid antagonist (naloxone) and breathing should be supported and controlled. (47)

1.3.4.7 Tolerance

Tolerance can occur when the MOR, KOR and/or NOR are bound by an opioid. (25) Tolerance results in a less therapeutic effect when the same dose is taken over and over again but also in a reduction in side effects, except for constipation. (36) Tolerance is person-specific and thus occurs more rapidly in one person than another. If suddenly the side effects diminish, tolerance has occurred and a higher dose of the opioid will be needed to obtain a positive analgesic effect. (10) There are three mechanisms that may contribute to opioid tolerance. First, downregulation of opioid receptors may occur (pharmacodynamic change). (48) The second mechanism is metabolic tolerance in which the body breaks down the drug faster through upregulation of drug metabolism (pharmacokinetic change). Acute receptor desensitization is the third mechanism that can explain tolerance. By administering opioids chronically, changes may occur in the G-protein mechanism of the opioid receptors. This makes the receptors less sensitive and will reduce the analgesic effect. (48)

The American Centre for Disease Control (CDC) has confirmed that the likelihood of developing tolerance increases with the length of time the opioid is taken. For this reason, CDC recommends that a taper schedule be considered as early as possible when starting opioid treatment. Because of tolerance, a patient cannot simply stop opioids abruptly or else withdrawal symptoms will occur. Examples of these withdrawal symptoms are: increased pain, muscle spasms, nausea and vomiting, diarrhoea, anxiety, restlessness and sweating. Thus, it is important that if there is a desire to stop opioid treatment, taper off slowly. (10) If tapering is not possible, a proper solution to avoid tolerance is to apply opioid switching. (49) Opioid switching or opioid rotation refers to switching to a different opioid. Each person may respond differently to a particular opioid due to inter-individual differences. If a person experiences too little analgesic effect or he/she experiences too many side effects, they can switch to another opioid. (10)

Tolerance should not be confused with OIH. With tolerance, the pain stays in one place but the strength of the pain increases. The pain progression is slow and may last for days or weeks. When the opioid dosage is increased, the patient will experience less pain. This is in contrast to OIH, where an increase in the dose leads to more pain. The pain of OIH is a diffuse pain that spreads over the whole body. Because the pain threshold is lowered with OIH, the pain will occur within hours or days. Therefore, it is important that healthcare professionals can distinguish between these two opioid-related side effects so that the patient can be treated correctly (increase or decrease opioid dosage or opioid rotation). (10)(50)

1.3.4.8 Euphoria

When an opioid binds to the MOR in the central nervous system, the central dopamine reward pathway will be activated. When a rapid spike of dopamine concentration occurs in the brain, an intense blissful, pleasant feeling will be able to be experienced. (10)(29) Dopamine is therefore also called a happiness hormone. Homeros already spoke of this feeling in his Odyssey and called it "nepenthe". (51) This high feeling in which joy is experienced and not pain, is why opioid addicts love to use it. This feeling is not the same feeling that can be experienced when taking stimulants such as cocaine. With stimulants a person will get an excited, hyperalert euphoria, whereas with opioids it feels much more relaxed and calm. (51)

1.3.4.9 Addiction

When a person is addicted to opioids, he/she want to continuously experience the feeling of euphoria. As mentioned in section 1.3.4.8, opioids can stimulate the release of dopamine. It has already been proven that short-acting opioids reach peak dopamine concentrations faster, making them more likely to cause addiction. The problem with addiction is that the opioid user falls into a vice-like cycle where they will have to take higher and higher doses of opioids to experience the euphoria sensation because of tolerance. The opioid user also cannot simply stop because otherwise withdrawal symptoms will occur. (10)

Certain conditions such as depression can cause neurological changes and these cause addiction. In this way, one person is more susceptible to addiction than another. 'The opioid risk tool' (ORT) is a screening instrument to estimate how susceptible a patient is to addiction. If a patient scores high, he/she needs to be monitored more closely by healthcare providers and if necessary actions should be taken. (10)

1.3.4.10 Mental and physical dependence

With chronic opioid abuse, certain clinical consequences will occur: namely tolerance, addiction and mental and physical dependence. The mesolimbic reward system is thought to play a crucial role in these consequences. (52) In this section, a clear distinction must be made between mental and physical dependence on opioids. Mental dependence means that the patient craves opioids. Physical dependence implies that the patient cannot function normally without opioids. (51)

If a patient is addicted and no longer takes opioids because of the analgesic effect but to experience the euphoria, mental dependence can occur. (10) As mentioned in section 1.3.4.9, neurological changes will occur with prolonged use of opioids. These changes will account for the harmful consequences of addiction, as well as the compulsive drug-seeking behaviour. The glutamate activity in the brain will increase. As a result, on the one

hand there will be a higher concentration of dopamine which will increase the desire for euphoria and on the other hand there will be a higher release of norepinephrine which will cause a downcast sad state. The latter will also lead to increased cravings for opioids. (52)

Because of tolerance, the body will always need a higher dose of opioids to obtain the same effect and in this way physical dependence can occur. (10) Physical dependence is more likely to occur with MOR and DOR than with KOR. As discussed in section 1.3.4.1, opioids inhibit AC causing a chronic shortage of cAMP. This will be compensated for by increased synthesis of AC so that there is still sufficient cAMP. When opioid treatment is suddenly discontinued, there will be a high level of cAMP and this will cause the withdrawal symptoms. (25) This is why the opioid dose must always be progressively reduced using tapering schedules. (36)

1.3.5 Classification according to analgesic capacity

It is possible to classify opioids according to how therapeutic they are, in other words how strong their analgesic effect is. Opioids can be divided into three groups: the weak-acting, the moderately acting and the strong-acting opioids. It is important to make this classification because in this master thesis, the use of strong-acting opioids (oxycodone, morphine and fentanyl) will be questioned.

Examples of weak-acting opioids are codeine, dihydrocodeine and tramadol. (17) Although these opioids are the least analgesic, they have the same side effects and same risk of addiction as the other classes. (53) As mentioned earlier, codeine can be used as an anti-cough drug and as an analgesic. Tramadol can also be used as an analgesic but has many interactions, has serotonin side effects and will lower the epilepsy threshold. (9) However, when a weak opioid has to be prescribed, preference will be given to tramadol because codeine is less effective against pain. As mentioned in section 1.2.4, opioids are not recommended for chronic neuropathic pain. However, tramadol is sometimes prescribed precisely because of its serotonergic effect. Other opioids do not have this effect and are therefore not given for neuropathic pain. (10) Dihydrocodeine is only found in cough syrups. (10)

Pethidine and tilidine are examples of moderately acting opioids. (17) This class is used very rarely and is also not included in the WHO pain ladder. On the Belgian market, pethidine is not available in an oral form and tilidine is only available as a combination preparation with the antagonist naloxone. (9)(17)

Most opioids can be classified as strong-acting, namely buprenorphine, fentanyl, hydromorphone, methadone, morphine, oxycodone, piritramide and tapentadol. (17) For nociceptive and nociplastic pain, when paracetamol and NSAID do not relieve the pain sufficiently, an opioid may be prescribed. This will always be a strong-acting opioid. Morphine in an oral form is the first choice and fentanyl in patches the second. There is not

a big difference between the effects and side effects of the different strong-acting opioids. Morphine has been used the longest, which is why this opioid is so often prescribed. (10)

1.3.6 Classification according to duration and speed of action

Opioids can also be classified according to their duration of action and their speed of action. So opioids can be divided into three categories. First, there are the Rapid Onset Opioids (ROO) or fast-acting opioids. These analgesics work after five to fifteen minutes but only provide an analgesic effect for one to two hours. There are no medicines of this class on the Belgian market. (10) In the Netherlands, however, there are still fast-acting fentanyl preparations on the market that have to be administered oromucosally or intranasally. These ROO can be given as a rescue medication for breakthrough cancer pain in adults who are already taking opioids as a basic treatment. (54)

The second category includes morphine, hydromorphone, oxymorphone, codeine, fentanyl, hydrocodone and oxycodone. (55) These short-acting or immediate release (IR) opioids work after 30-60 minutes and provide an analgesic effect for 3-5 hours. (10) The third category are the long-acting or Slow Release (SR) opioids. Some opioids such as methadone have a naturally long duration of action. But with others such as oxycodone, oxymorphone, fentanyl and morphine, their formulation is modified so that they are absorbed more slowly into the blood (extended-release, sustained-release or controlled-release). (55) There is a difference between the tablets and the patches. The tablet forms work after 4 hours and stop working after 12 hours. The patches reach adequate pain reducing levels after 12 hours but give an analgesic effect for 3 or 7 days. (10)

Several studies have already shown that both short-acting opioids and long-acting opioids can benefit chronic non-malignant pain. There is no difference between short-acting and long-acting in terms of abuse and addiction. The long-acting opioids have a longer analgesic duration of action, that will ensure that the patient has to dose less frequently. However, it must be remembered that opioid treatment must be tailored to the patient's pain condition. Because of the fast onset of action and short duration of action, short-acting opioids are more favourable for this. Short-acting opioids (mainly hydrocodone) are now mainly prescribed for chronic intermittent pain because this type of pain does not need long-acting analgesia. However, if a patient has persistent chronic non-malignant pain and thus prefers a stable around-the-clock dosing, the long-acting opioids will be prescribed. This will ensure that the patient also experiences less pain at night and can therefore sleep better. The decision to prescribe a short-acting or long-acting opioid therefore depends on how persistent the pain is, what the patient prefers and what the patient's response is to opioid treatment. (55)

1.4 EPIDEMIOLOGY OF OPIOID (MIS)USE

As mentioned in section 1.1, the United States (US) leads the world ranking in terms of daily opioid consumption per inhabitant. Eight European countries, including Belgium and the Netherlands, are in the top ten. In this part of the master thesis, the number of opioid users based on the prevalence of opioid prescriptions was ascertained in the US, in Europe, in the Netherlands and in Belgium. The number of opioid overdoses in these countries and the number of opioid users who died from such an overdose was assessed.

1.4.1 United States

Due to the fact that in the 1990s many inhabitants of the United States suffered from chronic pain, pharmaceutical companies began to promote synthetic opioid painkillers. As a result, American doctors prescribed these painkillers in higher and higher frequencies. Due to aggressive marketing and widespread use, many Americans became addicted to these opioids. Not only are the many addiction cases part of this 'opioid crisis', but also the many opioid overdoses and the high number of overdose deaths.

Although the number of opioid prescriptions fell by 13,9% between 2005 and 2016, as illustrated in Appendix 1. (56) The CDC noted that in 2017 more than 191 million opioids were prescribed to US patients. That would be equivalent to more than 17% of Americans taking at least one prescribed opioid. In 2018, doctors' prescribing behaviour did not change. (56)(57) In 2016, 11.5 million US inhabitants confessed to abusing prescription opioids in the past year. (56) When looking at which opioids are most consumed by the US, hydrocodone is by far the first. Methadone and buprenorphine rank second and third respectively, which are used as substitution therapies by patients with opioid addiction. Fourth is oxycodone and fentanyl closes the list. More comprehensive information of the US opioid consumption can be found in Appendix 2 and Appendix 3. (58)

The CDC keeps all data on the rates of opioid overdose deaths. In 2018; 69,5% of all drug-induced deaths were caused by the use of opioids. This equates to 46.802 opioid overdose mortalities. (56) The graph in Appendix 4 shows that up to and including 2017, the number of opioid-related deaths continued to increase. (59) But with the 2018 data from the CDC, it can be concluded that between 2017 and 2018 a small decrease occurred. The study from Wilson N. et al. confirms that there is a 2% decrease between the opioid overdose death rate of 2018 compared to 2017. This decrease is said to be due to the many efforts made to reduce opioid prescriptions and to ensure that less high doses are prescribed. Nevertheless, the study concluded that efforts are still being made to maintain the decline. (60) All these numbers indicate that the US opioid crisis is not over and that measures still need to be taken to prevent and properly address abuse, addiction and overdose. (57)

1.4.2 Europe

Appendix 5 and Appendix 6 show the average levels of opioid consumption in Europe. The data were collected on the basis of the INCB's annual reports on narcotic drugs. In the time period 2016-2018, opioid consumption increased by 67% compared to the years 2008-2010. Not only the total number of opioid intakes increased, but also the intake of each opioid individually. The most commonly consumed opioids in Europe since 2008 are fentanyl, buprenorphine and methadone. In the last reported time period, it could be concluded that the Europeans consumed almost three times less opioids than the Americans. (58)

A recent study, published on 11th of January 2021, compared the number of opioid-related deaths between the United States and Europe. In 2018, 67.367 Americans and 8.317 Europeans died from an opioid overdose. Because Europe has more inhabitants than the United States, the mortality rate in the US is said to be nine times higher than in Europe. 78% of all drug overdose deaths in Europe are thought to be due to opioids or opioids combined with other substances. The scientists in this study conclude that Europe is currently experiencing an opioid crisis but not of the same magnitude and nature as the opioid crisis in the United States. (61)

1.4.3 The Netherlands

The Radboud University Nijmegen Medical Centre concluded that between 2008 and 2017, the number of opioid users with a prescription in the Netherlands almost doubled, especially owing to the fact that the quantity of oxycodone users quadrupled. (62) In 2017, it was found that 6% of the Dutch population was prescribed an opioid. (63) However in 2019, a decrease of 6,4% in the number of patients with a prescription of a strong-acting opioid was observed compared to the year 2018. The reason for this is said to be the great attention to the opioid issue in the media and professional journals. (64)

The Genees- en hulpmiddelen Informatie Project (GIP) database from the Zorginstituut Nederland has been keeping data on the use of opioids as analgesics in the Netherlands since 2015. This database was compiled on the basis of extramural deliveries of opioids (health insurance data), this means that it does not take into hospitals or rest homes. These data can be seen in Appendix 7 and Appendix 8. (65) Here too, it can be concluded that from 2019 onwards, a general decrease is seen in the number of the Defined Daily Doses (DDDs) and in the number of users. It should be noted, that the number of users may be slightly overestimated. The reason for this is that a patient may take several opioids as pain treatment, but will be seen as multiple users. Looking at the top 100 medicines based on the number of dispensations in 2019 in the Netherlands, oxycodone is in 21st place, tramadol in 40th and fentanyl in 69th. (65)

A Dutch study conducted between 2013 and 2017 examined how many opioid users experienced overdose and how many of these died from the overdose. The number of opioid users admitted to hospital due to overdose increased from 9,2 per 100.000 inhabitants in 2013 to 13,1 per 100.000 in 2017. This increasing trend can also be seen in the number of opioid overdose mortalities. In 2013, 0,83/100.000 inhabitants died and four years later the mortality rate was 1,2/100.000. (63) Data on opioid overdoses after 2017 have not yet been reported. Therefore, it cannot yet be concluded that the decrease in the number of opioid users in 2019 will also have reduced the number of opioid overdoses and opioid overdose deaths.

1.4.4 Belgium

According to the Rijksinstituut voor Ziekte- en Invaliditeitsverzekering (RIZIV), in Belgium mainly the opioids oxycodone, tramadol, fentanyl, piritramide and tilidine saw an enormous increase in use between 2006 and 2017. Appendix 9 shows that the number of patients who used at least one of these five opioids increased by 88% during this period. In 2017, about 10% of all Belgians took at least one of these opioids. It should be reported that these five opioids represent only 80% of the total consumption of all reimbursed opioids in 2017. (66) This means that the number of Belgians taking an opioid in 2017 will be even higher. This data was collected using opioid prescriptions from both intramural care (hospital, residential care centre, service apartment) and extramural care (pharmacies).

Appendix 10 and Appendix 11 provide tables on the number of DDDs and number of opioid users in Belgium from 2015 to mid-2020. This data was obtained via the RIZIV (Farmanet). As with the GIP database, the data were obtained from extramural care and the annual total of opioid users is a slight overestimate. In contrast to the Netherlands, tramadol is preferred by Belgian doctors. Looking at the top 150 medicines from Farmanet based on the number of reimbursed dispensed packages in 2019 in Belgium, tramadol is in 8th place, oxycodone in 34th and fentanyl in 55th. So in principle the types of opioids are not very different between the two countries. In Belgium, both user measures continue to increase and no reduction is seen from the year 2019 onwards. Even though the data from January to August 2020 are known in Belgium, no prediction can be made regarding the yearly DDDs and number of opioid users. This is because the prescribing of opioids shows a seasonal variance. Hereby it is clear that most opioid prescriptions are made in the month of December. (67) In Appendix 12 a graph is placed to know how much each type of analgesic capacity (see 1.3.5) is prescribed per country. This shows that for any type (strong-moderately-weak) a higher number of DDDs per patient are prescribed in Belgium.

In 2014, the Belgian General Mortality Register reported that two-thirds of all drug-induced deaths were caused by opioid use. (68) Furthermore, very little is known about opioid overdoses and the number of opioid overdose deaths in Belgium.

2 OBJECTIVES

Besides the United States, also Europe is now facing an opioid crisis. Although many efforts are being made to reduce the opioid problems, it is clear that there is still a long way to go. In order to know which measures are most effective to reduce the European opioid crisis, research should be done. This master thesis focused on Belgium and the Netherlands. There is much attention on the prescribing of opioids but it is also important to find out how a pharmacist views this topic and whether this influences the advising and dispensing of opioids. This study aims to gain insight in the knowledge of the Dutch-speaking Belgian community pharmacists on opioids and their perceptions on the benefits and risks of opioid use. The study is conducted simultaneously in the Netherlands in order to compare results between the two countries. The results will be used to develop appropriate support, for example in the form of in-service training or interventions, if necessary.

This master thesis is a quantitative study that consists of an online questionnaire survey in which pharmacists in the communities are questioned. The questionnaire consists of three parts: individual beliefs, working methods in practice and continuing education and background characteristics. The study actually focused on two research questions. On the one hand: 'What beliefs have the community pharmacists about opioid use for chronic non-malignant pain?' On the other hand: 'Is there an association between these beliefs and the current working method of the community pharmacists and an association between these beliefs and the background characteristics?'

3 METHODS

3.1 QUESTIONNAIRE DEVELOPMENT

An online questionnaire is used to determine the perceptions of the Dutch-speaking community pharmacists in Belgium on opioids. The questionnaire targeted the strong-acting opioids such as oxycodone, morphine and fentanyl. The principal focus was on non-malignant pain and cancer pain was left aside. In the Netherlands, the research protocol with the questionnaire for the Dutch pharmacists was already submitted and approved. From this questionnaire, the questionnaire for the Belgian community pharmacists was drawn up. This means that the questions were taken over and if necessary adapted to the Belgian situation. In order to understand how the questionnaire was formulated, it is first necessary to look at the Health Belief Model (HBM) in more detail.

3.1.1 Health Belief Model

The questionnaire focuses on the HBM to study the dispensing behaviour of pharmacists. The HBM is a psychosocial model created by Rosenstock in 1974 which explains that a person's behaviour is influenced by his individual beliefs. (69) These beliefs are divided into four domains, namely perceived threats, perceived benefits, perceived barriers and perceived self-efficacy. Both modifying factors and cues to action (internal and external cues) influence the personal beliefs. (70) Figure 3.1 shows the HBM focused on this study. Based on this HBM, the questionnaire is divided into three parts: individual beliefs, working methods in practice and continuing education and background characteristics.

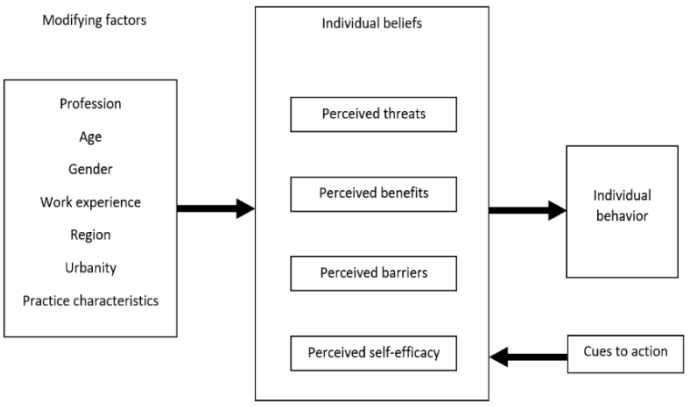


Figure 3.1: The Health Belief Model focused on this study (58)

In the first part, the aim is to measure the experiences and/of the individual beliefs of the pharmacist toward opioids. Because a person's beliefs are difficult to measure in a single question, a number of statements were made for each domain. In order to obtain reliable information, some statements were asked in multiple ways. As an example, a statement can be formulated positively versus negatively: '*Too few opioids are used in the treatment of chronic non-malignant pain* ' versus '*Too many opioids are used in the treatment of chronic non-malignant pain* '. The pharmacist have to indicate on a five-point Likert scale to what extent he/she agrees with the statement. (70)

In Appendix 13 all statements per domain can be found. The questions in the domain 'Perceived threats' deal with the extent to which the pharmacist perceives threats in the dispensing of opioids. In the domain 'Perceived benefits', questions are asked about whether the pharmacist perceives the benefit/effectiveness of dispensing opioids. Whether the pharmacist has experienced any barriers when it comes to the dispensing of opioids was asked under the domain 'Perceived barriers'. In the domain 'Perceived self-efficacy', questions were asked about the degree of confidence the pharmacist has in his own skills. (70)

Then in the second part, questions were included about the current working method of the pharmacist. It was investigated whether the pharmacist considers certain measures useful or has already implemented them to reduce the (over)use of opioids. There was also asked whether there was a need for continuing education programmes. The answers to these questions were used to develop interventions to prevent unnecessary opioid use in the future. (70)

Internal and external cues are signals received by people that could cause them to actually change their behaviour. These cues are highly inter-individual. (69) An example of an internal cue could be that a pharmacist himself has chronic non-malignant pain. A leaflet about opioid problems that the pharmacist receives when purchasing an opioid medicine or an opioid-addicted family member are examples of external cues. These internal and external cues influence individual beliefs and can cause behavioural change and thus a changed dispensing behaviour. These cues to action are questioned in certain questions within the second part of the questionnaire. For example in this question: '*Attention to opioid use in the media and/or trade journals has made me more critical of the delivery of opioids*'.

In the last part, the background characteristics of the pharmacist were questioned. These are the modifying factors that can influence the individual beliefs. The questions that were asked concern the age, gender, position, years of work experience of the pharmacist, as well as the location of the pharmacy in which the pharmacist works. (70)

3.1.2 The aim of the questionnaire

The aim of the study is to identify the beliefs and practices of pharmacists. It is investigated whether there is a link between the beliefs and the background characteristics and whether there is a link between the beliefs and the current working method of the pharmacists. (70) Not only are these results from the Dutch-speaking Belgian pharmacists important but the differences and similarities with the Dutch pharmacists can lead to new insights. The complete questionnaire can be found as Appendix 14.

3.2 PRE-TEST AND EXPERT PANEL

In the Netherlands, two different tests were done to check whether the questionnaire was formatted correctly. First, the questionnaire was checked on the basis of a pre-test. The pre-test was carried out among three Dutch pharmacists and three Dutch general practitioners. (70) Five criteria were checked with this pre-test. Firstly, how long it takes to complete the questionnaire. Secondly, whether the questions are readable and understandable. Subsequently, whether the questionnaire was complete and therefore whether all relevant topics were covered. Fourthly, whether in the case of closed questions, the pharmacist can find his/her answer in the proposed answers. Finally, it is checked whether certain questions or topics are sensitive for the pharmacist. (71) Based on missing questions, superfluous questions and misunderstood questions, the questionnaire was subsequently modified. The duration of filling in the questionnaire was set at ten to fifteen minutes.

Subsequently, an expert panel was conducted in the Netherlands. This panel consisted of two pharmacists, two general practitioners, two pain specialists and one addiction specialist. An expert panel was used to check whether all domains of the HBM were sufficiently covered. (70) It was found that the four domains could be found and that enough statements per domain were included in the questionnaire.

Next, the questionnaire for the Belgian community pharmacists was sent to three Flemish pharmacists. The purpose of this pre-test was to check whether the Dutch-speaking Belgian pharmacists understood all the questions and considered it relevant to the Belgian situation. Because the questionnaire for the Belgian pharmacists contains the same number of questions and the same topics as the questionnaire for the Dutch pharmacists, no problems were encountered in the Belgian pre-test.

3.3 SELECTION OF PHARMACIST

After the pre-test, the quantitative survey of the Dutch-speaking pharmacists' perceptions of opioids could be started. In both countries efforts were made to have a response of 200 community pharmacists. With 200 Dutch and 200 Belgian responding pharmacists, a comparison between the two countries is expected. But the results per country are of course also important in order to gain insight into the effects of individual beliefs on current working methods, prescribing behaviour and possible differences in background characteristics. (70)

In the Netherlands, the pharmacists were acquired through the facilities of Utrecht Pharmacy Practice network for Education and Research (UPPER), through the KNMP newsletter and LinkedIn. In this way, about 1300 Dutch pharmacies were reached by mail. The response rate of 15-20% is expected. (70) In Flanders and Brussels-Captital-Region, the questionnaire reached pharmacists in different ways. First, the professional

pharmacist associations were approached to place the questionnaire in their newsletter and possibly on their website and social media. Secondly, the questionnaire was also shared in already existing Facebook groups in which pharmacists are present. Examples of these groups are 'Apothekers 2020' (Alumni students of the UGent) and 'Apothekersforum'. Thirdly, direct mails were also sent to pharmacists with the link to the questionnaire. It is expected that all approximately 7.000 Flemish and Brussels-Capital-Region pharmacists were addressed in these three ways. The response rate is difficult to estimate in the Dutch-speaking part of Belgium because the response often depends on the subject of the survey.

3.4 DATA ANALYSE

The questionnaire was created with LimeSurvey and each question was given a specific code. When the questionnaire period was over, the data from LimeSurvey was exported to the programme Statistical Package for the Social Sciences (SPSS) to be able to analyse the data. In SPSS, these specific codes were retained. By coding the questions, an easy comparison could be made between the questions in the questionnaire of the Netherlands and those of Flanders and Brussels-Capital-Region.

The data analysis consisted of four steps. The first step was to provide the descriptive statistics for each question of the questionnaire. These data were useful to get an overall picture of all pharmacists who had completed the questionnaire. The second step focused only on the section 'individual beliefs'. The aim was to find out whether the statements in this section really represented the four domains of the HBM model. In order to find out, principal component analysis (PCA) was utilised. To determine whether the four domains were present and whether there were correlations between the statements, use was made respectively of the Kaiser-Meyer-Olkin test (KMO) and the Bartlett's test of sphericity. The Varimax rotation was performed to enhance the interpretability of the domains. The domains were assessed using the correlation factors, the Kaiser's criterion of eigenvalues >1 and the percentages of variance explained. At last the component scores were calculated by determining the mean scores of the statements within a domain. The scores for negative statements were reversed to ensure that the scores for all statements point in the same direction. (70)

In the third step, single and multiple regression was used to find out if there was an association between the different sections of the questionnaire. As mentioned in the objectives, the association between the individual beliefs and the background characteristics of the community pharmacists was investigated. The component scores from step two were used as the dependent value and gender, age, function and location of the pharmacy were entered as the independent values. In addition, it was tested whether each of the four component scores was associated with the reported working method in practice. (70) As a fourth and final step, all the above results from the Belgian pharmacists were compared with the results from the Dutch pharmacists.

4 RESULTS

4.1 DESCRIPTIVE STATISTICS

As already mentioned in the methods, the questionnaire was sent out to Flemish and Brussels pharmacists in three different ways. Seven professional associations (APB, VAN, De West-Vlaamse, KOVAG, KAVA, BAF and KLAV) published an article with the link to the questionnaire in their newsletter. Because of these publications, 40 community pharmacists filled in the questionnaire. Some professional associations shared the article on their social media. The article was also shared in several Facebook groups where only pharmacists are members. 34 community pharmacists answered all questions after seeing the article on social media. By sending direct mails to the pharmacists, 201 respondents could be added. In total, 275 Flemish and Brussels pharmacists completed the questionnaire.

Subsequently, it was also checked whether the pharmacists who completed the questionnaire are representative for all 7.000 pharmacists in Flanders and Brussels-Capital-Region. To find out, the 'background characteristics' (part three of the questionnaire) were examined. It was calculated that 67,3% of pharmacists were female and 32,7% were male. Next, the age of the pharmacists was studied. The youngest pharmacist was 23 and the oldest was 70 years old. The mean age was 41,5 years. In Table 4.1, the pharmacists were divided according to age groups per 10 years. More detailed results can be found in Appendix 15.

Table 4.1: Division of the respondents according to age groups per 10 years

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	[20-29]	60	21,8	21,8	21,8
	[30-39]	67	24,4	24,4	46,2
	[40-49]	55	20,0	20,0	66,2
	[50-59]	79	28,7	28,7	94,9
	[≥60]	14	5,1	5,1	100,0
	Total	275	100,0	100,0	

Appendix 16 shows the percentage of pharmacists who occupied the positions of titular pharmacist, adjunct pharmacist, owner and/or replacement pharmacist. Because a pharmacist can perform several functions, the respondents could also indicate several answer options. As a result, the total percentage was over 100%. 69,5% of the respondents were titular pharmacists, 28,7% were adjunct pharmacists, 9,1% were owners and 1,5% were replacement pharmacists. The next question in the questionnaire asked how many years of work experience the respondent had. Appendix 17 shows the answers. The results of how many years the respondent has worked in the current pharmacy can be found in Appendix 18.

Furthermore, the location of the respondent's pharmacy was also investigated. Appendix 19 shows whether the pharmacy was located in a large town with more than 150.000 inhabitants or in a small town with less than 20.000 inhabitants. 10,5% of the respondents indicated that they worked in a pharmacy in a large town, 44,0% in a medium-sized town and 45,5% in a small town. The results of whether the pharmacy was located in a city or in the countryside can be found in Appendix 20. 113 respondents (41,1%) indicated that they worked in a city pharmacy, 150 (54,5%) worked in a countryside pharmacy and 2 pharmacists (0,7%) indicated that their pharmacy was located next to a hospital. 10 pharmacists (3,6%) filled in that their pharmacy is located at another location than the locations listed above. In the last question of the part background characteristics, pharmacists had to give the first two digits of their postcode. Based on these digits the province in which the pharmacy was located could be deduced. A pie chart was made of these results, which can be seen in Figure 4.1. More detailed results can be found in Appendix 21.

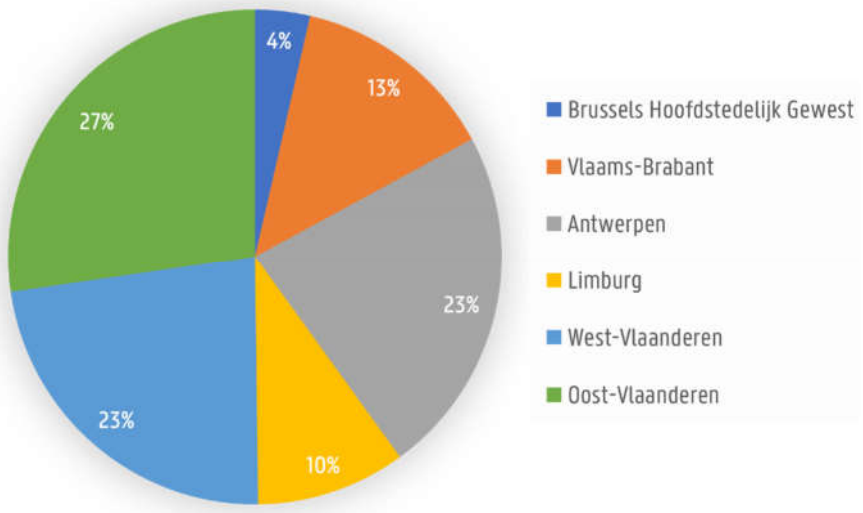


Figure 4.1: The pharmacies of the respondents divided by province

For the part 'individual beliefs' it was analysed how much the pharmacists agreed or disagreed with the 23 statements. Appendix 22 therefore illustrates per statement how often a certain answer option was indicated. Almost 65% (fully) agreed that opioids are used too much for chronic non-malignant pain. More than half of the respondents agreed that opioid analgesics are not the most effective treatment for this pain and that opioids only should be prescribed if all other treatments fail. 42,5% agree and 3,6% totally agree that there is a shortage of proper alternative treatments. Nevertheless, the majority of respondents found that patients with chronic non-malignant pain can be treated well.

When looking at the long-term use of opioids, it could be concluded that opinions are divided. There were both pharmacists with positive and less positive experiences with long-term use. In addition, the opinions on the necessity of long term opioid use were split. More than four out of five pharmacists were concerned that patients needed more and more opioids to achieve a sufficient analgesic effect and they were worried that patients could develop an addiction. Almost all pharmacists decided that opioid abuse is a real risk among their patients. The majority of respondents could easily predict whether a patient was at risk of opioid misuse and were therefore confident enough in their abilities to address this. However, more than half of the respondents indicated that they did not dare to refuse prescriptions.

The results of the closed and open questions belonging to the part 'working methods in practice and continuing education' can be found in Appendix 23. For each closed question of the part a percentage was given of how many pharmacists had indicated the particular answer option. For the open questions, all answers were listed. 37,5% of the pharmacists agreed and 5,1% fully agreed that he/she has become more critical towards the dispensing of opioids due to the attention of opioid use in the media and/or magazines. Almost 80% of respondents do not know where to turn for information on opioid tapering schedules. It is therefore not surprising that 86,9% of pharmacists indicated that they would have liked an in-service training on opioid tapering schedules. The Figure 4.2 shows the other topics that pharmacists would like to see included in continuing education programmes.

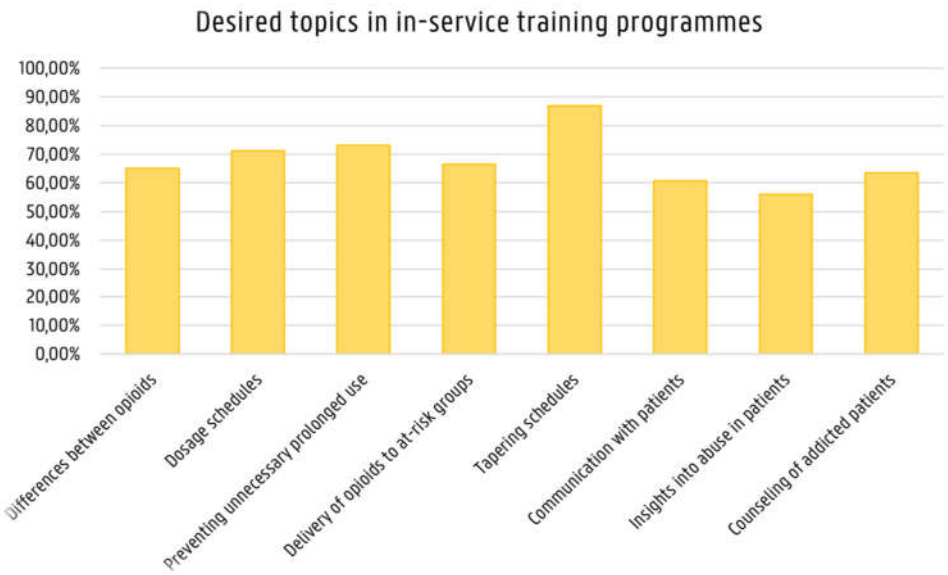


Figure 4.2: The percentage of respondents who would like to see these topics included in a continuing education programme on opioids

As illustrated in Figure 4.3, all measures in the questionnaire seemed to make sense to the Flemish and Brussels pharmacists. The two most useful measures were telling the patient when starting an opioid treatment and when repeating an opioid prescription that there is an addiction risk. These measures were already implemented by respectively 83,3% and 68,0% of the pharmacists. All other measures were only used by a few pharmacists. The least useful measure appeared to be the monthly conversation between pharmacist and patient. In the open question where respondents were allowed to fill in what they considered to be useful measures, the same actions often came up. For example, the fact that there should be more cooperation and communication between pharmacists and doctors was mentioned several times. It would also be useful if the patient had only one doctor and one pharmacist for the prescription and dispensing of opioids. Another suggested measure is for the patient to visit the pharmacy daily or weekly to get his opioid analgesics. Requiring the pharmacists to check the Gedeeld Farmaceutisch Dossier (GFD) each time an opioid is dispensed, is another measure that was frequently mentioned.

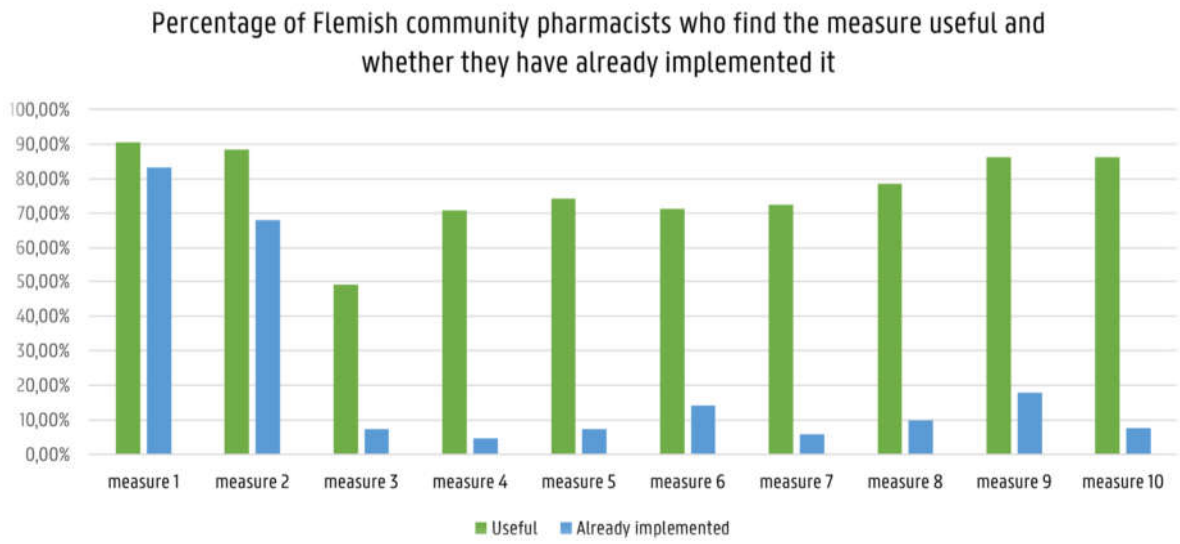


Figure 4.3: The percentage of respondents who find the measure useful and whether they have already implemented it

The very last question of the questionnaire asked whether the respondent had any comments on the survey. The answers given to this question are included in Appendix 24. Eight respondents stated that the problem lies with doctors rather than pharmacists. The respondents believe that the prescribing behaviour of doctors is not always correct and when the pharmacist addresses this to the doctor, the doctor will not always gratefully accept that.

4.2 PCA AND COMPONENT SCORES

For this section, only the part 'individual beliefs' of the questionnaire was taken into account. The KMO and the Bartlett's test were conducted to determine whether the data from this study were suitable for conducting a PCA. The KMO test gave as result a value of 0,794. The p-value <0,001 was found for the Bartlett's test of sphericity. The results of these two tests can be found in Appendix 25. The table of the 'total variance explained' can be seen in Appendix 26. After this, the number of components found in the PCA was examined. The scree plot and the rotated component matrix were added to Appendix 27. It could be established that seven components in the scree plot had eigenvalues above the Kaiser's criterion of one. The rotated component matrix shows which statements belonged to which component.

Because more components were found than expected, a PCA was performed with fixed number of factors. This means that the number of factors will be enforced. On the basis of the scree plot in Appendix 27, it could be established that the kink is located at component four. Therefore it was decided to perform a PCA with four factors to extract. In Appendix 28 the new rotated component matrix with four components and the total variance explained can be seen. It was decided on the basis of the statements that component one is the domain 'perceived threats', component two is the domain 'perceived benefits', component three is the domain 'perceived self-efficacy' and subsequently component four is the domain 'perceived barriers'. The comprehensive diagram in Appendix 29 shows which statement belongs to which domain according to the PCA test.

The aim was normally to calculate a component score for each domain. However, when looking at the rotated component matrix of the Dutch study in Appendix 34, only the domains 'threats' and 'benefits' showed large similarities with the Belgian study. Therefore, it was decided to only calculate the component scores of these two domains. After reviewing the statistical test and questioning whether there is logic in the given answers, it was decided that statements 3, 8, 9, 10, 19, 20 and 21 were among the threats and that all the statements pointed in the same direction. Statements 13, 15, 16, 17 and 18 belong to the benefits. Only statement 13 points in the other direction, so the statement score will be reversed.

The component score was calculated as follows: firstly, a score was given for each respondent and for each statement in the same domain. This was called the statement score. If the respondent answered 'totally disagree' to the statement, the statement score was 1. If the respondent indicated 'totally agree', the statement score was 5. When the statement score has to be reversed (as is the case with statement 13), the following scores are attributed: totally disagree was 5, disagree was 4, neutral was 3, agree was 2 and totally agree was 1. Then all statements scores of the respondent were summed and divided by the number of statements. The obtained number was used as the component score. Next, the average of the scores of the respondents could be calculated.

In other words, all the pharmacist's scores were added up and divided by the number of respondents. Which in the Belgian study was 275. Eventually, this calculation was also carried out for the other domain.

Table 4.2: Example of calculating the scores of one respondent within one domain

Domain perceived benefits: first respondent		
Statements in the benefits domain	Answers of the respondent	Statement scores
Statement 13	Totally disagree	1 -> 5
Statement 15	Neutral	3
Statement 16	Agree	4
Statement 17	Disagree	2
Statement 18	Agree	4
Sum of statement scores	Divided by # statements	Benefits component score
18	18/5	3,6

In Table 4.2 the calculation of the scores of the first Belgian respondent within the benefits domain can be seen. After all the necessary calculations -as can be seen in Appendix 30- , the average component score of the domain threats was set to 3,78 and 2,88 was considered as the average benefits component score. All the benefits component scores and threats component scores were further used for the linear regression.

4.3 SINGLE AND MULTIPLE REGRESSION

The SPSS outputs concerning if there was an association between the 'individual beliefs' and 'working methods', could be found in Appendix 31. The measures that the pharmacist had already implemented were used one by one as the dependent variable. As independent variables the threats and the benefits component scores were used. Furthermore, gender and age were also added as independent variables to know whether the implemented measure was dependent on these characteristics. The measures that pharmacists could indicate as useful and the topics that pharmacists wanted to see reflected in continuing education were excluded. This is because it is not part of the current working method. In Appendix 32, the association between the 'individual beliefs' and 'background characteristics' was examined. For this, the threats/benefits component scores were used as the dependent variable. The used independent variables were gender, age, function of the pharmacist and the pharmacy location. The location of the pharmacy was checked according to the following variables: province, place and city/countryside pharmacy. To use these categorical variables as predictors in the linear models, dummy variables had to be created.

To know if there is an association between pharmacist's beliefs and work methods/background characteristics, the 5% significance level was taken into account. The null hypothesis indicated that there was no association between the threats/benefits beliefs and the work methods/background characteristics. The alternative hypothesis indicated that there is a correlation between the two. If the p-value of an independent variable in the single regression is greater than 0,05; the null hypothesis was not rejected at the 5% significance level. That means that there is no significant correlation between this independent variable and the beliefs. If the p-value of the independent variable is less than 0,05; the null hypothesis could be rejected. This indicated that an association does exist and that the variable is a predictor of the beliefs. In the multiple regression, all independent variables were taken into account. If one or more variables had a p-value below 0,05; the variable that was least significantly associated with the outcome was extracted until all p-values were less than 0,05.

