# Investigating the Assessment and Treatment of Insomnia in Patients With Anxiety Disorders

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## Abstract

***Objective:*** While the importance of sleep for mental health is already known, there is a gap between this knowledge and its actual application in practice. Assessment and treatment of insomnia, especially in patients with anxiety disorders have not received enough attention in past years. Thus, this research aims to identify possible reasons for this issue and which patient factors influence the assessment and treatment of insomnia.

***Method:*** 10 semi-structured interviews were conducted with a sample of Dutch and German psychologists and psychotherapists working with people with mental illness and addressed opinions of psychologists on the importance of assessment and treatment and factors influencing their opinion. All interviews were transcribed verbatim and an inductive thematic analysis approach was used.

***Results:*** Psychologists' attitude toward standardised tests influence their assessment procedure as they prefer using open-ended questions to avoid heightening levels of arousal in anxiety patients. Standardised tests are only used sparingly. Psychologists indicated reporting behaviour as well as the prioritisation of problems as the most influential patient-related factors in seeing treatment as beneficial. Non-patient-related factors, such as the general impact of insomnia on treatment, were also shown to have an influence. Most psychologists are also aware of a bidirectional relationship.

***Conclusions:*** This study revealed a complex interplay between psychologists' attitudes, patient factors and external influences, all of which affect assessment procedures and treatment decisions. Nevertheless, it became clear that many psychologists rely on sleep hygiene rules regarding treatment. Further studies should focus on understanding the reasons behind this and how to increase the availability and utilisation of training on CBT-I.

*Keywords:* assessment and treatment of insomnia in patients with anxiety, psychologists, thematic analysis, bidirectional relationship

# Investigating the Assessment and Treatment of Insomnia in Patients With Anxiety Disorders

In recent years, the topic of healthy sleep and its importance has received a lot of attention. But what if sleep is not restful but instead stressful and thus has an impact on everyday functioning or even the development of mental illnesses? The estimated prevalence of sleep disorders in the general population is 35 to 50%, whereas the prevalence is even higher in people with mental illness (Chance Nicholson & Pfeiffer, 2021). According to Hombali et al. (2019), 60 to 70% of people with anxiety disorders also report sleep problems. Furthermore, sleep disturbances were found to represent a risk factor for developing or maintaining mental illnesses (Marcks et al., 2010). Additionally, people with anxiety disorders are especially prone to developing persistent sleep problems as they worry more about their sleep than those without anxiety disorders (Marcks et al., 2010). This can lead to a vicious cycle as people with anxiety tend to focus more on their sleep once it is disturbed, leading to rumination about sleep and difficulties falling asleep, thereby increasing anxiety again (Sutton, 2014). Nevertheless, the assessment and treatment of sleep disorders in patients with anxiety disorders have not received as much attention in recent years as, for example, mood disorders (Cox & Olatunji, 2016). It has become apparent in past research that sleep disturbances are partially neglected by healthcare providers (Freeman et al., 2020). Hence, exploring the underlying reasons and factors contributing to this issue is crucial.

## Explanation of Technical Terms

The World Health Organization (WHO) categorises sleep disorders under the term sleep-wake disorders. In the International Classification of Diseases (ICD-11), this includes insomnia-, hypersomnolence-, parasomnia-, sleep-related breathing-, circadian rhythm sleep-wake-, and sleep-related movement disorders. Persistent difficulties initiating and maintaining sleep without any other disturbing factors characterise these disorders. Consequences of sleep disorders, such as dejection, cognitive impairment and fatigue, also affect everyday functioning (WHO, 2023). Additionally, they have a devasting effect on mental and physical health including increased stress levels, lower resilience, reactivity, and impairment of memory functions (Chance Nicholson & Pfeiffer, 2021). Furthermore, insomnia is the most commonly diagnosed disorder with a prevalence of 10% in the general population. A distinction is made between short-term (lasting less than three months) and chronic insomnia (lasting more than three months) (WHO, 2023). Additionally, anxiety disorders, with a prevalence of 29%, are one of the most common psychological disorders

(Marcks et al., 2010). According to the ICD-11, they involve intense sensations of anxiety and fear that disrupt social interactions, everyday life, employment, and other important aspects of daily life (WHO, 2023).

**Available Assessment and Treatment Options**

The European Guideline, which was developed by the European Sleep Research Society, recommends the following procedure for the assessment and treatment of insomnia: First of all, a diagnostic interview should take place which entails questions about sleep habits, sleep environment, work schedules, and possible daytime symptoms of insomnia (Riemann et al., 2017). Additionally, questionnaires specialised on assessment of sleep and a physical examination are recommended to get a better overview (Riemann et al., 2017). Especially standardised tests and semi-structured interviews can ensure more accurate detection of people meeting the criteria for insomnia disorder as it provides a more consistent assessment approach across interviewers (Buysse et al., 2006).

Furthermore, the following treatment options are available. Firstly, pharmacological treatment is available but should be limited to short-term insomnia because of possible side effects and the addiction potential of medication (Gupta et al., 2017). Secondly, sleep hygiene is an option which however should not be used as a stand-alone treatment (Edinger et al., 2021). Thirdly, cognitive behaviour therapy for insomnia (CBT-I) is recommended for chronic and short-term insomnia (Sweetman et al., 2020). Sweetman and colleagues found that CBT-I is more effective than pharmacological treatment and sleep hygiene as it also improves symptoms of anxiety to a moderate-to-large amount. Due to a lack of therapists experienced in CBT-I or insurance limitations, this kind of therapy is not available to each patient (Winkelman et al., 2023). Approximately 38% of patients with insomnia receive psychotherapy recommendations in Germany (Baglioni et al., 2019). However, it remains unclear whether patients follow these recommendations or receive CBT-I. Conversely, individuals in the Netherlands, firstly consult a general practitioner and around 60% of those diagnosed with insomnia seek medical treatment from a psychiatrist instead of behavioural treatment. This indicates that the proportion of patients receiving CBT-I in the Netherlands is relatively small (Baglioni et al., 2019). Overall, CBT-I and standardised tests for assessment are reasonable options. Therefore, it is important to find out how they are implemented in practice and to identify potential issues regarding this process.

**Issues in Assessment and Treatment**

The relationship between sleep and mental health has been studied a lot in recent years. It was found that insomnia is not only a consequence of mental illness but also contributes to the severity of symptoms, the reoccurrence of mental health issues or even a new emergence (Lancel et al., 2021). This indicates a bidirectional relationship and comorbidity. To underline, Papadimitriou and Linkowski (2005) mention that in 43% of the cases people with comorbid insomnia and anxiety, anxiety appeared before insomnia, whereas in 18% of the cases insomnia appeared before anxiety, and in 39% both appeared at the same time. However, despite the known impact of sleep problems on mental illness, sleep disturbances are neglected and therefore keep being underdiagnosed or mistreated (Faulkner & Bee, 2016). Therefore, given the bidirectional relationship, targeting sleep disorder symptoms is crucial in optimising general treatment outcomes. Sleep has long been known to be insufficiently dealt with in treating mental illnesses (e.g., Shorr & Bauwens, 1992). Nevertheless, this knowledge does not seem to have transferred into practice, as recent studies still report the neglect of sleep treatment (e.g., Lancel et al., 2021). Additionally, Freeman et al. (2020) found that the treatment of insomnia symptoms is secondary to the treatment of other mental health disorders. This was also shown in a study by Harvey (2008), who found that many psychologists assume that sleep disorder symptoms will disappear as soon as the underlying primary illness, such as depression or anxiety is treated. However, this is not the case as a study by Kaczkurkin and colleagues in 2021 showed that sleep problems can still remain after the treatment of anxiety. Therefore, this calls for further investigation of the perception of psychologists on the role of sleep in mental illness.

**Possible Factors Contributing to the Issue**

The psychologists' perspective on the benefits of sleep treatment is not well known yet. Nonetheless, a well-known issue in the medical care of psychiatric patients is the presence of clinician and patient factors or barriers, which play a significant part in why sleep disorders are underdiagnosed and mistreated (Benca, 2005; Ogeil et al., 2020). Firstly, clinician factors may include poor training in using standardised screening tools for insomnia and time restrictions during the initial consultation (Benca, 2005). While many psychologists were aware of the connection between insomnia and mental health problems, many were unsure how thoroughly they had evaluated their patients for sleep disorders. This highlights the fact that psychologists primarily rely on informal assessment methods to acquire information regarding sleep from their patients, with standardised tests being utilised infrequently (Rehmann et al., 2016). Furthermore, the

majority of clinicians estimated that 20 to 39% of their patients had insomnia symptoms whereas the prevalence is higher than 70% (Grandner & Chakravorty, 2017). Secondly, patient characteristics include a lack of awareness of the importance of insomnia for mental health and limited reporting behaviour of sleep difficulties to their doctors (Benca, 2005). An additional factor is that many people who suffer from anxiety only disclose symptoms of their primary condition to doctors or psychologists (Ogeil et al., 2020). According to the authors, this poses a challenge for clinicians, since they are unable to notice potential insomnia due to a lack of reporting behaviour.

