Sleep Science 9 (2016) 179–185

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Sleep Science

journal homepage: www.elsevier.com/locate/ssci

Full length article

# Exploration of the experience of living with chronic insomnia: A qualitative study

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ARTICLE INFO

*Article history:*
Received 27 March 2016
Received in revised form
15 June 2016
Accepted 4 July 2016
Available online 19 July 2016

*Keywords:*
Chronic insomnia
Experience
Iran
Qualitative study
Phenomenology

ABSTRACT

*Background:* Chronic insomnia is associated with consequential experience that may affect quality of life. Understanding such experience can be helpful in planning effective interventions for patients with chronic insomnia.
*Objective:* The study aimed to describe and illuminate the experience of living with chronic insomnia.
*Method:* The study was conducted using a descriptive phenomenology approach. Participants were selected purposefully from patients with chronic insomnia who had been referred to the sleep disorders research center at Kermanshah University of Medical Sciences in Iran in 2014. Data were gathered through in-depth unstructured interviews and analyzed according to the Colaizzi method by means of Husserlian phenomenology.
*Results:* Two main themes were found in this study, from which five sub themes were constructed: first, an upset mind, with the subthemes of insomnia as an unpleasant experience and insomnia as a worrying experience; and second, an unwanted new lifestyle with treatment seeking behavior, a boring new daily routine and being overshadowed by depressed mood as the subthemes.
*Conclusion:* The study identified the experience of living with chronic insomnia as a painful one with both mental and practical aspects. The experience also explains how mental engagement and practical outcomes of chronic insomnia may interfere with well-being and quality of life in sufferers. It is recommended that patients' experiences would be considered in assessment and treatment of chronic insomnia. Therefore, therapeutic interventions should pay attention to this area.


## 1. Introduction

Insomnia is a common sleep disorder in general population with the reported rate of 10–25% of adults in most countries [1], while the rate may be differed according to assessment measures. For example, based on Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV), and Polysomnography criteria the rate of 15, and 35% were reported respectively [2]. It is predominantly defined by subjective reports of difficulty in initiating and maintaining sleep, leading to a lack of restorative sleep [3]. Insomnia is considered as a pervasive disorder with a chronic course that can affect quality of life negatively [4]. A considerable degree of morbidity and even a degree of mortality have been reported in patients with insomnia [5]. The daytime consequences of insomnia have been the focus of several studies. Self-reports of fatigue; sleepiness; irritable and depressed mood; limited ability to enjoy being with friends; cognitive impairments such as trouble in remembering, confused thinking and judgment, and difficulties of concentration; and work absenteeism are among the common findings of these studies [6–15]. There is also a positive correlation between the consequences and the reported severity of insomnia.

However, there is evidence to support the idea that patients' perception of quality of sleep, or subjective meaning of sleep is associated with self-report of their daily function impairment. Accordingly, patients with an objective bad night's sleep and subjective report of a bad night's sleep have daily complaints [15]. On the other hand, a greater propensity to underestimate total sleep time and overestimate time spent awake has been reported in patients with insomnia [16,17]. In fact, patients' experience of insomnia and their perception may have an important role in the reporting of insomnia and daily function Therefore, understanding

☆The study was supported by the grant number of 3002556 of Kermanshah University of Medical Sciences.
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Peer review under responsibility of Brazilian Association of Sleep.

http://dx.doi.org/10.1016/j.slsci.2016.07.001

**Table 1**
Demographic characteristics of study participants.

| Participant number | Age | Gender | Education | Marital status | Job | Duration of illness |
|---|---|---|---|---|---|---|
| 1 | 16 | Female | High school | Single | Student | 7 months |
| 2 | 66 | Female | Primary school | Married | Housewife | 15 years |
| 3 | 63 | Female | Secondary school | Married | Housewife | 5 years |
| 4 | 56 | Female | Illiterate | Married | Housewife | More than 10 years |
| 5 | 25 | Female | University | Single | Student | 9 months |
| 6 | 56 | Female | Secondary school | Widow | Housewife | 20 years |
| 7 | 38 | Female | High school | Married | Housewife | More than 2 years |
| 8 | 24 | Male | High school | Single | Student | 15 months |
| 9 | 36 | Female | High school | Married | Housewife | 2 years |
| 10 | 30 | Male | Secondary | Married | driver | 2 years |
| 11 | 36 | Male | High school | Married | Unemployed | 17 years |
| 12 | 22 | Male | Secondary | Single | Student | 1 year |
| 13 | 57 | Male | University | Married | Teacher | 18 months |
| 14 | 48 | Male | University | Married | Lifeguard | 20 years |
| 15 | 58 | Male | High school | Married | Retired | 6 years |

of the subjective experience is necessary. However, the experience may be difficult to measure objectively [18].

