ANNALES
UNIVERSITATIS MARIAE CURIE-SKŁODOWSKA
LUBLIN-POLONIA
VOL. LX, N 1, 67 SECTIO D 2005

Department of Clinical Psychology, Medical University of Lublin

EWA HUMENIUK, ANTONI NIEDZIELSKI

The level and structure of fear in diseases accompanied by dispnoea

The notion of fear is not defined clearly and most frequently it is defined as unpleasant emotional condition caused by the feeling of hazard, expectation of something bad, unfavourable, loss of something precious. The full clinical picture of fear is complex and includes emotional feelings, changes in the sphere of cognitive functioning and somatic changes. Consciously fear is felt as anxiety, apprehension, feeling of danger, uneasiness, internal tension. Under the influence of fear in the sphere of cognitive functioning there are difficulties in concentration, remembering and logical thinking. The consequence of fear is the increase of excitement and activity of the autonomic nervous system, which in turn causes a series of somatic changes, such as: quick heart beat, gastrospasm, muscular tension, dryness in the mouth (13). Fear is a part of life and in various forms it accompanies man from birth to death. It is one of basic mechanisms that accounts for adaptation to the environment by signalling the hazard and intensifying motivation to defense by preparing the organism for fight or escape. Non-adaptation fear occurs when it signals apparent hazard, the intensity of fear exceeds the optimum level for a given subject and a man cannot cope with it effectively (5).

There are series of factors that influence the occurrence and development of fear. They may include: too big number of conflicts and the level of demands exceeding the abilities of an individual. One of such situations that generates negative emotions, including fear, is somatic disease which has both biological risk factors and psychosocial risk factors, it disturbs the realization of goals and it makes meeting the needs difficult as well as causes the loss of many highly esteemed values. The fear-causing factors in a somatic disease are also the accompanying ailments, e.g. pain, dyspnoea. The research studies confirm that persistent dyspnoea associated with chronic pulmonary diseases and some of heart diseases, significantly influences the mental condition of a patient and causes highly-intensified anxiety (4).

The aim of the study was to investigate the level and structure of fear in diseases accompanied by dyspnoea exemplified by bronchial asthma and chronic obstructive pulmonary disease (COPD).

Bronchial asthma is a chronic inflammatory disease of respiratory tract with a consequence consisting in bronchial spasm and paroxysmal dyspnoea. Inhalation, and exhalation in particular are difficult: whistling rales and cough appear. The disease is characterized by great dynamics of changes and instable picture of the disease. In its course there are exacerbations and remissions. The exacerbations are dyspnoea attacks with various degrees of intensity and duration. The research carried out so far shows that patients suffering from asthma experience fear of considerable intensity reaching the attacks of panic and maintaining even after diseases symptoms have receded (3, 9).

Chronic obstructive pulmonary disease (COPD) is a condition that is characterized by the decrease of air flow in the bronchi caused by chronic bronchitis or pulmonary emphysema. The main reason of the disease is smoking, environment pollution and frequent infections of the respiratory tract. The symptoms of the disease gradually get intensified and cause more and more difficulties in breathing and physical activities. Dyspnoea is caused by a fixed narrowing of the respiratory tract. Initially it occurs when making an effort and later it appears even during rest (7). The studies

carried out so far show that in people suffering from COPD a higher level of fear than in healthy population is not observed (1).

MATERIAL AND METHODS

The study included 50 subjects suffering from severe bronchial asthma and 50 subjects suffering from COPD who were treated in the Department of Pulmonary Diseases and Tuberculosis of Medical University in Lublin. The distribution of the studied population is presented in Tables 1 and 2.

Table 1. Characteristics of the investigated asthmatics

Asthma	Number	Age	Duration of disease	Age of falling ill
Women	25	44.6	12.4	31.8
Men	25	41.9	15.0	26.3
Total	50	43.3	13.8	29.1

Table 2. Characteristics of the investigated COPD patients

COPD	Number	Age	Duration of disease	Age of falling ill
Women	35	53.6	6.8	46.9
Men	15	59.6	6.9	52.9
Total	50	55.5	6.8	48.9

The mean age of asthmatic patients is 43 years, the onset of the disease is before 30 years of age and the mean duration of the disease is 14 years. The patients with COPD are older, the mean age is 55 years and they have suffered from the disease for about 7 years with the onset after 40 years of age.

