

The Effect of the Places of Residence on Health Components in the Quality of Students' Life

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The Topicality of the Research and State of Current Studies. Preservation and improvement of the health of a young generation, formation of spiritual needs and habits of healthy lifestyle are priorities of our society. There is no doubt that the deterioration of health of young people, the main and most productive nation's gene carrier can lead to a demographic disaster. Researchers point out desperately that hardly 5 % of the population can be recognized as objectively healthy. The majority of young people are unhealthy and quite incompetent in the questions of healthy lifestyle.

A quality of life – is an economic and philosophical category, which is constantly evolving and describes the material and spiritual comfort of human existence. It means that each person defines for himself/ herself the quality of life as how she/he feels physically, emotionally, and how much she/he is satisfied with life. There are some published works in Ukraine [3; 9; 11; 15] and abroad [1; 12; 14] devoted to the theoretical and methodological studies that determine the quality of life of individual groups.

The research of the quality of life of the students at the Medical University showed that the quality of life of women appeared to be significantly lower than that of young men [2]. The Analysis of the quality of life of students of different specialties of the technical University [5] indicates a direct dependence between the level of physical activity, positive attitude to quality of life, on the one hand, and the existence of bad habits, poor nutrition, excessive mental stress on the body – on the other.

According to WHO, 50 % of health and thus the quality of life depends on our lifestyle. Students who live in dormitories have changed their usual (home) way of life, which in the vast majority lasted from birth, during all school years up to the university admission. Almost everything changed in such students: daily routine, the learning process, rest, diet, food, the psychological atmosphere of environment. Of course, a positive development in the dormitory is meeting new peers, sharing learning experiences, preparing for the adulthood. But still factors affecting the identity of the student deserve a special attention.

The importance of the environment in shaping human personality is determined by all the educators all over the world. However, the degree of influence of the environment on a personality's development has no unanimity. Supporters of the so-called biogenic direction prefer the heredity, whereas supporters of the sociogenic direction are for the environment [13]. Of course, the most researched element in the quality of life of students is the study of the change of indexes in the dynamics of performance during the years spent at school. And in this context the processes of adaptation of students are of great importance. The vast majority of students have some difficulties which are explained by several features: joining a new team with the change of social roles; increasing physical and mental stress; change of the rhythm of life, habits, some values; increased responsibility for their actions. Moreover, the process of a student's adaptation is long – it lasts throughout the study period [8]. We support the idea that students who live in families have difficulties in adapting to a new learning environment, communicative environment, but they are not related to the daily routine or physical problems that are often typical for the students living in the dormitory or rent flats [6].

Practical, in terms of further studies, are the results of sociological questionnaires that are intended to clarify the factor that was decisive for the settlement in the dormitory. So, the answer «Interesting and funny student's life» received the most responses (41 %). The result is expected as for the young people who answered the student's life is associated with an interesting pastime, and socializing with peers. Therefore, even the material factor «low fee for the dorm room» took only the second place (38 %). 32 % appreciate the help in learning by neighbors of the dorm. 24 % of respondents named that the main reason for the accommodation is the proximity to the university [10]. Another study on the student's life showed the following results: most students find a dormitory to be a good school of life (52 %), 19 % believe that living in a dormitory is a real fun and is most important, 19 % admit that living in a dorm is satisfactory, 14 % are tolerating it but they are going to leave. Only 6 % feel awful about the dorm life [7].

In our opinion, regardless of residence (dormitory, apartment, house) any student should have favorable conditions for life, education and rest. Only under the favorable conditions three interrelated types of activity – physical, mental, social – can develop in a healthy person.

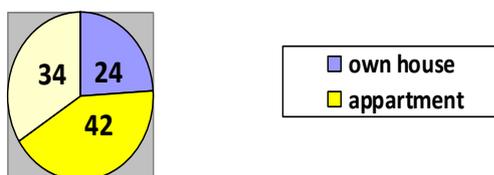
The analysis of the latest developments showed that scientists study the impact of living conditions in the dormitory on a student. However, there are no comparative studies on the health component in the quality of life of students done with taking into account a gender factor, place of residence: dormitory, apartment, private house.