All these factors and barriers, on both sides, the patients and the psychologists, lead to sleep problems remaining underdiagnosed and mistreated. It is therefore important to find out more about psychologists' attitudes and beliefs regarding the assessment and treatment of insomnia in patients with anxiety disorders. This led to the following research questions: "How do psychologists assess insomnia in patients with anxiety disorders?" and "Which patient factors lead a psychologist to consider insomnia treatment in patients with anxiety disorders as beneficial?".

# Methods

## Design

This qualitative research project was conducted by three psychology students at the University of Twente and aimed to investigate the perception of psychologists on the role of sleep in mental illness. The current work focuses on investigating the assessment and treatment of insomnia in patients with anxiety disorders. Each researcher developed their own research questions and writes an individual thesis. However, data collection was done in collaboration. To obtain credible data, semi-structured interviews were conducted either online or in person. Ethical approval was obtained from the Faculty of Behavioral, Management and Social Sciences (BMS) of the University of Twente on the 10$^{th}$ of March 2023.

## Interviews

### *Participants*

Interviews were conducted with psychotherapists and psychologists from Germany and the Netherlands. Here, the inclusion criteria were that participants work with people with mental illness to ensure that they possess sufficient expertise to answer the interview questions adequately. The recruiting technique was justified by the study's goal of investigating the perception of psychologists, therefore these professionals were found capable of contributing to this. Purposive sampling was used at the beginning of the study, as participants were selected on their

characteristics and according to the inclusion criteria (Gill, 2020). The research team identified a list of 115 potential participants via Google search and LinkedIn. Initially, the recruitment focused on English-speaking people, as a common language for the data was favoured. However, due to the difficulties of recruiting solely English-speaking participants, the team decided to include German-speaking participants as well. Accordingly, five interviews were conducted in English and five in German. The translation for German interviews was carried out by two researchers of the team as they are fluent in both languages, to obtain a uniform language for analysis purposes. Additionally, the snowball sampling method was used to achieve a wider reach by asking included participants if they knew anyone who met the inclusion criteria and would be willing to participate. In total, 10 participants were interviewed. Of those participants, seven were female and three were male. Two participants work as psychotherapists in a clinic in Germany, another participant from Germany previously worked for several years as a psychiatrist and is now working as a psychologist in a clinic where he also provides psychotherapy to patients. The last two participants from Germany work as psychotherapists in private practice. Furthermore, five participants work as psychologists in the Netherlands, they have a Dutch master's degree in psychology and work in different fields of psychology, but all have direct patient contact. The mean age of the sample was 32.9 years (*SD*=9.30, *range*=23-53).

***Materials and Procedure***

Before the main interviews, a pilot interview was conducted with a psychologist acquainted with the supervisor. The purpose was to identify any weaknesses in the interview questions and structure. The pilot interview succeeded, and some adjustments were made to enhance the interview scheme. Specifically, the probes were refined to align more precisely with each question, ensuring a more targeted approach. Additionally, the informed consent form was modified to clarify anonymity and direct quotation in the bachelor thesis. This addition ensured that participants were aware of how their information would be used and provided explicit consent for their words to be used verbatim as quotes in this thesis.

The interview was as follows. After the psychologists had given their consent to an interview by E-Mail or LinkedIn, an appointment was arranged, which took place either online via Zoom, Microsoft Teams or in person. Depending on the nationality of the respective participant the interview was either conducted in English or German. Half an hour before the interview, the participants received the informed consent either in English (see Appendix A) or in German (see

Appendix B) by E-Mail to ensure that they were informed of their rights and the purpose and procedure of the study and that they gave their consent for the interview to be recorded. Each interview was conducted by one of the three researchers. In the beginning, the researcher briefly explained the procedure and content of the interview. When the researcher had received the completed and signed consent, the audio recording was started either with the recording function of a smartphone when interviews were conducted in person or with the integrated recording function of Microsoft Teams when interviews were held online. The interview consisted of initial demographic questions about their age, gender, and nationality. Subsequently, questions about their professional experience, tasks, and education and 22 open questions were asked. Here too, either the English version (Appendix C) or the German version (see Appendix D) of the interview scheme was used, depending on the nationality of the participant. The interview scheme is separated into three parts inquiring the assessment and treatment of insomnia in: mood disorders (eight questions), substance use disorders (six questions), and anxiety disorders (eight questions). The questions about anxiety disorders were the focus of this work.

Each researcher had the autonomy to decide on the use of predefined probes. Therefore, probes such as “Can you give me a specific example of this?”, “What do you think about this kind of assessment?” and “Why do you consider these factors as relevant for your decision?” were used. These were used if responses from participants were unclear or lacked detail. Additionally, the interviewer paraphrased or explained questions again if the interviewee had difficulties understanding them acoustically or content-wise. Regarding the use of probes, especially the answers to the “why” questions should help to provide details about the individual opinions, which is useful to get more insight information into the perception of psychologists. After the interview the participant was given the opportunity to ask questions and the researcher thanked the interviewee for taking part in the study. On average, each interview took approximately 30 to 40 minutes.

**Data Analysis**

Following the interviews, the recorded conversations were transcribed verbatim by manually editing the recorded transcript from Microsoft Teams. To guarantee confidentiality, all personal information such as name, date, and location have been anonymised. The transcribed data was then uploaded to the University’s cloud service. The coding procedure was carried out using ATLAS.ti, and the analysis was carried out using an inductive thematic analysis approach. This is

a data-driven approach, which means that no attempt is made to fit the data into an existing data frame or to evaluate it based on the researcher's assumptions (Nowell et al., 2017). Accordingly, the researcher thoroughly evaluated the transcripts while keeping the research questions in mind. Identifying the most relevant material that contributes to answering the research questions was part of this step. Each researcher primarily concentrated on the responses relevant to their unique segment of the interview to develop connections between the discovered themes and the research questions. However, responses from other sections of the interview were also considered, acknowledging that they might contain valuable insights or supplementary information for the overall analysis.

During this process, several different categories emerged which can be seen as the underlying framework of the underlying structures. Accordingly, the method of in vivo coding was used first. In general, in vivo coding is characterised by applying the words that the participant had used. The codes are therefore not researcher-derived but are strongly oriented towards the terminology used by the participant (Delve, 2020). This type of coding is beneficial here because the goal of this study is to capture the personal opinion of psychologists. Upon the initial reading of the interviews, a preliminary codebook of 29 general codes related to the research questions was created. No new codes appeared in the last four interviews, and the definitions were not modified further, suggesting that theoretical data saturation had been reached (Saunders et al., 2018). All interviews were reviewed again to identify interesting excerpts, and appropriate codes were applied accordingly. The purpose of this process was that excerpts with the same meaning get the same code. Based on this, the codes were sorted into five themes with 15 codes, as some of the initial codes were merged, to ensure mutual exclusiveness and comprehensiveness. Therefore, one theme represents a broader category for several codes.

To ensure the reliability and validity of the codebook, an additional researcher within the team reviewed the codes and provided feedback on their exclusiveness and exhaustiveness by coding two interviews with the codebook of this thesis. Based on this feedback, it was determined that the initial code *factors that influence assessment* should rather be considered as a theme encompassing other related codes. Additionally, the theme *kinds of assessment* was removed due to its similarity to the theme *of assessment*. Thus, the codebook resulted in four themes and 14 codes. However, after receiving feedback from the two supervisors the code *environment* was split and a new code *absence of sleep hygiene* appeared, belonging to the theme of *patient-related*

*factors*. Therefore, the final codebook resulted in four themes with 15 codes. These themes were divided into two sections, corresponding to the two research questions.

## Results

As described above, the results part is divided into two sections according to the research questions. The first part addresses themes related to the first research question: "How do psychologists assess insomnia in patients with anxiety disorders?" and the second part displays themes concerning the second research question: "Which patient factors lead a psychologist to consider insomnia treatment in patients with anxiety disorders as beneficial?". Table 1 shows the codebook including all themes and codes with an example quote and the number of interviews in which the codes emerged. A more detailed description of each theme and code can be found in the appendices (see Appendix E).

