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Regular Article

An evaluation of the quality of services provided by the Integrated homeless center of the city of Athens, Greece

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ABSTRACT

The phenomenon of homelessness is a major social issue that concerns modern societies. The present study deals with the issue of homelessness and analyses the level of quality of services received by the guests of the Integrated Homeless Center of the city of Athens through their level of satisfaction. In order to evaluate the satisfaction of the guests of the Centre, a quantitative survey was conducted with a non-probability convenient sample of 127 homeless people accommodated in the dormitory and the hostel of the center, using the SERVQUAL (Service Quality) questionnaire. The Kolmogorov-Smirnov test showed that age was normally distributed, while the quality dimensions and time on street/Center were not, therefore non-parametric tests were used for their analysis. Specifically, the one-sample Wilcoxon, Mann-Whitney U, and Kruskal-Wallis H tests (along with ANOVA for age) were employed to assess differences in the quality dimensions: a) from one value, b) in two independent groups, c) in more than two groups respectively. Spearman's correlation was used to test linear relationships between quantitative variables. The results of the survey show a high level of beneficiary satisfaction with the full range of services provided, across all five dimensions of quality. Guests with a chronic health problem seem to be less satisfied with the quality of services, while guests with a higher educational level are less satisfied with the facilitation of developing social relationships within the Centre. The extent to which the staff of the Centre facilitates the development of social relationships was not rated positively.

1. Introduction

Housing is one of the most fundamental human needs, and its absence in the contemporary era represents a significant social issue, resulting in instances of housing deprivation and extreme social exclusion. Housing deprivation is not a novel phenomenon; it has been on the rise globally since the 1980s (Nickasch et al., 2008). In accordance with Greek legislation, individuals who are homeless are defined as those who are legally resident in the country and who live on the streets, in institutions, hostels, shelters, temporary accommodation or in unsafe or unsuitable housing conditions (law. 4052/2012). A commonly accepted international definition of homelessness according to FEANTSA (European Federation of National Organizations Working with the Homeless) is: *"the lack of adequate housing (or space) sufficient to meet the needs of the individual and his/her family (physical dimension), the lack of privacy and social relations (social dimension), and the lack of exclusive ownership, security, and legal title (legal dimension)"* (Baskozou, 2021; FEANTSA, 2009a).

In Greece, the phenomenon of housing deprivation and of homeless people has emerged as a particularly serious and growing over the last few years. It appears to be directly related to the impact of the deep economic crisis and the large increase of extreme poverty and social exclusion, combined with more general chronic weaknesses of the social protection and welfare system (Meanwell, 2012). Housing deprivation is a multi-dimensional issue that encompasses a range of problems related to unemployment, mental and physical health issues, a lack of social support networks, extreme social exclusion and so forth (Bramley & Fitzpatrick, 2018; Meanwell, 2012). The phenomenon of homelessness is not merely a superficial issue; it has broader implications that demonstrate the inadequacy of national strategies in dealing with it. These inadequacies have contributed to leading an individual to homelessness (Meanwell, 2012).

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The causality factors that give rise to the phenomenon of homelessness can be categorized into four main groups: *institutional*, *structural*, *relational* and *individual/personal* (Edgar, 2009). The *institutional factor* amongst others includes: lack of social support networks, lack of supportive services due to special circumstances (e.g., rural areas) or undiagnosed health conditions and unavailability of social housing allocations for certain groups (e.g., immigrants or people on low incomes). The *structural factor* encompasses: poverty, discrimination based on nationality or gender, social exclusion, as well as factors that lead to the prevention or loss of rights to access to housing, social protection, and health care. *The relational factor* incorporates: domestic violence, the increase in divorce or separation, the loss of a partner in the later stages of life (especially among older men) and others. Finally, the *individual/personal factor* focuses on personal problems such as gambling, addictions, personal depts, etc. (Edgar, 2009).

It is widely acknowledged that individuals experiencing homelessness have significant health and social care needs (Bramley & Fitzpatrick, 2018). However, they frequently encounter obstacles to accessing these services (Magwood et al., 2019), largely due to social exclusion (Fazel et al., 2014) and stigma within society (Rayburn & Guittar, 2013). Stigma is defined as "a multi-step process involving firstly labelling and separation of the stigmatized individual or group which causes status loss and discrimination in a context of power differentials" (Link & Phelan, 2001). Studies have shown that people experiencing homelessness avoid health services due to perceived stigma and negative attitudes from health providers (Biederman & Nichols, 2014; Campbell et al., 2015; Ramsay et al., 2019; Varley et al., 2020). Research has also confirmed that stigma experienced in homelessness is associated with poor physical and mental health (MacKenzie & Purkey, 2019; Feantsa; 2009a; Greysen et al., 2013; Reilly et al., 2022; Skosireva et al., 2014; Wiez and Quinn, 2018; Zlotnick et al., 2013).

The protection of housing is the responsibility and duty of the state, as it is a fundamental social right (Edgar et al., 2003). The Member States of the European Union address the issue of housing exclusion in the broader context of the protection of fundamental human rights as set out in the Charter of Fundamental Rights of the European Union and the International Covenant on Civil and Political Rights (Barca, 2014). In advanced European countries, comprehensive measures have been implemented to address the issue of housing deprivation. These measures are designed to prevent the occurrence of housing exclusion and to ensure the provision of housing for individuals at risk of homelessness or living in inadequate housing conditions. In Greece, until the 1980s, the gap in social protection was filled by the support network of the family, which has always been very powerful. However, after the pressures and effects of the economic crisis, the institution of the family lost its momentum and eventually people who relied on this type of protection were exposed on the risk of housing deprivation (Kourachanis, 2017a, 2017b). Social policies have responded with isolated measures or actions, without comprehensive strategies. The main obstacle was that responsibilities are not concentrated in one authority, which makes coordinated action difficult. Some of these measures or actions taken were the following (Asimopoulos et al., 2015; Kurakhanis, 2017).

