

**SECTION: SEXOLOGY AND GENDER PSYCHOLOGY**  
**РОЗДІЛ: СЕКСОЛОГІЯ ТА ГЕНДЕРНА ПСИХОЛОГІЯ**

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**GENDER SPECIFICITIES OF ATTITUDE TOWARDS DISEASE IN CHILDREN AND ADOLESCENTS WITH CHRONIC SOMATIC DISORDERS****Hanna V. Kukuruza<sup>†\*</sup>, Olena O. Kyrylova<sup>\*</sup>***\*PI "Institute for Children's and Adolescents' Healthcare, NAMS"**Ukraine, Prospect Yubileyniy 52-a, Khakiv, 61153, Ukraine**<sup>†</sup>E-mail: avkukuruza62@gmail.com, <https://orcid.org/0000-0002-1776-4088>**Received July 24, 2018*

The article defines the specificities of attitude towards disease in children and adolescents, both male and female, with rheumatoid arthritis that is a chronic disorder. We have analysed the awareness of adolescents as for their disease, their openness towards perception of new information as well as their motivation for fighting the disease. We have studied psychological reactions of the adolescents in terms of the disease and defined types of attitudes towards it. We have found that girls are characterized by the highest level of anxiety due to their disease, although they are active in their fight with it, and the harmonious type of attitude was reliably registered more frequently. Boys expressed the highest level of guilt. They were characterized by a deliberate position as for their trust towards doctors. In their cases, ergopathic and sensitive types of attitude were most expressed.

**KEYWORDS:** adolescents, attitude towards disease, chronic somatic disorder, rheumatoid arthritis

**ГЕНДЕРНІ ОСОБЛИВОСТІ СТАВЛЕННЯ ДО ХВОРОБИ ДІТЕЙ ТА ПІДЛІТКІВ ІЗ ХРОНІЧНИМИ СОМАТИЧНИМИ ЗАХВОРЮВАННЯМИ****Кукуруза Г.В., Кирилова О.О.***ДУ «Інститут охорони здоров'я дітей та підлітків НАМН»**Україна, Проспект Ювілейний 52-а, Харків, 61153, Україна*

У статті визначено особливості ставлення до хвороби дітей та підлітків різної статі, хворих на ревматоїдний артрит, що є хронічним соматичним захворюванням. Проаналізовано інформованість підлітків про своє захворювання, їх відкритість до сприйняття нової інформації та вмотивованість до боротьби із захворюванням. Вивчено психологічні реакції підлітків в контексті хвороби та визначені типи їх відношення до хвороби. Встановлено, що дівчата характеризувалися найвищим рівнем схвильованості відносно свого захворювання, але ж їм була притаманна активність у боротьбі із хворобою і достовірно частіше у них реєструвався гармонійний тип ставлення до хвороби. Хлопці виявляли найбільший рівень почуття провини, характеризувалися зваженою позицією щодо довіри до лікарів, частіше проявляли ергопатичний та сенситивний типи ставлення до хвороби.

**КЛЮЧОВІ СЛОВА:** підлітки, ставлення до хвороби, хронічне соматичне захворювання, ревматоїдний артрит

Studies into the influence of patient's personality and his attitude towards the disease onto the process and the efficiency of treatment has undertaken an important role in the general problematics of medical psychology. The definition of the subjective part of perception is given in the works by M.Y. Mudrov, G.A. Zakharyina, P.B. Hanushkina who outline an integral approach in studying the patient. This approach, in its turn, makes it possible to get more efficiency in the organization of treatment and prevention of diseases. Investigation into the problems of how a chronic somatic disease influences mental activity of adolescents is timely, as the occurrence of a chronic somatic pathology has a drastic influence on the social situation in their development.