**Table 1**

*Codebook*

| Theme | Codes | Example quote | Frequency (N=10) |
|---|---|---|---|
| How do psychologists assess insomnia in patients with anxiety disorders? | | | |
| Assessment | Point in time | "The sleeping question always is in the beginning." | 9 |
| | Standardised tests | "I always do the SCID5 with the patients." | 1 |
| | Non-standardised questionnaire | "I don't have any special assessment questionnaire for insomnia." | 7 |
| | Asking questions | "First of all, I use open-ended questions like 'How is your sleep?'. Then at some point, it becomes a bit more concrete 'What exactly is the problem?'." | 10 |
| Factors that influence assessment | Own framework | "I'm a person who doesn't need much sleep, I never needed much sleep." | 3 |
| | Insomnia perceived as symptom | "I think it's just a normal symptom of mental disorder." | 2 |

| Theme | Codes | Example quote | Frequency (N=10) |
| --- | --- | --- | --- |
| | Non-verbal behaviour of patient | "I mean if someone looks very tired, I mean that's, that will be one indicator." | 3 |
| | Psychologist's attitude toward standardised tests | "An open and explorative process is the way I would assess it because they can tell you really different things why they cannot sleep." | 7 |
| Which patient factors lead a psychologist to consider insomnia treatment in patients with anxiety disorders as beneficial? | | | |
| Patient-related factors | Reporting behaviour | "I think often I just base it on how the person tells me about it." | 8 |
| | Level of suffering | "If the report really shows the pressure of suffering, so yes how much they insist that it's problematic." | 8 |
| | Prioritisation of problems | "When the patient would say, 'Yeah, I cannot sleep because I'm anxious. And it's really important for me to address my anxiety problems.' then that would direct [me] into the direction that we treat the anxiety disorder." | 7 |
| | Absence of sleep hygiene | "That's really important to really discuss this, ok from a certain time on I don't drink coffee or green tea or cola anymore for example and I should also only drink a certain amount of it a day." | 3 |
| | Motivation | "Motivation, too, of course, when the person says 'I'm suffering', that doesn't mean that they are somehow motivated to change." | 4 |
| Non-patient-related factors | Environment | "It's also about the context. So, yeah. What happened? Why aren't you sleeping? and that's very based on the context." | 3 |

| Theme | Codes | Example quote | Frequency (N=10) |
|---|---|---|---|
| | Impact of insomnia symptoms | "I will probably first treat the anxiety unless the sleeping problems are so bad that they cannot take a rest, and I mean, you cannot treat anxiety when someone is very tired, right?" | 6 |

**How do Psychologists Assess Insomnia in Patients With Anxiety Disorders?**

***Assessment***

The overarching theme of *assessment* includes the codes: Point in time, standardised tests, non-standardised questionnaires, and asking questions and relates to the way how psychologists assess insomnia in patients with anxiety disorders.

**Point in Time.** The code refers to the *point in time* at which the psychologists assess possible sleep issues. Firstly, most of the participants (nine out of ten) stated that they assess sleep in the first session "because it needs to [be] addressed quickly because it's very major, disabling complaint for [the] issue.".

Secondly, one participant mentioned that some patients had already seen another healthcare professional before being referred to the psychologist, indicating that the psychologist was not the initial point of contact. The participant also emphasised the importance of identifying the underlying causes of the patient's sleep disorder: "So what I do, so somebody asks the person 'So you're sleeping bad … ?', and then he's sent to me, and then I'm going to ask more specific to okay 'So what's the problem?'.".

All participants agreed on the significance of assessing insomnia in an early stage of therapy to investigate the severity of the problems and the accompanying level of suffering. Here it is important to note that psychologists stated that the point in time is independent of the specific diagnosis of the patient. The early assessment allows for planning subsequent steps and finding out whether it is necessary to deal with sleep problems first or how to integrate them into the overall therapy process.

**Standardised Tests.** One type of assessment that was mentioned was *standardised tests*. However, only one psychologist mentioned the utilisation of standardised tests as a part of the regular assessment process for evaluating insomnia in patients with anxiety disorders. The test used

was the SCID5 which is provided by the psychologist's workplace. Additionally, she reported that her colleagues also use it in a similar way. According to the psychologist, this test is used for all new patients when they present themselves to the clinic. However, the psychologist explained:

> The depression section in the SCID5 is before the section with anxiety and there is already a question about sleep, which means that here in the SCID5 there are only screening questions about sleep disorders, but most of the time it has already been automatically asked about in the depression section if that falls out, then I would simply have it described to me again in detail if patients then report okay, there are difficulties with sleep.

When patients report experiencing sleep problems, the psychologist would engage in further exploration by asking more specific questions about the issue. This suggests that the therapist uses standardised tests as an initial screening tool to determine the presence of sleep problems in patients with a primarily diagnosed anxiety disorder.

**Non-Standardised Questionnaires.** The interviews also revealed the use of *non-standardised questionnaires* for assessing insomnia. Firstly, one psychologist mentioned using self-made questionnaires which included a sleep diary to help her assess the patient's insomnia and determine the level of support required by the patient as well as the extent of their suffering:

> Exactly, so in fact it's just a table that I make myself. I don't use any particular tests that have been put together scientifically, but just a bit of what I'm thinking about with the patient, what we need to know.

Secondly, some participants mentioned that they are not specialised in the treatment of insomnia and therefore do not use any specific questionnaires for insomnia. They rather refer patients to colleagues who are specialised in assessing and treating sleep disorders:

> Yeah. … I'm not like the person who decides definitively what the diagnose is. So, if I have that kind of a suspicion, I will pass it on to the psychiatrist and then they will … because of my title, I'm not allowed to, yeah, make a diagnose. I just kind of suggest or pass on what I think to the psychiatrist … but I'm not the one who makes the final call on if this person has insomnia or not.

Accordingly, it became apparent that psychologists are aware of the importance to assess insomnia as they indicated referring patients to colleagues who are specialised in sleep. Therefore, they acknowledge that sleep problems sometimes require more specialised treatment and assessment

than they are able to provide. Thus, the level of education and experience also plays an important role in determining the extent to which psychologists assess insomnia.

**Asking Questions.** The most common way psychologists assess insomnia symptoms is by *asking questions*. This code has been found in every interview, suggesting that this is the most common procedure in practice. Participants brought this topic up concerning their typical procedure for assessing sleep problems in patients with anxiety disorders. Firstly, psychologists stated that asking questions is the first thing they do during the clinical interview. Secondly, they indicated that they are trying to find out more about the kind of problems, duration and frequency of the sleep problems during this conversation:

> Well, I don't use tests because I simply do the clinical interview. So, through talking and then I ask questions. Usually, I don't even need to ask them. Instead, it's them who tell me … and then I try to ask little regarding how long is this happening since how long this is happening and then to try to understand the impact, the severity of the impact that it has.

Most participants did not express regret or the need for a standardised test to assess insomnia in patients with anxiety disorders, mentioning that their current procedure is effective. However, two out of ten psychologists acknowledged the use of open-ended questions but also recognised the potential benefits of incorporating standardised tests. One participant, for example, stated:

> I can also imagine that some that there are some patients which are not really aware of the reason why they cannot sleep. And then it would be, of course, nice to maybe have some kind of assessment instrument, like a questionnaire or something.

Another psychologist highlighted the usefulness of a questionnaire in situations where there are multiple diagnoses and limited time for assessing sleeping problems with questions:

> How many sessions are spared to … do an intake? Um, because if you have to do another diagnose … you can't spend the whole session on sleep. So, yeah, it also raises the question on is that really doable or how doable it is? That's why having it done separately or having like a protocol for that would be … useful.

In summary, it can be inferred that asking questions is the predominant approach used in clinical practice for assessing insomnia.

***Factors That Influence Assessment***

What also appeared interesting in order to find out how psychologists assess insomnia are the *factors that influence assessment.* This theme includes different factors that influence the way

psychologists assess sleep. Therefore, it is divided into four codes, namely: Own framework, insomnia perceived as a symptom, non-verbal behaviour of the patient and psychologist's attitude toward standardised tests.

**Own Framework.** Firstly, this code describes the psychologists' own framework regarding the perceived importance of sleep. This framework may lead psychologists to consider sleep as less important and therefore it does not receive sufficient attention during assessment processes. For example, one psychologist explained that she did not need much sleep and was therefore not aware of the negative effects of sleep deprivation at the beginning of her training since she looked at it from her own framework:

> I have to say that I really underestimated it for a long time, not with the patient in particular, but in general. I think, I myself just need very little sleep … . That's why I underestimated for a long time … how much it affects you.

This code was only mentioned by three participants, however, it illustrates that sometimes personal viewpoint can cause both patients and psychologists to perceive sleep issues as less significant, leading to them being overlooked and not assessed properly. Nevertheless, the psychologists mentioned that this perception changed during their training and that they now recognise the importance of sleep in mental illness.

