Investigating Insomnia Disorder Treatment in Patients with Substance Use Disorder

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Abstract

Insomnia is a highly prevalent issue that is often neglected in treatment due to perceiving it as a symptom of another disorder. This could hinder the treatment of patients with substance use disorders (SUDs), due to the risk of relapse. The present study investigated how psychologists perceive and treat insomnia among individuals with SUDs by posing the following research question: *How do psychologists perceive insomnia and its treatment among individuals with substance use disorders?* A qualitative design was used by conducting semi-structured interviews among 10 psychologists from the Netherlands and Germany. The interviews were conducted online and consisted of three sections, each section containing questions about insomnia treatment in a specific disorder. The section about SUDs entailed questions about participants' treatment practices and considerations when treating insomnia in patients with SUDs. The results of the thematic analysis revealed four overarching themes with two to six codes per theme. The findings indicate that some participants viewed insomnia as a symptom, whereas others saw it either as a symptom or a separate problem, depending on the patient's situation. Participants also preferred non-pharmacological treatment of insomnia. The study draws attention to the potential problems of viewing insomnia as a symptom and contributes to the research by highlighting the importance of using non-pharmacological insomnia treatments in SUD patients. The findings can be applied to the field of psychological and rehabilitation treatment by indicating how to select the right treatment, suggesting the importance of including CBT-I, and the relevance of evaluating treatment priorities.

Keywords: insomnia, substance use disorders, psychologists, semi-structured interviews, treatment

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Sleep-wake disorders are very common. They are usually found among psychiatric patients (Mondal et al., 2018; Seow et al., 2018). Insomnia is the most common among all sleep-wake disorders, with about one-third of the adult population experiencing insomnia symptoms (American Psychiatric Association, 2013). Mondal et al. (2018) found that 83% of their psychiatric patients' population suffered from some type of sleep disorder, while 78% reported symptoms of insomnia. The study by Seow et al. (2018) found that almost one-third of their psychiatric patients' sample suffered from insomnia disorder. According to DSM-5, insomnia disorder is characterised by "dissatisfaction with sleep quantity or quality with complaints of difficulty initiating or maintaining sleep" (American Psychiatric Association, 2013, p. 363) and "Early-morning awakening with inability to return to sleep" (American Psychiatric Association, 2013, p. 362). Another important feature involves sleep complaints being "accompanied by clinically significant distress or impairment in social, occupational, or other important areas of functioning" (American Psychiatric Association, 2013, p. 363). Given these findings, it is important to focus on what is the role of insomnia in psychological treatment and how it is addressed.

Persistent insomnia poses a risk factor for substance use disorders (SUDs), as some individuals suffering from insomnia may try to assist their sleep by misusing alcohol or medications. This was found by a study that showed that reporting dependence on drugs and alcohol 3.5 years later was 7.2 times more likely in individuals with insomnia than individuals without insomnia (Breslau et al., 1996). They might also try to fight excessive fatigue through the misuse of caffeine or other stimulants (American Psychiatric Association, 2013). In summary, substances are often used to counter insomnia, which could become problematic and result in SUDs.

However, substance use does not always indicate that there is a substance use disorder. To draw the line between the two, SUDs should be defined. DSM-5 defines substance use disorders as "a cluster of cognitive, behavioral, and physiological symptoms indicating that the individual continues using the substance despite significant substance-related problems" (American Psychiatric Association, 2013, p. 483). These disorders can be diagnosed to several substance classes, such as (a) alcohol; (b) cannabis; (c) hallucinogens; (d) inhalants; (e) opioids; (f) sedatives, hypnotics, or anxiolytics; (g) stimulants; (h) tobacco; and (h) other substances. One of the important characteristics of substance use disorders includes persisting changes in brain circuits in individuals with severe disorders. These changes may result in

behavioural effects such as repeated relapses and intense drug cravings in the presence of drug-related stimuli (American Psychiatric Association, 2013). On the whole, substance use could turn into SUDs when the use starts to interfere with an individual's normal functioning.

In addition to insomnia posing as a risk factor for SUDs, insomnia can also worsen the treatment success of SUDs. Insomnia in patients with SUDs increases the risk of relapse to substance use (Grau-López et al., 2014; Brower & Perron, 2010, as cited in Grau-López et al., 2018). Conversely, treatment of SUDs involves the use of prescribed medications, which could result in persistent insomnia, such as in the case of treating opioid use disorders, where methadone is most commonly used (Wilkerson & McRae-Clark, 2021). Therefore, a bidirectional relationship can be suggested between insomnia and SUDs. Various types of treatment are available for SUDs, such as naltrexone for alcohol dependence, and bupropion for tobacco use disorder (Davey, 2021). Although non-pharmacological treatments such as aversion therapy and self-help groups are also used to treat SUDs, they are usually used in combination with drug-based detoxification. It is most common to use a combined treatment of drug-based detoxification, psychological therapy, skills training, as well as the involvement of the family and friends of the client (Davey, 2021). All in all, the literature suggests that SUDs are mainly treated by using medication, however, the use of this medication can result in insomnia. The emergence of insomnia could lead to relapse among SUD patients.

In comparison to the SUD treatment, insomnia treatment is not as commonly addressed. The diagnosis and treatment of insomnia are often neglected among psychiatric patients (Seow et al., 2018). The low insomnia diagnosis rates could result as a consequence of attributing patients' sleep problems to their psychiatric condition (Seow et al., 2018). This should not be neglected, as treating insomnia could help reduce comorbidities and other mental health problems, as well as inhibit the onset of clinical disorders (Freeman et al., 2020; Wilkerson & McRae-Clark, 2021). This indicates that treating insomnia does not only help with the sleep problem itself, but it also aids treatment of other mental health disorders and SUDs.

Research indicates that there are various ways of treating insomnia. Benzodiazepines or other $GABA_A$ receptor agonists are most commonly used (Krystal, 2015; Preskorn, 2015; Yen et al., 2015, as cited in Grau-López et al., 2018). However, individuals with SUDs fall at risk of misusing benzodiazepines. This involves taking larger or more frequent doses than prescribed by a specialist (Ciraulo & Nace, 2000). In general, using pharmacological

treatment among this group poses risks of cognitive impairment and rebound insomnia (Speed et al., 2022). Therefore, caution is needed when prescribing this treatment to SUD patients (Brower, 2015; Lader, 2014). Other insomnia treatments include trazodone, which is prescribed for alcohol-dependent patients. However, this antidepressant can increase drinking during withdrawal (Kolla et al., 2011). Lastly, psychotropic medication such as mirtazapine has shown promising results in aiding patients with SUDs (Grau-López et al., 2018; Seow et al., 2018). Although various medications are available for the treatment of insomnia, SUD patients are often at risk of misusing these treatments. It is important to consider these risks when choosing between the treatment options for insomnia in this group.

It is advised to use psychological and behavioural therapies such as cognitive behavioural therapy (CBT) as an alternative or an addition to the drug intervention. Due to the risks involved, non-pharmacological treatments could be a safer alternative for these individuals (Speed et al., 2022). In particular, cognitive behavioural therapy for insomnia (CBT-I) is recommended as a treatment for chronic insomnia (Speed et al., 2022) and it improves sleep in SUD patients (Mijnster et al., 2022). CBT-I treatment consists of "sleep consolidation, stimulus control, cognitive restructuring, sleep hygiene, and relaxation techniques" (Rossman, 2019, p. 544). However, this treatment is not widely used in clinical settings (Speed et al., 2022). This could be due to the limited availability of studies on CBT-I treatment adapted for SUDs, resulting in a lack of knowledge on this treatment adaptation (Mijnster et al., 2022). Therefore, the present study aims to focus on the psychologists' perceptions of insomnia in individuals with SUDs and what types of insomnia treatments they perceive as suitable.

Most of the aforementioned insomnia treatments present certain risks for individuals suffering from SUDs. Although psychological and behavioural therapies appear to be promising as a safer alternative, they are not as commonly used (Seow et al., 2018; Speed et al., 2022). Furthermore, the literature suggests that among psychiatric patients, insomnia is commonly neglected in diagnosis and treatment (Seow et al., 2018). Given these findings, it can be argued that insomnia among SUD patients should be (a) treated more often; and (b) treated using non-pharmacological treatment options. Thus, this study aims to investigate the treatment options used in practice among psychologists in the Netherlands and Germany in order to test these findings and find out how insomnia is treated in practical settings.

