Gender and Age Differences in Patient Satisfaction with Dental Care in the Urban and Rural Areas of Indonesia: Pilot Pathfinder Survey

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Academic Editors: Alessandro Leite Cavalcanti and Wilton Wilney Nascimento Padilha

Received: 01 May 2018 / Accepted: 31 July 2018 / Published: 08 August 2018

Abstract

Objective: To know the difference of patient satisfaction to dental service based on gender and age in urban and rural area of Gowa regency of South Sulawesi, Indonesia.

Material and Methods: This study used pilot pathfinder survey design, conducted in Gowa regency in April 2018. The sample consisted of 420 participants. Data were collected using a satisfaction III questionnaire that has been designed in accordance with a survey of fifty-one questions. Questionnaires are divided into seven subscales: General Satisfaction, Technical Quality, Interpersonal Aspect, Communication, Financial Aspect, Time Spent with Doctors, Access / Availability / Convenience. The level of satisfaction was analyzed using t independent test. The level of significance was set at 5%. Results: In dental and oral health services in urban areas there was a significant difference of satisfaction level between males and females group >35 years and in rural area there was difference of satisfaction level significant between mals and females based on communication aspect in age group ≤35 years and there is no significant difference of satisfaction level between urban and rural area. Conclusion: There is difference of satisfaction level between males and females based on technical and communication quality aspect and there is no difference of level of satisfaction between urban and rural area.

Keywords: Patient Satisfaction; Rural Population; Urban Population.
Introduction

Providing quality services is the key to success in the service industry. In the current era of competition, supervision and improvement of service quality is essential to develop business efficiency and volume and quality greatly affect customer satisfaction [1]. Health care is one of several types of services [2,3].

In Indonesia the government has established a public health service agency to meet citizens' needs for health services [4]. Based on Indonesian Law Number 36 of 2009 on health regulations of Rights and Obligations, it is stated that everyone has equal rights in obtaining access to health, safe, quality, affordable health care, having the right to independently and responsibly decide on the health services they need [5].

One indicator of the quality of health services is the satisfaction of the primary service users in this case the patient [6,7]. Patient satisfaction is the patient's response to a significant aspect of his or her health care experience [8]. In the implementation of health services, the state is obliged to maintain the quality of health services to the community. Quality of health services is determined by health facilities and qualified health personnel This is in accordance with the Minister of Health Regulation number 5 of 2014 the realization of good public health conditions is the duty and responsibility of the state as a constitutional mandate that is the Constitution of the Republic of Indonesia in 1945 [9]. However, most people argue that the services provided by state health care centers are still considered inadequate to their fullest expectations resulting in dissatisfaction [6,8].

Many factors can play a role in improving the quality of service in general, including performance, environment, support / care, waiting time, communication, honesty, nursing care, administrative process, affection for family and friends and doctor care procedures can affect patient satisfaction. In addition, other factors affecting patient satisfaction and service quality in dental clinics are technical competence, personal factors, convenience, cost, insurance and assurance, empathy of staff, responsiveness, easy referrals, friendly staff, and dental clinics modern [10,11].

Basic Health Research (RISKESDAS) in 2013, South Sulawesi has a high dental and oral problem that is >35%. Prevalence of population receiving treatment from medical personnel 28.5%. Particularly in Gowa district, the dentist ratio is 1: 17.544 population, this is not in accordance with the dentist ratio in an ideal population according to World Health Organization is 1: 2000 so with the high dental and oral health problems and a lack of medical personnel in Gowa that may be influential to the quality of dental and mouth services [12-14].

Therefore, the purpose of this study was to see the difference in user satisfaction with health services based on gender and age.

Material and Methods

Study Design and Sampling

This study using pilot pathfinder design was conducted at Dental and Oral Health Services in Somba Opu Sub-district representing urban area and Pattalassang representing rural area, Gowa.
regency of South Sulawesi. The survey was conducted on April 2018 as many as 420 subjects. The inclusion criteria are residents of Gowa Regency, aged 26-45 years and willing to be subject.

Data Collection

To assess the level of patient satisfaction, a PSQ-III questionnaire was adapted from a previous study [10], which was preceded by several questions about baseline demographic data. Standardized PSQ-III questionnaires include 51 statements focusing on the quality of health services provided. Questions are divided into seven subscales: time spent with doctor, communication, general satisfaction, interpersonal aspect, financial aspect, technical quality, access / availability / convenience.