According to the official statistics, the spread of rheumatoid arthritis in Ukraine is at the mean 6-19 cases in every 100000 of child population (The Center of Medical Statistics, 2018). 30-50% of sick children and adolescents with juvenile arthritis develop disability 3-5 years after the disease starts. Development of disability among children with juvenile rheumatoid arthritis and the decrease in their working ability in adults is the most important social and economic consequence of this disease. Rheumatoid arthritis is characterized by an acute form of pain syndrome and the decrease in mobility that disrupts the usual style of life of an

adolescent and leads to the decrease in the quality of life (Lukianova, Omelchenko, 2002). At present, the study of the specificities in pain perception is one of the modern approaches towards the problem of therapy of the diseases accompanied by pain syndrome (Zagorulko, 2015; Sherbakova, 2016; Gnezdilov, 2014). As psychologists point out, patients with pain syndrome are characterized by the presence of depression, hypochondria, loss of interest towards social activity (Kukushkin, Khitrov, 2004). Public polls have revealed substantial difference in perception of pain, depending on sex. Females tend to have a higher index of pain (pupillary dilatation) in the conditions of equally intense pain stimuli. It has been established that the number of children and adolescents that suffer from chronic pain syndromes of various genesis can be up to 10-12% of all population. Girls feel night pain more frequently than boys, and the highest rate of chronic pain in girls is observed at the age of 12-14. The pain perception threshold and the tolerance towards pain in girls are lower than in boys.

The aim of this paper is to study gender specificities of attitude towards disease in children and adolescents with rheumatoid arthritis.

We have examined 50 patients, age 11-17, with rheumatoid arthritis (25 girls and 25 boys) who were undergoing inpatient treatment in PI "ICAH NAMS" clinic. The mean duration of illness was ( $6.5 \pm 1.3$ ) years. A quarter of adolescents (25%) had had arthritis for 1-2 years, 52.1% for 3-8 years, the rest (30.4%) – for more than 9 years.

The specific symptom of the disease in this group we observed was the substantial duration of inflammation process in joints, it's frequent recurrence within two-three years, strong pain symptoms, decrease in mobility that disturbed the usual lifestyle of adolescent and had its obvious influence on the mental state of the adolescents and formed certain characteristics of their personality.

The investigation carried out included identification of various aspects of patients' attitude towards the disease. In the course of study, we investigated the awareness of adolescents about their disease, their openness and motivation towards perception of new information, psychological reactions of adolescents in terms of their disease, and types of their attitude towards the disease.

We used the following psychodiagnostic methodologies: Freiburg Questionnaire of Coping with Illness (FQCI) that reveals the experience and behaviour of an adolescent in the situation of illness; "Type of Attitude to Disease" (TAD), based on the theoretical positions of attitude psychology (V. N. Miasyshev, A. E. Lychko); R. A. Berezovska's questionnaire "Attitude to Health", and the expert evaluation of adolescents' attitude towards health and disease carried out by doctors.

The data acquired during the work was statistically analysed with the help of software packages "Microsoft Office", "SPSS Statistics 17.01" with the definition of the major statistical indicators ( $M$ ,  $m$ ,  $\sigma$ ). For certainty analysis of difference, we used Fisher criterion ' $\varphi$ ', and Student criterion ( $t$ ).

The analysis of prior awareness of girls and boys with rheumatoid diseases about their disease showed quite similar and relatively high scores (4.38 and 4.27 accordingly).

The analysis of openness and motivation in sick adolescents towards the perception of information about their disease showed that in adolescents with rheumatoid diseases there has been found no difference between girls and boys as for the analysed index of openness and motivation. (3.85 against 3.36)

The study of emotional reactions of adolescents towards the disease (Fig. 1) has revealed that the most typical emotions for the situation of health deterioration as defined by girls were sadness and disturbance; for boys - concern and sadness. The least typical emotions in this context for girls were guilt and sorrow; for boys - guilt and despondency.

