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Experienced Anxiety and Coping Styles vs Adherence in Patients with Myasthenia Gravis

Doświadczany lęk i sposoby radzenia sobie a adherencja u pacjentów z miastenią

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Abstract

Introduction. Myasthenia Gravis (MG) is a rare chronic immunological disease associated with a disorder of the neuromuscular junction. It is characterised by a variability of clinical symptoms. Myasthenia Gravis can be divided into two types: ocular and generalised. Patients with Myasthenia Gravis suffer from a sense of anxiety that results from the clinical picture and severity of the disease. They use a variety of coping strategies to manage this tension. Adherence, i.e. complying with therapeutic recommendations, is important for patient functioning and the effectiveness of pharmacotherapy in this group of patients.
Aim. This study aims to present ways of coping with experienced anxiety and how this affects adherence in patients with Myasthenia Gravis.
Material and Methods. The study was conducted in a group of 67 patients with MG. The majority were women. Literature analysis and a diagnostic survey were used for this purpose. Research tools included a survey questionnaire developed by the authors, which consisted of three parts and five standardised scales.
Results. The study showed that people with the generalised form of Myasthenia Gravis had higher levels of anxiety. As such, there may be greater limitations with this form of the disease. Myasthenia Gravis patients predominantly use emotion-oriented coping, which according to the literature is the least effective way. A medium level of adherence predominates in patients, indicating that patients are aware of the need to comply with medical recommendations.
Conclusions. The respondents are characterised by a medium level of adherence. There was a significant correlation between anxiety severity and adherence level. As the level of medication increases, adherence to treatment recommendations decreases. Myasthenia Gravis patients who use the distraction strategy exhibit higher levels of adherence. In contrast, MG patients follow treatment recommendations to a lesser extent with an avoidance strategy. The duration of the illness is not linked to the level of anxiety or the use of coping strategies to manage tension that involve moving on to something else or behavioural disengagement. **(JNNN 2024;13(4):131–138)**
Key Words: adherence, anxiety, coping, Myasthenia Gravis

Streszczenie

Wstęp. Miastenia jest rzadką chorobą przewlekłą o podłożu immunologicznym, związaną z zaburzeniem złącza nerwowo-mięśniowego. Cechuje się ona zmiennością objawów klinicznych. Miastenię możemy podzielić na dwa typy: oczną oraz uogólnioną. Pacjenci z tą jednostką chorobową borykają się z poczuciem lęku, które wynika z obrazu klinicznego i ciężkości przebiegu choroby. Stosują różnorodne strategie radzenia sobie z występującym napięciem. W tej grupie chorych istotne znaczenie dla funkcjonowania pacjentów i skuteczności farmakoterapii ma adherencja, czyli przestrzeganie zaleceń terapeutycznych.

Cel. Celem pracy jest przedstawienie sposobów radzenia sobie z doświadczanym lękiem oraz wpływ tego zjawiska na adherencję u pacjentów z miastenią.
Materiał i metody. Badanie przeprowadzono w grupie 67 pacjentów z MG. Większość stanowiły kobiety. Wykorzystano analizę piśmiennictwa oraz sondaż diagnostyczny. Do narzędzi badawczych należał autorski kwestionariusz ankiety, składający się z trzech części oraz pięć standaryzowanych skal.
Wyniki. Przeprowadzone badanie wykazało, że można zaobserwować większy poziom lęku u osób z postacią uogólnioną miastenii. Co może się wiązać z większymi ograniczeniami w przypadku tej postaci choroby. U pacjentów z miastenią dominuje emocjonalny sposób radzenia sobie, co według literatury jest najmniej skutecznym sposobem. U chorych dominuje średni poziom adherencji, co świadczy o tym, że pacjenci zdają sobie sprawę z konieczności stosowania się do zaleceń lekarskich.
Wnioski. Badani charakteryzują się średnim poziomem adherencji. Wykazano istotną korelację między stopniem natężenia lęku a poziomem adherencji. Wraz ze wzrostem poziomu leku, maleje stopień przestrzegania zaleceń terapeutycznych. Pacjenci z miastenią stosujący strategię odwracania uwagi cechują się wyższym poziomem adherencji. Z kolei w przypadku strategii ucieczkowej pacjenci z MG przestrzegają zaleceń terapeutycznych w mniejszym stopniu. Czas trwania choroby nie ma związku z poziomem lęku czy stosowaniem strategii radzenia sobie z napięciem poprzez zajmowanie się czymś innym lub zaprzestaniem działań. **(PNN 2024;13(4):131–138)**
Słowa kluczowe: adherencja, lęk, radzenie sobie, miastenia rzekomoporaźna