The study incorporated R. B. Cattell personality profile which allows to establish the generalized level of fear (EN) as well as the structure of fearful reactions consisting of the following factors: lack of internal personality integration (Q_3), emotional immaturity (C), distrust to others (L), tendency to blame oneself (O), psychical tension (Q_4) (11).

RESULTS

The first stage of the analysis was the comparison of the mean values of generalized fear and fear factors that were obtained from the asthmatic patients and COPD patients (Fig. 1). The groups differ both in the level of fear and its structure. Only C factor does not differentiate the groups. The patients from both groups are characterized by a considerable emotional immaturity. The level of generalized anxiety in both groups is placed within the upper limit of the standard and it is significantly higher in COPD patients. In this group emotional immaturity (C) coexists with a high susceptibility to self-judgment (self blame) (O) and mistrust towards other people (L). In asthmatic patients emotional immaturity and high susceptibility to blame oneself coexists with a low personality integration (Q_3).

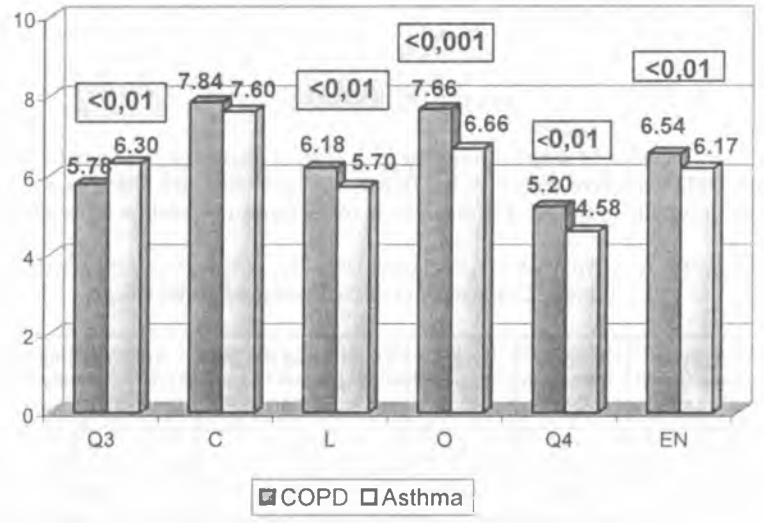

Fig. 1. Comparison of fear factors mean values of asthmatics and COPD patients

A subsequent stage of the analysis of results was the comparison of the mean values of fear factors in groups with relation to the sex, age and duration of the disease. The age of the patients in both studied groups turned out not to be a variable that influences the level of fear and the structure of fear.

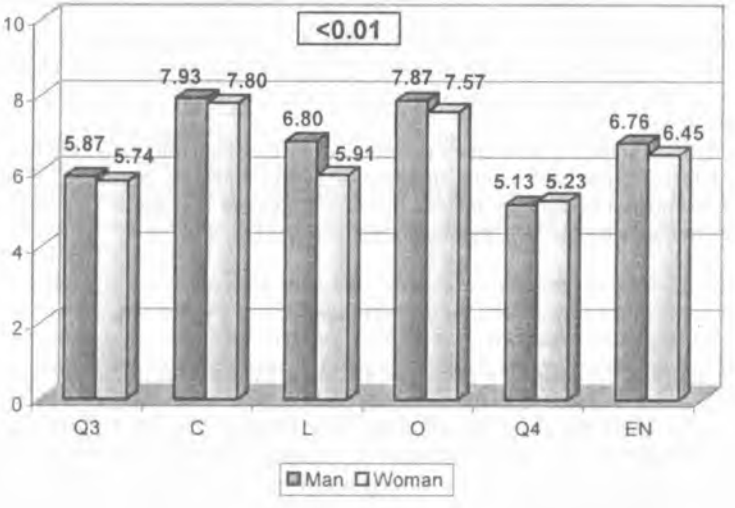

Fig. 2. Comparison of fear factors mean values of men and women suffering from COPD

In the group of COPD patients the sex is not a differentiating factor of the level and structure of fear. The difference concerns only the factor L, men are more mistrustful to other people.