The substantial difference between the investigated groups was in the level of anxiety. The higher level was observed in girls, while the lower level was observed in boys ( $4.92 \pm 0,51$  vs.  $3,45 \pm 0,28$ ;  $P_t < 0,05$ ).

The level of concern in terms of the disease differentiated emotional reactions of adolescents of both sexes. The high level of concern was found in girls, the low – in boys ( $5,23 \pm 0,46$  vs.  $3,36 \pm 0,54$ ;  $P_t < 0,05$ ).

For girls, more typical were despondency and depression ( $4,48 \pm 0,56$  vs.  $3,36 \pm 0,45$ ;  $P_t < 0,05$ ), as well as fear ( $4,38 \pm 0,58$  vs.  $3,16 \pm 0,54$ ;  $P_t < 0,05$ ).

The study of mental reaction of adolescents towards the disease included the estimation of the specificities of attitude towards doctors, the presence of active struggle reaction, disregard for the disease, the need in care, major emotional changes in terms of disease, as well as spiritual aspects of reaction towards the disease. Each of these aspects was examined as a separate scale. The analysis of the acquired data included the definition of mean indexes for the scales as well as the frequency of high, medium and low levels of indexes for each scale in each group of patients (Tab. 1).

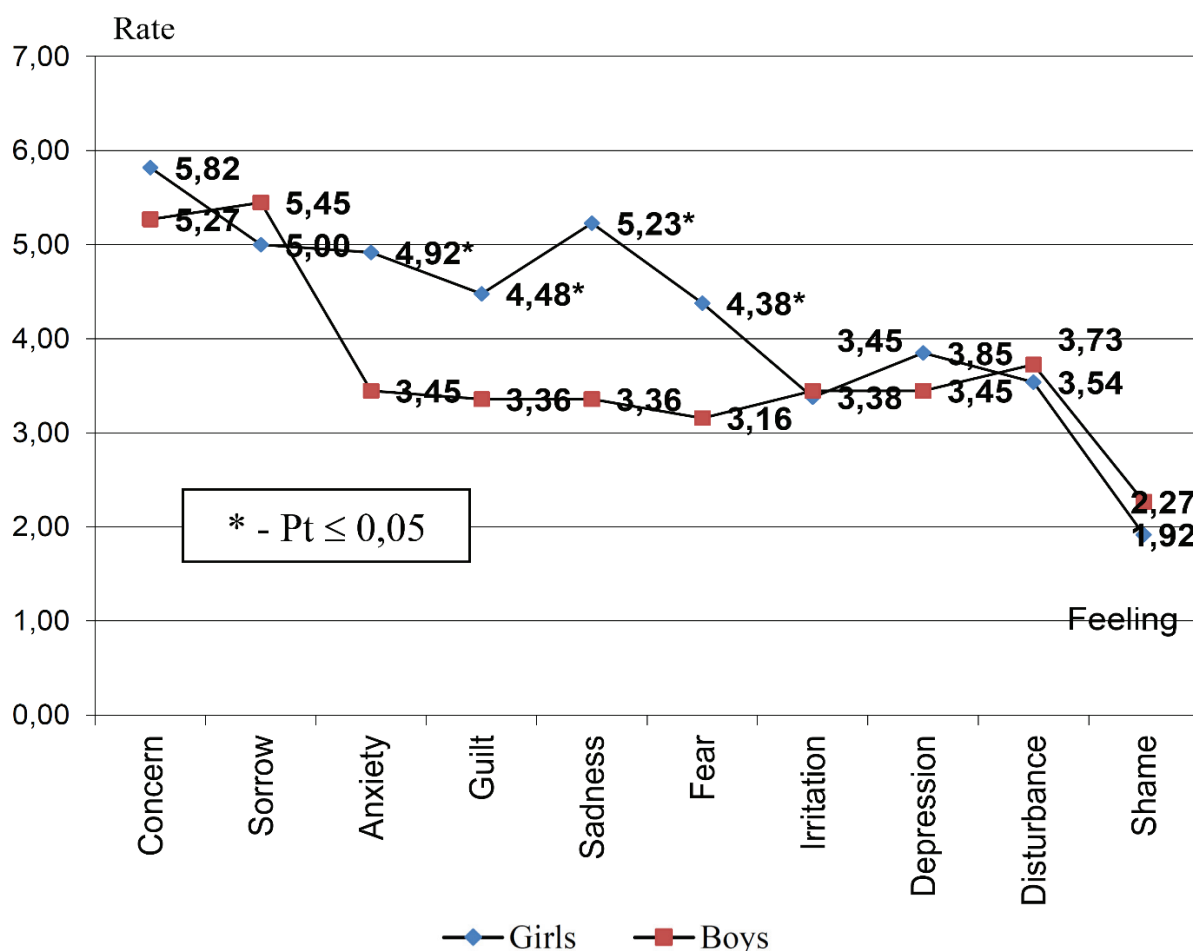


Figure 1. Self-esteem index of emotional state in terms of health deterioration in adolescents with rheumatoid diseases

Table 1.

The mean index due to different scales of Freiburg Questionnaire of Coping with Illness in adolescents with rheumatoid diseases  $M \pm m$

Scale	Girls	Boys
Trust towards doctors	$7.98 \pm 0.32$	$7.50 \pm 0.36$
Active struggle	$7.71 \pm 0.34$	$6.90 \pm 0.32$