Single linear regression: $E(Y|X = x) = \alpha + \beta x$

Multiple linear regression: $E(Y|X_1 = x_1, \ldots, X_n = x_n) = \alpha + \beta_1 x_1 + \ldots + \beta_n x_n$

Y= dependent variable; X= independent variable; α= intercept; β= slope

Equation 4.1: General formulas of single and multiple regression

Thereafter, a linear regression model was created for each association with the characteristics. Theses models were constructed using the general formulas of single and multiple regression from Equation 4.1. Subsequently the regression coefficients in the model were interpreted to evaluate the association.

4.4 COMPARISON BETWEEN BELGIUM AND THE NETHERLANDS

In order to compare the results between the two studies, all data of the Dutch study have been brought together in the appendices. The SPSS-outputs, the answers of the questionnaire and the comments concerning the survey were placed Appendix 33. in Appendix 34, the results of the PCA can be found. Here too, six components were initially found but the PCA was adjusted so that four components were enforced. Thus, it was seen that component one was the domain 'threats', component two was 'benefits', component three was 'barriers' and component four was 'self-efficacy'. An overview of which statement was placed with which domain can be found in Appendix 35. The component scores and the results of the linear regression were placed respectively in Appendix 36 and Appendix 37.

5 DISCUSSION

5.1 GENERAL DISCUSSION

Since 90 male and 185 female pharmacists completed the Belgian questionnaire, it could be concluded that both genders were sufficiently covered. In Table 4.1 and in Appendix 15 could be seen that all ages of working pharmacists were adequately represented in this survey. In addition, a sufficiently high spread in the response options could be found by the questions about the positions of the pharmacists, the number of years of work experience and the number of years that the pharmacists have been working in their current pharmacy. Next, it could be seen that the respondents' pharmacies are located in many different locations with different numbers of inhabitants. The different provinces were adequately represented in this study. In brief, the 275 respondents were able to represent the 7.000 Flemish and Brussels community pharmacists.

In the open question on opioid tapering schedules in Appendix 23, the respondents gave many different answers. Belgian and Dutch websites and written literature were mentioned. Respondents also reported social meetings such as in-service training and Medisch-Farmaceutisch Overleg (MFO), or contact with doctors or professional associations as sources of information. It should be noted that to this day none of these sources provide tapering schedules. Some websites, such as apotheek.nl, do quote guidelines from other countries but do not give an actual schedule. After asking the professional associations, the Instituut voor Permanente Studie voor Apothekers (IPSA) and the organisers of the MFOs, could be concluded that they did not distribute such schedules to pharmacists either. It could therefore be concluded that the respondents had never actually had to seek out such a schedule to use with a patient.

Yet, as mentioned earlier, it was seen that the vast majority of pharmacists would like to receive a training programme on these tapering schedules. At the time the survey was completed, the Instituut Verantwoord Medicijngebruik (IVM) published a guidance document on phasing out opioids. This document does discuss tapering schedules. (72) Hopefully will this reach many healthcare providers so that in the future more pharmacists will know where to find information on this subject.

As the KMO measures how suitable the data are to carry out a PCA, it is best to set the value as high as possible. A value above 0,8 indicates that the sample is meritorious adequate. The KMO value of this survey was 0,794; this was middling to decide that a PCA could be useful with these data. The Bartlett's test of sphericity was used to check whether the statements were correlated with each other. For this, the p-value of the test must be lower than the chosen significance level of 0,05. In this study the p-value was <0,001, which indicated that was significant and that a PCA could be performed with the data. In Appendix 26, the rightmost part of the table

should be looked at because the varimax rotation was used. The column '% of Variance' showed the ratio of the variance per component and the total variance. It could be concluded in the column 'Cumulative %' that the seven components explained a variance of 57,933%. In Appendix 28; 43,661% of the variance can be explained by four components. This percentage should be as high as possible, because the remaining percentage of total variance is due to unexplained error variance. Here it could be concluded that a percentage of 43,661 was sufficiently high. (73)(74)

In Appendix 13, it can be seen how the questionnaire was formatted using the four domains of the HBM. Looking at Appendix 29, it could be noticed that the theory did not fully translate into practice. Even though the four domains could be found, not all statements were linked to the predefined domain. In itself, it is not surprising that statement two "I have positive experience with the long-term use of opioids by patients with chronic non-malignant pain" was not connected to domain benefits, but rather to domain threats. This can also be seen by the negative PCA score in the rotated component matrix. Statement three was not connected to the domain barriers. Respondents were more likely to rate opioid-induced health damage as a threat. The answers from the Flemish and Brussels pharmacists tended that statement 23 belonged more to the benefits domain. This is not surprising because when there are too few proper alternatives to opioids, the pharmacist has no choice but to dispense opioids to treat the pain. Statement 13 had a charge to both benefits and barriers. The highest absolute value of the PCA score was seen with benefits. The PCA score was negative because the proposition pointed in the opposite direction than all other propositions within the same domain. If the pharmacist believes that chronic pain is a sociopathic problem, he/she will be more inclined to not dispense opioids and recommend cognitive behavioural therapy.

Statements 11 and 12 did not belong to self-efficacy, but to barriers. These statements covered the principle that pharmacists sometimes feel obliged to dispense opioids. Thus, the fact that they dispense opioids meant that it was not a barrier. Therefore, this is the reason why it was decided that both statements point in the opposite direction at the domain barriers. Still connecting with the domain barriers, it could be decided that statement 14 and statement 22 were each other's opposites. Even though statement 14 originally belonged to threats according to the preconceived HBM. If many patients have resistance to opioid use (statement 22), the pharmacist will be less likely to dispense opioids. This constitutes a barrier. If many patients have high expectations of opioids (statement 14), the pharmacist may be more likely to dispense. This could also be seen in the PCA scores: statement 22 pointed in the opposite direction than statements 11, 12 and 14.

In Appendix 31, the results from the single and multiple regression about the working methods could be consulted. By the fact that in the single regression with the first measure as dependent variable a p-value lower than 0,05 could be established for the threats component score, the null hypothesis could be rejected. This means that it could be concluded that the measure of reporting an addiction risk at first dispensing depends on how the pharmacist assesses the disadvantages of opioids. After removing all the variables from the multiple regression one by one based on the least associated with the outcome (highest p-value), again the association between the first measure and the threats component score was obtained. Reporting an addiction risk for repeat dispensing was also associated with the threats component score. Additionally it was found that the p-value of age was also significant with the outcome. Whether the pharmacist has already implemented the second measure depends on his threats component score and his age. The more detrimental the pharmacist was to opioids, the higher the threats component score and the less likely he/she was to mention to the patient that there is a risk of addiction. The older the pharmacist was, the less he/she talked to opioid patients about the addiction problems in case of a repeat dispending.

Subsequently, it could also be seen in the single and multiple regression that measure five (restriction on the number of days on prescription) was associated with the benefits component score. The higher the benefits component score of the pharmacist, the less likely he/she has implemented this measure. When the MFO measure was introduced as the dependent variable in the single regression, a p-value below 0,05 was found for the independent variable gender. However, in the multiple regression, no variable was seen to have a p-value less than 0,05. The fact that a correlation was seen in the single regression and not in multiple regression indicated that there was a confounder in the model. By examining when the p-value of gender became greater than 0,05 when adding a certain variable, it could be decided what caused this confounding. After examination, it was found that age and the benefits component score were both confounders for gender. There was indeed a link between the MFO measure and gender: female pharmacists had already participated more in MFOs than their male colleagues.

Although a correlation was found between the working methods and the pharmacists' beliefs about the benefits and treats of opioids, this was not the case for the background characteristics and these beliefs. In both the single and multiple regressions in Appendix 32 with the threats component score as dependent variable, no p-value smaller than 0,05 can be found. It could therefore be established that there was no correlation between how the pharmacists perceived the opioids as a threat and the background characteristics. In the single regression with the benefits component score as the dependent variable, again only p-values greater than 0,05 were found. In the multiple regression, at first sight it seemed that the benefits component score depended on the gender of the pharmacist and whether the pharmacy was located in the province of Vlaams-Brabant. However, when the independent variables were removed from the model one by one, no p-value remained that was smaller than 0,05. It was observed that there was no link between the benefits beliefs and the background characteristics of the pharmacist.

Nevertheless, the data was stratified in five different ways to find out if there were major differences in the threats/benefits component score between certain target groups. All the SPSS outputs from these stratifications were placed in Appendix 32. The first way was to stratify by gender. In doing so, it was found that the female pharmacists had on average a lower benefits component score and a higher threats component score than their male colleagues. As mentioned in section 4.1, the mean age of all respondents was 41,5 years. In the second way of stratification, pharmacists were divided into two groups, namely pharmacists younger than 41,5 years and pharmacists older than the mean age. The mean benefits component score was similar for both age categories, but pharmacists younger than 41,5 years experienced the threats of opioids more than their older colleagues.

The data was also stratified by the provinces. It could be decided in this way that pharmacists working in the Brussels-Capital-Region perceived the most disadvantages and the least advantages of opioids compared to the other provinces. The province of Vlaams-Brabant had the lowest threats component score on average, followed by West Flanders. In line with this, pharmacists from West Flanders had the highest average benefits component score. The fourth way was to stratify according to the number of inhabitants of the place where the pharmacy was located. The respondents with a pharmacy in a small town had the highest benefits component score and the lowest threats component score. The respondents who worked in a place with a population of more than 150.000 experienced the most threats. The pharmacists who achieved the lowest benefits component score on average were those who worked in a medium-sized town. The data was also divided according to whether the pharmacists' workplace was a city or a countryside pharmacy. The pharmacists working in a city experienced more disadvantages than advantages of opioids compared to the pharmacists working in a less populated area.

5.2 COMPARISON BETWEEN BELGIUM AND THE NETHERLANDS

From Appendix 33, it could be deduced that both in Belgium and in the Netherlands the most efficient way to obtain a high response rate was by sending mails. The ratio of male to female pharmacists and the average age were almost the same in both countries. Just as in the Belgian study, the Dutch research showed a nice spread in the age, years of work experience and function of the respondents and in the locations of the pharmacies. It could therefore be concluded that the Dutch respondents are a adequate representation of all 2.909 pharmacists in the Netherlands. (75) In Belgium, 275 pharmacists completed the questionnaire and in the Netherlands 205. If the number of community pharmacists in both countries is taken into account, a response rate of approximately 3,93% is obtained in Belgium and 7,05% in the Netherlands.

Generally speaking, no major differences were determined between the two countries in the part 'individual beliefs'. Only in the case of two statements were different opinions established. Half of the Belgian respondents indicated that they can easily predict which patient is at risk of opioid abuse. While the majority of Dutch respondents answered neutral to this statement and only 27,8% said they agreed with it. Just under 50% of Belgian respondents and 31,2% of Dutch respondents agreed that they feel they cannot refuse prescriptions. Yet 36,1% of Dutch pharmacists disagreed with this statement because they did not have this feeling. It could also be concluded that Belgian pharmacists were more concerned than Dutch ones that their patients will need more and more opioids and develop an addiction.

In the part 'working methods', about 27% more Dutch pharmacists compared to Belgian pharmacists indicated to be more critical because of the attention for opioid use in the media. It was established that 60,5% of Dutch pharmacists know where they can find information on opioid tapering schedules. Among the Belgian respondents, this was less than 21%. However, it was again found that all the sources indicated by the Dutch, with the exception of the source IVM, do not provide actual tapering schedules. As mentioned earlier, at the end of April the IVM published a guide for healthcare providers on phasing out opioids. IVM was mentioned by six Dutch pharmacists. It is understandable that no Belgian pharmacists cited this institute because the survey had already been closed before the guide was published. IVM is also a Dutch institute, so there is a strong possibility that Dutch pharmacists are more aware of this guide than Belgian ones. The medicines experts in both countries want more continuing education in opioid tapering schedules. In addition to tapering, the Dutch respondents were especially interested in being educated on how to prevent unnecessary long-term opioid use. Courses on dosage schedules seemed less useful to the Dutch, whereas the Belgians found them useful. This would be because the Dutch pharmacists would already have received more explanation about these dosage schedules.

In the measures, some differences were seen between the two countries. The Dutch pharmacists indicated that agreements between general practitioners and pharmacists, and pharmacotherapeutic consultations are the most useful measures. These measures were also already implemented by the majority of Dutch respondents, in contrast to the Belgian respondents. In Belgium, the respondents also considered these measures to be useful, but felt that informing the patient that there is a risk of addiction is even more useful. This was also reflected in the measures already implemented by pharmacists. 68,0% of the Belgian and only 39,0% of the Dutch respondents already tell the patient when repeating an opioid prescription that addiction can occur. In both countries, the least useful measure appeared to be the monthly consultation with the patient.

In the open question on measures to reduce opioid use, there was one specific item that often came up among the Dutch pharmacists, but that was also seen amongst the Belgian pharmacists. This item was the fact that clear agreements must be made between the general practitioners and the pharmacists regarding opioid patients. The Dutch pointed the finger more at the specialists and the hospitals. They felt that agreements should not only be made within primary care, but also with and within secondary care. An item that was often mentioned by the Dutch pharmacists -but never by Belgian pharmacists- was the fact that the administration form of opioids should be looked at more critically. In addition, more attention should be paid to whether the patient needs a short-acting or a long-acting opioid.

In general, no major differences were seen between the responses of Belgian and Dutch pharmacists. In both countries, it was mentioned that the treatment of pain is best done in a multidisciplinary way. To this end, every care provider in primary and secondary care must do its bit. Pain should not only be treated with medication, but for instance movement therapy by physiotherapists and consultations with psychologists are also very important. Yet pharmacists found that general practitioners and specialists often prescribed too many opioids too quickly. In order to reduce pain and help patients in the best possible way, better agreements and more communication between doctors, hospitals and pharmacists should be made in the future. Some Dutch and some Belgian respondents also mentioned that respectively pharmacotherapeutic consultations and MFOs are an enormous added value, only it is a pity that the discussed working methods are not always put into practice.

As in the Belgian study, a sufficiently high KMO value (0,809) and a sufficiently low p-value for the Bartlett's test (<0,001) were observed with the Dutch data. Thus, it could be decided that the Dutch data was beneficial to perform a PCA. In the Dutch scree plot only six components were found in contrast to the Belgian. Since there was also a (little) kink with the fourth component, the PCA was resumed with four fixed components. On the tables of the total variance explained in Appendix 34, it was concluded that 55,045% of the variance could be explained by six components and 45,384% by four components. This latter percentage was higher than in the Belgian study. It could therefore be concluded that this sufficiently high percentage could not be caused by error variance.

Even though a PCA with four enforced components was performed for the Belgian and the Dutch data, the same statements were not always linked to the same domain. Appendix 35 presents a summary where the second column reports whether the statement was placed in the same domain as in the Belgian PCA. Major differences between the two studies were found especially within the domain of barriers. Namely, all statements that belonged to the Belgian domain barriers were included in the domain threats in the Dutch study. By the Dutch domain barriers statements one, four and 23 were connected. This means that the Dutch respondents assessed the statements differently than the respondents from Belgium. As a result, the correlations with the components and PCA scores were also different between the two countries. This is also the reason why it was decided to only calculate the component scores of benefits and threats. This was done using the statements that belonged to the same domain in both studies.

From the calculations in Appendix 30 and Appendix 36, it could be deduced that the component scores were very similar between the two countries. The component score of threats in Belgium was 3,78 and in the Netherlands 3,68. The benefits component score in the study with the 275 respondents was 2,88 and 2,81 was the component score of the Dutch pharmacists. In Figure 5.1 and in Figure 5.2, two scatter plots can be noticed. Each bullet represents one or more pharmacists: the darker the green, the more pharmacists had that score. These scatter plots could be made up by summing all the statement scores of one respondent within the same domain. It can be concluded that most of the pharmacists of both countries had a score in the upper left quadrant. This means that the vast majority of the Belgian and Dutch respondents were sceptical about the use of opioids for chronic non-malignant pain. In Flanders and Brussels, there were more pharmacists who were ambivalent about opioids. They saw both the advantages and disadvantages of opioids. In the Netherlands, they experienced less benefits.

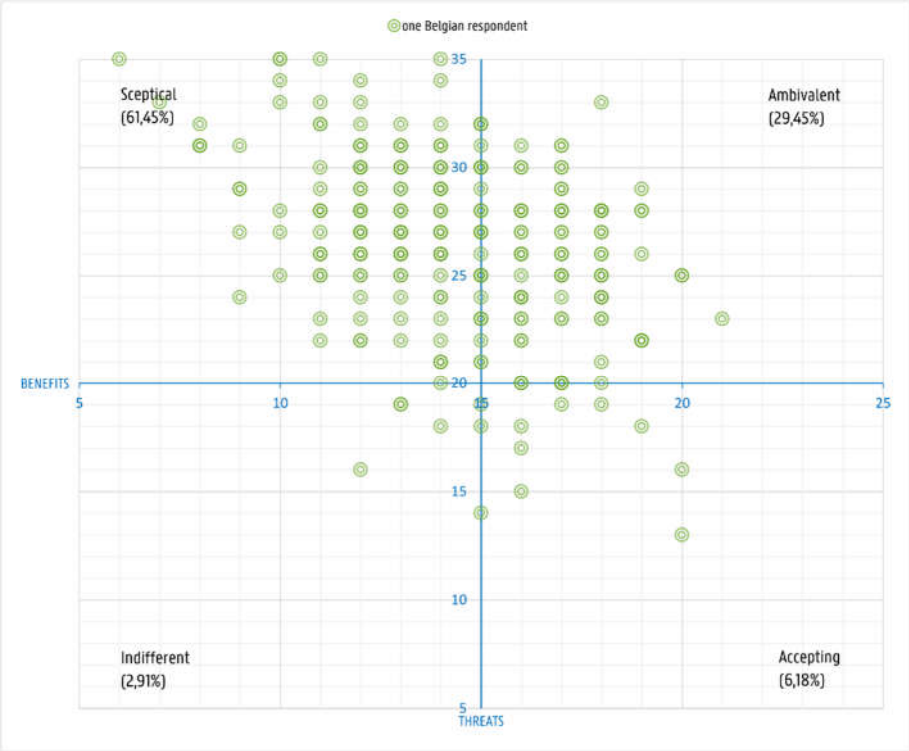


Figure 5.1: Scatter plot showing the distribution of the pharmacists' scores from Flanders and Brussels-Capital-Region. The x-axis represents the scores of benefits and the y-axis the scores of threats. [benefit score>15 and threat score>20] = ambivalent quadrant; [benefit score>15 and threat score ≤20] = accepting quadrant; [benefit score≤15 and threat score>20] = sceptical quadrant; [benefit score≤15 and threat score≤20] = indifferent quadrant

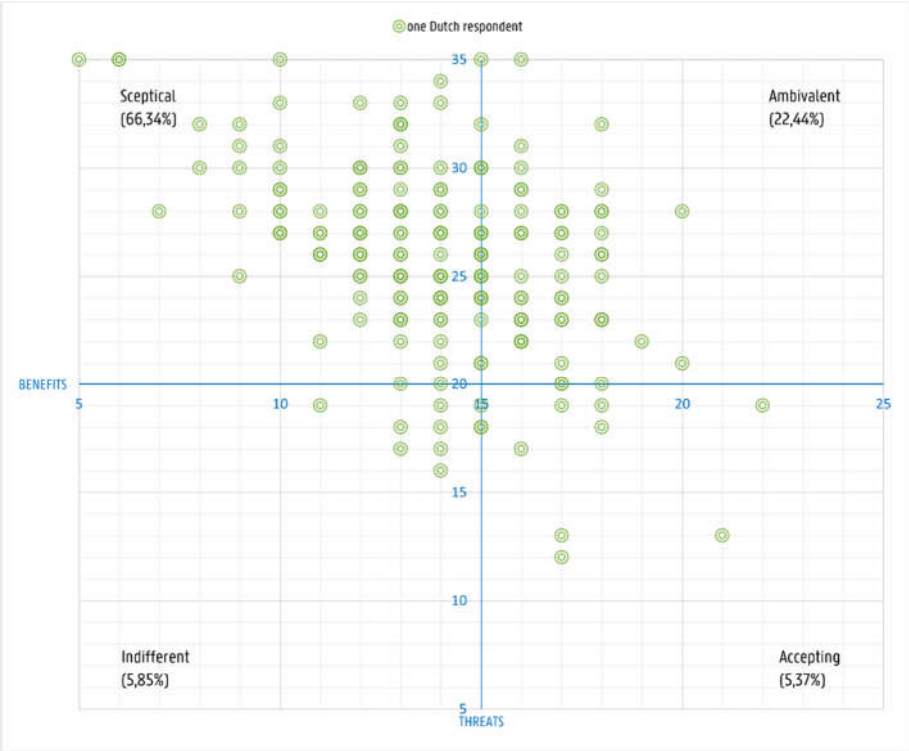


Figure 5.2: Scatter plot showing the distribution of the pharmacists' scores from the Netherlands. The x-axis represents the scores of benefits and the y-axis the scores of threats. [benefit score>15 and threat score>20] = ambivalent quadrant; [benefit score>15 and threat score ≤20] = accepting quadrant; [benefit score≤15 and threat score>20] = sceptical quadrant; [benefit score≤15 and threat score≤20] = indifferent quadrant

Similar to the Belgian study, an association was also found between the working methods and the beliefs of the Dutch pharmacists. In Belgium, however, a link was found between both the threats component score and the benefits component score and the beliefs. In the Netherlands, the measures were only dependent on how the pharmacists experienced the threats of opioids. This might be due to the fact that more Belgian pharmacists experienced the benefits of opioid treatment than their Dutch colleagues, as mentioned in the previous paragraph. In the Dutch study, two measures were found to be associated with the threats component score. On the one hand, the measure concerning the monthly consultation between pharmacist and patient (measure three) and, on the other hand, the measure concerning agreements between general practitioners and pharmacists concerning the repetition of prescriptions (measure nine). In the Belgian study, these measures showed no association. This could be explained by the fact that measures one and two were the most frequently implemented measures among Belgian pharmacists. This is in contrast to the Dutch study where measure nine was implemented the most. The more the Dutch pharmacist was convinced of the disadvantages and threats of opioids, the more likely he/she had agreements with the general practitioner about repeating opioid prescriptions. Measure three was the measure that almost no Dutch pharmacists had implemented yet. However, the higher the Dutch pharmacist's score on the threats component, the more likely he/she had already implemented this measure.

While no correlation between the beliefs and background characteristics was found among Flemish and Brussels pharmacists, this was not the case among Dutch pharmacists. In the Dutch study, the benefits component score was associated with whether the pharmacy was located in a large town with more than 150.000 inhabitants. However, just as in the Belgian study, no link was found between threats and background characteristics. Because the p-value of 'large town' in Appendix 37 was less than 0,05; the following regression model could be drawn up and the regression coefficients discussed. It should be noted that in the Belgian study a p-value of 0,052 was found for the independent variable 'large town'. Therefore this p-value was just too high to find an association between the benefits beliefs and the place of the pharmacy.

Single linear regression: Benefits component score = 2,867 + 0,003(large town)

α = 2,867 = The average benefits component score for pharmacists who do not work in a pharmacy in a large town is expected to be 2,867.

β = 0,003 = The average benefits component score for pharmacists working in a pharmacy in a large town is expected to be 0,003 higher than pharmacists working in a pharmacy in a smaller town with less than 150.000 inhabitants.

The data from the Dutch study was stratified according to gender, age and the location of the pharmacy. As in the Belgian study, female pharmacists experienced more threats and less benefits than male pharmacists. The Dutch pharmacists younger than 41,5 years had higher benefits and higher threats component scores than their older colleagues. However, as these values were not very different, this was considered to be clinically irrelevant. Whereas in Belgium the benefits component score was the same for both age categories. In both the Belgian and the Dutch study, pharmacists working in a small town had the highest benefits component score and the lowest threats component score. The pharmacists in both countries who worked in a large town experienced the least benefits from opioids. This may be explained by the fact that opioid use is higher in large cities due to deprived neighbourhoods. The highest threats component score was seen in Belgium among pharmacists working in a medium-sized town and in the Netherlands among pharmacists working in a large town with more than 150.000 inhabitants.

The two studies found that regardless of the gender of the pharmacist, both the benefits component scores and the threats component scores were on average higher for Belgian than for Dutch pharmacists. For pharmacists from both countries under 41,5 years of age, roughly the same average benefits component score was seen. Belgian pharmacists over the average age had higher benefits and higher threats component scores than their colleagues across the border. The youngest age group in Flanders and the Brussels-Capital-Region had higher threats component scores than the Dutch pharmacists in the same age group. Belgian pharmacists experienced more benefits from opioids than Dutch pharmacists, regardless of the location of the pharmacy. The Belgian pharmacists from a small and a medium-sized town also had higher threats component scores than their Dutch colleagues working in a town with the same number of inhabitants. However, the two studies showed that the threats component score was on average higher among the Dutch pharmacists than among the Belgian pharmacists who also worked in a pharmacy in a town with more than 150.000 inhabitants.

5.3 STRENGTHS AND LIMITATIONS

The biggest limit is the fact that the Dutch study had not yet ended when the master's thesis had to be submitted. Because of this, the 205 Dutch respondents used in this thesis were actually not the final total. It is therefore possible that the similarities and differences that were cited are not yet complete because data from the Dutch study was still missing. Perhaps with the final total of Dutch respondents, other statements would be linked to the domains. This might have ensured that there were more similarities with the Belgian PCA test so that the component score of self-efficacy and barriers could also be calculated. A linear regression could then be performed with the component scores of these two domains. This would further confirm whether there is an association between the individual beliefs of pharmacists and the other parts of the questionnaire.

A limit of this study is the fact that the same pharmacist could have completed the questionnaire several times. Nevertheless on LimeSurvey a cookie was used to prevent repeated completion: when the pharmacist sent in the questionnaire, a cookie was placed on his computer. This ensured that if the pharmacist always worked with the same computer, he/she could only complete the questionnaire once. However, due to the fact that the questionnaire was sent out in different ways, the pharmacist could, for example, find and complete the questionnaire via the Facebook app on his/her smartphone. Again the cookie was placed on the smartphone but this is separate from the cookie on the computer. The more computers and multimedia the pharmacist had, the more times he/she could have completed the questionnaire. However it is suspected that not many, if any, pharmacists filled in the questionnaire more than once. This is because repeated completion was not beneficial for the pharmacists and would only require additional time. It cannot be determined whether pharmacists completed the questionnaire more than once because the questionnaire was anonymous.

The third limit is that there are differences between the Belgian and Dutch legislation and working methods on opioid supply. For instance, Belgian pharmacists can use the GFD to find out the frequency of collecting an opioid. The Dutch variant of this file is the Landelijk Schakelpunt (LSP). The LSP contains much more information about the dispensed medicines than the GFD. This gives Dutch pharmacists a better insight into whether the patient is abusing the opioid or is addicted. One additional difference is the possibility of repeat services in the Netherlands. This allows patients taking chronic medicines to call their pharmacist. The pharmacist then requests the prescription from the general practitioner and the patient can go to the pharmacy for the medication. This repeat service ensures that the chronic patient does not necessarily have to go for a consultation. This service is not applied in Belgium. Due to the differences in legislation but still a similar questionnaire, it is not surprising that the Belgian and Dutch respondents have different opinions and a different view on opioid delivery.

The fact that the Belgian survey only examined the perceptions of pharmacists is a fourth limitation. In the Netherlands, the questionnaire was sent to pharmacists and general practitioners to find out their opinions on opioids. The Dutch study investigated whether there is a link between the beliefs of general practitioners and their prescribing behaviour. It was also examined whether there were major differences between the perceptions of pharmacists and general practitioners. In Belgium, none of the above was investigated, but this could be examined in future research (see 5.4).

Another limit of this study is the fact that the Netherlands was compared with Flanders and Brussels-Capital-Region and not with Belgium as a whole country. This was done on purpose because the thesis period was only four months. If the Walloon region was to be involved, the questionnaire had to be drawn up in French and German. It was then also best to check whether there were any major differences between the answers of the Flemish and the Walloon pharmacists. On the one hand it was suspected at the beginning of the thesis period that this would be too time-consuming. On the other hand because the study was conducted as an Online Erasmus with the Netherlands, it seemed more logical to compare Dutch-speaking Belgian pharmacists with pharmacists from the Netherlands. If further research is conducted on pharmacists' perceptions of opioids, it would be interesting to compare the two Belgian regions with each other and with the Netherlands (see 5.4).

Although pharmacists from Wallonia are not included, it is a strength that the same study was conducted in both Belgium and the Netherlands. In this way, the Flemish student and the Dutch researchers could always rely on each other. Through the cooperation the differences and similarities between the countries could be established. The entire Erasmus Online project stimulated international cooperation and demonstrated that physical contact is not necessarily needed to conduct a successful study.

The greatest strength is the study population. In both countries, more than 200 pharmacists completed the questionnaire. This number was necessary to obtain a significant result for the PCA. Both study populations were able to represent their inhabitants well, which made the research results reliable.

Furthermore, the Dutch study of pharmacists' perceptions was only a small part of all opioid-related studies within the TAPTOE consortium. This means that after the study period (in 2024) an overall picture of the opioid use in the Netherlands in primary and secondary care can be given. In this way, measures can be taken to reduce the opioid crisis in the Netherlands. Even though the Belgian study was not officially part of TAPTOE, hopefully the results will be included. In any case, it would be very useful for Belgium and other European countries to take a look at the final report of the consortium in order to improve their national working methods on opioids. If Belgium were to do this, it would be an enormous benefit that flows from this (small-scale) research.

5.4 SUGGESTIONS FOR FUTURE RESEARCH

As mentioned in the previous section, this study was limited due to a lack of time. If the study period would be extended or if further research on opioids would be carried out, it would be logical that all pharmacists and general practitioners in Belgium are involved. To achieve this, the questionnaire for pharmacists should be translated into French and German and a similar questionnaire for doctors should be prepared in Dutch, French and German. In this way, the differences between Belgian doctors and pharmacists regarding opioid use would be better known. The differences between the Flemish, Walloon and Brussels regions could be examined. These results could then be used to take measures to reduce the Belgian opioid crisis. Finally, the perceptions of the Belgian doctors and pharmacists could be compared with the opinions of Dutch healthcare providers. Because when all this data is collected in Belgium, the Netherlands has probably ended all research on this.

Currently, this study only takes into account opioid use in extramural care. In order to be able to reduce the opioid crisis in Belgium as much as possible, it is necessary to look at the opioid consumption and opioid prescription behaviour in hospitals and care institutions. It can be very useful to know what doctors-specialists think about opioids and how many elderly people in residential care are prescribed opioids. In the Netherlands, this is being investigated within other studies of the TAPTOE consortium. In Belgium, this should be investigated further.

6 CONCLUSION

For the descriptive statistics, the same observations were recurring in the Belgian and Dutch study. The perceptions of the Belgian pharmacists on opioids corresponded well with the perceptions of their colleagues across the border. Most pharmacists were fairly sceptical about the added value of opioids, or they saw the added value but also the risks. The vast majority of pharmacists felt that opioids should not be the first choice treatment for chronic non-malignant pain. But the pharmacists reported that due to a lack of adequate alternatives, opioids are prescribed too often and too much. The Belgian and Dutch pharmacists would have liked to receive more information and training on opioid taper and tapering schedules in the future. The pharmacists from both countries also mentioned that more agreements and a better communication between general practitioners, specialists and pharmacists are needed to treat the patients with chronic malignant pain as well as possible.

However, only a few differences were noted between the two studies. Pharmacists in the Netherlands felt it was important to also consider what type of opioid is prescribed and in what administration form. Belgian pharmacists pay less attention to this. In the Belgian study, it was often mentioned that the GFD should be used more efficiently. The Dutch pharmacists did not experience this problem with their LSP because of the fact that this system is more established in their pharmacies. It was also noted that Dutch pharmacists find it easier to refuse a prescription compared to their Belgian colleagues. Belgian pharmacists are more concerned that their patients will become addicted and therefore find it more useful to inform the patients that there is a risk of addiction.

Many differences were seen in the linear regression of both countries. In the Belgian and Dutch studies, certain measures were associated with the beliefs that pharmacists have about the threats of opioids. But these were different measures for both countries. The Belgian study also found that a particular measure was dependent on the benefits component score. Therefore among Belgian pharmacists, there was indeed a link between the working methods and the beliefs. In contrast, by the Belgian pharmacists no link was found between the beliefs and the background characteristics. In the Dutch study, the benefits beliefs were associated with the location of the pharmacy. In addition, after stratifying the data in different ways, the two studies did not always achieve the same results.

Even though the Belgian and Dutch studies gained more insight into pharmacists' perceptions of opioids, it is clear that there is still much work to be done. In the future, there should be better interaction between all types of health care providers from all lines of health care: general practitioners, pharmacists, physiotherapists, nurses, addiction specialists and pain specialists. Only then can patients with chronic non-malignant pain be treated as efficiently as possible and preferably with as few opioids as possible.

7 LIST OF REFERENCE

1. TAPTOE onderzoek | SIR Institute for Pharmacy Practice and Policy [Internet]. [cited 2021 Feb 21]. Available from: https://sirstevenshof.nl/onderzoek/taptoe-onderzoek

2. Opioid addiction is a complex problem | Regulatory Science [Internet]. [cited 2021 Feb 21]. Available from: https://www.regulatoryscience.nl/editions/2019/09/marcel-bouvy-and-liesbeth-rook-opioid-addiction-is-a-complex-problem

3. IASP Terminology - IASP [Internet]. [cited 2021 Feb 21]. Available from: https://www.iasp-pain.org/Education/Content.aspx?ItemNumber=1698#Pain

4. Thierry Christiaens. 8.1. FT bij Acute Pijn en bij koorts Prof. Christiaens - J000425A - Farmacotherapie en farmaceutische zorg I [Internet]. [cited 2021 Feb 21]. Available from: https://ufora.ugent.be/d2l/le/content/236525/viewContent/558751/View

5. BCFI | Pijn en koorts: medicamenteuse pijnbestrijding [Internet]. 2020 [cited 2021 Feb 21]. p. 275–8. Available from: https://www.bcfi.be/nl/chapters/9

6. Yoon SY, Oh J. Neuropathic cancer pain: Prevalence, pathophysiology, and management [Internet]. Vol. 33, Korean Journal of Internal Medicine. Korean Association of Internal Medicine; 2018 [cited 2021 Feb 21]. p. 1058–69. Available from: /pmc/articles/PMC6234399/

7. Wat is pijn? [Internet]. [cited 2021 Feb 21]. Available from: https://www.umcg.nl/NL/UMCG/Afdelingen/Pijncentrum/behandeling/wat-is-pijn/Paginas/default.aspx

8. What's in a Name for Chronic Pain? | Pain Research Forum [Internet]. [cited 2021 Feb 21]. Available from: https://www.painresearchforum.org/news/92059-whats-name-chronic-pain

9. Thierry Christiaens. 8.2. FT bij chronische pijn Prof. Christiaens - J000425A - Farmacotherapie en farmaceutische zorg I [Internet]. [cited 2021 Feb 21]. Available from: https://ufora.ugent.be/d2l/le/content/236525/viewContent/572331/View

10. Apr. Leen Claes (UGent). Opioïden. In: jaarcyclus 2020 IPSA. 2021. p. 85–102.

11. Johan Van de Voorde. Minerva: Anatomie en algemene fysiologie van de mens - zenuwstelsel [Internet]. [cited 2021 Feb 21]. Available from: https://minerva.ugent.be/main/document/document.php?cidReq=J00037702016

12. Rosenblum A, Marsch LA, Joseph H, Portenoy RK. Opioids and the Treatment of Chronic Pain: Controversies, Current Status, and Future Directions. Exp Clin Psychopharmacol [Internet]. 2008 Oct [cited 2021 Feb 23];16(5):405–16. Available from: /pmc/articles/PMC2711509/

13. Breivik H, Collett B, Ventafridda V, Cohen R, Gallacher D. Survey of chronic pain in Europe: Prevalence, impact on daily life, and treatment. Eur J Pain [Internet]. 2006 May 1 [cited 2021 Feb 21];10(4):287–287. Available from: http://doi.wiley.com/10.1016/j.ejpain.2005.06.009

14. Gilles H, Sam C, Alain C, Thomas K, Sarah M, Michel V. Aanpak van Chronische pijn in de eerste lijn herziening 2017.

15. Pijn | NHG-Richtlijnen [Internet]. [cited 2021 Feb 21]. Available from: https://richtlijnen.nhg.org/standaarden/pijn

16. BCFI | Folia februari 2019: opioiden bij chronische artrosepijn en rugpijn [Internet]. 2019 [cited 2021 Feb 24]. Available from: https://www.bcfi.be/nl/articles/3008?folia=3006

17. BCFI | Pijn en koorts: opioiden [Internet]. 2020. 286–296 p. Available from: https://www.bcfi.be/nl/chapters/9

18. Luc Pieters. Farmacognosie en fytochemie - alkaloiden L-tyrosine derivaten benzyltetrahydroisochinoline.

19. Lindsey Devisscher. 9 GM bij Pijn, Koorts en Ontsteking: narcotische analgetica - J000385B - Farmacologie [Internet]. [cited 2021 Feb 21]. Available from: https://ufora.ugent.be/d2l/le/content/62109/viewContent/311080/View

20. Fentanyl DrugFacts | National Institute on Drug Abuse (NIDA) [Internet]. [cited 2021 Apr 22]. Available from: https://www.drugabuse.gov/publications/drugfacts/fentanyl

21. Pathan H, Williams J. Basic opioid pharmacology: an update. Br J Pain [Internet]. 2012 Feb [cited 2021 Feb 21];6(1):11–6. Available from: /pmc/articles/PMC4590096/

22. Dhaliwal A, Gupta M. Physiology, Opioid Receptor. 2020 Aug 29 [cited 2021 Feb 22]; Available from: https://www.ncbi.nlm.nih.gov/books/NBK546642/

23. Opioid receptors | Introduction | BPS/IUPHAR Guide to PHARMACOLOGY [Internet]. [cited 2021 Apr 22]. Available from: https://www.guidetopharmacology.org/GRAC/FamilyIntroductionForward?familyId=50

24. Mansour A, Khachaturian H, Lewis ME, Akil H, Watson SJ. Anatomy of CNS opioid receptors. Vol. 11, Trends in Neurosciences. Elsevier Current Trends; 1988. p. 308–14.

25. Serge Van Calenbergh. Hoofdstuk I - J000405A - Medicinale chemie - enkefalines, endorfines en opiaatanalgetica [Internet]. [cited 2021 Feb 21]. Available from: https://ufora.ugent.be/d2l/le/content/57431/viewContent/174575/View

26. Cancer Pain: Assessment, Diagnosis, and Management - Dermot R. Fitzgibbon, John David Loeser - Chapter 19 - Google Boeken [Internet]. [cited 2021 Feb 22]. p. 190. Available from: https://books.google.be/books?id=4MDve052RzsC&pg=PA236&lpg=PA236&dq=DAVID+LOESER+biopsychosociaal&source=bl&ots=GMsPcVLIvr&sig=ACfU3U1Q57kYmSqPqik1NroAEikTGAtL6w&hl=nl&sa=X&ved=2ahUKEwi24LnI8-7uAhWM0uwKHWWUDkoQ6AEwD3oECBAQAg#v=onepage&q&f=false

27. Tanya Van Dommelen. OPIOÏDEN IN DE PIJNBESTRIJDING BIJ VOGELS. 2013.

28. Imam MZ, Kuo A, Ghassabian S, Smith MT. Progress in understanding mechanisms of opioid-induced gastrointestinal adverse effects and respiratory depression. Vol. 131, Neuropharmacology. Elsevier Ltd; 2018. p. 238–55.

29. Sobczak M, Sałaga M, Storr MA, Fichna J. Physiology, signaling, and pharmacology of opioid receptors and their ligands in the gastrointestinal tract: Current concepts and future perspectives [Internet]. Vol. 49, Journal of Gastroenterology. Springer; 2014 [cited 2021 Feb 22]. p. 24–45. Available from: /pmc/articles/PMC3895212/

30. NHG-Standaard Obstipatie | Huisarts & Wetenschap [Internet]. [cited 2021 Feb 22]. Available from: https://www.henw.org/artikelen/nhg-standaard-obstipatie

31. Opioid addiction can be exacerbated by those using Imodium to get high [Internet]. [cited 2021 Feb 22]. Available from: https://www.cornerstoneofrecovery.com/anti-diarrheal-drug-loperamide-a-k-a-imodium-provides-a-novel-and-deadly-way-to-get-high/

32. SKP imodium [Internet]. 2020 [cited 2021 Apr 22]. Available from: https://www.geneesmiddeleninformatiebank.nl/smpc/h08423_smpc.pdf

33. Commentaren Medicatiebewaking 2020/2021: morfinomimetica zonder laxans (RI 602) [Internet]. [cited 2021 Feb 22]. p. 1511–3. Available from: https://www.commentarenmedicatiebewaking.nl/Home

34. HARM-WRESTLING: Een voorstel van de Expertgroep Medicatieveiligheid m.b.t. concrete interventies die de extramurale medicatieveiligheid op korte termijn kunnen verbeteren. 2008.

35. KNMP-laxantia bij opioïdgebruik [Internet]. 2013 [cited 2021 Apr 22]. Available from: https://www.g-standaard.nl/risicoanalyse/M0000003.pdf

36. Koen Boussery. 8.3. FZ bij koorts en pijn - J000425A - Farmacotherapie en farmaceutische zorg I [Internet]. [cited 2021 Feb 21]. Available from: https://ufora.ugent.be/d2l/le/content/236525/viewContent/603994/View

37. De Bruin F, Hek K, Van Lieshout J, Verduijn M, Langendijk P, Bouvy M, et al. Laxative co-medication and changes in defecation patterns during opioid use. 2018;

38. Porreca F, Ossipov MH. Nausea and vomiting side effects with opioid analgesics during treatment of chronic pain: Mechanisms, implications, and management options [Internet]. Vol. 10, Pain Medicine. Pain Med; 2009 [cited 2021 Feb 22]. p. 654–62. Available from: https://pubmed.ncbi.nlm.nih.gov/19302436/

39. Sande TA, Laird BJA, Fallon MT. The management of opioid-induced nausea and vomiting in patients with cancer: A systematic review [Internet]. Vol. 22, Journal of Palliative Medicine. Mary Ann Liebert Inc.; 2019 [cited 2021 Feb 22]. p. 90–7. Available from: https://www.liebertpub.com/doi/10.1089/jpm.2018.0260

40. Shaiova L. The management of opioid-related sedation [Internet]. Vol. 9, Current Pain and Headache Reports. Current Medicine Group LLC 1; 2005 [cited 2021 Feb 22]. p. 239–42. Available from: https://pubmed.ncbi.nlm.nih.gov/16004838/

41. Bourdeanu L, Loseth DB, Funk M. Management of opioid-induced sedation in patients with cancer. Clin J Oncol Nurs [Internet]. 2005 [cited 2021 Feb 22];9(6):705–11. Available from: https://pubmed.ncbi.nlm.nih.gov/16381546/

42. Young-McCaughan S, Miaskowski C. Definition of and mechanism for opioid-induced sedation. Pain Manag Nurs. 2001 Sep 1;2(3):84–97.

43. Lowl Y, Clarke2 CF, Huhl BK. Opioid-induced hyperalgesia: a review of epidemiology, mechanisms and management. Vol. 53, IReview Article Singapore Med J. 2012.