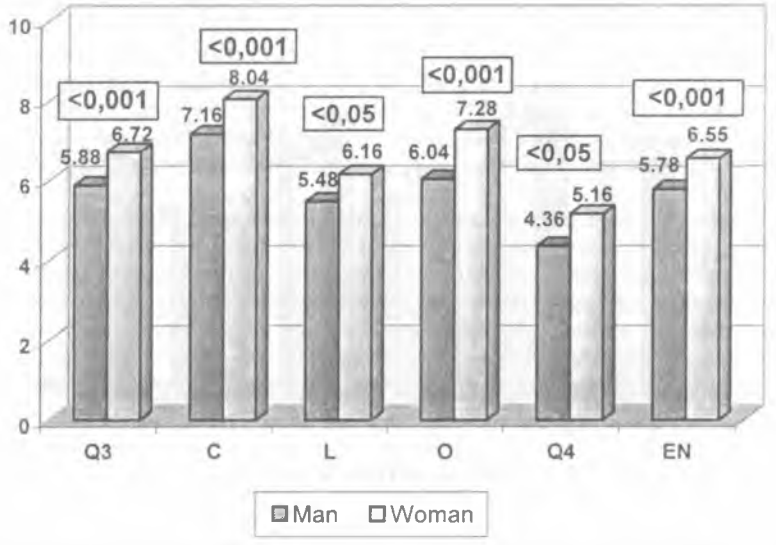

Fig.3. Comparison of fear factors mean values of men and women suffering from asthma

In asthmatic patients the intensity and structure of fear depends on the sex. In women both the level of generalized fear and individual factors of fear are significantly higher.

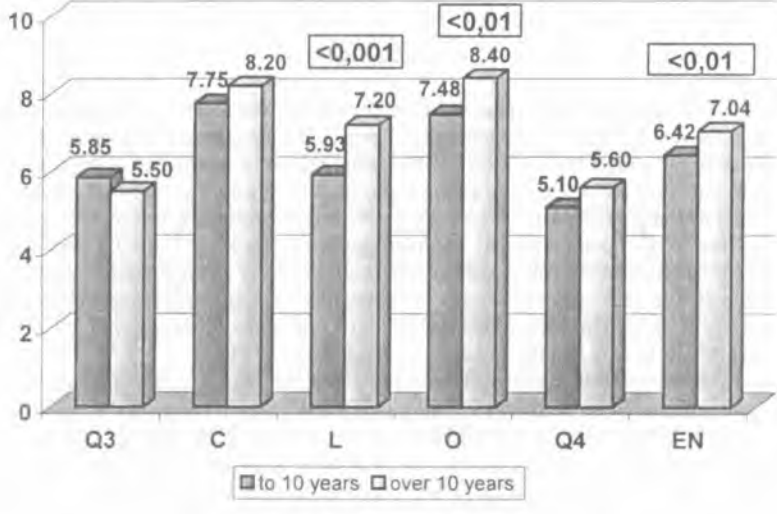

Fig.4. Comparison of fear factors mean values with relation to duration of the COPD patients' disease

The subject with a longer duration of COPD is more susceptible to feel guilt and mistrust to others. Both factors are important elements of fear.

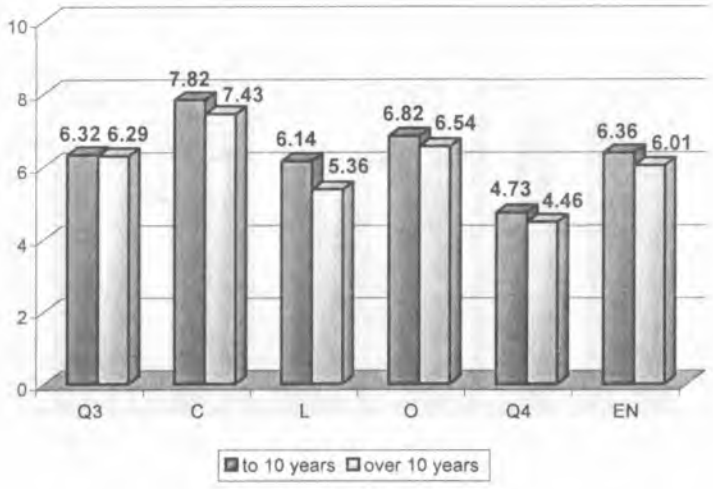

Fig. 5. Comparison of fear factors mean values with relation to duration of the asthmatic patients' disease