Need in care	$6.00 \pm 0.32$	$6.28 \pm 0.28$
Disregard for disease	$4.54 \pm 0.53$	$4.58 \pm 0.20$
Emotional changes	$5.17 \pm 0.41$	$5.04 \pm 0.25$
Search for the meaning of disease	$4.80 \pm 0.31$	$4.90 \pm 0.49$

The results of the study showed that the highest scores in sick adolescents of both sexes were registered on the scale of "trust towards doctors". Adolescents have shown their high hopes on doctors and the strive for following their orders. Trust towards doctors and trust towards their authority was more expressed in boys than in girls (85.3 % vs. 65.0 %,  $P_{\phi} < 0.05$ ).

The next position in the assessment of sick adolescents of both sexes was taken by the indicators of active struggle (search for information about the disease, action, the strive for more intensive life, attempts to get distracted from the thoughts about the disease, to cheer themselves up etc.). The highest index on this scale was observed more often in boys than in girls (70.0 % vs. 95.3 %,  $P_{\phi} < 0.05$ ).

The third position is taken by the acknowledgement of the situation as such that lets them take better care of themselves, afford more, accept help from others. The high indexes on this scale were registered in boys and girls with almost equal frequency (38.9% in girls and 40.8% in boys).

The least expressed indexes were those about the disregard for disease and the search for the meaning of disease.

The analysis, based on the frequency of diagnosed types of attitude to the disease (Fig. 2) made it clear that the most typical option of attitude towards the disease in girls was the harmonious one (40.0%). In boys, this type was found only in 8.0% cases ( $P_{\phi} < 0.01$  comparing to girls).

