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SOCIAL DETERMINANTS OF HEALTH AMONG UNEMPLOYED YOUTH IN KAZAKHSTAN: HOW ECONOMIC DISPARITY AFFECTS QUALITY OF LIFE

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Abstract

Objectives. Both globally and in Kazakhstan, youth unemployment remains a problem contributing to social, economic and health inequalities. This study **aimed** to assess the social determinants of health among unemployed youth in Kazakhstan, with a specific focus on how economic inequality influences their quality of life. **Materials and methods.** A cross-sectional study design was employed using the Quality of Life, Enjoyment, and Satisfaction Questionnaire (Q-LES-Q) among unemployed and employed youth aged 18–29. Statistical analyses, including the Mann-Whitney test and multiple regression, were conducted. **Results.** Unemployed youth reported significantly lower overall quality of life compared to employed youth (U=36878.5, Z=-3.472, p=0.001). Key determinants of quality of life included financial well-being, marital status, and perceived governmental support. Regression analysis revealed that financial well-being, marital status, and perceived governmental support were significant predictors of quality of life, with the model explaining 58% of the variance (R^2=0.582). **Conclusion.** Youth unemployment in Kazakhstan is strongly associated with reduced quality of life, which is affected by economic inequality and limited social support. Addressing financial insecurity and strengthening state and community support systems are important for improving the well-being of unemployed youth.

Keywords: *quality of life, unemployment, NEET, Self-rated health, youth health, social determinants.*

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Резюме

СОЦИАЛЬНЫЕ ДЕТЕРМИНАНТЫ ЗДОРОВЬЯ СРЕДИ БЕЗРАБОТНОЙ МОЛОДЕЖИ В КАЗАХСТАНЕ: КАК ЭКОНОМИЧЕСКОЕ РАЗЛИЧИЕ ВЛИЯЕТ НА КАЧЕСТВО ЖИЗНИ

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Цели. Как в мире, так и в Казахстане, безработица среди молодежи остается проблемой, способствующей социальным, экономическим и здравоохранительным неравенствам. **Цель исследования** была направлена на оценку социальных детерминант здоровья среди безработной молодежи в Казахстане, с особым акцентом на то, как экономическое неравенство влияет на качество их жизни. **Материалы и методы.** Была использована поперечная

структура исследования с применением Опросника качества жизни, удовольствия и удовлетворения (Q-LES-Q) среди безработной и работающей молодежи в возрасте 18–29 лет. Проводился статистический анализ, включая критерий Манна-Уитни и множественную регрессию. **Результаты.** У безработной молодежи было зафиксировано значительно более низкое общее качество жизни по сравнению с работающей молодежью (U=36878.5, Z=-3.472, p=0.001). Ключевыми детерминантами качества жизни были финансовое благополучие, семейное положение и воспринимаемая молодежью государственная поддержка. Регрессионный анализ показал, что финансовое благополучие, семейное положение и воспринимаемая государственная поддержка являются значимыми предикторами качества жизни, при этом модель объясняет 58% дисперсии (R^2=0.582). **Выводы.** Безработица среди молодежи в Казахстане тесно связана со снижением качества жизни, на которое влияют экономическое неравенство и ограниченная социальная поддержка. Устранение финансовой нестабильности и укрепление систем поддержки со стороны государства и общества важны для повышения благополучия безработной молодежи.

Ключевые слова: *качество жизни, безработица, NEET, самооценка здоровья, здоровье молодежи, социальные детерминанты.*

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Түйіндеме

ҚАЗАҚСТАНДАҒЫ ЖҰМЫССЫЗ ЖАСТАРДЫҢ ДЕНСАУЛЫҚТЫҢ ӘЛЕУМЕТТІК АНЫҚТАУЫШТАРЫ: ЭКОНОМИКАЛЫҚ ЕРЕКШЕЛІКТЕРДІҢ ӨМІР САПАСЫНА ӘСЕРІ

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Мақсаты. Әлемдегі трендттермен қатар Қазақстанда жастар арасындағы жұмыссыздық әлеуметтік, экономикалық және денсаулық теңсіздіктеріне ықпал ететін мәселе болып қала береді. Бұл зерттеу Қазақстандағы жұмыссыз жастардың денсаулық әлеуметтік анықтауыштарын, әсіресе экономикалық теңсіздіктің өмір сапасына әсерін бағалауға бағытталды. **Әдістері.** Зерттеуде көлденең зерттеу дизайны қолданылды, жұмыссыз және жұмыспен қамтылған 18–29 жас аралығындағы жастар арасында Өмір Сапасы, Ризашылық және Қанағаттану Сауалнамасы (Q-LES-Q) пайдаланылды. Статистикалық талдаулар, соның ішінде Манн-Уитни тесті және көптік регрессия жүргізілді. **Нәтижелері.** Жұмыссыз жастардың өмір сапасы жұмыспен қамтылған жастарға қарағанда едәуір төмен екені анықталды (U=36878.5, Z=-3.472, p=0.001). Өмір сапасының негізгі анықтағыштары қаржылық жағдай, ерлі-зайыптылық және үкіметтік қолдаудың қабылдануы болып табылды. Регрессия талдауы өмір сапасының айтарлықтай болжаушылары ретінде қаржылық жайт, отбасылық жағдай және үкіметтік қолдауды анықтады, модель өзгеріс көрсеткішінің 58%-ын түсіндірді (R^2=0.582). **Қорытынды.** Қазақстандағы жастар арасындағы жұмыссыздық олардың өмір сапасының төмендеуімен тығыз байланысты, оған экономикалық теңсіздік пен шектеулі әлеуметтік қолдау әсер етеді. Қаржылық тұрақсыздықты азайту және мемлекет пен қауымдастықтың қолдау жүйелерін күшейту жұмыссыз жастардың әл-ауқатын жақсарту үшін маңызды болып табылады.