- The National Network for Direct Social Intervention, which implemented the Social Structures for the Immediate Treatment of Poverty (Ministry of Labor, 2012), providing services such as day centers, sleep centers and soup kitchens.
- In 2012, homeless people were legally recognized as a vulnerable group (Article 29 of Law 4052/2012).
- In 2013, a National Action Plan to address homelessness was drawn up, but it was not implemented, and
- In 2014, the Ministry of Labor, Social Welfare and Insurance created the "Housing and Reintegration" program, aimed at strengthening independent living and social reintegration through rent subsidies, psychosocial support and labor integration.
- The Guaranteed Minimum Income was introduced in 2014.
- Action "Emergency Needs of Homeless Persons from Extreme Weather Conditions" (2013) and the "Establishment of a framework of minimum standards for the operation of short-term social hostels and open day centers for homeless persons" (Government Gazette 297/February 11, 2014 and Government Gazette 297/February 11, 2014)
- Law 4320/2015 which aims to take measures to address the humanitarian crisis in the form of rent and food allowances and free reconnection and electricity supply.
- The operation of 6 Shelters run by the National Centre for Social Solidarity (NSCS), 7 Shelters run by Non-Governmental Organizations and a few Shelters of local government such as the Integrated Centre for the Homeless of the Municipality of Athens (KYADA).

KYADA is a contemporary 24-h facility, aimed to provide support for the vulnerable populations by addressing poverty, exclusion, and social isolation. The Center was established by Presidential Decree 289/1999 approved as an Internal Service Organization (Government Gazette 304 issue B/8-3-2005), and began its operation in November 2005. Its mission is to assist the city's most vulnerable groups by providing food, shelter, clothing, medical care, and other services; conducting research and implementing their findings and also developing facilities to meet the needs of the guests (KYADA, n.d.). KYADA's services also include: a kitchen for free food distribution, dormitories for the poor and homeless, social services such as a pharmacy, a grocery store, a laundry, a Citizens Mutual Aid Hub for the distribution of food, an Athenian Market for free clothes and necessities, and a social stationery store. At the same time, the social reintegration of the guests is promoted through programmes implemented in cooperation with the central administration and other bodies, such as the "Housing and Work" programme of the Agency for Welfare and Social Solidarity. (KYADA, n.d.).

KYADA is the core of social solidarity in the city of Athens, but there has been no evaluation of the quality of its services so far. The quality of services provided by an organization to its users is a critical factor in determining the operational effectiveness, as well as the satisfaction and meeting of the needs of its users. This was the incentive for the present which aims to determine the views and perceptions of the beneficiaries of the Integrated Homeless Centre of the city of Athens (KYADA) (Dormitory and Hostel).

The specific objectives of this study are, therefore, to (i) evaluate the level of quality through the recording of the level of satisfaction with the services in relation to the five dimensions of the SERQUAL questionnaire, namely, Tangibles, Reliability, Responsiveness, Assurance and Empathy; (ii) research specific demographic and social factors that differentiate within their categories in terms of their level of satisfaction with the services provided; and (iii) assess the extent to which participants perceive that staff facilitate the development of social relationships within the structure in relation to gender, age, level of education and length of time on the street/Centre, and (iv) to study the demographic profile of the homeless people accommodated in the Integrated Homeless Centre of the city of Athens and the main causal factors that led survey respondents to homelessness.

2. Literature review

Several studies have been conducted to identify the causal factors that give rise to the phenomenon of homelessness, the increased and specific needs of people in this situation, as well as the factors that must be taken into account in order to address this complex and multidimensional phenomenon. Some of them are listed below:

In the study by Omerov, Craftman, Mattsson, and Klarare (2020), a systematic review of twenty-two quantitative and qualitative studies that were conducted in the United States of America and Canada with objective to research the phenomenon of homelessness in relation to levels of morbidity and mortality in this population group. Their findings showed that there are unmet health needs, mainly due to the fact

that they have to meet their most basic needs first (e.g., shelter, food), combined with barriers to accessing health care due to bureaucratic and social factors. According to the same study, the percentage of mental, physical and chronic illnesses among homeless people is disproportionate to the average population. In addition, they are three times more likely to develop chronic diseases, while the mortality rate is 12 times higher for women and 8 times higher for men compared to the average population, with an average life expectancy of 52 years.

The study by Fajardo-Bullón et al. (2019) concerns the self-assessment of health status of a sample of 2437 homeless people in Spain. The results showed that young age, having a health card, male gender and abstinence from addictions positively influenced their perception of their health status, in contrast to older age, substance use, disability, recent doctor or hospital visit and sleep disorders. Based on international evidence, the authors report a link between poor health and homelessness or precarious living conditions. They also report that homeless people develop health problems 10–15 years earlier than the general population, while factors that increase mortality include drug and alcohol use in addition to the usual health problems.

The comprehensive literature review by Wright and Tompkins (2006) was undertaken to research and assess the health and social care needs of the homeless population. Alcohol and drug addiction, psychiatric and infectious diseases appear to be more common in this vulnerable population group. Premature deaths are recorded at 44.5 years and the most common causes of death are not due to natural factors (62.6% deaths due to alcohol abuse, suicide, injuries), while deaths due to infectious diseases (hepatitis B, C, HIV) are also very common. This study also identifies best practices and interventions that need to be made in order to facilitate homeless people's access to primary health and social care in order to address multiple morbidity among homeless people.

A survey carried out in Greece by the Ministry of Labour (2018), under the scientific responsibility of Panteion University of Social and Political Sciences, in collaboration with various institutions such as municipal social services, national public bodies and non-governmental organizations, aimed to register homelessness in 7 municipalities in Greece. The study was conducted using qualitative and quantitative research methods, with on-site interviews and questionnaires. The survey recorded 1645 homeless people living on the streets, in shelters, supported housing and in precarious housing conditions, of whom 691 were on the streets and 954 in shelters. The majority of homeless individuals were found in the Municipality of Athens (793 persons, of whom 353 were living on the streets). Most of them were men, aged 18–44, of Greek origin, unemployed, with serious financial problems, family problems and an average length of homelessness of 12 months. Their health problems were mainly of a psychiatric nature and related to substance abuse.

