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Differences in anticipation capacity in depressive and mixed anxiety–depressive disorders

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ABSTRACT

BACKGROUND: Anticipation capacity is a significant factor of successful adaptation. The role of anticipation impairment in various mental disorders, including neurotic disorders and schizophrenia, is shown. Nevertheless, the study of anticipation impairment in relation to depressive disorders is still relevant. The results may contribute to the development of future psychocorrection programs for depression.

AIM: To compare the special aspects of anticipation capacity in depressive and mixed anxiety-depressive disorders.

MATERIALS AND METHODS: The sample size was 336 subjects divided into a control group (*n*=132), and two groups of F32–33 (*n*=109) and F41.2 (*n*=95) patients. Experimental psychological testing was conducted using the Mendelevich's Anticipation Capacity Test, Regush's Prediction Ability Method, and Beck's Depression Inventory. Results are processed by comparing patient groups with the control group and each other and investigating the relationship of anticipation capacity and the severity of symptoms.

RESULTS: The study showed significant differences between the control group and patient groups. No differences are found between patient groups. Anticipation capacity in patients was lower than in the control group. Correlation analysis showed no relationship of the severity of depression symptoms and anticipation capacity. Stepwise regression shows the significance of belonging to a group of patients as a covariate of anticipation capacity.

CONCLUSION: The study shows that depressive disorders are similar to other neurotic diseases in terms of decreased prognostic abilities. The obtained data may be used to substantiate the long-term benefits of anticipation incapacity correction in depressive and mixed anxiety-depressive disorder cases.

Keywords: anticipation capacity; depressive disorders; neurotic disorders; gender differences.

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Различия прогностической компетентности при депрессивном и смешанном тревожно-депрессивном расстройствах

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АННОТАЦИЯ

Обоснование. Антиципационная состоятельность является значимым фактором успешной адаптации. Показана роль нарушений антиципации при различных психических расстройствах невротического уровня и шизофрении. Однако остаётся актуальным изучение роли нарушений антиципации при депрессивных расстройствах. Полученные результаты могут внести вклад в разработку будущих психокоррекционных программ депрессии.

Цель. Сравнить особенности антиципационной состоятельности при депрессивном и смешанном тревожно-депрессивном расстройствах.

Материалы и методы. Объём выборки составил 336 человек, распределённых в группу контроля (*n*=132) и две группы пациентов с диагнозами F32–33 (*n*=109) и F41.2 (*n*=95). Проводили экспериментально-психологическое тестирование с использованием теста антиципационной состоятельности В.Д. Менделевича, методики «Способность к прогнозированию» Л.А. Регуш и шкалы депрессии А. Бека. Обработка результатов включала в себя сравнение групп пациентов с контрольной группой и между собой, а также изучение взаимосвязей антиципационной состоятельности с выраженностью симптомов.

Результаты. В ходе исследования выявлены статистически значимые различия между группой контроля и группами пациентов. Не было найдено различий между группами пациентов. Показатели антиципационной состоятельности у пациентов были ниже, чем в контрольной группе. Корреляционный анализ не выявил связи между выраженностью симптомов депрессии и прогностической компетентностью. Пошаговая регрессия выявила значимость фактора принадлежности к группе пациентов как предиктора уровня антиципационной состоятельности.

Заключение. Проведённое исследование демонстрирует схожесть депрессивных расстройств с другими заболеваниями невротического уровня по признаку снижения прогностических способностей. На основании полученных данных можно обосновывать перспективность коррекции прогностической некомпетентности при депрессивном и смешанном тревожно-депрессивном расстройствах.

Ключевые слова: антиципационная состоятельность; депрессивные расстройства; невротические расстройства; половые различия.

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Депрессия һәм катнаш шомлану-депрессия тайпылышлары вакытындагы прогнозлау компетентлыгы аерымлыклары

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АННОТАЦИЯ

Нигезләү. Антиципацион хәллелек уңышлы җайлашуның әһәмиятле факторы булып тора. Невротик дәрәҗәдәге төрле психик тайпылышларда һәм шизофрениядә антиципация бозылуның роле күрсәтелгән. Әмма депрессив тайпылышлар вакытында антиципация бозылу ролен өйрәнү актуаль булып кала бирә. Алынган нәтиҗәләр депрессиянең булачак психокоррекцион программаларын эшләүгә өлеш кертергә мөмкин.

Максат. Депрессив һәм катнаш хәвефле-депрессив тайпылышлар вакытында антиципацион хәллелек үзенчәлекләрен чагыштырырга.