Introduction

A chronic illness that cannot be completely cured disrupts the functioning of the person affected by it. It represents a challenge that the patient has not previously faced. It is therefore unsurprising that it arouses fear in the patient. The stressful experience associated with the illness can significantly impact social and psychological functioning. As such, chronic diseases affect changes in the emotional, motivational and cognitive areas as well. They have a negative impact on patients' quality of life [1].

Myasthenia Gravis (MG) is an autoimmune disease. The essence of this disease is muscle fatigue, which varies throughout the day depending on the activities performed. Patients observe an increase in discomfort during greater exertion, while improvement is seen during rest. Myasthenia Gravis is associated with weakness of the extraocular, bulbar and proximal muscles [2].

In approximately two-thirds of patients, the initial symptom of the disease is observed around the eyeball, in the form of drooping eyelids. Only 10% of patients with MG have symptoms limited to the extraocular muscles (ocular form of Myasthenia Gravis). In the remaining patients, there is a progressing weakening of other ocular and limb muscles. We then speak of the onset of generalised Myasthenia Gravis [2].

MG is caused by the presence of autoantibodies on the postsynaptic membrane at the neuromuscular junction (NMJ), such as anti-MuSK and anti-LRP4 antibodies. MG is a rare disease. It is estimated that it affects some 9,500 people in Poland. It has a bimodal distribution in women, with a peak incidence at 30–50 years of age. In men, a higher percentage is observed after the age of 50. It is rarely diagnosed in children. Juvenile MG is more common in people of Asian and African descent [3,4].

The diagnosis of MG is based on anamnesis, neurological examination, electrodiagnosis, serology and chest CT scan to detect the presence of thymoma. The main treatment is cholinesterase enzyme inhibitors and immunosuppressants. Symptoms refractory to basic treatment or requiring rapid resolution, such as in myasthenic crisis, may require plasmapheresis or intravenous immunoglobulin. Thymectomy may also be performed [3,4].

MG subtypes based on clinical presentation and serology positivity include early MG, late MG, thymoma, MuSk, LRP4, seronegative MG and ocular MG. Over the last 20 years, the incidence of this disease entity has more than doubled. This increase may be due to a higher prevalence of MG in the elderly, probably as a result of better diagnosis, treatment and the increasing longevity of the population [5].

Patients with Myasthenia Gravis are characterised by a decrease in almost all components of quality of life. This is significantly associated with patients' physical performance and anxiety as a trait [6]. Quality of life in Myasthenia Gravis is associated with compliance with treatment recommendations (adherence). Given the clinical picture of the disease, adherence is important not only for the efficacy of pharmacotherapy, but also for the daily functioning of patients with MG. Adherence is not only about following the doctor's instructions regarding the medication to be taken, but also about taking care of proper nutrition, physical activity or regular check-ups at the neurology clinic. In addition, stress management may also affect adherence levels [7,8].

For the level of stress in Myasthenia Gravis, the degree of muscle fatigue is important, as is adaptation to the disease. Patients who have been ill longer react less emotionally to stressful situations [1,9]. Anxiety and depression are significantly more prevalent in this group of patients than in others, which is associated with their

decreased physical performance and psychological functioning, and thus a poorer quality of life [6,7,10].

MG patients, like other chronic patients, present different ways of coping. The dominant way of managing stress in this group of patients is emotion-oriented coping, which, according to the literature, is the least effective. This is because taking action based on negative emotions results in an inadequate assessment of stressful circumstances, which consequently leads to an irrational way of coping with the given situation [1]. It must be emphasised that stress is a factor that exacerbates Myasthenia Gravis symptoms in patients suffering from this illness.