Data Analysis

Respondents are free to answer questions on a Likert scale of 1-5 at a level where they agree with each statement: (1 - strongly agree; 2 - agree; 3 - do not know; 4 - disagree; 5 - strongly disagree).

Table 1. The scoring rule for the PSQ-III item [10].

| Item [a] | The Precode Value [b] | Recod Value [c] |
|---------|-----------------------|-----------------|
| PSQ01  | PSQ03                 | PSQ05           | PSQ07 | 1 | 5 |
| PSQ09  | PSQ11                 | PSQ13           | PSQ15 | 2 | 4 |
| PSQ1   | PSQ20                 | PSQ22           | PSQ24 | 3 | 3 |
| PSQ26  | PSQ28                 | PSQ29           | PSQ31 | 4 | 2 |
| PSQ33  | PSQ35                 | PSQ37           | PSQ39 | PSQ41 | 5 | 1 |
| PSQ43  | PSQ45                 | PSQ47           | PSQ49 | PSQ50 | 1 | 1 |
| PSQ02  | PSQ04                 | PSQ06           | PSQ08 | 1 | 1 |
| PSQ10  | PSQ12                 | PSQ14           | PSQ16 | 2 | 2 |
| PSQ17  | PSQ19                 | PSQ21           | PSQ23 | 3 | 3 |
| PSQ25  | PSQ27                 | PSQ30           | PSQ32 | 4 | 4 |
| PSQ34  | PSQ36                 | PSQ38           | PSQ40 | 5 | 5 |
| PSQ42  | PSQ44                 | PSQ46           | PSQ48 |

Statistical Analysis

Data were analyzed using the IBM SPSS Statistics for Windows Software, version 24 (IBM Corp., Armonk, NY, USA) and using t-independent test. P-value <0.05 was considered to be statistically significant.

Ethical Aspects

This survey has been approved by the medical ethics committee of ethics, Hasanuddin University, Indonesia and all respondents have agreed to participate in this survey by filling out the consent form.
Results

Table 2 shows the distribution of 420 subjects based on demographic characteristics of gender, age and location. It was found that the majority were of the male gender (54%), were 35 years old or more (51.4%) and resided equally in urban and rural area.

Table 2. Distribution of participants according to demographic characteristics.

| Characteristics        | N   | %   |
|------------------------|-----|-----|
| Gender                 |     |     |
| Male                   | 227 | 54.0|
| Female                 | 193 | 46.0|
| Age                    |     |     |
| ≤35 years              | 216 | 51.4|
| >35 years              | 204 | 48.6|
| Location               |     |     |
| Urban (Somba Opu sub district) | 210 | 50.0|
| Rural (Patta Lassang sub district) | 210 | 50.0|

Table 3 shows the mean score of satisfaction level on health service quality in urban area. Based on the technical and communication quality variables the statistical test results showed significant differences between male and female satisfaction levels in the age group ≤35 years (23.88 ± 4.58 and 20.98 ± 6.46) for the technical quality aspect and age group >35 years (13.98 ± 3.26 and 12.36 ± 3.38) for the communication aspect. Variables of general satisfaction, interpersonal aspect, financial aspect, time spent with doctor, access / availability / convenience showed no statistically significant difference between male and female satisfaction level in both age groups.

Table 3. The mean level (score) satisfaction on the quality of health services in urban areas.