Objective. To determine the components of health in the quality of life of students depending on residence factors: dormitory, apartment, private house.

Methods: the analysis of current research papers, observation, survey using a SF-36 questionnaire, the mathematical analysis of the results. SF-36 questionnaire /1} which we used in the study is fully consistent with the one, proclaimed in 1964 in the Helsinki Declaration on ethical research involving humans as research object. In our work, we do not use personal data of individuals who were involved in the study, only their responses to the questionnaire in the summary form.

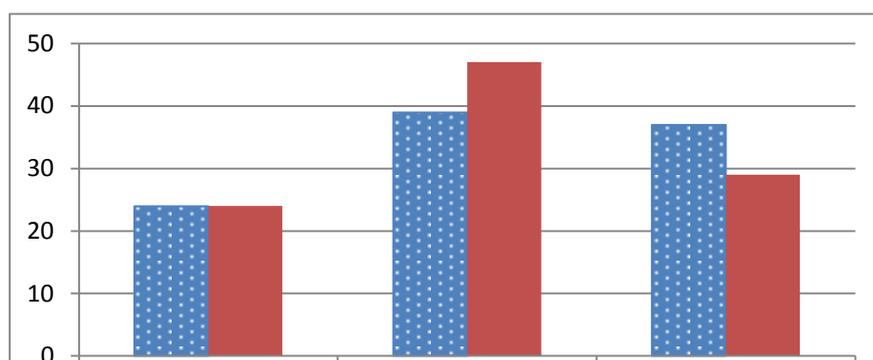
Organization of the Study. The study involved 513 students of the Lesya Ukrainka Eastern European National University, Kherson State University and Lutsk National Technical University.

Results and the Analysis. The survey results showed that among all respondents 122 people (24 %) live in the houses, 217 people (42 %) live in the apartments, 174 students (34 %) live in the dormitories (Picture 1).



Picture 1. The distribution of students according to the place of residence, %

As to the gender distribution of the surveyed students, the largest group among females of 120 students (39 %) make residents of the apartments; slightly less – 37 % (113 women) live in the dormitory and almost a quarter of the students (73 people) get to university from their homes. The percentage distribution of men is much the same: the highest percentage – 47 % (97 people) live in apartments, one-third (61 persons) live in a dormitory and a quarter of students (49 students) get to the university from their private homes. Data are shown on Picture 2.



Picture 2. Comparative distribution of students by gender and place of residence, %

According to the conventional method of SF-36, the answer to each question ranges from 0 to 100 points (complete health). Low scores are indicators of some limitations in the students' quality of life. The answers are grouped into 8 scales: a physical activity (PF); a role activities due to a physical condition (RP); an intensity of pain (BP); general health (GH); vitality(VT); social activities (SF); role activities due to the emotional state (RE); mental health (MH).

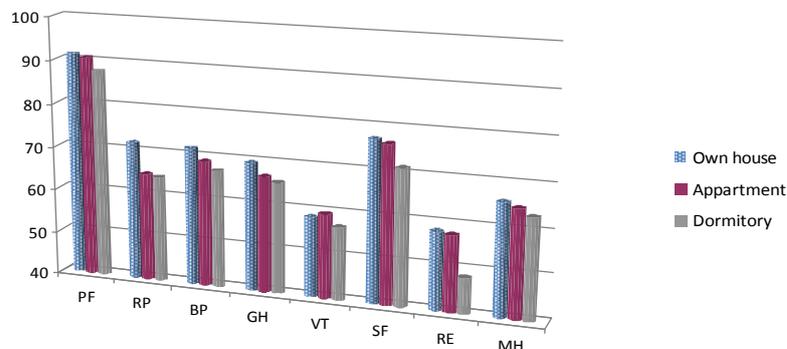
All the scales of questionnaire SF-36 that are recommended for the data processing can be grouped into two groups that will characterize the two components of the quality of life:

- physical health component (Physical component summary – PCS), which includes the PF, RP, BP, GH;

– mental health component (Mental component summary – MCS), which is formed by the VT, SF, RE, MH parameters .

