The International Journal of Indian Psychology
ISSN 2348-5396 (Online) | ISSN: 2349-3429 (Print)
Volume 11, Issue 3, July- September, 2023
DIP: 18.01.419.20231103, DOI: 10.25215/1103.419
https://www.ijip.in

Research Paper

Understanding Treatment Anxiety Amongst Indian Adults with Sleep Disturbances

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ABSTRACT

Advancements in modern medicine across the globe have made available numerous treatment options for sleep disorders. But some methods appear to be favored over others, particularly in South Asian countries like India. Our study aims to understand the experiences of treatment anxiety amongst Indian adults who face sleep disturbances. Using one-on-one, online interviews to collect data from 21 Indian adults with sleep disturbances, we conducted a thematic analysis to identify themes and sub-themes from the collected data. Three main themes were identified, including uncertainty, treatment anxiety and thresholds to overcome treatment anxiety. Further, three sub-themes were identified which were the 2020 COVID-19 national lockdown in India, social and family factors, and pill factors. Our results reveal a stigma against the usage of psychotropic medication, prevalence of general pill aversion and distrust towards sleep medication.

Keywords: *Sleep Disorders, Medication Anxiety, Indian Population, Qualitative Study, Pandemic*

Existing research on sleep disorders mainly focuses on understanding the efficacy of the different treatments available (pharmacological and non-pharmacological). Buscemi and colleagues (2007) conducted a meta-analysis on the efficacy and safety of drug treatments for insomnia and found benzodiazepines and nonbenzodiazepines effective, but with significant risk of developing side effects like dizziness, nausea, weight gain and depression amongst others. Qualitative studies suggest patients experience pill aversion, particularly for chronic illnesses like insomnia, due to the fear of addiction and/or side effects (Pound et al., 2005).

The data collected within sleep related research is mainly focused on Western populations, while sleep disturbances have been an established cause for concern within Asian countries like India. 'The Great Indian Sleep Scorecard' surveyed 16,000 Indians about sleep difficulties and revealed 51% metropolitan populations having sleep problems and 16% experiencing insomnia (Statesman News Service, 2019). A surge in sleep research within India was seen with the COVID-19 national lockdown in 2020 which had a severe impact on sleep hygiene. Gulia and Kumar (2020) recognized national and state lockdowns, along with

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Received: July 04, 2023; Revision Received: September 27, 2023; Accepted: September 30, 2023

the fear of contracting the virus, as having exacerbated sleep difficulties. Another factor that impinged on sleep time and patterns was the increase in screen time for adults and children (Dutta et al., 2020).

The general discourse around medicalization and access to healthcare in India shows a stark difference in consumer reaction towards psychotropic medication when compared to the West. This indicates a higher possibility of developing "treatment anxiety", a concept that is similar to pharmacophobia, but not as pervasive. Pharmacophobia is the fear of taking medication and engaging in pharmacological treatments, which is fostered through conspiracy theories and mistrust (Petelinšek & Korajlija, 2020). Predictors of pharmacophobia were related to conspiracy theories around pharmaceutical organizations,

negative attitudes towards all kinds of medicines and fear of side effects (Petelinšek & Korajlija, 2020). Treatment anxiety functions at a similar level- there is a significant fear or apprehension towards the idea of consuming a certain type of drug (for example, psychotropic drugs because they mainly impact brain functioning). The operational definition of treatment anxiety used in this study, is the "general fear, apprehension and reluctance to engage in selective pharmacological treatments for various reasons which include, but are not limited to, pill aversion, lack of scientific understanding, fear of addiction and side effects, and cultural aspects, like social stigma."

A study by Maiti et al. (2015) revealed that 50-80% of the population did not have access to essential medicines. It was also found that there was a greater lack of access to psychotropic medication in smaller, semi-urban establishments in India (Padmanathan et al., 2014) which could be the leading cause of the general fear towards their usage.