44. Silverman SM. Opioid Induced Hyperalgesia: Clinical Implications for the Pain Practitioner. [cited 2021 Feb 22]; Available from: www.painphysicianjournal.com

45. Tawfic QA, Faris AS, Date RR. The dilemma of opioid-induced hyperalgesia and tolerance in chronic opioid therapy [Internet]. Vol. 13, Sultan Qaboos University Medical Journal. Sultan Qaboos University; 2013 [cited 2021 Feb 22]. p. 185–7. Available from: /pmc/articles/PMC3616791/

46. Kiyatkin EA. Respiratory depression and brain hypoxia induced by opioid drugs: Morphine, oxycodone, heroin, and fentanyl. Vol. 151, Neuropharmacology. Elsevier Ltd; 2019. p. 219–26.

47. EMA CHMP. BIJLAGE I SAMENVATTING VAN DE PRODUCTKENMERKEN: INN-fentanyl.

48. Cahill CM, Walwyn W, Taylor AMW, Pradhan AAA, Evans CJ. Allostatic Mechanisms of Opioid Tolerance Beyond Desensitization and Downregulation [Internet]. Vol. 37, Trends in Pharmacological Sciences. Elsevier Ltd; 2016 [cited 2021 Feb 22]. p. 963–76. Available from: /pmc/articles/PMC5240843/

49. Baeyens J, Bauval M, Beuken G, Bockaert J, Bourda A, Chaspierre A, et al. Organisatiecomité Deskundigen (sprekers) Praktische voorbereiding [Internet]. [cited 2021 Feb 22]. Available from: www.riziv.fgov.be:

50. Opioïd geïnduceerde Hyperalgesie Opioïd Induced Hyperalgesia (OIH) - PDF Free Download [Internet]. [cited 2021 Apr 22]. Available from: https://docplayer.nl/58713984-Opioid-geinduceerde-hyperalgesie-opioid-induced-hyperalgesia-oih.html

51. Jan Van Bocxlaer. 2opiaten_farma - J000436A - Drugs en misbruik [Internet]. [cited 2021 Feb 21]. Available from: https://ufora.ugent.be/d2l/le/content/60509/viewContent/238718/View

52. Kosten TR, George TP. The neurobiology of opioid dependence: implications for treatment. [Internet]. Vol. 1, Science & practice perspectives / a publication of the National Institute on Drug Abuse, National Institutes of Health. National Institute on Drug Abuse; 2002 [cited 2021 Feb 22]. p. 13–20. Available from: /pmc/articles/PMC2851054/

53. Ekelin E, Hansson A. The dilemma of repeat weak opioid prescriptions–experiences from swedish GPs. Scand J Prim Health Care [Internet]. 2018 Apr 3 [cited 2021 Feb 23];36(2):180–8. Available from: /pmc/articles/PMC6066274/

54. Doorbraakpijn: is de achtergrondpijn onder controle? | Pijn en Kanker [Internet]. [cited 2021 Feb 23]. Available from: https://www.pijnenkanker.nl/medisch-professionals/artikelen/doorbraakpijn-is-de-achtergrondpijn-onder-controle/

55. Argoff CE, Silvershein DI. A Comparison of Long- and Short-Acting Opioids for the Treatment of Chronic Noncancer Pain: Tailoring Therapy to Meet Patient Needs. Mayo Clin Proc [Internet]. 2009 Jul [cited 2021 Feb 23];84(7):602–12. Available from: /pmc/articles/PMC2704132/

56. Synthetic Opioid Overdose Data | Drug Overdose | CDC Injury Center [Internet]. [cited 2021 Mar 17]. Available from: https://www.cdc.gov/drugoverdose/data/fentanyl.html

57. CDC. Annual surveillance report of drug-related risks and outcomes [Internet]. CDC. 2018 [cited 2021 Mar 17]. Available from: https://www.cdc.gov/drugoverdose/pdf/pubs/2018-cdc-drug-surveillance-report.pdf

58. Narcotics Control Board I. Narcotic Drugs — Estimated World Requirements for 2020 — Statistics for 2018 [Internet]. [cited 2021 Mar 19]. Available from: www.incb.org

59. Multiple Cause of Death 1999-2019 [Internet]. [cited 2021 Mar 17]. Available from: https://wonder.cdc.gov/wonder/help/mcd.html

60. Wilson N, Kariisa M, Seth P, Smith H, Davis NL. Drug and Opioid-Involved Overdose Deaths — United States, 2017–2018. MMWR Morb Mortal Wkly Rep [Internet]. 2020 Mar 20 [cited 2021 Mar 17];69(11):290–7. Available from: /pmc/articles/PMC7739981/

61. Seyler T, Giraudon I, Noor A, Mounteney J, Griffiths P. Is Europe facing an opioid epidemic: What does European monitoring data tell us? Eur J Pain (United Kingdom) [Internet]. 2021 [cited 2021 Feb 24]; Available from: https://pubmed.ncbi.nlm.nih.gov/33428812/

62. Kalkman GA, Kramers C, van Dongen RT, van den Brink W, Schellekens A. Trends in use and misuse of opioids in the Netherlands: a retrospective, multi-source database study. Lancet Public Heal [Internet]. 2019 Oct 1 [cited 2021 Mar 8];4(10):e498–505. Available from: www.thelancet.com/

63. Bedene A, Lijfering WM, Niesters M, van Velzen M, Rosendaal FR, Bouvy ML, et al. Opioid Prescription Patterns and Risk Factors Associated With Opioid Use in the Netherlands. JAMA Netw open [Internet]. 2019 Aug 2 [cited 2021 Mar 17];2(8):e1910223. Available from: /pmc/articles/PMC6716286/

64. 6% minder gebruikers van sterkwerkende opioïden — SFK Website [Internet]. [cited 2021 Mar 8]. Available from: https://www.sfk.nl/publicaties/PW/2020/copy_of_scores-kwaliteitsindicatoren-ook-grafi-sch-weergegeven

65. Aantal gebruikers 2015-2019 voor ATC-subgroep N02A : Opioiden | GIPdatabank.nl [Internet]. [cited 2021 Mar 17]. Available from: https://www.gipdatabank.nl/databank?infotype=g&label=00-totaal&tabel_g_00-totaal=B_01-basis&geg=gebr&spec=&item=N02A

66. Baeyens J, Bauval M, Beuken G, Bockaert J, Bourda A, Chaspierre A, et al. Consensusvergadering

(06/12/2018): Het rationeel gebruik van de opioïden bij chronische pijn [Internet]. 2018 [cited 2021 Mar 17]. Available from: www.riziv.fgov.be

67. Zhu W, Chernew ME, Sherry TB, Maestas N. Initial Opioid Prescriptions among U.S. Commercially Insured Patients, 2012–2017. N Engl J Med [Internet]. 2019 Mar 14 [cited 2021 Mar 30];380(11):1043–52. Available from: http://www.nejm.org/doi/10.1056/NEJMsa1807069

68. EMCDDA. THE DRUG PROBLEM IN BELGIUM AT A GLANCE: Belgium Country Drug Report 2019. 2019.

69. Stefaan Van Damme. PAFZ: motiverende gespreksvoering [Internet]. Available from: https://ufora.ugent.be/d2l/le/content/234777/viewContent/598876/View

70. E.A.W. Jansen – Groot Koerkamp MSc, Y.M. Weesie MSc, Dr. M. Heringa, Prof. dr. M.L. Bouvy, Prof. dr. M. Numans, Blom DJW, et al. Onderzoeksprotocol Nederland: Onderzoek onder huisartsen en apothekers naar opioïdegebruik in de eerstelijnszorg (TAPTOE-project WP 2.2 - UPF2012).

71. Handboek farmaceutisch praktijkonderzoek | Pretesten van vragenlijsten [Internet]. [cited 2021 Mar 9]. Available from: https://praktijkonderzoek.sites.uu.nl/pretesten-van-vragenlijsten/

72. Anke Lambooij, apotheker IVM, prof. dr. Arnt Schellekens, Radboudumc, Donders Institute for Brain C and B, department of Psychiatry en Nijmegen Institute for Scientist Practitioners in Addiction (NISPA), drs. E.J. Melis, apotheker, Afdeling Klinische Farmacie, Sint Maartenskliniek N, prof. dr. C. Kramers, Afdeling Farmacologie-Toxicologie en Interne Geneeskunde R, afdeling apotheek-klinische farmacie, CWZ N, et al. Instituut Verantwoord Medicijngebruik [Internet]. 2021 [cited 2021 May 29]. Available from: https://www.medicijngebruik.nl/over-ivm/nieuws/4650/handreiking-zorgverleners-voor-afbouw-opioiden-beschikbaar

73. Statistics How To: Elementary Statistics for the rest of us! [Internet]. [cited 2021 May 6]. Available from: https://www.statisticshowto.com/

74. SPSS Statistics | IBM [Internet]. [cited 2021 May 6]. Available from: https://www.ibm.com/products/spss-statistics

75. KNMP-leden per 1 januari 2021 — KNMP.nl [Internet]. [cited 2021 May 29]. Available from: https://www.knmp.nl/knmp/lidmaatschap/knmp-leden-per-1-januari-2021

76. Ramanjulu, Thota RS, Ahmed A, Jain P, Salins N, Bhatnagar S, et al. The Indian Society for Study of Pain, Cancer Pain Special Interest Group guidelines on pharmacological management of cancer pain (Part I). Indian J Pain [Internet]. 2019 [cited 2021 Feb 24];33(4):11. Available from: https://www.indianjpain.org/article.asp?issn=0970-5333;year=2019;volume=33;issue=4;spage=11;epage=17;aulast=Ramanjulu

77. Chahl LA. Opioids - Mechanisms of action. Aust Prescr [Internet]. 1996 [cited 2021 Feb 24];19(3):63–5. Available from: https://www.nps.org.au/australian-prescriber/articles/opioids-mechanisms-of-action

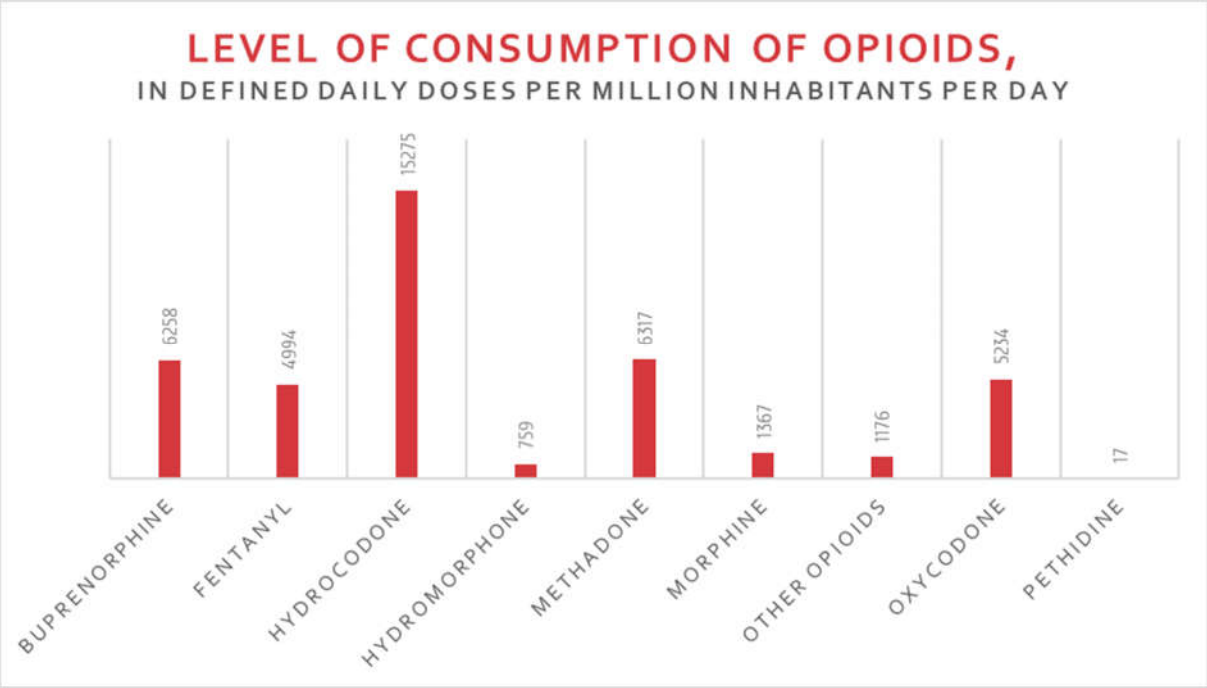
78. Porreca F, Ossipov MH. Nausea and vomiting side effects with opioid analgesics during treatment of chronic pain: Mechanisms, implications, and management options [Internet]. Vol. 10, Pain Medicine. Oxford Academic; 2009 [cited 2021 Feb 24]. p. 654–62. Available from: https://academic.oup.com/painmedicine/article-lookup/doi/10.1111/j.1526-4637.2009.00583.x

APPENDICES

Appendix 1: NUMBER OF OPIOID PRESCRIPTIONS PER 100 INHABITANTS 2005-2016 IN THE US

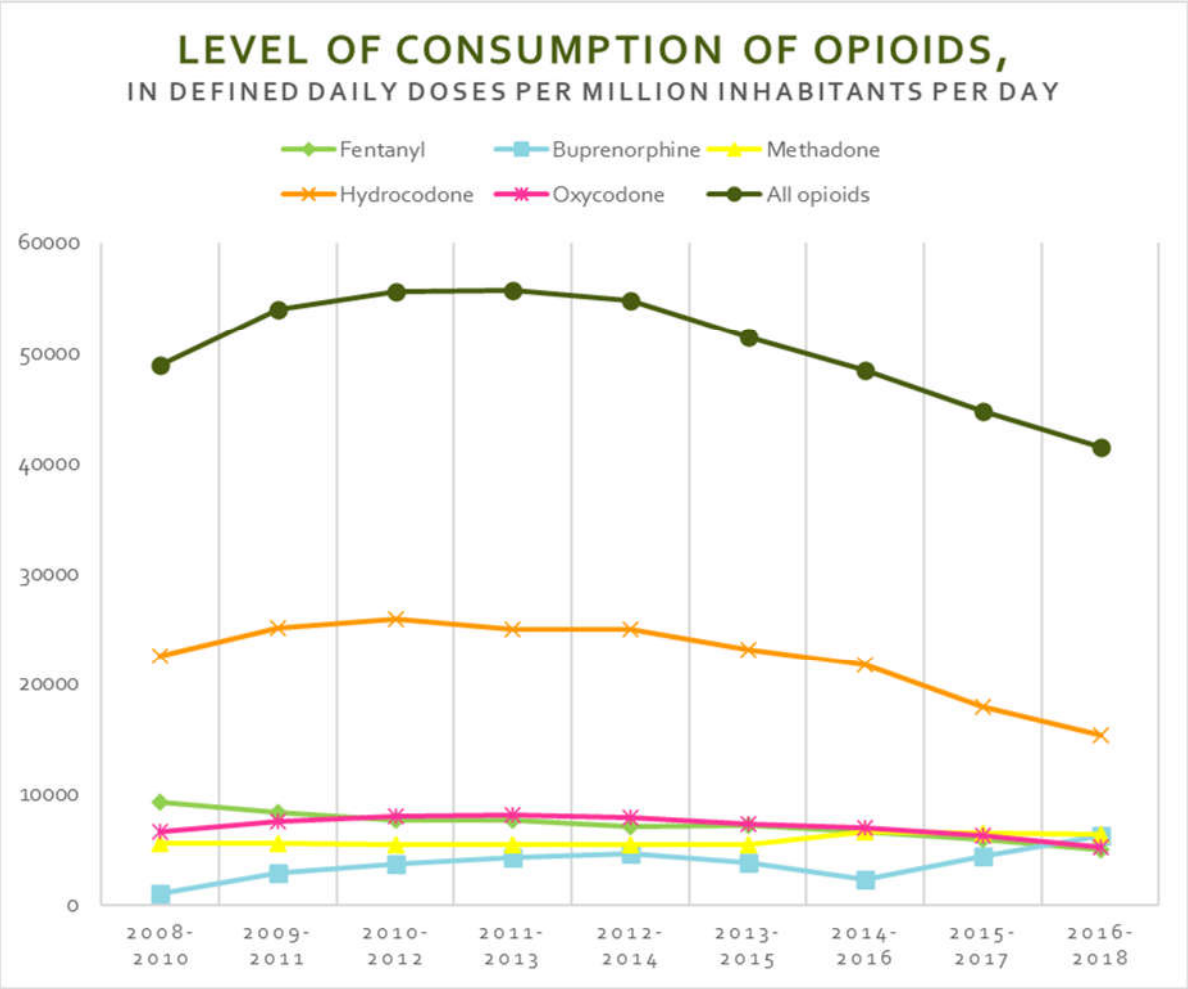
Year	Prescribing rate per 100 persons
2005	72,4
2006	75,9
2007	78,2
2008	79,5
2009	81,2
2010	80,9
2011	81,3
2012	78,1
2013	75,6
2014	70,6
2015	66,5
2016	58,5

Appendix 2: AVERAGE LEVEL OF OPIOID CONSUMPTION 2016-2018 IN THE US, defined in daily doses per one million inhabitants per day

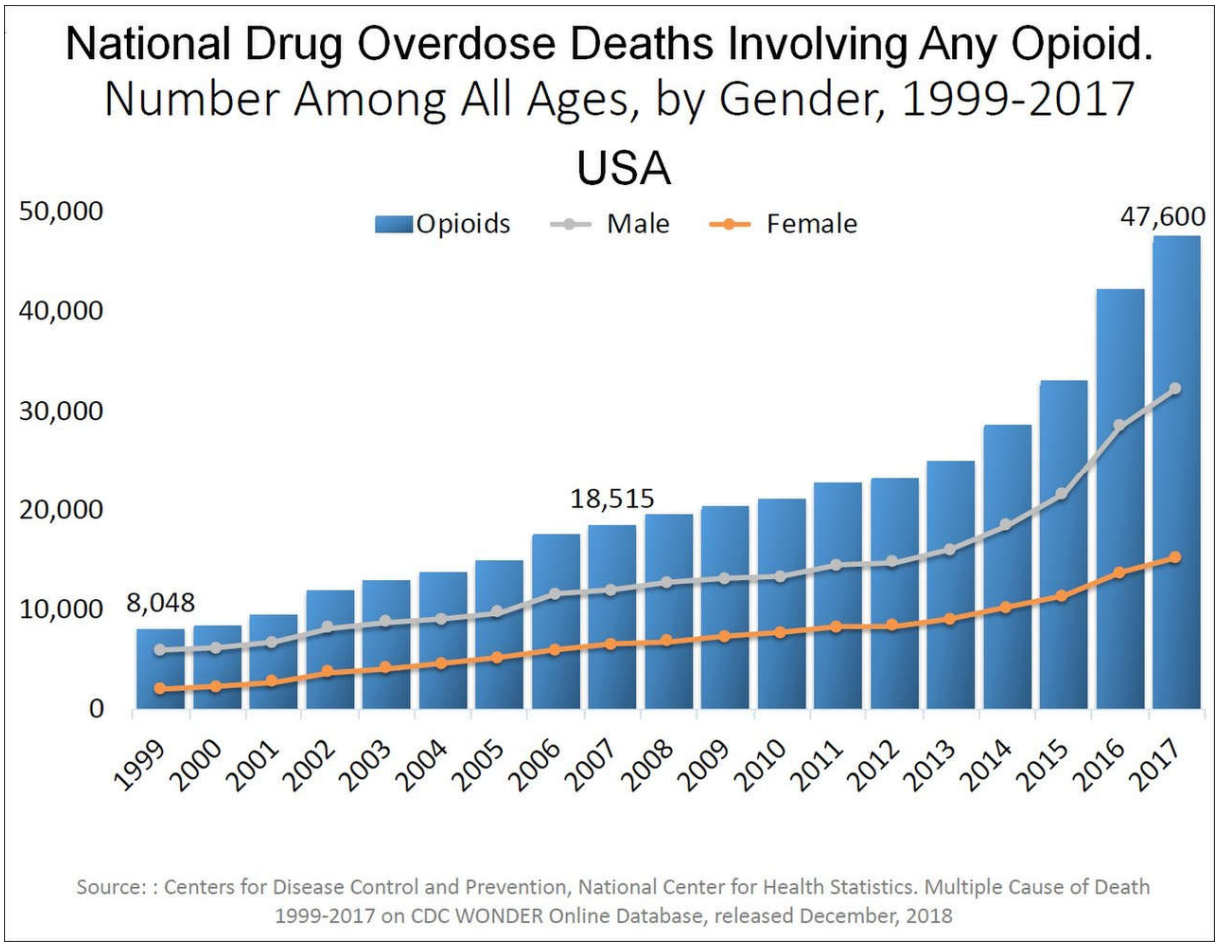


Appendix 3: AVERAGE LEVEL OF OPIOID CONSUMPTION 2008-2018 FOR 5 OPIOIDS IN THE US, defined in daily doses per one million inhabitants per day

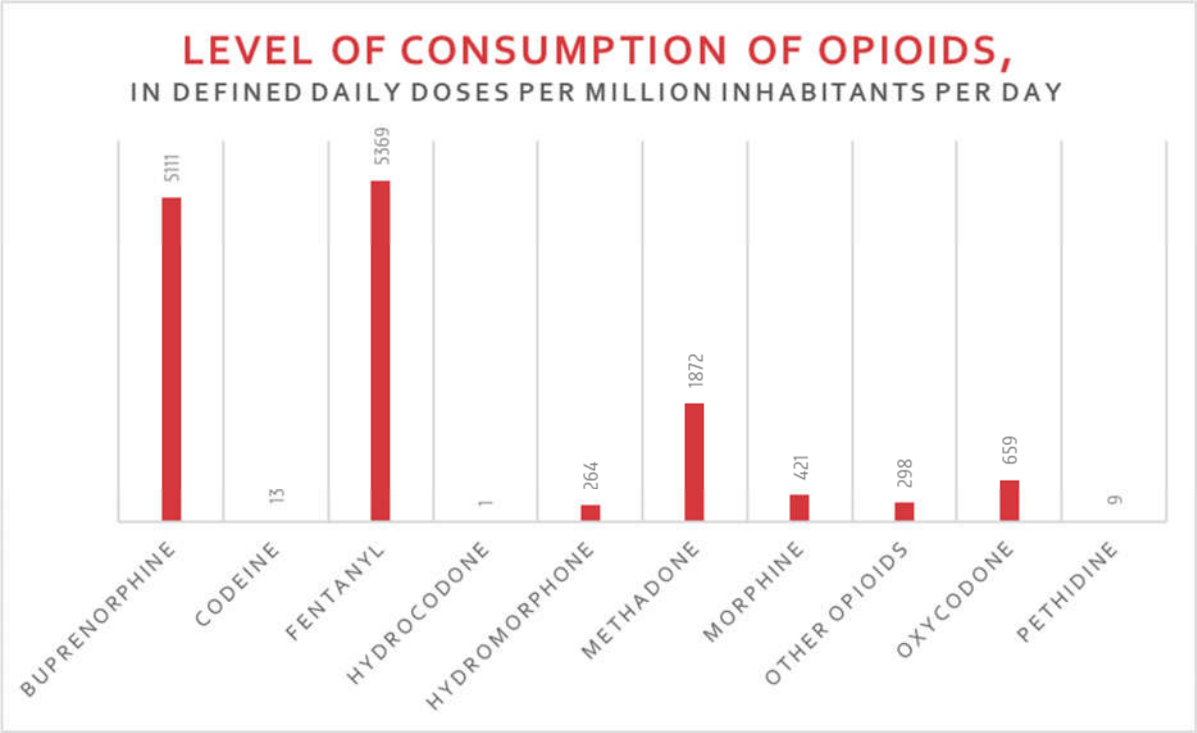
Time period	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017	2016-2018
Fentanyl	9262	8380	7670	7701	7085	7196	6654	5900	4994
Buprenorphine	1049	2832	3724	4332	4607	3843	2262	4376	6258
Methadone	5566	5538	5426	5408	5428	5467	6613	6435	6317
Hydrocodone	22458	25006	25880	24968	24925	23085	21695	17832	15275
Oxycodone	6608	7543	7991	8065	7840	7281	6991	6203	5234
All opioids	48858	53913	55597	55706	54749	51423	48352	44616	41398



Appendix 4: NUMBER OF OPIOID OVERDOSE DEATHS 1999-2017 IN THE US

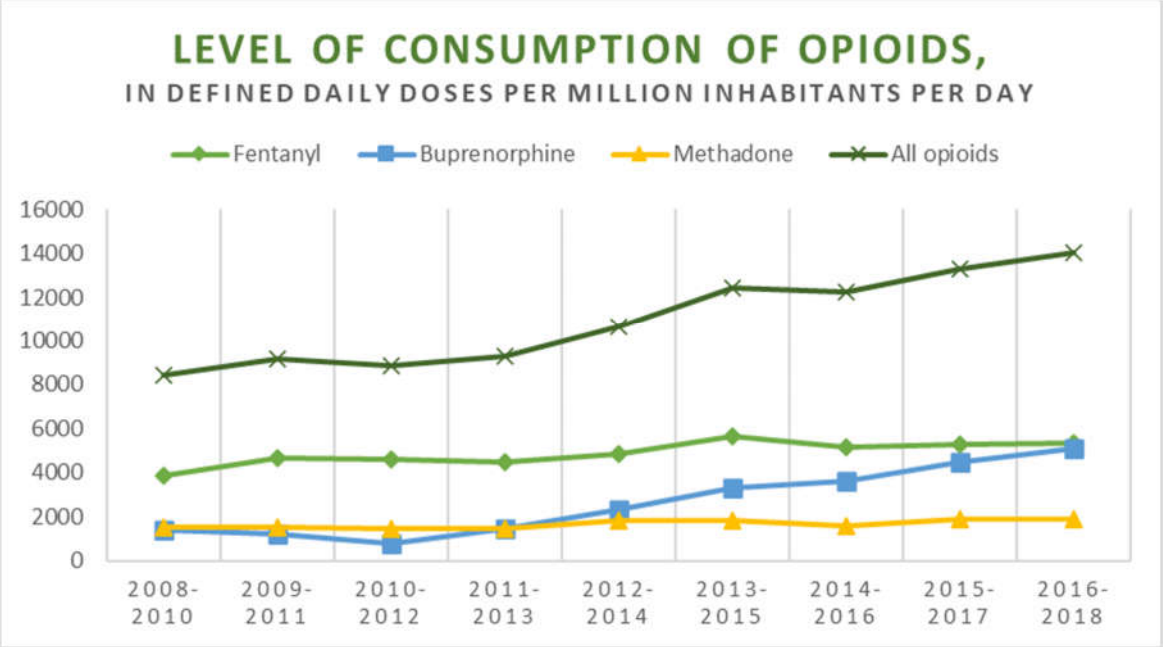


Appendix 5: AVERAGE LEVEL OF OPIOID CONSUMPTION 2016-2018 IN EUROPE, defined in daily doses per one million inhabitants per day



Appendix 6: AVERAGE LEVEL OF OPIOID CONSUMPTION 2008-2018 FOR 3 OPIOIDS IN EUROPE, defined in daily doses per one million inhabitants per day

Time period	2008-2010	2009-2011	2010-2012	2011-2013	2012-2014	2013-2015	2014-2016	2015-2017	2016-2018
Fentanyl	3859	4687	4624	4481	4862	5681	5184	5293	5369
Buprenorphine	1383	1234	801	1478	2348	3316	3589	4486	5111
Methadone	1495	1543	1481	1444	1820	1821	1552	1883	1872
All opioids	8406	9171	8833	9265	10646	12424	12257	13298	14017



Appendix 7: NUMBER OF DDDs 2015-2019 FOR ATC-SUBGROUP N02A OPIOIDS IN THE NETHERLANDS

	2015	2016	2017	2018	2019
N02AA01 Morfine (Oramorph ®)	2.516.800	2.567.100	2.681.300	2.777.500	2.802.300
N02AA03 Hydromorfon (Palladon ®)	258.410	655.850	199.270	163.440	153.830
N02AA04 Nicomorfine	16.939	17.391	10.903	740	0
N02AA05 Oxycodon (Oxynorm ®)	8.157.400	9.548.100	10.843.900	11.278.200	10.021.300
N02AA51 Morfine combinatiepreparaten	0	417	429	0	0
N02AB02 Pethidine	14.615	7.929	3.468	7.194	7.956
N02AB03 Fentanyl (Abstral ®)	12.750.300	11.789.300	12.347.700	12.576.500	12.398.000
N02AC01 Dextromoramide	16.698	0	0	0	0
N02AC03 Piritramide (Dipidolor ®)	22.118	17.584	13.915	14.316	13.499
N02AE01 Buprenorfine (Butrans ®)	1.829.300	1.914.000	1.915.400	1.899.200	1.852.900
N02AJ13 Tramadol met paracetamol (Zaldiar ®)	6.430.500	7.731.200	7.855.700	7.612.100	7.482.300
N02AX02 Tramadol (Tramagetic ®)	11.843.600	11.804.300	11.784.600	11.644.100	11.523.500
N02AX06 Tapentadol (Palexia ®)	124.610	257.380	362.690	431.350	406.590
N02AX52 Overige opioiden	1.689.000	266.230	47.177	20.680	0
Total	**45.670.216**	**46.576.684**	**48.066.415**	**48.425.416**	**46.662.199**

Appendix 8: NUMBER OF USERS 2015-2019 FOR ATC-SUBGROUP N02A OPIOIDS IN THE NETHERLANDS

	2015	2016	2017	2018	2019
N02AA01 Morfine (Oramorph ®)	80.461	83.852	87.768	90.537	97.173
N02AA03 Hydromorfon (Palladon ®)	775	776	820	784	781
N02AA04 Nicomorfine	1.417	1.345	1.155	218	0
N02AA05 Oxycodon (Oxynorm ®)	297.040	371.030	438.850	454.570	418.660
N02AA51 Morfine combinatiepreparaten	0	6	6	10	13
N02AB02 Pethidine	247	182	112	139	132
N02AB03 Fentanyl (Abstral ®)	97.608	102.070	106.450	104.640	102.450
N02AC01 Dextromoramide	60	0	0	0	0
N02AC03 Piritramide (Dipidolor ®)	154	150	134	137	161
N02AE01 Buprenorfine (Butrans ®)	45.595	44.085	41.661	38.389	36.342
N02AJ13 Tramadol met paracetamol (Zaldiar ®)	152.910	170.280	167.250	157.470	151.270
N02AX02 Tramadol (Tramagetic ®)	440.980	430.160	430.120	421.640	417.590
N02AX06 Tapentadol (Palexia ®)	3.537	5.369	6.464	6.730	5.594
N02AX52 Overige opioiden	47.225	6.207	440	226	2
Total	**1.168.009**	**1.215.512**	**1.281.230**	**1.275.490**	**1.230.168**

Appendix 9: NUMBER OF DDDs AND NUMBER OF USERS 2006-2017 FOR FIVE OPIOIDS IN BELGIUM

	opioïd	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2017/ 2006
verbruik in miljoen DDD	tramadol	20,6	22,6	25,7	27,3	29,7	32,7	34,9	36,3	38,9	41,1	43,0	43,9	+114 %
	tilidine	10,3	10,4	10,7	10,3	10,2	10,1	9,9	9,5	9,3	8,7	8,7	8,5	-17 %
	fentanyl	12,9	14,3	16,7	17,7	18,6	19,8	20,7	21,3	22,2	23,1	23,4	23,3	+81 %
	oxycodon	0,0	0,01	0,4	0,6	1,1	1,5	1,9	2,4	2,7	3,1	3,4	3,7	+248 %*
	piritramide	0,057	0,054	0,054	0,054	0,050	0,050	0,051	0,051	0,059	0,068	0,60	0,059	+4 %
	totaal	**43,8**	**47,4**	**53,6**	**56,0**	**59,6**	**64,2**	**67,3**	**69,6**	**73,1**	**76,1**	**78,6**	**79,5**	**+82 %**
Aantal verzekerden	tramadol	501.433	544.973	626.025	665.743	734.776	789.113	807.636	850.438	904.740	940.070	977.229	1.004.619	+100 %
	tilidine	89.723	85.901	85.864	80.817	77.357	75.762	72.509	69.924	69.817	64.365	62.474	59.387	-34 %
	fentanyl	45.652	50.610	59.185	61.465	63.800	67.265	68.571	69.159	70.599	72.820	73.088	72.097	+58 %
	oxycodon	0	2.559	5.453	8.588	20.463	28.217	37.134	49.711	57.110	66.959	72.725	77.864	+281 %*
	piritramide	2.130	2.019	2.242	2.179	1.971	1.863	1.734	1.697	1.619	1.527	1.477	1.371	-36 %
	totaal[1]	**587.779**	**630.370**	**716.508**	**755.324**	**824.885**	**880.862**	**902.150**	**947.642**	**1.004.347**	**1.039.429**	**1.077.917**	**1.104.485**	**+88 %**

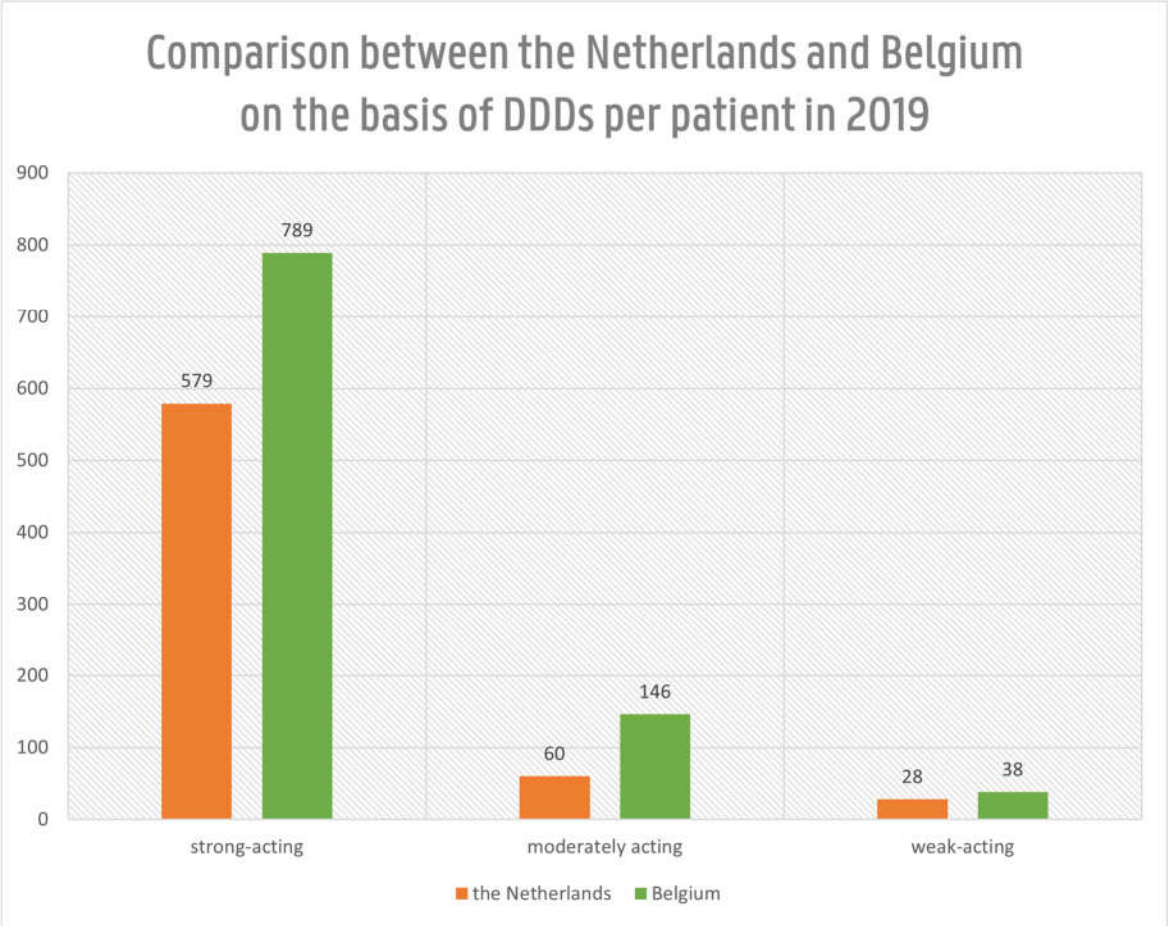
Appendix 10: NUMBER OF DDDs 2015-mid 2020 FOR ATC-SUBGROUP N02A OPIOIDS IN BELGIUM

	2015	2016	2017	2018	2019	Jan-aug 2020
N02AA01 Morfine (Oramorph ®)	622.727	568.790	534.748	493.871	463.167	285.505
N02AA03 Hydromorfon (Palladon ®)	328.166	288.166	273.424	255.082	236.768	143.086
N02AA05 Oxycodon (Oxynorm ®)	3.036.565	3.315.829	3.543.119	3.725.445	3.729.954	2.487.084
N02AA55 Oxycodon met naloxone	33.310	28	24	12	28	0
N02AB02 Pethidine	15	0	0	0	0	0
N02AA08 Dihydrocodeine	0	0	0	0	0	1
N02AB03 Fentanyl (Abstral ®)	10.298.516	10.496.331	10.412.194	10.292.906	10.180.790	6.499.791
N02AC03 Piritramide (Dipidolor ®)	67.586	59.456	59.310	56.721	49.131	29.064
N02AD01 Pentazocine	55.597	45.186	31.463	120	0	0
N02AE01 Buprenorfine (Butrans ®)	3.588.331	3.412.839	3.218.813	3.089.952	2.905.236	1.753.281
N02AJ13 Tramadol met paracetamol (Zaldiar ®)	15.995.620	16.346.031	16.652.650	16.821.048	17.736.000	11.471.998
N02AX01 Tilidine	8.603.083	8.627.436	8.387.865	8.038.118	7.334.578	4.193.108
N02AX02 Tramadol (Tramagetic ®)	24.383.537	24.736.758	25.161.983	25.445.032	25.981.340	16.950.956
N02AX06 Tapentadol	0	0	0	110.572	319.936	285.513
Total	**67.013.052**	**67.896.850**	**68.275.592**	**68.328.878**	**68.936.928**	**44.099.386**

Appendix 11: NUMBER OF USERS 2015-mid 2020 FOR ATC-SUBGROUP N02A OPIOIDS IN BELGIUM

	2015	2016	2017	2018	2019	Jan-aug 2020
N02AA01 Morfine (Oramorph ®)	4.969	4.344	4.005	3.790	3.865	2.814
N02AA03 Hydromorfon (Palladon ®)	2.008	1.815	1.593	1.388	1.537	1.017
N02AA05 Oxycodon (Oxynorm ®)	65.459	69.504	72.679	75.424	75.509	56.164
N02AA55 Oxycodon met naloxone	731	3	3	3	3	0
N02AB02 Pethidine	11	0	0	0	0	0
N02AA08 Dihydrocodeine	0	0	0	0	0	1
N02AB03 Fentanyl (Abstral ®)	72.048	72.352	71.396	70.270	68.865	54.119
N02AC03 Piritramide (Dipidolor ®)	1.516	1.468	1.360	1.201	1.106	738
N02AD01 Pentazocine	748	492	356	15	0	0
N02AE01 Buprenorfine (Butrans ®)	23.370	21.163	19.634	17.785	16.411	12.017
N02AJ13 Tramadol met paracetamol (Zaldiar ®)	445.355	434.420	440.312	428.873	424.240	288.480
N02AX01 Tilidine	63.792	61.584	58.817	55.702	50.401	31.801
N02AX02 Tramadol (Tramagetic ®)	568.999	590.578	633.430	657.315	682.472	469.604
N02AX06 Tapentadol	0	0	0	2.003	3.315	2.914
Total	**1.249.006**	**1.257.724**	**1.303.585**	**1.313.769**	**1.327.724**	**919.669**

Appendix 12: DDDs PER OPIOID USER 2019, DIVIDED ACCORDING TO THE THREE TYPES OF ANALGESIC CAPACITY, COMPARISON BETWEEN THE NETHERLANDS AND BELGIUM



Appendix 13: FOUR DOMAINS OF THE HEALTH BELIEF MODEL AND RELATED QUESTIONS

Stelling nr.	Vragen officina-apothekers *Questions community pharmacists*
Perceived threats	
21	Steeds meer patiënten in mijn apotheek raken afhankelijk van opioïden *More and more patients in my pharmacy are becoming dependent on opioids*
8	Ik maak me zorgen dat opioïden na enige tijd niet meer voldoende werken en dat patiënten steeds meer nodig hebben *I am concerned that opioids may not work adequately after some time and that patients may require more and more*
9	Ik maak me zorgen dat mijn patiënten een verslaving aan opioïden ontwikkelen *I worry about my patients developing an addiction to opioids*
10	Ik maak me zorgen dat patiënten meer opioïden gebruiken dan is voorgeschreven *I'm concerned that patients are using more opioids than prescribed*
20	Er worden te veel opioïden gebruikt in de behandeling van chronische niet-maligne pijn *Too many opioids are used in the treatment of chronic non-malignant pain*
19	Misbruik is een reëel risico bij gebruikers van opioïden *Abuse is a real risk among opioid users*
14	Patiënten hebben een te hoge verwachting van de effectiviteit van opioïden *Patients have an overly high expectation of the effectiveness of opioids*
Perceived benefits	
16	Over het algemeen zijn opioïden de meest effectieve behandeling voor chronische niet-maligne pijn *Generally, opioids are the most effective treatment for chronic non-malignant pain*
18	Opioïden moeten voorgeschreven worden bij chronische niet-maligne pijn wanneer andere pijnstillers onvoldoende werken *Opioids should be prescribed for chronic non-malignant pain when other analgesics do not work adequately*
17	Er worden te weinig opioïden gebruikt in de behandeling van chronische niet-maligne pijn *Too few opioids are used in the treatment of chronic non-malignant pain*
2	Ik heb goede ervaring met het langdurig gebruik van opioïden door patiënten met chronische niet-maligne pijn *I have positive experience with the long-term use of opioids to patients with chronic non-malignant pain*
15	Het langdurig gebruik van opioïden is noodzakelijk voor veel van mijn patiënten met chronische niet-maligne pijn *The long-term use of opioids is necessary for many of my patients with chronic non-malignant pain*
Perceived barriers	
23	Er zijn te weinig goede alternatieven voor opioïden voor de behandeling van patiënten met chronische niet-maligne pijn *There are too few proper alternatives to opioids for the treatment of patients with chronic non-malignant pain*

3	Ik heb patiënten gehad waarbij het gebruik van opioïden heeft geleid tot gezondheidsschade bij die patiënt *I have had patients where the use of opioids has resulted in health harm to that patient*
22	In mijn apotheek zijn er patiënten die weerstand hebben tegen het gebruik van opioïden *In my pharmacy, there are patients who have resistance to the use of opioids*
13	Chronische niet-maligne is mijns inziens meer een sociaalpsychologisch probleem dan een medisch probleem *Chronic non-malignant is, in my opinion, more of a social psychological problem than a medical problem*
Perceived self-efficacy	
5	Ik heb voldoende vertrouwen om met patiënten in gesprek te gaan die te veel en te lang opioïden gebruiken *I feel confident enough to talk to patients who use opioids too much and for too long*
7	Ik kan makkelijk voorspellen welke patiënten een verhoogd risico lopen op het misbruiken van opioïden *I can easily predict which patients are at increased risk of opioid misuse*
1	Ik kan patiënten met chronische niet-maligne pijn in het algemeen goed behandelen *I can treat patients with chronic non-malignant pain generally well*
6	Ik ben voldoende opgeleid om patiënten met chronische niet-maligne pijn te behandelen *I am sufficiently trained to treat patients with chronic non-malignant pain*
12	Ik heb het gevoel dat ik patiënten geen voorschriften voor opioïden kan weigeren *I feel I cannot refuse patients prescriptions for opioids*
4	Ik vind het stressvol om patiënten met chronische niet-maligne pijn te behandelen *I find it stressful to treat patients with chronic non-malignant pain*
11	Ik voel me onder druk gezet door artsen om een voorschriften voor opioïden af te leveren *I feel pressurised by doctors to issue prescriptions for opioids*

Appendix 14: QUESTIONNAIRE FOR THE DUTCH-SPEAKING COMMUNITY PHARMACIST IN BELGIUM

Privacy

Ik heb voorgaande informatienota gelezen, vul dit vrijwillig in en geef de toestemming om mijn antwoorden wetenschappelijk te verwerken.

