



Anger and alexithymic characteristics of the patients diagnosed with insomnia: a control group study

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Accessible summary

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- The research was designed as a cross-sectional study to compare the alexithymic characteristics, trait anger and anger expression styles of those who are diagnosed with insomnia with those who are not. Participants receiving a treatment for insomnia were diagnosed with regard to DSM-IV-TR criteria, by a neuropsychiatrist who is a trained assessor on DSM-IV-TR and not a researcher in a current study.
- In this research, it was determined that insomniac patients have higher points in alexithymia, trait anger and anger expression-in but lower points in anger control and anger expression-out than healthy individuals do. These findings underline the necessity to study more cautiously and with more details while gathering information from insomniac individuals and the necessity to study to evaluate insomnia as a disorder not just resulting from physical conditions and problems but also resulting from difficulties of defining and expressing emotions. We think that the research data are important for treatment and care of insomniac patients. In this sense, we can advise that psychiatric nurses should give psycho-education on recognizing and expressing emotions, individually or in-group, to patients suffering from insomnia.

Abstract

The research was designed with a descriptive purpose to compare the alexithymic characteristics, trait anger and anger expression styles of those who are diagnosed with insomnia with those who are not. It was conducted with 96 patients who applied to Department of Sleep Disorders and were diagnosed with insomnia and 96 volunteers were not diagnosed with any psychiatric diagnosis and had not any sleep disorders in two Medical Faculty Hospitals in west of Turkey. Three types of forms were used to collect research data. The first form is the Sociodemographic Characteristics Form, the second one is The Toronto Alexithymia Scale and the third one is the Trait Anger–Anger Expression Scale. It was determined that the patients diagnosed with insomnia had displayed much more alexithymic characteristics than control group. Insomniac patients had higher level of anger and anger expression-in than the control group was found. In accordance with the findings, it is suggested that more comprehensive data should be obtained from the patients having sleeping problems and, that the nursing interventions on the patients' recognition, expression and anger management should be reflected on the nursing holistic care.

Introduction

Sleep is one of the basic needs of human beings and it is important for a healthy and high-quality life in the life cycle. Epidemiologic research shows that insomnia is a widespread health problem encountered in the general population. Insomnia can be described as the difficulty of dropping asleep and continuing to sleep and additionally not being able to wake up rested.

According to the results of a research, carried out with adults in USA, 62% of the participants had told that they had a problem of dropping off and continuing sleep, in the period of 1 year (The Gallup Organization 1995). Insomnia occurs to women more frequently than men. With the increased age periods, more insomnia complaints are encountered in common. In addition, a breakdown in sleep quality can be related to many other negative situations and medical disorders. Psycho-physiologic insomnia is an insomnia complaint that starts usually after a stress-filled life event and then gets a central importance by an ever-increasing intensity in the patient's life. Psychological factors are determinative in the etiopathogenesis (Doghramji 2001).

Thoughts and emotions not being expressed in the daily life create sleep problems at nights and then these problems bring into being a certain disorder. Insomnia can be observed accompanying some other psychiatric disorders, such as depression, in many patients, it may also be thought as an independent phenomenon. However, there are resources showing that the personal characteristics of people are important factors in occurrence of sleep disorders. It has been thought that people who have a complaint of sleep disorder, have difficulty in either defining their emotions or expressing them completely, even though they can define their psychological agitations and interpersonal problems. It is known that, in the cases that emotions are not recognized, not expressed verbally enough or suppressed, people apply medical establishments due to several physical complaints. These complaints can be seen on a large spectrum of pain, eating manners, sleeping problems and sexual problems (Buysse *et al.* 1999, Zeitlhofer *et al.* 2000). The concept of alexithymia was first brought forward by Sifneos, in the early 1970s and defined as the lack of words to express feelings (Sifneos 1973, Çalikuşu *et al.* 2001). Alexithymia covers the features such as having a difficulty in fantasizing and symbolically expressing; and it was conceptualized to be a dysfunction of defining emotions (Çalikuşu *et al.* 2001, Savaş *et al.* 2002). Alexithymic people cannot utter their feelings and they usually have to express them thorough physical indications. At first, the concept of alexithymia had been used to define the characteristic features of psychosomatic patients. It is thought that a person's not being able to go through and express

emotions adequately creates physical implications in the cases of emotional discomfort (Taylor 1984, Çelikel & Saatçioğlu 2002). However, clinical research has revealed that alexithymia is not peculiar to psychosomatic disorders. Moreover, there are researchers who claimed that alexithymia is more frequent with the psychiatric patients compared with the psychosomatic patients (Taylor *et al.* 1992). There is research conducted on many groups of psychiatric and physiological disorders (Lloyd 1986, Lipowski 1988, Fava & Rosenbaum 1998, Honkalampi *et al.* 1999, Nyklicek & Vingerhoets 2000, Sayar & Ak 2001, Malt *et al.* 2002). In this research, alexithymia was mostly identified with psychiatric problems such as conversion and depression, yet, was not defined as a sleep problem or change of sleep pattern.