A review study by Baskozou (2021) studied housing issues in two groups of homeless people, the mentally ill and intersex people. The study showed that the link between mental illness and homelessness is very strong. It also highlights that 58%–100% of homeless people are likely to be mentally ill compared to the average population. Finally, it demonstrates that for a period of just one month of homelessness, the percentage of psychotic problems ranges from 2.8% to 42.3%. High rates of crime and mortality were also found, due to substance abuse, serious illnesses, infectious diseases and suicides.

The research by Theodorikakou et al. (2012) on homelessness in Greece during the economic crisis, conducted on a sample of 214 Greeks and non-Greek nationals living in the country for more than 8 years, showed that the economic crisis intensifies the phenomenon of homelessness. The survey revealed the following noteworthy findings: 64.8% of respondents had been homeless for less than 2 years, 47.1% had difficulties in terms of clothing, 41% regarding personal hygiene, 58.1% had no health insurance, 20.4% reported a family history of psychiatric problems, 18.1% had attempted suicide, 38.1% were frequent alcohol users and 14.3% were frequent drug users, while 20.8% reported a gambling addiction. Regarding the assessment of their needs, the most important was lack of shelter (85.6%), followed by healthcare needs (83.1%), lack of work (76.5%) and hygiene (75%). In response to an open-ended question about what could help to avoid this situation, the predominant response was that the state should take preventive measures.

For the period 2015–2016 and in the framework of the project "Combating Poverty and Social Marginalisation", the "Streetwork" (Valvis et al., 2016) survey which was carried out by the City of Athens Reception and Solidarity Center (KYADA) (Project manager was Dr. Anastasios Valvis and members of the "Streework" team were: Ms Chara Mourtezou and Ms Maria Vanikioti). The study included 451 individuals who were identified through the food lines of KYADA. Among other important findings, the survey showed that the main problems they face in trying to escape homelessness are related to: a) the number of documents required to apply for accommodation in a shelter, b) the low availability of shelters in relation to the number of people who want to be served, and c) the conditions prevailing in these places. In terms of their daily needs, they face difficulties in the field of cleanliness and personal hygiene, while the issue of security is also very important, as they are very often victims of theft. The survey also revealed very high rates of HCV (Hepatitis C Virus) (42.5%) and HIV (Human Immunodeficiency Viruses) (20.6%) infection.

The extensive literature review study by Chondraki et al. (2012), on the extent of mental disorders among homeless people in Europe, recorded that this vulnerable population has increased rates of psychiatric morbidity compared to the rest of the population, ranging from 58% to 100%. The highest rates were for substance use disorders, with Germany in the lead, followed by Spain, France, the Netherlands and England. Emotional disorders, depressive disorders and anxiety disorders also have high rates among the homeless population. Psychotic disorders, schizophrenia and antisocial personality disorder were also recorded but at low rates. The survey also found that the problems of this population are not being adequately addressed by the different services, concluding that there should be effective provision in this regard.

The research by Zlotnick et al. (2013) draws evidence from the operation of the model implemented in the US for specialized health care provision for homeless people. It highlights the problems that began to emerge in the 1980s in the US, following the economic recession and the effects of deinstitutionalization from psychiatric institutions. The result was a change in the demographic profile and an increase in the number of people facing housing problems. When it became clear that the existing health care system was unable to meet the needs that had arisen, the Home Care for the Homeless (HMC) programme was created. Projects were funded to evaluate service delivery structures in order to improve access and quality of services. The HMC programme focused on a multidisciplinary approach, collaboration with different bodies, innovation in setting up mobile units, identification and outreach teams and improvised clinics in homeless shelters to facilitate their access to health services.

The survey by Spiro et al. (2008), assessed the satisfaction of residents of a shelter for homeless youth in Tel Aviv, Israel, shortly after they left the shelter. According to the results of the survey, satisfaction was mainly influenced by three aspects of life in the shelter, the staff, the food and the other residents.

Literature review shows that research has mainly focused on identifying the causal factors that lead to the phenomenon of homelessness, the increased needs of people in this situation and the factors that need to be taken into account in order to address this multidimensional phenomenon. However, there appears to be little research on measuring the satisfaction of the beneficiaries of homeless shelters, or research in which homeless people themselves assess the quality of the services provided by the shelter in which they are accommodated, focusing mainly on the assessment of the quality of care.

In Greece research focuses primarily on the registration of homeless people in metropolitan areas and smaller rural towns, the adequacy of shelters, the causal factors and the main problems faced by homeless

people both in terms of getting out of this status and in terms of their needs, however, there is no research on how the services provided by shelters are evaluated by the guests and this is the gap that this research will try to fill.

3. Material and method

3.1. Population and sample

The survey was conducted between September and November 2023 at the Integrated Homeless Centre of the City of Athens. The Centre was the subject of this study because it is the core of social solidarity in the city of Athens, with a capacity to accommodate up to 400 people (in the dormitory, hostel and day Centre which it consists of) and therefore fully meeting the needs of the city of Athens (KYADA, n.d.). The Centre has a holistic approach to vulnerable social groups, providing accommodation, food, psychological support, medical care and social services that help them reintegrate.

Only dormitory and hostel guests participated in the survey, as they are the ones who use all the services offered and have a comprehensive and broad picture of all the services offered by the center. During the period of the survey, the population of homeless people accommodated in the Centre's dormitory and the hostel was approximately 300, as this number changes almost daily due to new arrivals and departures. A sample of 210 individuals was selected from this population using convenience sampling, and 127 of them responded to the questionnaire. The response rate was 60.50%.