Түйінді сөздер: *өмір сапасы, жұмыссыздық, NEET, денсаулықтың өзін-өзі бағалау, жастар денсаулығы, әлеуметтік анықтағыштар.*

Дәйексөз үшін:

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Introduction

One of the sharpest problems all over the world is the growth of unemployment. As we know, the high level of economic crisis increases social and political instability in society. Moreover, socio-economic inequality and poverty influence various aspects of youth life, including access to healthcare, nutrition, physical and mental health [1, 2, 3].

According to research conducted by the ILO, the rate of temporary employment among young people is twice as high as among adults, young people are more likely to be employed in irregular paid work without a contract [4]. Today in Kazakhstan the problems of the market are: mismatch of qualification and professional structure of demand and supply of labour force; mismatch of personnel training to the needs of the economy; difficulty of employment of certain groups of population (women, young people, people of pre-retirement age, disabled people) [5, 6]. Reducing the loss of health of the population cannot be assigned to only one link of assistance to unemployed youth. Often young people belong to vulnerable groups in the labour market. A number of such factors contribute to this: lack of a certain level of qualification and practical work experience, etc. [7]. As an emerging subject of social relations, young people are in the stage of forming their status and motivation - needs, interests, values, motives, attitudes, ideals [8, 9].

According to the WHO, the NEET rate, together with the unemployment rate, is an important indicator that determines the situation of young people [10]. Modern science also increasingly uses the concept of 'NEET generation' (English: Not in Education, Employment or Training) or 'ni ni generation' (Spanish: ni estudia, ni trabaja). The World Bank emphasizes that a high NEET rate, even in the presence of a low youth unemployment rate, may indicate significant discouragement among young people, reflecting their disengagement from both employment and educational opportunities [11]. According to the International Labour Organization (ILO) report, the persistently high levels of NEET in the world are a growing concern among today's young people: the youth unemployment rate in 2023 was 13 per cent (64.9 million people) [12]. In Kazakhstan in 2001 it was revealed that every fifth young person has this status. It should be noted that in our country this index is considered in a wider diapason: for in the Republic of Kazakhstan youth are citizens of the country from 14 to 25 (29) years old [13].

Historically, unemployment has been associated with various physical and psychological consequences, such as rising, alcohol and cigarette use, low self-esteem and life satisfaction. In addition to mental health, unemployment also has adverse effects on the physical health of young people [14]. Youth unemployment as a chronic disease has a number of complications [15] which are exacerbated by lifestyle factors of the unemployed young person, including irregular routines and diet, and increased stressful environment. Among the consequences of low youth employment, social, emotional and health problems can be singled out separately; moreover, this segment of the population is exposed to low levels of well-being. And, as we know, protecting the health of the young population is one of the most important tasks for the state.

Despite the growing recognition of youth unemployment as a critical issue, limited research has been conducted in Kazakhstan to examine the social determinants of health among unemployed youth. This study aimed to identify key social determinants influencing health of unemployed youth in Kazakhstan, focusing on assessing how economic inequality affects their quality of life. Existing studies often overlook the multidimensional impact of unemployment on physical, mental, and social well-being, and few have utilized comprehensive tools like Q-LES-Q to assess quality of life in this demographic. The study seeks to understand the interplay between economic inequality and health outcomes among this vulnerable population.

To achieve the expected goal, it is important to work out the following objectives:

1. Conducting a literature review on unemployment and its impact on general well-being
2. To analyse the impact of socio-economic inequality on the quality of life of unemployed youth using the Quality of Life, Enjoyment, and Satisfaction Questionnaire (Q-LES-Q).
3. To identify specific predictors of life satisfaction among unemployed youth, including physical and mental health of young people
4. To compare the quality-of-life indicators between Kazakhstani employed and unemployed youth.

Methodology

Quantitative study with elements of qualitative analysis was conducted to provide a deeper understanding of social determinants of health among unemployed youth.

Data Collection and Sample

Published international and national literature was reviewed, mainly devoted to the association of unemployment with the health and quality of life of the youth population, as well as to the organisation of health care for this contingent and some other issues. The search was carried out using the scientific international library systems such as PubMed, Springer, Elseiver, Web of Science, and Cochrane. A systematic keyword-based evidence search was conducted, using the PICO (TICO) methodology.