Материаллар һәм методлар. Сайлап алу күләме контроль төркеменә (*n*=132) һәм F32–33 (*n*=109) һәм F41.2 (*n*=95) диагнозлары булган пациентларның ике төркеменә бүленгән 336 кешене тәшкил иткән. В.д. Менделевичның антиципацион хәллелеге тестын, Л. А. Регушның «фаразлау сәләте» методикасын һәм А. Бекның депрессия шкаласын кулланып, эксперименталь-психологик тест үткәрделәр. Нәтиҗәләрне эшкәртү үз эченә контроль төркемле пациентлар төркемнәрен һәм үзара чагыштыруны, шулай ук симптомнарның ачыклыгы белән антиципацион хәллелекнең үзара бәйләнешен өйрәнүне алган.

Нәтиҗә. Тикшерү барышында контроль төркеме һәм пациентлар төркеме арасында статистик яктан әһәмиятле аермалар ачыкланды. Пациентлар төркемнәре арасында аермалар табылмады. Пациентларның антиципацион хәллелек күрсәткечләре контроль төркемдәгегә караганда түбәнрәк булган. Корреляцион анализ депрессия симптомнары һәм фаразлау компетентлыгы арасында бәйләнеш тапмаган. Адым саен регрессия пациентлар төркеменә карау факторының антиципацион хәллелек дәрәҗәсе предикторы буларак әһәмиятен ачыклады.

Нәтиҗә. Үткәрелгән тикшеренү депрессия тайпылышларының фаразлау сәләте кимү билгесе буенча невротик дәрәҗәдәге башка авырулар белән охшашлыгын күрсәтә. Алынган мәгълүматлар нигезендә депрессив һәм катнаш хәвеф-депрессив тайпылышлар вакытында прогностик компетентсызлыкны коррекцияләү перспективасын нигезләргә мөмкин.

Төп сүзләр: антиципацион хәллелек; депрессив тайпылышлар; невротик тайпылышлар; җенси аерымлыклар.

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BACKGROUND

The ability to predict future events is seen as a significant factor for successful adaptation. One of the psychological indicators for the assessment of these abilities is the prognostic competence, i.e. anticipatory competence (AC) [1]. Thanks to it, a person can anticipate the course of events with a high degree of probability, predict situations and his/her own reactions to them [2–4]. Patients with mental disorders have been shown to have lower levels of AC than healthy individuals [5], which is reflected in the anticipation concept of neurosis development [6]. The 10th revision of the International Classification of Diseases (ICD-10) makes a distinction between neurotic and affective disorders [7]. In practice, however, there is considerable overlap between anxiety and depressive disorders [8, 9]. The development of predictive competence is considered to be a target for psycho-corrective techniques [10]. It is therefore relevant to investigate whether the differences in the manifestations of AC in depressive and mixed anxiety and depressive disorders are significant, which was the aim of this study.

The hypotheses of the study:

1) There are statistically significant differences in the AC between the samples of patients and the control group;

2) Patients with mixed anxiety and depressive disorders and depressive disorders differ in prognostic competence;

3) AC is correlated with the severity of depression symptoms.

MATERIALS AND METHODS

Characteristics of the study group

A total of 336 people participated in the study:

- The first group (C) included 132 people (55 men and 77 women) aged between 18 and 55 years (median age: 22 years) who, according to self-report data, did not seek psychological help at the time of the study and were not observed by a psychiatrist.
- The second group (D) included 109 people (31 men and 78 women) aged between 19 and 59 years (median age: 32.5 years) with a confirmed diagnosis of the depressive disorder spectrum (ICD-10 code F32-33).
- The third group (A/D) included 95 people (21 men and 74 women) aged 19 to 67 years (median age: 42.5 years) with mixed anxiety and depressive disorder (ICD-10 code F41.2).

All patients were treated at the 2nd Women's Department of V.M. Bekhterev Republican Clinical Psychiatric Hospital and the Psychotherapy Department of State Clinical Hospital No. 18 named after K.Sh. Zyatdinov (Kazan); the diagnoses were established by the attending physician on the basis of the ICD-10 criteria.

Study methods

Experimental psychological testing was chosen as the main study method. The techniques used are as follows:

- A. Beck Depression Inventory, including 3 scales: general (BDI), cognitive-affective symptoms (CS), and somatic symptoms(SS) to assess the severity of depression symptoms [11];
- L.A. Regush's "Predictive Ability" methodology [12];
- V.D. Mendelevich's AC (prognostic competence) test [13], including 4 scales: personal-situational (PSAC), spatial (SAC), temporal (TAC), and overall anticipatory competence (OAC).

RESULTS

The descriptive statistics are summarized in Table 1 below. The AC was higher in the control group than in the patient groups. The AC scores of patients in the D and A/D groups were similar. The severity of depression symptoms was greater in the D group than in the A/D group, but the differences were not statistically significant (Mann–Whitney test).

One-way analysis of variance (Kruskal–Wallis test) was used to compare the parameters of the three groups. Statistically significant results were obtained for all of the AC scales (Table 2).