This study aims to present ways of coping with experienced anxiety and how this affects adherence in patients with Myasthenia Gravis.

Material and Methods

The study group comprised 67 people, most of whom were women (61.2%). The average age of respondents was 53 years. The youngest respondent was 18 years old and the oldest was 81 years old. Most respondents declared they had a secondary education (62.7%). Notably, almost 40% of respondents were still in employment. The largest percentage of patients (38.8%) lived in rural areas. The vast majority of respondents were married (74.6%). Almost 90% of patients viewed their socioeconomic status as moderate. Considering the clinical data, it was shown that almost 75% of the respondents were people with the generalised form of Myasthenia Gravis. The ocular form of Myasthenia Gravis was declared by 25.4% of respondents. Most respondents had had myasthenia gravis for more than 10 years (43.3%). Those who had been ill for less than a year were the least numerous group (9%). More than half of the patients in the study — 64.6% — were taking cholinesterase inhibitors (e.g. Mestinon, Methylase). The most common symptoms reported by respondents were drooping eyelids (15.7%), lower limb muscle weakness (17.6%), hand muscle weakness during daily activities (16.5%) and diplopia (12.3%). Table 1 shows the details of the study group.

The study was carried out in the neurological outpatient clinic for Myasthenia Gravis patients at the Department of Adult Neurology of the University Clinical Centre in Gdańsk, between December 2022 and March 2023. The study was conducted as part of the project "Specificity of Myasthenia-Gravis Patient Functioning" with the approval of the University Clinical Centre Management and the Independent Bioethics Committee for Scientific Research at Medical University of Gdańsk. The respondents gave their informed written

Table 1. Characteristics of the study group

Variable	N	%
1	2	3
Gender		
Women	41	61.2
Men	26	38.8
Education		
Primary	3	4.5
Secondary	42	62.7
Higher	22	32.8
Gainfully employed		
Yes	25	37.3
No	3	4.5
Disability pension	19	28.4
Retirement pension	20	29.9
Place of residence		
City up to 100,000 inhabitants	14	20.9
City from 250,000 to 500,000 inhabitants	15	22.4
City over 500,000 inhabitants	12	17.9
Village	26	38.8
Marital status		
Single	10	14.9
Married	50	74.6
Divorced	5	7.5
Widow/Widower	2	3.0
Socioeconomic status		
Low	8	11.9
Medium	59	88.1
For how many years have you had Myasthenia Gravis?		
<1 year	6	9.0
1 to 5 years	22	32.8
6 to 10 years	10	14.9
>10 years	29	43.3
Which form of Myasthenia Gravis do you have?		
Ocular	17	25.4
Generalised	50	74.6
Which Myasthenia Gravis therapy do you use?		
Cholinesterase inhibitors (e.g. Mestinon, Mytelase)	62	64.6
Non-steroidal immunosuppressants (e.g. Imuran, Prednisone)	13	13.5
Intravenous immunoglobulins	1	1.0
Intravenous immunoglobulin infusions	1	1.0
I do not take medication	2	2.1
Other	17	17.7

Table 1. Continued

1	2	3
What symptoms of Myasthenia Gravis do you have?		
Diplopia	32	12.3
Strabismus	3	1.1
Drooping eyelids	41	15.7
Change in facial expression	21	8.0
Sagging jaw	3	1.1
Impaired biting, chewing, swallowing	31	11.9
Head dropping	14	5.4
Muscle weakness in the lower limbs when walking	46	17.6
Weakening of the arm muscles when performing activities of daily living	43	16.5
Falls while running	10	3.8
Respiratory disorders	14	5.4
Other	3	1.1

N — number of observations; % — percent

consent to participate in the study. The presented results are part of the aforementioned project.

Two research methods were used in this study: a literature analysis and a diagnostic survey. A proprietary survey questionnaire was used, which consisted of three parts. The first referred to the socio-demographic data of the respondents. The second part contained questions about the clinical condition in the context of Myasthenia Gravis, including the duration of the illness, the form of Myasthenia Gravis, the therapy used and the symptoms experienced. The final section included questions to assess the health and well-being of the respondents.