Convenience sampling was chosen because it is a very common technique for sensitive or hard-to-identify populations, as it does not require a sampling frame for its implementation (Lavrakas, 2008). Convenience sampling is the norm in developmental science (Jager et al., 2017), is easy to implement, not time consuming and is also cost effective. However, the results of research based on convenience sampling can only be generalized to the sample drawn and not to the entire population (Golzar et al., 2022; Acharya et al., 2013).

3.2. Data collection and measuring tool

The questionnaire that was distributed to the guests of the facility was divided into four (4) sections/parts.

- The first part of the questionnaire included questions related to the demographic/social characteristics of the sample such as gender, age, marital status, educational level, employment status, etc.
- The second section included questions about homelessness.
- The third section contained questions about the health status of homeless people, according to how they rated it.

Permission to use the second and third sections of the questionnaire, as well as the last two questions, was requested and granted (Gournari, 2019).

- The fourth and last part of the questionnaire, which concerns the evaluation of the quality of the services provided and of the staff, consists of twenty-two (22) closed-ended questions on a 5-point Likert scale from 1 to 5, where 1 means strongly disagree and 5 means strongly agree. This is the SERVQUAL model, which aims to assess the quality of services provided by measuring user satisfaction. This questionnaire is internationally recognized and used to measure service quality and satisfaction. (Parasuraman et al., 1988). The SERVQUAL questionnaire examines quality through satisfaction from the following five (5) dimensions: Tangibles, Reliability, Responsiveness, Assurance and Empathy.
- The questionnaire is completed with two (2) final questions of which:
  - o The first refers to the "degree to which staff facilitate the development of social relationships within the structure" and is rated on a scale of 1–5, where 1 means "not at all" and 5 means "very much".
  - o The second, which "assesses the overall quality of services" and is also rated on a scale of 1–5, where 1 is "very poor" and 5 is "very good".

The average completion time was 10–15 min. In some cases, interviews were used to complete the questionnaire. This was done at the request of the respondents, who preferred this method for their own convenience.

3.2.1. Inclusion and exclusion criteria

The survey was open to all homeless people accommodated in the Integrated Homeless Centre of the city of Athens, whether they are served by the Dormitory or the Hostel, regardless of gender, nationality, educational level, etc. The only limitations were (i) the age of the participants, since all had to be adults, which is in any case in accordance with the operating rules of the structure, which explicitly set 18 years as the age limit for integration, and (ii) only dormitory and hostel guests participated in the survey, as they are the ones who use all the services offered.

3.2.2. Ethical considerations of the survey

All participants were provided with a written informed consent form as a separate part of the questionnaire before completing the survey. Anonymity and confidentiality were guaranteed during data collection. All participants were informed of their right to refuse or discontinue participation in the study, in accordance with the ethical standards of the Declaration of Helsinki.

3.3. Statistical analysis

Statistical analysis, interpretation of the data and the extraction of the results were carried out using the statistical software SPSS 26.

The Kolmogorov-Smirnov test was used to test the normality of the distributions of the five quality dimensions and of age and length of time on the street/Centre. Apart from Age, which was found to be normally distributed, the distributions of the other variables deviated from normality (Table 1) and therefore the tests used for them (except for Age) were non-parametric.

Specifically, to test the existence of differentiation of the quality dimensions: a) from one value, the one-sample Wilcoxon signed rank test was used; b) in two independent groups, the non-parametric Mann-Whitney *U* test was used; c) in more than two groups, the non-parametric Kruskal-Wallis H test (and ANOVA for age) was used. Finally, Spearman's correlation coefficient was used to test whether a linear relationship existed between the quantitative variables.

The Cronbach's alpha internal consistency coefficient was used to test the reliability of the questionnaire. Table 2 shows that the value of the coefficient for all five dimensions is satisfactory as the values of the coefficient exceed 0.7, which is considered as a benchmark value (Cortina, 1993), for all of them.

Table 1
Normality test for the quality dimensions, Age and Length of Stay in the Street/Centre.

	Kolmogorov-Smirnov		
	Statistic	df	Sig.
Tangibles	0.117	127	<0.001
Reliability	0.236	127	<0.001
Responsiveness	0.223	127	<0.001
Assurance	0.224	127	<0.001
Empathy	0.181	127	<0.001
Age	0.056	127	0.2
Length of Stay in the Street/Centre	0.232	127	<0.001

Table 2
Cronbach's alpha for the quality dimensions.

Dimension	Cronbach's alpha coefficient
Tangibles	0.793
Reliability	0.932
Responsiveness	0.891
Assurance	0.814
Empathy	0.874

Finally, the level of statistical significance was set at alpha = 0.05.

4. Results

4.1. Descriptive analysis of the sample

The following table (Table 3) shows that most participants are male (70.9%), unemployed (54.3%), have children (51.2%) and have completed compulsory education (41.7%). It should be noted that two individuals were found with a postgraduate degree and one individual with a Ph.D. In terms of marital status, 52 people (40.9%) were single and only 10 people (7.9%) were married. Most of the participants (58.3%) were in a shelter for the first time, while 52% of the respondents reported that they had previously lived in rented accommodation and 17.3% reported that they had owned their own property.

Financial (38.6%), family (18.9%) and unemployment (12.6%) were the main reasons for staying in the Center. Regarding health issues, 52% reported that they have no chronic health problems, 51.97% describe their health as good to very good, while 60.6% have no medical/health insurance. The average age of the respondents is 61.02 ± 11.95 years and the average length of stay on the Road/Centre is 31.53 ± 38.27 months.

Table 3
Sample frame description.