One of the most difficult feelings to express in the daily life is anger. It was notified in the research that not expressing anger is related to many psycho-physiological problems (Koh 2003). When people try to express their anger, they can prefer to abnegate or repress it, with the fear that they will not be able to control it or they will ruin their relations. As for that the feelings are restricted to be expressed verbally, emotional expressions arise as psychosomatic symptoms and some physiological reactions become a means of dumb communication (Ford & Folks 1985, Aklın & Tunca 1997). Thus, suppressed emotions appear as changes in the sleep pattern or an expression type in the dreams (Ford & Folks 1985, Işık 1996, Aklın & Tunca 1997).

Nurses have a significant role in evaluating the sleep quality and planning the interventions related to sleep pattern. Health-care professionals, especially nurses, should understand the changes in the sleep habits of the patients having sleep problems, evaluate, take problem-oriented, individual precautions, and improve interventions by detecting the reasons that can adulterate the sleep quality (Foley *et al.* 1995, Hoffman 2003, Topham 2004). Determining the reasons of the sleep problems of patients who are diagnosed with sleep disorder and planning nurse interventions can help in reaching the predetermined outcomes of the changes in sleep pattern. Therefore, we think that the studies on the subject will contribute a lot to the literature of nursing, primarily to psychiatric nursing. This research was aimed to compare alexithymic characteristics, anger and anger expressions of the patients diagnosed with insomnia and of the healthy people.

Material and procedure

Design

The research was designed as a cross-sectional study to compare the alexithymic characteristics, trait anger and

anger expression styles of those who are diagnosed with insomnia with those who are not. The research data were obtained from the patients who had applied to Medical Faculty Hospital Sleep Disorders Department, between the dates March and June 2007, and who accepted to participate in the research, after having the necessary permissions. Participants receiving a treatment for insomnia were diagnosed with regard to DSM-IV-TR criteria, by a neuropsychiatrist who is a trained assessor on DSM-IV-TR and not a researcher in a current study. The data of the control group were obtained from the individuals who had been in Medical Faculty Hospital due to visitation or accompaniment of the patients, volunteer to participate in the research, who were not diagnosed with any psychiatric disorders and had no sleep problem at the same period (March–June 2007).

Participant and setting

The research sample was composed of 96 patients diagnosed with insomnia sleep disorder and 96 healthy people who were not diagnosed with any psychiatric disorder and had no sleep problems. The research sample consisted of the patients that were diagnosed with insomnia who had undergone therapy in Medical Faculty Hospital Sleep Disorders Department between the dates March and June 2007, and who accepted to participate in the research ($n = 96$). Approximately, half of the patients (46.9%) suffering from insomnia had been having treatment for 2–4 years. Volunteer participants in the control group had been in Medical Faculty Hospital due to visitation or accompaniment of the patients and were not diagnosed with any psychiatric disorders and had no sleep problems at the same period (March–June 2007) ($n = 96$). Control group was selected randomly.

Measurement

Sociodemographic Characteristics Form

The form included data about age, gender, marital status, treatment period information of the patients and the control group.

Toronto Alexithymia Scale (TAS)

The scale appraises alexithymia that is defined as not recognizing one's own feelings and excitement. This is a Likert-type, self-evaluation scale consisting of 20 items and being graded between 1 and 5. It has subscales such as Difficulty of Recognizing Emotions (TAS-1), Difficulty of Expressing Emotions (TAS-2) and Extroversive Thinking

(TAS-3). Individuals were required to mark the best answer among the options 'Never', 'Rarely', 'Sometimes', 'Often' and 'Always' for every items. High point indicates a high alexithymic level. This scale was developed by Bagby *et al.* in 1994. Sayar *et al.* (2001b) in Turkey carried out validity and reliability works of the scale. Scale reliability for this study, total for both groups, was determined as Cronbach's alpha 0.857.