**Insomnia Perceived as a Symptom.** Secondly, it became apparent that some psychologists consider insomnia primarily as a symptom of the underlying anxiety disorder. Consequently, they may not devote much focus to addressing insomnia specifically because they believe that once the primary illness is adequately addressed, the symptoms of insomnia will also disappear. This attitude in turn influences the assessment, as one participant explained:

> So the the source is … the anxiety, yeah. So therefore you will have more effect if you treat the anxiety and anxiety will be less, and the insomnia will be less. So that's the most efficient option I guess.

Another participant explained: "I would focus on the anxiety. Yeah … because I would see that, that insomnia is because of the anxiety. … Therefore, I would expect that the insomnia will become less when the anxiety becomes less.".

These findings indicate that some psychologists are influenced in their assessment by the belief that insomnia is just a mere symptom of anxiety disorders as the main focus is on addressing the primary illness. However, only two participants stated this in the interviews.

**Non-Verbal Behaviour of the Patient.** Thirdly, the *non-verbal behaviour of the patient* plays a role in the consideration of assessment. Some psychologists mentioned during the interviews that they are looking for non-verbal behaviour or physical symptoms in patients to be able to assess how much the patients are affected by insomnia. For example, one psychologist stated:

> You can kind of see it on their face. So it's also really important. It's not only questions or the answers as well. You can also see that they are a bit disoriented, maybe lacking hygiene as well, overall hygiene. Yeah, maybe not fully understanding. You can really sense it in the dialogue you have with, with the patient as well. Are they following your questions? … . I think I pay attention to … the body language as well.

Therefore, the observation of non-verbal body language by psychologists to assess the need for a comprehensive evaluation of insomnia was identified. However, only three participants acknowledged that this factor influenced their assessment process.

**Psychologist's Attitude Toward Standardised Tests.** Finally, a concise factor that stood out during the interviews was the *psychologist's attitude toward the use of standardised tests*. Attitude refers to their explanations of why they do not use standardised tests during their assessment procedure with anxiety patients. One participant stated:

> I think the assessment could be difficult because then they again have something to worry about. 'Ohh no. My sleeping score was bad. What does that mean? I don't sleep enough. All that must be bad.' and stuff like that.

Accordingly, this participant favours the use of open-ended questions, especially for patients with anxiety disorders, as these patients would otherwise often excessively worry about their test scores.

Furthermore, some psychologists believe that the use of asking open questions, instead of standardised tests, results in a better relationship with their patients:

> Because I think tests always create a kind of distance in such a professional environment where people are less prone to open up and I think if you just ask about it they are also more likely to really tell you about their situation, how it is for them, and also about their feelings and not just about, yeah, the numbers like how many nights … did you have sleeping problems.

Additionally, one of the participants mentioned the subjectivity of good or bad sleep as a preference for using open-ended questions allowing a more individualised approach to addressing the patients'

sleep problems without being constrained by the rigid rules of tests. Moreover, the psychologist thinks that "an explorative process for assessing it and really having [...] an open mind or [...] an open attitude to everything that [the participant] would tell you in regard to this is [...] a nice assessment method.". Thus, she believes that by using open questions instead of standardised tests, she can obtain a better and more holistic understanding of the different factors that contribute to the patient's sleep problems.

In summary, the assessment of insomnia is influenced by various factors. Here, personal opinions of psychologists regarding the use of open questions versus standardised tests emerged as one of the most prominent factors influencing their assessment approach.

## Which Patient Factors Lead a Psychologist to Consider Insomnia Treatment in Patients With Anxiety Disorders as Beneficial?

### *Patient-Related Factors*

The theme *patient-related factors* entails five codes, namely: Reporting behaviour, level of suffering, prioritisation of problems, absence of sleep hygiene and motivation. The theme relates to factors a patient entails, for example, different kinds of behaviours, that lead a psychologist to consider the treatment of insomnia in patients with anxiety disorders as beneficial.

**Reporting Behaviour.** Firstly, psychologists highlighted *reporting behaviour* as a significant factor. This relates to how patients express their sleep problems. Furthermore, patients' communication regarding sleep difficulties varies greatly among individuals. According to psychologists, some patients are stating it on their own, others are only expressing it when explicitly asked, and some do not report it at all. For example, one participant stated:

> I always ask patients in the morning what the situation is and then I hear it. But even then not always, I think it's just a matter of type whether you say it every time or whether you have to ask explicitly again.

Therefore, psychologists must know the severity of the patient's symptoms so that they can consider possible treatments for insomnia.

Furthermore, a patient's level of awareness might either help or impede reporting behaviour as the patient may be unaware of the detrimental effects of sleep deprivation on mental wellbeing. For example, one psychologist mentioned that: "the more understanding patients have, the more likely they are to address it than if they don't have the same understanding.". Thus, some

psychologists think that patients with a high level of awareness of this connection are more likely to report their sleep issues.

This factor can be considered crucial in the decision-making process, as eight participants mentioned this in the interviews. Therefore, participants highlighted the importance of patients talking about their sleep issues so that appropriate treatment can take place.

**Level of Suffering.** Secondly, the *level of suffering* is one of the key indicators for psychologists when deciding if treatment of insomnia is beneficial for that respective patient or not. The code relates to the perceived distress of patients when they report their sleep problems. One psychologist for example stated:

> If I ask about it and they like let go and there's a stream of 'Yeah, I sleep so bad and it's stressing me out so much and the nights are horrible', then I will definitely treat it. But if they just say 'Yeah, I don't sleep that well but I don't care that much. That's not my real problem.' Then I won't focus on it. But if the person really has emotional pain because of it. Then I will address it.

The interviews revealed that patterns such as rumination, which are commonly present in anxiety disorders, can exacerbate the level of suffering experienced by patients with sleep disorders, creating a vicious cycle where rumination interferes with the ability to fall asleep, further exacerbating sleep problems. Consequently, six psychologists mentioned that when they hear about patients suffering from rumination, they consider it as an indication to investigate the underlying issues. Thus, this emphasises an awareness of a bidirectional relationship between anxiety and sleep disturbances and an understanding of the need of treating both. One psychologist mentioned for example:

> Or sometimes at the next day … they know that there will be a situation where they get confronted with the anxiety or there could be a situation which is causing a panic attack or something like this. And then they are ruminating about the next day … and then they cannot fall asleep or anything like this.

According to the interviews, it was observed that psychologists consider the level of suffering as one of the most important factors in deciding whether to provide treatment or not, as eight participants mentioned it.

**Prioritisation of Problems.** Thirdly, what appears to be significant for psychologists is the *prioritisation of problems*. This suggests that psychologists emphasise meeting the needs of their

patients while deciding if insomnia treatment is beneficial or not. If patients express a desire to prioritise treatment of anxiety symptoms because they believe it is the most limiting issue, the therapist will accept their decision and may not consider treatment of sleep difficulties to be useful. One psychologist stated:

> So I might have people who come and [...] they've got issues around sleep and, they don't want any information, so [...] it's about client choice. Basically, if people want to address that issue and they want to hear techniques and psychoeducation. I wouldn't ever do that if that wasn't something that was their priority.

Seven participants recognised the significance of the dynamic aspect of treatment in their decision-making process, indicating that this can be seen as a highly influencing patient factor.

**Absence of Sleep Hygiene.** Another factor that affects therapists' decisions is the *absence of sleep hygiene rules*. This code includes in particular the behaviour of the patients with regard to their sleep patterns. For example, one participant explained:

> And of course also a bit of what is done before going to bed, am I still on my mobile for hours or do I really try to calm down by using meditation apps … or is it more like I'm at home, brush my teeth for 5 minutes, go to the bathroom and then I'm asleep, so that I don't have any time to calm down. That's a bit of a look what's the back story.

Thus, psychologists observed that unfavourable behaviour patterns of patients like excessive mobile phone use, often contribute to poor sleep, leading them to consider the absence of sleep hygiene rules as a decisive indicator to tackle these problems. Furthermore, it became apparent that many psychologists tackle sleep problems with the establishment of sleep hygiene. However, only three participants explicitly mentioned the patient's behaviour, which showed an absence of sleep hygiene as an indicator for their decision.

**Motivation.** The last code of patient-related factors is *motivation*. Participants noted its importance in determining the success of insomnia therapy. Active participation and motivation were emphasised as crucial for effective therapy, with psychologists highlighting that without motivation, the effectiveness of the overall therapy may be limited. One psychologist explained:

> And then you also notice relatively quickly an effort, whether patients are willing to really change something or whether they have extremely strenuous avoidance behaviour. And then there are patients who are told this once and who say I know all that, then I'll do it …

and then a good result can be achieved relatively quickly. And then there are the patients where you come back again and again.