Socio-Demographic Characteristics		Frequency	Percent (%)
Gender	Male	90	70.90
	Female	37	29.10
Marital Status	Married	52	40.90
	Unmarried	10	7.90
	Other	65	51.20
Educational Level	Compulsory Education	53	41.70
	Secondary Education	41	32.30
	Higher Education	30	23.60
	M.Sc.	2	1.60
	Ph.D.	1	0.80
Employment Status	Unemployed	69	54.30
	Employed	10	7.90
	Pensioner	22	17.30
	Occasional employment	9	7.10
	Other	17	13.40
Children	No	62	48.80
	Yes	65	51.20
First time in a shelter	No	53	41.70
	Yes	74	58.30
Former Residence	Owned	22	17.30
	Rented	66	52.00
	Has been hosted	31	24.40
	Mental health facilities	1	0.80
	Welfare facilities	6	14.70
	Accomondation facilities for immigrants	1	0.80
Main reason for staying in a shelter	Family	24	18.90
	Health	8	6.30
	Finance	49	38.60
	Unemployment	16	12.60
	Loss of home ownership	4	3.10
	Eviction of rented accommodation	8	6.30
	Release from prison	3	2.40
	Bad conditions	7	5.50
	End of stay in institutions	1	0.80
	Other	7	5.50
Have health/medical insurance	No	77	60.60
	Yes	50	39.40
Have chronic health problem	No	66	52.00
	Yes	61	48.00
How would you describe your health status?	Very bad	9	7.09
	Bad	23	18.11
	Moderate	29	22.83
	Good	44	34.65
	Very good	22	17.32
Total	127		100
Age (years)	Mean = 61.02 ± 11.95		
Length of time on the Street/Centre (months)	Mean = 31.53 ± 38.27		

4.2. Level of quality dimensions in the sample

Regarding the descriptive statistics of the quality dimensions in the sample, Table 4 shows that all five quality dimensions have a rather high mean value, the highest being for the reliability dimension (4.33) and the lowest for the tangibles dimension (4.03) a result that indicate a high degree of satisfaction among the beneficiaries of the Centre. It can also be seen that all five dimensions show a strong negative skewness.

4.3. Image of the two final questions

With regard to the two final questions asked to the respondents concerning a) the assessment of the facilitation level of social relations within the Centre by the staff and b) the overall evaluation of the quality of the services provided, the following table (Table 5) shows that only 35% of the guests consider the facilitation of social relations within the Centre by the staff to be "Very" to "Very much", while 74,8% of the guests consider the overall quality of the services provided by the structure from "Good" to "Very good".

4.4. Research of the level of the five dimensions

In order to test whether there is a statistically significant difference between the mean of each of the five dimensions of the SERVQUAL questionnaire (tangibles, reliability, responsiveness, assurance, and empathy) and the central/neutral value of 3, the non-parametric one-sample Wilcoxon signed rank test was used, as the assumptions of the one-sample *t*-test are not met. The test showed that all dimensions (Table 6) have a statistically significant higher value than the neutral value of 3. This finding underlines the positive image of the beneficiaries in terms of the quality of the services provided by the Centre.

4.5. Analysis of the factors that differentiate in their categories in terms of satisfaction with the quality of services provided

This section analyses the possible differentiation in the categories of specific demographic factors in relation to their level of satisfaction with service quality in the five dimensions of SERVQUAL.

4.5.1. Gender factor

The non-parametric Mann-Whitney U was used to analyse whether the "Gender" categories differed in their level of satisfaction with the services provided. The test was not statistically significant for any of the dimensions of quality ($U_{Tangibles} = 1601.50$ $p = 0.734$; $U_{Reliability} = 1515.50$, $p = 0.410$; $U_{Responsiveness} = 1644.00$, $p = 0.909$; $U_{Assurance} = 1532.00$, $p = 0.474$; $U_{Empathy} = 1441.50$, $p = 0.232$) (Table 7). This result shows that men and women do not differ significantly regarding their level of satisfaction in any of the five SERVQUAL dimensions.

4.5.2. Educational level factor

Regarding the "Educational Level" factor, the statistical analysis with the non-parametric Kruskal Wallis-H tests revealed no statistically

Table 4
Descriptive statistics of the quality dimensions of the sample.

	Tangibles	Reliability	Responsiveness	Assurance	Empathy
Mean	4.03	4.33	4.31	4.31	4.13
Median	4.00	4.60	4.75	4.50	4.40
Mode	4.00	5.00	5.00	5.00	4.40
Std. Deviation	0.79	0.93	0.91	0.78	0.81
Skewness	−1.13	−1.85	−1.68	−1.99	−1.54
Kurtosis	2.28	3.18	2.46	5.21	3.16
Minimum	1.00	1.00	1.00	1.00	1.00
Maximum	5.00	5.00	5.00	5.00	5.00

Table 5
Description of the two final questions.

Question	Value	Frequency	Percentage (%)
Facilitation level of social relations within the structure by the staff	Not at all	17	13.4
	Slightly	32	25.2
	Moderately	33	26.0
	Very	26	20.5
	Very much	19	15.0
Overall evaluation of the quality of the services provided by the Centre	Very poor	2	1.60
	Poor	3	2.40
	Fair	27	21.3
	Good	51	40.2
	Very good	44	34.6

Table 6
One-sample Wilcoxon Signed Rank test for the quality dimensions.

Dimension	Median	Wilcoxon	p-value
Tangibles	4.00	7141.00	<0.001
Reliability	4.60	7348.50	<0.001
Responsiveness	4.75	7498.50	<0.001
Assurance	4.50	7089.50	<0.001
Empathy	4.40	7018.00	<0.001

significant differences between the categories of Educational Level (it is noted that the categories Higher Education, M.Sc. and Ph.D. were merged into a single new category, as only two participants in our sample were found to hold a Master's degree and one a Ph.D.) for any of the dimensions of quality ($H_{Tangibles} = 2.6$, $p = 0.27$; $H_{Reliability} = 2.23$, $p = 0.33$; $H_{Responsiveness} = 0.73$, $p = 0.69$; $H_{Assurance} = 3.94$, $p = 0.14$; $H_{Empathy} = 1.73$, $p = 0.42$) (Table 7). This finding suggests that "Educational Level" factor does not differentiate in its categories with regard to the quality dimensions of SERVQUAL.

