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THE RELATIONSHIP BETWEEN THE LIVING ENVIRONMENT AND PEOPLE ATTITUDES TOWARDS HEALTHCARE SYSTEM. CASE OF RUSSIA AND ROMANIA

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Abstract: *This article focuses on the problems of healthcare systems in Russia and Romania from the perspective of patients due to the current requirement to address the improvement of healthcare systems from the customer perspective. The article's purpose is to identify the patients' attitudes towards the main problems of the systems in the two countries and their satisfaction with public clinics. These attitudes were analyzed in relationship with the residence area of the respondents (urban or rural). The results of this research can assist decision makers in finding problems that demands specific upgrades, adjustments, and innovations in healthcare. An electronic survey was conducted on over 400 persons from Russia and Romania. The results reveal that in Russia the problems of the healthcare system are not appreciated differently by the urban and rural residents, while in Romania the rural population is more concerned of these problems. Instead, the analysis of satisfaction with public clinics reveals opposite results.*

Keywords: *marketing research, Russian healthcare, Romanian healthcare; satisfaction with public clinics; health innovations*

1. Introduction

The need to adapt the healthcare systems to the new conditions caused by the changes of recent years led to the division of various hospitals and to the division of patients into groups, which in the majority could entail large-scale changes in the section per patient and attitude to healthcare. The experience of advanced countries during this period raised the opportunity to improve the patient's health and the quality of healthcare systems in Russia and Romania. This opportunity is a marketing challenge that has led to the need of research meant to identify patients' attitudes toward healthcare in relation to large-scale changes in the world.

The study aims to determine how citizens of the two countries relate to the public

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healthcare system, with particular attention to the differences between rural and urban areas, in order to outline some proposals for a future strategy to improve the healthcare systems of Russia and Romania. Starting from this goal the research had the following objectives: (O1) To measure the patients' attitudes toward the innovations in healthcare systems, with focus on the differences between patients living in urban and rural areas; (O2) To measure the satisfaction of patients with public clinics and the relationship between the satisfaction level and living environment (urban or rural).

2. Methodology

Taking into account the topic raised and the nature of the problem, a survey was conducted to achieve the objectives. A survey was conducted among citizens of Russia and Romania who visited a public or private clinic that had access to the Internet during the survey. The final sample of this study consists of 410 people from the two countries surveyed in this context (from Russia n = 224, from Romania n = 186) who agreed to answer the questions of the questionnaire. Data collection was carried out online using Google Forms, which is the recommended way to collect data for creating large databases, allowing you to test research hypotheses (Mondal et al., 2018). We have used "Living environment" as a standard for our sample with the aim to reveal the differences in attitudes towards medical clinics and their quality between the urban and the rural residents (Travnikova & Shubina, 2020).

A carefully structured questionnaire was developed to collect the data, containing 16 questions. The testing variables used in this study were measured by numerical scale with 5 levels with equal intervals between neighboring levels. The period allotted for data collection was 3 weeks, from March 1, 2022 to March 22, 2022, after which answers were recorded from exactly 500 people who met the required conditions of the study. Subsequently, 110 questionnaires were excluded from the data analysis because they were non-compliant for various reasons (a strong bias towards urban residents, situations in which the same answer was chosen throughout the questionnaire, etc.).

Comparison between the sample structure and population structure Table 1

	Russia		Romania	
	Urban	Rural	Urban	Rural
Distribution of population by country	75.4%	24.6%	63.1%	36.9%
Sampling structure by country	80.4%	19.6%	68.1%	31.9%

(Source: Compiled by the authors based on the data (INSSE, 2021; ROSSTAT, 2021))

To validate the sample structure according to the living environment, a t-Student test was conducted to compare the differences between percentages using the SPSS system. After applying this test, due to the level of significance (2-tailed), the value of which is equal to (sig = 0.05), with a probability of 95% it is guaranteed that there is no significant difference between the structure of sample and the structure of population according to the living environment. Thus, the sample is validated.