However, past research has not identified what drives this fear of medication. It is also unclear if psychotropic medicines are accessible in the same way as other allopathic medications. This opens a new aspect to consider - if the lack of physical availability of psychotropic medication in smaller pharmacies in semi-urban and rural areas is leading to de- pharmaceuticalization of illnesses like insomnia and other sleep disorders. Our interviews aimed at capturing views of Indian adults (who have faced sleep disturbances) on psychotropic, psychological, and natural treatments along with their preferences and apprehensions.

METHODS

Study design and Setting

This study used a naturalist methodological framework to collect data. By using this approach, to understand experiences of sleep disturbances and treatment anxiety, multiple narratives could be considered which can be further analyzed by coding them into themes and subthemes.

Participants and Recruitment

Participants were based in two Indian metropolitan cities - New Delhi and Bengaluru. A convenience sampling approach was used to recruit participants identified via social media websites (Instagram, LinkedIn, and Twitter) and by the snowballing technique, to increase the range of participants. Participants enrolled for the study through an online form- this provided a basic outline of the study, the inclusion criteria, and the method of data collection. The online form received information about participants' age, sex, and place of residence. For this study, all participants had to be 18 years and above, conversant in

English and/or Hindi, have past or current experience of sleep disturbances, have the capacity to consent and participate in the study, and to have access to a personal computer/laptop, with internet access along with the 'Zoom' application. Enrolled participants received individual emails to facilitate the interview process and a convenient date and time for interviews was mutually agreed upon.

A total of 26 participants signed up for the study, out of which five were excluded because of technological difficulties, lack of experiences of sleep disturbances and unavailability at a suitable interview time.

Data Collection

Data collection was completed using semi-structured interviews. An interview schedule was used which included general demographic questions and other rapport building questions. There were four main research questions which inquired about the participant's thoughts, emotions, and feelings when they were unable to sleep, what they did to help themselves fall asleep, their views and attitudes around taking sleep medication and their preferred form of treatment- pharmacological or alternative. All questions had three to four follow-up questions to get an in-depth understanding of the participants' experiences.

Following four interviews, an item was added to the interview schedule to accommodate the effect of the 'COVID lockdown' on sleep disturbances; this was spoken about by multiple participants.
Interviews were conducted online using the video-conferencing software, 'Zoom'.

They were recorded and transcribed verbatim, with transcriptions' quality checked and errors amended. Theoretical data saturation is the point at which no new concepts are raised during the interview (Saunders et al., 2017). This occurred by the 20th interview and a further interview was completed to confirm saturation had been reached. Additional data was collected as notes, made by the researcher during the interviews.

Data Analysis

An inductive thematic analysis was conducted on the interview data to enable the research to focus on collecting participants' experiences of treatment anxiety for sleep disturbances. This helped in identifying, analyzing and reporting themes that may emerge from interviews (Braun & Clark, 2006). The data was analyzed using NVivo Version 12 software. As mentioned by Braun and Clarke (2006), within qualitative research, the researcher's pre-existing theoretical and epistemological assumptions were considered at all steps of the analytical process.

RESULTS

Participant demographics

Twenty-one Indian adults (13 females, 8 males) participated in the study through one- to-one, online interviews. The duration of all interviews was between 15 minutes to 50 minutes, with an average of 17 minutes. Through the analysis, it was found that most of the themes interacted with one another with respect to attribute values like occupation and age.

Table 1 Demographic Details

Description	n	%
Sex	**21**	**100**
Female	13	62
Male	8	38
Age	**21**	**100**
>25 years	13	62
<25 years	2	10
<40 years	5	24
<60 years	1	4
Occupation	**21**	**100**
Education	7	33
Corporate	5	24
Health Sector	2	10
Other	6	29
Retired	1	4

Thematic Analysis

Analysis explored reasons for sleep disturbances, their intensity, along with participants' experiences and views of using psychotropic/allopathic or alternative medical treatments for sleep-related problems. Using Braun and Clarke's six step thematic analysis (2006), the following themes and sub-themes were identified.

Theme 1: Uncertainty

A majority of participants mentioned 'uncertainty about the immediate future' to cause sleep related problems. Most of the uncertainty of participants has stemmed from the COVID-19 national lockdown, becoming the leading cause of sleep disturbances.