Additionally, one psychologist shared an observation that some patients feel empowered to work on improving their sleep. According to the participant they find it easier to tackle sleep-related issues compared to other more challenging aspects of their anxiety disorder:

Yeah, take control. I would say more like agency, feeling like it's easier. It's more likely … they can experience a feeling of agency, essential agency compared to other symptoms … that require extra hard work for them to feel better.

Some psychologists believe that patients find it easier to address their sleep problems, which in turn gives them a sense of self-efficacy. They explained that this also increased the overall motivation for treatment. Consequently, it is an important factor which can positively enhance their motivation for overall treatment. However, it is worth noting that only four participants mentioned the factor of motivation, suggesting that it may not be a predominant consideration for psychologists.

***Non-Patient-Related Factors***

During the interviews, it became clear, that some psychologists do not only perceive factors related to the patient, like for example, reporting behaviour, as important for seeing treatment as beneficial or not but also other *factors which are not associated with the patient's behaviour*. These include the environment of the patient and the impact of sleep problems on therapy in general.

**Environment.** If the *environment* is conducive to the emergence of insomnia, this is also a reason that influences treatment decisions. Nevertheless, knowledge of this factor also helps the therapist to look at what needs to be adapted or focused on in the patient's environment for a treatment to be considered beneficial:

That could be because they have family, so it's not just themselves they are thinking about, but also their husbands, their wives, their kids, their parents, that they have to care for or something. So I think the more people you are feeling responsible for and for anxiety patients, the worse they sleep.

However, some psychologists also explained that they always ask about the environment of the patient to look for possible supportive factors. One psychologist explained:

> So that we can look at how we can simply use the network. Be it with support, be it by reminding people of sleep rituals and such, so that they don't, as I said, go straight to bed from something at home. Exactly, that you try to involve more people a little bit.

Therefore, the decision-making is influenced by the environment of the patient as psychologists recognised that external factors can either hinder or enhance the treatment of insomnia. For example, potentially provided support from family is seen as an indicator of perceiving treatment as beneficial because it is then more likely that the desired behavioural regulations will be implemented. For example, the family can help to ensure that the use of sleep hygiene rules is monitored and established.

**Impact of Insomnia Symptoms.** During the interviews, it became apparent that some psychologists also see the bidirectional relationship between insomnia and anxiety as they explain that the *symptoms of insomnia also have a negative impact on the anxiety disorder*, which can lead to a vicious cycle in itself and makes the treatment of insomnia important to consider:

> Because if people have sleeping problems, their … mental health is not going to increase because it's kind of a vicious cycle, that's all the mental capacities are very low when you don't have enough sleep. So I'll see it as one of the first things that needs to be addressed during psychotherapy.

Psychologists repeatedly expressed that some patients experience a major impairment in their everyday life because of insomnia. They mention that when they hear about this from a patient they would definitely go into the treatment of insomnia. For example, one psychologist stated:

> Yes, I would also look a little bit at how much the person is affected by it. In everyday life, too. And if this is very great, which means that, for example, the treatment of anxiety disorder can simply not be so effective, because the person is always overtired, can't get any rest. Then I would definitely put my focus there first, because that would be a basis for me to be able to look further.

Six out of ten participants explicitly identified this factor as decisive in their consideration. Some psychologists note that if insomnia severely impairs the patient to the extent that addressing the anxiety disorder becomes challenging due to exhaustion, prioritising the treatment of insomnia becomes essential. Thus, this highlights that psychologists acknowledge the bidirectional relationship between sleep and anxiety, emphasising the crucial role of good sleep quality in effectively managing anxiety.

## Discussion

The purpose of this study was to answer the questions of how psychologists assess insomnia in patients with anxiety disorders and which patient factors impact their choice to consider insomnia treatment as beneficial. As the general impression from previous research is that sleep is viewed as a mere symptom of anxiety disorders and hence keeps being underdiagnosed and mistreated in assessment and treatment, it was crucial to learn more about psychologists' current perception towards this topic. Psychologists seem to prioritise asking open-ended questions over the use of standardised measurement instruments. Attitudes of psychologists toward the use of standardised tests were the most important factor influencing how they assess insomnia in patients with anxiety disorders. Participants described how it is easier for them to build a good relationship with the patient through asking open-ended questions and that they have the feeling to get as much or more valid and personal information from patients than if they were using a standardised tests. Regarding treatment decisions, psychologists indicated reporting behaviour and level of suffering as the most influential patient-related factors. Furthermore, sleep hygiene appeared as the most primarily used treatment approach among psychologists.

### How do Psychologists Assess Insomnia in Patients with Anxiety Disorders?

Regarding the first research question, one of the key findings is that the primary assessment approach involves asking open-ended questions regarding sleep. This aligns with existing literature, highlighting the importance of conducting a clinical interview that includes questions about sleep (Riemann et al., 2017). However, the current study revealed that the subsequent step of utilising standardised questionnaires and conducting a physical examination, as recommended in the literature, was only implemented by one out of the ten participants. Alternatively, participants mentioned using other assessment methods, such as self-made questionnaires to evaluate the sleep of their patients. These findings are consistent with the literature's assumption that many psychologists predominantly rely on informal inquiry methods, with standardised assessment tools only being sparingly employed (Rehman et al., 2016). Considering the limited change in assessment practices over time indicated by the study from Rehman and colleagues, the present study contributes new insights by uncovering additional factors influencing the assessment process. By analysing the interviews, four factors emerged as influential, namely: the attitude of the psychologists toward standardised tests, perceiving insomnia only as a mere symptom of anxiety,

the psychologists' own framework regarding the importance of sleep, and the non-verbal behaviour of the patient.

Firstly, the participants revealed diverse views on the use of standardised tests. Furthermore, some mentioned the absence of such tests in their workplace which is limiting these tests being used. While some recognised the potential benefits of standardised tests for certain patients, others expressed concerns. Notably, one participant highlighted avoiding tests, especially for anxiety patients due to their tendency to worry about negative scores, which could exacerbate their anxiety. Instead, several participants emphasised the value of open-ended questions as they believe this allows for a stronger connection with the patient. This finding challenges previous literature that standardised tests are essential for the assessment of sleep disorder symptoms (Riemann et al., 2017; Buysse et al., 2006). Additionally, it sheds light on the reasoning behind some therapists' decisions not to use standardised tests. Therefore, this factor does influence the approach psychologists take in assessing insomnia.

Secondly, the perception of insomnia being a symptom of anxiety disorders appeared to be a decisive factor in the decision to treat insomnia or not. The literature suggests that some psychologists still hold the belief that insomnia is just a symptom of anxiety disorders (Harvey, 2008) even though it has detrimental effects on mental well-being (Chance Nicholson & Pfeiffer, 2021). The current work indicates that the belief, suggested by the literature is still held by some psychologists. Participants mentioned that they think that sleep problems will naturally resolve once the anxiety disorder is treated successfully, however, it is evident that insomnia symptoms remain after the treatment of anxiety in some cases (Kaczkurkin et al., 2021). Thus, psychologists' viewpoints may impact their treatment decision, with a larger emphasis on alleviating anxiety rather than particularly addressing sleeplessness. Nonetheless, it should be highlighted that this view was shared by only two participants.

Thirdly, the study identified that psychologists' own framework and the non-verbal behaviour of the patient influence their assessment of insomnia. Initially, psychologists' understanding of sleep, led them to neglect the assessment of insomnia. This finding aligns with previous research findings, as Grandner and Chakravorty (2017) found that psychologists estimated that around 20 to 39% of their patients would experience sleep problems whereas the prevalence is higher than 70%. However, psychologists' awareness improved with experience.

Nonetheless, this highlights the need to recognise personal preconceptions and biases that can contribute to the neglect of sleep assessment.

Fourthly, this study revealed that psychologists consider non-verbal cues, such as lack of hygiene, facial expressions, and attentiveness, as indicators of poor sleep quality. These cues prompt psychologists to conduct a more comprehensive assessment of sleep problems. Nevertheless, this factor has not been considered in previous literature nor did it appear as a significant factor in this study, as only three out of ten participants expressed looking for these cues when assessing sleep.