To investigate how commonly insomnia is treated among SUD patients and in what way the treatment is conducted, the present study aims to investigate the perception of psychologists on the treatment of insomnia among patients with SUDs. Thus, the research

question is the following: *How do psychologists perceive insomnia and its treatment among individuals with substance use disorders?* This question was investigated by interviewing a sample of psychologists on their views on treating insomnia among individuals suffering from substance use disorders.

Method

Design

Semi-structured interviews were used among a sample of 10 psychologists. The research question was addressed by asking participants questions about their treatment practices with individuals with SUDs, as well as the occurrence of insomnia among such patients. Furthermore, they were asked about the treatments they use for insomnia among patients with SUDs and their views on non-pharmacological treatments for insomnia. This design was chosen due to the explorative nature of the study. For this, semi-structured interviews were appropriate as they yield in-depth information about a topic that requires expertise in the treatment of SUDs, and they provide a degree of flexibility.

Participants

Initially**,** 115 participants were contacted, and the final sample consisted of 10 (n = 3 male, n = 7 female) psychologists who have knowledge about insomnia and its treatment. However, only five participants could answer SUD-specific questions. All the interviews were coded as they entailed relevant responses, but only five interviews entailed more SUD-specific responses. The participants were aged between 23 and 53 years old (M_{age} = 32.5, SD_{age} = 9.30), and were prevalently German (n = 5) and Dutch (n = 2), with a few other nationalities, such as Italian (n = 1), British (n = 1), and Turkish (n = 1). Half of the sample worked in Germany (n = 5), whereas the other half worked in the Netherlands (n = 5). The participants have between 6 months to 20 years ($M_{experience}$ = 7. 17, $SD_{experience}$ = 6.49) of experience in the practice, and the majority of them worked as psychotherapists (n = 5). Others worked as counsellors (n = 2), basic psychologists (n = 1), mental health psychologists (n = 1), clinical psychologists (n = 3), or were undergoing psychotherapy and mental health psychology training (n = 2). They mainly worked with clients with depression, anxiety, psychosis, trauma, dementia, and other mental health disorders.

Inclusion criteria included working as a psychologist or psychotherapist in the Netherlands or Germany and being directly involved with the counselling or treatment of patients. Exclusion criteria involved participants being unable to answer the questions in English or German. The sample was recruited using purposive sampling and snowball sampling. In particular, participants were recruited online via LinkedIn or Google searches on

the pages such as TherapyRoute. They were contacted via LinkedIn messages or email. After the interviews, the participants were asked whether they could provide contact to other psychologists in their network who would possibly participate in the study. Additionally, ethical approval was received from the BMS Ethics committee.

Materials

An informed consent form was utilised. It was extracted from the website of the BMS department at the University of Twente and adjusted to fit the present study (see Appendix A). The consent form entailed information such as the purpose of the study, the use of data throughout the study, anonymity, confidentiality, voluntary consent, right to withdraw, as well as storage of data. Furthermore, the informed consent form was created in English and German (see Appendix A), as some participants expressed themselves better in German.

Next, an interview scheme was created in English and German (see Appendix B). The interview scheme consisted of (a) a brief introduction and an overview of the study; (b) a question about demographic information; (c) four general questions to get to know the interviewees' jobs and fields of expertise; and (d) three main parts which measured psychologists' opinions and used treatment for insomnia among different patients. The three parts include the patients with (a) mood disorders; (b) substance use disorders; and (c) anxiety disorders. In total, these three sections consisted of 22 questions, as well as some probes that were used to prompt the participants to give more detailed information. However, the focus of this thesis is on section (b) substance use disorders. This section contained questions such as "How do you usually treat insomnia in individuals suffering from SUDs?" and "Are there any psychological or behavioural treatment options that you are using to treat insomnia in SUD patients?" with probes such as "Why do you use this(ese) type(s) of treatment(s)?" and "How satisfied are you with the treatments you use?" (see Appendix B). To check the quality of the measurements, the interview scheme was checked by the two supervisors and tested in a test interview with a psychologist. After consultations with supervisors, some adjustments were made to the interview questions. The test interview provided insightful feedback, however, changes to the interview questions were not required. Furthermore, interviews were conducted online using Microsoft (MS) Teams or Zoom video calls. They were recorded using the video recording functions on Zoom and MS Teams or via the mobile phone audio recording application. The latter was the case if the participant did not wish to be recorded with the video recording function or wanted to create an online meeting themselves. The recordings were later transcribed using the MS Teams transcription function or via Otter.ai and Amberscript in case Zoom calls were used to conduct interviews.

Procedure

To recruit participants, they were found and contacted through LinkedIn and TherapyRoute.com. Some participants were also referred to by other psychologists or the researchers' acquaintances. Moreover, some participants were the researchers' acquaintances. Once participants responded, the communication continued through email or WhatsApp. The interview dates were scheduled, and participants received the meeting invitation links. Moreover, participants received informed consent via email beforehand. After the participant signed the consent and this was received by the researcher, the interview started. Firstly, the researcher gave a brief introduction of the interview and ensured the participant of the confidentiality and right to withdraw. Next, the recording of the interview started. This was followed by asking a few demographic and general questions, and then moving on to the main sections of the interview. Each section of the interview was briefly introduced before the questions were asked. In case the participants did not elaborate on their answers or were unsure of how to answer the question, probes were used to give them a more explicit way to express their thoughts (see Appendix B). Moreover, if the participants could not answer the question, this question was skipped and they were encouraged to answer other questions. This was the case when participants said that they did not have the experience or training to be able to answer such questions. At the end of the interview, the participants were thanked for their participation and asked if they could recommend another interviewee to participate in the interview. Overall, the interviews took between 30 to 40 minutes.

Data Analysis

To analyse the data, the interviews were transcribed verbatim using MS Teams, Otter.ai, or Amberscript. After that, the transcripts were checked for errors by playing the recordings and fixing potential errors created by the softwares. Next, the transcripts were edited to remove participants' personal identifiable information. All the collected data were stored using the Google Docs folders.

Following that, the transcripts were coded using the inductive coding method and a thematic analysis by Braun and Clarke (2006). This includes six main steps, respectively (a) familiarisation with your data; (b) creating initial codes; (c) looking for themes; (d) reviewing the themes; (e) defining and naming themes; and (f) writing the report (Braun & Clarke, 2006). To code the interviews, all parts of the transcripts were screened for emerging themes. The sections that did not include SUD-specific questions were marked when they entailed general information that could be applied to insomnia in SUDs, such as how insomnia is viewed, regardless of the disorder being treated. Next, codes were created by finding

important quotations and labelling them. This was done by using the Atlas.ti software. Sometimes the codes were split up into two or more subcodes. The codes found in the first transcript were used in the next transcript, however, more codes were created in the next transcript if necessary. This was done until the last transcript when no new codes emerged. After the first round of coding was done, the codes were edited in case more suitable names and code groups were found. In the meantime, the codebook was created by making a table of all the codes, subcodes, and their descriptions (see Appendix C). This was done continuously throughout the coding process. To ensure the validity of the codes, they were checked by a fellow researcher who conducted the same interviews and coded them as well. This was done by coding two transcripts with the codes used in the present research (see Appendix C). Afterwards, the codes were checked once again, and irrelevant codes were removed. Once the codes were finalized, they were selected and sorted according to their fitting themes.

Results

Ten interviews were coded to answer the research question: *How do psychologists perceive insomnia and its treatment among individuals with substance use disorders?* Table 1 shows all the codes that were created. Overall, there are 16 codes and four overarching themes. Moreover, Table 1 indicates the number of interviews where each code appeared. The code that appeared across most interviews was *Insomnia treatment*, whereas the least commonly found codes were *Insomnia as a separate issue* and *Need for sleep specialist*. In addition, the codebook was developed to indicate the exact meanings of the codes (see Appendix C). To contextualise the interview quotations, Table 2 was created to represent the demographic information of the participants along with their pseudonymised names. The names were pseudonymised to ensure that there is no identifiable information about the participants. The table also includes information about which participants answered the SUD-specific questions.