- ○ Ik ga hiermee akkoord
- ○ Ik ga hiermee niet akkoord

I. Overtuigingen

Als eerste onderdeel van het onderzoek zullen we een aantal stellingen geven met betrekking tot uw overtuigingen en/of ervaringen ten opzichte van opioïden.

Met opioïden wordt in deze vragenlijst bedoeld: sterkwerkende opioïden zoals oxycodon, morfine en fentanyl. Met chronische niet-maligne pijn wordt bedoeld: pijn die langer aanhoudt dan 3 maanden, maar die geen verband houdt met kanker, een voorbeeld is chronische rugpijn.

Geef bij de volgende vragen aan in hoeverre u het eens bent met de stelling:

		Helemaal mee oneens	Mee oneens	Neutraal	Mee eens	Helemaal mee eens
1	Patiënten met chronische niet-maligne pijn kunnen in het algemeen goed behandeld worden	1	2	3	4	5
2	Ik heb goede ervaringen met het langdurig gebruik van opioïden door patiënten met chronische niet-maligne pijn	1	2	3	4	5
3	Ik heb patiënten gehad waarbij het gebruik van opioïden heeft geleid tot gezondheidsschade bij die patiënt	1	2	3	4	5
4	Ik vind het stressvol om patiënten met chronische niet-maligne pijn te begeleiden	1	2	3	4	5
5	Ik heb voldoende vertrouwen in mijn vaardigheden om met patiënten in gesprek te gaan die te veel en te lang opioïden gebruiken	1	2	3	4	5
6	Ik ben voldoende opgeleid om patiënten met chronische niet-maligne pijn te begeleiden	1	2	3	4	5
7	Ik kan makkelijk voorspellen welke patiënten een verhoogd risico lopen op het misbruiken van opioïden	1	2	3	4	5

8	Ik maak me zorgen dat opioïden na enige tijd niet meer voldoende werken en dat patiënten steeds meer nodig hebben	1	2	3	4	5
9	Ik maak me zorgen dat mijn patiënten een verslaving aan opioïden ontwikkelen	1	2	3	4	5
10	Ik maak me zorgen dat patiënten meer opioïden gebruiken dan voorgeschreven	1	2	3	4	5
11	Ik voel me onder druk gezet door artsen om voorgeschreven opioïden af te leveren	1	2	3	4	5
12	Ik heb het gevoel dat ik patiënten geen voorschriften voor opioïden kan weigeren	1	2	3	4	5
13	Chronische pijn is mijns inziens meer een sociaalpsychologisch probleem dan een medisch probleem	1	2	3	4	5
14	Patiënten hebben een te hoge verwachting van de effectiviteit van opioïden	1	2	3	4	5
15	Het langdurig gebruik van opioïden is noodzakelijk voor veel van mijn patiënten met chronische niet-maligne pijn	1	2	3	4	5
16	Over het algemeen zijn opioïden de meest effectieve behandeling voor chronische niet-maligne pijn	1	2	3	4	5
17	Er worden te weinig opioïden gebruikt in de behandeling van chronische niet-maligne pijn	1	2	3	4	5
18	Opioïden moeten voorgeschreven worden bij chronische niet-maligne pijn wanneer andere pijnstillers onvoldoende werken	1	2	3	4	5
19	Misbruik is een reëel risico bij gebruikers van opioïden	1	2	3	4	5
20	Er worden te veel opioïden gebruikt in de behandeling van chronische niet-maligne pijn	1	2	3	4	5
21	Steeds meer patiënten in mijn apotheek raken afhankelijk van opioïden	1	2	3	4	5
22	In mijn apotheek hebben veel patiënten weerstand tegen het gebruik van opioïden	1	2	3	4	5
23	Er zijn te weinig goede alternatieven voor opioïden voor de behandeling van patiënten met chronische niet-maligne pijn	1	2	3	4	5

II. Werkwijze in praktijk en nascholing

In het volgende onderdeel worden vragen gesteld over hoe u omgaat met opioïdevoorschriften in de praktijk en over nascholing.

Geef bij de volgende stelling aan in hoeverre de stelling van toepassing is:		Helemaal mee oneens	Oneens	Neutraal	Eens	Helemaal mee eens
24	**Aandacht voor opioïdegebruik in de media en/of vaktijdschriften heeft ervoor gezorgd dat ik kritischer ben geworden op het afleveren van opioïden**	1	2	3	4	5

		Ja	Nee
25	Weet u waar u informatie kan vinden over afbouwschema's van opioïden?	1	0
	Zo ja, namelijk:		

26. Er zijn verschillende maatregelen die mogelijk kunnen bijdragen aan het verminderen van (over)gebruik van opioïden. Geef hieronder aan of u de maatregel zinvol vindt en of u deze al heeft geïmplementeerd.

	Dit lijkt me zinvol	Dit heb ik al geïmplementeerd
Voorlichting aan patiënt		
Bij start van een opioïde aan de patiënt vertellen dat er een risico op verslaving is	ja / nee / weet niet	ja / nee
Bij herhalen van opioïdevoorschrift aan de patiënt vertellen dat er risico op verslaving is	ja / nee / weet niet	ja / nee
Maandelijks gesprek tussen apotheker met patiënt na starten van opioïde	ja / nee / weet niet	nvt
Bij elk voorschrift gesprek tussen huisarts en patiënt	ja / nee / weet niet	ja / nee
Voorschriften		
Beperking op aantal dagen op voorschrift (bijv. voor een duur van max 2 weken kan het opioide voorgeschreven worden)	ja / nee / weet niet	ja / nee
Vooraf afspraken maken met de patiënt over de duur van de behandeling	ja / nee / weet niet	ja / nee
Een extra melding van uw software bij herhalen van een opioïdevoorschrift	ja / nee / weet niet	ja / nee

Afspraken over het afleveren van opioïden tijdens de wachtdienst	ja / nee / weet niet	ja / nee
Samenwerking		
Afspraken tussen huisartsen en apothekers over herhalen van opioïdevoorschriften	ja / nee / weet niet	ja / nee
Medisch-Farmaceutisch Overleg (MFO) over opioïdegebruik bij chronische niet-maligne pijn	ja / nee / weet niet	ja / nee
Heeft u andere maatregelen die u zinvol lijken of die u al geïmplementeerd heeft, wilt u die dan hier toelichten?		

27 Wat zou u terug willen zien in een nascholingsprogramma over opioïden? (meerdere antwoorden mogelijk)

- ○ Verschillen tussen opioïden
- ○ Doseerschema's
- ○ Voorkómen onnodig langdurig gebruik
- ○ Afleveren van opioïden bij risicogroepen (depressie, geneesmiddelafhankelijkheid, drugs- of alcoholgebruikers, benzodiazepine-gebruikers)
- ○ Afbouwschema's
- ○ Communicatie met patiënten die opioïden gebruiken of starten met een opioïde
- ○ Inzicht in misbruik bij patiënten
- ○ Begeleiding van verslaafde patiënten
- ○ Anders, namelijk: _____

III. Achtergrondgegevens

Als laatste nog een aantal vragen over uw achtergrond.

28 Wat is uw geslacht? O Man O Vrouw

29 Wat is uw leeftijd? … jaar

30 Wat is uw functie binnen de apotheek (meerdere antwoorden mogelijk)?
- Apotheker-titularis
- Adjunct-apotheker
- Eigenaar
- Anders, namelijk …….

31 Hoeveel jaren werkervaring heeft u in de openbare apotheek? 0-2 / 3-5 / 6-10 / 11-15 / >15

32 Hoeveel jaren werkt u in uw huidige apotheek? 0-2 / 3-5 / 6-10 / 11-15 / >15

33 Mijn apotheek bevindt zich in een:
- Kleine plaats (<20.000 inwoners)
- Middelgrote plaats (20.000-150.000 inwoners)
- Grote plaats (>150.000 inwoners)

34 Mijn apotheek is een:
- Stadsapotheek
- Plattelandsapotheek
- Anders, namelijk …….

35 Eerste 2 cijfers van uw postcode …..

36 Heeft u opmerkingen naar aanleiding van deze vragenlijst?
_____

Resultaten van deze studie

Zou u graag via e-mail informatie ontvangen over de resultaten van deze studie? Gelieve hier uw e-mailadres in te vullen: ……

Hartelijk dank voor uw deelname!

----- einde vragenlijst -----

Appendix 15: AGES OF THE RESPONDENTS (BELGIAN STUDY)

Wat is uw leeftijd?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	23	7	2,5	2,5	2,5
	24	8	2,9	2,9	5,5
	25	14	5,1	5,1	10,5
	26	8	2,9	2,9	13,5
	27	6	2,2	2,2	15,6
	28	5	1,8	1,8	17,5
	29	12	4,4	4,4	21,8
	30	11	4,0	4,0	25,8
	31	8	2,9	2,9	28,7
	32	6	2,2	2,2	30,9
	33	10	3,6	3,6	34,5
	34	8	2,9	2,9	37,5
	35	9	3,3	3,3	40,7
	36	4	1,5	1,5	42,2
	37	3	1,1	1,1	43,3
	38	3	1,1	1,1	44,4
	39	5	1,8	1,8	46,2
	40	6	2,2	2,2	48,4
	41	5	1,8	1,8	50,2
	42	6	2,2	2,2	52,4
	43	3	1,1	1,1	53,5
	44	6	2,2	2,2	55,6
	45	6	2,2	2,2	57,8
	46	6	2,2	2,2	60,0
	47	5	1,8	1,8	61,8
	48	3	1,1	1,1	62,9
	49	9	3,3	3,3	66,2
	50	10	3,6	3,6	69,8
	51	6	2,2	2,2	72,0
	52	7	2,5	2,5	74,5
	53	9	3,3	3,3	77,8
	54	8	2,9	2,9	80,7
	55	13	4,7	4,7	85,5
	56	9	3,3	3,3	88,7
	57	6	2,2	2,2	90,9
	58	7	2,5	2,5	93,5

	59	4	1,5	1,5	94,9
	60	4	1,5	1,5	96,4
	61	1	,4	,4	96,7
	62	4	1,5	1,5	98,2
	63	3	1,1	1,1	99,3
	65	1	,4	,4	99,6
	70	1	,4	,4	100,0
	Total	275	100,0	100,0	

Appendix 16: POSITION(S) OF THE RESPONDENTS (BELGIAN STUDY)

Wat is uw functie binnen de apotheek?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Apotheker-titularis	191	69,5	69,5	69,5
	Adjunct-apotheker	79	28,7	28,7	98,2
	Eigenaar	25	9,1	9,1	107,3
	Apotheker-vervanger	4	1,5	1,5	108,8
	Anders, namelijk	0	0,0	0,0	108,8

Appendix 17: NUMBER OF YEARS OF WORK EXPERIENCE OF THE RESPONDENTS (BELGIAN STUDY)

Hoeveel jaren werkervaring heeft u in de officina-apotheek?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-2	31	11,3	11,3	11,3
	3-5	24	8,7	8,7	20,0
	6-10	49	17,8	17,8	37,8
	11-15	33	12,0	12,0	49,8
	>15	138	50,2	50,2	100,0
	Total	275	100,0	100,0	

Appendix 18: NUMBER OF YEARS WORKING IN CURRENT PHARMACY OF THE RESPONDENTS (BELGIAN STUDY)

Hoeveel jaren werkt u in uw huidige apotheek?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-2	56	20,4	20,4	20,4
	3-5	42	15,3	15,3	35,6
	6-10	39	14,2	14,2	49,8
	11-15	27	9,8	9,8	59,6
	>15	111	40,4	40,4	100,0
	Total	275	100,0	100,0	

Appendix 19: LOCATION OF THE PHARMACY BASED ON NUMBER OF INHABITANTS (BELGIAN STUDY)

Mijn apotheek bevindt zich in een:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Kleine plaats (<20.000 inwoners)	125	45,5	45,5	45,5
	Middelgrote plaats (20.000 - 150.000 inwoners)	121	44,0	44,0	89,5
	Grote plaats (>150.000 inwoners)	29	10,5	10,5	100,0
	Total	275	100,0	100,0	

Appendix 20: LOCATION OF THE PHARMACY ON THE BASIS OF REGIONAL CONTEXT (BELGIAN STUDY)

Mijn apotheek is een:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Stadsapotheek	113	41,1	41,1	41,1
	Plattelandsapotheek	150	54,5	54,5	95,6
	Anders, namelijk	12	4,4	4,4	100,0
	Total	275	100,0	100,0	

[Anders] Mijn apotheek is een:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		263	95,6	95,6	95,6
	3 apotheken: stad, randstad, gemeenschap	1	,4	,4	96,0
	Aan het ziekenhuis	1	,4	,4	96,3
	kustapotheek	1	,4	,4	96,7
	Mengvorm	1	,4	,4	97,1
	mix dorp , Randstad	1	,4	,4	97,4
	rand	1	,4	,4	97,8
	Apotheek in volksbuurt	1	,4	,4	98,1
	site zkh	1	,4	,4	98,5
	Station	1	,4	,4	98,8
	tussen de 2 (aan een station)	1	,4	,4	99,2
	Tussen de twee	1	,4	,4	99,6
	Tussenin	1	,4	,4	100,0
	Total	275	100,0	100,0	

Appendix 21: THE PHARMACIES OF THE RESPONDENTS DIVIDED BY PROVINCE, based on the first two digits of the postal code (BELGIAN STUDY)

Eerste 2 cijfers van uw postcode:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	10	7	2,5	2,5	2,5
	11	3	1,1	1,1	3,6
	15	4	1,5	1,5	5,1
	17	12	4,4	4,4	9,5
	18	1	,4	,4	9,9
	19	2	,7	,7	10,6
	20	8	2,9	2,9	13,5
	21	10	3,6	3,6	17,1
	22	5	1,8	1,8	18,9
	23	7	2,5	2,5	21,4
	24	3	1,1	1,1	22,5
	25	9	3,3	3,3	25,8
	26	1	,4	,4	26,2
	28	9	3,3	3,3	29,5
	29	11	4,0	4,0	33,5
	30	9	3,3	3,3	36,8
	31	3	1,1	1,1	37,9
	32	3	1,1	1,1	39,0
	33	1	,4	,4	39,4
	34	2	,7	,7	40,1
	35	6	2,2	2,2	42,3
	36	6	2,2	2,2	44,5
	37	5	1,8	1,8	46,3
	38	4	1,5	1,5	47,8
	39	6	2,2	2,2	50,0
	80	5	1,8	1,8	51,7
	82	4	1,5	1,5	53,2
	83	8	2,9	2,9	56,1
	84	5	1,8	1,8	57,9
	85	13	4,7	4,7	62,6
	86	4	1,5	1,5	64,1
	87	5	1,8	1,8	65,9
	88	10	3,6	3,6	69,5
	89	9	3,3	3,3	72,8
	90	22	8,0	8,0	80,8
	91	12	4,4	4,4	85,2

	92	10	3,6	3,6	88,8
	93	6	2,2	2,2	91,0
	94	3	1,1	1,1	92,1
	95	2	,7	,7	92,8
	96	2	,7	,7	93,5
	97	4	1,5	1,5	95,0
	98	7	2,5	2,5	97,5
	99	7	2,5	2,5	100,0
	Total	275	100,0	100,0	

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Brussels Hoofdstedelijk Gewest (10-12)	10	3,6	3,6	3,6
	Vlaams-Brabant (15-19 en 30-34)	37	13,5	13,5	17,1
	Antwerpen (20-29)	63	22,9	22,9	40,0
	Limburg (35-39)	27	9,8	9,8	49,8
	West-Vlaanderen (80-89)	63	22,9	22,9	72,7
	Oost-Vlaanderen (90-99)	75	27,3	27,3	100,0
	Total	275	100,0	100,0	

Appendix 22: ANSWERS TO THE 23 STATEMENTS OF THE PART 'INDIVIDUAL BELIEFS' (BELGIAN STUDY)

	Antwoorden				
Vragen	Helemaal mee oneens	Mee oneens	Neutraal	Mee eens	Helemaal mee eens
1) Patiënten met chronische niet-maligne pijn kunnen in het algemeen goed behandeld worden	0,4%	24,7%	21,8%	47,3%	5,8%
2) Ik heb goede ervaringen met het langdurig gebruik van opioïden door patiënten met chronische niet-maligne pijn	2,9%	39,3%	31,6%	25,1%	1,1%
3) Ik heb patiënten gehad waarbij het gebruik van opioïden heeft geleid tot gezondheidsschade bij die patiënt	2,5%	12,7%	23,6%	45,1%	16,0%
4) Ik vind het stressvol om patiënten met chronische niet-maligne pijn te begeleiden	9,5%	44,7%	26,2%	18,9%	0,7%
5) Ik heb voldoende vertrouwen in mijn vaardigheden om met patiënten in gesprek te gaan die te veel en te lang opioïden gebruiken	2,9%	21,5%	23,6%	45,8%	6,2%
6) Ik ben voldoende opgeleid om patiënten met chronische niet-maligne pijn te begeleiden	1,5%	28,4%	28,7%	37,1%	4,4%
7) Ik kan makkelijk voorspellen welke patiënten een verhoogd risico lopen op het misbruiken van opioïden	1,8%	20,4%	21,8%	50,2%	5,8%
8) Ik maak me zorgen dat opioïden na enige tijd niet meer voldoende werken en dat patiënten steeds meer nodig hebben	0,0%	5,8%	8,0%	50,9%	35,3%
9) Ik maak me zorgen dat mijn patiënten een verslaving aan opioïden ontwikkelen	0,4%	4,0%	13,1%	61,1%	21,5%
10) Ik maak me zorgen dat patiënten meer opioïden gebruiken dan voorgeschreven	1,1%	11,3%	22,2%	53,8%	11,6%
11) Ik voel me onder druk gezet door artsen om voorschriften voor opioïden af te leveren	10,9%	35,3%	22,2%	25,8%	5,8%
12) Ik heb het gevoel dat ik patiënten geen voorschriften voor opioïden kan weigeren	3,6%	20,0%	13,5%	49,5%	13,5%

13) Chronische pijn is mijns inziens meer een sociaalpsychologisch probleem dan een medisch probleem	10,2%	41,5%	30,2%	17,1%	1,1%
14) Patiënten hebben een te hoge verwachting van de effectiviteit van opioïden	0,7%	23,3%	31,3%	40,0%	4,7%
15) Het langdurig gebruik van opioïden is noodzakelijk voor veel van mijn patiënten met chronische niet-maligne pijn	4,4%	36,7%	30,2%	26,5%	2,2%
16) Over het algemeen zijn opioïden de meest effectieve behandeling voor chronische niet-maligne pijn	7,6%	41,8%	32,4%	17,8%	0,4%
17) Er worden te weinig opioïden gebruikt in de behandeling van chronische niet-maligne pijn	22,2%	60,7%	15,6%	1,1%	0,4%
18) Opioïden moeten voorgeschreven worden bij chronische niet-maligne pijn wanneer andere pijnstillers onvoldoende werken	1,5%	10,9%	26,5%	53,8%	7,3%
19) Misbruik is een reëel risico bij gebruikers van opioïden	0,4%	1,8%	4,0%	59,6%	34,2%
20) Er worden te veel opioïden gebruikt in de behandeling van chronische niet-maligne pijn	0,0%	10,2%	25,5%	48,4%	16,0%
21) Steeds meer patiënten in mijn apotheek raken afhankelijk van opioïden	4,4%	25,1%	32,0%	32,4%	6,2%
22) In mijn apotheek hebben veel patiënten weerstand tegen het gebruik van opioïden	2,2%	46,9%	38,2%	12,4%	0,4%
23) Er zijn te weinig goede alternatieven voor opioïden voor de behandeling van patiënten met chronische niet-maligne pijn	1,8%	20,4%	31,6%	42,5%	3,6%

Appendix 23: ANSWERS TO THE QUESTIONS OF THE PART 'WORKING METHODS IN PRACTICE AND CONTINUING EDUCATION' (BELGIAN STUDY)

	Antwoorden				
Vragen	Helemaal mee oneens	Mee oneens	Neutraal	Mee eens	Helemaal mee eens
Aandacht voor opioïdegebruik in de media en/of vaktijdschriften heeft ervoor gezorgd dat ik kritischer ben geworden op het afleveren van opioïden	2,9%	24,0%	30,5%	37,5%	5,1%

	Ja	Neen
Weet u waar u informatie kan vinden over afbouwschema's van opioïden?	20,7%	79,3%
Zo ja, namelijk:	- KNMP (Koninklijke Nederlandse Maatschappij ter bevordering der Pharmacie) 0,7% - Apotheek.nl 0,4% - Beroepsverenigingen 1,1% - VAD (Vlaams expertisecentrum Alcohol en andere Drugs) 1,1% - Artsen van de pijnkliniek 0,4% - BCFI (Belgisch Centrum voor Farmacotherapeutische Informatie) 5,1% - Domus medica 0,7% - Reeds opgedane kennis via bijscholing/webinars 1,1% - Deprescribing.org 0,4% - FAGG (Federaal Agentschap voor Geneesmiddelen en Gezondheidsproducten) 0,4% - Goodman and Gilman's 0,4% - Rapport van de consensusvergadering 'Het rationeel gebruik van de opioïden bij chronische pijn' 0,4% - IPSA (Instituut voor Permanente studie voor apothekers) 2,2% - Medstopper.com 0,4% - MFO opioïden 0,4% - NHG (Nederlands Huisartsen Genootschap) 1,5% - Farmacotherapeutische kompas 0,7% - Opiaten.nl 1,8% - Psychonet 0,4% - SKP (Samenvatting van de Kenmerken van het Product) 1,1%	

	Antwoorden				
Vragen	Dit lijkt me zinvol	Dit lijkt me niet zinvol	Weet ik niet	Dit heb ik al geïmplementeerd	Dit heb ik nog niet geïmplementeerd
Bij start van een opioïde aan de patiënt vertellen dat er een risico op verslaving is	90,5%	7,3%	2,2%	83,3%	16,7%
Bij herhalen van opioïdevoorschrift aan de patiënt vertellen dat er risico op verslaving is	88,4%	4,7%	6,9%	68,0%	32,0%
Maandelijks gesprek tussen apotheker met patiënt na starten van opioïde	49,1%	24,4%	26,5%	7,3%	92,7%
Bij elk voorschrift gesprek tussen huisarts en patiënt	70,9%	17,1%	12,0%	4,7%	95,3%
Beperking op aantal dagen op voorschrift (bijv. voor een duur van max 2 weken kan het opioide voorgeschreven worden)	74,2%	17,8%	8,0%	7,3%	92,7%
Vooraf afspraken maken met de patiënt over de duur van de behandeling	71,3%	16,0%	12,7%	14,2%	85,8%
Een extra melding van uw software bij herhalen van een opioïdevoorschrift	72,4%	18,2%	9,5%	5,8%	94,2%
Afspraken over het afleveren van opioïden tijdens de wachtdienst	78,5%	13,5%	8,0%	9,8%	90,2%
Afspraken tussen huisartsen en apothekers over herhalen van opioïdevoorschriften	86,2%	5,1%	8,7%	17,8%	82,2%
Medisch-Farmaceutisch Overleg (MFO) over opioïdegebruik bij chronische niet-maligne pijn	86,2%	4,4%	9,5%	7,6%	92,4%
Heeft u andere maatregelen die u zinvol lijken of die u al geïmplementeerd heeft, wilt u die dan hier toelichten?	- Voorschriften voor opioïden **rechtstreeks van arts doorsturen naar apotheker**; dus niet via de patiënt. - Afspraak met patiënt om **slechts één arts en één apotheker** te bezoeken - Voor de aflevering van opioïden moet de patiënt **een vaste apotheker en huisarts** kiezen. Dit zorgt voor een duidelijkere controle.				

	- Enkel elektronisch vs voor opioïden en enkel door **1 arts/specialist van de patiënt**(liefst specialist) voorschrijfbaar en misschien zelfs ook slechts door **1 apotheek** naar keuze afleverbaar (de huisapotheker) --> verlofregeling goed te regelen dan zowel voor apr als arts. Zo heeft de dokter 100% inzicht en verantwoordelijkheid van aantal voorgeschreven verpakkingen. Bepaalde specificatie nodig voor arts om dat te mogen voorschrijven. Meldpunt dat werkt in geval een apotheker misbruik vermoedt. Nu werkt dat niet via de inspectie. Verplichte afbouw na x aantal weken, ... - **Patiënt komt iedere dag om zijn pillen** - **Wekelijkse aflevering aan patiënt** - **Patiënt dagelijks of wekelijks laten langskomen in de apotheek** om de medicatie af te halen bij (verhoogd risico op) verslaving. Nut van het aanspreken van de patiënt omtrent het risico op verslaving is erg patiëntafhankelijk. Soms kan een (kortdurende) behandeling nodig zijn, maar sommige patiënten hebben zo'n heilige schrik van het risico op verslaving dat ze de medicatie niet meer zullen willen nemen wanneer er over verslaving gesproken wordt. Dit uitspreken moet m.i. dus "voorzichtig" gebeuren. Indien de pijn niet onder controle geraakt zonder een (kortdurende) behandeling van opiaten, kan de ingenomen hoeveelheid van andere pijnstillers worden overdreven (met oa. risico op maagbloeding bij bijv. NSAID's). - **Meer overleg tussen apotheker en arts** zou hier zeer zinvol zijn. vb 1 x per maand of zelfs minder alle patiënten met verslavingsgevoelige medicatie bespreken. Zo horen zij ook of de patiënt enkel gebruikt wat zij voorschrijven. Heel vaak begint het met de partner die eens eentje op zijn/haar naam laat schrijven, voorschriftjes die aan de tandarts of specialist worden gevraagd zonder dat de huisarts het weet en zo zijn ze vertrokken. Bij zo goed als alle verslaafden zijn de artsen er van overtuigd dat zij de enige voorschrijver zijn, terwijl dit bij verslaafden (ook beginners) niet het geval is. Iets wat wij heel vaak doen: doorverwijzen naar pijnkliniek/kinesist/personal trainer. Mensen die dit advies opvolgen, zijn achteraf vaak tevreden. Maar even vaak wordt zo'n advies absoluut niet in dank aangenomen - **Afspraken tussen huisartsen en apothekers** op patiëntniveau over afbouw van opioïden (en inschakelen van niet-medicamenteuze alternatieven) lijkt me zeer zinvol. - **Beter contact tussen arts en apotheker** i.v.m. opioïden gebruik. Apotheker staat te ver van patiënt en problematiek is te diepgeworteld om als apotheker tijdens de aflevering een verschil te maken. We kunnen nl geen alternatief aanbieden om te minderen met opioïden gebruik. - **Afspraken maken met ziekenhuisspecialisten en huisartsen** om bij het eerste voorschrift of gebruik reeds een afbouwschema mee te geven aan de patiënt of aan ons in samenspraak met de patiënt te laten meegeven, zeker igv een acuut pijnprobleem of nadat ze een ingreep hebben ondergaan en hiervoor opioïden kregen voorgeschreven. Het plannen met de patiënt (zeker als arts dit zou voorschrijven) , van een **GGG gesprek** zou hier een goede oplossing bieden. - Alle maatregelen die **overleg tussen arts en apotheker** ondersteunen, zijn in mijn ervaring zeker zinvol. Het is vaak zo dat de patiënt die chronisch opioïden gebruikt, meerdere voorschriften krijgt van de arts. De patiënt komt de medicatie halen en als je daar als apotheker vragen over durft stellen, dan gaat de patiënt met zijn vele voorschriften gewoon naar een andere apotheek. Ik denk dat het overleg tussen arts en apotheker omtrent het chronisch opioïden-gebruik zeker nog verbeterd kan worden. Als apotheker

	heb je namelijk geen zicht op het volledig medisch dossier van de patiënt en dan is het vaak moeilijk inschatten waarom een arts die keuze maakt. Vele artsen zijn bij telefonisch contact ook niet op de hoogte dat ze zo veel voorschrijven. (Ik weet niet hoe hun computersysteem werkt, en of zij een mogelijkheid hebben om dit bij te houden) - Bij elke anomalie de arts bellen, maar die zijn daar 80% niet happy meer. Ze zien dat als een **inbreuk van een hun voorschrijfgedrag** van een minderwaardig apothekertje. Zolang we niet, nooit, dus op gelijke voet worden , is elk gesprek op eierenlopen. Van mijn kant, ik bel ze om ze voeling te geven met wat er op aarde gebeurd. - automatische controle via **gfd** - **GFD** verplicht, consulteerbaar door artsenbeperkte terugbetaling of geen terugbetaling meer na overschrijden aanbevolen hoeveelheid - het zou goed zijn om verplicht het **GFD** (gedeeld farmaceutisch dossier)te raadplegen bij het afleveren van opioïden, want soms zien we het te laat. - Er zouden meer apothekers moeten kijken in het **GFD,** voor patiënten die hier misbruik van maken. En misschien ook strengere voorwaarden voor de terugbetaling. - Een verslaafde vind blijkbaar altijd een Apotheek die toch het opioïde meegeeft, controle hierop is onbestaande. Als **GFD** geen twijfel laat over misbruik , geef ikzelf deze producten niet mee. - Betere opvolging na of zelfs serieus nemen van melden van 'shoppen'. Jammer genoeg hebben wij geen poot om op te staan als de conclusie gebaseerd is op historiek en/of **GFD** wegens privacy. - Bij elke aflevering wordt nagekeken of de aflevering in lijn ligt met het voorziene gebruik via het **farmaceutisch dossier**. Ook wordt de sterke werking herhaald. - tijdens wachtdienst; **gfd** en weigering indien misbruik - **gfd** is pluspunt blijven tonen aan pt dat we de situatie opvolgen - Tijdens wachtdienst wordt er geregeld “geshopt”. Als je dan in **gfd** ziet dat er veel te veel opioïden verbruikt worden, verplicht weigeren. Nu veel collega’s die toch meegeven om van de zever verlost te zijn en uit angst (heb ik zelf ook al gedaan eerlijk gezegd) - Artsen zouden namelijk vaker het **GFD** moeten raadplegen gezien vaak verschillende artsen dezelfde opioïden voorschrijven - **Artsen schrijven vaak te snel voor**, soms weet de patiënt zelfs niet dat het over opiaat gaat. Heel vaak zien we combinatie paracetamol Tramadol. Voor de artsen interessant naar therapietrouw maar door verschil in halfwaardetijd zie ik in realiteit vaak overmatig gebruik. Door artsen wordt praktisch nooit kine of dergelijke voorgesteld. Je kan dit je patiënt wel adviseren maar dan heeft die geen recht op terugbetaling - **Sensibilisatie vd dokters** om minder snel opioïden voor te schrijven - **De artsen sensibiliseren** ! Zij schrijven tenslotte voor, en wanneer wij hen als apotheker opbellen omtrent overgebruik, spannen ze zich vaak achter de patiënt, die ze dan bij een andere apotheker sturen ‘die daar niet moeilijk over doet’ !!! - opm. **verantwoordelijkheid van de dokter** is zeker zo belangrijk als de onze .In het verleden na zovele telefoons naar dokter uiteindelijk de moed opgegeven. - Meer inzetten op combinatie van pijnstilling met **bewegingstherapie.** - neen, maar het is soms moeilijk om patiënten te overtuigen om **alternatieven** te zoeken - **sporten aanbevelen** of andere bijkomende activiteit - Patiënten folder over mogelijke **alternatieven** voor de behandeling

	- **Alle mogelijke behandelingen voor chronische pijn** in kaart zetten en bespreken met patiënt voor zover hij dit kan/wil begrijpen. Met moet opletten met nieuwe regelgeving !! 95 % van de patiënten zijn echte patiënten met meestal een leven met weinig levenskwaliteit door de pijn en andere medische klachten. De 5 % met misbruik of overgebruik moeten individueel aangepakt/benaderd worden door alle zorgverleners. - **Afbouwschema** van arts meedelen aan apotheker - vroeger zag men **afbouwschema's** bij methadonpatiënten, nu blijven die patiënten jaren lang op hun zelfde schema staan...denk dus dat dat helaas hetzelfde verhaal is bij durogesic. ea ..pleisters - niet standaard voorschrijven als pijnmedicatie **op spoed**. - **Op spoed** krijgen patiënten met pijn een standaardvoorschrift mee voor paracetamol, ibuprofen en tramadol; ongeacht de aandoening. Dit kan volgens mij de aanleiding zijn tot een verslaving met opioïden. Vergelijkbaar met 20- 30 jaar terug toen mensen bij een ziekenhuisopname bijna altijd standaard een slaappilletje kregen en zo de benzo-verslaving in de hand werd gewerkt. - Bij de eerste aflevering van een opioïde geef ik de info dat er afhankelijkheid of gewenning kan optreden, maar **zonder het woord verslaving te benadrukken**. De patiënt moet ook niet onnodig bang gemaakt worden. De echte pijnpatiënt heeft normaal weinig risico op verslaving indien de juiste dosis gehanteerd wordt. Zo laag mogelijk doseren zodat er pijnstilling optreedt maar geen euforie of high. Dus altijd starten aan een lage dosis. Dit is natuurlijk aan de arts, maar wij ondervinden hier niet direct problemen mee. De afhankelijkheid aan de minder sterke opioïden zoals tramadol en dafalgan codeïne tot zelfs hoestpreparaten met codeïne of benzodiazepines vormt een groter probleem in onze apotheek dan de afhankelijkheid van de echte sterke opioïden. - Ik probeer bij elke nieuwe aflevering de patiënt ervan te overtuigen de dosis die de dokter heeft voorgeschreven niet op eigen houtje te overschrijden, en benadruk daarbij het risico op "gewenning" van het lichaam. Omdat de patiënt het product krijgt voorgeschreven door een arts, probeer ik **het woord "verslaving" te vermijden** om de arts niet te ondermijnen en de patiënt niet onnodig ongerust te maken. Dit woord gebruik ik uiteraard wel wanneer ik merk dat de patiënt langdurig opioïden gebruikt, de voorschriften elkaar beginnen op te volgen of de patiënt aangeeft dat het geneesmiddel niet zou werken. Ik heb ook al enkele keren huisartsen gecontacteerd omdat een patiënt van verschillende artsen voorschriften kon bemachtigen. - **Opleiding voor apothekers** - voel me bij het invullen van deze vragenlijst wat ondergedoceerd, vaak neutraal antwoord waar ik graag ik weet het niet had ingevuld. - Bij een weigering van een VS (elektronisch dan om realistisch te blijven) zou de apotheker een **flag** moeten kunnen toevoegen aan het VS, zodat een collega-apotheker een melding krijgt indien de ptt daar het VS afgeeft. Dan kan de collega-apotheker beslissen om 1) niet af te leveren + extra flag of 2) toch af te leveren met bijvermelde reden X. Zodoende zou er betere controle kunnen zijn en is de beslissing over al dan niet afleveren niet gebiasd door een financieel motief. Daarnaast zou het een grote meerwaarde zijn indien collega-artsen elkanders voorschrijfgedrag kunnen volgen om het voorschrifthoppen tegen te gaan. - Naar misbruik toe (massaal afhalen van vb oxynorm in verschillende apotheken) zou er echt iets moeten gebeuren. Zou makkelijker kunnen gemeld worden. Nu gebeurt er bijna nooit iets met de klachten.

	- bij misbruik zowel door arts bij het voorschrijven, als de patiënt door het shoppen: **contacteren van de inspectie**. Meest efficiënt, en dan nog…. - Bij opstart van opioïden zou de **indicatie voor het gebruik** op het voorschrift moeten vermeld staan. - Gelukkig heeft de patiënt zelf al vaak bedenkingen bij opstart van opioïden en kunnen we dit enkel beamen en aanmanen tot voorzichtigheid. Misschien een extra **waarschuwingssymbool op de verpakking** en een gebruiksschema zoals dat bij Durogesic al is gebeurd. - gewoon kijken naar gebruik, statistiekje maken en ramen hoeveel ze gebruiken, bij zware dosis verwittigen dat ze overdrijven en moeten afbouwen cavé natuurlijk patiënt neigt te switchen naar een collega - Ik heb reeds de arts geraadgepleegd bij het opmerken van overgebruik van opioïden bij een patiënt. Het werd steeds door dezelfde arts voorgeschreven en na het gesprek ging de arts het gebruik meer in de gaten houden. - soms zijn de patiënten meer afgeschrikt door het feit dat er constipatie mogelijk is, dan door het feit dat verslaving mogelijk is :) - Zou enkel mogen voorgeschreven worden bij acute pijn. Patiënten die deze medicatie al een tijd nemen zijn meestal absoluut niet bereid om ermee te stoppen of te verminderen, dan is hun pijn niet te verdragen, zeggen ze. - GDPR is een zware streep door de rekening voor het beperken van opioidverslaving. - Er is volgens mij een **groot verschil** tussen afleveringen in een dorpsapotheek en een stadsapotheek. Ook volgens leeftijd en doelgroep van de opioïden. Bij aflevering van opioïden aan jong persoon (30 jaar) tijdens de wachtdienst :-(Bij aflevering tijdens de week aan persoon van 70 jaar met artrose :-).Deze opmerkingen vind ik hier te weinig terug in jullie survey. - het aanbevelen van een laxativum om de bijwerkingen te counteren - Contract voor Methadone bj substitutie - Ik geef de patiënt mee dat een opioïde -behandeling steeds zo kort mogelijk moet zijn, tenzij bij -inderdaad- chronische pijn, die wordt opgevolgd in de pijnkliniek b.v. - Verdere opleidingen voor begeleiding van de patiënten met chronische pijn en of opioïde gebruiker.

Wat zou u terug willen zien in een nascholingsprogramma over opioïden? (meerdere antwoorden mogelijk)	
Verschillen tussen opioïden	65,1%
Doseerschema's	71,3%
Voorkómen onnodig langdurig gebruik	73,1%
Afleveren van opioïden bij risicogroepen (depressie, geneesmiddelafhankelijkheid, drugs- of alcoholgebruikers, benzodiazepine-gebruikers)	66,5%
Afbouwschema's	86,9%
Communicatie met patiënten die opioïden gebruiken of starten met een opioïde	60,7%
Inzicht in misbruik bij patiënten	56,0%
Begeleiding van verslaafde patiënten	63,6%
Anders, namelijk:	- Verplichte opleiding voor artsen, vooral de oudere generatie. - Alle verslaafden naar specifieke centrale of bepaalde gekende apotheken, zodat degene die dit niet willen , aankunnen, mentaal /fysiek, niet gestoord worden door verslaafden. - interactie met andere geneesmiddelen (zeker bij oudere patiënten) - opstarthandleiding van een GGG gesprek - een soort GGG tool - Nevenwerkingen op lange termijn (apart van verslaving) - Alternatieven

Appendix 24: COMMENTS ON THE SURVEY (BELGIAN STUDY)

- Er worden **te vaak grote dozen voorschreven** zonder enige uitleg…
- Naar mijn inziens ligt het probleem hoofdzakelijk bij de **huisartsen.** Het is alsof ze gewoon schrijven wat de patiënt vraagt en alsof ze nooit scholing volgen over de huidige stand van zaken
- **De arts** schrijft voor en de apotheker is zeer beperkt in de raad hieromtrent want mag de arts niet schofferen of wantrouwen veroorzaken bij patiënt t.o.v. arts…. Veel artsen hebben geen oren naar de graad van verslaving die opioïden kunnen veroorzaken of naar alternatieven….
- Ik vond het soms moeilijk invullen, omdat ik vaak de indruk heb dat je als apotheker door de artsen niet steeds betrokken wordt bij de keuze voor bepaalde medicatie. De **arts** schrijft voor en heeft daar zijn redenen voor, en als apotheker lever je af wat er voorgeschreven wordt. Sommige artsen staan open voor communicatie en overleg, maar zeker niet iedereen.
- Een **correct voorschrijfgedrag van de artsen** is allesbepalend bij de begeleiding van deze patiënten. Interactie tussen apotheek en begeleidend arts lijkt me noodzakelijk om afhankelijkheid te voorkomen met hierbij het doorgeven van correcte medicatieschema's. Indien artsen niet verantwoordelijk voorschrijven zoals je in Brussel veel artsen kan vinden, zal er steeds een groot risico tot afhankelijkheid gecreëerd kunnen worden. Aflevering tijdens een wachtdienst zou onmogelijk gemaakt moeten worden en via de spoeddiensten moeten opgevangen worden, die toegang hebben tot het dossier van deze patiënten.
- voor ons is het zeer moeilijk om voorschriften te weigeren van opioïden aangezien de **arts het blijft voorschrijven** ondanks onze telefoontjes. Of de patiënt gaat shoppen, bij verschillende artsen en apothekers . Moeilijk…
- Ik vind dat **de arts verantwoordelijk** is voor te lang gebruik of misbruik. Wij kunnen voorschriften niet weigeren en weten niet hoelang, waardoor of hoe ernstig de pijn van de patiënt is.
- wij hebben weinig inzeg bij chronische niet maligne pijn, aangezien de **arts voorschrijft**. Maar aangezien het om chronische pijn (zonder pasklare oplossing) gaat, zie ik dan ook vooral chronisch opioïden gebruik, zeker als er verbetering is met het opioïde (dan blijft men die behandeling aanhouden)
- **Artsen specialisten orthopedie schrijven regelmatig na een operatie veel te zware pijnstillers/ te hoge doses** voor als acute pijnstilling voor patiënten die bv weinig pijnstillers nemen in het algemeen. Meegemaakt bij mijn eigen moeder na een schouderoperatie: 3 x 30 druppels Tramadol ??? Zelf aangeraden om te starten met 3 x 10 druppels en evt meer te nemen bij onvoldoende effect. Ze heeft het maar 1 dag genomen, was al helemaal groggy van die 10 druppels !
- Openbaar stellen van **GFD** en GMD tussen artsen en apothekers zou enorm zinvol zijn om verslaving tegen te gaan. De apotheker krijgt zicht op de diagnose (er zijn enkele diagnoses waar langdurig gebruik geoorloofd is)De arts ziet hoeveel hij en zijn collega's werkelijk voorschrijven
- Een **MFO** is zeker een must om goede resultaten te bekomen in het misbruik en overgebruik van opioïden,; hiervoor moeten duidelijke ,goede afspraken tussen de artsen en apothekers gemaakt worden zodat we op dezelfde lijn staan en beiden overtuigd zijn van het probleem. Indien de apothekers het probleem zouden aankaarten bij de patiënten zonder samenspraak met de artsen zou dit de samenwerking niet ten goede komen!!
  Er kan mijn inziens enkel een zeer positief resultaat bekomen worden als zowel arts als apotheker wil meewerken en vooral samenwerken om dit probleem op te lossen.
- er was reeds een **MFO** over opioïden. De spreker had het over de sterke opioïden, terwijl alle deelnemers eigenlijk alle opioïden als onderwerp in het hoofd hadden. Het lijkt me nuttiger (maar waarschijnlijk ook ingewikkelder) om het over de volledige groep te hebben. (zie de sterke groei die Tramadol kent)
- ja. Ikzelf heb weinig verslavingsproblematiek in de apotheek. Grotendeels door mijn ligging. Tijdens mijn stage in Gent heb ik andere zaken gezien…Het allergrootste deel van mijn patiënten die opioïden gebruiken, zijn

85+ers, al dan niet in een WZC. In deze vragenlijst wordt voor mij te **weinig onderscheid** gemaakt in de soort patiënt. Bij een 85+ ben ik totaal niet kritisch bij een opstart van een opioïde door de arts. Ik weet dat comfort zwaar doorweegt op deze leeftijd. Levenskwaliteit is belangrijk in deze fase van hun leven. Deze mensen blijven ook jaren op dezelfde dosering staan. En er is continue pijnmonitoring door de arts. Als er al verslaving optreedt na verloop van tijd, dan is dit probleem mineur aan hun comfortbehandeling. Naar mijn gevoel is deze enquête vooral geïnteresseerd in misbruik. Volgens mijn ervaring vindt dit vooral plaats bij de jongere patiënt. Bij dergelijk voorschrift hanteer ik een compleet andere benadering. En moet ik ook anders antwoorden op de vragen. Maw ik vond het moeilijk om deze vragen te beantwoorden, omdat er voor mij 2 categorieën gebruikers zijn. Degene met risicoprofiel op misbruik, en degene (quasi) zonder. Afhankelijk van welke patiënt ik voor ogen heb, moet ik anders antwoorden op de vragen.
Ik kon dus 2 enquêtes invullen, met verschillende antwoorden. Maar misschien werd hier rekening mee gehouden bij het opstellen?