**Which Patient Factors Lead a Psychologist to Consider Insomnia Treatment in Patients with Anxiety Disorders as Beneficial?**

Looking at possible patient factors that lead a psychologist to consider insomnia treatment in patients with an anxiety disorder as beneficial, participants emphasised the importance of patient-related factors, such as reporting behaviour, motivation, level of suffering, absence of sleep hygiene and prioritisation of problems from the patient's side. This aligns with existing literature, as Benca (2005) found that patient factors can contribute to insomnia being underdiagnosed and mistreated. For example, patients' lack of awareness about the impact of insomnia on their mental health often leads to underreporting (Ogeil et al., 2020). This in turn lead to insomnia not being treated well enough. The current study further validates this finding, as psychologists also acknowledged that patients with a low level of awareness regarding their sleep problems tend to exhibit less reporting behaviour, making them less likely to communicate their sleep issues. Furthermore, the patient's level of suffering appeared as an important factor in the decision-making process as patients with anxiety disorders frequently suffer from rumination, which increases their sleep problems and therefore leads to a high level of suffering. These results build on existing evidence from Sutton (2014), who demonstrates a vicious cycle of worry, rumination and insomnia. When asking participants about this issue they mentioned that observing rumination and an accompanying high level of distress would impact their decision to see the treatment of insomnia as beneficial. Additionally, what also emerged as an important factor during the interviews is the behaviour of the patients in relation to the use of sleep hygiene practices. Some participants explained that if they hear about excessive mobile phone use right before going to bed or too much caffeine consumption in the evening during their assessment, this is a clear signal for them to consider treatment of insomnia as beneficial. Here, it also became clear that many psychologists

resort to sleep hygiene as first tool to tackle insomnia symptoms. This is a logical and understandable decision, yet the establishment of sleep hygiene rules as a stand-alone treatment is not sufficient for the treatment of insomnia, as the literature identifies CBT-I as the recommended treatment approach (Edinger et al., 2021).

However, the study also identified other patient-related characteristics that had not previously been discussed in literature, such as the prioritisation of problems throughout therapy. Patients may report sleep issues while also expressing a wish to focus only on the anxiety disorder. Thus, many psychologists underline the necessity of taking the needs of the patient into account when determining whether to treat insomnia. Furthermore, the patient's motivation to treat insomnia was emphasised as important. Here, psychologists may see insomnia treatment as less useful for patients who do not actively participate in applying behavioural therapy strategies such as the establishment of sleep hygiene rules to adapt their behaviour. This factor has not been mentioned in previous research but appears as a significant factor in determining why psychologists sometimes address anxiety disorders instead of insomnia.

Lastly, during six interviews, it became evident that participants recognised the bidirectional relationship between sleep and anxiety. For example, they explained that insomnia symptoms not only impact the treatment of anxiety disorders but also have a negative effect on overall mental well-being. Thus, this point of view led them to consider the treatment of insomnia as significant. For instance, one participant shared an experience with patients who were highly sleep deprived and therefore struggled to fully engage in therapy. For some psychologists, this observation served as a crucial indicator for addressing the sleep disorder specifically. This finding challenges the assumption in the literature that psychologists perceive insomnia only as a mere symptom of anxiety disorders (e.g. Harvey, 2008). Instead, it highlights that they acknowledge that insomnia and anxiety are intertwined.

**Limitations**

There are also possible limitations to this research. Firstly, the decision to include German-speaking participants in the study presents a potential limitation. 50% of the interviews had to be translated from German to English, which raises the possibility of meaning distortions during the translation process, especially since a translation programme (DeepL) was used for efficiency reasons. Additionally, there is a chance that the questions translated into German might have conveyed a slightly different meaning in the interview protocol compared to the original English

version. Although efforts were made to mitigate this issue by having two researchers fluent in both languages exchange their transcriptions, it cannot be completely ruled out. To achieve a more coherent result, a concise strategy regarding the language of the interviews would have been advantageous.

Another limitation could have been the order of questions in the interview scheme as the questions regarding anxiety disorders were only asked at the end of each interview. Therefore, it is possible that answers to this part were not as accurate or that the participants felt they had already answered the questions in the previous parts. The reason for this could be that the participants had already been interviewed for 20 to 25 minutes for the other parts and were therefore exhausted or no longer as concentrated and willing to answer. Consequently, this could have benefited from a change of order in various interviews or a generally shorter time span for the interview.

Lastly, it is important to acknowledge that qualitative research naturally carries a degree of subjectivity. One possible reason for that could have been that the researcher's prior intensive literature review may have shaped the perspective and ideas regarding the research. However, since the researcher is part of the study and therefore the final product, complete detachment from this is not possible, naturally leading to a certain level of subjectivity (e.g., Bumbuc, 2016).

**Meaningful Contributions**

Nevertheless, this study provided meaningful information. The findings suggest that therapists' decisions on the assessment and treatment of insomnia are impacted by various factors, other than a lack of expertise or conviction. Psychologists' attitudes and opinions towards the use of standardised tests were revealed as the most relevant factor in this respect. Furthermore, the study found that psychologists prioritised patients' preferences and wishes regarding the treatment order for several problems. Thus, when choosing assessment methods, psychologists must have a good therapeutic relationship with the patient in mind.

Furthermore, the data demonstrated that some psychologists acknowledge the bidirectional association between insomnia and anxiety. Rather than considering insomnia only as a symptom of anxiety, they noted that insomnia symptoms impair the patients' overall mental health and contribute to the development or worsening of anxiety disorders. This is a significant discovery since the literature demonstrates that psychologists' perspectives regarding the function of sleep are influenced by the assumption that insomnia is just a symptom (e.g., Harvey, 2008). Despite the fact that only two out of ten participants confirmed this belief, and the majority of participants

indicated that they saw a bidirectional relationship and chose treatment for insomnia based on this, this recognition did not have a strong influence on the treatment approach. Here, it became clear that many psychologists suggest that sleep hygiene, as a stand-alone treatment, is sufficient for addressing insomnia. This viewpoint was expressed by many psychologists, who considered sleep hygiene beneficial in their treatment approach. Additionally, they saw it as the primary method to modify the patient's behaviour and reduce sleep problems. This is a contradictory finding compared to the existing literature, which emphasises CBT-I as the most effective treatment and highlights the use of sleep hygiene in conjunction with CBT-I as a multi-component cognitive behavioural therapy approach (Edinger et al., 2021).

**Future Directions**

The findings of this study call for further attention to the topic of treatment of insomnia regarding the sparse use of CBT-I in practice. Therefore, future research can build upon the findings of the current study and investigate further why many psychologists use sleep hygiene as a stand-alone practice although it is advised not to do so (Edinger et al., 2021). Thus, the underlying reasons for psychologists' tendency to prefer sleep hygiene over a multicomponent behavioural treatment approach should be explored. Additionally, it would be helpful to investigate the specific requirements and facilitators needed by psychologists to, for example, integrate CBT-I into their treatment options. Therefore, further surveys and interviews which also investigate the availability of education and training on sleep in general and especially on CBT-I should be conducted to receive helpful insights.

Furthermore, practical applications can be derived from the study's findings. One example of this could be to raise awareness of the bidirectional relationship between insomnia and mental illnesses in patient populations, as well as psychologists and the overall general population. This can attempt to create a better awareness of sleep and therefore might contribute to sleep disorders being more reported by people experiencing insomnia symptoms. Thus, this can help to counteract underdiagnosis and mistreatment of insomnia. Offering more specialised workshops in higher education and workplaces of psychologists but also other populations, can be one way to achieve this. Additionally, training for psychologists and psychotherapists should be offered to intensify education on the topic of insomnia in anxiety and how to treat it most efficiently. This training should focus on CBT-I, as this approach is recommended for treatment (Sweetman et al., 2020). Here it would be helpful to implement more courses about CBT-I in academic education and

offering regular training opportunities for psychologists at their workplaces. If such opportunities would be offered in clinics, this could also benefit other healthcare practitioners.

**Conclusion**

In conclusion, this study demonstrated that a variety of complex factors should be considered when determining why sleep is neglected in mental health care. Therefore, taking a holistic approach that considers multiple perspectives and factors is crucial for understanding the issue of mistreated and neglected insomnia symptoms. Psychologists' opinions regarding the generally advised use of standardised tests for evaluation are impacted by their attitudes towards these tests since they favour open-ended questions, which allow for a more customised approach and lead to standardised tests being only sparingly used. Additionally, this seems to be particularly helpful for patients with anxiety disorders. Furthermore, psychologists recognise the bidirectional link between sleep and anxiety, stating that symptoms of insomnia may have a significant influence on overall mental health and hence have an impact on general therapeutic processes. Participants acknowledged the importance of patient-related behaviour in treatment decisions, such as reporting behaviour and nonverbal behaviour. However, when deciding that treatment is beneficial, sleep hygiene emerged as the primary treatment choice. Understanding the factors that psychologists need to feel more at ease with treating insomnia with CBT-I, as well as how to make CBT-I more available in training, is essential. More education on the topic of sleep, particularly the appropriate treatment of insomnia in academic education as well as schools and other areas of life, is therefore necessary. This should help to improve the problem of sleep difficulties being underestimated and mistreated. Future interventions should thus focus on increasing the availability of CBT-I training at universities or workplaces for healthcare providers.