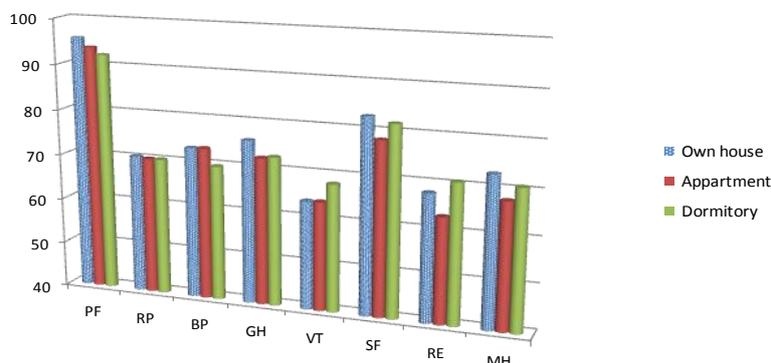
During the research, we found out that all the female students, regardless of their place of living have a high indicator of a physical activity (PF). The highest one belongs to those female students who live in their own houses (91,43) and the lowest – to the students from the dormitories (87,81). Altogether, all the studied parameters of the quality of life are higher in students who get to the universities from their own houses, and the lowest – in students who spend their student years in a dormitory. An exception is the indicator of vitality (VT), which is the highest in students who rent apartments (59,41). The lowest of all the investigated indicators is an indicator of the role of the activity related to the emotional state (RE) of residents of dormitories (48,27). In Table 1 and in Picture 3 the main indicators of the quality of life of students that are defined by their residence are shown.

The male students have an indicator of physical activity (PF) in the first place, and the residents of their own homes have a higher indicator (95,71) in comparison with the rest. The second highest indicator is an indicator of social activity (SF), which is also the highest among the students who live in their own homes (82,9), slightly lower among the residents of the dormitory (81,79). A role activity indicator, connected with a physical state (RP) is almost the same for all students regardless of their place of residence (70). The students from the dormitory have higher levels of vitality (VT = 68,07) and role-playing activities related to



Picture 3. Key indicators of physical and mental health components in the quality of life of female students, depending on their residence (in points)

the emotional state (RE = 70,76), compared with those of other study groups. Indicators of pain intensity (BP), general health (GH), mental health (MH) are the lowest in dorm residents in comparison with the students who live in the apartments or private houses. The main indicators of quality of life of the male students are shown in Picture 2 and in the Table.



Picture 4. Key indicators of physical and mental health components in the quality of life of students, depending upon the places of residence, points

So, the students living in the dormitory have the lower quality of life indicators, compared with their fellow students who live in their private houses or rent apartments.

Table 1

The Main Indicators of Physical and Mental Health Components in the Quality of life of Students, Depending on the Place of Residence

| Residence | Gender | PF | RP | BP | GH | VT | SF | RE | MH |
|---------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Private house | M, n=73 | 91,43 | 71,91 | 71,76 | 69,61 | 58,49 | 77,22 | 57,99 | 65,86 |
| | F, n=49 | 95,71 | 70,40 | 73,3 | 75,95 | 63,87 | 82,9 | 68,02 | 73,06 |
| | mean value | 93,15 | 71,31 | 72,38 | 72,16 | 60,65 | 79,5 | 62,02 | 68,75 |
| Apartment | F, n=120 | 90,66 | 64,79 | 68,97 | 66,69 | 59,41 | 76,45 | 57,5 | 64,76 |
| | M, n=97 | 93,76 | 70,10 | 73,43 | 72,35 | 63,96 | 78,22 | 63,23 | 67,79 |
| | mean value | 92,05 | 67,16 | 70,96 | 69,22 | 61,41 | 77,24 | 60,06 | 66,11 |
| Dormitory | F, n=113 | 87,81 | 64,36 | 67,01 | 65,59 | 56,72 | 71,4 | 48,27 | 63,17 |
| | M, n=61 | 92,28 | 70,17 | 69,68 | 72,78 | 68,07 | 81,79 | 70,76 | 70,8 |
| | mean value | 89,58 | 66,66 | 68,06 | 68,44 | 61,21 | 75,52 | 57,17 | 66,19 |