Trait Anger–Anger Expression Scale

This scale evaluates the sense of anger and expression of it. This is a self-evaluation scale consisting of 34 items. It has the subscales of trait anger (10 items), anger expression-out (8 items), anger expression-in (8 items), anger control (8 items). The individuals were expected to mark the best answer among the choices of 'None', 'A little', 'Fairly' and 'Completely'. This scale developed by Spielberger *et al.* (1983). Özer (1994), in Turkey, conducted validity and reliability works of the scale. Scale reliability of the current study, total for both groups, was determined as Cronbach's alpha 0.899.

Analysis

Research data were evaluated in the program SPSS 11.0. Sociodemographic characteristics of the patient group and control group were evaluated and percentages of the scale grades, average grade and standard deviation of the two groups were calculated. Student's *t*-test for the parametric comparisons and chi-squared analyses for the non-parametric comparisons between two groups were used.

Ethics

After getting the necessary permissions to gather the research data from the related two Universities' Local Ethic Committees, informed consent from of the participants was obtained. This form comprises the ethic codes of Universal Declaration of Human Rights.

Results

Age mean total point of the patient group was 30.96 ± 9.15 and of the control group was 30.56 ± 8.63 . According to the independent sample *t*-test, there was not a meaningful difference between the two groups ($t = 0.308$, $P > 0.05$). It was determined that 60.4% of the patients were male, 64.6% of the patients were married, 61.5% of the patients were high school graduated and as for the control group, 58.3% of the individuals were male, 51.0% of the individuals were married and 53.1% of the indi-

Table 1

Sociodemographic range of the patients diagnosed with insomnia and the control group

Sociodemographic characteristics	Insomniac patients		Control group		χ^2	<i>P</i>
	Number	%	Number	%		
Sexuality						
Male	58	60.4	56	58.3	0.086	0.769
Female	38	39.6	40	41.7		
Marital status						
Married	62	64.6	49	51.0	3.609	0.06
Single	34	35.4	47	49.0		
Education background						
Primary	18	18.8	27	28.1	4.466	0.347
High school	59	61.5	51	53.1		
University	19	19.8	18	18.8		
Average age	30.96 ± 9.15		30.56 ± 8.63		<i>t</i> = 0.308, 0.758	

Table 2

Range of point averages of Toronto Alexithymia Scale applied on the patients diagnosed with insomnia and control group

Scales	Insomniac patients	Control group	<i>t</i>	<i>P</i>
DTZ	21.52 ± 5.23	16.32 ± 3.24	6.784	0.000
DIZ	22.02 ± 4.79	16.24 ± 4.28	11.129	0.000
HKZ	17.60 ± 3.38	12.68 ± 2.80	16.216	0.000
Alexithymia total	70.40 ± 8.76	52.20 ± 8.20	20.569	0.000

Table 3

Range of point averages of Trait Anger–Anger Expression Style Scale on the patients diagnosed with insomnia and on healthy people

Scales	Insomniac patients	Control group	<i>t</i>	<i>P</i>
Trait anger	21.67 ± 7.32	15.32 ± 5.59	6.750	0.000
Anger exp-in	14.20 ± 3.19	9.83 ± 2.61	10.409	0.000
Anger exp-out	11.34 ± 3.33	16.49 ± 5.01	8.269	0.000
Anger control	14.90 ± 3.98	20.20 ± 4.53	8.618	0.000

viduals were high school graduated (Table 1). Any statistically meaningful difference between the two groups was not found in the comparison regarded to gender ($\chi^2 = 0.086$, $P > 0.05$), marital status ($\chi^2 = 3.609$, $P > 0.05$) and educational background ($\chi^2 = 2.409$, $P > 0.05$). Findings of the groups' mean total points of alexithymia subscales and intergroup comparison between the mean total points of alexithymia subscales are shown in Table 2. In the statistical analyses were made by comparing the groups, meaningful differences of 'difficulty in recognizing feelings' ($t = 6.784$, $P < 0.01$), 'difficulty in feeling transmission' ($t = 11.129$, $P < 0.01$) and 'difficulty in imagining' ($t = 16.216$, $P < 0.01$) were determined (Table 2).

The patient group's and the control group's mean total points of Trait Anger–Anger Expression Scale are shown in Table 3. Comparing the mean total points of subscales trait anger and anger expressions, meaningful differences were determined among the mean total points of 'trait anger' ($t = 6.750$, $P < 0.001$), 'anger expression-in' ($t = 10.409$, $P < 0.001$), 'anger expression-out' ($t = 8.269$, $P < 0.001$), 'anger control' ($t = 8.618$, $P < 0.001$) (Table 3).