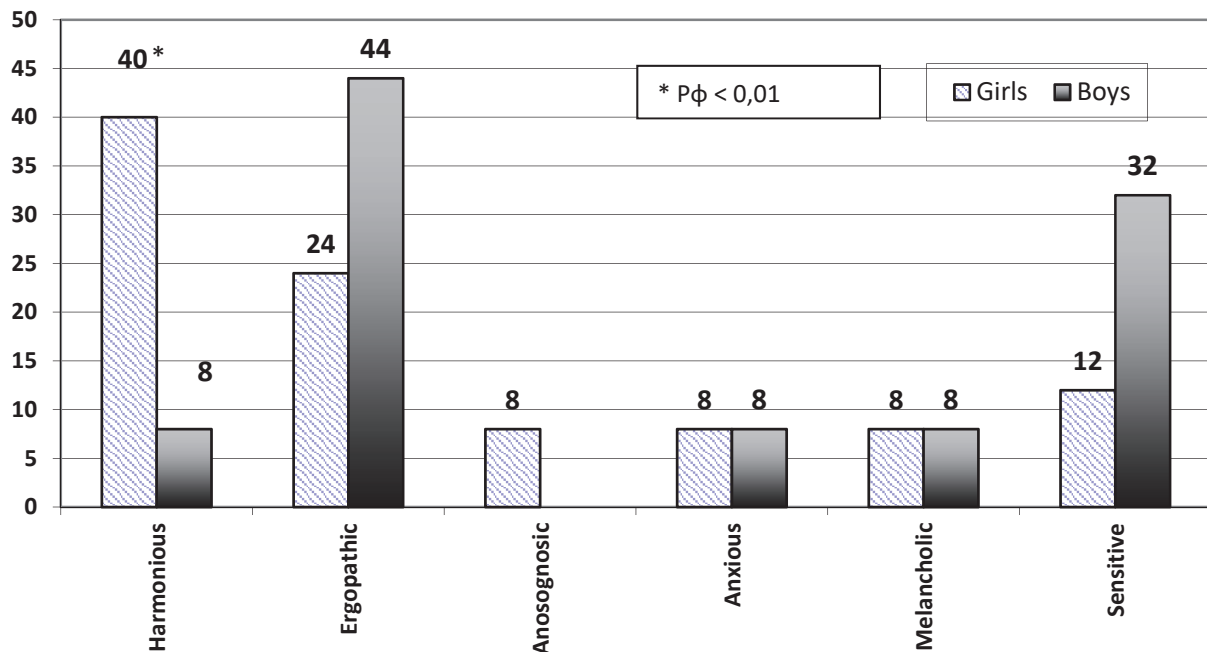


Figure 2. The frequency of different types of attitude towards the disease in adolescents with rheumatoid arthritis

The most frequent in boys was the ergopathic type of attitude towards the disease, characterized by the strive for activity (44.0%). In girls, this type was encountered twice as less frequently (24.0%) ( $P_{\phi} < 0.06$ ).

The anosognosic type of attitude towards the disease, connected with the active dismissal of thoughts about the disease and its consequences was diagnosed in 8.0% of girls. This type was not found in boys at all.

The sensitive type of attitude towards the disease, connected with excessive concern of adolescents about the possible impression that can be made by their disease on the people around them was registered in one third of boys (32.0%) and 12.0% of girls.

To perform generalized analysis, the types of attitude towards the disease were merged into three blocks that characterize different direction of adaptation to the disease.

The adaptive block types (harmonious, ergopathic, and anosognosic) were prevailing in all the assessed adolescents – 72.0% of girls and 52.0% of boys.

The types of attitude in interpsychic block (that includes anxious and melancholic types) was found with equal frequency in boys and in girls (16.0%). As for the intrapsychic block (including sensitive type), it was observed more frequently in boys than in girls (32.0 % vs. 12.0 % in girls,  $P < 0.04$ ).

### CONCLUSION

It has thus been established that:

1. In accordance with the assessment carried out by doctors, adolescents with rheumatoid diseases are characterized by quite a high level of prior awareness about their disease and high openness towards acquiring new information about the ways of overcoming their disease.
2. Among the modalities of emotional reactions of these adolescents towards their own disease, the prevailing ones were concern and sadness. Girls were characterized by the highest degree of anxiety while boys showed the highest level of guilt.
3. Adolescents with rheumatoid diseases are characterized by a balanced position as for their trust towards doctors; its highest rate was found in boys. Active fight with the disease, more typical for girls, is also found in these adolescents.
4. The most frequent type of attitude registered in adolescents was the adaptive one. The most typical for girls was the harmonious type while for the boys it was the sensitive type of attitude towards the disease.

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