3. Results and Discussions

The results of his study are presented for every research objective in the following subsections. For every objective we established specific hypotheses that were tested with the t-Student test by using SPSS system.

3.1. (O1) To measure the patients' attitudes towards the innovations in healthcare systems, with focus on the differences between patients living in urban and rural areas

We started from a hypothesis (№1) which explores whether there is a relationship between the attitudes towards the lack of investigations for health innovations in the country and the living environment. The attitudes towards the health innovations are important because the lack of innovations can lead to a general health problem. It is also important to obtain positive attitudes of people towards innovations because they are the main beneficiary of the health services and need to have confidence in the healthcare system.

H_0: There is no relationship between the attitudes towards the problem of health innovations and living environment

H_1: There is a relationship between the attitudes towards the problem of health innovations and living environment

Mean scores and t-Student test results Table 2

Country	Lack of investigations for new health innovations inside country			t	Sig. (2tailed)
	Mean (Std. Deviation)				
	Urban	Rural	Total		
Russia	2.56 (1.14)	2.42 (0.95)	2.49 (1.05)	0.76	0.451
Romania	2.19 (0.95)	2.55 (1.08)	2.32 (1.02)	-2.18	0.032

The descriptive statistic reveals for residents in urban areas a mean of 2.56 points (SD=2.42) on a 5-level scale (5=very problematic) and a mean of 2.42 points (SD = 0.95) for rural areas. The test results revealed that for Russia t = 0.76 and p = 0.451 (p > 0.050). These findings indicate that the null hypothesis should be accepted and we cannot accept with a 95% probability the existence of a relationship between the attitudes towards the problem of investments in health innovations and the living environment.

For Romania, the mean registered for urban residents is 2.19 points (SD = 0.95), and 2.55 points (SD = 1.08) for those from rural areas. According to the results of t-Student test, there is a significant relationship between the attitudes towards the problem of poor investigations in health innovations and living environment (t = -2.18, p = 0.032 < 0.050. With that being found we see that Romanian respondents from rural area consider in a higher extend the lack of innovation investigations in clinics as a problem of the healthcare system than the urban residents. This confirm other findings in literature, which consider that innovations need special attention (Radulescu, 2012). But in case of Russia the attitudes regarding the health innovations in different areas doesn't

vary too much. But still there is a possibility to be true in the situation of an extensive research with focus on health innovations for Russia (Dondokova & Yundunova, 2017).

The hypothesis (№2) explores if there is a relationship between the attitudes towards the need to cure patients with complex diseases in other countries and patient's living environment. Here, we identified the attitudes of urban and rural residents towards the situations when a hard disease can't be cured as intended inside the system and the patient need to be transported in one of developed countries.

H_0: There is no relationship between the attitudes towards the need to cure a patient in other countries and living environment

H_1: There is a relationship between the attitudes towards the need to cure a patient in other countries and living environment

Mean scores and t-Student test results Table 3

Country	In most cases patient ends up being cured in other countries			t	Sig. (2tailed)
	Mean (Std. Deviation)				
	Urban	Rural	Total		
Russia	3.95 (1.26)	4.12 (1.02)	4.03 (1.14)	-0.93	0.354
Romania	3.50 (1.38)	3.98 (1.04)	3.74 (1.21)	-2.62	0.010

The results at the level of sample reveal differences between the means recorded for urban residents (M = 3.95 points, SD = 1.26) and for rural residents (M = 4.12 points, SD = 1.02). The results of t-Student test revealed that in Russia there is no significant relationship between the level of agreement with the statement that "in most cases patient ends up being cured in other countries" and living environment ($t = -0.93$, $p = 0.354 > 0.050$). These findings indicate that the null hypothesis is correct and we cannot accept with a 95% probability the existence of this relationship.