4.5.3. Chronic health problems factor

Based on the statistical analysis with the Mann-Whitney *U* test, in order to check for statistically significant differences between the categories of the "Chronic Health Problems" factor regarding their level of satisfaction in the five SERVQUAL dimensions, the test was statistically significant only for the dimensions of Reliability, Responsiveness, and Empathy ($U_{Tangibles} = 1636.50$ $p = 0.067$; $U_{Reliability} = 1614.50$, $p = 0.046$; $U_{Responsiveness} = 1530.50$, $p = 0.017$; $U_{Assurance} = 1651.50$, $p = 0.076$; $U_{Empathy} = 1584.00$, $p = 0.037$) (Table 7), with individuals without chronic health problems showing higher mean scores, meaning that individuals without a chronic health problem seemed to be more satisfied overall.

4.6. Age and length of stay on the road/centre factors

Statistical analysis using the non-parametric Spearman's Rho correlation coefficient showed no statistically significant correlations between Age and the quality dimensions, nor between Length of Stay in the Street/Centre and the quality dimensions (Table 8). This result indicates that, neither Age nor Length of Stay in the facility are factors that are positively or negatively correlated with the evaluation of the quality of the facility's services.

Table 7
Results of Mann Whitney-U and Kruskal Wallis-H tests.

Dimension	MW-U[a] (Gender)	Mean Ranks	KW-H[b] (EL[c])	Mean Ranks	MW-U[a] (HP[d])	Mean Ranks
Tangibles	U = 1601.50 p = 0.734	(M) = 64.71 (F) = 62.28	H = 2.6 p = 0.27	(PE) = 66.86 (SE) = 67.39 (HE) = 55.20	U = 1636.50 p = 0.067	(N) = 69.70 (Y) = 57.83
Reliability	U = 1515.50 p = 0.410	(M) = 62.34 (F) = 68.04	H = 2.23 p = 0.33	(PE) = 68.42 (SE) = 64.16 (HE) = 56.70	U = 1614.50 **p=0.046**	(N) = 70.04 (Y) = 57.47
Responsiveness	U = 1644.00 p = 0.909	(M) = 63.77 (F) = 64.57	H = 0.73 p = 0.69	(PE) = 65.42 (SE) = 65.83 (HE) = 59.44	U = 1530.50 **p=0.017**	(N) = 71.31 (Y) = 56.09
Assurance	U = 1532.00 p = 0.474	(M) = 62.52 (F) = 67.59	H = 3.94 p = 0.14	(PE) = 71.53 (SE) = 58.17 (HE) = 59.15	U = 1651.50 p = 0.076	(N) = 69.48 (Y) = 58.07
Empathy	U = 1441.50 p = 0.232	(M) = 61.52 (F) = 70.04	H = 1.73 p = 0.42	(PE) = 68.99 (SE) = 59.72 (HE) = 61.30	U = 1584.00 **p=0.037**	(N) = 70.50 (Y) = 56.97

[a] Mann Whitney-U.
[b] Kruskal Wallis-H.
[c] Educational Level.
[d] Health Problem.

Table 8
Results of the Spearman's rho test.

			Tangibles	Reliability	Responsiveness	Assurance	Empathy
Spearman's Rho	Age	Correlation Coefficient	0.116	0.146	0.153	0.168	0.128
		Sig. (2-tailed)	0.194	0.101	0.085	0.060	0.152
	Length of Stay	Correlation Coefficient	0.065	0.154	0.159	0.117	0.084
		Sig. (2-tailed)	0.467	0.084	0.074	0.191	0.350
		N	127	127	127	127	127

4.7. Facilitation level of social relations within the structure by the staff and overall evaluation of the quality of services provided with specific demographic factors

This section analyses: a) the extent to which participants perceive that staff facilitate the development of social relationships within the facility, in relation to gender, age, educational level and length of time spent on the street/Centre and the overall assessment of the quality of services provided in relation to gender, age, educational level and length of time spent on the street/Centre.

a) In order to assess the association as well as the existence of differences between the demographic factors mentioned above and the variable "to what extent the staff facilitates the development of social relationships within the structure", the statistical analysis with the appropriate statistical test (x^2, Fishers exact, ANOVA) showed that statistically significant relation exists only between the degree to which staff facilitate the development of social relations within the Centre and the educational level (x2 (8) = 21.98, p = 0.005) (Table 9). The subsequent gamma test showed that this correlation is moderate and negative (gamma = −2.57, p-value = 0.006), which means that people with a higher level of education evaluate the facilitation of relationship development within the structure by the staff more negatively.
b) However, in terms of examining the relationship as well as the existence of differences between the stated demographic factors and the variable "How would you rate the overall quality of services provided by the facility", none of the appropriate statistical tests (x2, Fishers exact, ANOVA) were significant, meaning that there are no statistically significant relationships or differences (Table 9).

5. Discussion

In the present study the following objectives were analysed: (i) the quality of the services offered by the Centre was evaluated through the degree of satisfaction of the respondents with the services and with the staff of the structure by checking the level of the five dimensions of satisfaction: tangibles, reliability, responsiveness, assurance, and empathy, (ii) the specific demographic and social factors that differentiate within their categories in terms of their level of satisfaction with the services provided; (iii) the extent to which participants perceive that staff facilitate the development of social relationships within the structure in relation to gender, age, level of education and length of time on the street/Centre and (iv) the demographic profile of the homeless people accommodated in the Integrated Homeless Centre of the city of Athens and the causal factors that led the respondents to homelessness.

Table 9
Results of x^2, Fishers exact, ANOVA and Kruskal Wallis-H.

	Facilitation level of social relations within the structure by the staff		Overall evaluation of the quality of the services provided by the structure?	
Demographic factor	Test	p-value	Test	p-value
Gender	x^2 (4) = 0.23	0.994	Fisher's Exact = 2.59	0.619
Educational Level	**x^2(8)=21.98**	**0.005**	Fisher's Exact = 11.56	0.101
First time in a Centre?	x^2 (4) = 2.43	0.657	Fisher's Exact = 2.56	0.689
Disability	x^2 (4) = 5.86	0.210	Fisher's Exact = 4.06	0.353
Chronic health problem	x^2 (4) = 3.31	0.507	Fisher's Exact = 5.19	0.244
Age	ANOVA = 7.37	0.118	ANOVA = 8.33	0.08
LoS[a]	KW-H[b] = 3.67	0.453	KW-H** = 6.74	0.151

[a] Length of Stay in the Street/Centre.
[b] Kruskal Wallis-H.