Discussion

Sleep is the most important need of a healthy life. Suffering from long-term insomnia can lead to psychological problems, suffering from long-term psychological problems while can lead to insomnia (Zeitlhofer *et al.* 2000). Upon comparing the alexithymia mean total points of the patients diagnosed with insomnia and of the control group, it was seen that the patients with insomnia had been also diagnosed with alexithymia and mean total point difference between the two groups were statistically meaningful. Individuals suffering from insomnia, come to the hospital with the complaints such as not being able to sleep and rest. Nurses, while caring for these group of patients, usually apply the classic sleep hygiene procedure of having a warm shower, drinking warm milk, decreasing the number of physical stimulants to minimum and advising not to have stimulant drugs before sleep. However, as the patients are not aware of their emotional needs and not able to express their feelings, nursing interventions for these needs may not be planned. In this research, two phenomena have been

handled together, because of the idea that alexithymic people suppress their feelings, and can not describe them, especially anger that is usually denied from many people.

It is thought-provoking that insomniacs also can be the people who have a difficulty in defining their emotions in daily life and expressing themselves enough. Sifneos, who had defined the characteristics of alexithymia in previous years, inducted this concept as a theoretical model with Nemiah (Nemiah & Sifneos 1970, Sifneos 1996). It was generally stated in the theory that people, who carry alexithymic characteristics, have difficulties in understanding and ordering their emotions. These difficulties can be summarized as not being able to name, express and dissociate emotions and living without being aware of them. Especially, in the phenomena that include basic emotion-organizing problems such as psychosomatic disorders and affective disorders, alexithymic characteristics attract attention as an important risk factor (Yücel *et al.* 1998, Feldman *et al.* 2002). Other than this, alexithymia was seen in much research on specific subjects such as eating disorders, panic disorder, social phobia, conversion and drug addiction (Haviland *et al.* 1988a, Parker *et al.* 1993, Zeitlin & McNally 1993, Lumley *et al.* 1996, Nyklicek & Vingerhoets 2000, Brosschot & Aarssen 2001, Sayar *et al.* 2001a, Çelikel & Saatçioğlu 2002, Malt *et al.* 2002, Moton & Gençöz 2007). Sayar *et al.* (2004) found out in the research made by using TAS-20 that FMS (Fibromyalgia Syndrome) group was more alexithymic than the healthy control group.

In this research, it was found that insomniac individuals' subscales total points of recognizing and defining emotions, transferring emotions and dreaming were statistically meaningful and some situations such as not being able to realize, name, express and distinguish emotions occur as insomnia etiopathogenesis as in the psychosomatic and affective disorders. In the research data, it was observed that insomniac patients' subscale mean total point of 'difficulty in dreaming' was on statistically high level. This data provoked the thought that these patients neither could express their feelings and thoughts in the daily life nor could reflect them to their dreams, due to the insomnia. So that their emotions could not be put forth even in dreams, either. Another alexithymic characteristic is 'difficulty in expressing anger'. It was stated in the research made with the participation of university students by Berenbaum & Irvin (1996) that the group with high alexithymic point, experiences more anger, expresses it with less non-verbally than the group with lower alexithymic point and avoid encountering interpersonal coincidences. In another research made with boarding psychiatry patients cared in the hospital, Rief *et al.*

(1996), it was determined that the group with more alexithymic characteristics, had had higher points in subscales of somatization and anger/hostility than the group with less alexithymic characteristics and this difference was meaningful. According to our research it was determined that patients, diagnosed with insomnia, had statistically meaningful and higher mean points in trait anger and anger expression-in, and, lower mean points in anger expression-out and anger control than the healthy individuals. It is thought-provoking that insomniac patients are also usually alexithymic people and these individuals have low threshold values of repressing and embarrassing emotions. Human beings usually deny their anger experiences due to the fear that they may be left by others or they may not carry on their relations in the same way if they express their anger (Winter & Kuiper 1997, Alvarado 2002, Fox & Calcins 2003, Howells & Day 2003). As Carmony & Digiuseppe (2003) stated, Sperberg & Snabb determined that both internalizing and externalizing anger on high levels is strongly related depression. Some people usually choose this way of internalizing or suppressing their anger, whereas, suppressed emotion harms its owner. Suppressed feelings can lead to psychosomatic reactions such as gastric ulcer, high blood pressure, etc., not expressing anger, does not eliminate it but results in anger accumulation and expression of it in an inappropriate way (Howells & Day 2003). Anger and anger expression styles are thought to be the aetiology of many physical and psychological disorders and much research was made on this subject. Anger expression style is striking on the patients suffering from chronic pains, reasons for which cannot be found. Fernandez & Turk (1995) stated that of anger expression-in points of the patients with chronic pain were high and the pain resulted from strongly suppressing the feeling of anger. Gaskin *et al.* (1992) affirmed that points of trait anger are the determiners of pain level. Okifuji *et al.* (1999) stated in a research that 70% of the patients with chronic pain have high level of anger. Güleç *et al.* (2004) found in the phenomenon of Fibromyalgia Syndrome that patient group's point of anger expression-in was meaningfully higher than the control group's. Fava & Rosenbaum (1998) reported that patients diagnosed with depression, have meaningfully higher level of anger and hostility than the control group. It was seen in the previous research that depression, alexithymia, somatization and anger are interrelated psychological situations and characteristics. That depression-alexithymia, depression-anger, alexithymia-somatization, alexithymia-anger, alexithymia-anxiety are related with each other as binary groups, were stated in many research (Lloyd 1986, Lipowski 1988, Honkalampi *et al.* 1999). Furthermore, it was determined that alexithymia and internalized anger