| Variables                  | Gender | Age [Years] | N [210] | Males Mean ± SD | Females Mean ± SD | p-value |
|----------------------------|--------|-------------|--------|-----------------|-------------------|---------|
| General Satisfaction       |        | ≤35         | 96     | 12.43 ± 2.77    | 12.36 ± 4.01      | 0.927   |
|                           |        | >35         | 114    | 12.34 ± 3.14    | 12.09 ± 2.76      | 0.655   |
| Technical Quality          |        | ≤35         | 96     | 23.88 ± 4.58    | 20.98 ± 6.46      | 0.017*  |
|                           |        | >35         | 114    | 24.33 ± 6.92    | 23.55 ± 4.76      | 0.491   |
| Interpersonal Aspects      |        | ≤35         | 96     | 16.68 ± 3.25    | 18.21 ± 4.25      | 0.058   |
|                           |        | >35         | 114    | 16.26 ± 3.70    | 16.81 ± 3.33      | 0.410   |
| Communication              |        | ≤35         | 96     | 13.90 ± 2.69    | 14.23 ± 3.09      | 0.585   |
|                           |        | >35         | 114    | 13.98 ± 3.26    | 12.36 ± 4.38      | 0.026*  |
| Financial Aspects          |        | ≤35         | 96     | 19.83 ± 4.51    | 20.50 ± 5.08      | 0.503   |
|                           |        | >35         | 114    | 20.38 ± 3.77    | 20.00 ± 4.10      | 0.610   |
| Time Spent with the Doctor |        | ≤35         | 96     | 5.30 ± 1.29     | 5.45 ± 1.55       | 0.626   |
|                           |        | >35         | 114    | 5.97 ± 1.66     | 5.57 ± 1.60       | 0.194   |
| Access / Availability / Convenience | | ≤35         | 96     | 32.60 ± 7.51    | 33.91 ± 7.38      | 0.397   |
|                           |        | >35         | 114    | 33.93 ± 6.54    | 32.42 ± 5.06      | 0.173   |

Independent t test; *Significant p<0.05.

Table 4 shows the mean value of satisfaction level of health service quality in rural area. Based on the communication variables statistical test results showed a significant difference between
the level of satisfaction of male and female in the age group \( \leq 35 \) years (13.08 \( \pm \) 2.37 and 14.16 \( \pm \) 2.35). There was no significant difference in mean satisfaction score between male and female in general satisfaction variable, technical quality, interpersonal aspect, financial aspect, time spent with doctor and access / availability / convenience in age group \( \leq 35 \) years or >35 years old.

Table 4. The mean level (score) of satisfaction on the quality of health services in rural areas.

| Variables               | Age [Years] | N \[210\] | Gender          | p-value |
|-------------------------|-------------|------------|-----------------|---------|
|                         | \( \leq 35 \) | 96         | Male Mean \( \pm \) SD | Female Mean \( \pm \) SD |
| General Satisfaction    | \( > 35 \) | 114        | 12.83 \( \pm \) 2.87 | 13.00 \( \pm \) 3.20 | 0.763 |
| Technical Quality       | \( \leq 35 \) | 96         | 23.28 \( \pm \) 3.90 | 23.37 \( \pm \) 3.92 | 0.906 |
| Interpersonal Aspects   | \( > 35 \) | 114        | 22.49 \( \pm \) 4.06 | 22.74 \( \pm \) 3.55 | 0.764 |
| Communication           | \( \leq 35 \) | 96         | 16.08 \( \pm \) 4.11 | 17.47 \( \pm \) 4.02 | 0.070 |
| Financial Aspects       | \( > 35 \) | 114        | 16.45 \( \pm \) 4.14 | 17.77 \( \pm \) 4.55 | 0.161 |
| Time Spent with the Doctor | \( \leq 35 \) | 96         | 19.70 \( \pm \) 3.28 | 21.02 \( \pm \) 4.06 | 0.033 |
| Access / Availability / Convenience | \( > 35 \) | 114        | 19.55 \( \pm \) 4.05 | 20.14 \( \pm \) 4.54 | 0.517 |

Independent t test; *Significant p<0.05.

Table 5 shows the mean value of satisfaction level of service quality is higher in urban area (125.12 \( \pm \) 20.77) than rural area (124.06 \( \pm \) 18.33), there is no significant difference between urban and rural area satisfaction level.

Table 5. The mean level (score) of satisfaction on the quality of health services in urban and rural areas.

| Location   | PSQ Mean ± SD | p-value |
|------------|---------------|---------|
| Urban      | 125.12 \( \pm \) 20.77 | 0.579 |
| Rural      | 124.06 \( \pm \) 18.33 |         |

Independent t test.

Discussion

With the increasing public demand for health care quality, the service should be improved to provide satisfaction to patients. Patient satisfaction is the realization of the wishes, expectations and needs of patients. A survey has been conducted on differences in patient satisfaction with health services based on gender and age in urban areas represented by Somba Opu sub-district and rural areas represented by Pattalassang district of Gowa regency of South Sulawesi [15–17].