The duration of the disease was not a variable that differentiated the level and structure of fear in asthmatic patients.

DISCUSSION

In the studied groups of asthmatic and COPD patients the fear is at the upper limit of standard and this may be the cause of difficulties in emotional functioning and adaptation. In the studies carried out so far a high level of fear is often emphasized in asthmatic patients, particularly in patients suffering from the disease for a long time. In K i n s m a n ' s studies as much as 42% of population had a tendency towards reacting by a severe fear. Patients with low level of fear constituted 23% of the studied population (8). In investigations using R. B. Cattell's Personality Profile R o s e n t h a l compared the healthy subjects, neurotic subjects and asthmatic subjects. The asthmatic patients in the fear scales obtained lower results than neurotics and higher values than healthy subjects (12). The investigations carried out so far show however, that in COPD patients a higher level of fear than in healthy population is not observed (1).

The analysis of our investigations has showed that the fear in asthmatic patients is mostly connected with emotional immaturity (C) and this is manifested in behaviour as tendency towards anger, low tolerance to frustration, sensitivity, inability to cope with difficult situations, susceptibility to hypochondria. The high emotional immaturity is accompanied by the tendency towards feeling guilt (O), and this is manifested in behaviour as feeling a low value, hopelessness, excessive care about one's own health. The fearful reactions are supplemented by a low degree of personality integration (Q_3). The results confirm current references that fear of asthmatic patients mostly results from emotional immaturity and tendency to feel guilt (2, 12).

In COPD patients emotional immaturity (C) is accompanied by a tendency to feel guilt (O) and mistrust towards others (L). Both of these factors constitute important elements of fear structure in Cattell's pattern. They reveal the aspect of internalized fear reaching the aggression towards oneself and the external aspect that is expressed by suspiciousness and mistrust.

In asthmatic patients the level and structure of fear depends on the sex, women function considerably worse. In COPD patients a higher level of fear is present in patients experiencing the disease for a longer time. This fact is totally evident considering the specific character of the disease; the symptoms get intensified with time and the patient has more and more difficulties in everyday functioning. However, the investigations show that fear in COPD patients is connected mainly with knowledge and ability to cope with the disease. People experiencing education were characterized by a considerably lower fear and coped with the disease and everyday difficulties better (6).

A big intensification of fearful reactions in diseases related with dyspnoea indicates the necessity of introduction of specific care, both medical and psychological. The problem of fear, discussed in literature comprehensively, in patients with somatic diseases indicates that the patients characterized by a high level of fear have a tendency to overuse drugs, have worse communication with physicians and are less satisfied with the contact with the physician. Such subjects are pessimistic, strongly concentrated on their own suffering; they also isolate themselves socially and this in turn increases the feeling of dissatisfaction with life as well as increases the difficulties in psychical functioning.

CONCLUSIONS

1. In diseases accompanied by dyspnoea the level and structure of fear are not uniform.
2. The differences in the picture and structure of fearful reactions depend on the kind of disease, gender and duration of the disease.
3. The level of fear is significantly higher in COPD patients, particularly in subjects who have experienced the disease for a longer time.
4. In asthmatics a significantly higher level of fear is present in the group of women.