are related with some depression symptoms such as waking up too early (Haviland *et al.* 1988b, Wise *et al.* 1990, Hendryx *et al.* 1991, Karlıdağ *et al.* 1997, Honkalampi *et al.* 2000, Şentürk *et al.* 2000, Taylor 2000, Saarijärvi *et al.* 2001, Demet *et al.* 2002, Aksu & Hocaoğlu 2004, Hintikka *et al.* 2004). No research data on the relation of anger, anger expression and sleep disorders are available. Comparing our research data with the other research data, gathered on emotion of anger, it can be said that individuals who internalize anger and have trait anger emotion suffer from insomnia, too. Likewise, as being stated in many studies in literature (Haviland *et al.* 1988b, Wise *et al.* 1990, Hendryx *et al.* 1991, Karlıdağ *et al.* 1997, Honkalampi *et al.* 2000, Şentürk *et al.* 2000, Taylor 2000, Saarijärvi *et al.* 2001, Demet *et al.* 2002, Aksu & Hocaoğlu 2004, Hintikka *et al.* 2004), internalizing anger and not being able to express it were not only observed occurring with the problems such as pain and somatization, but were also agents causing insomnia. It may be thought that individuals suffering from primer insomnia refuse to sleep because they go to bed with uncompleted issues in their brains and psychological needs due to internalizing anger and not expressing it and not compensating these psychological needs lead to insomnia (Işık 1996). Comparing our research results with the researches in the literature, it can be stated that alexithymic characteristics and not being able to express anger in a proper way can present as physical complaints. Our research includes the relation between emotion recognition, emotion internalization and insomnia, that insomniac patients have more alexithymic characteristics than the control group, and, these patients' points of trait anger and anger expression-in subscales were statistically meaningful high. These findings show that not only the physical conditions but also the complicated emotional and psychological senses, which cannot be explained thorough physical problems, should be observed as the factors that cause insomnia.

It has been known that if nurses, working to maintain optimum wellness conditions for the individuals having health problems, reflect holistic point of view on their job, both the care quality and the patient satisfaction increase (Beck *et al.* 1984). Nursing diagnose of a change in sleep pattern is one of the most used diagnose types in the conditions that nursing care is given to the patient (Çam *et al.* 2004). The change in the sleep pattern is usually accompanied by insomnia. In accordance with our research data, we think that nurses' realizing and recording the detailed data of the patients, especially patients' verbal and non-verbal style of expressing and defining emotions, enables the insomniac patients to have a more inclusive care and to be treated efficiently.

Conclusion

In this research, it was determined that insomniac patients have higher points in alexithymia, trait anger and anger expression-in but lower points in anger control and anger expression-out than the healthy individuals do. These findings underline the necessity to study more cautiously and with more details while gathering information from insomniac individuals and the necessity to evaluate insomnia as a disorder not just resulting from physical conditions and problems but also resulting from difficulties of defining and expressing emotions. The research was carried out with the participation of 96 patients due to the difficulty of data gathering. Having a control group enabled us to obtain more reliable data. We think that the research data are important for the treatment and care of insomniac patients. In this sense, we can advise that psychiatric nurses should give psycho-education on recognizing and expressing emotions, individually or in-group, to the patients suffering from insomnia. It can be said that applying the studies similar to this defining research on larger sample groups by associating them with the clinic applications, will contribute a lot to applications of both the psychiatric and the nurses of other fields. This study's findings can be a pilot for latter studies.

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