While there is a large growing body of quantitative studies on insomnia and its consequences, there are few studies on the subjective experience of insomnia. Using three focus groups sessions, Carry et al. investigated the lived experience of patients with insomnia. They reported that as an unpleasant experience, insomnia has a pervasive impact on life that might not be understood by families and doctors [13]. Green et al. also using a qualitative study explored the experience of poor sleep and its consequences in patients with chronic insomnia. Major disruption in daytime activities with potential effects on health was among the main findings of this study [19]. The studies [13,19] tried to establish a clear picture of the experience of insomnia and its impact on daily life from patients' points of view; however, methodological issues and limitations such as problems in using focus groups have been mentioned in these studies.

In our country, Iran, while there is a great tendency toward management of insomnia from traditional medicine [19] to current pharmacotherapy, to the best of our knowledge there has been no qualitative study on the experience of insomnia. Understanding patients' experiences of insomnia can be helpful for physicians and other medical staff to provide effective treatment for patients with chronic insomnia. Therefore, the study aimed to describe and illuminate the experience of insomnia among Iranian patients.

## 2. Material and methods

The study applied a qualitative approach using Husserlian phenomenology [21]. As other types of qualitative research, phenomenology is concerned with deep exploration of the phenomenon. It has a descriptive nature and aimed to identify structures of experience, including the meaning that these experiences have for individuals who participated in this study. Phenomenology is an inductive research approach which focuses on lived human experience [22]. Therefore, it was suitable for the aim of this study.

### 2.1. Study setting and participants

Consistent with qualitative study, purposeful sampling was used to select information-rich cases [23]. The participants were selected among patients complaining of chronic insomnia who were referred to the sleep disorders research center at Kermanshah University of Medical sciences in Kermanshah, Iran. It is the only governmental center for the assessment and treatment of sleep disorders in the west of Iran. Routinely, patients with sleep problems including insomnia problem were referred to this center by other physicians for technical sleep assessment, especially polysomnography. After, technical assessment, the patients may be undergone to treatments by a sleep specialist, if necessary. Therefore, it is an appropriate setting for sleep-focused studies. The participants were patients with chronic insomnia who experienced insomnia three times in a week for six months [24]. The diagnosis of primary insomnia was established by both subjective and objective measurement of patients report of insomnia, i.e. in addition to clinical interview based on the DSM-IV criteria, one night polysomnography was performed. Inclusion criteria of willingness to participate in the study and an ability to speak Farsi fluently were considered. Patients with insomnia and other sleep disorders including insomnia and obstructive sleep apnea, substance abuse or an acute phase of psychosis were excluded. Participants were determined based on the saturation criterion. Saturation is the point in the process of data collection at which there is no longer new, or relevant data [25]. Fifteen participants (7 males and 8 females) with a mean age of $43.21 \pm 16.25$ were interviewed. Some demographic characteristics of the participants are included in Table 1.

### 2.2. Data collection

We used in-depth unstructured interviews for data gathering [26]. It provided a good opportunity for participants to speak about their experience in detail. They were encouraged to talk freely about the experience using their own words. All interviews were performed by the first author (R.L). She is a qualitative researcher with adequate skills for performing data gathering, especially interview, in qualitative study. The interviews continued until no new themes emerged and the saturation was reached [27]. To determine the level of saturation, the researchers carried out a process parallel with data collection, and they reached consensus about it. The interviews were performed in a room in the sleep disorders research center. They were audiotape recorded with the agreement of the participants and transcribed word for word. Every interview was started with open requests such as, "Please tell me about your experience of insomnia" and "Please tell me how you live with insomnia". The follow-up questions were based on the answers of the participants. At the end of each interview, participants were reminded about the need to a second contact to discuss about the finding of the study. Each interview lasted between 30 and 60 min. All interviews took place from June to February 2014 according to the Iranian calendar.