Sleep disturbances could be through daily stressors (like work related stress, family and education) which participants reported ruminating over, particularly while trying to fall asleep.

"Okay, so primarily it's all ideas of confusion and anxiety about what will happen the next day or in the next couple of weeks. So, before I was working, I was studying and that place sort of started all of this- these sleep disturbances because there was a lot of pressure on us to get things done on time and you know, things that I wasn't expecting were happening, which is why I feel these sleep disturbances started happening when I got very anxious about, deadlines or projects or what to do, what not to do next- that is what triggered it. Primarily those are my thoughts and nothing personal, mostly professional." (P02, female, below 25, 'Other' profession)

Some participants mentioned sleeplessness caused by health problems of family members, or past traumatic incidents related to their immediate family. They identified the night as the most common time when they would find themselves ruminating over these fears and anxieties which in turn would not allow them to gain a good night's sleep.

"The reason why I don't get sleep, as I told you - it's just some stress that I'm thinking about. Some stress, mostly about my sister-in-law who is not well and its after her diagnosis that I haven't gotten much sleep. So every time I wake up I keep thinking about her and I have this fear that my brother-in-law will be calling me in the middle of the

night saying she's sick. That fear is what keeps me awake." (P13, female, above 40, Health Sector)

This pattern was seen amongst older, rather than younger participants in the sample.

This may be because older participants had faced difficulties within their social lives and personal relationships, such as loss of a sibling.

"I was deeply attached to my younger brother. And, once he passed away, every time I try to fall asleep, somehow just, the last time that I just saw him - it keeps haunting me. And within a short interval I lost both my younger sister and my younger brother, in that order - that somewhat disturbs me. How much ever I try to forget, it looms in my mind, especially when I lie down for sleeping. The image, quite disturbingly comes." (P21, male, above 60, Retired)

Other participants mentioned physiological implications of sleeplessness which had led to further anxiety and lack of sleep.

"So I know it's not sustainable and I know there's a lot of health risks that come with it, especially. Your sleep cycle being messed up and stuff, as a woman this can affect a lot of other stuff also. There have been cases like- well I've heard like women in the office having PCOD [polycystic ovaries disease] issues because of the fact that they had night shifts which scared me." (P15, female, below 25, Corporate)

This data indicates that participants' experiences of sleep disturbances stemmed from uncertainty in their everyday lives. It also shows other complex social/familial situations in people's lives that seem to keep them from getting a good night's rest.

1.1: COVID-19 National Lockdown.

Participants' sleep was disturbed because of several factors surrounding the COVID- 19 national lockdown. The majority of the participants felt a lack of schedule, caused by the pandemic lockdown, was the most prominent cause of disturbed sleep.

"I think I've been facing sleep disturbances ever since I graduated last year. Specifically, because after that there was no schedule I was following, since I was home when the pandemic started so everything was just open. There was a lot of sleep disturbances due to anxiety and what would happen in the future." (P04, male, below 25, 'Other' profession)

Another reason for sleeplessness was the uncertainty surrounding the national and state lockdowns with respect to education and job prospects.

"Yeah I definitely think it got really bad, um, in 2020, especially during the April-May period. I didn't know what was happening with my life - I didn't know if I was still in my second year of undergraduate (UG) or if I was in my third year of UG, if I still had to write an exam or not, or how my final year would pan out. Everything was just up in the air, so it was-, it was a constant state of panic and I think, as it got later in the day and it got quieter, my thoughts just became extremely loud. And I would just sit with them and, like encourage these obsessive thoughts." (P17, female, below 25, Education)

Theme 2: Treatment Anxiety

Factors that influenced experiences of treatment anxiety included family or social- specific factors and pill aversion or medication-specific factors.

2.1: Family-specific factors.

Participants felt family concerns and beliefs to be a major deciding factor in engaging with medication. A higher number of participants believed their families to be against medication compared to a smaller fraction of those who thought they would receive support, but only in times of dire need.