- Zoals eerder vermeld in de opmerkingen: Ik vind deze survey een aantal **vragen missen over de achtergronden** van de patiënt. patiënt 30 jaar, marginale achtergrond: afleveren van opioïden, ga ik al 2x nadenken patiënt 70jaar, begeleiden in afleveringen maar ga ik geen opmerkingen maken over afbouwen en dergelijke ...
- enkele vragen zijn niet van toepassing voor een apotheek: bijvoorbeeld bij elk voorschrift gesprek tussen arts en patiënt
- Het grootste probleem zijn de wachtdiensten. De GDPR-wet verbiedt ons momenteel om iets te ondernemen tegen verslaafden. En problemen worden niet opgevolgd van hogerhand. Veel verslaafden zitten bvb. nu al al hun MAFmaximum en halen nu hun opioïden GRATIS af. Waanzin !
- gevaar is ook dat patiënten soms verschillende geneesmiddelen nemen met zelfde actief product, maar andere naam vb tradonal en zaldiar
- het probleem situeert zich eerder bij de groep 'Tramadol'
- Naast verslaving bij de door u vermelde opioïden stellen wij ook verslaving vast bij Tramadol (morfine achtige pijnstiller) en codeïne. Misschien kan dit samen behandeld worden.
- Zoals al eerder vermeld ervaar ik een groter probleem met afhankelijkheid van codeïne en benzodiazepines dan met sterke opioïden.
- Een deel van de vragen was eerder van toepassing voor artsen (lees voorschriften opstellen,...)
- Sommige vragen misschien te vaag? Maar idd. een groeiend probleem en dus zeer relevant!
- wij hebben hier zeer weinig gebruik en zeker misbruik van opioïden voor chronische (niet kanker) pijn. Sommige antwoorden zijn dan ook eerder inschattingen dan gebaseerd op ervaring
- antwoordmogelijkheid 'ik weet het niet' bij de eerste twee pagina's was nuttig geweest.
- niet altijd evident om juist antwoord te geven, hangt van persoon tot persoon af.
- Het kan een hele verbetering zijn indien het systeem van de stupbons wordt aangepast. Elektronisch systeem, zodat FAGG vlot kan zien waar groot verbruik is van opioïden.

Appendix 25: RESULTS OF THE KAISER-MEYER-OLKIN TEST AND THE BARTLETT'S TEST OF SPHERICITY (BELGIAN STUDY)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,794
Bartlett's Test of Sphericity	Approx. Chi-Square	1456,543
	df	253
	Sig.	<,001

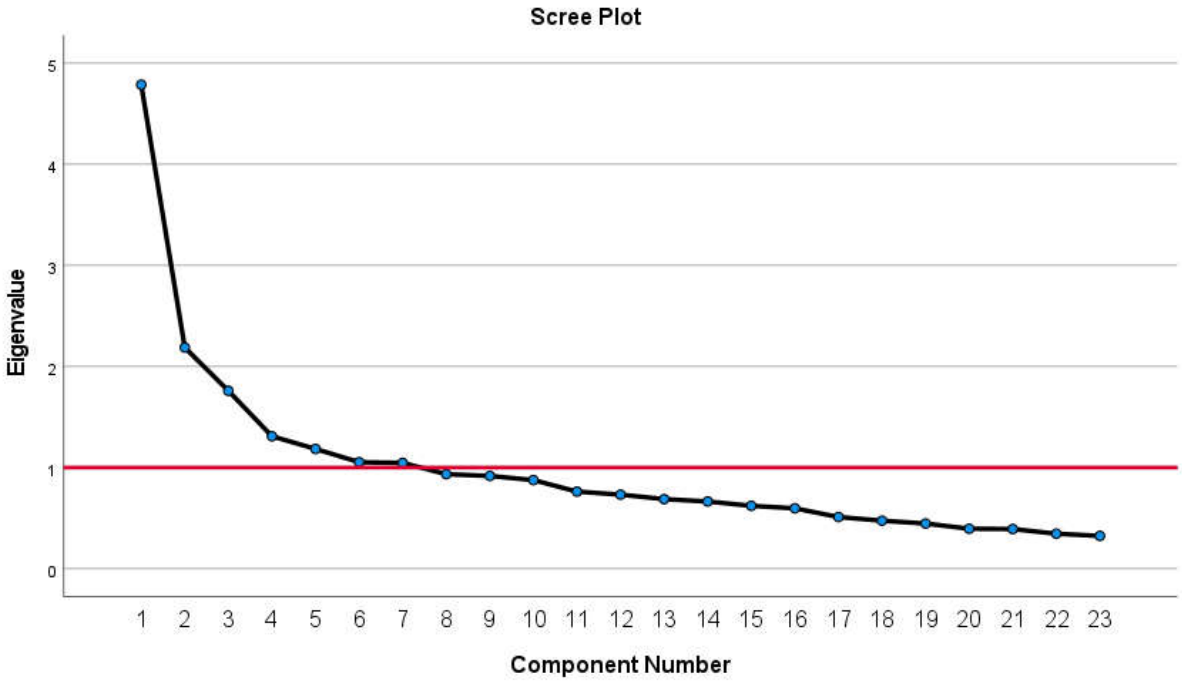
Appendix 26: THE TOTAL VARIANCE EXPLAINED (BELGIAN STUDY)

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4,787	20,812	20,812	4,787	20,812	20,812	3,522	15,313	15,313
2	2,187	9,508	30,320	2,187	9,508	30,320	2,079	9,040	24,353
3	1,759	7,648	37,968	1,759	7,648	37,968	1,829	7,954	32,306
4	1,309	5,693	43,661	1,309	5,693	43,661	1,648	7,163	39,470
5	1,184	5,148	48,809	1,184	5,148	48,809	1,601	6,961	46,431
6	1,053	4,577	53,386	1,053	4,577	53,386	1,424	6,189	52,620
7	1,046	4,547	57,933	1,046	4,547	57,933	1,222	5,312	57,933
8	,934	4,062	61,994						
9	,917	3,986	65,980						
10	,876	3,808	69,788						
11	,762	3,312	73,101						
12	,732	3,183	76,283						
13	,687	2,988	79,271						
14	,664	2,889	82,160						
15	,621	2,700	84,860						
16	,597	2,594	87,454						
17	,510	2,219	89,673						
18	,474	2,062	91,735						
19	,446	1,939	93,674						
20	,394	1,715	95,389						
21	,391	1,702	97,091						
22	,345	1,502	98,593						
23	,324	1,407	100,000						

Extraction Method: Principal Component Analysis.

Appendix 27: THE SCREE PLOT AND THE ROTATED COMPONENT MATRIX (BELGIAN STUDY)



Rotated Component Matrix[a]

	Component						
	1	2	3	4	5	6	7
OVER 9[Ik maak me zorgen dat mijn patiënten een verslaving aan opioïden ontwikkelen]	,766						
OVER 10[Ik maak me zorgen dat patiënten meer opioïden gebruiken dan voorgeschreven]	,687						
OVER 19[Misbruik is een reëel risico bij gebruikers van opioïden]	,675						
OVER 8[Ik maak me zorgen dat opioïden na enige tijd niet meer voldoende werken en dat patiënten steeds meer nodig hebben]	,645						
OVER 20[Er worden te veel opioïden gebruikt in de behandeling van chronische niet-maligne pijn]	,628	-,315					

OVER 21[Steeds meer patiënten in mijn apotheek raken afhankelijk van opioïden]	,614				,315		
OVER 3[Ik heb patiënten gehad waarbij het gebruik van opioïden heeft geleid tot gezondheidsschade bij die patiënt]	,547						,332
OVER 16[Over het algemeen zijn opioïden de meest effectieve behandeling voor chronische niet-maligne pijn]	-,149	,779					
OVER 15[Het langdurig gebruik van opioïden is noodzakelijk voor veel van mijn patiënten met chronische niet-maligne pijn]		,642		-,311			
OVER 18[Opioïden moeten voorgeschreven worden bij chronische niet-maligne pijn wanneer andere pijnstillers onvoldoende werken]		,593			-,323		
OVER 23[Er zijn te weinig goede alternatieven voor opioïden voor de behandeling van patiënten met chronische niet-maligne pijn]		,548				-,408	
OVER 6[Ik ben voldoende opgeleid om patiënten met chronische niet-maligne pijn te begeleiden]			,847				
OVER 5[Ik heb voldoende vertrouwen in mijn vaardigheden om met patiënten in gesprek te gaan die te veel en te lang opioïden gebruiken]			,723				
OVER 4[Ik vind het stressvol om patiënten met chronische niet-maligne pijn te begeleiden]			-,502	,328			

OVER 13[Chronische pijn is mijns inziens meer een sociaalpsychologisch probleem dan een medisch probleem]				,690			
OVER 14[Patiënten hebben een te hoge verwachting van de effectiviteit van opioïden]				,687			
OVER 7[Ik kan makkelijk voorspellen welke patiënten een verhoogd risico lopen op het misbruiken van opioïden]			,336	,536			
OVER 12[Ik heb het gevoel dat ik patiënten geen voorschriften voor opioïden kan weigeren]					,775		
OVER 11[Ik voel me onder druk gezet door artsen om voorgeschreven opioïden af te leveren]	,326				,701		
OVER 1[Patiënten met chronische niet-maligne pijn kunnen in het algemeen goed behandeld worden]						,748	
OVER 2[Ik heb goede ervaringen met het langdurig gebruik van opioïden door patiënten met chronische niet-maligne pijn]	-,348					,611	
OVER 22[In mijn apotheek hebben veel patiënten weerstand tegen het gebruik van opioïden]							,699
OVER 17[Er worden te weinig opioïden gebruikt in de behandeling van chronische niet-maligne pijn]	-,366	,311					,582

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

[a]. Rotation converged in 6 iterations.

Appendix 28: THE TOTAL VARIANCE EXPLAINED AND THE ROTATED COMPONENT MATRIX WITH FOUR COMPONENTS (BELGIAN STUDY)

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4,787	20,812	20,812	4,787	20,812	20,812	3,854	16,757	16,757
2	2,187	9,508	30,320	2,187	9,508	30,320	2,293	9,968	26,725
3	1,759	7,648	37,968	1,759	7,648	37,968	2,128	9,251	35,976
4	1,309	5,693	43,661	1,309	5,693	43,661	1,768	7,686	43,661
5	1,184	5,148	48,809						
6	1,053	4,577	53,386						
7	1,046	4,547	57,933						
8	,934	4,062	61,994						
9	,917	3,986	65,980						
10	,876	3,808	69,788						
11	,762	3,312	73,101						
12	,732	3,183	76,283						
13	,687	2,988	79,271						
14	,664	2,889	82,160						
15	,621	2,700	84,860						
16	,597	2,594	87,454						
17	,510	2,219	89,673						
18	,474	2,062	91,735						
19	,446	1,939	93,674						
20	,394	1,715	95,389						
21	,391	1,702	97,091						
22	,345	1,502	98,593						
23	,324	1,407	100,000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component			
	1	2	3	4
OVER 9	,778			
OVER 10	,706			
OVER 8	,670			
OVER 21	,630			
OVER 20	,606	-,347		
OVER 19	,599			
OVER 3	,558			
OVER 2	-,480	,361		
OVER 16		,762		
OVER 15		,716		
OVER 18		,575		
OVER 23		,499	-,326	
OVER 13		-,373		,306
OVER 17	-,336	,350		
OVER 5			,693	-,310
OVER 6			,683	
OVER 1			,650	

OVER 4			-,502	
OVER 7			,490	,335
OVER 12				,647
OVER 11	,356			,589
OVER 14	,335			,372
OVER 22				-,307

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Appendix 29: OVERVIEW OF WHICH STATEMENT BELONGS TO WHICH DOMAIN AND INDICATED TO WHICH DIRECTION THE STATEMENTS POINTS (BELGIAN STUDY)

Perceived threats		Equal to Dutch Study?	Direction of the statement?	Domain according to HBM?
9	Ik maak me zorgen dat mijn patiënten een verslaving aan opioïden ontwikkelen *I worry about my patients developing an addiction to opioids*	Yes	→	Perceived threats
10	Ik maak me zorgen dat patiënten meer opioïden gebruiken dan voorgeschreven *I'm concerned that patients are using more opioids than prescribed*	Yes	→	Perceived threats
8	Ik maak me zorgen dat opioïden na enige tijd niet meer voldoende werken en dat patiënten steeds meer nodig hebben *I am concerned that opioids may not work adequately after some time and that patients may require more and more*	Yes	→	Perceived threats
21	Steeds meer patiënten in mijn apotheek raken afhankelijk van opioïden *More and more patients in my pharmacy are becoming dependent on opioids*	Yes	→	Perceived threats
20	Er worden te veel opioïden gebruikt in de behandeling van chronische niet-maligne pijn *Too many opioids are used in the treatment of chronic non-malignant pain*	Yes	→	Perceived threats
19	Misbruik is een reëel risico bij gebruikers van opioïden *Abuse is a real risk among opioid users*	Yes	→	Perceived threats
3	Ik heb patiënten gehad waarbij het gebruik van opioïden heeft geleid tot gezondheidsschade bij die patiënt *I have had patients where the use of opioids has resulted in damage to that patient's health*	Yes	→	Perceived barriers
2	Ik heb goede ervaringen met het langdurig gebruik van opioïden door patiënten met chronische niet-maligne pijn *I have positive experience with the long-term use of opioids by patients with chronic non-malignant pain*	No	←	Perceived benefits
Perceived benefits				
16	Over het algemeen zijn opioïden de meest effectieve behandeling voor chronische niet-maligne pijn *Generally, opioids are the most effective treatment for chronic non-malignant pain*	Yes	→	Perceived benefits
15	Het langdurig gebruik van opioïden is noodzakelijk voor veel van mijn patiënten met chronische niet-maligne pijn *Long-term opioid use is necessary for many of my patients with chronic non-malignant pain*	Yes	→	Perceived benefits
18	Opioïden moeten voorgeschreven worden bij chronische niet-maligne pijn wanneer andere pijnstillers onvoldoende werken *Opioids should be prescribed for chronic non-malignant pain when other analgesics do not work sufficiently*	Yes	→	Perceived benefits
23	Er zijn te weinig goede alternatieven voor opioïden voor de	No	→	Perceived

	behandeling van patiënten met chronische niet-maligne pijn *There are too few proper alternatives to opioids for the treatment of patients with chronic non-malignant pain*			barriers
13	Chronische pijn is mijn inziens meer een sociaalpsychologisch probleem dan een medisch probleem *Chronic pain is in my opinion more of a socio-psychological problem than a medical problem*	Yes	←	Perceived barriers
17	Er worden te weinig opioïden gebruikt in de behandeling van chronische niet-maligne pijn *Too few opioids are used in the treatment of chronic non-malignant pain*	Yes	→	Perceived benefits
Perceived barriers				
12	Ik heb het gevoel dat ik patiënten geen voorschriften van opioïden kan weigeren *I feel that I cannot refuse patients prescriptions of opioids*	No	←	Perceived self-efficacy
11	Ik voel me onder druk gezet door artsen om voorgeschreven opioïden af te leveren *I feel pressured by doctors to deliver prescribed opioids*	No	←	Perceived self-efficacy
14	Patiënten hebben een te hoge verwachting van de effectiviteit van opioïden *Patients have an overly high expectation of the effectiveness of opioids*	No	←	Perceived threats
22	In mijn apotheek hebben veel patiënten weerstand tegen het gebruik van opioïden *In my pharmacy, many patients have resistance to using opioids*	No	→	Perceived barriers
Perceived self-efficacy				
5	Ik heb voldoende vertrouwen in mijn vaardigheden om met patiënten in gesprek te gaan die te veel en te lang opioïden gebruiken *I feel confident enough in my abilities to talk to patients who use opioids too much and for too long*	Yes	→	Perceived self-efficacy
6	Ik ben voldoende opgeleid om patiënten met chronische niet-maligne pijn te begeleiden *I am adequately trained to manage patients with chronic non-malignant pain*	Yes	→	Perceived self-efficacy
1	Patiënten met chronische niet-maligne pijn kunnen in het algemeen goed behandeld worden *Patients with chronic nonmalignant pain can generally be treated well*	No	→	Perceived self-efficacy
4	Ik vind het stressvol om patiënten met chronische niet-maligne pijn te begeleiden *I find it stressful to manage patients with chronic non-malignant pain*	No	←	Perceived self-efficacy
7	Ik kan makkelijk voorspellen welke patiënten een verhoogd risico lopen op het misbruiken van opioïden *I can easily predict which patients are at increased risk of opioid misuse*	Yes	→	Perceived self-efficacy

Appendix 30: CALCULATIONS OF THE COMPONENT SCORES (BELGIAN STUDY)

OVER 3	OVER 8	OVER 9	OVER 10	OVER 19	OVER 20	OVER 21	Sum of the statement scores		Divided by # statements			Average threats component score
4	5	4	4	4	4	4	29	/35	4,142857143	/5	1038,8571	3,777662338
4	5	4	4	5	5	4	31	/35	4,428571429	/5		
3	4	4	4	4	4	3	26	/35	3,714285714	/5		
5	4	4	4	5	3	3	28	/35	4	/5		
4	4	4	5	4	4	3	28	/35	4	/5		
4	4	4	4	4	4	3	27	/35	3,857142857	/5		
5	5	5	5	4	5	4	33	/35	4,714285714	/5		
3	5	5	4	5	5	4	31	/35	4,428571429	/5		
3	5	3	3	4	3	3	24	/35	3,428571429	/5		
5	4	5	4	4	4	4	30	/35	4,285714286	/5		
3	4	4	4	5	4	4	28	/35	4	/5		
4	2	4	4	4	4	4	26	/35	3,714285714	/5		
4	4	4	2	4	3	3	24	/35	3,428571429	/5		
4	4	5	1	1	4	3	22	/35	3,142857143	/5		
3	5	5	5	4	4	4	30	/35	4,285714286	/5		
4	4	4	4	4	4	3	27	/35	3,857142857	/5		
2	3	4	4	5	3	1	22	/35	3,142857143	/5		
3	4	4	4	5	4	2	26	/35	3,714285714	/5		
4	3	4	3	4	3	4	25	/35	3,571428571	/5		
3	4	4	4	5	4	4	28	/35	4	/5		
5	5	3	3	4	4	3	27	/35	3,857142857	/5		
4	5	4	4	4	3	4	28	/35	4	/5		
3	4	4	2	5	4	4	26	/35	3,714285714	/5		
5	5	5	5	5	4	5	34	/35	4,857142857	/5		
2	5	5	3	3	3	4	25	/35	3,571428571	/5		
2	4	2	2	4	4	2	20	/35	2,857142857	/5		
1	4	5	4	4	3	3	24	/35	3,428571429	/5		
5	5	4	4	4	4	4	30	/35	4,285714286	/5		
2	5	5	3	4	3	2	24	/35	3,428571429	/5		
2	4	3	4	4	3	3	23	/35	3,285714286	/5		
4	4	4	4	4	4	2	26	/35	3,714285714	/5		
3	4	4	3	4	4	3	25	/35	3,571428571	/5		
4	4	3	3	4	4	2	24	/35	3,428571429	/5		
3	5	4	4	5	5	5	31	/35	4,428571429	/5		
3	4	4	4	4	4	2	25	/35	3,571428571	/5		
3	5	4	4	5	5	4	30	/35	4,285714286	/5		
5	5	4	4	5	3	3	29	/35	4,142857143	/5		
2	5	5	3	4	4	3	26	/35	3,714285714	/5		
5	5	4	3	5	5	4	31	/35	4,428571429	/5		
3	4	4	4	4	4	4	27	/35	3,857142857	/5		
5	5	5	4	4	3	4	30	/35	4,285714286	/5		
3	5	5	5	5	4	4	31	/35	4,428571429	/5		

4	5	4	4	4	4	4	29	/35	4,142857143	/5
5	5	5	5	5	5	5	35	/35	5	/5
2	5	5	5	5	4	4	30	/35	4,285714286	/5
4	5	5	4	5	5	4	32	/35	4,571428571	/5
5	5	4	5	5	4	4	32	/35	4,571428571	/5
4	4	4	4	4	5	3	28	/35	4	/5
4	4	4	4	4	4	3	27	/35	3,857142857	/5
4	4	3	3	2	2	2	20	/35	2,857142857	/5
4	4	3	4	4	4	3	26	/35	3,714285714	/5
2	2	2	2	4	2	2	16	/35	2,285714286	/5
3	4	4	4	5	4	3	27	/35	3,857142857	/5
4	4	4	4	4	4	4	28	/35	4	/5
4	5	4	4	4	4	3	28	/35	4	/5
3	5	5	3	5	5	4	30	/35	4,285714286	/5
4	3	3	4	4	4	3	25	/35	3,571428571	/5
2	5	5	5	5	5	3	30	/35	4,285714286	/5
4	5	4	3	5	5	5	31	/35	4,428571429	/5
4	4	4	4	4	3	2	25	/35	3,571428571	/5
4	5	5	5	5	5	5	34	/35	4,857142857	/5
4	4	4	3	4	4	4	27	/35	3,857142857	/5
3	4	4	3	4	2	3	23	/35	3,285714286	/5
5	5	4	5	5	4	4	32	/35	4,571428571	/5
4	5	3	3	5	3	2	25	/35	3,571428571	/5
4	4	5	4	4	4	4	29	/35	4,142857143	/5
2	4	4	4	4	4	3	25	/35	3,571428571	/5
2	4	3	3	4	5	2	23	/35	3,285714286	/5
5	4	4	4	5	4	2	28	/35	4	/5
3	4	4	3	5	3	4	26	/35	3,714285714	/5
4	2	2	2	2	2	1	15	/35	2,142857143	/5
4	4	4	3	5	5	3	28	/35	4	/5
4	4	4	4	4	4	3	27	/35	3,857142857	/5
2	4	2	2	4	3	2	19	/35	2,714285714	/5
5	5	5	3	5	5	5	33	/35	4,714285714	/5
4	4	5	4	4	4	4	29	/35	4,142857143	/5
3	4	5	4	5	4	3	28	/35	4	/5
5	5	5	5	5	2	2	29	/35	4,142857143	/5
5	4	4	4	4	4	1	26	/35	3,714285714	/5
4	2	4	4	4	4	3	25	/35	3,571428571	/5
4	4	4	3	4	4	2	25	/35	3,571428571	/5
4	2	2	2	4	2	2	18	/35	2,571428571	/5
4	4	4	4	4	4	4	28	/35	4	/5
5	4	4	4	5	4	4	30	/35	4,285714286	/5
5	5	4	4	5	2	2	27	/35	3,857142857	/5
4	4	5	3	4	5	4	29	/35	4,142857143	/5
4	3	4	4	4	5	3	27	/35	3,857142857	/5
4	2	3	4	4	4	2	23	/35	3,285714286	/5
4	4	4	4	5	5	4	30	/35	4,285714286	/5
3	3	3	3	3	3	2	20	/35	2,857142857	/5

3	4	4	4	4	4	3	26	/35	3,714285714	/5
4	4	4	4	4	4	3	27	/35	3,857142857	/5
2	4	4	2	4	2	2	20	/35	2,857142857	/5
4	5	4	4	5	4	3	29	/35	4,142857143	/5
5	5	4	4	5	3	1	27	/35	3,857142857	/5
3	4	2	3	4	3	2	21	/35	3	/5
3	4	4	2	4	3	2	22	/35	3,142857143	/5
4	4	5	5	4	4	5	31	/35	4,428571429	/5
4	5	5	5	5	5	4	33	/35	4,714285714	/5
4	5	4	4	4	2	3	26	/35	3,714285714	/5
2	4	3	2	4	2	1	18	/35	2,571428571	/5
4	4	4	3	4	4	4	27	/35	3,857142857	/5
1	3	4	3	5	4	3	23	/35	3,285714286	/5
4	4	4	4	4	4	4	28	/35	4	/5
3	4	4	4	4	3	4	26	/35	3,714285714	/5
4	4	4	4	4	4	4	28	/35	4	/5
5	4	4	4	4	4	3	28	/35	4	/5
4	5	4	4	4	4	3	28	/35	4	/5
3	4	4	4	4	4	3	26	/35	3,714285714	/5
4	3	4	3	5	3	2	24	/35	3,428571429	/5
4	4	5	4	4	4	3	28	/35	4	/5
4	4	4	4	4	4	4	28	/35	4	/5
5	5	4	4	5	5	4	32	/35	4,571428571	/5
3	5	4	4	4	4	4	28	/35	4	/5
3	4	4	4	4	3	4	26	/35	3,714285714	/5
2	2	3	4	4	4	3	22	/35	3,142857143	/5
3	4	4	4	5	4	4	28	/35	4	/5
4	4	4	2	4	2	4	24	/35	3,428571429	/5
5	5	5	5	5	5	5	35	/35	5	/5
4	4	4	4	5	5	4	30	/35	4,285714286	/5
4	5	4	3	4	5	4	29	/35	4,142857143	/5
5	5	5	5	5	5	5	35	/35	5	/5
5	5	5	5	5	5	5	35	/35	5	/5
3	5	5	3	4	4	4	28	/35	4	/5
2	4	4	3	4	3	2	22	/35	3,142857143	/5
4	4	3	4	4	2	2	23	/35	3,285714286	/5
4	5	4	5	4	4	4	30	/35	4,285714286	/5
5	4	5	4	5	5	4	32	/35	4,571428571	/5
2	2	2	2	4	3	2	17	/35	2,428571429	/5
4	5	4	4	5	4	4	30	/35	4,285714286	/5
4	4	4	4	5	3	2	26	/35	3,714285714	/5
4	4	4	4	4	4	4	28	/35	4	/5
2	5	4	4	4	3	3	25	/35	3,571428571	/5
3	4	4	3	4	3	1	22	/35	3,142857143	/5
4	5	4	4	5	4	4	30	/35	4,285714286	/5
2	5	4	4	4	4	4	27	/35	3,857142857	/5
4	5	4	4	5	4	3	29	/35	4,142857143	/5
3	5	5	4	5	5	3	30	/35	4,285714286	/5

2	4	3	2	4	3	3	21	/35	3	/5
4	5	4	4	5	5	4	31	/35	4,428571429	/5
3	3	3	4	4	2	2	21	/35	3	/5
5	5	4	5	5	4	2	30	/35	4,285714286	/5
5	5	5	5	5	5	5	35	/35	5	/5
3	4	3	3	4	3	2	22	/35	3,142857143	/5
4	4	4	4	3	3	3	25	/35	3,571428571	/5
3	3	4	4	5	3	2	24	/35	3,428571429	/5
3	4	4	4	4	3	2	24	/35	3,428571429	/5
4	4	4	4	4	4	4	28	/35	4	/5
3	5	5	5	5	5	3	31	/35	4,428571429	/5
3	2	1	2	2	2	1	13	/35	1,857142857	/5
4	4	4	4	4	4	4	28	/35	4	/5
3	4	3	3	4	3	3	23	/35	3,285714286	/5
3	4	5	3	5	5	5	30	/35	4,285714286	/5
2	4	4	4	5	3	2	24	/35	3,428571429	/5
4	4	4	4	4	3	3	26	/35	3,714285714	/5
5	5	4	4	5	4	4	31	/35	4,428571429	/5
4	5	5	4	5	4	4	31	/35	4,428571429	/5
4	5	5	5	5	5	5	34	/35	4,857142857	/5
3	4	4	3	4	4	3	25	/35	3,571428571	/5
4	4	2	1	4	3	1	19	/35	2,714285714	/5
4	4	4	4	4	4	3	27	/35	3,857142857	/5
4	4	4	2	4	4	4	26	/35	3,714285714	/5
4	3	4	4	4	4	2	25	/35	3,571428571	/5
4	5	3	3	4	3	3	25	/35	3,571428571	/5
3	4	4	3	4	3	3	24	/35	3,428571429	/5
4	5	4	2	5	4	3	27	/35	3,857142857	/5
3	3	2	2	4	3	2	19	/35	2,714285714	/5
2	3	3	3	4	4	2	21	/35	3	/5
4	4	4	2	4	2	3	23	/35	3,285714286	/5
3	4	4	4	4	4	3	26	/35	3,714285714	/5
4	5	4	4	4	3	2	26	/35	3,714285714	/5
4	3	4	4	4	3	2	24	/35	3,428571429	/5
2	2	2	2	4	4	3	19	/35	2,714285714	/5
4	4	4	4	5	3	2	26	/35	3,714285714	/5
2	4	4	3	4	3	2	22	/35	3,142857143	/5
3	3	4	4	4	4	3	25	/35	3,571428571	/5
5	5	5	2	5	3	2	27	/35	3,857142857	/5
4	2	3	2	4	2	1	18	/35	2,571428571	/5
4	4	4	4	4	4	4	28	/35	4	/5
4	5	4	3	4	3	4	27	/35	3,857142857	/5
5	4	3	4	4	4	4	28	/35	4	/5
5	5	4	4	5	4	4	31	/35	4,428571429	/5
5	5	5	2	5	5	4	31	/35	4,428571429	/5
4	4	4	4	4	4	3	27	/35	3,857142857	/5
4	4	3	3	4	4	3	25	/35	3,571428571	/5
5	5	5	5	5	4	2	31	/35	4,428571429	/5

4	4	4	4	4	4	3	27	/35	3,857142857	/5
2	4	3	2	5	2	2	20	/35	2,857142857	/5
4	2	3	2	4	3	2	20	/35	2,857142857	/5
1	3	2	2	2	2	2	14	/35	2	/5
4	4	4	4	4	2	1	23	/35	3,285714286	/5
3	4	3	3	4	3	3	23	/35	3,285714286	/5
3	4	4	4	4	4	3	26	/35	3,714285714	/5
3	2	3	3	4	3	2	20	/35	2,857142857	/5
2	5	4	1	4	2	2	20	/35	2,857142857	/5
3	4	4	3	4	4	3	25	/35	3,571428571	/5
4	5	5	5	5	5	3	32	/35	4,571428571	/5
4	4	4	4	4	4	4	28	/35	4	/5
3	4	4	3	3	3	3	23	/35	3,285714286	/5
3	4	4	2	4	4	4	25	/35	3,571428571	/5
4	4	4	4	4	4	3	27	/35	3,857142857	/5
3	4	4	3	4	3	2	23	/35	3,285714286	/5
3	3	3	3	3	3	1	19	/35	2,714285714	/5
4	3	4	5	4	3	2	25	/35	3,571428571	/5
4	5	4	4	5	5	5	32	/35	4,571428571	/5
2	4	3	4	4	3	2	22	/35	3,142857143	/5
4	3	3	2	4	3	2	21	/35	3	/5
4	4	4	4	3	3	4	26	/35	3,714285714	/5
5	5	5	3	5	3	3	29	/35	4,142857143	/5
3	4	4	3	4	3	3	24	/35	3,428571429	/5
3	4	4	5	4	4	4	28	/35	4	/5
4	4	3	3	4	4	2	24	/35	3,428571429	/5
3	3	5	4	5	4	4	28	/35	4	/5
3	5	4	4	4	4	2	26	/35	3,714285714	/5
4	2	4	4	4	4	4	26	/35	3,714285714	/5
3	4	4	2	4	3	2	22	/35	3,142857143	/5
2	4	4	3	4	3	2	22	/35	3,142857143	/5
4	4	4	4	4	4	3	27	/35	3,857142857	/5
2	4	4	2	4	2	4	22	/35	3,142857143	/5
5	5	5	5	4	4	2	30	/35	4,285714286	/5
5	4	5	5	5	4	3	31	/35	4,428571429	/5
3	4	3	3	3	2	2	20	/35	2,857142857	/5
4	5	4	4	5	4	4	30	/35	4,285714286	/5
2	3	3	3	4	3	2	20	/35	2,857142857	/5
2	4	4	3	4	4	4	25	/35	3,571428571	/5
4	4	5	4	3	2	2	24	/35	3,428571429	/5
2	4	4	4	5	4	3	26	/35	3,714285714	/5
4	4	3	3	3	4	3	24	/35	3,428571429	/5
2	5	5	5	5	4	4	30	/35	4,285714286	/5
1	4	4	4	4	4	3	24	/35	3,428571429	/5
1	3	3	2	4	2	3	18	/35	2,571428571	/5
2	4	4	3	4	3	1	21	/35	3	/5
4	4	4	4	5	4	3	28	/35	4	/5
2	5	4	4	5	5	2	27	/35	3,857142857	/5

3	5	5	5	5	5	5	33	/35	4,714285714	/5
5	2	5	4	5	5	5	31	/35	4,428571429	/5
4	4	4	4	4	3	3	26	/35	3,714285714	/5
4	5	4	4	5	4	4	30	/35	4,285714286	/5
4	2	4	4	4	3	2	23	/35	3,285714286	/5
4	5	4	4	4	3	2	26	/35	3,714285714	/5
4	5	5	5	5	4	2	30	/35	4,285714286	/5
4	4	5	3	5	2	2	25	/35	3,571428571	/5
3	5	4	4	4	4	4	28	/35	4	/5
4	4	4	3	5	4	3	27	/35	3,857142857	/5
4	5	4	4	4	4	4	29	/35	4,142857143	/5
3	4	4	4	4	2	2	23	/35	3,285714286	/5
5	4	5	4	4	5	5	32	/35	4,571428571	/5
4	4	4	4	4	4	3	27	/35	3,857142857	/5
4	5	4	3	5	4	3	28	/35	4	/5
4	5	5	5	5	5	4	33	/35	4,714285714	/5
3	4	4	3	5	5	2	26	/35	3,714285714	/5
1	5	5	4	3	4	4	26	/35	3,714285714	/5
5	5	4	4	5	5	3	31	/35	4,428571429	/5
5	4	4	4	5	4	4	30	/35	4,285714286	/5
4	5	5	4	4	3	3	28	/35	4	/5
4	5	4	4	5	4	3	29	/35	4,142857143	/5
5	4	4	4	4	3	4	28	/35	4	/5
4	3	4	3	5	4	2	25	/35	3,571428571	/5
4	4	4	4	4	3	3	26	/35	3,714285714	/5
3	4	4	4	4	4	4	27	/35	3,857142857	/5
4	5	5	4	4	4	3	29	/35	4,142857143	/5
4	5	4	4	4	4	2	27	/35	3,857142857	/5
4	5	4	4	4	4	3	28	/35	4	/5
4	4	4	3	4	4	4	27	/35	3,857142857	/5
5	5	4	4	5	5	4	32	/35	4,571428571	/5
4	5	5	4	3	4	3	28	/35	4	/5
3	5	4	4	4	4	4	28	/35	4	/5
4	4	4	4	4	4	4	28	/35	4	/5
4	4	4	4	5	3	3	27	/35	3,857142857	/5
3	4	4	4	4	4	4	27	/35	3,857142857	/5
5	5	4	4	5	2	4	29	/35	4,142857143	/5
4	4	4	4	4	4	3	27	/35	3,857142857	/5
5	5	5	4	4	4	3	30	/35	4,285714286	/5
4	4	4	4	4	3	3	26	/35	3,714285714	/5
1	4	3	2	2	2	2	16	/35	2,285714286	/5

OVER 13	OVER 15	OVER 16	OVER 17	OVER 18	OVER 13 omdraaien	Sum of the statement scores		Divided by # statements			Average benefits component score
3	2	2	2	4	3	13	/25	2,6	/5	792,4	2,881454545
3	3	1	1	4	3	12	/25	2,4	/5		

3	3	3	2	2	3	13	/25	2,6	/5
2	4	4	2	5	4	19	/25	3,8	/5
2	3	4	3	5	4	19	/25	3,8	/5
4	2	4	2	4	2	14	/25	2,8	/5
4	2	3	2	3	2	12	/25	2,4	/5
4	4	4	1	2	2	13	/25	2,6	/5
3	3	2	2	2	3	12	/25	2,4	/5
4	2	2	3	3	2	12	/25	2,4	/5
3	3	3	1	4	3	14	/25	2,8	/5
4	3	2	3	3	2	13	/25	2,6	/5
1	3	2	3	4	5	17	/25	3,4	/5
3	4	1	1	3	3	12	/25	2,4	/5
3	4	4	1	4	3	16	/25	3,2	/5
3	2	2	2	3	3	12	/25	2,4	/5
3	1	2	2	4	3	12	/25	2,4	/5
4	2	2	2	3	2	11	/25	2,2	/5
2	4	4	2	4	4	18	/25	3,6	/5
2	3	3	2	4	4	16	/25	3,2	/5
2	3	3	2	4	4	16	/25	3,2	/5
2	3	4	3	3	4	17	/25	3,4	/5
3	2	3	2	3	3	13	/25	2,6	/5
2	3	2	2	3	4	14	/25	2,8	/5
3	4	3	2	4	3	16	/25	3,2	/5
2	4	3	2	4	4	17	/25	3,4	/5
2	4	3	2	3	4	16	/25	3,2	/5
3	2	2	2	3	3	12	/25	2,4	/5
2	2	2	2	3	4	13	/25	2,6	/5
2	3	3	2	4	4	16	/25	3,2	/5
2	2	2	2	3	4	13	/25	2,6	/5
2	3	3	3	4	4	17	/25	3,4	/5
1	4	2	3	2	5	16	/25	3,2	/5
2	2	2	2	2	4	12	/25	2,4	/5
4	2	2	2	4	2	12	/25	2,4	/5
2	2	2	1	4	4	13	/25	2,6	/5
4	3	3	2	3	2	13	/25	2,6	/5
3	1	5	1	5	3	15	/25	3	/5
4	2	4	1	4	2	13	/25	2,6	/5
3	2	2	2	4	3	13	/25	2,6	/5
1	4	3	2	3	5	17	/25	3,4	/5
3	1	3	1	4	3	12	/25	2,4	/5
4	2	2	2	4	2	12	/25	2,4	/5
4	1	1	1	1	2	6	/25	1,2	/5
4	3	3	2	4	2	14	/25	2,8	/5
2	3	3	1	4	4	15	/25	3	/5
3	2	2	1	4	3	12	/25	2,4	/5
3	2	2	2	3	3	12	/25	2,4	/5
2	4	4	2	4	4	18	/25	3,6	/5
2	3	3	4	4	4	18	/25	3,6	/5

2	2	2	2	2	4	12	/25	2,4 /5
1	4	4	3	4	5	20	/25	4 /5
4	2	2	1	2	2	9	/25	1,8 /5
2	4	3	2	4	4	17	/25	3,4 /5
1	3	4	2	2	5	16	/25	3,2 /5
4	2	2	2	4	2	12	/25	2,4 /5
4	3	4	2	4	2	15	/25	3 /5
3	1	4	2	4	3	14	/25	2,8 /5
2	3	3	1	3	4	14	/25	2,8 /5
2	4	3	3	3	4	17	/25	3,4 /5
5	2	2	1	4	1	10	/25	2 /5
3	2	2	2	2	3	11	/25	2,2 /5
1	4	4	4	4	5	21	/25	4,2 /5
2	2	2	2	4	4	14	/25	2,8 /5
2	2	2	2	3	4	13	/25	2,6 /5
3	4	4	2	4	3	17	/25	3,4 /5
3	2	2	1	4	3	12	/25	2,4 /5
1	3	4	2	4	5	18	/25	3,6 /5
2	1	1	2	2	4	10	/25	2 /5
3	2	2	2	4	3	13	/25	2,6 /5
2	2	4	2	4	4	16	/25	3,2 /5
2	4	2	2	3	4	15	/25	3 /5
3	2	2	2	3	3	12	/25	2,4 /5
4	4	4	3	4	2	17	/25	3,4 /5
1	3	4	2	4	5	18	/25	3,6 /5
4	2	1	2	2	2	9	/25	1,8 /5
4	3	3	2	4	2	14	/25	2,8 /5
2	2	2	2	4	4	14	/25	2,8 /5
4	2	2	2	4	2	12	/25	2,4 /5
2	3	2	2	4	4	15	/25	3 /5
3	2	2	1	3	3	11	/25	2,2 /5
2	2	2	2	4	4	14	/25	2,8 /5
2	2	2	2	2	4	12	/25	2,4 /5
3	4	3	2	3	3	15	/25	3 /5
3	2	2	3	4	3	14	/25	2,8 /5
3	3	3	1	4	3	14	/25	2,8 /5
3	4	2	1	5	3	15	/25	3 /5
3	2	3	2	3	3	13	/25	2,6 /5
4	2	2	2	4	2	12	/25	2,4 /5
2	3	3	3	4	4	17	/25	3,4 /5
2	2	2	1	2	4	11	/25	2,2 /5
3	3	2	2	3	3	13	/25	2,6 /5
2	3	4	2	4	4	17	/25	3,4 /5
2	2	1	1	3	4	11	/25	2,2 /5
4	4	2	2	5	2	15	/25	3 /5
2	2	2	1	5	4	14	/25	2,8 /5
4	2	3	2	2	2	11	/25	2,2 /5
4	2	2	1	2	2	9	/25	1,8 /5