We have also compared physical and psychological health components that form the quality of life. The highest indicator of physical health component (PCS = 51,93) belongs to the female students who live in their own houses, the second place is taken by those who live in apartments (50,49) and those students who live in a dormitory have the lowest percentage have (50,23). The students who live in the apartments (43,4) have the highest mental health component, (MCS), those who live in their own houses have a little lower indicator (43,27), and the students from a dormitory have the lowest figures (41,24).

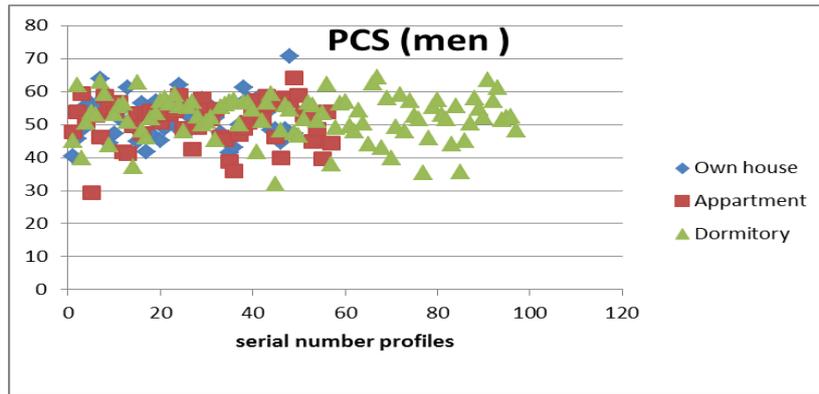
Among men the highest physical health component (PCS) belongs to the residents of flats (52,26), then come the ones who live in their own houses (52,15) and the lowest physical health component is characteristic to the students living in a dormitory (50,78). However, they have the highest psychological component of health (MCS = 47,96). The value of the mental health component in the quality of life is the lowest (44,96) among the students who reside in an apartment (table 2).

Table 2

| Residence | Gender | Physical component of health (Physical component summary – PCS) | | | Psychological component of health (Mental component summary – MCS) | | |
|---------------|------------|---|------|------|--|-------|------|
| | | X | S | Sx | X | S | Sx |
| Private house | F | 51,93 | 7,16 | 0,83 | 43,27 | 8,95 | 1,04 |
| | M | 52,15 | 6,41 | 0,91 | 47,34 | 9,2 | 1,31 |
| | Mean value | 52,02 | 6,85 | 0,62 | 44,91 | 9,24 | 0,83 |
| Flat | F | 50,49 | 6,19 | 0,56 | 43,4 | 9,89 | 0,9 |
| | M | 52,26 | 6,59 | 0,66 | 44,96 | 10,62 | 1,07 |
| | Mean value | 51,28 | 6,42 | 0,43 | 44,1 | 10,23 | 0,69 |
| Hostel | F | 50,23 | 7,04 | 0,75 | 41,24 | 10,98 | 1,17 |
| | M | 50,78 | 6,63 | 0,87 | 47,96 | 8,64 | 1,14 |
| | Mean value | 50,45 | 6,86 | 0,57 | 43,9 | 10,61 | 0,88 |