As part of a cross-sectional investigation, survey administered to unemployed youth to gather information on healthcare access, nutrition quality, and levels of physical and mental health. The standardised questionnaire Q-LES-Q (quality of life, enjoyment and satisfaction) was used. An integral index of quality of life was measured, which ranged from 14 to 70, where 14 was the worst value.

At the planning stage, the sample size was calculated using Lehr's formula. Purposive sampling of 669 participants aged 18 to 29 was performed, covering both urban and rural unemployed youth living in Kazakhstan in 2021. Of these: 184 (27.7%) unorganised respondents participated and 485 (72.3%) employed (working/student) respondents were enrolled as the control group. Participants were recruited through various communication channels, including employment centres, youth policy department, parties, NGOs, online forums and messengers.

The questionnaires were completed online - 651, in person - 18. A t-test was conducted to determine if there was a significant difference between the in-person or virtual responses and it was found that there was no difference in these responses. Therefore, it was decided to review the

data together. Sex, age, place of residence, education level of the respondent and his/her parents, and previous health status were used as covariates in the analyses. The survey consisted of 42 questions of which 17 were of general description, 25 aimed to study the impact of unemployment on the health of young people. Questions address income, education level, healthcare access, and daily habits.

Ethical Considerations.

The questionnaire was approved by the Local Ethical Commission. Participant confidentiality and voluntary participation in the study were ensured by study authors by obtaining hard-copy informed consent.

Data Analysis Methods

The methods of descriptive and analytical statistics were used. Statistical analysis of survey results was conducted using IBM SPSS Statistics 22 version software to identify correlations between socio-economic status and access to healthcare. Multiple regression was applied to assess relationships. The dependent variable was the quantitative variable 'Integral index of quality of life (according to Q-LES-Q)', the predictors were personal data of respondents and some other characteristics.

It should be noted that the investigation had several limitations including the subjectivity of the participants and the lack of long-term data.

Results

The Quality of Life, Enjoyment and Satisfaction Questionnaire (Q-LES-Q) is a self-report instrument designed to enable researchers to easily obtain sensitive measures of the degree of enjoyment and satisfaction experienced by subjects in various domains of daily activities.

According to the analysis, unemployed youth rated 53% "fair", 12 units higher than employed youth, who rated more than 9 % higher on the 'good' scale. The value of 'very poor' is the same in both cases.

Figure 1 shows the response options to the question 'How would you rate your overall satisfaction with your life in the last week?' among 18-29 years old unemployed and employed youth.

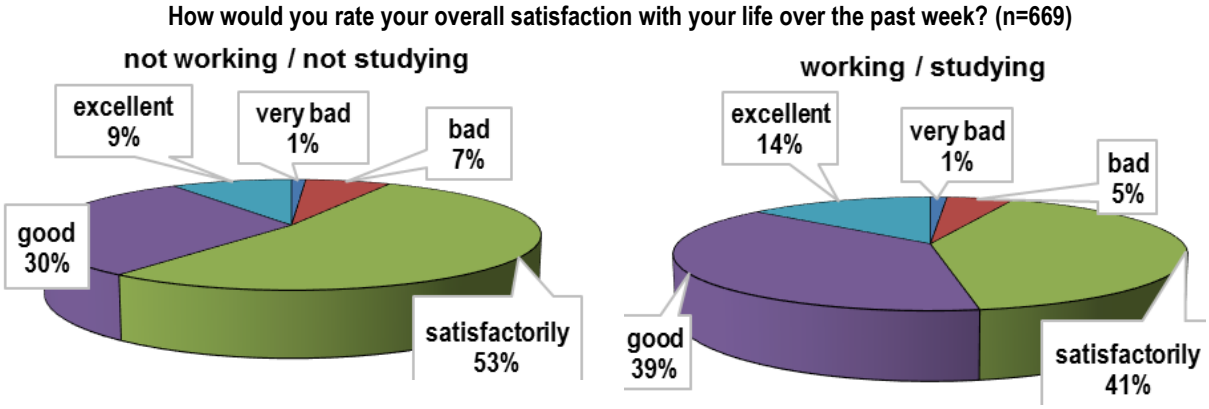

Figure 1. Respondents' assessment of overall life satisfaction.

From interviews conducted, employed young people feel more stable, which allows them not to worry about several daily activities. In contrast, the unemployed have a more marked concern, which is accompanied by an emotional impact. At the same time, the deterioration in overall quality of life is found more frequently in unemployed young people than in employed young people.

Figures 2 and 3 show the distribution of respondents' answers. According to the rules of interpretation of the Q-LES-Q scale, the scores are distributed from 14 to 70, where 14 is the worst score. As a result of evaluation of respondents' answers, the worst satisfaction indicators are present in the questions concerning the quality of "housing situation, physical health, economic condition", and vice versa, higher satisfaction results were shown in the sections "household affairs and social relations".

Table 1 presents descriptive statistics for the integral indicator of quality of life (according to Q-LES-Q).