Table 1

Themes and Codes

Themes and their codes	N (Number of interviews where the code appeared)
Opposing views of insomnia	
Insomnia as a separate issue	2
Insomnia as a symptom	4

Themes and their codes	N (Number of interviews where the code appeared)
Treatment options	
Holistic treatment	4
Insomnia treatment	10
Medication use for sleep treatment	3
Refering to the GP/doctor/psychiatrist	2
View of sleep treatments	
Importance of other treatment options	2
Importance of sleep treatment	6
Insomnia treatment training satisfaction	9
Medication versus psychological treatment	6
Need for sleep specialist	1
Treatment success	4
Focus and priorities	
Explorative process into insomnia	2
Focusing on insomnia treatment	5
Treating addiction itself	4
Considerations	8

Table 2

Demographic Information

Name	Age	Gender	Nationality	Profession	Answered SUD-specific questions
Laura	23	Female	German	Counsellor at the psychology department of a clinic	Yes
Johann	41	Male	German	Specialist in psychiatry, working as a psychotherapist	Yes

Name	Age	Gender	Nationality	Profession	Answered SUD-specific questions
Anna	53	Female	Dutch	Registered psychotherapist and mental health psychologist	No
Simon	31	Male	Dutch	Psychologist, in education for mental health psychologist	Yes
Elisa	29	Female	Turkish	Basic psychologist	No
Mia	37	Female	Italian	Psychologist, psychotherapist in practice with international clients	No
Sarah	34	Female	British	Counsellor for English-speaking experts	Yes
Tobias	23	Male	German	Clinical psychologist	No
Andrea	29	Female	German	Psychotherapist in a practice for children and young people	No
Nora	25	Female	German	Working in the clinic, training to be a psychotherapist	Yes

Theme 1: Opposing Views of Insomnia

The first theme involves participants' different views of insomnia. This involves seeing insomnia as a symptom or as a separate problem. Some participants had very strong opinions on this matter, with some seeing it purely as a symptom, whereas others thought it was important to view it as a separate issue. One strong view about insomnia as a symptom was described by "Anna".

"…it should be clear that insomnia is just a symptom of mood disorder. Insomnia is just a symptom of general mental health disorder. […] It's just a symptom. It's like fever. If you have a fever, you don't know what the problem is… So there is a lot of general knowledge about, in our field, about insomnia, but mostly because it's part of the general mental health problem people have".

Anna's example shows that she firmly believes that insomnia cannot be treated as a separate problem, as it is merely a symptom of a bigger mental health disorder. This is underlined by the statement "it should be clear that", meaning that she has a strong view of insomnia as a symptom and would like to convey this to others. This point is further

emphasised by comparing insomnia to a fever, thus levelling a "symptom of general mental health disorder" to a symptom of a physical illness.

Although some participants had a similar view to Anna, others also argued that insomnia can be viewed differently depending on the individual's situation. This was indicated by "Simon".

"Certainly for the people who just came into the mental healthcare as a patient but for people who have been here for three 4-5 years, 10 years, then it is seen as a separate thing. […] So the longer they are in treatment, the more it will be seen as a separate thing".

Simon's example indicated that insomnia is seen as a symptom with newer patients, however, this might change with individuals who have been in the treatment for a longer time. Therefore, insomnia may be seen as a separate issue if it is still a problem after a longer period of an individual's treatment. In comparison to Anna, Simon showed a more accepting attitude toward viewing insomnia as a separate issue, as he argued that the insomnia view could depend on an individual's treatment duration. On the other hand, Anna's attitude is strongly fixated on the symptom aspect of insomnia. Although few other participants had a similar view to Anna, they did not portray such a strong opinion and belief in their view of insomnia as a symptom, which made Anna's view more distinctive.

Theme 2: Treatment Options

The second theme involves any mentions of treatments that psychologists use and were trained in. This involves treatments that focus only on insomnia, as well as treatments that focus on the person as a whole, including insomnia. The most commonly mentioned treatment was *sleep hygiene*, which was mentioned by several participants. This is a subcode belonging to the code *insomnia treatment*. This code also included treatments such as *behavioural therapy, breathing techniques, CBT-I, group therapy, headspace technique, mindfulness, psychoeducation, relaxation techniques, sleep restriction*, and *techniques to not ruminate*. Only one person reported using a complete CBT-I treatment, however another commonly mentioned treatment from this code group was *relaxation techniques*, such as progressive muscle relaxation. This is best illustrated by an example from "Laura", who highlighted the use of this technique as a replacement for substance use.

" then you need to focus on the alcohol consumption to reduce that but also like to give them other techniques so they can replace the alcohol with, for example, a relaxation technique. So they still think, "Hey, I'm doing something for my sleep." So I think that is a very important part".

Laura's example shows that alcohol consumption can be replaced by other techniques. She believes that this is very important, as it gives individuals suffering from SUDs an alternative to combat sleeping problems. Therefore, instead of alcohol, individuals would use techniques such as relaxation techniques to aid their sleep.

On the other hand, medication was mentioned less frequently as a treatment in comparison to non-pharmacological alternatives. An example of this is from "Johann", who mentions that they focus on multiple things regarding sleep quality treatment, and when they decide to resort to medication.

"...first of all without medication, just to ask how the sleep-wake rhythm or day-night rhythm is, how they spend their evenings, whether they do anything stimulating, [...] or whether they observe sleep hygiene. Then a bit about the actual rhythm, the biorhythm, how someone is in general and how it is at home, what I do there. [...] and then step two is actually looking at medication if they notice that it doesn't help at all or if you have the feeling that it is really quite solid. That's where I would also start with medication".

Johann's example portrays the use of *holistic treatment* of individuals, which was reported by several participants. He indicated that he focuses on several aspects of an individual's routine, such as how they spend their evenings and their sleep hygiene observation. Johann also talked about an individual's sleep-wake rhythm, showing that this also plays an important role in sleep treatment. Furthermore, he emphasised that he would only look at medication if other alternatives do not help, demonstrating the occurrence of *Medication use for sleep treatment*. Similar answers were reported by other participants, who often mentioned that they would refer the client to a medical professional such as the GP or the psychiatrist only if the problem is very urgent and nothing else would work.

Theme 3: View of Sleep Treatments

The third theme includes preferences among various types of insomnia treatment and when medication should be used. Moreover, it includes *treatment success*, which is a code that was used when participants talked about how successful their treatment is, when the treatment was not successful, and factors that influence treatment success. Overall, responses differed, as some participants reported that the treatment is slightly successful, while others reported that the patients usually get better. Furthermore, one interviewee reported that treatment success depends on an individual's willingness to follow the treatment. The theme also included the code *insomnia treatment training satisfaction* which was used when participants reported how satisfied they are with the training that they received for treating insomnia. The views on the importance of treating sleep problems were also included in this

theme. While some participants reported a wish for having other treatment options for insomnia, many participants indicated that it is very important to treat sleeping problems, with one participant indicating that there should be a sleep specialist.

Moreover, few participants reported using medical treatment, and some considered the non-pharmacological alternatives to be more beneficial in the long run compared to medical treatment. This was also indicated by "Laura".

"I think it's very important, especially in this group, to look at the non-pharmacological treatments because the group is really prone to those drugs and medicine and stuff and I don't want them to truly believe "Okay now can only sleep with this pill" or "Only sleep if I take this". So they again become addicted to it […] so I think it's very important to give them like the real behaviour techniques and to change their attitudes towards themselves and towards their sleep. So they also have something in the long run from it".

Laura argued that it is especially important to focus on non-pharmacological treatments among individuals with SUDs as they are prone to addiction, thus being more likely to get addicted to the pills. She further indicated that behavioural treatment is more beneficial in the long term than using pills as it results in a change of attitudes towards oneself and sleep, thus the SUD patients would not believe that they could only sleep by using medication.

Theme 4: Focus and Priorities

The last theme includes the things that psychologists reported to focus on and prioritise in treatment. This includes when they decide to focus on treating insomnia or the addiction itself, and considerations to take into account. This theme also includes when psychologists decide to opt for an explorative process into insomnia by asking about the reasons why the person cannot sleep. While some psychologists reported that they would focus on sleep treatment right away, others reported that they would focus on first treating the addiction. "Simon" was one of the psychologists that argued for the importance of treating addiction prior to treating sleeping problems.