"I don't think they [my family] would be very cool with me needing medication to sleep, like my dad did suggest using melatonin to correct my sleep cycle. They would be okay with me using medications on an SOS basis, to sort of set my sleep cycle back to what it's supposed to be, back to the correct circadian rhythm, but I don't think they would be very keen on me using medication on a regular prescription basis." (P08, male, below 25, Education)

Conversely, many participants felt their families would be open to the idea of psychological treatments as compared to allopathic medication.

"Oh, I don't think they would have a major problem [using psychological interventions], since they've been very supportive about everything. So if I do have to use medication I think they'd be pretty supportive. But again, they'd also suggest for me to go to a therapist rather than straightaway going for medication." (P2, female, below 25, 'Other' profession)

Support from families also increased from parents who had themselves been involved in psychological therapy in the past.

"I haven't really gone to that area [psychological interventions]. I think they are pretty okay, because back then, my dad used to have a lot of anxiety, he saw a therapist at this time. So I think they'd be supportive of it. Not to allopathic medicines, because my body doesn't agree to it. I've had like- I had allergies and there were things that are not good for me." (P06, female, below 25, Education)

Many of the participants below 25 years mentioned consulting a psychologist before starting prescribed psychotropic medication, while participants above 40 chose a more spiritual, religious route of coping.

"My wife advised me that you start chanting the names of gods whenever you lie in the bed and you don't get sleep- you chant gods' names. You know lots of hymns that you know by heart, so you start chanting them silently. I found it quite, quite useful. Lately, this is the only way by which I'm getting over this problem. The moment I have any difficulty I do what she has advised me to do - To chant god's names and the hymns that I know, that gives me some solace and then after sometime I fall asleep. Occasionally even this doesn't help but, those days are very limited. But generally this helps." (P21, male, above 60, Retired)

The lack of side effects was considered the main reason for families to support alternative forms of medication over psychotropic medication, followed by past allergic reactions and unsuitability of pills.

"Oh, I mean, I think the stigma around Ayurveda doesn't exist but it exists under allopathic medicines. So they'd [family] say that Ayurveda doesn't do anything to your body afterwards or doesn't create dependency, so you can do it. But I mean haven't sought any sort of medication to fall asleep, I feel like max I do is drink milk." (P15, female, below 25, Corporate)

Pill aversion reported by participants was part of an overarching 'sleep culture' which included family concerns and values around using medication, and other culturally driven ideas of sleep necessity.

"So, personally, I feel like my family's not very comfortable with the entire idea of using medication and they're often very worried about this being like a long term thing, permanent thing or affecting your brain chemistry completely so they're not very okay with it." (P11, female, below 25, 'Other' profession)

A few participants also felt that they would face a lot of denial from their families about sleep concerns and engaging in psychotropic medication to rectify it.

"[If I said I needed medical help] that obviously will come as a shock to them, because it doesn't - it's not something they are used to seeing. But I think they will get it, or if I explain it to them, but their initial reaction will definitely be shocked, 'why is it that you can't fix it yourself for you to require medication'." (P01, above 25, Corporate)

In general, most participants believed that their families would have concerns around the side effects of medication and would therefore not be very supportive. Rather than using psychotropic medication, they would prefer engaging in alternative treatments like psychotherapy, natural medicine or home remedies.

2.2: Pill-specific factors

Participants showed a general apprehension towards taking psychotropic medication, while some disregarded medication for general illnesses as well.

"I mean personally I just – I just don't like medicines. For anything like, even if, like I'm sick. Unless I'm really sick and I really need to go to a doctor, need medication, I just don't like pills. I just don't like taking them- I don't know it just feels weird to take pills like I'm 80 or something. So I just don't like medicines in general." (P05, male, below 25, 'Other' profession)

Participants above the age of 40 felt that the lack of sleep was a natural part of advancing in age and the use of medication to aid sleep may lead to unnatural addictions.

"I don't believe in taking drugs or anything – I don't take them. I prefer not to take medicines. So sleeping is a natural process, it should be a natural process. I'm scared if I take some medicines, I may get addicted to it. So I prefer not to take medicines." (P03, female, above 40, Education)

The most common fear with respect to medication was the addictive qualities amongst other side effects.