The MG-ADL (Myasthenia Gravis Activity of Daily Living) questionnaire was used to assess activities of daily living in Myasthenia Gravis. It enables an assessment of functional performance in daily activities in MG patients. It contains eight items, of which two assess visual impairment, three ophthalmic impairment, one respiratory impairment and two limb impairment. Each item is scored on a scale of 0 to 3 points. Thus, the range of possible scores is between 0 and 24 points. As the score increases, the patient becomes more dependent in terms of activities of daily living. This tool makes it possible to determine in which of the eight areas surveyed the respondent faces the least/most problems in daily functioning [10].

MG patients' quality of life was assessed using the short 15-item MG-QOL15 (Myasthenia Gravis Quality of Life 15) questionnaire, which is specific to this patient group. The fifteen questionnaire items were derived from the larger 60-item version of the Myasthenia Gravis Quality of Live (MGQOL) questionnaire. The questions were selected based on responsiveness and trustworthiness. When completing the questionnaire, the respondent provides a response to each item using a 0–4 point Likert (0 — Not at all, 1 — A little bit, 2 — Somewhat, 3 — Quite a bit, and 4 — Very much). The tool described allows for a maximum of 60 points. When assessing quality of life in this group of patients, the population average is provided. There are no specific cut-off points. However, higher scores indicate a lower quality of life for the respondents [11].

The incidence of anxiety, depression and irritability was made using the Hospital Anxiety and Depression Scale — Modified Version (HADS-M). The authors of the original version are Zigmond and Snaith. The Polish version was developed by Majkowicz, de Walden-Gałuszko and Chojnacka-Szawłowska. The questionnaire contains two independent subscales: assessment and assessment of depression. Each subscale comprises seven statements. The questionnaire is supplemented with two statements on the level of irritability. Responses are given using a 4-point Likert scale (0–3 points). The final score for each subscale ranges from 0 to 21 points. For the two questions on aggression, the score ranges from 0 to 6 points. Scores ranging from 0 to 7 indicate a normal case, scores of 8–10 point to a borderline case, and scores of 11–21 are deemed abnormal [12].

The Mini-COPE Stress Coping Inventory is a tool to assess the level of coping with stress. Respondents answer 28 questions that address typical human behaviour in very difficult situations. The respondent provides answers using a four-point Likert scale: 1 = I almost never do this, 2 = I rarely do this, 3 = I often do this, 4 = I almost always do this. It is a scale that is used to test adults — healthy and ill alike. The tool in question refers to 14 strategies, which are divided into four categories and corresponding scales: active coping, helplessness, seeking support, avoidant behaviours. The individual strategies like turning to religion, acceptance and sense of humour are separate categories. This tool makes it possible to assess which strategies are among the most frequently used [13].

The level of adherence was assessed using the Adherence in Chronic Disease Scale (ACDS). It contains 7 questions, with 5 proposed answer options for each one. Questions 1 to 5 relate to behaviours that directly determine adherence. The last two questions, on the other hand, refer to situations and views that may directly affect the level of adherence. The scale is designed to test adults suffering from a chronic illness. The results indicate the level of adherence to the pharmacological therapeutic plan. A respondent can score between 0 and 28 points. A score below 20 points indicates a low level of adherence. In contrast, scores of 21 to 26 points indicate a medium level, and 27 points or more, a high level of adherence. It must be noted that only achieving

a high level of adherence implies proper observance of therapeutic recommendations [14].

The Pearson correlation coefficient was used to analyse the relationship between the variables. A one-way analysis of variance (ANOVA) was used for comparisons between more than two groups, while Student's t-test was used wherever two groups were compared. All statistical analyses were performed assuming a significance level of α=0.05. The calculations described above were performed using the Statistica software package, version 13.3, licensed from TIBCO software.

Results

The results of the research on the level of adherence to treatment recommendations showed that almost 70% of patients had an average level of adherence. On the ACDS scale, the mean was 24.34 with a standard deviation of 2.69. Detailed data are shown in Tables 2 and 3.