The Mann-Whitney criterion was used to assess the differences between the average quality of life indicators in the groups of employed and unemployed young people: the difference is statistically significant (U=36878.5, Z=-3.472, p=0.001).

Multiple regression analysis was used to assess correlations. The dependent variable was the quantitative variable 'Integral indicator of quality of life (according to Q-LES-Q)'.

The following expected predictors of interest were analysed, which, in our belief, can affect the quality of life of unemployed youth: 'Gender', "Age", "Marital status", "Region of residence", "Place of residence", "Time of unemployment", "Education", "Mother's education", "Father's education", "Satisfaction with their education", "Occupation", "Sleep duration", "Time using social media", "Physical activity", "Financial well-being, after job loss/absence", 'Positioning with socioeconomic class', "COVID-19 disease fact", "Feeling supported by the government", "Feeling supported by family-parents", "Feeling supported by friends", "Assessment of one's (current) financial status", "Health problems in the last year", "Presence of chronic diseases", "Hospitalisation fact in the last year", "Smoking fact", "Alcohol consumption fact".

A stepwise inclusion method was used, in which the variables were entered into the model one at a time, until the regression equation was satisfactory, and the model was correct. A total of 7 steps were needed to select predictors that make a statistically significant contribution to the predictive ability of the model. The R-square measure was 0.582, which indicates that predictor variables can explain about 58% of the variation in the frequency of the dependent variable (quality of life of unemployed youth). The variables were tested for 'strong' relationship: there is no multicollinearity. The Durbin-Watson value was 1.858, with no autocorrelation.

According to the results of regression analysis, the model includes such predictors as 'Financial well-being, after job loss/absence (b=1.670, p=0.079)', 'Alcohol consumption (b=2.861, p=0.063)', 'Region of residence b=0. 379, p=0.009', "Feeling supported by the state b=-5.309, p=0.009", "Assessment of one's (current) financial situation b=2.127, p=0.012", "Marital status b=4.624 p=0.003" and "Occupation b=-1.115, p=0.049" (Figure 4). The other predictors were excluded, according to the results of the analysis, due to their insignificance. Thus, when assessing the quality of life of unemployed youth, reliable predictors of the level of satisfaction with the quality of life were the level of government support, financial well-being, and satisfaction with the quality of medical care.