"And I mean, when someone's using like an upper, like a methamphetamine or cocaine or […] I mean, yeah, then it's very hard to teach them how to sleep again. Yeah, they probably first have to stop the substance abuse and then we can talk about sleep".

The example from Simon portrays that some participants believe that it is difficult to treat sleep when the substance is still being used, as some substances make it very difficult for the person to sleep. Simon uses the phrase "teach them how to sleep again" which indicates that SUDs disrupt sleep to the point that the individuals suffering from SUDs need

to relearn it. Therefore, he argued that the treatment of substance use should be prioritised, as this could be the root cause of the sleeping problem.

Moreover, some participants indicated that certain things need to be considered before treating sleeping problems, such as the *dangers of* using *sleeping pills* and an individual's *day-night rhythm* and *emotion regulation.* Further considerations were the individual's *tiredness* during therapy*,* their *treatment adherence,* and knowing about the *type of substance* they use. The last two considerations were the instances of *substance abuse causing insomnia* and the *substance use to sleep better*. One of these considerations was brought up by "Laura", who mentioned that sometimes substances are used to help individuals sleep.

"Yeah, definitely, especially also on other drugs when they have a drug that they do a lot by partying or something. So they are more alert, more awake and happier and stuff then they yeah, counter drug with something else, often to come down to relax better because they are like okay, "Now I have the time to sleep, so I should take this so I can sleep now"".

Laura's example indicates that some individuals self-medicate to sleep better after using drugs that made them more alert. She also uses words such as "definitely" and "especially" to indicate that it is highly prevalent to self-medicate among SUD patients who use drugs. This example shows that while substance use makes one more awake and alert, substances are also used to combat this effect.

Discussion

The present study investigated psychologists' views of insomnia and its treatment among individuals with SUDs. The research question guiding the present study was *How do psychologists perceive insomnia and its treatment among individuals with substance use disorders?* To answer the research question, semi-structured interviews were conducted among a sample of 10 psychologists who answered questions about their views of insomnia, their treatment options, and the views of different insomnia treatments. Following the interviews, four overarching themes were found within the data (a) Opposing views of insomnia; (b) Treatment options; (c) View of sleep treatments; and (d) Focus and priorities.

Firstly, the findings of this study show that the participants' views of insomnia differed. Some participants reported viewing insomnia strictly as a symptom, supporting the findings by Seow et al. (2018) which indicated that insomnia treatment is frequently neglected among patients and attributed to their other mental health problems. Seow et al.'s (2018) findings are contrasted by participants who considered it important to view insomnia as a separate problem, and participants who indicated that insomnia can be viewed in both ways depending on the individual's situation. Therefore, some participants had very strong

views about insomnia, whereas others were more open-minded to seeing insomnia in different ways depending on the individual's situation. This finding shows that even though the sample came from two countries with similar psychological practices, there is no consensus on the view of insomnia. Although psychologists don't need to focus only on insomnia treatment, it can be argued that it is wrong to completely neglect it by seeing it as a symptom and focusing on the 'main' problem. Previous research showed that treating insomnia could reduce comorbidities and prevent the onset of clinical disorders (Freeman et al., 2020; Wilkerson & McRae-Clark, 2021). Insomnia could also worsen the SUD treatment by increasing the risk of relapse to substance use (Grau-López et al., 2014; Brower & Perron, 2010, as cited in Grau-López et al., 2018). Therefore, completely neglecting insomnia could result in more serious issues. This thesis argues that insomnia should instead be viewed in both ways depending on the individual's situation. It is not always optimal to focus on insomnia itself, such as when insomnia is elicited by substance use. However, it is also not optimal to focus on the overarching disorder that insomnia is attributed to when insomnia persists after treating the disorder. Thus it is important to consider what is best for the client and thereby prioritise what should be the focus of the treatment.

Additionally, participants mostly reported using non-pharmacological alternatives instead of pharmacological treatment. The commonly mentioned treatment options were sleep hygiene and relaxation techniques. This contrasts the research indicating that psychological and behavioural therapies are not typically used (Seow et al., 2018; Speed et al., 2022). Participants who did not focus only on insomnia reported using a holistic treatment, thus treating an individual as a whole. However, previous studies argued for the benefits of using the CBT-I method in SUD patients (Mijnster et al., 2022) and reported that this treatment is not widely used in clinical settings (Speed et al., 2022). The latter was supported by the present study, as only one participant reported using CBT-I as a whole treatment. In particular, participants mostly reported using some components of CBT-I, such as sleep hygiene and relaxation techniques, but not the entire treatment. Therefore, the present study revealed that the current insomnia treatment practices of psychologists represented by this sample might not be the most optimal. Adding the complete CBT-I treatment to more of the current practices could allow for more treatment options that are recommended by research (Mijnster et al., 2022; Speed et al., 2022).

In addition to the use of non-pharmacological treatment, participants expressed a preference for this type of treatment, as they would only use medication as the last resort. Participants also considered non-pharmacological treatment to be more useful for the

individual in the long term. This means that SUD individuals suffering from insomnia also benefit more from non-pharmacological treatment because it would not yield further addiction to the treatment medication. Psychologists participating in the study supported the finding that individuals with SUDs tend to misuse their medication (Brower, 2015; Ciraulo & Nace, 2000). Their responses also support the research by Speed et al. (2022), suggesting that non-pharmacological treatments are a safer treatment option for individuals with SUDs. This treatment type would also change the individual's attitude toward sleep, which would make the treatment more sustainable for the participants' future uses. These findings indicate that psychologists generally focused on helping individuals with sleeping problems by giving them long-term solutions instead of short-term solutions such as suggesting medication use, which could potentially harm individuals suffering from SUDs. Overall, psychologists' preference for non-pharmacological treatment was supported by previous findings (Speed et al., 2022). Furthermore, this aligns with the stance presented by this thesis, as it was argued that non-pharmacological treatment should be used instead of pharmacological treatment among SUD patients.

When choosing between the priorities of the sleep treatment, some psychologists reported that they would focus on sleep treatment right away, while others reported that they would focus on first treating the addiction, as some stimulants make it very difficult to teach the patient how to sleep again. They argued that treating substance use would be more sensible in this case. The latter finding is in line with research by Seow et al. (2018), as insomnia is attributed to the patient's addiction, and it is assumed that treating the addiction would result in improving sleeping problems. Although this might be the case, it is important to consider that there is an increased risk of relapse among SUD patients suffering from insomnia (Grau-López et al., 2014; Brower & Perron, 2010, as cited in Grau-López et al., 2018). Therefore, the practice of treating the addiction first could be successful but needs to be carefully evaluated, as the prevalence of insomnia may hinder its success.

Moreover, it was reported that sometimes substances are used to aid sleep following the use of a substance that made the individuals more alert. Therefore, psychologists supported the view that individuals suffering from insomnia might attempt to aid their sleep by misusing alcohol or medications, creating a risk factor for SUDs (Breslau et al., 1996). Thereby, the alertness of using one substance is countered by using another substance. This creates a perpetual cycle, whereby the effects of substance use are treated by using more substances. This shows that substance use and insomnia could have a bidirectional relationship. Although the study by Wilkerson and McRae-Clark (2021) suggested a

bidirectional relationship, this differed from the bidirectional relationship that was suggested by the psychologists in the present study. The study by Wilkerson and McRae-Clark (2021) indicated that SUD treatment with prescribed medication could result in persistent insomnia. However, the psychologists in the present study suggested that a bidirectional relationship could occur when individuals used substances other than prescribed medication, which resulted in difficulty falling asleep. This was countered by self-medicating to sleep better. This finding strengthens the importance of implementing non-pharmacological treatment, as self-medication can be replaced by a less harmful alternative to behavioural and psychological treatments.

Limitations

One of the limitations of these findings is that the majority of the participants were psychologists, except for one doctor. Therefore, they were not in the position to prescribe medical treatment, meaning that their use of non-pharmacological treatments was not necessarily by choice. In other words, they were not in a position to be able to compare the two treatment groups well, and could mostly reflect on non-pharmacological treatments and occasions when they would decide that they need to refer their client to the doctor to potentially prescribe medication.

Another limitation is that only five out of 10 participants were able to answer SUD-specific questions. They often reported that they did not have experience with SUDs or with treating individuals with SUDs. Therefore, the findings of the study might differ if all of the participants were able to answer SUD-specific questions.