Table 2. ACDS scale (N=67)

Your behaviour	Min	Max	M	SD
Do you always remember to take all your medicines as prescribed by your doctor?	2	4	3.55	0.63
Do you periodically change the dosage of your medication without consulting your doctor?	1	4	3.22	0.85
Do you adjust your medication intake according to how you feel?	2	4	3.61	0.63
When you experience side effects related to medication occur (e.g. stomach pains, liver pains, rash, lack of appetite, swelling), then:	0	4	3.54	0.88
Do you think that all the medicines you take are necessary to maintain good health?	0	4	3.40	0.94
Does your doctor ask you about the side effects of your medication?	0	4	3.13	1.11
Do you honestly answer your doctor's questions about taking medication?	2	4	3.88	0.41
ACDS	16	28	24.34	2.69

Min — minimum value; Max — maximum value; M — average; SD — standard deviation

Table 3. Adherence level

Adherence level	N	%
Low level	5	7.46
Medium level	46	68.66
High level	16	23.88

N — number of observations; % — percent

The adherence of patients diagnosed with Myasthenia Gravis (overall score on the ACDS questionnaire) did not correlate with patients' activities of daily living (MGADL), nor with their subjectively perceived quality of life (MGQOL) or depressive symptoms (HADS).

The only statistically significant correlate of patient adherence was the severity of anxiety as measured by the subscale of the HADS questionnaire. A not very strong but significant correlation indicates that adherence increases as anxiety decreases, i.e. the stronger the anxiety, the worse the patient's compliance with the therapeutic plan in terms of pharmacotherapy. Detailed data are presented in table 4.

Table 4. Correlations between the overall ACDS questionnaire score (adherence) and patients' functioning, quality of life and symptoms of anxiety and depression

	Patient adherence (ACDS)
Activities of Daily Living in Myasthenia Gravis (MGADL)	0.06
Quality of Life in Myasthenia Gravis (MGQOL)	–0.04
Anxiety (HADS)	–0.29*
Depression (HADS)	–0.20

*p<0.05

In view of the significant association between adherence and anxiety, our next research question was to verify the associations between the ways of coping with tension and adherence to treatment recommendations. We verified the correlations between the overall adherence score and the different ways of coping with stress (Mini-COPE), finding only two statistically significant results, which are shown in Table 5.

The more patients use distraction as a way of coping with the severe stress experienced (e.g. moving on to something else so as not to think about the stress), the stronger their declared adherence to recommendations and compliance with the therapeutic plan in cooperation with the medical staff. In contrast, individuals who react to various stressful situations with avoidance, e.g. behavioural disengagement, exhibit significantly weaker compliance with the recommendations of the medical staff and sticking to the treatment plan.

Table 5. The Pearson correlations between adherence (ACDS) and strategies used to cope with stress (Mini-COPE)

Mini-COPE	ACDS
Active coping	0.18
Planning	0.11
Positive revaluation	0.23
Acceptance	0.04
Sense of humour	–0.06
Turning to religion	0.12
Seeking emotional support	0.07
Seeking instrumental support	0.05
Moving on to something else	0.29*
Denial	0.17
Abreaction	1.19
Psychoactive substance use	–0.11
Behavioural disengagement	–0.29*
Self-blame	–0.03

*p<0.05

Having identified the three variables relevant to adherence, further analyses were conducted to verify whether there were any differences in these variables in patients with different length of illness and, therefore, with different experiences of illness and coping.

Using ANOVA, we did not detect any statistically significant differences between groups characterised by different length of illness and experienced anxiety ($F(3,63)=1.17$, $p=0.33$) and coping strategies such as moving on to something else ($F(3,62)=1.51$, $p=0.22$) or behavioural disengagement ($F(3,62)=1.16$, $p=0.33$).

The duration of Myasthenia Gravis was in no way related either to the intensity of anxiety experienced by patients or to the frequency of use of coping strategies like moving on to something else or behavioural disengagement.

The final measure was to verify whether patients with different types of Myasthenia Gravis exhibited significant differences in terms of the three variables identified as important for adherence. Using Student's t-tests, a comparison of these variables was made in patients with the generalised and ocular forms of Myasthenia Gravis. The result of these analyses is presented in Table 6. No differences were detected in the use of strategies to move on to something else between patients with different types of Myasthenia Gravis.