3	2	2	1	2	3	10	/25	2	/5
2	2	2	2	4	4	14	/25	2,8	/5
2	5	3	3	4	4	19	/25	3,8	/5
2	4	4	1	5	4	18	/25	3,6	/5
3	2	3	1	3	3	12	/25	2,4	/5
3	4	3	2	4	3	16	/25	3,2	/5
2	3	3	2	4	4	16	/25	3,2	/5
4	2	2	2	3	2	11	/25	2,2	/5
3	2	2	2	3	3	12	/25	2,4	/5
3	2	2	2	2	3	11	/25	2,2	/5
3	4	3	2	4	3	16	/25	3,2	/5
3	5	3	2	3	3	16	/25	3,2	/5
1	4	3	2	4	5	18	/25	3,6	/5
2	4	4	2	4	4	18	/25	3,6	/5
3	1	1	3	3	3	11	/25	2,2	/5
4	3	2	2	2	2	11	/25	2,2	/5
3	2	3	3	3	3	14	/25	2,8	/5
3	2	2	2	4	3	13	/25	2,6	/5
2	4	4	2	4	4	18	/25	3,6	/5
3	4	4	3	4	3	18	/25	3,6	/5
3	2	2	1	2	3	10	/25	2	/5
4	3	3	2	3	2	13	/25	2,6	/5
3	2	2	2	3	3	12	/25	2,4	/5
2	4	1	1	1	4	11	/25	2,2	/5
2	3	2	1	4	4	14	/25	2,8	/5
2	4	3	2	4	4	17	/25	3,4	/5
2	3	2	3	4	4	16	/25	3,2	/5
2	4	3	2	4	4	17	/25	3,4	/5
3	4	3	2	2	3	14	/25	2,8	/5
4	3	2	1	3	2	11	/25	2,2	/5
2	4	2	2	4	4	16	/25	3,2	/5
2	3	2	2	4	4	15	/25	3	/5
2	4	3	3	5	4	19	/25	3,8	/5
3	2	3	2	2	3	12	/25	2,4	/5
1	3	3	2	4	5	17	/25	3,4	/5
2	3	3	3	3	4	16	/25	3,2	/5
4	3	2	1	3	2	11	/25	2,2	/5
2	4	2	2	3	4	15	/25	3	/5
2	4	3	2	4	4	17	/25	3,4	/5
2	2	2	1	4	4	13	/25	2,6	/5
3	3	2	2	4	3	14	/25	2,8	/5
4	2	1	1	2	2	8	/25	1,6	/5
1	4	3	2	4	5	18	/25	3,6	/5
3	4	4	2	4	3	17	/25	3,4	/5
5	3	1	1	4	1	10	/25	2	/5
4	3	3	3	3	2	14	/25	2,8	/5
2	4	4	3	5	4	20	/25	4	/5
2	2	2	2	4	4	14	/25	2,8	/5

1	4	3	3	3	5	18	/25	3,6	/5
2	3	4	3	4	4	18	/25	3,6	/5
3	2	3	2	4	3	14	/25	2,8	/5
1	5	3	3	4	5	20	/25	4	/5
3	2	2	1	4	3	12	/25	2,4	/5
4	3	3	3	4	2	15	/25	3	/5
2	3	2	2	4	4	15	/25	3	/5
3	4	3	2	3	3	15	/25	3	/5
4	3	2	2	4	2	13	/25	2,6	/5
2	2	2	2	4	4	14	/25	2,8	/5
2	3	3	2	3	4	15	/25	3	/5
4	2	2	2	4	2	12	/25	2,4	/5
4	2	2	2	3	2	11	/25	2,2	/5
1	3	3	2	5	5	18	/25	3,6	/5
2	4	2	2	4	4	16	/25	3,2	/5
2	4	4	2	4	4	18	/25	3,6	/5
2	3	2	2	4	4	15	/25	3	/5
2	2	2	1	4	4	13	/25	2,6	/5
2	4	3	3	4	4	18	/25	3,6	/5
1	2	1	1	3	5	12	/25	2,4	/5
2	2	2	2	3	4	13	/25	2,6	/5
2	3	2	2	3	4	14	/25	2,8	/5
3	2	2	2	5	3	14	/25	2,8	/5
3	3	3	2	3	3	14	/25	2,8	/5
3	3	3	3	4	3	16	/25	3,2	/5
3	4	2	3	4	3	16	/25	3,2	/5
3	3	3	2	4	3	15	/25	3	/5
2	1	3	1	4	4	13	/25	2,6	/5
2	4	4	3	4	4	19	/25	3,8	/5
1	4	3	2	4	5	18	/25	3,6	/5
2	1	2	1	5	4	13	/25	2,6	/5
2	1	4	3	3	4	15	/25	3	/5
2	4	4	2	4	4	18	/25	3,6	/5
2	3	4	2	4	4	17	/25	3,4	/5
2	4	3	2	4	4	17	/25	3,4	/5
3	3	4	3	4	3	17	/25	3,4	/5
2	1	1	1	1	4	8	/25	1,6	/5
4	2	2	2	2	2	10	/25	2	/5
2	3	4	3	4	4	18	/25	3,6	/5
4	4	4	2	5	2	17	/25	3,4	/5
2	2	2	1	4	4	13	/25	2,6	/5
3	4	3	3	4	3	17	/25	3,4	/5
2	2	3	2	3	4	14	/25	2,8	/5
2	3	3	2	3	4	15	/25	3	/5
2	4	3	1	3	4	15	/25	3	/5
4	2	2	2	3	2	11	/25	2,2	/5
3	2	1	2	4	3	12	/25	2,4	/5
2	3	3	2	4	4	16	/25	3,2	/5

1	4	3	1	4	5	17	/25	3,4 /5
5	2	2	2	3	1	10	/25	2 /5
3	5	1	1	3	3	13	/25	2,6 /5
2	3	2	2	2	4	13	/25	2,6 /5
2	3	3	3	4	4	17	/25	3,4 /5
2	2	2	3	4	4	15	/25	3 /5
2	2	3	2	4	4	15	/25	3 /5
2	3	3	3	3	4	16	/25	3,2 /5
2	2	1	2	4	4	13	/25	2,6 /5
2	4	4	4	4	4	20	/25	4 /5
2	4	3	1	3	4	15	/25	3 /5
2	4	2	5	4	4	19	/25	3,8 /5
2	2	2	3	4	4	15	/25	3 /5
2	3	4	2	4	4	17	/25	3,4 /5
1	3	1	2	4	5	15	/25	3 /5
4	2	1	1	3	2	9	/25	1,8 /5
3	4	4	1	3	3	15	/25	3 /5
2	4	4	2	4	4	18	/25	3,6 /5
3	3	3	3	4	3	16	/25	3,2 /5
2	2	2	1	5	4	14	/25	2,8 /5
3	2	2	2	2	3	11	/25	2,2 /5
2	4	4	3	4	4	19	/25	3,8 /5
1	2	2	2	4	5	15	/25	3 /5
4	3	2	2	3	2	12	/25	2,4 /5
1	4	4	1	5	5	19	/25	3,8 /5
4	2	3	3	5	2	15	/25	3 /5
2	3	3	2	4	4	16	/25	3,2 /5
3	3	3	2	5	3	16	/25	3,2 /5
2	3	2	2	4	4	15	/25	3 /5
2	3	3	3	3	4	16	/25	3,2 /5
1	4	2	2	2	5	15	/25	3 /5
1	4	2	2	3	5	16	/25	3,2 /5
3	4	3	3	5	3	18	/25	3,6 /5
2	3	3	2	2	4	14	/25	2,8 /5
4	5	2	2	4	2	15	/25	3 /5
1	4	3	1	3	5	16	/25	3,2 /5
2	4	4	1	3	4	16	/25	3,2 /5
3	4	2	2	4	3	15	/25	3 /5
3	2	2	1	4	3	12	/25	2,4 /5
2	2	2	1	4	4	13	/25	2,6 /5
3	2	2	2	2	3	11	/25	2,2 /5
4	2	1	1	2	2	8	/25	1,6 /5
2	4	3	2	4	4	17	/25	3,4 /5
2	2	1	1	4	4	12	/25	2,4 /5
2	3	3	2	3	4	15	/25	3 /5
2	3	2	2	3	4	14	/25	2,8 /5
2	4	2	1	5	4	16	/25	3,2 /5
1	2	4	2	4	5	17	/25	3,4 /5

2	4	4	2	4	4	18	/25	3,6	/5
2	3	4	2	4	4	17	/25	3,4	/5
4	1	2	1	3	2	9	/25	1,8	/5
2	4	4	2	4	4	18	/25	3,6	/5
3	3	3	2	4	3	15	/25	3	/5
4	2	3	2	4	2	13	/25	2,6	/5
3	3	4	1	4	3	15	/25	3	/5
4	2	1	1	1	2	7	/25	1,4	/5
1	3	3	2	4	5	17	/25	3,4	/5
3	2	2	2	3	3	12	/25	2,4	/5
3	2	2	2	4	3	13	/25	2,6	/5
2	2	2	2	4	4	14	/25	2,8	/5
3	3	3	2	3	3	14	/25	2,8	/5
2	2	2	2	4	4	14	/25	2,8	/5
2	5	3	2	4	4	18	/25	3,6	/5
1	2	2	1	4	5	14	/25	2,8	/5
3	3	3	3	4	3	16	/25	3,2	/5
3	3	2	2	3	3	13	/25	2,6	/5
3	3	2	2	4	3	14	/25	2,8	/5
3	3	3	2	4	3	15	/25	3	/5
3	4	4	2	4	3	17	/25	3,4	/5
3	3	3	2	3	3	14	/25	2,8	/5
4	2	1	1	2	2	8	/25	1,6	/5
1	4	3	2	4	5	18	/25	3,6	/5
3	2	2	2	4	3	13	/25	2,6	/5
3	2	2	2	4	3	13	/25	2,6	/5
3	3	2	2	4	3	14	/25	2,8	/5
3	2	2	2	3	3	12	/25	2,4	/5
2	4	4	2	5	4	19	/25	3,8	/5
1	2	2	2	4	5	15	/25	3	/5
2	2	2	2	3	4	13	/25	2,6	/5
3	3	3	2	3	3	14	/25	2,8	/5
4	2	2	2	4	2	12	/25	2,4	/5

Appendix 31: RESULTS OF LINEAR REGRESSION, ASSOCIATION BETWEEN THE INDIVIDUAL BELIEFS AND THE WORKING METHODS (BELGIAN STUDY)

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,647	,149		11,087	<,001
	The threats component scores	-,127	,039	-,194	-3,267	,001

a. Dependent Variable: 1[Bij start van een opioïde aan de patiënt vertellen dat er een risico op verslaving is] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,029	,122		8,425	<,001
	The benefits component scores	,048	,042	,069	1,150	,251

a. Dependent Variable: 1[Bij start van een opioïde aan de patiënt vertellen dat er een risico op verslaving is] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,167	,039		29,547	<,001
	Wat is uw geslacht?	,001	,048	,001	,019	,985

a. Dependent Variable: 1[Bij start van een opioïde aan de patiënt vertellen dat er een risico op verslaving is] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,114	,081		13,736	<,001
	Wat is uw leeftijd?	,001	,002	,041	,686	,493

a. Dependent Variable: 1[Bij start van een opioïde aan de patiënt vertellen dat er een risico op verslaving is] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,593	,265		6,019	<,001
	Wat is uw geslacht?	,021	,049	,027	,431	,667
	Wat is uw leeftijd?	,001	,002	,040	,655	,513
	The threats component scores	-,128	,042	-,196	-3,022	,003
	The benefits component scores	-,003	,045	-,004	-,056	,955

a. Dependent Variable: 1[Bij start van een opioïde aan de patiënt vertellen dat er een risico op verslaving is] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,937	,186		10,441	<,001
	The threats component scores	-,163	,049	-,199	-3,363	<,001

a. Dependent Variable: 2[Bij herhalen van opioïdevoorschrift aan de patiënt vertellen dat er risico op verslaving is] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,297	,153		8,476	<,001
	The benefits component scores	,008	,052	,009	,151	,880

a. Dependent Variable: 2[Bij herhalen van opioïdevoorschrift aan de patiënt vertellen dat er risico op verslaving is] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,267	,049		25,749	<,001
	Wat is uw geslacht?	,079	,060	,080	1,322	,187

a. Dependent Variable: 2[Bij herhalen van opioïdevoorschrift aan de patiënt vertellen dat er risico op verslaving is] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,630	,100		16,375	<,001
	Wat is uw leeftijd?	-,007	,002	-,193	-3,243	,001

a. Dependent Variable: 2[Bij herhalen van opioïdevoorschrift aan de patiënt vertellen dat er risico op verslaving is] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,556	,322		7,930	<,001
	Wat is uw geslacht?	,043	,060	,043	,715	,475
	Wat is uw leeftijd?	-,007	,002	-,192	-3,200	,002
	The threats component scores	-,199	,052	-,243	-3,840	<,001
	The benefits component scores	-,071	,055	-,083	-1,304	,193

a. Dependent Variable: 2[Bij herhalen van opioïdevoorschrift aan de patiënt vertellen dat er risico op verslaving is] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,284	,208		10,985	<,001
	Wat is uw leeftijd?	-,008	,002	-,201	-3,448	<,001
	The threats component scores	-,170	,048	-,207	-3,562	<,001

a. Dependent Variable: 2[Bij herhalen van opioïdevoorschrift aan de patiënt vertellen dat er risico op verslaving is] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,916	,105		18,180	<,001
	The threats component scores	,003	,028	,007	,109	,914

a. Dependent Variable: 3[Maandelijks gesprek tussen apotheker met patiënt na starten van opioïde] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,048	,085		24,127	<,001
	The benefits component scores	-,042	,029	-,087	-1,448	,149

a. Dependent Variable: 3[Maandelijks gesprek tussen apotheker met patiënt na starten van opioïde] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,944	,027		70,850	<,001
	Wat is uw geslacht?	-,026	,033	-,046	-,763	,446

a. Dependent Variable: 3[Maandelijks gesprek tussen apotheker met patiënt na starten van opioïde] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,986	,056		35,241	<,001
	Wat is uw leeftijd?	-,001	,001	-,065	-1,083	,280

a. Dependent Variable: 3[Maandelijks gesprek tussen apotheker met patiënt na starten van opioïde] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,242	,186		12,039	<,001
	Wat is uw geslacht?	-,042	,035	-,077	-1,221	,223
	Wat is uw leeftijd?	-,002	,001	-,087	-1,391	,165
	The threats component scores	-,015	,030	-,033	-,505	,614
	The benefits component scores	-,052	,032	-,109	-1,661	,098

a. Dependent Variable: 3[Maandelijks gesprek tussen apotheker met patiënt na starten van opioïde] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,057	,086		23,948	<,001
	The threats component scores	-,028	,022	-,074	-1,227	,221

a. Dependent Variable: 4[Bij elk voorschrift gesprek tussen huisarts en patiënt] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,908	,070		27,416	<,001
	The benefits component scores	,016	,024	,040	,660	,510

a. Dependent Variable: 4[Bij elk voorschrift gesprek tussen huisarts en patiënt] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,944	,022		86,637	<,001
	Wat is uw geslacht?	,012	,027	,027	,450	,653

a. Dependent Variable: 4[Bij elk voorschrift gesprek tussen huisarts en patiënt] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,014	,046		43,800	<,001
	Wat is uw leeftijd?	-,001	,001	-,084	-1,393	,165

a. Dependent Variable: 4[Bij elk voorschrift gesprek tussen huisarts en patiënt] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,100	,153		13,765	<,001
	Wat is uw geslacht?	,006	,028	,014	,222	,825
	Wat is uw leeftijd?	-,001	,001	-,083	-1,334	,183
	The threats component scores	-,027	,024	-,074	-1,123	,262
	The benefits component scores	,005	,026	,012	,179	,858

a. Dependent Variable: 4[Bij elk voorschrift gesprek tussen huisarts en patiënt] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,789	,105		17,030	<,001
	The threats component scores	,037	,027	,080	1,331	,184

a. Dependent Variable: 5[Beperking op aantal dagen op voorschrift (bv. voor een duur van max 2 weken kan het opioïde voorgeschreven worden)] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,148	,084		25,541	<,001
	The benefits component scores	-,077	,029	-,160	-2,675	,008

a. Dependent Variable: 5[Beperking op aantal dagen op voorschrift (bv. voor een duur van max 2 weken kan het opioïde voorgeschreven worden)] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,944	,027		70,850	<,001
	Wat is uw geslacht?	-,026	,033	-,046	-,763	,446

a. Dependent Variable: 5[Beperking op aantal dagen op voorschrift (bv. voor een duur van max 2 weken kan het opioïde voorgeschreven worden)] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,007	,056		35,675	<,001
	Wat is uw leeftijd?	-,002	,001	-,089	-1,471	,142

a. Dependent Variable: 5[Beperking op aantal dagen op voorschrift (bv. voor een duur van max 2 weken kan het opioïde voorgeschreven worden)] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,254	,184		12,252	<,001
	Wat is uw geslacht?	-,051	,034	-,093	-1,502	,134
	Wat is uw leeftijd?	-,002	,001	-,112	-1,827	,069
	The threats component scores	,009	,030	,020	,309	,758
	The benefits component scores	-,078	,031	-,163	-2,510	,013

a. Dependent Variable: 5[Beperking op aantal dagen op voorschrift (bv. voor een duur van max 2 weken kan het opioïde voorgeschreven worden)] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,814	,142		12,815	<,001
	The threats component scores	,012	,037	,019	,315	,753

a. Dependent Variable: 6[Vooraf afspraken maken met de patiënt over de duur van de behandeling] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,981	,114		17,342	<,001
	The benefits component scores	-,043	,039	-,066	-1,093	,276

a. Dependent Variable: 6[Vooraf afspraken maken met de patiënt over de duur van de behandeling] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,900	,037		51,660	<,001
	Wat is uw geslacht?	-,062	,045	-,084	-1,386	,167

a. Dependent Variable: 6[Vooraf afspraken maken met de patiënt over de duur van de behandeling] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,784	,076		23,562	<,001
	Wat is uw leeftijd?	,002	,002	,061	1,018	,310

a. Dependent Variable: 6[Vooraf afspraken maken met de patiënt over de duur van de behandeling] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,994	,251		7,954	<,001
	Wat is uw geslacht?	-,061	,047	-,081	-1,297	,196
	Wat is uw leeftijd?	,001	,002	,041	,649	,517
	The threats component scores	-,001	,040	-,002	-,029	,977
	The benefits component scores	-,048	,043	-,075	-1,139	,256

a. Dependent Variable: 6[Vooraf afspraken maken met de patiënt over de duur van de behandeling] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,965	,095		20,690	<,001
	The threats component scores	-,006	,025	-,015	-,251	,802

a. Dependent Variable: 7[Een extra melding van uw software bij herhalen van een opioïdevoorschrift] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,888	,077		24,602	<,001
	The benefits component scores	,019	,026	,043	,714	,476

a. Dependent Variable: 7[Een extra melding van uw software bij herhalen van een opioïdevoorschrift] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,911	,025		77,494	<,001
	Wat is uw geslacht?	,046	,030	,091	1,518	,130

a. Dependent Variable: 7[Een extra melding van uw software bij herhalen van een opioïdevoorschrift] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,008	,051		39,576	<,001
	Wat is uw leeftijd?	-,002	,001	-,082	-1,356	,176

a. Dependent Variable: 7[Een extra melding van uw software bij herhalen van een opioïdevoorschrift] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,910	,168		11,357	<,001
	Wat is uw geslacht?	,041	,031	,082	1,307	,192
	Wat is uw leeftijd?	-,001	,001	-,061	-,981	,327
	The threats component scores	-,002	,027	-,005	-,077	,939
	The benefits component scores	,021	,029	,049	,750	,454

a. Dependent Variable: 7[Een extra melding van uw software bij herhalen van een opioïdevoorschrift] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,944	,121		16,104	<,001
	The threats component scores	-,011	,032	-,022	-,356	,722

a. Dependent Variable: 8[Afspraken over het afleveren van opioïden tijdens de wachtdienst] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,802	,097		18,488	<,001
	The benefits component scores	,035	,033	,063	1,047	,296

a. Dependent Variable: 8[Afspraken over het afleveren van opioïden tijdens de wachtdienst] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,922	,031		61,131	<,001
	Wat is uw geslacht?	-,030	,038	-,048	-,791	,430

a. Dependent Variable: 8[Afspraken over het afleveren van opioïden tijdens de wachtdienst] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,007	,064		31,172	<,001
	Wat is uw leeftijd?	-,003	,001	-,102	-1,694	,091

a. Dependent Variable: 8[Afspraken over het afleveren van opioïden tijdens de wachtdienst] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,966	,213		9,215	<,001
	Wat is uw geslacht?	-,045	,040	-,071	-1,141	,255
	Wat is uw leeftijd?	-,003	,002	-,119	-1,912	,057
	The threats component scores	,001	,034	,001	,015	,988
	The benefits component scores	,030	,036	,055	,834	,405

a. Dependent Variable: 8[Afspraken over het afleveren van opioïden tijdens de wachtdienst] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,926	,155		12,413	<,001
	The threats component scores	-,028	,041	-,041	-,680	,497

a. Dependent Variable: 9[Afspraken tussen huisartsen en apothekers over herhalen van opioïdevoorschriften] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,815	,126		14,455	<,001
	The benefits component scores	,002	,043	,003	,056	,956

a. Dependent Variable: 9[Afspraken tussen huisartsen en apothekers over herhalen van opioïdevoorschriften] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,811	,040		44,745	<,001
	Wat is uw geslacht?	,016	,049	,020	,323	,747

a. Dependent Variable: 9[Afspraken tussen huisartsen en apothekers over herhalen van opioïdevoorschriften] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,854	,083		22,283	<,001
	Wat is uw leeftijd?	-,001	,002	-,024	-,400	,690

a. Dependent Variable: 9[Afspraken tussen huisartsen en apothekers over herhalen van opioïdevoorschriften] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,995	,277		7,212	<,001
	Wat is uw geslacht?	,013	,052	,017	,262	,794
	Wat is uw leeftijd?	-,001	,002	-,022	-,353	,725
	The threats component scores	-,033	,044	-,049	-,739	,461
	The benefits component scores	-,010	,047	-,014	-,213	,832

a. Dependent Variable: 9[Afspraken tussen huisartsen en apothekers over herhalen van opioïdevoorschriften] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,976	,108		18,343	<,001
	The threats component scores	-,014	,028	-,030	-,493	,623

a. Dependent Variable: 10[Medisch-Farmaceutisch Overleg (MFO) over opioïdegebruik bij chronische niet-maligne pijn] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,034	,087		23,416	<,001
	The benefits component scores	-,038	,030	-,078	-1,296	,196

a. Dependent Variable: 10[Medisch-Farmaceutisch Overleg (MFO) over opioïdegebruik bij chronische niet-maligne pijn] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,878	,028		67,322	<,001
	Wat is uw geslacht?	,068	,034	,120	2,005	,046

a. Dependent Variable: 10[Medisch-Farmaceutisch Overleg (MFO) over opioïdegebruik bij chronische niet-maligne pijn] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,966	,058		34,079	<,001
	Wat is uw leeftijd?	-,001	,001	-,046	-,766	,444

a. Dependent Variable: 10[Medisch-Farmaceutisch Overleg (MFO) over opioïdegebruik bij chronische niet-maligne pijn] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,176	,190		11,459	<,001
	Wat is uw geslacht?	,063	,035	,111	1,773	,077
	Wat is uw leeftijd?	-,001	,001	-,023	-,369	,712
	The threats component scores	-,036	,030	-,077	-1,184	,237
	The benefits component scores	-,048	,032	-,097	-1,475	,141

a. Dependent Variable: 10[Medisch-Farmaceutisch Overleg (MFO) over opioïdegebruik bij chronische niet-maligne pijn] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,896	,069		27,591	<,001
	Wat is uw geslacht?	,066	,035	,116	1,869	,063
	Wat is uw leeftijd?	,000	,001	-,018	-,284	,777

a. Dependent Variable: 10[Medisch-Farmaceutisch Overleg (MFO) over opioïdegebruik bij chronische niet-maligne pijn] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1,947	,108		18,015	<,001
	Wat is uw geslacht?	,070	,034	,124	2,050	,041
	The threats component scores	-,019	,028	-,040	-,661	,509

a. Dependent Variable: 10[Medisch-Farmaceutisch Overleg (MFO) over opioïdegebruik bij chronische niet-maligne pijn] [Schaal 2]

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1,974	,092		21,396	<,001
	Wat is uw geslacht?	,064	,034	,113	1,877	,062
	The benefits component scores	-,032	,030	-,066	-1,094	,275

a. Dependent Variable: 10[Medisch-Farmaceutisch Overleg (MFO) over opioïdegebruik bij chronische niet-maligne pijn] [Schaal 2]

Appendix 32: RESULTS OF LINEAR REGRESSION, ASSOCIATION BETWEEN THE INDIVIDUAL BELIEFS AND THE BACKGROUND CHARACTERISTICS (BELGIAN STUDY)

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,711	,060		61,776	<,001
	Wat is uw geslacht?	,099	,073	,081	1,351	,178

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,854	,124		31,134	<,001
	Wat is uw leeftijd?	-,002	,003	-,039	-,646	,519

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,815	,062		61,198	<,001
	Mijn functie is apotheker-titularis	-,053	,075	-,043	-,712	,477

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,757	,041		92,131	<,001
	Mijn functie is adjunct-apotheker	,073	,076	,058	,966	,335

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,791	,036		105,105	<,001
	Mijn functie is eigenaar	-,145	,120	-,073	-1,213	,226

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,776	,035		107,507	<,001
	Mijn apotheek bevindt zich in het Brussels Hoofdstedelijk Gewest	,053	,184	,017	,287	,774

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,788	,037		102,312	<,001
	Mijn apotheek bevindt zich in Vlaams-Brabant	-,078	,101	-,047	-,770	,442

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,783	,039		96,342	<,001
	Mijn apotheek bevindt zich in Antwerpen	-,023	,082	-,017	-,285	,776

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,796	,039		96,849	<,001
	Mijn apotheek bevindt zich in West-Vlaanderen	-,082	,082	-,061	-1,004	,316

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,758	,036		104,066	<,001
	Mijn apotheek bevindt zich in Limburg	,200	,115	,104	1,732	,084

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,766	,040		93,200	<,001
	Mijn apotheek bevindt zich in Oost-Vlaanderen	,041	,077	,032	,532	,595

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,718	,046		81,258	<,001
	Mijn apotheek bevindt zich in een middelgrote plaats	,136	,069	,118	1,966	,050

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,831	,046		82,506	<,001
	Mijn apotheek bevindt zich in een kleine plaats	-,118	,069	-,103	-1,717	,087

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,782	,036		103,772	<,001
	Mijn apotheek bevindt zich in een grote plaats	-,043	,112	-,023	-,386	,700

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,741	,044		85,079	<,001
	Mijn apotheek is een stadsapotheek	,093	,071	,080	1,318	,188

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,827	,047		80,917	<,001
	Mijn apotheek is een plattelandsapotheek	-,104	,069	-,091	-1,505	,133

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,686	,284		12,972	<,001
	Wat is uw geslacht?	,092	,078	,076	1,181	,239
	Wat is uw leeftijd?	,000	,003	,004	,061	,952
	Mijn functie is apotheker-titularis	,057	,228	,046	,252	,801
	Mijn functie is adjunct-apotheker	,098	,233	,078	,421	,674
	Mijn functie is eigenaar	-,086	,126	-,043	-,682	,496
	Mijn apotheek bevindt zich in het Brussels Hoofdstedelijk Gewest	,045	,201	,015	,225	,822
	Mijn apotheek bevindt zich in Vlaams-Brabant	-,112	,119	-,067	-,939	,348
	Mijn apotheek bevindt zich in Antwerpen	-,043	,099	-,032	-,434	,665
	Mijn apotheek bevindt zich in West-Vlaanderen	-,110	,101	-,081	-1,093	,275
	Mijn apotheek bevindt zich in Limburg	,161	,131	,084	1,231	,220
	Mijn apotheek bevindt zich in een middelgrote plaats	,087	,095	,076	,918	,360
	Mijn apotheek bevindt zich in een grote plaats	-,050	,154	-,027	-,326	,745
	Mijn apotheek is een stadsapotheek	,001	,119	,000	,004	,997
	Mijn apotheek is een plattelandsapotheek	-,084	,113	-,074	-,746	,457

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,964	,057		52,117	<,001
	Wat is uw geslacht?	-,123	,069	-,107	-1,779	,076

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,900	,118		24,659	<,001
	Wat is uw leeftijd?	,000	,003	-,010	-,161	,872

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,902	,059		49,029	<,001
	Mijn functie is apotheker-titularis	-,030	,071	-,026	-,424	,672

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,872	,039		74,121	<,001
	Mijn functie is adjunct-apotheker	,031	,072	,026	,434	,665

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,889	,034		84,236	<,001
	Mijn functie is eigenaar	-,081	,114	-,043	-,710	,478

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,890	,033		86,953	<,001
	Mijn apotheek bevindt zich in het Brussels Hoofdstedelijk Gewest	-,230	,174	-,080	-1,319	,188

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,901	,035		82,799	<,001
	Mijn apotheek bevindt zich in Vlaams-Brabant	-,144	,096	-,091	-1,509	,133

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,874	,037		77,118	<,001
	Mijn apotheek bevindt zich in Antwerpen	,034	,078	,027	,441	,659

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,863	,037		76,960	<,001
	Mijn apotheek bevindt zich in West-Vlaanderen	,080	,078	,062	1,025	,306

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,891	,034		84,013	<,001
	Mijn apotheek bevindt zich in Limburg	-,099	,110	-,054	-,897	,370

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,863	,038		74,718	<,001
	Mijn apotheek bevindt zich in Oost-Vlaanderen	,068	,073	,056	,922	,357

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,888	,044		66,048	<,001
	Mijn apotheek bevindt zich in een middelgrote plaats	-,016	,066	-,014	-,236	,813

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,839	,044		64,300	<,001
	Mijn apotheek bevindt zich in een kleine plaats	,094	,065	,087	1,438	,152

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,903	,034		84,485	<,001
	Mijn apotheek bevindt zich in een grote plaats	-,207	,106	-,117	-1,953	,052

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,926	,042		70,261	<,001
	Mijn apotheek is een stadsapotheek	-,115	,067	-,104	-1,722	,086

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,846	,045		63,289	<,001
	Mijn apotheek is een plattelandsapotheek	,076	,065	,070	1,163	,246

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,195	,267		11,982	<,001
	Wat is uw geslacht?	-,166	,073	-,144	-2,276	,024
	Wat is uw leeftijd?	,000	,003	-,009	-,122	,903
	Mijn functie is apotheker-titularis	-,011	,214	-,009	-,050	,960
	Mijn functie is adjunct-apotheker	,071	,218	,059	,323	,747
	Mijn functie is eigenaar	-,132	,118	-,070	-1,117	,265
	Mijn apotheek bevindt zich in het Brussels Hoofdstedelijk Gewest	-,215	,189	-,074	-1,138	,256
	Mijn apotheek bevindt zich in Vlaams-Brabant	-,246	,111	-,155	-2,202	,029
	Mijn apotheek bevindt zich in Antwerpen	-,001	,093	,000	-,006	,995
	Mijn apotheek bevindt zich in West-Vlaanderen	-,014	,094	-,011	-,145	,885
	Mijn apotheek bevindt zich in Limburg	-,183	,123	-,100	-1,485	,139
	Mijn apotheek bevindt zich in een middelgrote plaats	-,081	,089	-,075	-,914	,362
	Mijn apotheek bevindt zich in een grote plaats	-,237	,145	-,135	-1,635	,103
	Mijn apotheek is een stadsapotheek	-,094	,111	-,085	-,848	,397
	Mijn apotheek is een plattelandsapotheek	-,056	,106	-,052	-,527	,599

a. Dependent Variable: The benefits component scores

Descriptives

Wat is uw geslacht?				Statistic	Std. Error
Man	The threats component scores	Mean		3,7111	,06061
		95% Confidence Interval for Mean	Lower Bound	3,5907	
			Upper Bound	3,8315	
		5% Trimmed Mean		3,7284	
		Median		3,7143	
		Variance		,331	
		Std. Deviation		,57502	
		Minimum		1,86	
		Maximum		5,00	
		Range		3,14	
		Interquartile Range		,64	
		Skewness		-,537	,254
		Kurtosis		,595	,503
Vrouw	The threats component scores	Mean		3,8100	,04172
		95% Confidence Interval for Mean	Lower Bound	3,7277	
			Upper Bound	3,8923	
		5% Trimmed Mean		3,8248	
		Median		3,8571	
		Variance		,322	
		Std. Deviation		,56742	
		Minimum		2,00	
		Maximum		5,00	
		Range		3,00	
		Interquartile Range		,64	
		Skewness		-,479	,179
		Kurtosis		,407	,355

Descriptives

Wat is uw geslacht?				Statistic	Std. Error
Man	The benefits component scores	Mean		2,9644	,05641
		95% Confidence Interval for Mean	Lower Bound	2,8524	
			Upper Bound	3,0765	
		5% Trimmed Mean		2,9765	
		Median		3,0000	
		Variance		,286	
		Std. Deviation		,53513	
		Minimum		1,40	
		Maximum		4,00	
		Range		2,60	
		Interquartile Range		,80	
		Skewness		-,309	,254
		Kurtosis		-,029	,503
Vrouw	The benefits component scores	Mean		2,8411	,03983
		95% Confidence Interval for Mean	Lower Bound	2,7625	
			Upper Bound	2,9197	
		5% Trimmed Mean		2,8505	
		Median		2,8000	
		Variance		,294	
		Std. Deviation		,54178	
		Minimum		1,20	
		Maximum		4,20	
		Range		3,00	
		Interquartile Range		,80	
		Skewness		-,142	,179
		Kurtosis		-,226	,355

Descriptives

			Statistic	Std. Error
The threats component scores voor apothekers ≥ 41,5 jaar	Mean		3,7456	,05476
	95% Confidence Interval for Mean	Lower Bound	3,6373	
		Upper Bound	3,8539	
	5% Trimmed Mean		3,7662	
	Median		3,8571	
	Variance		,411	
	Std. Deviation		,64092	
	Minimum		1,86	
	Maximum		5,00	
	Range		3,14	
	Interquartile Range		,71	
	Skewness		-,534	,207
	Kurtosis		,262	,411

Descriptives

			Statistic	Std. Error
The threats component scores voor apothekers < 41,5 jaar	Mean		3,8095	,04185
	95% Confidence Interval for Mean	Lower Bound	3,7268	
		Upper Bound	3,8923	
	5% Trimmed Mean		3,8167	
	Median		3,8571	
	Variance		,242	
	Std. Deviation		,49165	
	Minimum		2,57	
	Maximum		5,00	
	Range		2,43	
	Interquartile Range		,57	
	Skewness		-,244	,206
	Kurtosis		-,019	,410

Descriptives

			Statistic	Std. Error
The benefits component scores voor apothekers ≥ 41,5 jaar	Mean		2,8818	,04923
	95% Confidence Interval for Mean	Lower Bound	2,7844	
		Upper Bound	2,9791	
	5% Trimmed Mean		2,8973	
	Median		2,8000	
	Variance		,332	
	Std. Deviation		,57627	
	Minimum		1,20	
	Maximum		4,00	
	Range		2,80	
	Interquartile Range		,90	
	Skewness		-,389	,207
	Kurtosis		-,011	,411

Descriptives

			Statistic	Std. Error
The benefits component scores voor apothekers < 41,5 jaar	Mean		2,8812	,04318
	95% Confidence Interval for Mean	Lower Bound	2,7958	
		Upper Bound	2,9665	
	5% Trimmed Mean		2,8791	
	Median		2,8000	
	Variance		,257	
	Std. Deviation		,50725	
	Minimum		1,60	
	Maximum		4,20	
	Range		2,60	
	Interquartile Range		,80	
	Skewness		,090	,206
	Kurtosis		-,608	,410

Descriptives

Mijn apotheek bevindt zich in:			Statistic	Std. Error
LIMBURG	The threats component scores	Mean	3,7581	,03636
ANTWERPEN	The threats component scores	Mean	3,7596	,06374
VLAAMS-BRABANT	The threats component scores	Mean	3,7104	,12058
OOST-VLAANDEREN	The threats component scores	Mean	3,8076	,06145
WEST-VLAANDEREN	The threats component scores	Mean	3,7143	,07300
BRUSSEL	The threats component scores	Mean	3,8286	,19841

Descriptives

Mijn apotheek bevindt zich in:			Statistic	Std. Error
LIMBURG	The benefits component scores	Mean	2,7926	,10376
ANTWERPEN	The benefits component scores	Mean	2,9079	,06618
VLAAMS-BRABANT	The benefits component scores	Mean	2,7568	,09336
OOST-VLAANDEREN	The benefits component scores	Mean	2,9307	,06116
WEST-VLAANDEREN	The benefits component scores	Mean	2,9429	,07233
BRUSSEL	The benefits component scores	Mean	2,6600	,11566

Descriptives

Mijn apotheek bevindt zich in:			Statistic	Std. Error
KLEINE PLAATS	The threats component scores	Mean	3,7131	,05245
MIDDELGROTE PLAATS	The threats component scores	Mean	3,8536	,04866
GROTE PLAATS	The threats component scores	Mean	3,7389	,11630

Descriptives

Mijn apotheek bevindt zich in:			Statistic	Std. Error
KLEINE PLAATS	The benefits component scores	Mean	2,9328	,04738
MIDDELGROTE PLAATS	The benefits component scores	Mean	2,8727	,05322
GROTE PLAATS	The benefits component scores	Mean	2,6966	,06248

Descriptives

Mijn apotheek bevindt zich in:			Statistic	Std. Error
STADSAPOTHEEK	The threats component scores	Mean	3,8344	,05295
PLATTELANDSAPO	The threats component scores	Mean	3,7231	,04803

Descriptives

Mijn apotheek bevindt zich in:			Statistic	Std. Error
STADSAPOTHEEK	The benefits component scores	Mean	2,8112	,05344
PLATTELANDSAPO	The benefits component scores	Mean	2,9215	,04773

Appendix 33: ANSWERS TO THE QUESTIONS OF THE THREE PARTS (DUTCH STUDY)

28. Wat is uw geslacht?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Man	70	34,1	34,1	34,1
	Vrouw	135	65,9	65,9	100,0
	Total	205	100,0	100,0	

29. Wat is uw leeftijd (jaren)?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	22	4	2,0	2,0	2,0
	23	1	,5	,5	2,4
	24	2	1,0	1,0	3,4
	25	3	1,5	1,5	4,9
	26	2	1,0	1,0	5,9
	27	9	4,4	4,4	10,2
	28	4	2,0	2,0	12,2
	29	10	4,9	4,9	17,1
	30	6	2,9	2,9	20,0
	31	9	4,4	4,4	24,4
	32	6	2,9	2,9	27,3
	33	3	1,5	1,5	28,8
	34	9	4,4	4,4	33,2
	35	10	4,9	4,9	38,0
	36	4	2,0	2,0	40,0
	37	2	1,0	1,0	41,0
	38	4	2,0	2,0	42,9
	39	3	1,5	1,5	44,4
	40	4	2,0	2,0	46,3
	41	6	2,9	2,9	49,3
	42	6	2,9	2,9	52,2
	43	4	2,0	2,0	54,1
	44	5	2,4	2,4	56,6
	45	5	2,4	2,4	59,0
	46	7	3,4	3,4	62,4
	47	5	2,4	2,4	64,9
	48	7	3,4	3,4	68,3
	49	4	2,0	2,0	70,2

	50	4	2,0	2,0	72,2
	51	3	1,5	1,5	73,7
	52	8	3,9	3,9	77,6
	53	4	2,0	2,0	79,5
	54	7	3,4	3,4	82,9
	55	8	3,9	3,9	86,8
	56	5	2,4	2,4	89,3
	58	3	1,5	1,5	90,7
	59	2	1,0	1,0	91,7
	60	5	2,4	2,4	94,1
	61	2	1,0	1,0	95,1
	63	4	2,0	2,0	97,1
	64	4	2,0	2,0	99,0
	65	2	1,0	1,0	100,0
	Total	205	100,0	100,0	

29. Descriptives

			Statistic	Std. Error
29. Wat is uw leeftijd (jaren)?	Mean		42,04	,803
	95% Confidence Interval for Mean	Lower Bound	40,46	
		Upper Bound	43,63	
	5% Trimmed Mean		41,87	
	Median		42,00	
	Variance		132,248	
	Std. Deviation		11,500	
	Minimum		22	
	Maximum		65	
	Range		43	
	Interquartile Range		20	
	Skewness		,175	,170
	Kurtosis		-1,070	,338

29. Wat is uw leeftijd (jaren)?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	[20-29]	35	17,1	17,1	17,1
	[30-39]	56	27,3	27,3	44,4
	[40-49]	53	25,8	25,8	70,2
	[50-59]	44	21,5	21,5	91,7
	[>60]	17	8,3	8,3	100,0
	Total	205	100,0	100,0	

30. Wat is uw functie binnen de apotheek?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ApIOS	16	7,8	7,8	7,8
	Tweede apotheker	36	17,6	17,6	25,4
	Beherende apotheker	124	60,5	60,5	85,9
	Eigenaar	51	24,9	24,9	110,8
	Anders, namelijk	8	3,9	3,9	114,7

30. Wat is uw functie binnen de apotheek? / Anders, namelijk Text

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		197	96,1	96,1	96,1
	(Basis)apotheker	1	,5	,5	96,6
	Adviseur	1	,5	,5	97,1
	docent vervolgop	1	,5	,5	97,6
	farmaceutisch ma	1	,5	,5	98,0
	FC	1	,5	,5	98,5
	Interim apotheke	1	,5	,5	99,0
	zorgapotheker bi	1	,5	,5	99,5
	ZZPR	1	,5	,5	100,0
	Total	205	100,0	100,0	

31. Hoeveel jaren werkervaring heeft u in de openbare apotheek?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-2	13	6,3	6,3	6,3
	3-5	30	14,6	14,6	21,0
	6-10	38	18,5	18,5	39,5
	11-15	22	10,7	10,7	50,2
	>15	102	49,8	49,8	100,0
	Total	205	100,0	100,0	

32. Hoeveel jaren werkt u in uw huidige apotheek?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-2	52	25,4	25,4	25,4
	3-5	35	17,1	17,1	42,4
	6-10	36	17,6	17,6	60,0
	11-15	21	10,2	10,2	70,2
	>15	61	29,8	29,8	100,0
	Total	205	100,0	100,0	

33. Mijn apotheek bevindt zich in een:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Kleine plaats (<20.000 inwoners)	61	29,8	29,8	29,8
	Middelgrote plaats (20.000-150.000 inwoners)	100	48,8	48,8	78,5
	Grote plaats (>150.000 inwoners)	44	21,5	21,5	100,0
	Total	205	100,0	100,0	

34. Mijn apotheek bevindt zich in een:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	AHOED	26	12,7	12,7	12,7
	Gezondheidscentrum	87	42,4	42,4	55,1
	Solo	84	41,0	41,0	96,1
	Anders, namelijk	13	6,3	6,3	102,4

34. Mijn apotheek bevindt zich in een: / Anders, namelijk: Text

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		192	93,7	93,7	93,7
	centraal i	1	,5	,5	94,1
	grenzend a	1	,5	,5	94,6
	Huisarts w	1	,5	,5	95,1
	Ik ben apo	1	,5	,5	95,6
	Interim ap	1	,5	,5	96,1
	is verschi	1	,5	,5	96,6
	Keten	1	,5	,5	97,1

	maatschap	1	,5	,5	97,6
	Multifunct	1	,5	,5	98,0
	Poliklinis	1	,5	,5	98,5
	winkelcent	1	,5	,5	99,0
	Winkelcent	1	,5	,5	99,5
	Ziekenhuis	1	,5	,5	100,0
	Total	205	100,0	100,0	