"With medication I think there'll be some negative effects, but I don't have any specific concerns. Again, I think I may be addicted because if I'm getting good sleep- when I'm not getting that automatically, I'll feel like taking medication to get good sleep. That's the concern." (P12, male, above 25, 'Other' profession)

Participants reported alternative medicine to be a more viable option for long-term use in comparison to psychotropic medication to help sleep.

"I would prefer, of course, an alternative medication, preferably something plant based or animal hormone based rather than something which is purely chemical. So, I think if I were given the option of equal efficacy I would choose the natural option over the chemical option." (P08, male, below 25, Education)

Participants preferred spending lesser money and using home remedies rather than purchasing more expensive medication.

"Um so medicines are known to have side effects on your body, which is why, as less medicines as possible. Plus, slight financial factor also, I mean- most home remedies are already available at home, so why do I need to go- I mean step out of the house and get something and take it specially. Home remedies are a lot easier." (P20, female, below 25, Corporate)

A general notion of distrust and pill aversion was seen towards psychotropic medication.

Theme 3: Thresholds to overcome treatment anxiety

Some participants reported very high thresholds to overcome treatment anxiety to use something to help them sleep. This was influenced by participants' understanding of what sleep is, when to sleep and the necessity of sleep.

"I never tried it just because of the fact that, you know, it's sleep after all. I'm a 20- I'm a 20 year old dude, you know, not getting enough sleep, nobody gets enough sleep in our age, and you go to work. So I didn't really go down that route." (P08, male, below 25, Education)

However, other participants looked at changes in productivity levels to measure the severity of sleep disturbances, to decide if it justified medication use or not.

"Right, so like I said, even if I was diagnosed that wouldn't matter to me because, unless the diagnosis was able to show me like perfect evidence that I'm slacking off or - like the quality of my work is slowly deteriorating I wouldn't really care, right, because it's a diagnosis, yeah I get that but, at the end of the day, sleep or no sleep, I'm getting my work done." (P19, male, below 25, 'Other' profession)

Participants involved in corporate organisations, who worked in varied time-zones also rejected pills and prioritised rectifying their sleep cycles.

"I'm honestly not very comfortable with medication, because I think my major issue is- so you know there's - there's one set time, like time period, when people feel sleepy and once you've crossed that time period you stop feeling sleepy. At least that's what happens at night. So I think if I sleep within that time period, I'll be fine.
It's just that I'm working and I'm sleeping late and I'm pushing that time period. So for that reason, I never really felt the need to get medical help." (P20, female, below 25, Corporate)

Sleep related issues did not qualify for medical treatment sought for other physiological illnesses. Participants who were willing to try sleep medication wanted to know the scientific basis and composition of the prescribed tablets and get a clear understanding of any side effects before starting the course of medication.

"I'm double minded about it and a little confused. I don't like it if something's not like science backed, um, but if it does have one of these effects where it makes you sleep well or it's something like a relaxant, then I think it makes sense in a way.
But I would definitely like to understand why, and not just try alternative medication just because it is there." (P01, male, above 25, Corporate)

Other participants described high thresholds for when medications for sleep disturbances would be used; as an SOS or a last resort, or would use these medications as a short-term solution.

The most common idea that surfaced from interviews about psychotropic medication was the preference of short term usage. All participants who showed a positive attitude towards trying medication mentioned that they would only use them on an "SOS basis".

"At this point in my life I'd say I wouldn't mind the pills- it's a quick fix. When it comes to home remedies I think, now that you mentioned it, I can answer one of your previous questions, like when I've been looking at methods to fall asleep there's a lot of suggestion of various teas, drinks and decoctions that will help you. I've tried all of them, none of them really work." (P11, female, below 25, 'Other' profession)

Thresholds to overcome treatment anxiety were lower for other medications, such as for fibromyalgia and anxiety.

"Because I have this fibromyalgia so some nights like the pain gets severe and I can't sleep. I take a muscle relaxant and then I'm able to sleep." (P13, female, above 40, Health Sector)

The common thread that emerged through these interviews was the willingness of participants to take medication for another medical condition, which inevitably aids sleep, but increases treatment anxiety towards taking sleeping pills.