# References

Baglioni, C., Altena, E., Bjorvatn, B., Blom, K., Bothelius, K., Devoto, A., Espie, C. A., Frase, L., Gavriloff, D., Tuuliki, H., Hoflehner, A., Högl, B., Holzinger, B., Järnefelt, H., Jernelöv, S., Johann, A. F., Lombardo, C., Nissen, C., Palagini, L., … Riemann, D. (2019). The European Academy for Cognitive Behavioural Therapy for Insomnia: An initiative of the European Insomnia Network to promote implementation and dissemination of treatment. *Journal of Sleep Research*, *29*(2), e12967. https://doi.org/10.1111/JSR.12967

Benca, R. M. (2005). Diagnosis and treatment of chronic insomnia: A review. *Psychiatric Services*, *56*(3), 332–343. https://doi.org/10.1176/appi.ps.56.3.332

Bumbuc, Ş. (2016). About Subjectivity in Qualitative Data Interpretation. *International Conference KNOWLEDGE-BASED ORGANIZATION*, *22*(2), 419–424. https://doi.org/10.1515/KBO-2016-0072

Buysse, D. J., Ancoli-Israel, S., Edinger, J. D., Lichstein, K. L., & Morin, C. M. (2006). Recommendations for a standard research assessment of insomnia. *Sleep*, *29*(9), 1155–1173. https://doi.org/10.1093/SLEEP/29.9.1155

Canadian Audit and Accountability Foundation (2023). *Homogeneity and Heterogeneity*. Retrieved June 9, 2023, from https://www.caaf-fcar.ca/en/sampling-methodology-concepts-and-context/population-characteristics/homogeneity-and-heterogeneity#:~:text=Homogeneity%20is%20the%20level%20of,%2C%20location%2C%20or%20employment).

Chance Nicholson, W., & Pfeiffer, K. (2021). Sleep disorders and mood, anxiety, and post-traumatic stress disorders: Overview of clinical treatments in the context of sleep disturbances. *Nursing Clinics of North America*, *56*(2), 229–247. https://doi.org/10.1016/J.CNUR.2021.02.003

Cox, R. C., & Olatunji, B. O. (2016). A systematic review of sleep disturbance in anxiety and related disorders. *Journal of Anxiety Disorders*, *37*, 104–129. https://doi.org/10.1016/J.JANXDIS.2015.12.001

Delve (2020). *How to do In Vivo Coding*. Retrieved April 14, 2023, from https://delvetool.com/blog/invivocoding

Edinger, J. D., Arnedt, J. T., Bertisch, S. M., Carney, C. E., Harrington, J. J., Lichstein, K. L., Sateia, M. J., Troxel, W. M., Zhou, E. S., Kazmi, U., Heald, J. L., & Martin, J. L. (2021). Behavioral and psychological treatments for chronic insomnia disorder in adults: an American Academy of Sleep Medicine clinical practice guideline. *Journal of Clinical Sleep Medicine*, *17*(2), 255–262. https://doi.org/10.5664/JCSM.8986

Faulkner, S., & Bee, P. (2016). Perspectives on sleep, sleep problems, and their treatment, in people with serious mental illnesses: A systematic review. *PLoSONE*, 11(9). https://doi.org/10.1371/journal.pone.0163486

Freeman, D., Sheaves, B., Waite, F., Harvey, A. G., & Harrison, P. J. (2020). Sleep disturbance and psychiatric disorders. *The Lancet Psychiatry*, *7*(7), 628–637. https://doi.org/10.1016/S2215-0366(20)30136-X

Gill, S. L. (2020). Qualitative Sampling Methods. *Journal of Human Lactation*. *36*(4), 579–581. https://doi.org/10.1177/0890334420949218

Grandner, M. A., & Chakravorty, S. (2017). Insomnia in primary care: Misreported, mishandled, and just plain missed. *Journal of Clinical Sleep Medicine*, *13*(8), 937–939. https://doi.org/10.5664/JCSM.6688

Gupta, R., Das, S., Gujar, K., Mishra, K., Gaur, N., & Majid, A. (2017). Clinical practice guidelines for sleep disorders. *Indian Journal of Psychiatry*, *59* (Suppl 1), S116. https://doi.org/10.4103/0019-5545.196978

Harvey, A. G. (2008). Insomnia, psychiatric Disorders, and the transdiagnostic perspective. *Current Directions in Psychological Science*, *17*(5), 299–303. https://doi.org/10.1111/J.1467-8721.2008.00594.X

Hengstermann, L. (2022). *Improving group collaboration in higher education through self-reflection* [Unpublished manuscript]. Department of Psychology, University of Twente.

Hombali, A., Seow, E., Yuan, Q., Chang, S. H. S., Satghare, P., Kumar, S., Verma, S. K., Mok, Y. M., Chong, S. A., & Subramaniam, M. (2019). Prevalence and correlates of sleep disorder symptoms in psychiatric disorders. *Psychiatry Research*, *279*, 116–122. https://doi.org/10.1016/J.PSYCHRES.2018.07.009

Kaczkurkin, A. N., Tyler, J., Turk-Karan, E., Belli, G., & Asnaani, A. (2021). The association between insomnia and anxiety symptoms in a naturalistic anxiety treatment

setting. *Behavioral Sleep Medicine*, *19*(1), 110–125. https://doi.org/10.1080/15402002.2020.1714624

Lancel, M., Boersma, G. J., & Kamphuis, J. (2021). Insomnia disorder and its reciprocal relation with psychopathology. *Current Opinion in Psychology*, *41*, 34–39. https://doi.org/10.1016/J.COPSYC.2021.02.001

Marcks, B. A., Weisberg, R. B., Edelen, M. O., & Keller, M. B. (2010). The relationship between sleep disturbance and the course of anxiety disorders in primary care patients. *Psychiatry Research*, *178*(3), 487–492. https://doi.org/10.1016/J.PSYCHRES.2009.07.004

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, *16*(1). https://doi.org/10.1177/1609406917733847/ASSET/IMAGES/LARGE/10.1177_1609406917733847-FIG4.JPEG

Ogeil, R. P., Chakraborty, S. P., Young, A. C., & Lubman, D. I. (2020). Clinician and patient barriers to the recognition of insomnia in family practice: A narrative summary of reported literature analysed using the theoretical domains framework. *BMC Family Practice*, *21*(1), 1–10. https://doi.org/10.1186/S12875-019-1070-0/TABLES/3

Papadimitriou, G. N., & Linkowski, P. (2005). Sleep disturbance in anxiety disorders. *International Review of Psychiatry*, *17*(4), 229–236. https://doi.org/10.1080/09540260500104524

Rehman, A., Waite, F., Sheaves, B., Biello, S., Freeman, D., & Gumley, A. (2016). Clinician perceptions of sleep problems, and their treatment, in patients with non-affective psychosis. *Psychosis*, *9*(2). 129–139. https://doi.org/10.1080/17522439.2016.1206955

Riemann, D., Baglioni, C., Bassetti, C., Bjorvatn, B., Dolenc Groselj, L., Ellis, J. G., Espie, C. A., Garcia-Borreguero, D., Gjerstad, M., Gonçalves, M., Hertenstein, E., Jansson-Fröjmark, M., Jennum, P. J., Leger, D., Nissen, C., Parrino, L., Paunio, T., Pevernagie, D., Verbraecken, J., … Spiegelhalder, K. (2017). European guideline for the diagnosis and treatment of insomnia. *Journal of Sleep Research*, *26*(6), 675–700. https://doi.org/10.1111/JSR.12594

Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2018). Saturation in qualitative research: exploring its conceptualization and

operationalization. *Quality & Quantity*, *52*(4), 1893. https://doi.org/10.1007/S11135-017-0574-8

Shorr, R. I., & Bauwens, S. F. (1992). Diagnosis and treatment of outpatient insomnia by psychiatric and nonpsychiatric physicians. *The American Journal of Medicine*, *93*(1), 78–82. https://doi.org/10.1016/0002-9343(92)90683-3

Sutton, E. L. (2014). Psychiatric disorders and sleep issues. *Medical Clinics*, *98*(5), 1123–1143. https://doi.org/10.1016/J.MCNA.2014.06.009

Sweetman, A., Lovato, N., Micic, G., Scott, H., Bickley, K., Haycock, J., Harris, J., Gradisar, M., & Lack, L. (2020). Do symptoms of depression, anxiety or stress impair the effectiveness of cognitive behavioural therapy for insomnia? A chart-review of 455 patients with chronic insomnia. *Sleep Medicine*, *75*, 401–410. https://doi.org/10.1016/J.SLEEP.2020.08.023

Winkelman, J. W., Benca, R., & Eichler, A. F. (2023). *Overview of the treatment of insomnia in adults*. Retrieved March 8, 2023, from https://www.medilib.ir/uptodate/show/97867

World Health Organization (2023). *ICD-11 for Mortality and Morbidity Statistics*. Retrieved February 17, 2023, from https://icd.who.int/browse11/l-m/en#/http%3a%2f%2fid.who.int%2ficd%2fentity%2f323148092

# Appendices

## Appendix A

## Informed Consent English

(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. ☐ ☐

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

Otherwise, you are welcome to contact our research team:

**Appendix B**

**Informed Consent German**

(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. ☐ ☐

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 ihren 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:

## Appendix C

## Interview Scheme English

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.