35. Eerste 2 cijfers van postcode van de apotheek:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	10	6	2,9	2,9	2,9
	11	2	1,0	1,0	3,9
	12	3	1,5	1,5	5,4
	13	3	1,5	1,5	6,8
	14	1	,5	,5	7,3
	15	1	,5	,5	7,8
	16	2	1,0	1,0	8,8
	17	4	2,0	2,0	10,7
	18	1	,5	,5	11,2
	19	1	,5	,5	11,7
	20	4	2,0	2,0	13,7
	21	4	2,0	2,0	15,6
	22	3	1,5	1,5	17,1
	23	6	2,9	2,9	20,0
	24	2	1,0	1,0	21,0
	25	5	2,4	2,4	23,4
	26	3	1,5	1,5	24,9
	28	3	1,5	1,5	26,3
	29	5	2,4	2,4	28,8
	30	5	2,4	2,4	31,2
	31	1	,5	,5	31,7
	32	3	1,5	1,5	33,2
	34	2	1,0	1,0	34,1
	35	9	4,4	4,4	38,5
	37	1	,5	,5	39,0
	38	9	4,4	4,4	43,4
	39	4	2,0	2,0	45,4
	41	2	1,0	1,0	46,3
	42	1	,5	,5	46,8
	43	2	1,0	1,0	47,8

44	1	,5	,5	48,3
46	2	1,0	1,0	49,3
47	1	,5	,5	49,8
48	3	1,5	1,5	51,2
49	1	,5	,5	51,7
50	5	2,4	2,4	54,1
51	5	2,4	2,4	56,6
52	5	2,4	2,4	59,0
55	1	,5	,5	59,5
56	2	1,0	1,0	60,5
58	3	1,5	1,5	62,0
60	4	2,0	2,0	63,9
61	3	1,5	1,5	65,4
62	2	1,0	1,0	66,3
63	1	,5	,5	66,8
64	1	,5	,5	67,3
65	3	1,5	1,5	68,8
66	3	1,5	1,5	70,2
67	1	,5	,5	70,7
68	3	1,5	1,5	72,2
69	1	,5	,5	72,7
70	1	,5	,5	73,2
71	2	1,0	1,0	74,1
72	1	,5	,5	74,6
73	1	,5	,5	75,1
74	4	2,0	2,0	77,1
75	7	3,4	3,4	80,5
76	5	2,4	2,4	82,9
77	6	2,9	2,9	85,9
78	1	,5	,5	86,3
79	3	1,5	1,5	87,8
80	6	2,9	2,9	90,7
81	3	1,5	1,5	92,2
82	2	1,0	1,0	93,2
83	2	1,0	1,0	94,1
84	4	2,0	2,0	96,1
92	1	,5	,5	96,6
96	2	1,0	1,0	97,6
97	4	2,0	2,0	99,5
99	1	,5	,5	100,0
Total	205	100,0	100,0	

Vragen	Antwoorden				
	Helemaal mee oneens	Mee oneens	Neutraal	Mee eens	Helemaal mee eens
1) Ik kan patiënten met chronische niet-maligne pijn in het algemeen goed behandelen	0,0%	7,3%	34,1%	55,1%	3,4%
2) Ik heb goede ervaringen met het langdurig gebruik van opioïden door patiënten met chronische niet-maligne pijn	1,5%	21,0%	45,4%	29,8%	2,4%
3) Ik heb patiënten gehad waarbij het gebruik van opioïden heeft geleid tot gezondheidsschade bij die patiënt	0,0%	16,1%	20,5%	47,3%	16,1%
4) Ik vind het stressvol om patiënten met chronische niet-maligne pijn te behandelen	14,1%	41,0%	34,6%	10,2%	0,0%
5) Ik heb voldoende vertrouwen in mijn vaardigheden om met patiënten in gesprek te gaan die te veel en te lang opioïden gebruiken	1,5%	20,0%	23,4%	48,3%	6,8%
6) Ik ben voldoende opgeleid om patiënten met chronische niet-maligne pijn te behandelen	2,0%	12,7%	26,3%	54,6%	4,4%
7) Ik kan makkelijk voorspellen welke patiënten een verhoogd risico lopen op het misbruiken van opioïden	5,9%	27,8%	36,1%	27,3%	2,9%
8) Ik maak me zorgen dat opioïden na enige tijd niet meer voldoende werken en dat patiënten steeds meer nodig hebben	2,0%	15,1%	20,0%	41,5%	21,5%
9) Ik maak me zorgen dat mijn patiënten een verslaving aan opioïden ontwikkelen	1,0%	9,8%	18,0%	54,1%	17,1%
10) Ik maak me zorgen dat patiënten meer opioïden gebruiken dan voorgeschreven	1,5%	10,7%	13,7%	57,1%	17,1%
11) Ik voel me onder druk gezet door artsen om recepten voor opioïden af te leveren	17,6%	34,1%	25,4%	16,6%	6,3%
12) Ik heb het gevoel dat ik patiënten geen recepten voor opioïden kan weigeren	6,3%	36,1%	19,0%	31,2%	7,3%

13) Chronische pijn is mijns inziens meer een sociaalpsychologisch probleem dan een medisch probleem	3,4%	41,0%	40,5%	11,7%	3,4%
14) Patiënten hebben een te hoge verwachting van de effectiviteit van opioïden	1,5%	20,5%	34,1%	35,6%	8,3%
15) Het langdurig gebruik van opioïden is noodzakelijk voor veel van mijn patiënten met chronische niet-maligne pijn	3,4%	42,9%	37,6%	14,6%	1,5%
16) Over het algemeen zijn opioïden de meest effectieve behandeling voor chronische niet-maligne pijn	6,8%	54,6%	26,3%	11,7%	0,5%
17) Er worden te weinig opioïden gebruikt in de behandeling van chronische niet-maligne pijn	15,6%	62,9%	19,0%	2,0%	0,5%
18) Opioïden moeten voorgeschreven worden bij chronische niet-maligne pijn wanneer andere pijnstillers onvoldoende werken	2,0%	15,6%	17,1%	57,1%	8,3%
19) Misbruik is een reëel risico bij gebruikers van opioïden	0,0%	3,4%	13,7%	61,5%	21,5%
20) Er worden te veel opioïden gebruikt in de behandeling van chronische niet-maligne pijn	0,5%	8,3%	25,4%	52,7%	13,2%
21) Steeds meer patiënten in mijn apotheek raken afhankelijk van opioïden	1,0%	24,4%	34,1%	34,1%	6,3%
22) In mijn apotheek hebben veel patiënten weerstand tegen het gebruik van opioïden	4,4%	47,3%	39,5%	8,8%	0,0%
23) Er zijn te weinig goede alternatieven voor opioïden voor de behandeling van patiënten met chronische niet-maligne pijn	2,4%	20,5%	28,3%	42,0%	6,8%

	Antwoorden				
Vragen	Helemaal mee oneens	Mee oneens	Neutraal	Mee eens	Helemaal mee eens
Aandacht voor opioïdegebruik in de media en/of vaktijdschriften heeft ervoor gezorgd dat ik kritischer ben geworden op het afleveren van opioïden	1,5%	11,2%	17,6%	63,4%	6,3%

	Ja	Neen
Weet u waar u informatie kan vinden over afbouwschema's van opioïden?	60,5%	39,5%
Zo ja, namelijk:	- Vakliteratuur - Opiaten.nl - Trimbos - richtlijnen database - (informatorium medicamentorum van) KNMP Kennisbank - FTO-materiaal - Artikelen die ik over dit onderwerp heb bewaard - NHG-Standaard Pijn - Website Radboud UMC - Opioïdenwiki - CDC 'Guideline for prescribing opioids for chronic pain' - Oncoline - HHS-richtlijnen - Overleg met verslavingsarts - Verslavingszorg - Farmacotherapeutisch kompas - Nascholing - Apotheek.nl - Richtlijnendatabase.nl - Pallialine - Ivm (instituut verantwoord medicatiegebruik) handreiking afbouw opioïden: 6X aangehaald - Professor Kees Kramers - Switch apps/ opioid omreken app - Medstopper - Primary health tasmania	

	Antwoorden				
Vragen	Dit lijkt me zinvol	Dit lijkt me niet zinvol	Weet ik niet	Dit heb ik al geïmplementeerd	Dit heb ik nog niet geïmplementeerd
Bij start van een opioïde aan de patiënt vertellen dat er een risico op verslaving is	79,0%	11,2%	9,8%	55,6%	44,4%
Bij herhalen van opioïderecept aan de patiënt vertellen dat er risico op verslaving is	82,0	8,3%	9,8%	39,0%	61,0%
Maandelijks consult apotheker met patiënt na starten van opioïde	35,1%	32,2%	32,7%	0,5%	99,5%
Bij elk voorschrift consult huisarts en patiënt	60,0%	23,9%	16,1%	10,2%	89,8%
Beperking op aantal dagen op recept (bijv. max 2 weken)	75,1%	16,6%	8,3%	20,5%	79,5%
Vooraf afspraken maken met de patiënt over de duur van de behandeling	77,1%	11,2%	11,7%	8,3%	91,7%
Een extra melding van het HIS/AIS bij herhalen van een opioïderecept	64,4%	24,9%	10,7%	18,0%	82,0%
Afspraken met de huisartsenpost en dienstapotheek over opioïderecepten in de diensturen	83,9%	7,8%	8,3%	33,2%	66,8%
Afspraken tussen huisartsen en apothekers over herhalen van opioïderecepten	96,6%	1,5%	2,0%	59,0%	41,0%
FTO over opioïdegebruik bij chronische niet-maligne pijn	92,7%	4,4%	2,9%	52,2%	47,8%
Heeft u andere maatregelen die u zinvol lijken of die u al geïmplementeerd heeft, wilt u die dan hier toelichten?	- wij doen een **melding naar de huisarts** bij een derde keer voorschrijven van een opioïde aan een zorgklant - Aan de **bel trekken bij patiënt en huisarts** als het gebruik te extreem wordt - **Huisarts informeren** bij chronisch gebruik van (grote hoeveelheden) opioïden - HA overlegt met apotheker voor de start van opioïde over de indicatie/situatie, en over de afspraken die met de patiënt gemaakt zijn. **Apotheek signaleert** eventueel misbruik/toenemend gebruik en koppelt terug aan huisarts. Huisarts bespreekt bijwerkingen/rotatie indien aan de orde. - Prescriptiecijfers over gebruik kortwerkende opioïden **terugkoppelen aan de artsen** met wie de werkafspraken zijn gemaakt				

	- **Afspraken met de huisarts.** Heel basic maar gewoon korte lijntjes hebben. We moeten ook voorkomen dat we te bemoeizuchtig zijn...dus niet bij elk recept maar bij start uitleg en elke maand door apothekers is prima. Bij elk recept is overdreven. En soms is het gewoon geïndiceerd! Dat is het erg vervelend om elke keer hierop terug te komen. Door hiervoor contact te hebben met de arts dan is dat prima. - Een en ander wel zo aan **afspraken gemaakt met huisartsen**, praktijk blijkt weerbarstiger dan praktijk. Zoals voor elk recept consult met huisarts. Vooral onnodig gebruik van **snelwerkende** opiaten zonder onderhoudsmedicatie levert vaak problemen op. Hier zijn we vanuit de apotheek heel alert op, maar kan nog beter. Ook bij nabellen bij arts helpt niet altijd. Meer kennis hierover lijkt me zinvol, vooral ook bij voorschrijvers. Levert nu te vaak verslaving en misbruik op. - **afspraken** maken met **ziekenhuizen, specialisten, huisartsen** en apotheken om dit enorme probleem aan te pakken - duidelijke **afspraken** tussen **eerste en tweede lijn** over doel en verwachte duur van de opiaat-behandeling + eenduidig en gezamenlijk voorlichtingsmateriaal in eerste en tweede lijn - **afspraken met specialisten** (mn orthopeden en chirurgen) over opioïderecepten + we zijn in de regio net gestart met een werkgroep opioïdegebruik in de eerste lijn. ik heb Elsemiek hier ook over gesproken. hopelijk dus over een jaar veel meer van het bovenstaande geïmplementeerd.... - afspraken maken met **verzorgenden** - 1. FTO: helder afspraken maken en evalueren! FTO laten terugkeren dus continu verbeteren. 2. Transmurale afspraken maken in het bijzonder met **chirurgie en orthopedie** over, bijv. voor max 5 dagen voorschrijven. 3. **Afspreken dat huisarts** op recept indicatie vermeld in de zin van chronische maligne pijn, incidentele niet-maligne pijn en alleen bij uitzondering chronische niet-maligne pijn. 4. Nascholing organiseren voor zowel apothekers- als doktersassistenten. - Er is vnl. start van opiaten via de spoedeisende hulp in **het ziekenhuis**. Sommige patiënten herhalen dan in de thuissituatie, maar dat komt niet zo vaak voor. Ik heb eerder het idee dat de aantallen voorgeschreven opiaten vanuit de orthopedie teveel zijn bij start. Dat geldt eveneens voor de hoeveelheid ibuprofen na een tandheelkundige ingreep. Is natuurlijk een ander soort recept, maar ook daaraan kleven risico's. Die gaan vaak ook per 20 stuks ibuprofen, maar worden vaak niet op gebruikt. IK bedoel eigenlijk dat we soms standaard bepaalde recepten in de pen hebben die we eigenlijk zouden moeten aanpassen na evaluatie. Hoe vaak worden deze opiaten daadwerkelijk op gebruikt na een ingreep. Een SBA-cursus voor het team, met daarin die rechter kolom hierboven meenemen zou goed zijn. Nu acteren we daar niet standaard op, maar eigenlijk zou dat wel goed zijn. - Geen andere maatregelen openbaar apotheek - aub in **ziekenhuis** protocollen aanpassen start opiaten na operatie - Met name de afleverhoeveelheden van opiaten na een ingreep in een **kliniek** (knieoperaties en dergelijke) zijn aanzienlijk gereduceerd, en worden gelukkig ook veel spaarzamer voorgeschreven. - Apothekersvereniging regio arnhem (CAA) is een project gestart in samenwerking met het **ziekenhuis**, hierin staan afspraken over het voorschrijven van opiaten bij niet maligne pijnen. (max. 1 week voorschrijven, geen herhalingen en alleen de langwerkende oxycodon

	voorschrijven). Implementatie en resultaten zijn op te vragen, heeft een groot effect op de hoeveelheid voorgeschreven opiaten. - Regionale **afspraken tussen ziekenhuis, huisartsen en apotheken** over voorschrijven opioïden bij chronische niet-maligne pijn. Ziekenhuis schrijft nu veel minder en minder lang voor na een operatie, herhalingen zijn gelimiteerd. - **Afspraken met het ziekenhuis** (bijv. orthopedie) om na een operatie niet standaard opiaten voor te schrijven en eventueel wel een recept schrijven maar dan max voor 3 dagen, waarna de huisarts verder kan beoordelen. - Kritischer kijken welke **vorm van opiaten** er gebruikt worden. Bepaalde huisartsen verkiezen instanyl neusspray boven **kortwerkende oxycodon**. Hierover in gesprek met artsen, want doordat bij instanyl de werking direct intreed is dit verslavender. (Tot nu toe weinig effect bij deze artsen overigens). FTO-afspraak dat alle opiaten altijd via de huisarts moeten, niet 'op jaarrecept' bijvoorbeeld. Maar dat vinden ze dan toch weer veel gedoe, waardoor ze toch op recepten gaan schrijven 'herhalen via apotheek, chronisch gebruik', wat dan weer lastig per patiënt bij te houden is. - geen fentanyl **neusspray/sublinguale tabletten/lollies** etc verstrekken bij niet maligne pijn + alleen oxycodon kortwerkend icm met een **langwerkend** preparaat + gesprek met patiënt aangaan over verwachting van pijnstilling (verschil pijnvrij en sociaal functioneren) + uitleggen dat hyperalgesie kan optreden bij opiaten - Opletten dat er **niet alleen kortwerkende** opiaten worden gebruikt maar ook retard (is bij ons eens misgegaan). - Assistente moet bij aanschrijven van **kortwerkend** opiaat nagaan of het niet langwerkend mag worden. Indien kortwerkend mag dit eenmalig, maar bij vervolgleveringen moet er langwerkend bij - vaste afspraken over **ophaaldagen** opioïdemedicatie om zo eerder te kunnen schakelen bij overgebruik. Zoveel mogelijk naar **langwerkende opioïden** omzetten. Kritisch bij Instanyl, erg verslavingsgevoelig. - recepten met opiaten **niet in baxter** - **oxycodon zo min mogelijk**, liever morfine op FTO afgesproken met artsen - **Medicatie op een baxterrol** voor patiënten die overgebruik hebben. - met name gebruik van alleen **snelwerkende opioïden** beperken - Geen opiaten in **herhaalservice,** bij eerste uitgifte indicatie vragen (voor inschatting kort/lang gebruik) - **Herhaalservice:** indien opiaten chronisch gebruikt worden en dit ook zo blijft na overleg met behandelaar dan wordt via de herhaalservice gecontroleerd op niet te vroeg ophalen zodat mis/overgebruik direct zichtbaar is en bespreekbaar gemaakt kan worden. Algemeen: mijn ervaring is dat we best goed monitoren op te vroeg ophalen opiaatmedicatie maar dat de behandelaar bijna altijd als nog akkoord geeft voor afleveren. Dit jaar staat er een FTO over opiaten gepland om hier betere afspraken over te maken en te komen tot een betere begeleiding van opiaatgebruikers en verminderen van het aantal chronische gebruikers. - Het blijft maatwerk. Er is ook best verschil tussen kleine en grote apotheken en of je in een stad met meerdere apotheken zit of dat je de enige apotheek in een stad of dorp bent. Maar je zult altijd oplettend moeten zijn met opiaat recepten. Als een "niet ingeschreven client" met een opiaat recept komt, gaat dit altijd via de apotheker voor er afgeleverd wordt. Er

	wordt dan ook gekeken op de client de Opt-In vraag/ ophalen LSP akkoord heeft. Dan kan je eventueel shop-gedrag opsporen. - scholing voor apothekersassistentes - Patiënten die langdurig opiaten gebruiken aanspreken op mogelijke afhankelijkheid, sommigen gaan naar andere apotheek, andere bouwen af en weer anderen gaan gewoon door. Zolang de huisarts voorschrijft kun je niet veel doen dan het gesprek blijven aangaan met patiënt - Scholing voor huisartsen en bewust wording van huisartsen over overgebruik in zijn/haar praktijk. - Met huisarts afbouwschema opgesteld voor verschillende patiënten - **1 arts** de regie laten houden en andere artsen niet laten voorschrijven - Op Instanyl heb ik een FPZ-etiket gezet dat de indicatie achterhaald moet worden. Huisartsen schrijven dat hier voor bij niet-terminale patiënten die ook geen maligniteit hebben. Helaas als wij de huisarts bellen staan ze toch meestal achter het recept en eisen ze zo ongeveer dat het geleverd wordt. - het blijft taboe om mensen gewoon te zeggen u bent verslaafd. Dat zou al een deel van het probleem oplossen lijkt me. maar nu durven zorgverleners dit directe 'stempeltje' niet te geven. - huisarts blijft ondanks afspraken voorschrijven - Duidelijke afspraken maken met patiënt zelf over het afleveren. Op tijd doorverwijzen naar pijnspecialist of verslavingsarts. - Retrospectief bij chronische gebruikers bekijken of alle interventiestappen uitgevoerd zijn. Maatwerk is belangrijk -> interventie moet aansluiten bij de beleving van de opioïdegebruiker. Terecht gebruik moet niet vergezeld gaan van ongepaste apotheekadviezen zonder een compleet beeld van de gezondheidssituatie te hebben. **Multidisciplinaire aanpak** -> apotheekvergoeding via begeleidingsgesprek chronisch geneesmiddelgebruik of via polyfarmaciegesprek - Er zijn ook patiënten met chronische niet maligne pijn die NIET uitkomen met andere middelen. Die ook goed vastleggen, zodat daar de aanvraag en levering wat soepeler verloopt - kwartaalrapportage afgiften opioïden per huisarts per patiënt per opiumwet-geneesmiddel - standaard actief controleren op laxans - Patiënten waarbij wij het vermoeden hebben van een verslaving met de huisarts bespreken. En dan de afspraak kunnen maken dat wij strikt handhaven op het niet te vroeg afleveren. - Afleveren in medicatierol bij (dreigend) overgebruik - Ja. Bij ons zijn beperkt aantal patiënten verslaafd aan opioïden. Hiervoor zijn afspraken gemaakt met de voorschrijvers om bijvoorbeeld voor **een week te leveren.** - Tijdens ons FTO hebben wij afgesproken om bij een EU voorschrift max voor 2 weken ter hand te stellen (kortwerkende opiaten beperken tot 30stuks). Voor de iters dient de patiënt aanvraag te doen bij de eigen huisarts, zodat de huisarts een moment heeft om de risico's m.b.t. verslaving en eventuele afbouw te bespreken met de patiënt. Dit geldt ook als de oorspronkelijke voorschrift door een specialist uitgeschreven is. Bij een tweede uitgifte van een opiaten houden wij een gesprek met de patiënt over: hoe de pijn nu is, is de pijnbeleving geëvalueerd met de arts, verslavingsrisico wordt benoemd.

	- Meer kennis over afbouwen opioïden vergaren. - kennis vergroten in opleidingen (openbaar)apotheker en (huis)arts - Deze vragen zijn voornamelijk nieuwe patiënten, maar wij nemen regie over van huisartsen over bestaande 'verslaafde' patiënten om in ieder geval niet overgebruik te stimuleren. Dit gebeurt eigenlijk nog veel te passief - snel terugkoppelen bij herhaalrecepten, kleine hoeveelheden afleveren, per week bijv. - In een FTO, eind vorig jaar, is wel gesproken over opioïdegebruik bij niet-maligne pijn. Maar voor zover nu zijn er geen concrete afspraken gemaakt. - WE MOETEN LAXANTIA TOEVOEGNE VAN DE HA WE HEBBEN EEN OVERZICHT GEMAAKT VAAN ALLE GEBRUIKERS MET OPIOIDEN WE HEBBEN GESPREK GEHAD MET SPECIALISTEN OM NIET MEER 180 STUKS VOOR TE SCHRIJVEN ED UITDRAAI GEMAAKT VAN OPIOIDEN GEBRUKERS WIE EERSTE UITGIFTE WAS : 50 % HA EN 50 % SPECIALISTEN, DAT DACHTEN DE HA NIET… - Niet specifiek gericht op het beperken van gebruik, maar meer op het beperken van misbruik/shoppers: geen opioïden (geldt ook voor benzo's) afleveren aan passanten na beoordeling recept door de apotheker, in overleg met de voorschrijver. - Het hangt ook van de patiënten af. De "verslaafden" kennen we al. Met hen is de afspraak gemaakt voor **wekelijkse aflevering**. Dit werkt wel. - Elke 3 maanden de gebruikers van dat moment vergelijken met de gebruikers van 3 maanden geleden, via 'kruissearch' in AIS. De overlap zijn of dreigen chronische gebruikers te worden. Hierover neem ik contact op met de huisarts. De uitkomst wordt vastgelegd in AIS, zodat je niet steeds over dezelfde mensen belt. Assistentes zijn ook alert, m.n. bij tweede en verder uitgiftes - Herhaalrecept via apotheker - Psychologische ondersteuning - Heb telkens nee gezegd omdat we het niet structureel doen. Maar sommige zaken wel incidenteel

Wat zou u terug willen zien in een nascholingsprogramma over opioïden? (meerdere antwoorden mogelijk)	
Verschillen tussen opioïden	58,0%
Doseerschema's	40,5%
Voorkómen onnodig langdurig gebruik	81,5%
Afleveren van opioïden bij risicogroepen (depressie, geneesmiddelafhankelijkheid, drugs- of alcoholgebruikers, benzodiazepine-gebruikers)	65,9%
Afbouwschema's	82,4%
Omgaan met herhaalrecepten tweede lijn	42,0%
Communicatie met patiënten die opioïden gebruiken of starten met een opioïde	61,5%
Inzicht in misbruik bij patiënten	58,0%

Begeleiding van verslaafde patiënten	62,9%
Anders, namelijk:	- Al deze onderwerpen en nieuwe ontwikkelingen - afstemming afspraken apotheek en huisarts, je kunt dit probleem alleen multidisciplinair aanpakken - samenwerking tussen huisarts en apotheker hoe dit als 1 team aan te pakken - dat de voorschrijver verantwoordelijkheid neemt: weigeren voor te schrijven bij bekend overgebruik; ja, maar ze gebruiken het al jaren; maar het komt van de specialist; de pijnspecialist schrijft zelf ook opiaten in grote hoeveelheden voor waar ik zelf ook mijn twijfels bij heb - Instanyl! - combineren van verschillende opioïden - ervaringen van multidisciplinaire samenwerkingsverbanden rondom deze doelgroep - tip: geen algemene nascholing. elke zorgverlener kent het probleem. het voorkomen van nieuwe overgebruikers en het afbouwen van bestaande overgebruikers is de uitdaging. daar zijn kennis (niet alleen farmacotherapie, maar voor de apotheker ook in verslavingsgedrag) en communicatieve skills voor nodig. wat betreft afbouw: veel afbouwtips zoals opiaten.nl zijn te algemeen en gaan niet in op het hoe: omzetten in pleisters? omzetten in methadon? rol van buprenorfine? tapering? etc. - huisartsen nascholen over hoe nee te zeggen tegen verslaafde patiënten en voorkomen langdurig gebruik - Samenwerking met voorschrijver en verslavingszorg en kansen voor psychologische begeleiding, nut van revalidatie - Wat is veilige marge waarin geen/nauwelijks verslaving optreedt. - De verschillen tussen opioïden en de doseerschema's zijn al vaker aangeboden in cursussen, dus nu iets minder belangrijk - Ik ben zelf bezig met het opzetten van scholing voor apothekers op het beleid van begeleiding bij afbouwen van o.a. verslavende middelen.

Comments on the survey:

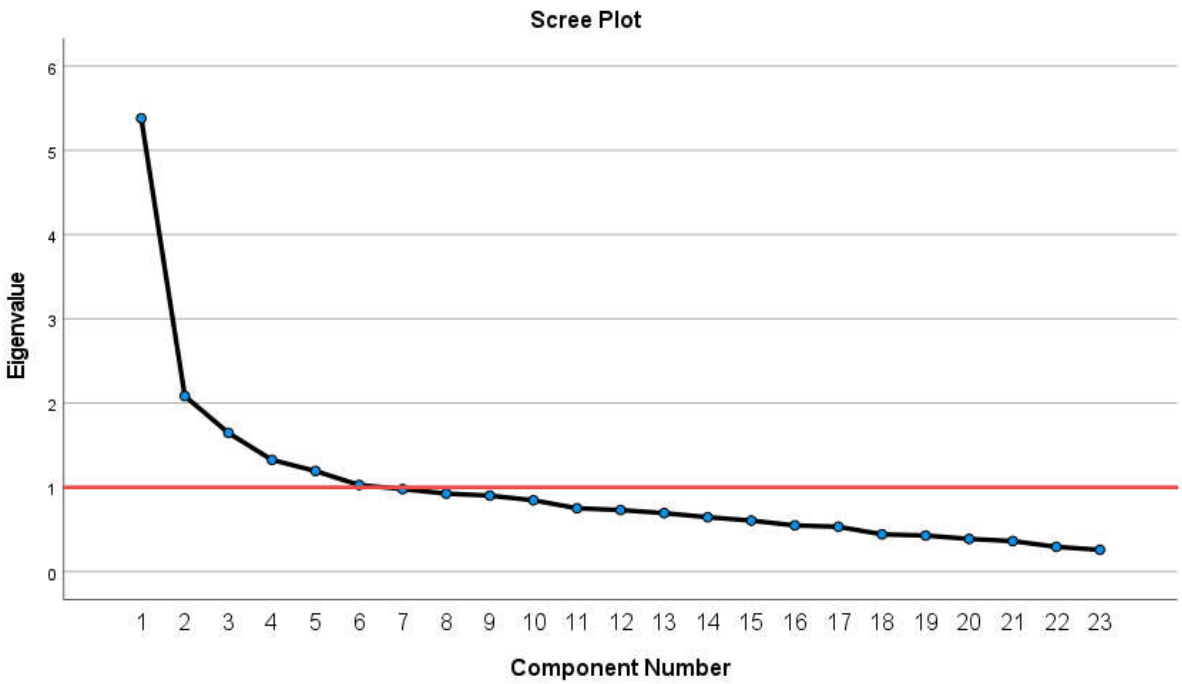
- Het probleem waar wij in de praktijk tegenaan lopen, dat we prima FTO's kunnen houden. Goede afspraken kunnen maken tussen apotheek en huisarts. Maar als het puntje bij paaltje komt, is er geen tijd (vooral aan de huisartskant) en wordt gekozen voor de weg van de minste weerstand, nl een herhaalrecept voorschrijven. Maar ook vanuit pijnpoli's (die ik altijd al experts zag) worden opiaten in hoge doseringen, langdurig gegeven met verslaving tot gevolg. Blijft een lastig probleem, waar uiteindelijk ook te weinig expertise en te weinig tijd/geld voor is.
- wij zijn bezig met een project tegen oxycodon verslaving, wellicht kunnen we samen optrekken hierin
- Ik merk in mijn omgeving dat de apothekers redelijk sterk in hun schoenen staan en dit onderwerp vaak aansnijden maar dat huisartsen toch vaak wegkijken. Aandacht in de media een paar jaar geleden van huisarts Bemmel komt meer aan bij huisartsen dan als apothekers telkens het vingertje opsteken.
- ik baal dat de postcode aan het eind gevraagd wordt. De combinatie van factoren is dan zeker niet anoniem meer en te herleiden op een 3 tal apotheken. Ik vind dat niet kunnen!
- Mijn interesse voor een nascholing is gewekt.
- medebehandelaar klinkt goed, maar ben je niet als het om voorschrijven gaat. Dit maakt sommige vragen lastig te interpreteren
- Zou fijn zijn als hier een vervolg aan wordt gegeven ben erg geïnteresseerd.
- Denk dat er nog veel winst te behalen is.

- Het blijft een groot gemis dat er niet standaard inzicht is in de reden van voorschrijven (van alle medicatie)
- GEZIEN DE VELE AANDACHT WORDT ER DUIDELIJK MINDER OPIOIDEN VOORGESCHREVEN DOOR DE SPECIALISTEN WAT VROEGER MET PARACETAMOL KON DOOR DE ORTHOPEDEN IS NU STANDAARD OPIOIDEN… HET ZOU ECHT VEEL MINDER KUNNEN
- In de poliklinische apotheek zien wij zeer weinig chronische niet-maligne pijn patiënten. Als we ze zien zijn ze meestal al onder behandeling van de anesthesioloog via de pijnpoli en worden opiaten nauwelijks ingezet
- Voor apotheek is de indicatie niet altijd duidelijker dan "pijn". Of het maligne of niet maligne pijn, chronisch of acuut, is moet je zelf maar uitvragen, net als de noodzaak en de gemaakte afspraken met de voorschrijvend arts. Het zou fijn zijn als er eerst eens een indicatie doorgegeven werd, maar dat is al heel veel stappen te ver voor sommige artsen en huisartssystemen
- vragen over 'behandelen' zijn lastig te beantwoorden voor apotheker, omdat je er vaak niet bij betrokken wordt
- Voorkom stigma. Dus het is belangrijk om niet te snel te spreken van misbruik of verslaving bij iemand die langdurig gebruik hiervan maakt. Vergeet ook niet dat veel patiënten die langdurig opioden gebruiken in de tweede lijn bij de specialist onder behandeling zijn. Mochten jullie nog geen poliklinische apothekers betrekken dan is het advies dit wel te doen. Vb. Pijnmedicatie status na een operatie die vervolgens steeds herhaald wordt.

Appendix 34: RESULTS OF THE KMO, BARTLETT'S TEST, THE SCREE PLOT, THE TOTAL VARIANCE EXPLAINED AND THE ROTATED COMPONENT MATRIX WITH SIX AND FOUR COMPONENTS (DUTCH STUDY)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,809
Bartlett's Test of Sphericity	Approx. Chi-Square	1230,450
	df	253
	Sig.	<,001



Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5,381	23,396	23,396	5,381	23,396	23,396	2,853	12,403	12,403
2	2,084	9,061	32,456	2,084	9,061	32,456	2,722	11,833	24,236
3	1,647	7,161	39,617	1,647	7,161	39,617	1,960	8,523	32,758
4	1,326	5,767	45,384	1,326	5,767	45,384	1,902	8,270	41,029
5	1,194	5,192	50,576	1,194	5,192	50,576	1,757	7,639	48,668
6	1,028	4,469	55,045	1,028	4,469	55,045	1,467	6,377	55,045
7	,979	4,258	59,303						
8	,926	4,027	63,329						
9	,902	3,922	67,251						
10	,847	3,683	70,935						
11	,752	3,270	74,205						
12	,731	3,179	77,383						
13	,695	3,020	80,403						
14	,646	2,808	83,211						
15	,606	2,634	85,845						
16	,549	2,385	88,231						
17	,532	2,315	90,545						
18	,443	1,924	92,470						
19	,428	1,862	94,331						
20	,388	1,688	96,020						
21	,362	1,576	97,595						
22	,294	1,279	98,875						
23	,259	1,125	100,000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component					
	1	2	3	4	5	6
I. Overtuigingen / 3	,701					
I. Overtuigingen / 21	,638					-,406
I. Overtuigingen / 9	,616		,402			
I. Overtuigingen / 19	,599					
I. Overtuigingen / 10	,597		,500			
I. Overtuigingen / 20	,534			,302		-,359
I. Overtuigingen / 8	,478			,399		
I. Overtuigingen / 15		,739				
I. Overtuigingen / 18		,651				
I. Overtuigingen / 16		,644				
I. Overtuigingen / 2		,597			,357	
I. Overtuigingen / 17		,530				
I. Overtuigingen / 12			,703			
I. Overtuigingen / 11	,317		,631			
I. Overtuigingen / 14			,323	,301		
I. Overtuigingen / 4				,695		
I. Overtuigingen / 13		-,454		,585		
I. Overtuigingen / 1				-,479	,367	

I. Overtuigingen / 5					,745	
I. Overtuigingen / 6				-,362	,667	
I. Overtuigingen / 7				,399	,568	
I. Overtuigingen / 22						,715
I. Overtuigingen / 23		,304				,573

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 13 iterations.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5,381	23,396	23,396	5,381	23,396	23,396	4,187	18,203	18,203
2	2,084	9,061	32,456	2,084	9,061	32,456	2,744	11,932	30,135
3	1,647	7,161	39,617	1,647	7,161	39,617	1,929	8,388	38,524
4	1,326	5,767	45,384	1,326	5,767	45,384	1,578	6,860	45,384
5	1,194	5,192	50,576						
6	1,028	4,469	55,045						
7	,979	4,258	59,303						
8	,926	4,027	63,329						
9	,902	3,922	67,251						
10	,847	3,683	70,935						
11	,752	3,270	74,205						
12	,731	3,179	77,383						
13	,695	3,020	80,403						
14	,646	2,808	83,211						
15	,606	2,634	85,845						
16	,549	2,385	88,231						
17	,532	2,315	90,545						
18	,443	1,924	92,470						
19	,428	1,862	94,331						
20	,388	1,688	96,020						
21	,362	1,576	97,595						
22	,294	1,279	98,875						
23	,259	1,125	100,000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component			
	1	2	3	4
I. Overtuigingen / 10	,744			
I. Overtuigingen / 20	,708			
I. Overtuigingen / 9	,706			
I. Overtuigingen / 11	,682			
I. Overtuigingen / 19	,657			
I. Overtuigingen / 21	,621			
I. Overtuigingen / 8	,560		,325	
I. Overtuigingen / 12	,491			
I. Overtuigingen / 3	,397			
I. Overtuigingen / 14	,365	-,302		
I. Overtuigingen / 22	-,324			
I. Overtuigingen / 15		,689		
I. Overtuigingen / 16		,685		
I. Overtuigingen / 18		,651		
I. Overtuigingen / 2		,593		,316
I. Overtuigingen / 13		-,507	,400	,312
I. Overtuigingen / 17	-,407	,474		
I. Overtuigingen / 4			,679	
I. Overtuigingen / 1			-,630	
I. Overtuigingen / 23		,328	,532	
I. Overtuigingen / 5				,697
I. Overtuigingen / 7				,689
I. Overtuigingen / 6			-,452	,494

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Appendix 35: OVERVIEW OF WHICH STATEMENT BELONGS TO WHICH DOMAIN AND INDICATED TO WHICH DIRECTION THE STATEMENTS POINTS (DUTCH STUDY)

Perceived threats		Equal to Belgian study?	Direction of the statement?	Domain according to HBM?
10	Ik maak me zorgen dat patiënten meer opioïden gebruiken dan voorgeschreven *I'm concerned that patients are using more opioids than prescribed*	Yes	→	Perceived threats
20	Er worden te veel opioïden gebruikt in de behandeling van chronische niet-maligne pijn *Too many opioids are used in the treatment of chronic non-malignant pain*	Yes	→	Perceived threats
9	Ik maak me zorgen dat mijn patiënten een verslaving aan opioïden ontwikkelen *I worry about my patients developing an addiction to opioids*	Yes	→	Perceived threats
11	Ik voel me onder druk gezet door artsen om voorgeschreven opioïden af te leveren *I feel pressured by doctors to deliver prescribed opioids*	No	←	Perceived self-efficacy
19	Misbruik is een reëel risico bij gebruikers van opioïden *Abuse is a real risk among opioid users*	Yes	→	Perceived threats
21	Steeds meer patiënten in mijn apotheek raken afhankelijk van opioïden *More and more patients in my pharmacy are becoming dependent on opioids*	Yes	→	Perceived threats
8	Ik maak me zorgen dat opioïden na enige tijd niet meer voldoende werken en dat patiënten steeds meer nodig hebben *I am concerned that opioids may not work adequately after some time and that patients may require more and more*	Yes	→	Perceived threats
12	Ik heb het gevoel dat ik patiënten geen voorschriften van opioïden kan weigeren *I feel that I cannot refuse patients prescriptions of opioids*	No	←	Perceived self-efficacy
3	Ik heb patiënten gehad waarbij het gebruik van opioïden heeft geleid tot gezondheidsschade bij die patiënt *I have had patients where the use of opioids has resulted in damage to that patient's health*	Yes	→	Perceived barriers
14	Patiënten hebben een te hoge verwachting van de effectiviteit van opioïden *Patients have an overly high expectation of the effectiveness of opioids*	No	→	Perceived threats
22	In mijn apotheek hebben veel patiënten weerstand tegen het gebruik van opioïden *In my pharmacy, many patients have resistance to using opioids*	No	→	Perceived barriers
Perceived benefits				
15	Het langdurig gebruik van opioïden is noodzakelijk voor veel van mijn patiënten met chronische niet-maligne pijn *Long-term opioid use is necessary for many of my patients with*	Yes	→	Perceived benefits

	chronic non-malignant pain			
16	Over het algemeen zijn opioïden de meest effectieve behandeling voor chronische niet-maligne pijn *Generally, opioids are the most effective treatment for chronic non-malignant pain*	Yes	→	Perceived benefits
18	Opioïden moeten voorgeschreven worden bij chronische niet-maligne pijn wanneer andere pijnstillers onvoldoende werken *Opioids should be prescribed for chronic non-malignant pain when other analgesics do not work sufficiently*	Yes	→	Perceived benefits
2	Ik heb goede ervaringen met het langdurig gebruik van opioïden door patiënten met chronische niet-maligne pijn *I have positive experience with the long-term use of opioids by patients with chronic non-malignant pain*	No	→	Perceived benefits
13	Chronische pijn is mijn inziens meer een sociaalpsychologisch probleem dan een medisch probleem *Chronic pain is in my opinion more of a socio-psychological problem than a medical problem*	Yes	←	Perceived barriers
17	Er worden te weinig opioïden gebruikt in de behandeling van chronische niet-maligne pijn *Too few opioids are used in the treatment of chronic non-malignant pain*	Yes	→	Perceived benefits
Perceived barriers				
4	Ik vind het stressvol om patiënten met chronische niet-maligne pijn te behandelen *I find it stressful to treat patients with chronic non-malignant pain*	No	→	Perceived self-efficacy
1	Ik kan patiënten met chronische niet-maligne pijn in het algemeen goed behandelen *I can treat patients with chronic non-malignant pain generally well*	No	←	Perceived self-efficacy
23	Er zijn te weinig goede alternatieven voor opioïden voor de behandeling van patiënten met chronische niet-maligne pijn *There are too few proper alternatives to opioids for the treatment of patients with chronic non-malignant pain*	No	→	Perceived barriers
Perceived self-efficacy				
5	Ik heb voldoende vertrouwen in mijn vaardigheden om met patiënten in gesprek te gaan die te veel en te lang opioïden gebruiken *I feel confident enough in my abilities to talk to patients who use opioids too much and for too long*	Yes	→	Perceived self-efficacy
7	Ik kan makkelijk voorspellen welke patiënten een verhoogd risico lopen op het misbruiken van opioïden *I can easily predict which patients are at increased risk of opioid misuse*	Yes	→	Perceived self-efficacy
6	Ik ben voldoende opgeleid om patiënten met chronische niet-maligne pijn te behandelen *I am adequately trained to treat patients with chronic non-malignant pain*	Yes	→	Perceived self-efficacy

Appendix 36: CALCULATIONS OF THE COMPONENT SCORES (DUTCH STUDY)

OVER 3	OVER 8	OVER 9	OVER 10	OVER 19	OVER 20	OVER 21	Sum of the statement scores		Divided by # statements			Average threats component score
3	2	2	2	3	2	2	16	/35	2,285714286	/5	753,8571	3,677351916
5	5	5	5	5	5	5	35	/35	5	/5		
2	3	2	2	4	3	2	18	/35	2,571428571	/5		
4	5	4	4	4	4	3	28	/35	4	/5		
3	3	4	4	4	3	3	24	/35	3,428571429	/5		
4	4	5	4	4	5	5	31	/35	4,428571429	/5		
5	5	5	5	5	5	5	35	/35	5	/5		
4	2	4	4	4	4	3	25	/35	3,571428571	/5		
5	5	4	4	4	4	4	30	/35	4,285714286	/5		
4	4	4	4	4	4	4	28	/35	4	/5		
2	4	5	5	5	4	4	29	/35	4,142857143	/5		
4	5	4	4	5	5	3	30	/35	4,285714286	/5		
4	3	4	3	4	3	2	23	/35	3,285714286	/5		
3	3	2	5	5	5	5	28	/35	4	/5		
4	4	5	5	5	4	2	29	/35	4,142857143	/5		
5	5	5	4	4	4	4	31	/35	4,428571429	/5		
5	4	4	4	3	4	4	28	/35	4	/5		
4	4	4	4	4	4	4	28	/35	4	/5		
4	4	2	2	4	3	3	22	/35	3,142857143	/5		
5	3	4	4	4	4	3	27	/35	3,857142857	/5		
4	5	3	4	4	3	4	27	/35	3,857142857	/5		
2	3	3	4	4	3	2	21	/35	3	/5		
4	5	4	5	5	5	4	32	/35	4,571428571	/5		
4	3	3	4	4	2	2	22	/35	3,142857143	/5		
4	5	4	4	5	5	5	32	/35	4,571428571	/5		
4	4	4	4	4	3	4	27	/35	3,857142857	/5		
2	5	5	4	4	4	4	28	/35	4	/5		
4	2	2	3	2	5	4	22	/35	3,142857143	/5		
5	4	5	5	4	5	4	32	/35	4,571428571	/5		
4	3	3	4	4	4	4	26	/35	3,714285714	/5		
2	2	4	4	4	4	4	24	/35	3,428571429	/5		
4	5	4	4	5	5	4	31	/35	4,428571429	/5		
4	4	4	4	4	4	3	27	/35	3,857142857	/5		
4	1	2	3	3	4	2	19	/35	2,714285714	/5		
2	5	5	5	5	4	3	29	/35	4,142857143	/5		
5	5	5	5	4	4	4	32	/35	4,571428571	/5		
3	4	2	1	4	3	2	19	/35	2,714285714	/5		
3	3	4	4	3	4	2	23	/35	3,285714286	/5		
3	3	4	4	4	4	4	26	/35	3,714285714	/5		
5	5	5	5	5	4	4	33	/35	4,714285714	/5		
4	4	4	4	4	4	4	28	/35	4	/5		
4	4	4	3	4	4	4	27	/35	3,857142857	/5		