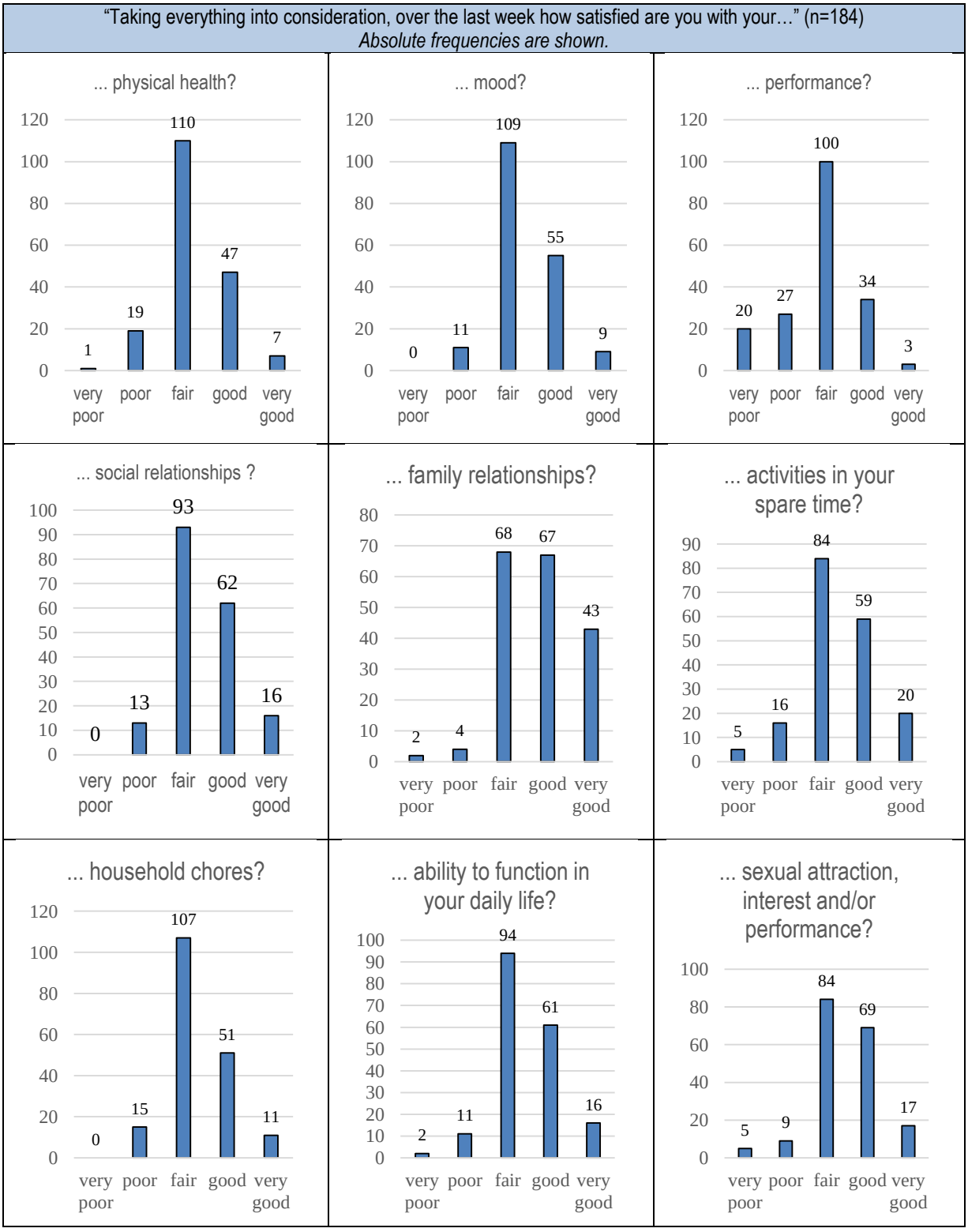

Figure 2. Distribution of respondents' satisfaction with life aspects over the past week. Absolute frequencies.

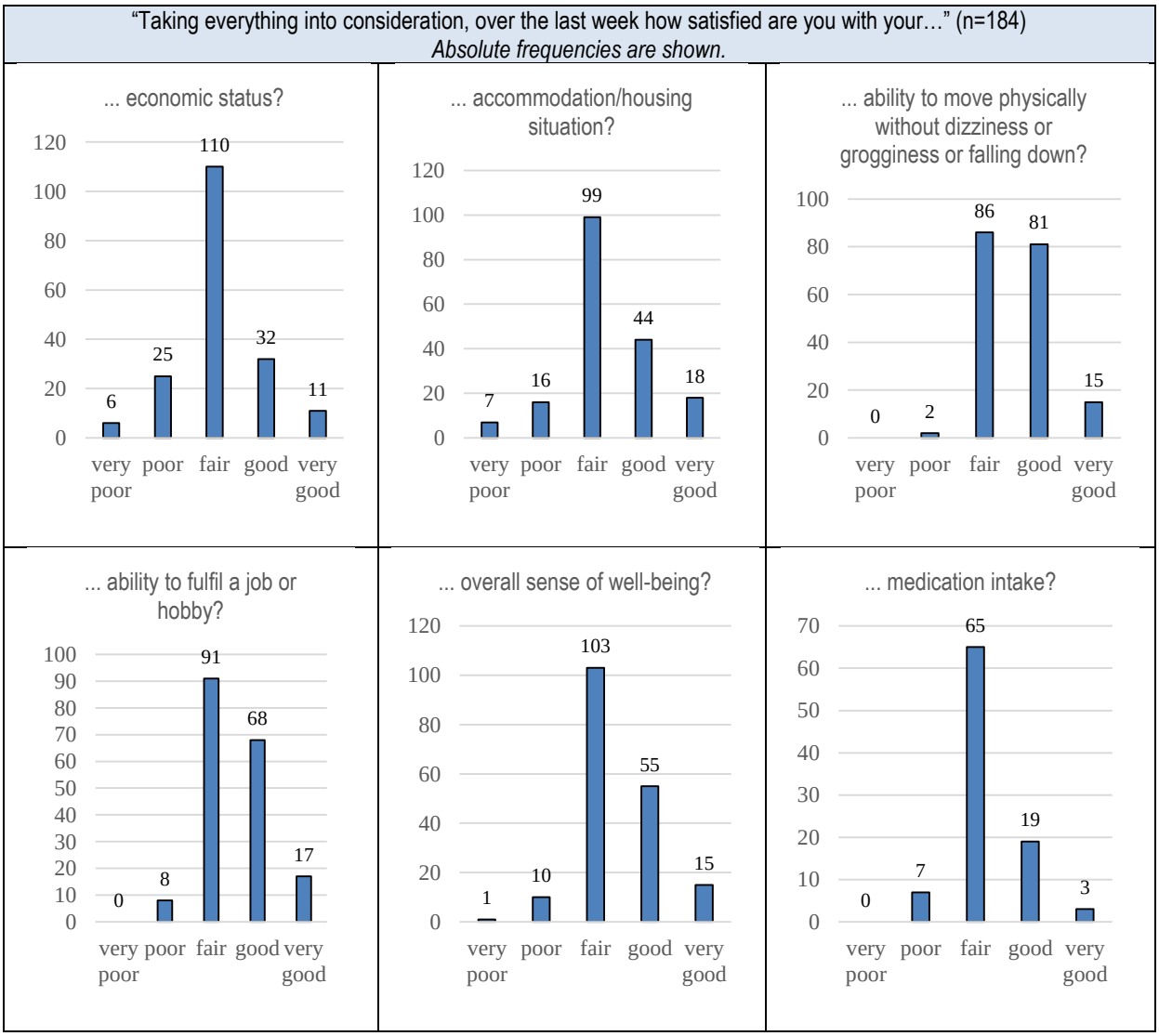

Figure 3 - Distribution of respondents' satisfaction with life aspects over the past week. Absolute frequencies (cont'd).