In addition to participants being unable to answer SUD-specific questions, it was difficult to recruit a sample for the interviews. This occurred for various reasons. Many individuals did not have specific knowledge about insomnia or did not speak English. Moreover, many individuals were too busy for the interview, or they simply did not respond. The potential reason for this could be the length of the interview, as it was very time-intensive, which might prevent many working psychologists from participating. Therefore, the data collection process took a long time, which is why it was not optimal to recruit more participants once it was noticed that merely half of the sample answered SUD-specific questions. Additionally, saturation was not reached in the interviews, as new information arose in the final few interviews. This suggests that more psychologists should be interviewed to receive more diverse responses.

Lastly, a degree of bias could have been introduced by the researcher’s influence on the interviews and interpretation of the data. Although the questions asked were created with

the intent of leaving openness and minimizing suggestivity, the researcher could have unknowingly influenced the participant to answer questions in a more socially desirable way. Throughout the interviews, it was emphasized that there are no right or wrong answers and that participants are free to openly express their opinions. Furthermore, the researcher's interpretation of the data was subjective and may have differed had it been analysed by someone else. Therefore, although the arising themes were created in relation to the research question, the researcher could have introduced a level of bias to these, as it is still based on the researcher's preferences.

Future Research

Based on the study's findings and limitations, several suggestions can be given for future research. Firstly, sampling could be done by targeting a different population. Psychiatrists and psychologists working in addiction and rehabilitation clinics could be contacted to ensure more responses to SUD-related questions. Additionally, contacting these individuals could result in different responses regarding the use of medication in patients with SUDs, as they are more likely to have a choice when choosing between medical and non-medical treatments. Therefore, they could provide more informed responses to questions about medication treatments. This could give more insight into the findings that challenge the previous research arguing that insomnia is rarely treated with psychological and behavioural therapies (Seow et al., 2018; Speed et al., 2022). Thus, further research could clarify which treatment is more widespread. The next step future research should take into account is to focus on the links between the views of insomnia and its treatment. As the present study often found a connection between these two variables, it would be valuable to investigate this connection further by using a mixed methods study. Thereby interviews would be conducted to investigate the opinions, and the connection between these two factors could be measured by adding a quantitative design that would measure the impact of insomnia view on insomnia treatment and how this affects the clinical practice.

Another suggestion is to focus on researching the impact of focusing on insomnia treatment first in patients with SUDs and compare it to the impact of treating the addiction first. This is because some psychologists focused on treating sleeping problems first, whereas others focused on treating the addiction first. Therefore, it could be valuable to investigate the results of the two approaches and see whether they yield any differences. This could be done by using an experimental study whereby the sample of individuals with SUDs would be split up into four groups, with the respective groups being (a) treating insomnia first; (b) treating the addiction first; (c) treating both insomnia and addiction at the start of treatment; and (d)

control group without any treatment. This research could provide further insight into which problem would be more useful to prioritise in the treatment of insomnia in SUD patients.

Implications

The present study has implications for changing the current views of insomnia by highlighting the potential problems of viewing it as a symptom. The study also contributes to the literature discussing the importance of using non-pharmacological insomnia treatments in SUD patients and highlights the limited use and potential benefits of using CBT-I treatment. Moreover, the findings contribute to the knowledge about setting priorities when treating insomnia and SUDs. The study's findings have applications to psychological and rehabilitation treatment. Firstly, the findings revealed inconsistencies in the current views of and treatments of insomnia among psychologists. To address this, psychologists should base their treatment of insomnia depending on the client's situation. Psychologists should also consider the use of CBT-I to ensure that there are more treatment options. Lastly, psychologists should carefully evaluate when it is appropriate to prioritise treating addiction first, and when insomnia treatment should be prioritized. These goals can be reached by providing more education and developing treatment guidelines for psychologists about insomnia treatment, treatment priorities, and the use of CBT-I.

Conclusion

In conclusion, the present study found mixed results regarding views of insomnia. However, psychologists generally preferred non-pharmacological treatment, as these were found to be more useful for the individual in the long term. Moreover, the study found in which instances psychologists would prioritise addiction treatment, and when they would prioritise insomnia treatment. The findings have practical implications for psychological and rehabilitation treatment, as they suggest the basis for choosing the right treatment, the importance of including CBT-I, as well as the relevance of evaluating treatment priorities in patients with SUDs.

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Appendices

Appendix A

Informed Consent Form

Informed Consent Form English

Consent Form for Interview study
(The view of Psychologists on the Role of Sleep in Mental Illness)

The purpose of this study is to interview psychologists and psychotherapists about their view on the assessment/treatment of insomnia in patients with mental illnesses. The participants will be asked questions about their opinion and their current behaviour in healthcare in regards to patients who suffer from insomnia and mood disorders/anxiety/substance use disorders. The interviews will be conducted by either one of three researchers of the team that works on this bachelor thesis.

The data that will be used for this research are the video/audio recordings in order to discover common themes. All names and personal data will be handled confidentially and anonymously, and it will only be stored until September 1st of 2023. This research project has been reviewed and approved by the BMS Ethics Committee on 10th of March, 2023.

How will it work?
You will take part in a study in which we will gather information by:
- Audio record - Transcript

This information will only be used by the University of Twente, the Netherlands.

Please tick the appropriate boxes	**Yes**	**No**
Taking part in the study		
I have read and understood the study information or it has been read to me. I have been able to ask questions about the study and my questions have been answered to my satisfaction.	□	□
I consent voluntarily to be a participant in this study and understand that I can refuse to answer questions and I can withdraw from the study at any time, without having to give a reason.	□	□
I understand and agree that taking part in the study involves answering questions in an audio-recorded interview that will be transcribed into text. After transcribing the text, the recording will be destroyed.	□	□
I understand that the information I provide will be used for research about the view of psychologists on the role of sleep in mental illness.	□	□

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I understand that personal information collected about me that can identify me, such as my name or where I live, will not be shared beyond the study team.	□	□
I understand that the information I provide will be used for a student report (bachelor thesis).	□	□
I agree that the information I provide can be quoted in research outputs.	□	□
I understand that all data is stored until September 1st of 2023, after which the data will be destroyed.	□	□

Signatures

Name of participant (printed):	**Signature:**	**Date:**
_____	_____	_____

I have accurately read out the information sheet to the potential participant and, to the best of my ability, ensured that the participant understands to what they are freely consenting.

Name of researcher (printed):	**Signature:**	**Date:**
_____	_____	_____

Contact Information for Questions about Your Rights as a Research Participant

If you have questions about your rights as a research participant, or wish to obtain information, ask questions, or discuss any concerns about this study with someone other than the researcher(s), please contact the Secretary of the Ethics Committee/domain Humanities & Social Sciences of the Faculty of Behavioural, Management and Social Sciences at the University of Twente by ethicscommittee-hss@utwente.nl

Otherwise, you are welcome to contact our research team: l.henstermann@student.utwente.nl, n.balen@student.utwente.nl, v.hesker@student.utwente.nl

Or our supervisor by l.reiter@utwente.nl

Appendix A

Informed Consent Form

Informed Consent Form German

Einwilligung nach erfolgter Aufklärung
(Die Ansichten von Psychologen auf die Rolle von Schlaf in psychischen Erkrankungen)

Ziel dieser Studie ist es, Psychologen und Psychotherapeuten zu ihrer Sicht auf die Diagnose und die Behandlung von Schlaflosigkeit bei Patienten mit psychischen Erkrankungen zu befragen. Den Teilnehmer/innen werden Fragen zu ihrer Meinung und ihren aktuellen Methoden im Gesundheitswesen in Bezug auf Patienten gestellt, die an Schlaflosigkeit und Depressionen/Angststörungen/Drogenmissbrauch leiden. Die Interviews werden von einer der drei Studentinnen des Teams geführt, die an dieser Studie arbeiten.

Die Daten, die für diese Forschung verwendet werden, sind die Video-/Audioaufnahmen, um wiederkehrende Themen festzustellen. Alle Namen und persönliche Daten werden vertraulich und anonym behandelt und nur bis zum 1. September 2023 gespeichert. Dieses Forschungsprojekt wurde von der BMS-Ethikkommission am 10. März 2023 überprüft und genehmigt.