### 2.3. Data analysis

The Colaizzi method was used for analyzing the data and providing rich description of the phenomenon understudy [28]. Accordingly, data analysis was performed in seven steps. First, each interview was transcribed verbatim and read several times to obtain a general sense about the content as a whole. In this stage, the researcher set aside any thoughts, ideas, and feelings that she had about patients with insomnia to help to explore the phenomenon from the participants' perspective. In the next step, all significant statements that pertained to the phenomenon understudy were highlighted and extracted. They were also recorded on a separate sheet noting the pages and line numbers. Overall 180 statements were checked by an expert panel of the research team and an invited qualitative researcher. In the third step, the significant statements were formulated into meanings. The meanings were checked by researchers team to make sure the process is correct and the meanings are consistent. Then, the formulated meanings were sorted into clusters of themes; there were five theme clusters describing the experience of insomnia, and two themes were common to all the descriptions of participants with insomnia. To provide an in-depth description of the phenomenon, theme clusters and formulated meanings were incorporated, and checked by the invited researcher. The exhaustive description reduced the phenomenon to an essential structure. The researchers tried to provide a deep description of the meaning and process of the phenomenon. The exhaustive description was also returned to the participants to check the validity of the data. Finally, the lead researcher (R.L) wrote a rich description of the participants' experience of living with chronic insomnia.

### 2.4. Ethical consideration

The study was approved by the ethical committee of Kermanshah University of Medical Sciences and informed consent was obtained before each interview. After providing a thorough explanation about the study, participants were assured of the confidentiality of the data and they were also informed that they could leave the study at any stage, if they wanted.

### 2.5. Trustworthiness

Several strategies were employed to ensure the trustworthiness of the data. The researchers used bracketing to ensure pure description of the data, i.e., every prejudice about the phenomenon under study was set aside before data collection and analysis [22]. The second employed strategy was member check. Accordingly, a copy of transcript interviews and analysis was also returned to study participants. They were asked to validate the analysis and add comments if they wanted; however, nothing was added by the participants. Finally, an expert panel formed of the research team and an invited qualitative researcher met to discuss the analysis to ensure the trustworthiness of the data.

## 3. Results

As a result of this study, the meaning structure of living with insomnia was formulated into two main themes with five subthemes: [1] an upset mind that was abstracted from having a sense of an overactive mind, nonstop thinking, and the experience of being in a different and unpleasant state; and [2] an unwanted new lifestyle that was abstracted from the emergence of a new way of living rooted in insomnia and its consequences, and depressed mood (Table 2). In addition, the meaning structure of the experience of living with insomnia is presented in Fig. 1.

### 3.1. Upset mind

#### 3.1.1. Insomnia as an unpleasant experience

Study participants explained the experience of insomnia as a distinct experience that cannot be compared with other life experiences. They described it as having an overactive mind and a nonstop motor: their mind is working and they cannot stop it. It is only processing past experiences, especially bad experiences, and they are tired of being in this state. One participant, a 26-year-oldwoman, said:

> "My brain is too active and works continuously. Like a highway where cars are always moving, different thoughts going through my head. The more I try, I cannot control it. When a window is closed, another window is opened."(p.5)

The participants also described how insomnia creates bad experiences and they used different adjectives with negative connotations in their descriptions. "Silent death", "a great loss", and "worse than cancer" were among the terms used. One participant, a 63-year-old woman, said:

**Table 2**
Illustrating the emergent themes, clusters of themes and some formulated meaning from the lived experience of chronic insomnia.