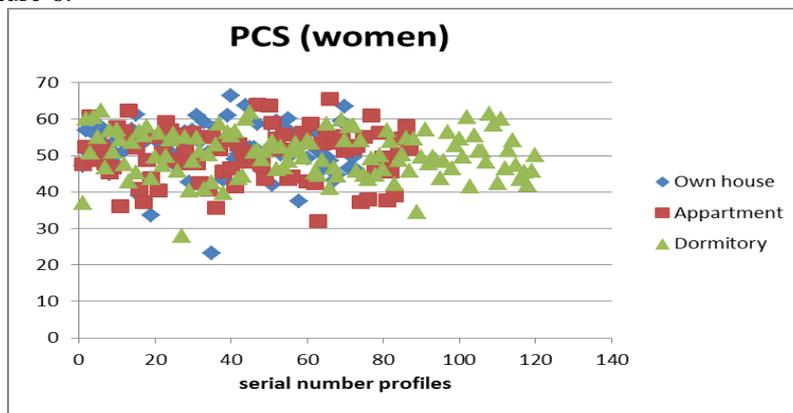
Consequently, living in private houses has a positive effect on the physical and mental health components of quality of life of female students and living in the dormitory has a negative effect on them; male students who live in a dormitory have a higher indicator of the psychological health component, but lower indicator of the physical component.

We also analyzed the variability of responses of students regarding the physical and mental health components of the quality of life. Thus, it appears that all male students' variability of the row is within 30–35 points, but those who live in their own houses have higher figures (70,77–40,43) than the residents of apartments (64,47–31 89) and dormitories (64,05–29,41). The data is shown in Picture 5.



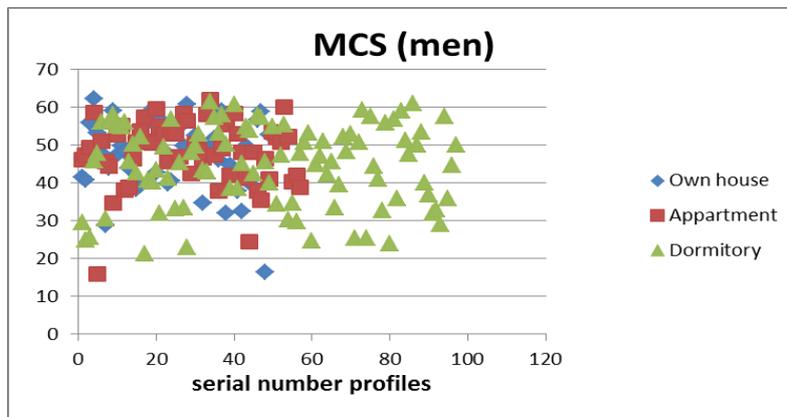
Picture 5. Variability of the physical health component in the quality of life of students, depending on the place of residence (in points)

The distribution of the results given by female students according to the responses to the questionnaire showed a stronger variability. The biggest variability is in the responses of female students who live in their own houses (66, 37–23, 27), more typical responses were given by dormitory residents (65, 42–31, 96). The data is shown in Picture 6.



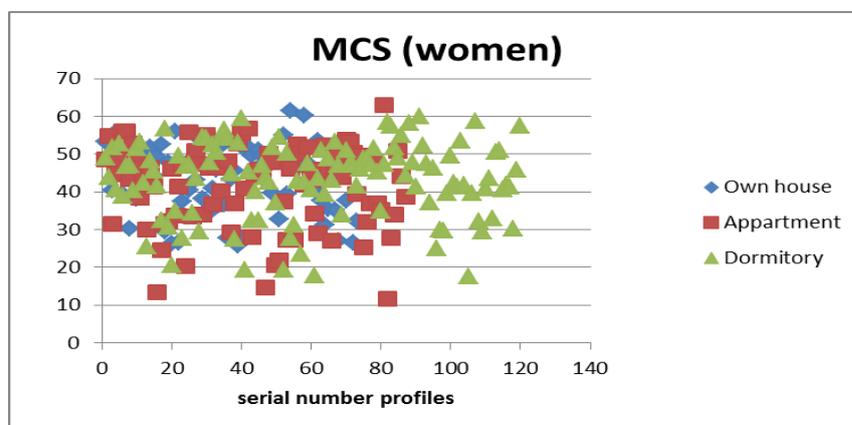
Picture 6. Variability of the physical health component in the quality of life of female students, depending on the place of residence (in points)