Table 1.

Descriptive statistics for the integral indicator of quality of life (according to Q-LES-Q).

Statistical indicator		Social status	
		working / studying	not working / not studying
Mean		49,40	47,09
Standard error of the mean		0,405	0,544
Median		49,0	45,0
Mode		42	42
Dispersion		79,531	54,521
Minimum		16	31
Maximum		70	70
Percentiles	25	43,0	42,0
	50	49,0	45,0
	75	56,0	52,0

Discussion

The findings of our investigation using the Quality of Life, Enjoyment and Satisfaction Questionnaire (Q-LES-Q) underscore indicate significant disparities between employed and unemployed youth in various fields of daily life satisfaction.

In general, the quality of life of Kazakhstani youth is slightly above the threshold level (above 50%). Meanwhile, in the cohort of unemployed youth, the quality of life is significantly lower by 12% compared to employed youth (differences in average quality of life indicators are significant at the level of p=0.001). Despite this finding, a deeper analysis depicts that employed (working/studying) young people scored 9% higher on the 'good' scale and reported greater stability in daily activities, suggesting a more balanced sense of well-being. This moment is corroborated with existing studies reporting that unemployed people are likely to have heightened concerns and emotional stress, and poorer health related quality of life than employed people [16, 17].

In previous studies, such socio-demographic components as age gender, education level, marital status, household income, geographic location, and social network and support most used in statistical models and in the reporting of stratified assessments [18, 19]. An analogous pattern was obtained in our investigation demonstrating that the quality of life of unemployed youth is associated with such predictors as: 'Financial well-being', "Region of residence", "Marital status" and "Occupation".

The analysis on quality of life of unemployed young people emphasized the lowest satisfaction scores in such factors as “housing situation, physical health, and economic condition”, aligning with literature that highlight inadequate housing and overall economic strain as critical predictors [20].

Model Summary

Model	R	R Square	Adjusted R Square	Std.Error of Estimate
1	.492	.242	.231	7053
2	.595	.354	.335	6558
3	.656	.430	.405	6205
4	.692	.479	.447	5983
5	.717	.514	.476	5824
6	.745	.555	.513	5613
7	.763	.582	.535	5483

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std.Error	Beta	t	Sig.
1	(Constant)	41.380	1.737		23.829	.000
	Financial well-being, after job loss/absence	4.587	.984	.492	4.661	.000
2	(Constant)	33.172	2.897		11.451	.000
	Financial well-being, after job loss/absence	4.082	.927	.438	4.404	.000
	Alcohol consumption fact	5.567	1.631	.339	3.413	.001
3	(Constant)	30.246	2.912		10.386	.000
	Financial well-being, after job loss/absence	3.353	.911	.360	3.682	.000
	Alcohol consumption fact	5.123	1.551	.312	3.304	.002
	Region of residence	.449	.151	.289	2.973	.004
4	(Constant)	41.745	5.475		7.624	.000
	Financial well-being, after job loss/absence	2.555	.937	.274	2.728	.008
	Alcohol consumption fact	4.618	1.509	.282	3.060	.003
	Region of residence	.465	.146	.300	3.190	.002
	Feeling supported by the government	-5.222	2.134	-.238	-2.447	.017
5	(Constant)	37.174	5.74		6.476	.000
	Financial well-being, after job loss/absence	1.765	.983	.189	1.795	.077
	Alcohol consumption fact	4.103	1.489	.25	2.756	.008
	Region of residence	.444	.142	.287	3.127	.003
	Feeling supported by the government	-5.081	2.079	-.232	-2.444	.017
	Assessment of one's (current) financial status	1.849	.862	.213	2.144	.036
6	(Constant)	29.763	6.315		4.713	.000
	Financial well-being, after job loss/absence	1.918	.950	.206	2.019	.048
	Alcohol consumption fact	3.988	1.435	.243	2.778	.007
	Region of residence	.467	.137	.302	3.406	.001
	Feeling supported by the government	-4.751	2.088	-.217	-2.367	.021
	Assessment of one's (current) financial status	2.210	.844	.255	2.618	.011
	Marital status	3.386	1.392	.211	2.432	.018
7	(Constant)	35.309	6.761		5.223	.000
	Financial well-being, after job loss/absence	1.670	.936	.179	1.785	.079
	Alcohol consumption fact	2.861	1.511	.174	1.894	.063
	Region of residence	.379	.141	.245	2.687	.009
	Feeling supported by the government	-5.309	1.981	-.242	-2.68	.009
	Assessment of one's (current) financial status	2.127	.826	.245	2.576	.012
	Marital status	4.624	1.493	.288	3.096	.003

Figure 4 - Dependence of the quality of life of unemployed youth on some studied predictors (regression statistics).