Table 2 shows more male subjects compared to female on their visits to dental and oral care centers. This suggests that male visit more dental and oral care providers. This survey is accordance with previous research, which states that respondents have higher satisfaction level in males (70%).
However, this study is not accordance with research conducted in Jakarta [18] that demonstrated the employees and public society in Indonesia more dominates women. In addition, another research showed that women visit more providers of dental and oral health services because more attention to the aesthetic and clean teeth and mouth. Women pay more attention to their appearance, while men do not heed it other than that women are more sensitive to emotion and empathy while men are more likely to care about better physical environment and faster and more flexible responses than women [17-20].

In this study also revealed the number of subjects aged \(\leq 35\) years had the highest number of subjects (51.4%). Adults believe they have a higher level of satisfaction with service quality than teenagers because the older the person, the more critical the way they think, and they are able to judge something better. It has been shown previously that patients with age above 45 years was as much as 39.7\% [21]. There are only a small number of studies that report the age relationship and patient satisfaction in obtaining care. Most studies suggest that there is no significant relationship associated with patient age [22,23].

In Table 3 of the technical quality variables in the age group \(\leq 35\) years there is a difference in the level of satisfaction with the quality of health services that is significant between male and female. This is accordance with previous research [24]. Technical quality has a strong relationship with overall satisfaction. Technical quality contains the competencies of service providers and adherence to high standards of diagnosis and treatment (accuracy, precision, unnecessary risks, making mistakes). The infrastructure facilities should not only be attractive, but also should be hygienic [26]. In addition, the study also revealed that infrastructure has significantly correlated to patient satisfaction. Women want better care, more privacy during visit hours, and less pain [21,24-26].

For communication aspect in age group >35 years there is also difference of satisfaction level to quality of health service, which is significant between male and female. Communication is very important between patients and doctors. Communication errors between the service provider and the patient may result in a medical error affecting the patient's condition. The communication-centered approach between the service provider and the patient is considered a good strategy in creating relationships with patients, and is considered a key to improving the quality of health care [25,27,28].

In Table 4, communication variables in the age group \(\leq 35\) years there is a difference in the level of satisfaction with the quality of health services that are significant between male and female. According to previous authors gender differences have also been found in communication, which play a role in the assessment of the quality of care [29]. Women send more letters of complaints about the health care system than men. Women are more than men in terms of criticizing doctors-patient relations, health care, and drug restrictions [29].

There is a difference in the level of satisfaction of health services that is not significant between urban and rural areas (Table 5). And the level of satisfaction in urban areas is higher than in
rural areas. In urban and rural areas, urban respondents are more satisfied with services than respondents in rural areas [30,31]. Some literature has made it clear that location including distance is a very important factor; especially longer distances such as rural areas can inhibit respondents for health care and ultimately reduce their satisfaction levels. The report published by the Government of India's Family Health Ministry and Family Welfare in 1996 stipulates the ratio of health care conditions in urban and rural India although the population in rural areas is higher than in urban areas, the health quality is worse in rural areas compared to urban area [32]. People from rural areas tend to use oral health services rather than those living in urban areas [33]. In addition, this survey is similar to previous research indicating that people in urban areas have better accessibility than others thus delaying their treatment. Access to health care facilities appears to be less on urban issues than in rural areas, although travel expenditures tend to increase rapidly from a small village to a big city [29-34].

In this study, the rural areas represented by Patalassang sub-district have no significant differences in satisfaction with the urban areas represented by Somba Opu Sub-district. In contrast to the previously described research that distance is one of the obstacles to access to health services, in Pattalassang subdistrict is not a barrier for the community because Gowa District especially Pattalassang District is a buffer area of Makassar City so that access to health services is easily accessible by the community. In addition, Gowa Regency is included in the Mamminasata area development project (Makassar, Maros, Sungguminasa and Takalar) so that the construction of a new road connecting Makassar City and Gowa Regency region as a marker of the growth of megalopolitan area directly or indirectly makes the area around the development the road infrastructure is in transition. The closer the geographical area of the village to the urban areas the greater the opportunity to open village openness with the city. Infrastructure facilities are relatively faster met than villages far from urban areas making it easier for access to energy, information and transport a direct impact that is acceptable to local communities [35].

Conclusion

There was a difference of satisfaction level of dental health services between male and female in both age group on technical and communication quality subscale and there was no significant difference of satisfaction level between urban and rural area.

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