Statistically significant differences between the two groups of patients were shown in terms of experienced anxiety and the use of behavioural disengagement strategies in stressful situations. Patients with generalised Myasthenia Gravis respond with an overall stronger subjectively experienced anxiety compared to patients with ocular Myasthenia Gravis. The result is shown in Figure 1.

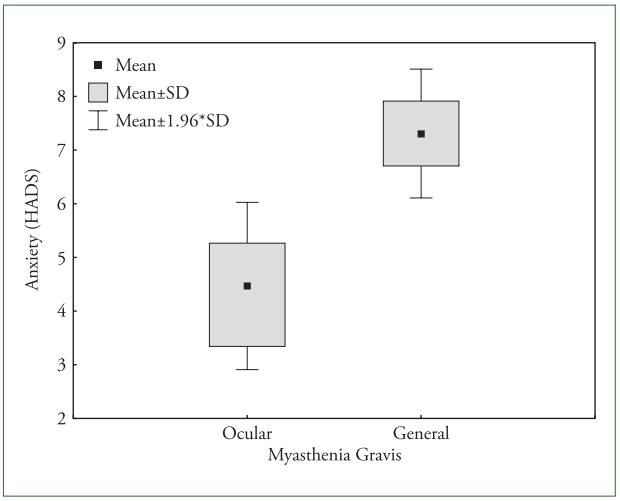

Figure 1. Comparison of patients with the two types of Myasthenia Gravis in terms of severity of subjectively experienced anxiety (HADS)

Compared to patients with ocular Myasthenia Gravis, patients with generalised Myasthenia Gravis are also characterised by a stronger behavioural disengagement response when experiencing tension, anxiety and stress. The data are presented in Figure 2.

Table 6. Student's t-test comparison of patients with generalised (N=50) and ocular (N=16/17) forms of Myasthenia Gravis in terms of the intensity of anxiety experienced and the coping strategies used to manage tension (behavioural disengagement and moving on to something else)

	Ocular form of Myasthenia Gravis M(SD)	Generalised Myasthenia Gravis M(SD)	df	t	p
Anxiety (HADS)	4.47(3.3)	7.32(4.34)	65	–2.47	0.01
Behavioural disengagement	1.0(0.97)	1.72(1.18)	64	–2.21	0.03
Moving on to something else	3.69(1.79)	3.70(1.64)	64	–0.02	0.98

df — degrees of freedom; t — Student value; p — level of statistical significance

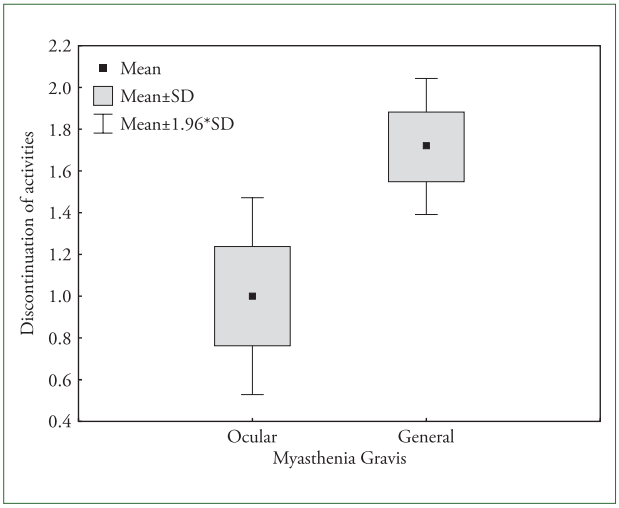

Figure 2. Comparison of patients with the two types of Myasthenia Gravis in terms of frequency of use of behavioural disengagement strategies when experiencing anxiety and stress

Discussion

Chronic diseases, including Myasthenia Gravis, elicit many negative emotional reactions, including anxiety, fear and depression. They are also a source of stress for patients. The literature contains a preponderance of data on the higher prevalence of depression or single depressive symptoms in people suffering from somatic illness compared to the general population [15].