As can be seen from the survey results, greater satisfaction was noted in “household affairs and social relations,” reflecting the resilience of social connections that mitigate some of the negative effects of unemployment.

Our results cast a light on financial well-being, that appeared as an important determinant (β=1.670, p=0.079). This result ties well with previous studies wherein financial uncertainty exacerbates stress and decreases life

satisfaction among unemployed populations [21]. However, persistent economic inequalities may exacerbate inequalities, as expressed in lower rates of satisfaction with physical health and residential conditions.

Moreover, our results provide evidence to include indicators “Feeling supported by the government” and “Fact of alcohol consumption” among those affecting quality of life. Variables were tested for ‘strong’ association: no multicollinearity. The Durbin-Watson value was 1.858, which means there is no autocorrelation.

Alcohol use (β=2.861, p=0.063) and physical health problems had a negative impact on quality of life, which is consistent with previous research in the literature linking unemployment to higher levels of substance use and poor health outcomes [22]. Similar trends were highlighted by Jørgensen et al. (2019), which reveals that there is strong association between high alcohol consumption and likelihood of unemployment among employed individuals [23]. Consequently, chronic health problems and poor access to health care further exacerbated these problems, requiring targeted interventions to address health inequalities among unemployed youth.

Planned comparisons revealed that perceived lack of government support (β=-5.309, p=0.009) among participants notably predicted lower quality of life. This finding highlights the role of state interventions in mitigating unemployment’s impact. A similar conclusion was reached by other studies, pointing to the need for robust social protection systems to support vulnerable categories [24]. Others have shown that family and social support were interplayed with higher life satisfaction, in line with the defensive function of close relationships in coping with stress and economic hardship, even though it depends on gender [25].

The findings underscore the need for multi-sectoral approaches to address the social determinants of health among unemployed youth. The broad implication of the present research lies in a call for government intervention. Recommended policies should prioritise economic assistance, strengthening state and community support systems to increase resilience and social inclusion. In addition, improving access to health care will be fundamental to addressing chronic diseases and developing preventive care for socially vulnerable populations such as unemployed youth.

While this study provides valuable insights, it is limited by its cross-sectional design, which precludes causal inferences. Future research should explore longitudinal data to examine the long-term effects of unemployment on quality of life. Additionally, qualitative studies could deepen understanding of individual experiences and coping mechanisms.

Conclusion

In summary, this paper argued that unemployment has the most negative consequences for vulnerable groups, including young people. The study emphasises the significant impact of economic inequality and social determinants on the quality of life of unemployed youth in Kazakhstan. Findings show that unemployment leads to reduced satisfaction in key areas such as financial well-being, housing, and physical health, while increasing emotional stress and concerns about daily life. Reliable predictors of quality of life included financial well-being, government and social support, and satisfaction with medical care. The findings highlight the urgent need for targeted policies and interventions to reduce economic burdens, increase access to health care, and strengthen social safety nets. Addressing these challenges is essential to improve the well-being and resilience of unemployed youth. To further understand the complex relationship between youth unemployment and quality of life, future long-term studies are required.

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Conceptualisation – S.D., M.G.; methodology - S.D. K.M.; verification - S.D. M.U.; formal analysis -M.G., S.D.; writing (original drafting) - S.D.; writing (review and editing) – M.G.

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References:

1. *Horvath T., Leoni T., Reschenhofer P., Spielauer, M.* Socio-economic inequality and healthcare costs over the life course - A dynamic microsimulation approach. Public health, 2023. 219, 124–130. https://doi.org/10.1016/j.puhe.2023.04.001

2. *Kumar R., Paswan B.* Changes in socio-economic inequality in nutritional status among children in EAG states, India. Public health nutrition, 2021. 24(6), 1304–1317. https://doi.org/10.1017/S1368980021000343

3. *Maleki A., Faghihzadeh E., Youseflu S., Barjasteh, S.Z.* Socio-economic inequalities in health-related quality of life among Iranian young people in the middle stage of adolescence: application of Health Equity Assessment Toolkit. BMC pediatrics, 2023. *23*(1), 16. https://doi.org/10.1186/s12887-022-03815-z

4. *Wanberg C.R.* (2012). The individual experience of unemployment. *Annual review of psychology*, *63*, 369–396. https://doi.org/10.1146/annurev-psych-120710-100500

5. OECD (2017), *Building Inclusive Labour Markets in Kazakhstan: A Focus on Youth, Older Workers and People with Disabilities*, OECD Publishing, Paris, https://doi.org/10.1787/9789264273023-en.