"I once had an attack of herpes and doctors, in order not to feel the pain, he suggested some sleeping tablets, that is the only time I took it and it was for a temporary period, so I don't want to try any of those things now." (P21, male, above 60, Retired)

Participants exhibited treatment anxiety specifically towards sleep medication (which would only be taken as a last resort) but were open towards taking other medication for physiological ailments which could aid their sleep.

DISCUSSION

The aim of this study was to understand the experiences of treatment anxiety faced by Indian adults with sleep disturbances. The results of the thematic analysis revealed three main themes- uncertainty, treatment anxiety and thresholds to overcome treatment anxiety.

Participants felt pill aversion- more towards psychotropic medication prescribed specifically for sleep disturbances, compared to allopathic medication prescribed for other health problems. Participants rejected the idea of taking sleeping pills to aid the process of sleep and found alternative medical practices like psychotherapy, natural or home remedies to be a safer option. A survey by Roy et al. (2015) on the attitudes, perception and usage of alternative medication found that patients preferred alternative methods because they were accessible, economical, and safe in comparison to prescribed psychotropic medication.

Participants were also concerned about the side effects associated with sleep medication, mainly because of their chemical properties that alter brain functioning. Yet, some research reveals an impact of education and socioeconomic status on the formation of negative attitudes and beliefs about pills. A survey conducted by Surinder Bhardwaj (1975) in four villages of Punjab, India, showed a major inclination of participants towards allopathic and "western medicine" in comparison to natural Indian medicines like Ayurveda or home remedies.

There was also a culturally driven link in our study, between taking medication and advancement in age, i.e., the older you get, the more likely you are to have to follow a medication regime. Younger participants (between 20 and 28 years) felt that taking medication was not an option because of the belief that they were physically and mentally stronger and could resolve medical concerns without intervention. A study conducted by Lemay et al. (2018) on medication usage and beliefs, supports the claim that younger adults in the sample were not keen on medical intervention through pills. In our study, participants across age groups agreed that sleep problems were a normal part of life. Younger participants (20 to 30 years) felt the need to spend a lesser number of hours sleeping and use that time for more productive tasks like study or work. Similarly, older participants (45 years and above) felt that the lack of sleep was a part of the natural process of ageing and did not want to consume any substances that would induce sleep.

According to the necessity concerns framework, engagement and adherence to medication is impacted by patients' beliefs about the "necessity and concerns of the treatment" (Foot et al., 2016). These beliefs are formed by their conceptualization of the illness, the possible treatments and their outcomes. From our study, it can be inferred that there is a lower necessity for treatment and a higher concern towards treatment surrounding sleep disturbances. This mismatch is one of the reasons why most participants mentioned that they had never thought of approaching medical assistance for their sleep problems.

Most participants between 20 and 28 years felt the need to give up sound sleep to feel "productive". Culturally, the idea of overworking oneself is glorified within the Indian subcontinent. Students in higher studies (high school and upwards) are expected to give up on sleep to achieve their best. Arora et al. (2015) found that both medical and non-medical

students faced burnout and dysfunctional sleep patterns to some extent. Similarly, a study on sleeping patterns of urban school students showed children in advanced classes had lesser hours of sleep and increased daytime drowsiness (Gupta et al., 2008).

However, students' lifestyles and sleep patterns changed during the COVID-19 national lockdown in India, when all classes were shifted online and there was no set schedule for students. Participants in the study recounted the initial months of lockdown, where their sleeping patterns had changed completely- they would sleep during the day and work mostly at night. Since all educational material was made available online, they did not feel the need to maintain their routine of waking up and getting ready for college. Research conducted by Majumdar and colleagues (2020) backed up the findings presented in our study. Students encountered increased daytime sleepiness and chronic stress of living through a pandemic which developed symptoms like fatigue, headaches, hormonal imbalance, sleep disturbances and digestive issues (Majumdar et al., 2020).

The pandemic not only affected student life but also had a negative impact on people who transitioned from their normal working hours to a "work-from-home" pattern.