As part of this study, the authors assessed the level of adherence based on the ACDS scale. Respondents were characterised by an average level of adherence. In contrast, a low level of adherence was found among 865 MG patients from China, similar to the study by Su et al. Among 198 Chinese MG patients, as many as 52% declared a low level of adherence [16]. No similar study based on European data was found.

In our study, three variables were identified as important for adherence. The severity of anxiety experienced and the use of two coping strategies are related to adherence to treatment recommendations, which in turn may have a significant impact on the effectiveness of therapy in Myasthenia Gravis. The more patients use distraction (e.g. moving on to something else to avoid thinking about stress), the higher levels of adherence they exhibit. These individuals divert their attention from their illness by setting themselves various tasks and completing them. This group of patients is more cooperative in adhering to therapeutic recommendations. In contrast, individuals who react to various stressful situations with avoidance, e.g. behavioural disengagement, have lower levels of adherence. This is undoubtedly a detrimental strategy, given its negative consequences in terms of treatment effectiveness.

In contrast, the dominance of emotion-oriented coping was noted in a study by Kozyra and Opio [1]. According to the literature, it is the confrontational style that produces positive psychological effects. Emotion-oriented coping (the coping style most often chosen by MG patients) is the least effective in the context of coping [1].

The results obtained are consistent with those of Kozyra and Opio [1]. Indeed, Ybarra et al. [8] also prove that MG patients are more likely to be diagnosed with an anxiety disorder than others.

Reviewing the literature, the authors did not find any studies on the relationship between anxiety and coping and adherence in Myasthenia Gravis. A study by Su et al. found that medication anxiety can affect medication adherence [16], which is consistent with our study. Vitturi et al. examined the level of adherence in a group of 58 patients with MG. Low adherence to treatment was associated with low education, longer duration of illness and more tablets taken daily. Patients with low adherence presented a poorer quality of life and increased neuropsychiatric symptoms [17]. In our study, there was no association between quality of life and disease duration and adherence.

A systematic review by Kardas et al. on determinants of adherence among patients found that anxiety and coping strategies are significantly associated with adherence [18].

According to a study by Yu et al., MG patients with adequate social support are less likely to develop depressive and anxiety symptoms, which in turn leads to increased self-efficacy and ultimately increases adherence to treatment [19].

Our study also verified whether the duration of illness and the form of Myasthenia Gravis were related to the level of anxiety and the coping strategies used to manage tension. It was found that the duration of Myasthenia Gravis was related neither to the severity of anxiety experienced by patients nor to the frequency of use of coping strategies, such as moving on to something else or behavioural disengagement. Statistically significant differences between the two groups of patients (depending on the form of the disease) were shown in terms of experienced anxiety and the use of behavioural disengagement strategies in stressful situations. Patients with generalised Myasthenia Gravis respond with an overall stronger subjectively experienced anxiety compared to patients with ocular Myasthenia Gravis. No similar studies in this area were found.

Few publications in the national as well as international literature refer to patients with Myasthenia Gravis. Current data mainly focus on the quality of life in this group of patients or the correlation between psychosocial support and compliance with medication, which was not an area of the present study.

Conclusions

The subjects were characterised by an average level of adherence. There was no association between adherence and performance in activities of daily living, quality of life or symptoms of depression. A significant correlation between anxiety severity and adherence level was noted. As the level of medication increases, adherence to treatment recommendations decreases.

Myasthenia Gravis patients who use the distraction strategy (e.g. moving on to something else) exhibit higher levels of adherence. The respondents who use an avoidance strategy (e.g. disengagement strategy) as a way of coping with anxiety adhere to treatment recommendations to a lesser extent.

The duration of the illness is not linked to the level of anxiety or the use of coping strategies to manage tension that involve moving on to something else or behavioural disengagement. The type of Myasthenia Gravis has a significant impact on anxiety levels and the use of behavioural disengagement strategies in stressful situations.

Implication for Nursing Practice

This study indicates a significant correlation between the intensity of anxiety experienced and selected tension coping strategies and adherence to treatment recommendations among MG patients, urging more research in this area in the future.

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