| Emergent themes | Theme clusters | Formulated meaning |
|---|---|---|
| **Upset mind** | Insomnia as an unpleasant experience | A sense of an overactive mind, a sense of loss; a sense of being different from others; a sense of not being understood by others; a sense of infinite darkness and endless nights; a sense of sin; a sense of being imprisoned; a sense of a horrific experience, silent death, worse than the loss of loved ones; a state similar to being in a comma; a state where bad events are recalled; a state to recall hopelessness, a disaster, a punishment from God. |
| | Insomnia as a worrying experience | The experience of feeling increasingly worse; fear of being mentally ill and the label of mental illness; fear of a neurological disorder and tumors; fear of disease of the heart, kidney, and other organs; fear of dependency on narcotic drugs; fear of the prejudice of others; fear of being rejected by loved ones; fear of early death; worry about insomnia the next night. |
| **Unwanted new lifestyle** | Treatment seeking behavior | Try to find a reason for insomnia; repeated visits to physicians; travel to other cities to visit physicians; repeated paraclinical examination and requesting MRI and CT scans; self-medication; herbal treatment; traditional medicine; wet cupping; acupuncture; nutrition. |
| | Boring new daily routine | Morning symptoms - difficulty waking up, fatigue, headache, nausea, hot flushes; staying in bed; inability to perform daily tasks; forced engagement in daily tasks; forced accomplishment of tasks; sleep during day; evening worry; preparing for sleep that night; repeated insomnia; and further morning and evening symptoms. |
| | Being overshadowed by depressed mood | Experience of sadness, crying, irritability, loss of energy; lack of interest in participating in social interaction; lack of warmth with family; decreased libido; suicidal ideation; forgetfulness; lack of concentration; and impairment in leisure time and social activity with family. |

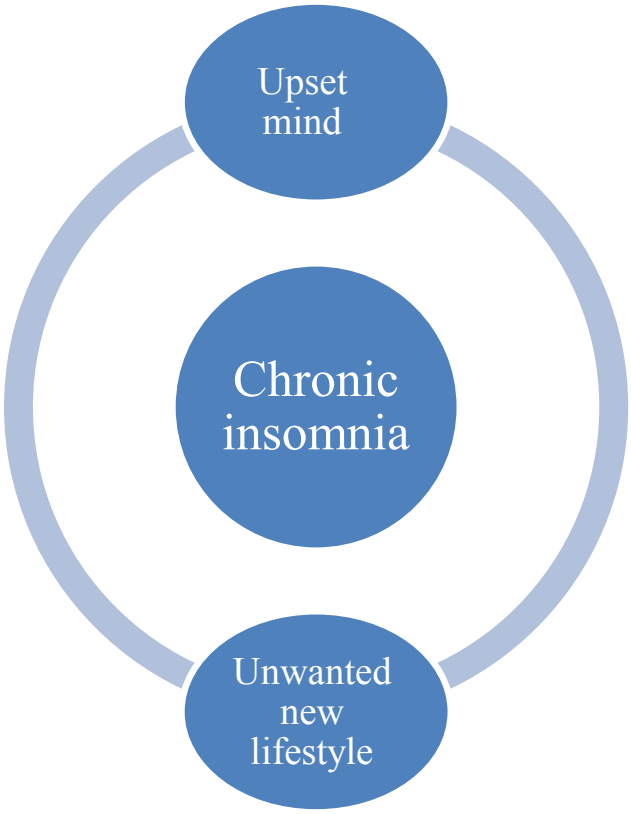


**Fig. 1.** The meaning structure of living with chronic insomnia.

"I cannot describe it easily; insomnia is too bad, even worse than cancer. It's like a loss, or worse than a loss. My son died last year. I was very sad, but I could sleep. Now, I think, it is more tolerable than insomnia."(p.3)

Some participants believed that since insomnia is an unpleasant experience, it can be considered as destiny, or punishment from God, and they think they are sinful. One participant, a 24-year-oldman, said:

"I am so upset, I cannot sleep. I know that I am not a good person. I think God wants to punish me by insomnia. But it is a harsh punishment. I wish God would punish me with another thing". (p.8)

*3.1.2. Insomnia as a worrying experience*

Participants explained that they experience excessive worrying because of insomnia. They reported worrying about their insomnia progressing and having a disease such as a neurological disorder or a brain tumor. One 30-year-old participant stated that:

"I am worried. My insomnia is getting worse every day; first, it was one or two nights in a week, but now I cannot sleep every night. I think the sleep center of my brain has been destroyed. I do not know, maybe there is a tumor. I want to do a brain MRI." (p.10)

They were also worried that insomnia may cause other illnesses, and they may be diagnosed with a psychiatric disorder and labeled with the stigma of psychiatric disorders. They also believed that insomnia and narcotic drugs may lead to dependency or addiction, leading to damage to other organs such as the heart and brain. A participant, a 66-year-old woman, said:

"I am afraid of going crazy. I don't want my family to tell me you are crazy. I am afraid of my drugs causing damage to my kidney. Now I have heart palpations. I am not young, how long should I take the pills? My friend says you will be addicted to your pills. Please do not take them. I don't know what I should do."(p.2)

*3.2. Unwanted new lifestyle*

*3.2.1. Treatment seeking behavior*

Our participants explained that they started to seek treatment when they could not cope with insomnia, which involved a series of investigations. They described a history of repeated visits to physicians, laboratory testing, and CT and MRI scans of the brain to find a solution for their insomnia. They explained that the procedures were both time consuming and expensive, and sometimes they had to travel to another city to visit a doctor. One participant, a 57-year-old man, said:

"I went to a neurologist for my problem; he did a thorough assessment of me including an electroencephalogram, CT scans, and laboratory tests. All of them were normal. But, his prescribed drugs cannot treat my sleep difficulty. I had to go to a psychiatrist, and then another psychiatrist. I am seeking a doctor who can cure my disease, even in another city." (p.13)

Consulting with practitioners of traditional medicine was another treatment seeking behavior experienced by our participants. They stated that they used herbal treatment since prescribed medication could not treat their insomnia. Acupuncture and wet cupping were also mentioned by some participants. They also stated that they accepted any recommend advice for the treatment of insomnia. A 56-year-old female participant said:

"I have done everything for my problem; I took brewed herbal drinks. One of them was bitter. My friend advised me to drink a mixture of milk and honey every night; I did but it had no effect."(p.6)

*3.2.2. Boring new daily routine*

Study participants explained the experience of a new routine in their daily living that is not associated with enjoyment. They described it as boring and repetitious with no diversity. They also expressed that compared with their previous routine; they experience a sedentary lifestyle which may interfere with the functioning of their family and social roles. A morning with fatigue, sleepiness, headaches, staying in bed while awaking, and an inability to perform daily activities was part of the routine. One participant, a 38-year-old woman, said:

"All things in my life have been changed; I start the morning with fatigue and low energy. I cannot do my work such as shopping, cooking, and playing with my daughter. It is hard to stand." (p.7)

Participants also expressed that after a boring morning, and spending time in idleness, they experienced worry in the evening as bedtime approached. They were concerned about insomnia and further inability to sleep. They also stated that they may prepare themselves by acts such as showering, praying, and eating yoghurt. One participant, a 56-year-old woman, said:

"The closer to sunset, I get more wary. I am anxious that I cannot sleep again. It is a bad experience. Sometimes I begin to pray for me, and sometimes I take a shower, maybe take a cup of yoghurt. However, I cannot get rid of the worry." (p.4)

The experience of insomnia and associated upset was the last part of the new routine of patients with insomnia. They expressed that their life has become a perpetual cycle of a night without sleep followed by problems in the day. One 36-year-old male participant said:

"When you suffer from insomnia, you not only experience insomnia, but also your life will be changed, you do not have control of your life. It is running automatically, you have insomnia, then daily difficulty, and again insomnia". (p.11)

*3.2.3. Being overshadowed by depressed mood*

Study participants believed that they experience depressed mood because of insomnia. Sadness, crying, lack of interest in previously enjoyed activities, and loss of energy to engage in social activities are among their reported experiences. One participant, a 36-year-old woman, said:

"Sport was the only thing that made me happy. Now I am not going to the gym; I cannot go. I lost my enjoyment because of insomnia. I am sad". (p.9)

They also expressed that they experience irritability and difficulty in relationships with others, especially with their family, followed by a sense of isolation. One participant, a 48-year-old man, said:

"Really, I have become more moody, I am cold to my children, my wife. When they want to get close to me, and talk to me, I get angry. They have been far from me. I have become lonelier; it is not suitable for a family." (p.14)

## 4. Discussion

To the best of our knowledge, this study is the first to explore the deep experience of living with insomnia in an Iranian sample using a qualitative method. Our results showed that the experience of living with insomnia is a painful one which should be considered from several aspects. The two main themes that emerged, an upset mind and an unwanted new lifestyle, describe both the mental and practical experiences of insomniac patients. They can explain how an insomniac mind thinks and acts. While the mind is involved with the unpleasant and worrying experiences, the performance of a patient with insomnia is also impaired in several aspects of daily living. On the other hand, impaired daily living may produce negative thoughts about lack of control regarding insomnia, and having to tolerate it. Therefore, insomnia is a unique experience that may have interlinked elements, and their interaction should be considered in the evaluation and treatment of patients with insomnia. Considering the description of the insomnia experience, the consequences of insomnia, as included in previous reports [6–14], can be understood.