Participants' woes around shift work and disturbed sleep has been researched since before the pandemic. One particular study showed that the prevalence of sleep disturbances was 39% amongst people who worked on shift patterns compared to day workers and therefore had higher chances of developing sleep disorders (Kerkhof, 2017) making it more imperative for these individuals to gain trust and access to sleep medication, to regulate their changing sleep patterns and help maintain work productivity.

Most participants believed their families to be more supportive towards psychological interventions rather than psychotropic medication or sedatives. This support could be stemming from viewing sleep disturbances as inherently psychological and not a physiological concern that could be treated with medicines. It could also be because of the sample's higher socioeconomic status and education levels, which increases their awareness and access to psychological interventions. Participants whose family had previously engaged in therapy were more likely to support them through psychological interventions. A systematic review of psychological interventions to improve sleep by Friedrich & Schlarb (2017) gave an insight into methods like Cognitive Behavioral Therapy, improving sleep hygiene, mindfulness etc.

A lack of adequate health literacy is at the heart of the issue presented in our study.

When asked about participants' sources of gaining health information regarding sleep disturbances, they mentioned browsing online platforms like Google or health blogs on the internet. Very few participants mentioned consulting a medical professional for further information. Chen et al. (2018) explored health literacy and use and trust in health information which showed similar results. They found lower health literacy amongst people who trusted health related information received through social media websites, online blogs and television.

The study also shows an increase in awareness and acceptance of psychological interventions like Cognitive Behavioral Therapy, which has been proven to be successful for sleep issues. The results conveyed can be used by various medical professionals and

pharmaceutical organizations to get a better understanding of consumer attitudes towards psychotropic medicines.

One of the limitations of this study was the format used to collect data. Since all interviews were conducted one-on-one, on an online platform due to the ongoing COVID-19 pandemic, researchers' observations of body language and signs of non-verbal communication were impacted. This could have led to lower efficacy in the results. There was also a lower transferability of results since the sample only covered a specific part of the Indian population- this cannot be considered as a representation of the entire country. As with any qualitative study, every study is affected by the researchers' personal biases, views and understanding of the topic being studied (Braun & Clarke, 2006). This study is no exception. But, the researcher's personal cultural understanding of India and its people enhances integrity and trustworthiness of the data collected. By accommodating a language other than English in the inclusion criteria, it allowed for a larger population to be considered in the sample who may not be very fluent in English. Since the researcher was also from the same cultural background, a greater level of trustworthiness was established and there were lesser chances of tackling 'social desirability' (Bergen & Labonté, 2019). Most of the general limitations associated with qualitative studies were avoided.

However, since the researcher was accustomed to this cultural population there is a high chance that a few ideas and topics were overlooked and not scrutinized to their full extent. The semi-structured format of interviews could also have been a contributing factor. Past studies on interviews, as a qualitative research method, have established that structured interviews were more reliable than unstructured ones (Arvey & Campion, 1982 cited in Alsaawi, 2014). Additionally, the longest interview amongst all participants was 50 minutes long while the shortest one was 15 minutes long. This time difference between interviews showed that some participants delved deeper into their answers while others did not divulge into the details. This could have affected the robustness of the data and the codes inferred from it. Future research that wishes to replicate this study should find ways to control the limitations faced in this study to achieve a better analysis of their data.

From the results of the study and a relatively small pool of existing literature, it can be concluded that treatment anxiety towards sleep disturbances does exist on some level within the Indian population. What we can infer from this is the need to equip medical professionals to provide adequate health education on psychological disorders and access to appropriate treatments to reduce patients' mistrust and fear. Future studies should replicate and extend our study to microcultures within the Indian subcontinent and their influence on treatment anxiety.

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Acknowledgment

This paper was submitted as a dissertation project to Newcastle University to fulfil the requirements of the MSc in Clinical Psychology program.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Sridhar, A.M. & Rathbone, A. (2023). Understanding Treatment Anxiety Amongst Indian Adults with Sleep Disturbances. *International Journal of Indian Psychology, 11(3),* 4503-4516. DIP:18.01.419.20231103, DOI:10.25215/1103.419