Analyzing a psychological component of the health of students, we found that men’s variability of a row of indicators of the psychological health component is greater than the variability of the physical component. Almost the same fluctuations were observed in responses of the residents of private houses (62, 23–16, 33) and students from a dormitory (62, 1–15, 86), but the responses of the students, who live in dormitories were less diverse (61, 63–21, 22). The data is presented in Picture 7.



Picture 7. Variability indicators of the psychological health component in the quality of life of students, depending on the place of residence (in points)

Responses of students regarding the psychological component of the quality of life are characterized by their variability. The greatest variability is observed among the female students, who spend their student lives in a dormitory (62, 96–11, 70), the lowest – among the residents of private houses (61, 57–25, 87). The data is presented in Picture 8.



Picture 8. Variability indicators of the psychological health component in the quality of life of female students, depending on the place of residence (in points)

Thus, a mental health component in the quality of life has more variability than the physical component both among female and male students. Moreover, it is the largest among the hostel residents. This shows that the hostel residents have different views in the assessment of their capabilities.

We analyzed the correlation between the indicators that form the physical and mental health components in the quality of life of students. In the interpretation of strength of the correlations, we used the «Cheddoka» table to identify the tightness of the connection. Thus, we need to distinguish between a weak connection ($r = 0,10-0,29$), a moderate connection ($r = 0,30-0,49$), great – ($r = 0,50-0,69$), strong – ($r = 0,70-0,89$), very strong ($r = 0,90-0,99$).

In order to establish a meaningful impact of each indicator on the formation of the physical and mental health components in the quality of life of students, we conducted a mathematical processing of data to determine the correlation depending on students' gender and residence factors.

It is well known that a higher indicator of a correlation causes a greater dependence of one indicator upon another. The data show that the psychological health component in the quality of life of students has a positive correlative connection between its components in all the groups of students, regardless of their gender and the place of residence. All the figures have a strong correlative connection ($r = 0,7-0,89$), except the indicators of the life vitality (VT) and social activities (SF) of female students as well as male students living in their own houses. The strength of correlation is significant ($r = 0,5-0,69$). The data are presented in table 3.

Table 3

Correlation of the Psychological Health Component Indexes in the Students' life Quality, Depending on the Place of Residence

| MCS indexes | Place of residence | | | | | |
|-------------|--------------------|------|-----------|------|-----------|------|
| | Private house | | Apartment | | Dormitory | |
| | F | m | f | m | F | m |
| VT | 0,69 | 0,65 | 0,76 | 0,73 | 0,78 | 0,82 |
| SF | 0,65 | 0,57 | 0,71 | 0,73 | 0,77 | 0,78 |
| RE | 0,86 | 0,71 | 0,76 | 0,84 | 0,81 | 0,76 |
| MH | 0,88 | 0,87 | 0,87 | 0,86 | 0,88 | 0,83 |

The correlation between the physical component of health in the life quality and the indexes that form it were also analyzed. Unlike the mental health component formation in which all the indexes show a strong and significant influence on this process, the physical health component formation indexes show a different strength correlation. Thus, the index of the general health (GH) state of men living in their private houses reveals the weak effect ($r = 0,28$), and the index of a role activity, caused by the physical condition (RP) among the same category of students has a moderate impact ($r = 0,4$). A strong correlative connection is revealed by indexes of the pain intensity and role activities caused by physical condition in male students living in the dormitory ($r = 0,78-0,77$). All other indexes that form the physical health component in the

quality of life of the students show a significant correlative connection. The biggest index correlation (0,93) has this group of the students – the impact of pain intensity (RR) on formation (Table 4).