The emergent theme of an upset mind describes patients' perception, thoughts, and beliefs about insomnia. This perception can guide patients' behavior toward disorders. The results showed patients with insomnia have several perceptions about their disorders and possible consequences, which are discussed in detail below.

Insomnia is an unpleasant experience. Patient descriptions such as a sense of an overactive mind, being different from others, a silent death, and of being punished by God are among the important findings of the study. The study details patient perceptions of insomnia and so the hidden meanings of insomnia. The meanings sometimes expressed in terms such as a "silent death" and "punishment from God" can explain the psychological pain experienced by these patients. Obviously, the experience can be considered as a contributory factor in producing negative outcomes in life that in turn may result in depression. Previous reports also place emphasis on the unpleasant experience of insomnia [13,20]. Therefore, insomnia symptoms should be screened for in the general population, and particularly in patients who may be predisposed to developing insomnia.

The second subtheme of an upset mind was insomnia as a worrying experience. It describes the experience of different kinds of worrisome concerns in patients with insomnia. Concern about the progressive course of insomnia, development of a psychiatric disorder and the associated stigma, development of other medical conditions, dependency on narcotic drugs, and finally death due to insomnia are among the most important concerns in these patients. The finding suggests the patients with insomnia experience several anxieties that may interfere with well-being and quality of life. The finding that patients with insomnia worry catastrophically about the consequences of insomnia is also in line with Harvey and Greenal [28]. On the other hand, the relationship between insomnia and anxiety disorders has been reported [29]; therefore, assessment of anxiety disorders in patients with insomnia is necessary.

An unwanted new lifestyle was the second theme that emerged in this study. It describes the experience of changes in the routine of daily living which are created by chronic insomnia. Based on our results, patients with chronic insomnia experience new routines mainly due to insomnia treatment and so they may be considered as a consequence of insomnia. Accordingly, it can be said that insomnia has a deep and pervasive effect on life. The relationship between lifestyle determinants and insomnia development indicates that some determinants such as smoking and drinking caffeinated beverages may have a negative effect on sleep quality [30]. In fact, it can be said that as well as lifestyle being a contributory factor to the development of insomnia, chronic insomnia can play a role in the development of a new lifestyle. Another point that should be considered is the nature of a new lifestyle. Based on our results, the new lifestyle is not a healthy one and cannot lead to playing an active role in the family or at work. Therefore, the consequences of insomnia, especially the impact on quality of life, can be predicted.

Treatment seeking behavior was a part of an unwanted new lifestyle experienced by patients with chronic insomnia. Accordingly, patients with chronic insomnia have a long history of ongoing Para clinical examination and treatment. As included in the results section, they may have several visits to doctors, performing different kinds of test such as MRI and CT scans, and other treatments such as herbal treatment and acupuncture. This issue may be important for several reasons. First, the cost in time and money can be a great burden for patients and their families. It can also be a barrier to participating in routine activities of daily living. Secondly, treatment seeking behavior may create a situation in which there is an overuse of treatment services. This situation in turn is associated with a cost for service providers in the community. Finally, treatment seeking behavior can interfere with a comprehensive treatment plan as a patient may suddenly reject one intervention in favor of another. Therefore, impairment in the life of these patients is reasonable. On the other hand, the behavior can be seen in the context of a patient with an upset mind. Unpleasant experiences and the worrying experience of insomnia may cause treatment seeking behavior; this finding is in line with the report of Angst et al. that subjective distress is the most consistent correlate of treatment seeking in disorders such as insomnia [31]. Therefore, it seems intervention such as cognitive behavior therapy could be helpful to address the mental experience of these patients.