REFERENCES

1. Bauer H., Duijsens I.J.: Personality disorders in pulmonary patients. Br. J. Med. Psych., 71, 165, 1998.
2. Brooks C., at al.: Subjective symptomatology of asthma in outpatient population. Psychosom. Med.,51, 102, 1989.
3. Carr R.E.: Panic disorder and asthma: Causes, effects and research implications. J. Psychozom. Res., 44, 43, 1998.
4. Czubalski K.: Wpływ choroby na stan psychiczny i zachowanie człowieka chorego. Sztuka Leczenia, 3, 53, 1995.
5. Harwas-Napierała B.: Czynniki społeczno-rodzinne w kształtowaniu się lęku u młodzieży. UAM Poznań, 27, 1987.
6. Kaplan R. et al.: Behavioral issues in the management of Chronic Obstructive Pulmonary Disease. Ann. Behav. Med., Vol, 7, 4 5, 1985.
7. Khan M.G., Lynch J.P.: Choroby płuc – diagnostyka i terapia. Urban & Partner, Wrocław 2000.
8. Kinsman R. et al: Observations on subjective symptomatology, coping behavior and medical decisions in asthma. Psychosom. Med., 39, 102, 1977.
9. Perna G. et al: Asthma and panic attacks. Biol. Psych., 42, 625, 1997.
10. Płusa W. (red): International Review of Allergology and Clinical Immunology. Suppl. 1, vol. IV, 7, 1998.
11. Płużek Z.: Syndrom paniki. In: W. Tłokiński (red): Lęk - W poszukiwaniu specyficzności. Arx Regia, 54,Warszawa 1991.

12. Rosenthal S.V., et al: The Cattell 16PF personality profile of asthmatics. J. Psychosomatic Res., 17, 9, 1973.
13. Whitehead T.: Pokonać lęk. WAB, 13,Warszawa 1991.

SUMMARY

The aim of the research was the analysis of the level and structure of fear in diseases accompanied by dyspnoea exemplified by bronchial asthma and chronic obstructive pulmonary disease (COPD). The study included 50 subjects suffering from severe bronchial asthma and 50 subjects suffering from obstructive pulmonary disease who were treated in the Department of Pulmonary Diseases and Tuberculosis of Medical University in Lublin. R. B. Cattell personality profile was used for the study and it allows to define the general level of anxiety and the structure of fearful reactions. The level of general anxiety in both groups is placed within the upper limit of the standard and is statistically higher in COPD patients. The level of anxiety among asthmatic patients is connected mostly with emotional immaturity. The emotional immaturity is accompanied by the tendency to feel guilt and low level of personality integration. In asthmatic patients the level and structure of anxiety depends on the sex and women function much worse in such situations. In COPD patients the emotional immaturity is accompanied by the tendency to feel guilt and distrust in others. A higher level of fear occurs in people with longer durability of the disease. Serious intensification of fearful reactions in asthmatic diseases indicates the necessity of particular care, both medical and psychological.

Poziom i struktura lęku w chorobach przebiegających z dusznością

Celem przeprowadzonych badań była analiza poziomu i struktury lęku w chorobach przebiegających z dusznością na przykładzie astmy oskrzelowej i przewlekłej obturacyjnej choroby płuc (POCHP). Badaniami objęto 50 osób chorych na astmę oskrzelową w stopniu ciężkim i 50 osób chorych na przewlekłą obturacyjną chorobę płuc, leczonych w Klinice Chorób Płuc i Gruźlicy AM w Lublinie. Do badania wykorzystano Arkusz Samopoznania R. B. Cattella, który pozwala określić ogólny poziom lęku oraz strukturę reakcji lękowych. Poziom niepokoju ogólnego w obydwu grupach mieści się w obszarze górnej granicy normy i jest statystycznie istotnie wyższy u chorych na POCHP. Lęk u chorych na astmę w największym stopniu związany jest z niedojrzałością emocjonalną. Towarzyszy temu skłonność do poczucia winy i niski stopień integracji osobowości. U osób chorych na astmę poziom i struktura lęku zależą od płci, zdecydowanie gorzej funkcjonują kobiety. U osób chorych na POCHP niedojrzałości emocjonalnej towarzyszy skłonność do poczucia winy oraz nieufność wobec innych. Wyższy poziom lęku występuje u osób dłużej chorujących. Duże nasilenie reakcji lękowych w chorobach przebiegających z dusznością wskazuje na konieczność szczególnej opieki zarówno lekarskiej, jak i w niektórych przypadkach psychologicznej.