Table 4

Correlation of Psychological Health Component Indexes in the Students' Life Quality, Depending on the Place of Residence

| PCS indexes | Place of residence | | | | | |
|-------------|--------------------|------|-----------|------|-----------|------|
| | Private house | | Apartment | | Dormitory | |
| | f | m | f | m | f | m |
| PF | 0,65 | 0,4 | 0,56 | 0,56 | 0,62 | 0,77 |
| RP | 0,65 | 0,59 | 0,67 | 0,53 | 0,67 | 0,69 |
| BP | 0,65 | 0,68 | 0,63 | 0,66 | 0,67 | 0,78 |
| GH | 0,65 | 0,28 | 0,53 | 0,51 | 0,6 | 0,52 |

Thus, the physical health component in the quality of life of different specialties students has correlative relations with their components that vary in their strength. As for the correlative impact on the psychological health component indexes in the students' life quality, depending on the place of residence, all the studied factors have direct, significant and strong relationships.

Conclusions. Among the factors that form a physical health component most points are given to the index of a physical activity of men (PF = 95,71) and women (PF = 91,43), and among the components of a mental health component – index of social activity of men (SF = 82,9) and women (SF = 77,22), living in private houses, compared with residents of the flats and dormitories.

Living in the private houses has a positive influence on the formation of the life quality components in comparison with living in dormitories and apartments. Correlations between indexes that form the physical and mental health components in the students' quality of life have higher evaluations and, as a result, stronger influence on the formation of a psychological component of health.

It is useful to define and identify the impact of other environmental factors on the quality of life of young people in future.

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Abstract

The influence of place of residence on the health components in the students' quality of life was identified in the article. It was established that among the factors that form a physical health component most points belong to the index of physical activity of men (PF = 95,71) and women (PF = 91,43), among the components of the mental health component – index of a social activity of men (SF = 82,9) and women (SF = 77,22) who live in private houses in comparison with residents of flats and dormitories. Life in private houses has a positive influence on the formation of components of life quality compared with the life in dormitories and flats.

Key words: health, quality of life, students, place of the residence.

Анатолій Цьось, Ольга Андрійчук, Ольга Касарда. Вплив місця проживання на компоненти здоров'я в якості життя студентів. У статті визначено вплив місця проживання на компоненти здоров'я в якості життя студентів. Установлено, що серед чинників, які формують фізичний компонент здоров'я, найбільше балів визначено за показником фізичної активності чоловіків (PF=95,71) і жінок (PF=91,43), серед складників психічного компонента здоров'я – показник соціальної активності чоловіків (SF=82,9) та жінок (SF=77,22), які проживають у власних будинках, порівняно із мешканцями квартир і гуртожитків. Проживання у власних будинках здійснює позитивний вплив на формування компонентів якості життя, порівняно з мешканцями гуртожитків і квартир.

Ключові слова: здоров'я, якість життя, студенти, місце проживання.

Анатолій Цьось, Ольга Андрійчук, Ольга Касарда. Влияние места проживания на компоненты здоровья в качестве жизни студентов. В статье определяется влияние места проживания на компоненты здоровья в качестве жизни студентов. Установлено, что среди факторов, которые формируют физический компонент здоровья, наибольшее баллов принадлежит показателю физической активности мужчин (PF=95,71) и женщин (PF=91,43), среди составляющих психического компонента здоровья – показатель социальной активности мужчин (SF=82,9) и женщин (SF=77,22), которые проживают в собственных домах, по сравнению с жителями квартир и общежитий. Проживание в собственных домах оказывает положительное влияние на формирование компонентов качества жизни, по сравнению с жителями общежитий и квартир.

Ключевые слова: здоровье, качество жизни, студенты, место проживания.