As regards the profile of homeless people, in this particular Center under study it was found that converges with data from other studies drawn from the literature review, (Arapoglou et al., 2015; Wasserman & Clair, 2010; Wyly & Hammel, 2005; Fitzpatrick, 2005; Edgar, 2009; Lee et al., 2010; Schurink, 2004; Busch-Geertsema et al., 2010; Theodorikakou et al., 2013; Arapoglou, 2002), which highlights the shift in the profile of the homeless person we have known in the past, from a delinquent and dangerous type of person who is totally responsible for his situation because of his individual choices, to a new type of homeless person, the so-called neo-homeless person, where the economic crisis of recent years, socio-political changes, and the inadequacy of the welfare state have led people who had everything they needed to live a decent life to stagnation and misery.

From the research also emerged that among the causal factors that led survey respondents to homelessness were, financial reasons, unemployment and family reasons, findings that are also consistent with previous research (Gournari, 2019; Busch-Geertsema et al., 2010; Theodorikakou et al., 2013; Arapolglou, 2002). The combination of these factors greatly increases the likelihood that a person will be in a state of homelessness. The economic crisis has amplified the phenomenon of unemployment, as many sectors and companies have been affected, resulting in job losses, with the possible consequence of loss of housing due to lack of income to cover subsistence needs. In addition, cuts in social benefits, austerity measures and unemployment, which are also consequences of the economic crisis, combined with the absence of social policies and the inadequacy of social services, create new dimensions of poverty and social exclusion, as they contribute to the emergence of housing deprivation. The role of the State in this case is to promote the development of social policy programmes to prevent and combat this phenomenon.

The supportive environment of the family also plays an important role. In the previous decades, before the phenomenon took on the huge dimensions that it has taken in recent years due to the global economic crisis and the massive migratory flows, the family network was very strong and sometimes substituted the role of the state, supporting in various ways the person in need. But with the change in the institution of the family from "extended" to "nuclear", the weakening of the protective bonds of the family, and more general changes in the structure of society, there have been cracks in the once strong supportive framework that protected individuals from the risk of exclusion (Kourachanis, 2017a, 2017b; European Commission, 2013). The percentages of the respondents regarding their marital status also underscore this aspect. It is of course worrying that although more than half of the respondents said that they had children, they were still living on their own on the streets

or in shelters a fact that can be linked to what was mentioned about the weakening of the institution of the family and the fluidity of family ties.

The severe conditions experienced by the people who participated in the survey due to the difficult living conditions on the streets, lack of personal hygiene, malnutrition or poor nutrition, lack of medical care for the treatment of their potential diseases, and lack of necessary medical examinations negatively affect their health, leaving them with fragile and burdened health compared to the general population. This is confirmed in the survey, as almost half of the respondents said that they had a chronic disease and described their health as moderate to very poor. At this point, it should be noted that health is not a primary concern for the homeless, who sometimes even consider it a "luxury" in their lives, since they feel they have more immediate concerns, such as ensuring their basic daily needs. This takes into account the despair and passivity that these people experience and the negative psychology that does not help them to be motivated to deal with health issues. It is important to note that while the majority of individuals lack health insurance coverage, this does not justify their exclusion from access to the health system and healthcare, as after the enactment of Law 4052/2012 and its subsequent supplementation with Law 4254/2014, which provided legal protection for homeless individuals and recognized them as a vulnerable social group, measures have been taken to ensure that they have access to free health services. So, although they are theoretically entitled to free medical care, the other issues mentioned above prevent them from accessing it.

In terms of the evaluation of the quality of the services provided by the Homeless Centre under study, the results of the survey indicate a high degree of satisfaction among the beneficiaries of the Centre with regard to the quality of all the services they receive. This finding underlines the positive image of the beneficiaries in terms of the quality of the services provided by the Centre, which is consistent with the results of other studies such as the survey by Jones et al. (2020). User satisfaction and service quality are interdependent. The high quality of the services offered is reflected in the positive evaluation given by the guests of the facility. However, it should be noted that the participants of the survey are a vulnerable population group that was in a situation of homelessness or in precarious living conditions before being accommodated in the facility. Consequently, they may be more lenient in their evaluation, feeling gratitude and satisfaction for what is offered to them.

The survey also showed that the only socio-demographic factor among those analysed (gender, education level, chronic health problem, age and length of stay on the road/Centre) that differentiate in its categories with regard to the assessment of the quality of the services provided by the Center under study, is the factor "Chronic Health Problems", for the dimensions of Reliability, Responsiveness, and Empathy. Participants without a chronic health problem seemed to be more satisfied overall. This may be due to the fact that people without health problems have fewer demands and expectations from the benefits and services offered by a Homeless Centre. Patients with chronic conditions have multiple needs that go beyond the provision of health care services, other services offered by a center or the interaction with the staff and management. They also need to modify their behavior, engage in activities that support both physical and mental well-being, monitor their health regularly, participate in related care, and manage the effects of their condition on their physical, psychological, and spiritual health and social functioning (Clark, 2003). Such attitudes and practices cannot be adopted by homeless people because, as already mentioned, their priority is to ensure that their basic needs are met. This in turn exacerbates their already compromised health status, increasing their demands and complaints about the services provided.