4	4	4	4	3	3	2	24	/35	3,428571429	/5
4	5	4	4	4	5	3	29	/35	4,142857143	/5
3	5	4	5	3	4	2	26	/35	3,714285714	/5
5	2	4	4	4	3	3	25	/35	3,571428571	/5
5	4	5	4	5	5	5	33	/35	4,714285714	/5
5	3	4	4	4	3	2	25	/35	3,571428571	/5
4	4	3	3	4	4	4	26	/35	3,714285714	/5
4	4	4	4	4	4	3	27	/35	3,857142857	/5
4	3	4	3	4	3	4	25	/35	3,571428571	/5
2	4	4	3	3	4	3	23	/35	3,285714286	/5
4	4	4	4	5	4	2	27	/35	3,857142857	/5
5	2	3	2	5	2	2	21	/35	3	/5
4	3	4	4	4	3	2	24	/35	3,428571429	/5
3	3	4	4	5	5	5	29	/35	4,142857143	/5
3	4	4	2	5	3	4	25	/35	3,571428571	/5
3	4	4	4	4	4	4	27	/35	3,857142857	/5
2	4	2	1	2	1	1	13	/35	1,857142857	/5
4	4	4	4	4	4	3	27	/35	3,857142857	/5
3	5	4	4	3	3	3	25	/35	3,571428571	/5
4	2	4	4	4	4	3	25	/35	3,571428571	/5
2	4	3	3	3	2	2	19	/35	2,714285714	/5
4	3	4	4	2	4	2	23	/35	3,285714286	/5
4	4	4	4	5	3	4	28	/35	4	/5
3	4	3	4	5	4	2	25	/35	3,571428571	/5
3	2	4	4	4	2	3	22	/35	3,142857143	/5
4	4	4	4	4	4	3	27	/35	3,857142857	/5
2	4	4	4	4	3	4	25	/35	3,571428571	/5
4	2	4	4	4	4	4	26	/35	3,714285714	/5
4	2	4	4	4	4	3	25	/35	3,571428571	/5
4	4	4	4	4	4	3	27	/35	3,857142857	/5
4	4	4	4	4	4	4	28	/35	4	/5
4	5	5	5	5	4	4	32	/35	4,571428571	/5
4	2	3	4	4	4	2	23	/35	3,285714286	/5
3	5	5	5	4	4	4	30	/35	4,285714286	/5
4	4	4	2	4	4	4	26	/35	3,714285714	/5
5	1	2	5	4	3	3	23	/35	3,285714286	/5
3	4	4	4	4	4	3	26	/35	3,714285714	/5
4	5	5	4	5	3	4	30	/35	4,285714286	/5
5	5	5	5	5	4	4	33	/35	4,714285714	/5
4	4	5	4	5	4	4	30	/35	4,285714286	/5
3	4	4	4	4	4	4	27	/35	3,857142857	/5
4	3	4	2	4	4	4	25	/35	3,571428571	/5
4	3	3	4	4	4	3	25	/35	3,571428571	/5
5	2	4	4	4	4	3	26	/35	3,714285714	/5
4	3	3	3	4	4	3	24	/35	3,428571429	/5
3	4	3	3	3	3	2	21	/35	3	/5
2	4	5	4	4	3	3	25	/35	3,571428571	/5
4	4	4	4	4	4	3	27	/35	3,857142857	/5

5	4	4	4	4	4	4	29	/35	4,142857143	/5
2	4	4	2	3	3	1	19	/35	2,714285714	/5
2	1	1	2	2	2	2	12	/35	1,714285714	/5
3	5	5	5	5	4	3	30	/35	4,285714286	/5
4	2	3	3	4	2	2	20	/35	2,857142857	/5
2	3	2	2	3	3	3	18	/35	2,571428571	/5
4	4	4	5	4	4	3	28	/35	4	/5
3	4	4	4	4	4	4	27	/35	3,857142857	/5
5	4	4	3	3	2	2	23	/35	3,285714286	/5
4	4	5	5	5	4	4	31	/35	4,428571429	/5
5	5	5	5	5	5	5	35	/35	5	/5
2	3	4	4	4	4	4	25	/35	3,571428571	/5
3	4	3	4	3	4	3	24	/35	3,428571429	/5
4	4	3	4	4	4	4	27	/35	3,857142857	/5
4	4	4	4	4	5	4	29	/35	4,142857143	/5
4	5	5	5	4	4	3	30	/35	4,285714286	/5
3	4	4	4	4	4	4	27	/35	3,857142857	/5
4	2	4	4	5	4	2	25	/35	3,571428571	/5
2	3	4	4	4	4	4	25	/35	3,571428571	/5
4	2	3	4	4	4	2	23	/35	3,285714286	/5
5	5	5	5	5	5	5	35	/35	5	/5
4	4	4	2	4	4	4	26	/35	3,714285714	/5
4	4	3	5	4	2	2	24	/35	3,428571429	/5
3	4	4	4	4	5	4	28	/35	4	/5
4	5	5	5	5	5	4	33	/35	4,714285714	/5
4	2	3	4	4	3	4	24	/35	3,428571429	/5
5	3	4	3	3	3	2	23	/35	3,285714286	/5
5	5	5	5	5	5	5	35	/35	5	/5
3	5	4	3	4	5	4	28	/35	4	/5
4	5	4	4	4	4	3	28	/35	4	/5
4	4	4	4	4	4	4	28	/35	4	/5
4	4	3	2	4	4	3	24	/35	3,428571429	/5
4	4	4	4	4	4	3	27	/35	3,857142857	/5
4	4	3	4	3	4	4	26	/35	3,714285714	/5
2	4	4	4	4	4	3	25	/35	3,571428571	/5
5	5	5	5	5	4	5	34	/35	4,857142857	/5
3	1	1	1	3	2	2	13	/35	1,857142857	/5
4	5	5	5	4	4	3	30	/35	4,285714286	/5
4	3	3	3	4	3	3	23	/35	3,285714286	/5
3	4	4	4	4	5	3	27	/35	3,857142857	/5
2	4	4	3	4	4	2	23	/35	3,285714286	/5
4	2	2	4	4	4	4	24	/35	3,428571429	/5
3	4	4	4	3	3	4	25	/35	3,571428571	/5
5	4	3	2	3	3	4	24	/35	3,428571429	/5
4	3	3	4	4	3	3	24	/35	3,428571429	/5
2	2	3	3	4	3	4	21	/35	3	/5
4	4	4	4	4	4	3	27	/35	3,857142857	/5
4	3	4	3	4	4	4	26	/35	3,714285714	/5

2	2	3	2	3	2	3	17	/35	2,428571429	/5
2	2	2	2	4	4	3	19	/35	2,714285714	/5
2	2	2	2	3	4	2	17	/35	2,428571429	/5
4	4	4	4	4	4	4	28	/35	4	/5
4	3	5	4	5	3	4	28	/35	4	/5
5	3	3	3	4	3	3	24	/35	3,428571429	/5
2	4	4	4	4	4	2	24	/35	3,428571429	/5
4	4	4	4	4	4	2	26	/35	3,714285714	/5
4	5	5	5	4	4	3	30	/35	4,285714286	/5
5	3	4	4	3	3	2	24	/35	3,428571429	/5
2	3	3	4	4	3	3	22	/35	3,142857143	/5
4	4	4	4	4	4	3	27	/35	3,857142857	/5
5	2	4	4	4	2	2	23	/35	3,285714286	/5
3	2	3	3	4	3	2	20	/35	2,857142857	/5
5	5	4	5	4	4	3	30	/35	4,285714286	/5
3	4	2	2	4	2	3	20	/35	2,857142857	/5
3	3	5	5	3	5	3	27	/35	3,857142857	/5
4	4	4	4	4	4	3	27	/35	3,857142857	/5
5	4	4	4	4	3	3	27	/35	3,857142857	/5
5	2	4	4	5	4	2	26	/35	3,714285714	/5
3	2	2	2	5	3	3	20	/35	2,857142857	/5
3	2	3	3	4	2	2	19	/35	2,714285714	/5
4	5	4	4	5	4	2	28	/35	4	/5
4	4	3	2	3	3	3	22	/35	3,142857143	/5
4	4	4	4	3	3	3	25	/35	3,571428571	/5
4	5	4	4	5	3	3	28	/35	4	/5
2	2	3	3	3	4	3	20	/35	2,857142857	/5
4	5	4	4	4	3	3	27	/35	3,857142857	/5
2	5	4	4	5	5	5	30	/35	4,285714286	/5
2	4	3	4	4	4	3	24	/35	3,428571429	/5
4	3	3	3	4	3	3	23	/35	3,285714286	/5
4	4	4	4	4	4	3	27	/35	3,857142857	/5
2	3	4	3	2	2	2	18	/35	2,571428571	/5
3	4	4	4	4	4	3	26	/35	3,714285714	/5
4	4	3	4	4	4	2	25	/35	3,571428571	/5
5	5	5	5	5	5	5	35	/35	5	/5
3	3	2	2	2	3	2	17	/35	2,428571429	/5
4	5	5	5	4	5	4	32	/35	4,571428571	/5
4	4	5	5	5	4	3	30	/35	4,285714286	/5
4	5	4	5	5	5	4	32	/35	4,571428571	/5
4	5	4	4	4	4	4	29	/35	4,142857143	/5
2	4	4	4	5	3	2	24	/35	3,428571429	/5
3	3	4	3	4	4	2	23	/35	3,285714286	/5
3	3	4	4	4	3	2	23	/35	3,285714286	/5
4	4	2	4	4	4	4	26	/35	3,714285714	/5
4	4	4	4	4	4	4	28	/35	4	/5
2	2	2	4	4	2	2	18	/35	2,571428571	/5
2	3	4	3	2	2	2	18	/35	2,571428571	/5

3	4	3	4	4	3	4	25	/35	3,571428571	/5
4	3	4	2	4	4	4	25	/35	3,571428571	/5
5	4	5	5	4	3	2	28	/35	4	/5
4	2	4	4	4	4	4	26	/35	3,714285714	/5
3	3	4	4	4	3	3	24	/35	3,428571429	/5
2	4	4	4	4	4	3	25	/35	3,571428571	/5
3	4	2	2	4	4	4	23	/35	3,285714286	/5
3	2	4	4	4	3	2	22	/35	3,142857143	/5
4	5	4	4	5	4	3	29	/35	4,142857143	/5
3	3	3	3	4	3	2	21	/35	3	/5
2	5	4	4	4	4	3	26	/35	3,714285714	/5
3	3	2	4	3	4	3	22	/35	3,142857143	/5
4	3	4	3	3	3	2	22	/35	3,142857143	/5
3	5	5	4	5	4	4	30	/35	4,285714286	/5
4	4	4	4	5	4	3	28	/35	4	/5
5	4	4	4	4	4	4	29	/35	4,142857143	/5
4	4	4	4	5	3	3	27	/35	3,857142857	/5
4	4	3	5	4	5	3	28	/35	4	/5
4	2	4	4	4	4	4	26	/35	3,714285714	/5

OVER 13	OVER 15	OVER 16	OVER 17	OVER 18	OVER13 omdraaien	Sum of the statement scores		Divided by # statements			Average benefits component score
										575,8	2,808780488
3	3	2	2	4	3	14	/25	2,8	/5		
5	1	1	1	1	1	5	/25	1	/5		
3	3	2	2	4	3	14	/25	2,8	/5		
5	2	1	1	2	1	7	/25	1,4	/5		
2	2	2	2	2	4	12	/25	2,4	/5		
5	2	3	1	2	1	9	/25	1,8	/5		
4	1	1	1	1	2	6	/25	1,2	/5		
2	2	2	2	4	4	14	/25	2,8	/5		
2	4	2	2	4	4	16	/25	3,2	/5		
5	2	4	2	4	1	13	/25	2,6	/5		
2	2	3	2	5	4	16	/25	3,2	/5		
5	2	2	1	3	1	9	/25	1,8	/5		
3	4	3	2	5	3	17	/25	3,4	/5		
1	4	4	3	4	5	20	/25	4	/5		
3	2	2	2	3	3	12	/25	2,4	/5		
3	1	2	1	3	3	10	/25	2	/5		
2	2	2	1	3	4	12	/25	2,4	/5		
3	3	2	1	4	3	13	/25	2,6	/5		
3	2	2	2	2	3	11	/25	2,2	/5		
2	3	2	2	4	4	15	/25	3	/5		
3	2	2	2	2	3	11	/25	2,2	/5		
3	3	3	2	4	3	15	/25	3	/5		

2	2	3	2	4	4	15	/25	3	/5
2	2	2	2	3	4	13	/25	2,6	/5
4	2	2	2	5	2	13	/25	2,6	/5
3	3	2	2	4	3	14	/25	2,8	/5
3	2	2	3	4	3	14	/25	2,8	/5
3	4	2	2	5	3	16	/25	3,2	/5
4	2	1	1	2	2	8	/25	1,6	/5
3	3	2	3	2	3	13	/25	2,6	/5
4	4	2	2	3	2	13	/25	2,6	/5
2	2	2	1	4	4	13	/25	2,6	/5
3	3	2	2	3	3	13	/25	2,6	/5
3	2	2	2	2	3	11	/25	2,2	/5
3	3	2	2	4	3	14	/25	2,8	/5
4	2	1	2	2	2	9	/25	1,8	/5
4	3	2	3	4	2	14	/25	2,8	/5
3	3	2	2	2	3	12	/25	2,4	/5
4	3	2	1	3	2	11	/25	2,2	/5
3	1	2	2	4	3	12	/25	2,4	/5
2	4	2	2	4	4	16	/25	3,2	/5
4	2	2	3	3	2	12	/25	2,4	/5
3	3	3	2	4	3	15	/25	3	/5
3	2	2	2	4	3	13	/25	2,6	/5
4	2	3	1	4	2	12	/25	2,4	/5
3	2	3	2	4	3	14	/25	2,8	/5
3	3	2	2	4	3	14	/25	2,8	/5
4	3	2	3	4	2	14	/25	2,8	/5
3	4	3	3	4	3	17	/25	3,4	/5
3	2	2	2	3	3	12	/25	2,4	/5
3	2	2	2	5	3	14	/25	2,8	/5
3	3	4	2	4	3	16	/25	3,2	/5
2	3	3	2	2	4	14	/25	2,8	/5
1	4	4	3	4	5	20	/25	4	/5
2	3	2	2	4	4	15	/25	3	/5
2	2	2	2	2	4	12	/25	2,4	/5
2	3	2	2	4	4	15	/25	3	/5
3	3	3	2	4	3	15	/25	3	/5
2	5	3	4	5	4	21	/25	4,2	/5
2	3	4	2	4	4	17	/25	3,4	/5
2	2	2	2	3	4	13	/25	2,6	/5
2	3	2	2	4	4	15	/25	3	/5
2	5	3	5	5	4	22	/25	4,4	/5
2	3	2	2	4	4	15	/25	3	/5
2	2	2	2	3	4	13	/25	2,6	/5
3	2	1	2	5	3	13	/25	2,6	/5
2	2	3	3	4	4	16	/25	3,2	/5
3	3	2	2	2	3	12	/25	2,4	/5
3	4	2	2	4	3	15	/25	3	/5
3	3	3	2	2	3	13	/25	2,6	/5

3	2	2	2	3	3	12	/25	2,4	/5
3	2	2	1	2	3	10	/25	2	/5
3	4	5	2	4	3	18	/25	3,6	/5
3	2	2	2	4	3	13	/25	2,6	/5
2	2	2	3	2	4	13	/25	2,6	/5
4	3	3	3	4	2	15	/25	3	/5
2	2	1	1	4	4	12	/25	2,4	/5
2	3	3	3	5	4	18	/25	3,6	/5
3	3	3	2	4	3	15	/25	3	/5
4	2	3	2	3	2	12	/25	2,4	/5
2	2	2	2	3	4	13	/25	2,6	/5
2	3	3	1	2	4	13	/25	2,6	/5
2	4	2	2	4	4	16	/25	3,2	/5
3	3	2	2	4	3	14	/25	2,8	/5
3	2	2	2	4	3	13	/25	2,6	/5
3	3	2	1	2	3	11	/25	2,2	/5
2	3	2	2	4	4	15	/25	3	/5
3	3	3	3	3	3	15	/25	3	/5
4	1	1	2	3	2	9	/25	1,8	/5
3	3	2	1	3	3	12	/25	2,4	/5
2	4	3	2	5	4	18	/25	3,6	/5
3	2	4	2	4	3	15	/25	3	/5
2	3	3	3	4	4	17	/25	3,4	/5
4	3	2	2	3	2	12	/25	2,4	/5
2	3	2	3	2	4	14	/25	2,8	/5
3	3	2	1	4	3	13	/25	2,6	/5
4	4	2	1	4	2	13	/25	2,6	/5
2	3	2	2	4	4	15	/25	3	/5
2	3	2	2	3	4	14	/25	2,8	/5
2	2	4	2	4	4	16	/25	3,2	/5
3	2	3	3	4	3	15	/25	3	/5
2	2	4	2	3	4	15	/25	3	/5
3	3	4	2	4	3	16	/25	3,2	/5
3	2	2	2	4	3	13	/25	2,6	/5
3	2	2	1	2	3	10	/25	2	/5
3	2	2	2	4	3	13	/25	2,6	/5
3	3	2	2	4	3	14	/25	2,8	/5
2	4	2	1	4	4	15	/25	3	/5
2	2	2	2	2	4	12	/25	2,4	/5
2	4	4	2	4	4	18	/25	3,6	/5
3	4	2	2	5	3	16	/25	3,2	/5
2	4	4	2	4	4	18	/25	3,6	/5
2	3	4	2	4	4	17	/25	3,4	/5
3	2	1	1	2	3	9	/25	1,8	/5
4	3	2	1	2	2	10	/25	2	/5
3	2	2	3	4	3	14	/25	2,8	/5
2	3	4	2	4	4	17	/25	3,4	/5
4	1	1	1	1	2	6	/25	1,2	/5

2	2	2	2	4	4	14	/25	2,8	/5
2	3	4	2	4	4	17	/25	3,4	/5
5	2	2	2	3	1	10	/25	2	/5
3	3	2	2	4	3	14	/25	2,8	/5
3	2	3	3	5	3	16	/25	3,2	/5
3	4	4	3	4	3	18	/25	3,6	/5
1	4	2	2	4	5	17	/25	3,4	/5
2	2	2	2	4	4	14	/25	2,8	/5
1	3	3	2	4	5	17	/25	3,4	/5
4	3	3	2	4	2	14	/25	2,8	/5
2	3	4	3	4	4	18	/25	3,6	/5
3	2	1	1	3	3	10	/25	2	/5
2	2	2	2	4	4	14	/25	2,8	/5
2	2	2	2	4	4	14	/25	2,8	/5
3	3	2	2	3	3	13	/25	2,6	/5
2	2	3	3	2	4	14	/25	2,8	/5
2	5	2	3	1	4	15	/25	3	/5
2	3	3	3	4	4	17	/25	3,4	/5
3	4	3	2	4	3	16	/25	3,2	/5
2	2	3	2	4	4	15	/25	3	/5
2	4	2	2	4	4	16	/25	3,2	/5
2	4	4	2	4	4	18	/25	3,6	/5
3	2	2	2	4	3	13	/25	2,6	/5
3	4	3	4	4	3	18	/25	3,6	/5
4	2	3	2	3	2	12	/25	2,4	/5
3	3	3	3	3	3	15	/25	3	/5
3	4	3	3	4	3	17	/25	3,4	/5
3	2	2	4	4	3	15	/25	3	/5
2	3	2	2	4	4	15	/25	3	/5
3	3	3	3	4	3	16	/25	3,2	/5
2	3	3	2	4	4	16	/25	3,2	/5
2	2	2	2	4	4	14	/25	2,8	/5
2	2	2	2	3	4	13	/25	2,6	/5
2	4	4	2	4	4	18	/25	3,6	/5
3	3	3	2	4	3	15	/25	3	/5
4	2	2	2	5	2	13	/25	2,6	/5
4	2	2	1	3	2	10	/25	2	/5
2	3	2	2	4	4	15	/25	3	/5
1	3	3	3	4	5	18	/25	3,6	/5
2	4	2	2	3	4	15	/25	3	/5
2	3	3	3	4	4	17	/25	3,4	/5
1	2	3	3	4	5	17	/25	3,4	/5
3	1	2	1	3	3	10	/25	2	/5
2	4	4	3	4	4	19	/25	3,8	/5
2	2	2	2	3	4	13	/25	2,6	/5
3	3	2	2	5	3	15	/25	3	/5
2	3	3	3	4	4	17	/25	3,4	/5
2	2	2	2	5	4	15	/25	3	/5

2	2	2	1	3	4	12	/25	2,4	/5
3	2	2	2	4	3	13	/25	2,6	/5
2	3	2	3	4	4	16	/25	3,2	/5
3	2	2	2	2	3	11	/25	2,2	/5
1	3	3	3	4	5	18	/25	3,6	/5
3	3	3	2	4	3	15	/25	3	/5
3	3	3	2	4	3	15	/25	3	/5
3	2	2	1	2	3	10	/25	2	/5
3	3	3	3	2	3	14	/25	2,8	/5
2	4	4	2	4	4	18	/25	3,6	/5
5	2	1	2	2	1	8	/25	1,6	/5
3	2	2	2	4	3	13	/25	2,6	/5
3	2	3	2	4	3	14	/25	2,8	/5
2	4	2	2	2	4	14	/25	2,8	/5
4	2	2	2	5	2	13	/25	2,6	/5
2	3	2	3	4	4	16	/25	3,2	/5
2	2	2	2	2	4	12	/25	2,4	/5
4	3	3	2	3	2	13	/25	2,6	/5
2	2	2	3	4	4	15	/25	3	/5
2	2	3	2	4	4	15	/25	3	/5
3	3	4	4	4	3	18	/25	3,6	/5
2	3	3	2	4	4	16	/25	3,2	/5
2	3	4	2	4	4	17	/25	3,4	/5
2	2	2	2	4	4	14	/25	2,8	/5
3	2	3	3	4	3	15	/25	3	/5
3	3	2	3	4	3	15	/25	3	/5
2	4	2	2	4	4	16	/25	3,2	/5
2	2	4	2	4	4	16	/25	3,2	/5
4	2	1	2	3	2	10	/25	2	/5
3	2	3	2	4	3	14	/25	2,8	/5
2	2	1	2	2	4	11	/25	2,2	/5
2	2	2	2	4	4	14	/25	2,8	/5
3	3	3	3	4	3	16	/25	3,2	/5
3	2	2	1	2	3	10	/25	2	/5
3	2	2	1	3	3	11	/25	2,2	/5
2	3	3	2	4	4	16	/25	3,2	/5
2	3	4	2	4	4	17	/25	3,4	/5
3	2	2	1	5	3	13	/25	2,6	/5
2	3	2	2	4	4	15	/25	3	/5

Appendix 37: RESULTS OF THE LINEAR REGRESSION (DUTCH STUDY)

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,615	,215		7,531	<,001
	The threats component scores	-,047	,058	-,057	-,810	,419

a. Dependent Variable: 1 Bij start van een opioïde aan de patiën...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,314	,183		7,164	<,001
	The benefits component scores	,046	,064	,051	,722	,471

a. Dependent Variable: 1 Bij start van een opioïde aan de patiën...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,405	,127		11,081	<,001
	Wat is uw geslacht?	,023	,074	,022	,317	,752

a. Dependent Variable: 1 Bij start van een opioïde aan de patiën...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,561	,132		11,806	<,001
	Wat is uw leeftijd (jaren)?	-,003	,003	-,064	-,916	,361

a. Dependent Variable: 1 Bij start van een opioïde aan de patiën...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,587	,439		3,615	<,001
	Wat is uw geslacht?	,017	,077	,016	,220	,826
	Wat is uw leeftijd (jaren)?	-,002	,003	-,058	-,787	,432
	The threats component scores	-,038	,065	-,046	-,580	,562
	The benefits component scores	,026	,072	,028	,353	,725

a. Dependent Variable: 1 Bij start van een opioïde aan de patiën...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,615	,211		7,654	<,001
	The threats component scores	-,001	,057	-,002	-,023	,982

a. Dependent Variable: 2 Bij herhalen van opioïderecept aan de p...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,586	,180		8,800	<,001
	The benefits component scores	,008	,063	,009	,132	,895

a. Dependent Variable: 2 Bij herhalen van opioïderecept aan de p...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,549	,124		12,447	<,001
	Wat is uw geslacht?	,037	,072	,035	,506	,613

a. Dependent Variable: 2 Bij herhalen van opioïderecept aan de p...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,841	,129		14,276	<,001
	Wat is uw leeftijd (jaren)?	-,006	,003	-,129	-1,860	,064

a. Dependent Variable: 2 Bij herhalen van opioïderecept aan de p...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,839	,429		4,287	<,001
	Wat is uw geslacht?	,003	,075	,003	,044	,965
	Wat is uw leeftijd (jaren)?	-,005	,003	-,129	-1,765	,079
	The threats component scores	-,001	,063	-,001	-,016	,988
	The benefits component scores	-,001	,071	-,001	-,008	,994

a. Dependent Variable: 2 Bij herhalen van opioïderecept aan de p...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,927	,030		64,803	<,001
	The threats component scores	,019	,008	,161	2,325	,021

a. Dependent Variable: 3 Maandelijks consult apotheker met patië...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,995	,026		77,462	<,001
	The benefits component scores	,000	,009	,001	,016	,987

a. Dependent Variable: 3 Maandelijks consult apotheker met patië...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,007	,018		112,992	<,001
	Wat is uw geslacht?	-,007	,010	-,050	-,719	,473

a. Dependent Variable: 3 Maandelijks consult apotheker met patië...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,973	,019		106,611	<,001
	Wat is uw leeftijd (jaren)?	,001	,000	,086	1,226	,222

a. Dependent Variable: 3 Maandelijks consult apotheker met patië...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,863	,060		30,810	<,001
	Wat is uw geslacht?	-,006	,011	-,042	-,579	,563
	Wat is uw leeftijd (jaren)?	,000	,000	,081	1,121	,264
	The threats component scores	,024	,009	,207	2,672	,008
	The benefits component scores	,012	,010	,094	1,205	,230

a. Dependent Variable: 3 Maandelijks consult apotheker met patië...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,943	,131		14,819	<,001
	The threats component scores	-,012	,035	-,024	-,348	,728

a. Dependent Variable: 4 Voor elk recept consult huisarts met pa...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,824	,112		16,293	<,001
	The benefits component scores	,026	,039	,047	,669	,504

a. Dependent Variable: 4 Voor elk recept consult huisarts met pa...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,868	,077		24,135	<,001
	Wat is uw geslacht?	,018	,045	,028	,401	,689

a. Dependent Variable: 4 Voor elk recept consult huisarts met pa...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,029	,080		25,267	<,001
	Wat is uw leeftijd (jaren)?	-,003	,002	-,118	-1,692	,092

a. Dependent Variable: 4 Voor elk recept consult huisarts met pa...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,980	,267		7,418	<,001
	Wat is uw geslacht?	,003	,047	,005	,064	,949
	Wat is uw leeftijd (jaren)?	-,003	,002	-,114	-1,563	,120
	The threats component scores	-,004	,039	-,008	-,108	,914
	The benefits component scores	,020	,044	,035	,445	,657

a. Dependent Variable: 4 Voor elk recept consult huisarts met pa...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,808	,175		10,360	<,001
	The threats component scores	-,004	,047	-,005	-,076	,940

a. Dependent Variable: 5 Beperking van hoeveelheid op recept (bi...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,629	,149		10,958	<,001
	The benefits component scores	,059	,052	,079	1,135	,258

a. Dependent Variable: 5 Beperking van hoeveelheid op recept (bi...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,807	,103		17,540	<,001
	Wat is uw geslacht?	-,007	,060	-,009	-,124	,901

a. Dependent Variable: 5 Beperking van hoeveelheid op recept (bi...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,825	,108		16,962	<,001
	Wat is uw leeftijd (jaren)?	-,001	,002	-,020	-,288	,774

a. Dependent Variable: 5 Beperking van hoeveelheid op recept (bi...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,537	,357		4,308	<,001
	Wat is uw geslacht?	-,004	,063	-,005	-,070	,944
	Wat is uw leeftijd (jaren)?	-,001	,003	-,015	-,200	,842
	The threats component scores	,025	,053	,037	,471	,638
	The benefits component scores	,070	,059	,094	1,187	,237

a. Dependent Variable: 5 Beperking van hoeveelheid op recept (bi...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,794	,119		15,083	<,001
	The threats component scores	,034	,032	,074	1,051	,295

a. Dependent Variable: 6 Vooraf afspraken maken met de patiënt o...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,892	,102		18,562	<,001
	The benefits component scores	,009	,036	,018	,255	,799

a. Dependent Variable: 6 Vooraf afspraken maken met de patiënt o...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,910	,070		27,129	<,001
	Wat is uw geslacht?	,004	,041	,007	,104	,918

a. Dependent Variable: 6 Vooraf afspraken maken met de patiënt o...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,905	,074		25,910	<,001
	Wat is uw leeftijd (jaren)?	,000	,002	,012	,170	,865

a. Dependent Variable: 6 Vooraf afspraken maken met de patiënt o...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,628	,244		6,683	<,001
	Wat is uw geslacht?	,005	,043	,008	,114	,909
	Wat is uw leeftijd (jaren)?	,000	,002	,018	,248	,804
	The threats component scores	,046	,036	,101	1,288	,199
	The benefits component scores	,033	,040	,065	,824	,411

a. Dependent Variable: 6 Vooraf afspraken maken met de patiënt o...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,676	,166		10,099	<,001
	The threats component scores	,039	,045	,061	,874	,383

a. Dependent Variable: 7 Een extra melding in het HIS/AIS bij he...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,869	,142		13,156	<,001
	The benefits component scores	-,018	,050	-,025	-,358	,721

a. Dependent Variable: 7 Een extra melding in het HIS/AIS bij he...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,842	,098		18,765	<,001
	Wat is uw geslacht?	-,014	,057	-,017	-,242	,809

a. Dependent Variable: 7 Een extra melding in het HIS/AIS bij he...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,731	,102		16,916	<,001
	Wat is uw leeftijd (jaren)?	,002	,002	,063	,894	,373

a. Dependent Variable: 7 Een extra melding in het HIS/AIS bij he...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,579	,340		4,646	<,001
	Wat is uw geslacht?	-,007	,060	-,008	-,110	,913
	Wat is uw leeftijd (jaren)?	,002	,002	,061	,828	,409
	The threats component scores	,041	,050	,065	,823	,411
	The benefits component scores	,005	,056	,007	,092	,927

a. Dependent Variable: 7 Een extra melding in het HIS/AIS bij he...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,616	,204		7,940	<,001
	The threats component scores	,014	,055	,018	,259	,796

a. Dependent Variable: 8 Afspraken met de huisartsenpost en dien...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,928	,173		11,146	<,001
	The benefits component scores	-,093	,060	-,107	-1,531	,127

a. Dependent Variable: 8 Afspraken met de huisartsenpost en dien...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,532	,120		12,790	<,001
	Wat is uw geslacht?	,082	,069	,083	1,181	,239

a. Dependent Variable: 8 Afspraken met de huisartsenpost en dien...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,766	,125		14,094	<,001
	Wat is uw leeftijd (jaren)?	-,002	,003	-,057	-,812	,418

a. Dependent Variable: 8 Afspraken met de huisartsenpost en dien...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,076	,413		5,022	<,001
	Wat is uw geslacht?	,059	,073	,060	,817	,415
	Wat is uw leeftijd (jaren)?	-,002	,003	-,051	-,698	,486
	The threats component scores	-,033	,061	-,042	-,541	,589
	The benefits component scores	-,106	,068	-,122	-1,552	,122

a. Dependent Variable: 8 Afspraken met de huisartsenpost en dien...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	,809	,208		3,885	<,001
	The threats component scores	,163	,056	,201	2,920	,004

a. Dependent Variable: 9 Afspraken tussen huisartsen en apotheke...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,574	,181		8,678	<,001
	The benefits component scores	-,058	,063	-,065	-,922	,358

a. Dependent Variable: 9 Afspraken tussen huisartsen en apotheke...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,169	,124		9,405	<,001
	Wat is uw geslacht?	,145	,072	,140	2,011	,046

a. Dependent Variable: 9 Afspraken tussen huisartsen en apotheke...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,560	,131		11,942	<,001
	Wat is uw leeftijd (jaren)?	-,004	,003	-,084	-1,195	,233

a. Dependent Variable: 9 Afspraken tussen huisartsen en apotheke...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	,624	,423		1,475	,142
	Wat is uw geslacht?	,111	,074	,107	1,494	,137
	Wat is uw leeftijd (jaren)?	-,002	,003	-,056	-,781	,436
	The threats component scores	,167	,062	,205	2,670	,008
	The benefits component scores	,032	,070	,035	,453	,651

a. Dependent Variable: 9 Afspraken tussen huisartsen en apotheke...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,819	,215		8,474	<,001
	The threats component scores	-,093	,058	-,112	-1,609	,109

a. Dependent Variable: 10 FTO over opioïdegebruik bij chronische ...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,267	,184		6,887	<,001
	The benefits component scores	,075	,064	,082	1,167	,245

a. Dependent Variable: 10 FTO over opioïdegebruik bij chronische ...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,281	,127		10,112	<,001
	Wat is uw geslacht?	,119	,073	,113	1,613	,108

a. Dependent Variable: 10 FTO over opioïdegebruik bij chronische ...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,698	,132		12,844	<,001
	Wat is uw leeftijd (jaren)?	-,005	,003	-,120	-1,726	,086

a. Dependent Variable: 10 FTO over opioïdegebruik bij chronische ...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,669	,435		3,840	<,001
	Wat is uw geslacht?	,112	,076	,107	1,471	,143
	Wat is uw leeftijd (jaren)?	-,004	,003	-,090	-1,242	,216
	The threats component scores	-,087	,064	-,105	-1,356	,176
	The benefits component scores	,038	,072	,041	,526	,599

a. Dependent Variable: 10 FTO over opioïdegebruik bij chronische ...

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,441	,153		22,424	<,001
	Wat is uw geslacht?	,142	,089	,112	1,599	,111

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,659	,161		22,691	<,001
	Wat is uw leeftijd (jaren)?	,000	,004	,008	,115	,909

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,664	,044		83,102	<,001
	Mijn functie is ApIOS	,166	,158	,074	1,051	,294

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,686	,047		78,856	<,001
	Mijn functie is tweede apotheker	-,047	,112	-,029	-,418	,676

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,651	,067		54,088	<,001
	Mijn functie is beherend apotheker	,044	,087	,035	,506	,613

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,686	,049		75,287	<,001
	Mijn functie is eigenaar	-,037	,098	-,026	-,373	,710

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,713	,050		73,614	<,001
	Mijn apotheek bevindt zich in een kleine plaats	-,121	,092	-,091	-1,306	,193

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,659	,059		61,705	<,001
	Mijn apotheek bevindt zich in een middelgrote plaats	,039	,085	,032	,455	,649

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,657	,048		76,499	<,001
	Mijn apotheek bevindt zich in een grote plaats	,093	,103	,063	,896	,371

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,034	,327		9,278	<,001
	Wat is uw geslacht?	,177	,097	,139	1,833	,068
	Wat is uw leeftijd (jaren)?	,005	,004	,097	1,135	,258
	Mijn functie is ApIOS	,387	,222	,172	1,746	,082
	Mijn functie is tweede apotheker	,102	,170	,064	,601	,548
	Mijn functie is beherend apotheker	,171	,141	,138	1,211	,227
	Mijn functie is eigenaar	,045	,123	,032	,362	,718
	Mijn apotheek bevindt zich in een kleine plaats	-,116	,100	-,087	-1,157	,249
	Mijn apotheek bevindt zich in een grote plaats	,029	,113	,020	,258	,797

a. Dependent Variable: The threats component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,039	,138		22,068	<,001
	Wat is uw geslacht?	-,139	,080	-,121	-1,735	,084

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,959	,144		20,489	<,001
	Wat is uw leeftijd (jaren)?	-,004	,003	-,076	-1,081	,281

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,808	,040		70,722	<,001
	Mijn functie is ApIOS	,004	,142	,002	,028	,977

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,799	,042		66,699	<,001
	Mijn functie is tweede apotheker	,057	,100	,040	,567	,572

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,842	,061		46,908	<,001
	Mijn functie is beherend apotheker	-,055	,078	-,049	-,704	,482

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,818	,044		64,089	<,001
	Mijn functie is eigenaar	-,038	,088	-,030	-,429	,669

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,783	,045		61,338	<,001
	Mijn apotheek bevindt zich in een kleine plaats	,086	,083	,072	1,028	,305

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,754	,053		51,972	<,001
	Mijn apotheek bevindt zich in een middelgrote plaats	,112	,076	,103	1,472	,142

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,867	,042		68,086	<,001
	Mijn apotheek bevindt zich in een grote plaats	-,272	,091	-,205	-2,988	,003

a. Dependent Variable: The benefits component scores

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,472	,289		11,997	<,001
	Wat is uw geslacht?	-,161	,086	-,140	-1,877	,062
	Wat is uw leeftijd (jaren)?	-,006	,004	-,117	-1,393	,165
	Mijn functie is ApIOS	-,238	,196	-,117	-1,212	,227
	Mijn functie is tweede apotheker	-,062	,151	-,044	-,412	,681
	Mijn functie is beherend apotheker	-,125	,125	-,113	-1,002	,318
	Mijn functie is eigenaar	-,058	,109	-,046	-,535	,594
	Mijn apotheek bevindt zich in een kleine plaats	,020	,088	,017	,230	,818
	Mijn apotheek bevindt zich in een grote plaats	-,233	,100	-,176	-2,332	,021

a. Dependent Variable: The benefits component scores

Descriptives

Wat is uw geslacht?				Statistic	Std. Error
Man	The threats component scores	Mean		3,5837	,06505
		95% Confidence Interval for Mean	Lower Bound	3,4539	
			Upper Bound	3,7134	
		5% Trimmed Mean		3,5771	
		Median		3,5714	
		Variance		,296	
		Std. Deviation		,54425	
		Minimum		2,43	
		Maximum		5,00	
		Range		2,57	
		Interquartile Range		,57	
		Skewness		,005	,287
		Kurtosis		-,042	,566
Vrouw	The threats component scores	Mean		3,7259	,05445
		95% Confidence Interval for Mean	Lower Bound	3,6182	
			Upper Bound	3,8336	
		5% Trimmed Mean		3,7457	
		Median		3,7143	
		Variance		,400	
		Std. Deviation		,63266	
		Minimum		1,71	
		Maximum		5,00	
		Range		3,29	
		Interquartile Range		,71	
		Skewness		-,533	,209
		Kurtosis		,958	,414

Descriptives

Wat is uw geslacht?				Statistic	Std. Error
Man	The benefits component scores	Mean		2,9000	,06182
		95% Confidence Interval for Mean	Lower Bound	2,7767	
			Upper Bound	3,0233	
		5% Trimmed Mean		2,9079	
		Median		2,9000	
		Variance		,268	
		Std. Deviation		,51724	
		Minimum		1,00	
		Maximum		4,40	
		Range		3,40	
		Interquartile Range		,60	
		Skewness		-,336	,287
		Kurtosis		2,238	,566
Vrouw	The benefits component scores	Mean		2,7615	,04770
		95% Confidence Interval for Mean	Lower Bound	2,6671	
			Upper Bound	2,8558	
		5% Trimmed Mean		2,7749	
		Median		2,8000	
		Variance		,307	
		Std. Deviation		,55422	
		Minimum		1,20	
		Maximum		4,20	
		Range		3,00	
		Interquartile Range		,60	
		Skewness		-,363	,209
		Kurtosis		,309	,414

Descriptives

			Statistic	Std. Error
The threats component scores voor apothekers ≥ 41,5 jaar	Mean		3,6484	,06252
	95% Confidence Interval for Mean	Lower Bound	3,5244	
		Upper Bound	3,7724	
	5% Trimmed Mean		3,6581	
	Median		3,7143	
	Variance		,407	
	Std. Deviation		,63761	
	Minimum		1,71	
	Maximum		5,00	
	Range		3,29	
	Interquartile Range		,71	
	Skewness		-,342	,237
	Kurtosis		,597	,469

Descriptives

			Statistic	Std. Error
The threats component scores voor apothekers < 41,5 jaar	Mean		3,7072	,05712
	95% Confidence Interval for Mean	Lower Bound	3,5939	
		Upper Bound	3,8205	
	5% Trimmed Mean		3,7159	
	Median		3,7143	
	Variance		,330	
	Std. Deviation		,57406	
	Minimum		1,86	
	Maximum		5,00	
	Range		3,14	
	Interquartile Range		,57	
	Skewness		-,328	,240
	Kurtosis		,650	,476

Descriptives

			Statistic	Std. Error
The benefits component scores voor apothekers ≥ 41,5 jaar	Mean		2,7519	,05972
	95% Confidence Interval for Mean	Lower Bound	2,6335	
		Upper Bound	2,8704	
	5% Trimmed Mean		2,7709	
	Median		2,8000	
	Variance		,371	
	Std. Deviation		,60899	
	Minimum		1,00	
	Maximum		4,40	
	Range		3,40	
	Interquartile Range		,80	
	Skewness		-,442	,237
	Kurtosis		,649	,469

Descriptives

			Statistic	Std. Error
The benefits component scores voor apothekers < 41,5 jaar	Mean		2,8673	,04627
	95% Confidence Interval for Mean	Lower Bound	2,7755	
		Upper Bound	2,9591	
	5% Trimmed Mean		2,8660	
	Median		2,8000	
	Variance		,216	
	Std. Deviation		,46500	
	Minimum		1,80	
	Maximum		4,20	
	Range		2,40	
	Interquartile Range		,60	
	Skewness		,078	,240
	Kurtosis		-,046	,476

Descriptives

Mijn apotheek bevindt zich in:			Statistic	Std. Error
KLEINE PLAATS	The threats component scores	Mean	3,5925	,06956
MIDDELGROTE PLAATS	The threats component scores	Mean	3,6971	,05872
GROTE PLAATS	The threats component scores	Mean	3,7500	,10894

Descriptives

Mijn apotheek bevindt zich in:			Statistic	Std. Error
KLEINE PLAATS	The benefits component scores	Mean	2,8689	,05666
MIDDELGROTE PLAATS	The benefits component scores	Mean	2,8660	,05257
GROTE PLAATS	The benefits component scores	Mean	2,5955	,09979

Master dissertation submitted to the faculty of Pharmaceutical Sciences, performed in collaboration with UPPER, Division of Pharmacoepidemiology and Clinical Pharmacology, University Utrecht.

Promotor: Prof. dr. Marcel Bouvy
Second promotor: Prof. dr. Koen Boussery

Commissioners: Prof. dr. Leen De Bolle and Prof. dr. Lies Lahousse

This master dissertation is an examination document that has not been corrected for eventually noticed mistakes. The information, conclusions and points of view in this master dissertation are those of the author and do not necessarily represent the opinion of the promoter or his/her research group.