For Romania, the mean score for urban residence is of 3.50 points (SD = 1.38) and for rural residents of 3.98 points (SD = 1.04). In this case the difference between the two means can be considered significant according to the t-Student test ($t = -2.62$, $p = 0.010 < 0.050$). These findings indicate that the level of agreement with the statement that "in most cases patient ends up being cured in other countries" and living environment. Universal Health Insurance effects on how the complex medical procedures are implemented, in most cases it provides a good level of low and medium services (Murashko, 2017) while high-end are of low quality (Abubakirov et al., 2019). But as we found in the result it might be that Romania being a part of E.U. offers people to be transported inside E.U. while Russia inside it borders (Kirillov & Putincev, 2012).

3.2. (O2) To measure the satisfaction of patients with public clinics and the relationship between the satisfaction level and living environment (urban or rural)

For these objectives we considered the hypothesis (№3), which explores if there is a relationship between living environment and satisfaction with public clinics.

H_0: There is no relationship between living environment and satisfaction with public clinics
H_1: There is a relationship between living environment and satisfaction with public clinics

Mean scores and t-Student test results Table 4

Country	Satisfaction with Public Clinic Mean (Std. Deviation)			t	Sig. (2tailed)
	Urban	Rural	Total		
Russia	2.77 (0.86)	2.45 (0.93)	2.61 (0.89)	2.10	0.049
Romania	2.68 (0.72)	2.86 (0.73)	2.77 (0.73)	-1.40	0.165

According to the descriptive statistic, the satisfaction with public clinics is higher in urban areas than in rural ones in Russia, while in Romania the results are opposite. Nevertheless, in both countries the satisfaction level is quite low, being smaller than the neutral level of the scale (3 points). In Russia, the mean score of satisfaction is of 2.77 points (SD = 0.86) in urban areas and of 2.45 points (SD = 0.93) in rural. Testing revealed that there is a significant relationship between the satisfaction with public clinics and the living environment ($t = 2.10$, $p = 0.049 < 0.050$). In Romania the mean of satisfaction is 2.68 points (SD = 0.72) in urban areas and 2.86 points (SD = 0.73) in rural. In this case, the difference between the two means is not statistically significant according to the results of t-Student test ($t = -1.40$, $p = 0.165 > 0.050$). In conclusion, we cannot accept with a 95% probability that exists a relationship between the satisfaction with public clinics and the living environment. This hypothesis brings a lot of impact in our research. Now we can confirm that in Russia rural area healthcare clinics offer worse circumstances for being cured over the time which also can be proved with some authors (Filatov & Skripin, 2007). It can be accepted as Russia obviously is a big territory with far-distanced villages, which can be the source of problems while Romania is a decent territory which gives the opportunity to control most territories on the near the same level (Bitkova, 2014).

4. Conclusions

As a result of testing the statistical hypotheses considered in this article in order to achieve the research objectives, we can conclude that in first hypothesis Romanian rural respondents consider the lack of innovations as a problem of the healthcare system in a greater measure than the urban population. On the contrary innovation in different fields in Russia does not vary greatly from rural to urban but such difference may be true only in the event of an extensive research. It can be noticed that in both countries the results reveal a low level of concern regarding the lack of health innovations, as the mean scores are below the neutral level of the scale (3 points). Regarding the second hypothesis, there is a relation between the living area of the patients and how they consider the need to be cured in other countries for Romania. In most circumstances, the Universal Health Insurance model gives a good level of low and middle services,

whereas high-end services having offering problem or low quality. If we correlate this finding with literature, the Romania's membership in the E.U. allows patients to be treated in European countries. For Russia, again the relationship between the considered variables is not significant. The third hypothesis testing showed us that in Russia there was a significant relationship between the satisfaction with public clinics and the living environment. In Russia, rural area healthcare clinics offer worse circumstances for being cured over the time. For the last hypothesis, the relationships between considered variables cannot be accepted for a confidence level of 95% according to the results obtained for Romania.

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