6. *Serikbayeva B.* Education-job mismatch in the labor market of Kazakhstan: implications for public policy. Nazarbayev University Graduate School of Public Policy. 2022. URL: https://nur.nu.edu.kz/handle/123456789/8231

7. *Von Wachter T.* The persistent effects of initial labor market conditions for young adults and their sources. Journal of Economic Perspectives. 2020. 34:168–194. doi: 10.1257/jep.34.4.168. [DOI]

8. *Vancea, M., Utzet, M.* How unemployment and precarious employment affect the health of young people: A scoping study on social determinants. Scandinavian journal of public health, 2017. 45(1), 73–84. https://doi.org/10.1177/1403494816679555

9. *Gajewski, P., & Zhukovska, K.* (2017). Short-run and long-run effects of unemployment on suicides: does welfare regime matter? *European journal of public health*, *27*(6), 1038–1042. https://doi.org/10.1093/eurpub/ckx180

10. World Health Organization. (n.d.). Proportion of young people aged 15–24 years not in education, employment, or training. URL:

https://www.who.int/data/gho/indicator-metadata-registry/imr-details/proportion-of-young-people-aged-15-24-years-not-in-education-employment-or-training

11. World Bank. (n.d.). World development indicators: Youth not in education, employment, or training (NEET). URL: https://databank.worldbank.org/metadataglossary/world-development-indicators/series/SL.UEM.NEET.FE.ZS

12. International Labour Organization. (2024). *Global employment trends for youth 2024*. International Labour Office. URL: https://www.ilo.org/publications/major-publications/global-employment-trends-youth-2024

13. Law of the Republic of Kazakhstan. On State Youth Policy: adopted on 9 February 2015, No. 285-V ZRK (as amended on 07.07.2020). https://adilet.zan.kz/rus/docs . 05.10.2020.

14. *Stauder J.* (2019). Unemployment, unemployment duration, and health: selection or causation? The European journal of health economics: HEPAC: health economics in prevention and care, 20(1), 59–73. https://doi.org/10.1007/s10198-018-0982-2

15. *Broomhall H.S., Winefield A.H.* A comparison of the affective well-being of young and middle-aged unemployed men matched for length of unemployment. The British journal of medical psychology, 1990. 63 (Pt 1), 43–52. https://doi.org/10.1111/j.2044-8341.1990.tb02855.x

16. *Norström F., Waenerlund A.K., Lindholm L., Nygren R., Sahlén K.G., Brydsten A.* Does unemployment contribute to poorer health-related quality of life among Swedish adults? BMC public health, 2019. 19(1), 457. https://doi.org/10.1186/s12889-019-6825-y

17. *Zhao Y., Zhou Z., Fan X., Nawaz R., Zhao D., Xu T., Su M., Cao D., Shen C., & Lai S.* Comparison of inequity in health-related quality of life among unemployed and employed individuals in China. BMC public health, 2021. 21(1), 52. https://doi.org/10.1186/s12889-020-10038-3

18. *Norström F., Virtanen P., Hammarström A., Gustafsson P.E., Janlert U.* How does unemployment affect self-assessed health? A systematic review focusing on subgroup effects. BMC public health, 2014. 14, 1310. https://doi.org/10.1186/1471-2458-14-1310

19. *Roos E., Lahelma, E., Saastamoinen P., & Elstad J.I.* The association of employment status and family status with health among women and men in four Nordic countries. Scandinavian journal of public health, 2005. 33(4), 250–260. https://doi.org/10.1080/14034940510005680

20. *Marc Hooghe, Bram Vanhoutte, Wim Hardyns, Tuba Bircan,* Unemployment, Inequality, Poverty and Crime: Spatial Distribution Patterns of Criminal Acts in Belgium, 2001–06, The British Journal of Criminology, Volume 51, Issue 1, January 2011, Pages 1–20, https://doi.org/10.1093/bjc/azq067

21. *Achdut N., Refaeli, T.* Unemployment and Psychological Distress among Young People during the COVID-19 Pandemic: Psychological Resources and Risk Factors. International journal of environmental research and public health, 2020. 17(19), 7163. https://doi.org/10.3390/ijerph17197163

22. *Nolte-Troha C., Roser P., Henkel D., Scherbaum, N., Koller G., Franke A.G.* Unemployment and Substance Use: An Updated Review of Studies from North America and Europe. Healthcare (Basel, Switzerland), 2023.11(8), 1182. https://doi.org/10.3390/healthcare11081182

23. *Jørgensen M.B., Pedersen J., Thygesen L.C., Lau.C.J., Christensen A.I., Becker U., Tolstrup, J.S.* Alcohol consumption and labour market participation: a prospective cohort study of transitions between work, unemployment, sickness absence, and social benefits. European journal of epidemiology, 2019. 34(4), 397–407. https://doi.org/10.1007/s10654-018-0476-7

24. *Yokobori Y., Kiyohara H., Mulati N., Lwin K.S., Bao T.Q.Q., Aung M.N., Yuasa.M., Fujita, M.* Roles of Social Protection to Promote Health Service Coverage among Vulnerable People toward Achieving Universal Health Coverage: A Literature Review of International Organizations. International journal of environmental research and public health, 2023. 20(9), 5754. https://doi.org/10.3390/ijerph20095754

25. *Artazcoz L., Benach J., Borrell C., Cortès I.* Unemployment and mental health: understanding the interactions among gender, family roles, and social class. American journal of public health, 2004. 94(1), 82–88. https://doi.org/10.2105/ajph.94.1.82

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