Post-hoc analysis by paired comparisons with the Dwass–Steel–Critchlow–Fligner test revealed that all AC parameters, except SAC, in the D group were lower than in the C group: OAC (W=6.41, p <0.001), SAC (W=3.124, p=0.070),TAC (W=3.73, p=0.023), PSAC (W=5.158, p <0.001). The A/D group had statistically significant differences with the C group on all scales except TAC: OAC (W=4.80, p=0.002), SAC (W=4.049, p=0.012), TAC (W=1.26, p=0.646), PSAC (W=3.834, p=0.018). The A/D and D groups had no statistically significant differences so they were combined for comparison with the C group. The patient group had lower scores on all AC scales (Table 3).

Correlation analysis showed no relationship between severity of depressive symptoms and prognostic competence. The Predictive Ability scale correlated with the OAC scales (r=0.446, p <0.001), TAC (r=0.404, p <0.001), PSAC (r=0.278, p=0.025).

DISCUSSION

It was hypothesized that the AC would be lower in the patient groups than in the control group. The results confirm this. However, no differences were found between the D and A/D groups. It seems that less successful prediction is equally common in depression with and without anxiety. Similar anticipation inconsistency levels have been reported in neurotic disorders [5, 14–16]. The findings may suggest that neurotic and depressive disorders share underlying mechanisms.

Table 1. Descriptive statistics

Data	Group	Methods							
		GAC	TAC	SAC	PSAC	PA	BGI	CS	CC
Mean value	MAD	250	39.3	45.3	165	11.1	22.4	14.2	8.25
	D	250	37.8	46.2	166	10.8	25.4	16.7	8.69
	CG	260	40.2	49.1	171	—	—	—	—
Standard error	MAD	2.24	0.703	0.886	1.62	0.289	2.67	2.06	0.937
	D	2.26	0.728	0.900	1.55	0.268	1.45	0.992	0.747
	CG	1.79	0.664	0.706	0.952	—	—	—	—
Standard deviation	MAD	21.7	6.82	8.59	15.7	1.29	12.0	9.20	4.19
	D	23.6	7.60	9.40	16.2	1.80	9.72	6.66	5.01
	CG	20.5	7.63	8.11	10.9	—	—	—	—

Note. MAD — mixed anxiety–depressive disorder group; D — depressive disorder group; CG — control group; GAC — General Anticipation Capacity Scale; TAC — Temporal Anticipation Capacity Scale; SAC — Spatial Anticipation Capacity Scale; PSAC — Personal and Situational Anticipation Capacity Scale; PA — prediction ability; BGI — Beck's General Inventory; CS — Cognitive and Affective Symptom Scale; SS — the Somatic Symptom Scale.

Table 2. One-way analysis of variance

Anticipation capacity scales	χ^2	*p*	ε^2
GAC	23.40	<0.001	0.07
TAC	7.91	0.019	0.023
SAC	9.34	0.009	0.028
PSAC	14.8	<0.001	0.044

Note. GAC — General Anticipation Capacity Scale; TAC — Temporal Anticipation Capacity Scale; SAC — Spatial Anticipation Capacity Scale; PSAC — Personal and Situational Anticipation Capacity Scale.

Table 3. Differences between the patient group and the control group

Anticipation capacity scales	Welch's *t*	*p*	Mean difference	Cohen's *d*
GAC	–4.29	<0.001	–10.27	–0.475
TAC	–2.03	0.043	–1.7	–0.228
SAC	–3.46	<0.001	–3.28	–0.383
PSAC	–3.66	<0.001	–5.37	–0.393

Note. GAC — General Anticipation Capacity Scale; TAC — Temporal Anticipation Capacity Scale; SAC — Spatial Anticipation Capacity Scale; PSAC — Personal and Situational Anticipation Capacity Scale.

No correlations of AC with the severity of depression were found. Predictive ability also did not correlate with symptoms of depression, but it did correlate with anticipation. This may be because both prognostic competence and predictive ability are defined as personality traits, meaning that they are more enduring than dynamic symptoms of depression.

Limitations of the study

This study has a number of limitations. The correlational design does not explain causality, i.e. whether the AC decreases due to the disease or serves as a predisposing factor. The questions in the test are mainly aimed at retrospective evaluation. In our opinion, this fact, together with the absence of correlations with symptoms, favors the second interpretation, but its verification requires experimental and prospective designs.

CONCLUSION

The study showed statistically significant differences in AC scores between patients with depressive and anxiety disorders and depressive disorders and the control group: AC was lower in patients with these disorders. Meanwhile, no differences were found between patients with depressive disorders and those with mixed anxiety and depressive disorder. There was also no association found between AC and the severity of the symptoms of depression. The results allow the correlation of depressive disorders with other disorders of the neurosis level, for which a decrease in prognostic ability has been previously observed [1, 2, 5, 14–16]. Based on our data, we can justify the promising nature of psychocorrective measures aimed at developing prognostic competence in depression with and without anxiety.

ADDITIONAL INFORMATION

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