Furthermore, regarding the study of the association of the same socio-demographic factors with the variables "Facilitation level of social relations within the structure by the staff" and "Overall evaluation of the quality of services provided by the Centre", the analysis showed a significant association only between the Educational Level and the variable "Facilitation level of social relations within the structure by the staff". It was found that individuals with higher levels of education perceived a lack of staff facilitation in the development of social relationships. In contrast, individuals with lower levels of education expressed greater satisfaction in this regard. The most positive evaluation was given by participants with a compulsory education. It is possible that individuals with a lower level of education do not have particularly high expectations of the Centre, which may result in a more positive evaluation. Also, since they have different perceptions and backgrounds from individuals with a higher educational level, they may not be able to identify with the same ease the obstacles and problems that arise in this area or give them the importance they deserve.

Nevertheless, it is of utmost importance for the staff and management of the Centre to consider the responses of the guests regarding the facilitation of social relations within the structure. It is notable that the percentage of guests who gave a positive evaluation to this question is well below the half of the respondents. It would be advisable for the staff and managers of the Centre to examine this factor and identify possible causes that may lead to this result. Once identified, these causes should be resolved. In the context of the operation of a facility where a large number of people from different environments and with different social and individual backgrounds are accommodated, it is of great importance to improve the social relations of the guests in order to ensure the smooth operation of the facility. The staff of the Centre should be able to empower, manage and facilitate the harmonious and smooth coexistence of the people living and sharing the same space and this requires specific skills. The training and expertise of the staff are of particular importance in order to provide the requisite assistance, support, and guidance to the guests in the facility, as this is a population group that requires a special, individualized approach to managing their needs and to managing crises.

Although the results of the survey regarding the evaluation of the quality of the services provided were very positive (except for the variable concerning the extent to which the scientific staff facilitates the development of social relations within the structure, which can be improved), the organization must continue its efforts to offer quality services, to evolve and to upgrade. It is possible to enhance the efficiency and effectiveness of social care services by implementing improvements to the services themselves and to the staff who deliver them. This would result in greater satisfaction among service users.

In conclusion, it imperative to clarify that the specific structure that was the scope of this study, as well as any similar structure that offers services to homeless individuals, should provide the requisite support and assistance in a manner that is both efficacious and ethical. However, the ultimate objective is not to perpetuate a state of chronic insecurity and uncertainty among these individuals, maintaining an unchanging situation. The objective should be, in line with the European Commission's target, to eliminate homelessness through the measures taken and the recommendations made to the Member States. In order to achieve this goal, it is essential that the state and the welfare state comply with European Union directives, follow the good practices, measures, and policies of other European countries, and promote their transition to independent living and their reintegration into society.

The main limitation of this research is that it was conducted using a convenience sampling technique, which is a very common technique for sensitive or hard-to-identify populations as it does not require a sampling frame for its implementation (Lavrakas, 2008). This type of sampling technique, although common in developmental science, lacks generalizability, and the results of the survey can only be generalized to the sample drawn and not to the entire population. Therefore, any generalizations made in this survey apply only to the particular sample of the Center studied and not to all homeless centers in the country.

It is also important to note that the shelter in question during the survey period primarily housed older individuals (with an estimated average age of 61 years). This may be a limitation of the survey, as younger individuals may have different needs and requirements.

Despite the limitations mentioned above, the present research can

make a positive contribution to the currently unclear landscape surrounding the issue of homelessness. This is due to the lack of satisfactory data and records on homelessness, as well as the lack of research in the field of capturing the views of homeless people on the quality of the services they receive.

It would be beneficial to conduct further research in larger-scale social care services and structures across different regions of Greece, with a view to identifying all vulnerable population groups. This would serve as a valuable tool for assessing the quality of services. It will also enable the development of targeted actions and strategies for housing, employment and reintegration, which will lead to the effective treatment of homelessness with the main objective of its eradication.

In conclusion, it is emphasized that only by conducting surveys, recordings and measurements can there be a clear and accurate picture of the existing situation, enabling the timely identification of problems and deficiencies. This, in turn, facilitates the improvement and upgrading of services addressed to homeless people.

6. Conclusion

Considering the serious dimensions that the issue of housing deprivation has taken in recent decades, it is evident that a more comprehensive and in-depth examination of the subject will facilitate a greater understanding of the factors that give rise to and exacerbate it, as well as the identification of deficiencies and inadequacies. This, in turn, will contribute to the design and development of policies for the management and elimination of the problem. The current situation in Greece indicates the inadequacy of the welfare state, which is being addressed by non-governmental organizations, the Church, private initiative and informal networks.

The main objective of the current study was to assess the quality of services provided by the Integrated Homeless Centre of the City of Athens. This was achieved by measuring the level of satisfaction with the services in relation to the five dimensions of the SERQUAL questionnaire. The demonstrated positive outcomes for all quality dimensions, indicating that beneficiaries of the Homeless Centre were highly satisfied with the services provided.

Despite the survey on the evaluation of service quality yielded encouraging results, one aspect nevertheless requires special attention. This is the extent to which the staff of the Centre facilitate the development of social relations within the structure, which requires significant improvement, since the issue of the effective and efficient operation of social care units, is considered particularly important.

It is imperative that vulnerable groups receive special protection and multi-level support. They deserve to receive services that are of a high quality, effective and efficient. The dysfunctions and pathologies of the public administration and local government still hinder the proper functioning of organizations and the efficiency of services. Consequently, measuring satisfaction with the quality of services should now be a priority for every organization, as it is crucial for their improvement and upgrading.

CRediT authorship contribution statement

Maria-Aggeliki Stamouli: Writing – review & editing, Validation, Supervision, Software, Methodology, Formal analysis, Conceptualization. **Andriana Mexa:** Writing – original draft, Investigation, Data curation. **Sofoklis Chrysanthopoulos:** Writing – review & editing, Formal analysis. **Aspasia Goula:** Writing – review & editing, Validation, Supervision, Methodology, Investigation, Conceptualization.

Data availability statement

Study data can be provided by the corresponding author upon request.

AI disclosure statement

The authors of this work declare that the Generative AI or AI-assisted technologies was used only in the writing process to improve the readability and language of the manuscript. After that, authors carefully reviewed and edit the manuscript and take full responsibility of its content.

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