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[1] Adapted from "Improving Group Collaboration in Higher Education through Self-Reflection," by L. Hengstermann, 2022, [Unpublished manuscript]. Department of Psychology, University of Twente.

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**

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?sleep problems in patients with mood disorders recently?**
    a. 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?**
    **a.** 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?**
    a. 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?**
    a. 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?**

  a. Ask if they have even learned any practices at all (if yes, continue with the subquestions
  b. pharmacological or behavioral? (CBT-I)
  c. 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?**
   a. 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?**
   a. 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?**
   a. Which factors could affect treatment success if not taken into account?
   b. Why are these factors important?
3. **How do you usually treat insomnia in individuals suffering from SUDs?**
   a. Do you focus on treating it or consider it a comorbidity?
   b. 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?**
   a. Why do you use these treatments?
   b. What are the other pharmacological and non-pharmacological treatments?
   c. How satisfied are you with the treatments you use?
   d. 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?**
   a. What are the benefits and drawbacks of these types of treatment?

   b. 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?**
   a. Which type of treatment usually works better for these individuals in the long term?
   b. 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 treating 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 behaviour 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:**

1. Can you give me a specific example of this?
2. Why do you think this is important?
3. What do you mean when you say [insert example]?
4. Can you elaborate further on this?
5. What does this look like?
6. Are these factors related to the behaviour of the patient?

**Appendix D**

**Interview Scheme German**

Einleitung (see Footnote 1)

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?**

a. 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 Schlafproblemen zu leiden?**

a. Wie hängen Ihrer Meinung nach Schlaflosigkeit und affektive Störungen zusammen?

**3. Inwiefern ist es Ihrer Meinung nach wichtig, die Symptome der Schlafstörung bei Patienten mit affektiven Störungen zu berücksichtigen bzw. sich darauf zu konzentrieren?**

a. 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 Schlafstörungen bei Patienten mit Major Depression im Vergleich zu Patienten mit bipolarer Störung angehen?**

**5. Haben sich Ihre Ansichten/Wissen/Erfahrungen über die Behandlungsmöglichkeiten von Schlafstörungen in den letzten Jahren verändert oder weiterentwickelt?**

a. 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?)**

a. Fragen Sie, ob sie überhaupt irgendwelche Praktiken erlernt haben (wenn ja, fahren Sie mit den Unterfragen fort
b. pharmakologisch oder verhaltenstherapeutisch? (CBT-I)
c. Welche Möglichkeiten gibt es Ihrer Meinung nach, um die Symptome der Schlaflosigkeit zu behandeln?

**7. Inwieweit sind Sie mit den Behandlungsmöglichkeiten und der Ausbildung in diesem Gebiet zufrieden?**

a. 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 Schlafstörungent bei Patienten mit Stimmungsstörungen?**

**Abschnitt 2: Behandlung von Schlaflosigkeit bei Patienten mit Suchterkrankungen**

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

a. 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?**

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

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

a. Konzentrieren Sie sich auf die Behandlung der Schlaflosigkeit oder betrachten Sie sie als Komorbidität?
b. 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?**

a. Warum setzen Sie diese Behandlungen ein?

b. Welche anderen pharmakologischen und nicht-pharmakologischen Behandlungen gibt es?
c. Wie zufrieden sind Sie mit den Behandlungen, die Sie anwenden?
d. 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?**

a. Was sind die Vor- und Nachteile dieser Behandlungsarten?
b. 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?**

a. Welche Art der Behandlung wirkt bei diesen Menschen langfristig besser?
b. 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?**

a. Warum gehen Sie dabei in dieser Reihenfolge vor?
b. Können Sie mir ein konkretes Beispiel nennen?

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

a. Stellt Ihre Organisation Ihnen irgendwelche Tests zur Verfügung?
b. Können Sie mir ein konkretes Beispiel dafür nennen?
c. 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?**

a. Was veranlasst Sie dazu, eine solche Untersuchung als sinnvoll zu erachten?
b. 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?**

a. Stehen diese Faktoren im Zusammenhang mit dem Patienten (Verhalten, Alter, Geschlecht)?
b. 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?**

a. Warum glauben Sie, dass dies sinnvoll ist?
b. Können Sie mir ein konkretes Beispiel dafür nennen?
c. Können Sie dies näher erläutern?

Behandlung:

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

a. 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?**

a. Wie oft berichten die Patient:innen Ihnen von sich aus von diesen Problemen?
b. Stehen diese Faktoren im Zusammenhang mit dem Verhalten des Patienten?
c. Welche anderen Faktoren könnten zu Ihrer Entscheidung beitragen, Schlaflosigkeit zu behandeln oder nicht?
d. 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?**

a. Können Sie mir ein konkretes Beispiel/Beschreibung dieser Faktoren geben?
b. 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?

**Appendix E**

**Table E1**

*Codebook with Detailed Code Descriptions*

| Themes and Codes | Description |
|---|---|
| How do psychologists assess insomnia in patients with anxiety disorders? | |
| Assessment | Overall theme describing different kinds of assessment procedures. |
| Point in time | Describes the point in time when psychologists are assessing insomnia by any kind of assessment. |
| Standardised tests | Psychologists are using standardised tests in their assessment procedures. |
| Non-standardised questionnaires | Psychologists are using something else than specific/standardised tests in their assessment. |
| Asking questions | Psychologists assess insomnia by asking questions, without using any questionnaires or standardised tests. However, it is also used by some psychologists additionally to some kind of form. |
| Factors that influence assessment | This theme describes different factors that could influence assessment. |
| Own framework | This code refers to the own possibly biased point of view of psychologists regarding the importance of sleep. |
| Insomnia perceived as symptom | According to some psychologists, insomnia is a symptom of anxiety disorders, and treating the anxiety will naturally resolve insomnia. |
| Non-verbal behaviour of patient | When asked about their assessment procedures some psychologists mentioned looking for non-verbal behaviour, such as facial expressions or a lack of attendance, in their patients. |
| Psychologist's attitude toward standardised tests | This code refers to statements of psychologists explaining why they do not use standardised tests. |

| Themes and Codes | Description |
|---|---|
| Which patient factors lead a psychologist to consider insomnia treatment in patients with anxiety disorders as beneficial? | |
| Patient-related factors | Overall theme which includes codes which are related to the patient. |
| Reporting behaviour | This describes how patients report their sleep problems to the psychologist. Statements refer to the behaviour of the patients and also factors that influence the reporting behaviour. |
| Level of suffering | Refers to how much the patient is suffering from insomnia. Furthermore, it includes statements about factors that can contribute to heightening the level of suffering. |
| Prioritisation of problems | Psychologists emphasise the importance of prioritising treatment based on patients' needs and wishes when addressing multiple problems. Some patients may prefer to focus on treating anxiety although they are experiencing sleep issues. |
| Absence of sleep hygiene | This code refers to patient behaviour which indicates that the patient is not adhering to sleep hygiene. For example, participants mentioned this code when explaining that patients use their mobile phones directly before going to bed and that this is impeding their sleep. |
| Motivation | The last code focuses on the motivation and willingness of patients regarding the treatment of insomnia. |
| Non-patient-related factors | This theme describes factors that psychologists considered important for their decision on whether to see treatment as beneficial or not and are not directly related to the patient. |
| Environment | This code describes external factors that influence the effectiveness of treatment, including for example factors like support from family. According to psychologists the environment can hinder or enhance the effectiveness of treatment. |
| Impact of insomnia symptoms | Insomnia symptoms impact overall treatment, as some psychologists acknowledge the bidirectional relationship with anxiety. Furthermore, this refers to statements that treatment effectiveness for anxiety may be hindered when insomnia affects a patient's functioning. |