The second subtheme to emerge was a boring new daily routine. As mentioned earlier, our participants expressed that they could not work as they had previously done and participate in both housework and their job; therefore, they feel their life is boring. Inability to work because of fatigue or sleepiness is a common reported consequence of insomnia [10–12], Therefore, the routine experienced by a patient with insomnia may be both boring and opposed to their social roles.

Worry about the next night's insomnia was an important part of the routine. The finding suggests that in addition to the experience of insomnia, these patients worry about being an insomniac. The issue explains a state similar to anticipatory anxiety in panic disorders in which a patient experiences anxiety when predicting another attack [32]. Considering the similarities, the experience may be very disabling. Therefore, it seems reassurance about the anxiety may be helpful.

Finally, the repetition of insomnia and associated experiences were the last part of the routine. Our participants believe that their life is in a perpetual cycle; the cycle of a boring routine because of suffering from insomnia. It seems that disrupting the cycle at any point can be helpful for the treatment of insomnia. Pharmacological intervention to improve sleep quality, behavioral treatment to reduce belief about insomnia, or the restructuring of participation in daily activities may be necessary for patients with insomnia.

Being overshadowed by depressed mood was the last subtheme in the unwanted new lifestyle theme. Experience of depressed mood, anthodia, difficulty in relationships with family and friends, and lack of motivation to participate in hobbies/leisure time activities are among the mentioned experiences of our participants. The bidirectional relationship between depression and insomnia is well documented. Patients with depression suffer from insomnia, and it is also considered as a DSM-IV criterion for diagnosis of major depression. On the other hand, Insomnia is considered as a predictor for developing, and as well as an indicator of a more sever course of the depression [33]. However, the exact mechanism of the relationship is not well understood. Considering the relationship is necessary in the assessment of these patients. Sometimes the symptoms of depression may mislead clinicians, and insomnia as an independent disorder may be overlooked. Therefore, clinicians should be aware of being misled in the assessment of patients with insomnia.

Finally, suicide ideation was another experience of these patients during a depressed mood. Feelings of hopelessness due to lack of control of the insomnia and other components of depressed mood were among the reasons for suicide ideation mentioned by our participants. The relationship between insomnia and suicide ideation has been reported in case reports and other studies [34,35]. The role of insomnia as a risk factor for suicide necessitates early treatment of insomnia.

## 5. Conclusion and implications

As the first study to explore the experience of living with chronic insomnia in an Iranian sample, the results showed that experience of insomnia is associated with both mental and practical components that may interfere with active participation in daily living and satisfaction in quality of life. In addition, the experience may have a long lasting impact on lifestyle that may make patients prone to developing other mental disorders and further disability. The results have several implications. First, the mental experience of chronic insomnia may be associated with catastrophic perceptions that in turn may lead to depression and anxiety. Therefore, clinicians should pay specific attention to the experience and design intervention to eliminate catastrophic perceptions. Second, practical experience of insomnia, which reveals changes in the lifestyle of patients with insomnia, necessitates thorough assessment of patients with regards to probable functional impairments. Furthermore, clinicians should be encouraged to design interventions that improve sleep quality and activities of daily living. Finally, the interaction patterns of the mental and practical components of the experience of insomnia may provide opportunity for concurrent interventions for both components. Concurrent interventions can facilitate the progress of treatment when they are designed correctly. However, further research to evaluate the efficacy of different and concurrent interventions is recommended.

## 6. Strengths and limitations

This study should be seen in the light of both its strengths and limitations. One strength was our decision to perform a qualitative phenomenological study, which has several advantages. Gathering data from patients who have experienced insomnia provided us with a deep understanding of insomnia and its impacts on the daily lives of these patients. Secondly, purposive sampling with maximum diversity could enrich data gathering in our study. We interviewed both men and women of different ages with insomnia. The strategy provided us with diverse experiences. The third strength was using interviews for data gathering instead of a focus group. Using interviews could diminish some limitations that may have existed in data gathering through focus groups [13]. Finally, the study participants had all been formally diagnosis with insomnia using polysomnography. The diagnosis can reduce methodological problems in discriminating between insomnia symptoms and insomnia disorders. However, the study has a limitation that should be mentioned. We did not conduct further analysis to explore the stages of the experience of insomnia. Further research to overcome this limit is recommended.

## Acknowledgement

The authors wish to thank the patients who participated in this study.

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