Wie funktioniert es?
Sie werden an den Interviews teilnehmen, in denen wir Informationen sammeln durch:
- Audioaufnahme - Transkript

Diese Informationen werden nur von der University of Twente, Niederlande, verwendet.

Bitte kreuzen Sie die entsprechenden Kästchen an	**Ja**	**Nein**
Teilnahme an der Studie		
Ich habe die Studieninformation gelesen und verstanden bzw. sie wurde mir vorgelesen. Ich konnte Fragen zur Studie stellen und meine Fragen wurden zu meiner Zufriedenheit beantwortet.	□	□
Ich stimme freiwillig zu, an dieser Studie teilzunehmen und verstehe, dass Ich die Beantwortung von Fragen verweigern und jederzeit ohne Angabe von Gründen von der Studie zurücktreten kann.	□	□
Ich verstehe und stimme zu, dass die Teilnahme an der Studie die Beantwortung von Fragen in einem audio-aufgezeichneten Interview beinhaltet, dass in Text umgewandelt wird. Nach der Transkription des Interviews wird die Aufnahme vernichtet.	□	□

UNIVERSITY OF TWENTE.

Mir ist bekannt, dass die von mir bereitgestellten Informationen für Forschungszwecke über die Sichtweise von Psychologen zur Rolle des Schlafs bei psychischen Erkrankungen verwendet werden.	□	□
Mir ist bekannt, dass über mich erhobene personenbezogene Daten, die mich identifizieren können, wie z.B. mein Name oder mein Wohnort, nicht jenseits des Studienteams geteilt werden.	□	□
Mir ist bekannt, dass meine Angaben für eine Studienarbeit (Bachelorarbeit) verwendet werden.	□	□
I stimme zu, dass die von mir bereitgestellten Informationen in Forschungsergebnissen zitiert werden können.	□	□
Mir ist bekannt, dass alle Daten bis zum 1. September 2023 gespeichert werden, danach werden die Daten vernichtet.	□	□
Ich bin damit einverstanden, während des Interviews aufgezeichnet zu werden.	□	□

Unterschiften

Name Teilnehmer/in:	Unterschrift Teilnehmer/in:	Datum:
_____	_____	_____

Ich habe dem potenziellen Teilnehmer/in das Informationsblatt genau vorgelesen und nach bestem Wissen und Gewissen sichergestellt, dass der Teilnehmer/in versteht, worauf er/sie freiwillig einwilligt.

Name Forscher/in:	Unterschrift Forscher/in:	Datum:
_____	_____	_____

Kontaktinformationen für Fragen zu ihren Rechten als Forschungsteilnehmer/in

Wenn Sie Fragen zu ihrern Rechten als Forschungsteilnehmer/in haben oder Informationen erhalten, Fragen stellen, oder Bedenken zu dieser Studie mit jemand anderem als dem/der Forscher/in besprechen möchten, wenden Sie sich bitte an das Sekreteriat der Ethikkommision/Bereich Geisteswissenschaften und Sozialwissenschaften der Fakultät für Verhaltens-, Management- und Sozialwissenschaften der University of Twente unter:

ethicscommittee-hss@utwente.nl

Andernfalls können Sie sich an unser Forschungsteam wenden:

l.henstermann@student.utwente.nl

n.balen@student.utwente.nl

v.hesker@student.utwente.nl

Oder an unsere Teamleiterin:

l.reiter@utwente.nl

Appendix B

Interview Scheme

Interview Scheme English

Interview Scheme

Introduction[1]

Dear participant,

Welcome to this interview about the general topic of assessment and treatment of insomnia in mental illness. First of all, thank you for being here and taking some time. We are a group of three students (Nika, Victoria, Lorena) and are conducting research in the form of interviews in order to gain information about the perception of psychologists on this topic. This includes current behaviours, practices and attitudes regarding the assessment and treatment of insomnia.

The interview is organised into three parts, which are investigating the topic of treatment of insomnia in patients with mood disorders, the treatment of insomnia in patients with substance use disorders, and the assessment and treatment of insomnia in people with anxiety disorders. When we accumulated enough data, each of us will write distinct reports, which will be assessed by our supervisor.

Before we start with the interview procedure, I would like to tell you some general instructions about the procedure and how your data will be handled. Firstly, before we start the interview, you will receive a consent form. Regarding the actual interview, we are interested in your personal opinion, there are no right or wrong answers. Therefore, do not hesitate in expressing your line of thinking and arguing openly. Moreover, I would like to record the interview. This makes it possible to deeply analyse the whole conversation. As we are all working on a different research question but using the information of each interview, our conversation of today will also be read by the others, as well as our supervisor. However, I can assure you that your data will be anonymised. For instance, your name, age, as well as personal background information, date, and place will be removed. The interview will also not be utilised for any other purpose than this research. If you do not feel comfortable being in this conversation anymore, you have the right to withdraw from the interview and, therefore, from the research at any time.

Now, you are provided with the following consent form, and if you agree with the mentioned aspects, it would be kind if you would sign the form and send it as an email back to me.

If you agree, I would now start the recording.

General questions

[1] Adapted from “Improving group collaboration in higher education through self- reflection” by L. Hengstermann, 2022

→ Welcome to this interview, I would first like to ask you some demographic questions and questions that allow you to introduce yourself, such as your age, gender, and nationality.

1. Where is your job located?
2. What are you doing at your job?
3. How many years have you been doing this?
4. What kind of education do you have?

Section 1- Treatment of insomnia in patients with mood disorders

1. **Have you treated patients with mood disorders, who also report struggling with symptoms of insomnia recently?**
   → If not, ask if they had any patients with mood disorders and insomnia in general

2. **How do you feel about treating patients with mood disorders who report suffering from insomnia?**
   → **How do you think insomnia and mood disorders are related?**

3. **In what way do you think it is important to consider/ focus on symptoms of insomnia in patients with mood disorders?**
   → Are there certain patient factors that guide your decision on whether or not focusing on symptoms of insomnia?

4. **How would you approach the treatment of insomnia in patients with major depression in comparison to patients with bipolar disorder?**

5. **Did your view/knowledge/experiences about treatment options of insomnia change or develop over the last few years?**
   → Did your methods change? Do you approach sleep problems differently now compared to then?

6. **What practices have you learned about the treatment of sleep problems in general?**
   → Ask if they have even learned any practices at all (if yes, continue with the subquestions
   → pharmacological or behavioral? (CBT-I)
   → What options do you think are available for treating symptoms of insomnia?

7. **To what extent are you satisfied with treatment options and expert training in this field?**

→ Do you think there should be more/less education/training on the treatment of sleep problems in patients with mood disorders?

8. **What would your wishes/ideas be for improvements in healthcare regarding the treatment of insomnia in patients with mood disorders?**

Section 2 - Treatment of insomnia in patients with Substance use disorders

1. **When do you decide insomnia should be treated in patients with SUDs?**
    - How serious do insomnia symptoms need to be to start treating them?
2. **What do you think should be taken into consideration when treating insomnia in individuals with SUDs?**
    - Which factors could affect treatment success if not taken into account?
    - Why are these factors important?
3. **How do you usually treat insomnia in individuals suffering from SUDs?**
    - Do you focus on treating it or consider it a comorbidity?
    - Why do you use this(ese) type(s) of treatment(s)?
4. **Are there any psychological or behavioural treatment options that you are using to treat insomnia in SUD patients?**
    - Why do you use these treatments?
    - What are the other pharmacological and non-pharmacological treatments?
    - How satisfied are you with the treatments you use?
    - Would you like to have/ learn about other options?
5. **What do you think of the use of non-pharmacological treatments (such as psychological or behavioural treatments) instead of pharmacological treatments to treat insomnia among patients with SUDs?**
    - What are the benefits and drawbacks of these types of treatment?
    - When comparing non-pharmacological and pharmacological treatments, do you think one type of treatment is more effective than the other?
6. **What is the long-term success rate of the insomnia treatment that you use among patients with SUDs?**
    - Which type of treatment usually works better for these individuals in the long term?
    - Why is that the case?

Section 3 - Assessment and treatment of insomnia in patients with anxiety disorders

Assessment:

1. **What procedure do you typically use in assessing insomnia in general?**

a. Why do you do it in this order?
b. Can you give me a specific example?

2. **What kind of tests do you typically use for the assessment of insomnia?**
   a. Do your organisation provides you with any kind of test?
   b. Can you give me a specific example of this?
   c. What do you think about this kind of assessment?

3. **When do you consider doing an <u>assessment</u> for insomnia in patients who have primary diagnosed anxiety disorder?**
   a. What leads you then to consider assessing it as beneficial?
   b. Why do you consider it to be important at this point?

4. **Can you describe some of the key indicators that you look for when deciding to assess insomnia, and how you use these indicators to develop a treatment plan?**
   a. Are these factors related to the patient (their behaviour, age, gender?)
   b. What kind of patients are these?

5. **How do you feel about assessment procedures? Do you think it is beneficial to assess insomnia in patients with anxiety disorders?**
   a. Why do you think it is beneficial?
   b. Can you give me a specific example of this?
   c. Can you elaborate further on this?

Treatment:

6. **In which cases do you find <u>addressing</u> sleep complaints as beneficial in general?**
   a. Why do you think that it is beneficial for a specific case, can you give me a description of a situation?

7. **Which specific factors do you consider in whether <u>treating</u> insomnia in patients with anxiety disorder or not?**
   a. How often do they report these problems on their own to you?
   b. Are these factors related to the behavior of the patient?
   c. What other factors may contribute to your decision to treat insomnia or not?
   d. Can you think of any others possible factors? To what are they related?

8. **What factors do you consider when choosing between pharmacological and non-pharmacological treatments for insomnia in patients with anxiety disorders?**

a. Can you give me a specific example/description of these factors?
b. Why do you consider these factors as relevant for your decision?

Probes in general :
Can you give me a specific example of this?
Why do you think this is important?
What do you mean when you say… ?
Can you elaborate further on this?
What does this look like?
Are these factors related to the behavior of the patient? What kind of patients are these?

- Ask about who they can refer us to → snowball sampling

Appendix B

Interview Scheme

Interview Scheme German

Interview-Schema

Einleitung
Sehr geehrter Teilnehmer,
herzlich willkommen zu diesem Gespräch über das allgemeine Thema der Beurteilung und Behandlung von Schlaflosigkeit bei psychischen Erkrankungen. Zunächst einmal vielen Dank, dass Sie hier sind und sich etwas Zeit nehmen. Wir sind eine Gruppe von drei Studenten (Nika, Victoria, Lorena) und führen eine Untersuchung in Form von Interviews durch, um Informationen über die Wahrnehmung von Psychologen zu diesem Thema zu erhalten. Dazu gehören aktuelle Verhaltensweisen, Praktiken und Einstellungen in Bezug auf die Bewertung und Behandlung von Schlaflosigkeit.

Die Befragung ist in drei Teile gegliedert, die sich mit dem Thema der Behandlung von Schlaflosigkeit bei Patienten mit Stimmungsstörungen, der Behandlung von Schlaflosigkeit bei Patienten mit Substanzkonsumstörungen und der Bewertung und Behandlung von Schlaflosigkeit bei Menschen mit Angststörungen befassen. Wenn wir genügend Daten gesammelt haben, wird jeder von uns einen eigenen Bericht schreiben, der von unserem Betreuer bewertet wird.

Bevor wir mit der Befragung beginnen, möchte ich Ihnen einige allgemeine Hinweise zum Ablauf und zum Umgang mit Ihren Daten geben. Bevor wir mit dem Interview beginnen, erhalten Sie zunächst eine Einverständniserklärung. Was das eigentliche Interview betrifft, so sind wir an Ihrer persönlichen Meinung interessiert, es gibt keine richtigen oder falschen Antworten. Zögern Sie daher nicht, Ihre Meinung zu äußern und offen zu argumentieren. Außerdem möchte ich das Gespräch aufzeichnen. Dies ermöglicht eine gründliche Analyse des gesamten Gesprächs. Da wir alle an einer anderen Forschungsfrage arbeiten, aber die Informationen eines jeden Gesprächs verwenden, wird unser heutiges Gespräch auch von den anderen Teilnehmern und unserem Betreuer gelesen werden. Ich kann Ihnen jedoch versichern, dass Ihre Daten anonymisiert werden. So werden beispielsweise Ihr Name, Ihr Alter sowie persönliche Hintergrundinformationen, Datum und Ort entfernt. Das Interview wird auch nicht für andere Zwecke als für diese Untersuchung verwendet. Wenn Sie sich in diesem Gespräch nicht mehr wohlfühlen, haben Sie das Recht, jederzeit aus dem Interview und damit aus der Untersuchung auszusteigen.

Sie erhalten nun die folgende Einverständniserklärung, und wenn Sie mit den genannten Punkten einverstanden sind, wäre es nett, wenn Sie das Formular unterschreiben und als E-Mail an mich zurückschicken würden.

Wenn Sie damit einverstanden sind, würde ich jetzt mit der Aufzeichnung beginnen.

Allgemeine Fragen
→ Zunächst möchte ich Ihnen einige demografische Fragen stellen z. B. Ihr Alter, Ihr Geschlecht und Ihre Nationalität. Die Fragen sollen auch dazu dienen, dass sie sich kurz vorstellen können.

Wo befindet sich Ihr Arbeitsplatz?
Was machen Sie an Ihrem Arbeitsplatz?
Wie viele Jahre üben Sie diese Tätigkeit schon aus?
Welche Art von Ausbildung haben Sie?

Abschnitt 1- Behandlung von Schlaflosigkeit bei Patienten mit affektiven Störungen

1. Haben Sie in letzter Zeit Patienten mit affektiven Störungen behandelt, die ebenfalls mit Symptomen von Schlaflosigkeit zu kämpfen haben?
→ Wenn nicht, fragen, ob sie Patienten mit Stimmungsstörungen und Schlaflosigkeit im Allgemeinen behandelt haben.

2. Was denken Sie über die Behandlung von Patienten mit affektiven Störungen, die angeben, unter Schlaflosigkeit zu leiden?
→ Wie hängen Ihrer Meinung nach Schlaflosigkeit und affektive Störungen zusammen?

3. Inwiefern ist es Ihrer Meinung nach wichtig, die Symptome der Schlaflosigkeit bei Patienten mit affektiven Störungen zu berücksichtigen bzw. sich darauf zu konzentrieren?
→ Gibt es bestimmte Patientenfaktoren, nach denen Sie entscheiden, ob Sie sich auf die Symptome der Schlaflosigkeit konzentrieren oder nicht?

4. Wie würden Sie die Behandlung von Schlaflosigkeit bei Patienten mit Major Depression im Vergleich zu Patienten mit bipolarer Störung angehen?

5. Haben sich Ihre Ansichten/Wissen/Erfahrungen über die Behandlungsmöglichkeiten von Schlaflosigkeit in den letzten Jahren verändert oder weiterentwickelt?
→ Haben sich Ihre Methoden geändert? Gehen Sie heute anders an Schlafprobleme heran als früher?

6. Welche Praktiken haben Sie über die Behandlung von Schlafproblemen im Allgemeinen gelernt? (z.B während der Ausbildung?)
→ Fragen Sie, ob sie überhaupt irgendwelche Praktiken erlernt haben (wenn ja, fahren Sie mit den Unterfragen fort
→ pharmakologisch oder verhaltenstherapeutisch? (CBT-I)
→ Welche Möglichkeiten gibt es Ihrer Meinung nach, um die Symptome der Schlaflosigkeit zu behandeln?

7. Inwieweit sind Sie mit den Behandlungsmöglichkeiten und der Ausbildung auf diesem Gebiet zufrieden?
→ Sind Sie der Meinung, dass es mehr/weniger Schulungen zur Behandlung von Schlafproblemen bei Patienten mit Stimmungsstörungen geben sollte?

8. Was wären Ihre Wünsche/Ideen für Verbesserungen im Gesundheitswesen in Bezug auf die Behandlung von Schlaflosigkeit bei Patienten mit Stimmungsstörungen?

Abschnitt 2 - Behandlung von Schlaflosigkeit bei Patienten mit Suchterkrankungen

1. Wann sollte Schlaflosigkeit bei Patienten mit Suchterkrankungen behandelt werden?

- Wie schwerwiegend müssen die Symptome der Schlafstörung sein, damit sie behandelt werden?

2. Was sollte Ihrer Meinung nach bei der Behandlung von Schlaflosigkeit bei Personen mit Suchterkrankungen beachtet werden?

- Welche Faktoren könnten den Behandlungserfolg beeinträchtigen, wenn sie nicht beachtet werden?
- Warum sind diese Faktoren wichtig?

3. Wie behandeln Sie normalerweise Schlaflosigkeit bei Menschen, die an einer Suchterkrankung leiden?

- Konzentrieren Sie sich auf die Behandlung der Schlaflosigkeit oder betrachten Sie sie als Komorbidität?
- Warum verwenden Sie diese Art(en) von Behandlung(en)?

4. Gibt es psychologische oder verhaltenstherapeutische Behandlungsmöglichkeiten, die Sie zur Behandlung von Schlaflosigkeit bei Patienten mit Suchterkrankung einsetzen?

- Warum setzen Sie diese Behandlungen ein?
- Welche anderen pharmakologischen und nicht-pharmakologischen Behandlungen gibt es?
- Wie zufrieden sind Sie mit den Behandlungen, die Sie anwenden?
- Würden Sie gerne andere Möglichkeiten kennen lernen?

5. Was halten Sie vom Einsatz nicht-pharmakologischer Behandlungen (wie psychologische oder verhaltenstherapeutische Behandlungen) anstelle pharmakologischer Behandlungen zur Behandlung von Schlaflosigkeit bei Patienten mit Suchterkrankungen?

- Was sind die Vor- und Nachteile dieser Behandlungsarten?
- Wenn Sie nicht-pharmakologische und pharmakologische Behandlungen vergleichen, glauben Sie, dass die eine Behandlungsart wirksamer ist als die andere?

6. Wie hoch ist die Langzeiterfolgsrate der Behandlung der Schlafstörungen, die Sie bei Patienten mit Suchterkrankungen anwenden?

- Welche Art der Behandlung wirkt bei diesen Menschen langfristig besser?
- Warum ist das der Fall?

Abschnitt 3 - Bewertung und Behandlung von Schlaflosigkeit bei Patienten mit Angststörungen

Beurteilung:

1. Welches Vorgehen wenden Sie normalerweise bei der Beurteilung/Anamnese von Schlafstörungen im Allgemeinen an?

- Warum gehen Sie dabei in dieser Reihenfolge vor?
- Können Sie mir ein konkretes Beispiel nennen?

2. Welche Art von Tests verwenden Sie typischerweise für die Beurteilung/Anamnese von Schlafstörungen?

- Stellt Ihre Organisation Ihnen irgendwelche Tests zur Verfügung?
- Können Sie mir ein konkretes Beispiel dafür nennen?
- Was halten Sie von dieser Art der Beurteilung?

3. Wann ziehen Sie eine Diagnostik der Schlafstörungen bei Patienten in Betracht, die eine primär diagnostizierte Angststörung haben?

- Was veranlasst Sie dazu, eine solche Untersuchung als sinnvoll zu erachten?
- Warum halten Sie sie zu diesem Zeitpunkt für wichtig?

4. Können Sie einige der wichtigsten Indikatoren beschreiben, auf die Sie bei der Anamnese von Schlafstörungen achten, und wie Sie diese Indikatoren zur Entwicklung eines Behandlungsplans nutzen?

- Stehen diese Faktoren im Zusammenhang mit dem Patienten (Verhalten, Alter, Geschlecht)?
- Um welche Art von Patienten handelt es sich?

5. Was denken Sie über die vorhandenen Beurteilungsverfahren bezüglich der Erkennung von Schlafstörungen? Glauben Sie, dass es sinnvoll ist, Schlafstörungen bei Patienten mit Angststörungen zu berücksichtigen?

- Warum glauben Sie, dass dies sinnvoll ist?
- Können Sie mir ein konkretes Beispiel dafür nennen?
- Können Sie dies näher erläutern?

Behandlung:

6. In welchen Fällen halten Sie die Behandlung von Schlafstörungen im Allgemeinen für sinnvoll?

- Warum glauben Sie, dass es in einem bestimmten Fall von Vorteil ist, können Sie mir eine Situation beschreiben?

7. Welche spezifischen Faktoren berücksichtigen Sie bei der Entscheidung, ob sie die Schlafstörung bei Patienten mit Angststörungen behandeln oder nicht?

- Wie oft berichten die Patient:innen Ihnen von sich aus von diesen Problemen?
- Stehen diese Faktoren im Zusammenhang mit dem Verhalten des Patienten?
- Welche anderen Faktoren könnten zu Ihrer Entscheidung beitragen, Schlaflosigkeit zu behandeln oder nicht?
- Fallen Ihnen weitere mögliche Faktoren ein? Womit hängen sie zusammen?

8. Welche Faktoren berücksichtigen Sie bei der Wahl zwischen pharmakologischen und nicht-pharmakologischen Behandlungen von Schlafstörungen bei Patienten mit Angststörungen?

- Können Sie mir ein konkretes Beispiel/Beschreibung dieser Faktoren geben?
- Warum erachten Sie diese Faktoren als relevant für Ihre Entscheidung?

Proben im Allgemeinen:
Können Sie mir ein konkretes Beispiel dafür nennen?
Warum glauben Sie, dass dies wichtig ist?
Was meinen Sie, wenn Sie sagen…?
Können Sie dies näher erläutern?

Wie sieht das aus?
Hängen diese Faktoren mit dem Verhalten des Patienten zusammen? Um welche Art von Patienten handelt es sich?

Fragen Sie, an wen sie uns verweisen können → Schneeballsystem

Appendix C

Codebook

Code	Description
Considerations Subcodes: Dangers of sleeping pills Day-night rhythm, Emotion regulation, Tiredness, Treatment adherence, Type of substance, Substance abuse causing insomnia, Substance use to sleep better	Factors to consider before treating insomnia or choosing a specific type of treatment. This also includes factors that make the psychologists decide to treat insomnia.
Explorative process into insomnia	Describes when psychologists decide to take an explorative process about why an individual cannot sleep to better approach treatment.
Focusing on insomnia treatment	Describes when psychologists decide that insomnia should be treated.
Holistic treatment	Describes when psychologists decide to treat the person as a whole instead of focusing on one symptom, e.g. insomnia. This includes asking abour the sleep-wake rhythm, focusing on activity, biological rhythm, etc.
Importance of other treatment options	Used when psychologists express wishes for more treatment options for insomnia to provide for their clients.
Importance of sleep treatment Subcodes: Behavioural therapy, undecided	Used when psychologists talk about why treating sleep is important and beneficial.

Insomnia as a separate issue	Used when psychologists express wishes to see insomnia as a separate problem instead of a symptom or when they indicate instances when insomnia would be seen as a separate issue.
Insomnia as a symptom	Used when psychologists indicate that they see insomnia as a symptom or when they describe instances when they see insomnia as a symptom.
Insomnia treatment Subcodes: Behavioural therapy, Breathing techniques, CBT-I, Group therapy, Headspace technique, Mindfulness, Psychoeducation, Relaxation techniques, Sleep hygene, sleep restriction, Techniques to not ruminate	Used when psychologists talk about various types of insomnia treatments. These include various subcodes indicating different behavioural treatments, such as sleep hygene, CBT-I, sleep restriction, mindfulness, etc.
Insomnia treatment training satisfaction Subcodes: Not satisfied, Satisfied	Used when psychologists discuss how satisfied they are with the training that they received for treating insomnia.
Medication use for sleep treatment	Describes when medication is used to treat insomnia.
Medication versus psychological treatment Subcodes: Preferred psychological treatment, Undecided	Includes comparisons of medication and psychological treatment, as well as which of these options the psychologist prefers and why.
Need for sleep specialist	Used when psychologists express the need to have a person specialized in sleep problems, and the importance of such specialization.

Refering to the GP/doctor/psychiatrist	Describes when psychologists decide to refer the client to another professional such as a psychiatrist, doctor, GP, etc.
Treating addiction itself	Used when it is mentioned that the addiction itself is treated
Treatment success Subcodes: Not Successful, Undecided	Used when psychologists mention how successful the treatment, when the treatment is not successful, and factors that determine treatment success, e.g. following a regime.