

Needs and Suggestions of the Accompaniment Service: A Survey Study of the Residents of Chengdu

Yu Yuan^{1, #, *}, Shuyan Li^{1, #}, Yifan Chen^{2, #}, Yiwei Jiang^{1, #}

¹School of Statistics, Chengdu University of Information Technology, Chengdu, China, 610103

²School of Management, Chengdu University of Information Technology, Chengdu, China, 610103

* Corresponding Author Email: 13458473946@163.com

#The authors contributed equally.

Abstract. The emergence of the companion not only solves the difficulties encountered by some residents when they go to the doctor alone, but also provides companionship for the residents and makes up for the gap in the hearts of the lonely people who go to the doctor. However, as a new industry, there are still many problems in the escort service industry, and residents have different needs and suggestions for the escort industry. Based on the questionnaires distributed to collect the survey samples, this study mainly uses descriptive statistical analysis, frequency analysis, column (cross) analysis, reliability and validity analysis, KANO single-factor analysis, factor analysis, intra-group correlation analysis, PRICE competence model analysis, structural equation modelling analysis, etc., to investigate the different needs of the residents for accompanying services, and the results of the survey suggest that the accompanying service platform should have a perfect management system, service management system, service management system and service management system. The findings suggest that the platform should have a perfect management system and diversified types of services; the accompanying staff should be professionally trained and have relevant medical knowledge and professionalism.

Keywords: Accompanying Services, Structural Equation Modelling, PRICE Competency Model Analysis, Responses and Recommendations.

1. Introduction

1.1. Background and Significance of the Study

China is currently in a period of social transformation of digitalisation, informatisation, loneliness normalisation and ageing. Against this background, the emerging profession of escorting medical practitioners has gradually emerged and aroused widespread social interest and concern. The purpose of this study is to analyse the research background of the escort, and to explore its current situation and development trend in three aspects, namely, audience structure, social realities and demand for medical escorts. Firstly, by examining the structure of the audience group, it is easy to find that China has a huge population size. According to the seventh national census data released on 11 May 2021, China's population has reached 1.443 billion[1-2]. This means a huge demand for escorts, not just for the elderly, but also for children, pregnant women, young people living alone, patients travelling to other places for medical treatment, and many other groups. In particular, the elderly population is large, and the number of disabled elderly people and empty nesters living alone is also considerable. This provides a wide market space for accompanying medical practitioners, as they can cater for patients of different age levels and needs[3].

However, despite the obvious demand, there are certain problems with the current escort platforms on the internet. Many e-commerce platforms offer escort services[4-5], but with low ratings, small downloads and relatively homogenous types of services. This suggests that there is a mismatch between existing escort services and people's needs, and that further improvements and innovations are needed. In addition, social realities have fuelled the rise of the escort industry. Urbanisation and ageing issues have led to a decline in family companionship, and older people find it difficult to cope with illnesses alone at home. However, sons and daughters often find it difficult to take care of their

families and work at the same time due to their busy schedules. This escalation of social conflicts has given rise to the profession of escorts, who can fill the gap of companionship and provide medical escorts for the elderly. On the other hand, the wave of information technology in the digital age has widened the "digital divide" between the elderly and the smart society, and many elderly people feel confused when facing computers, mobile phones and automated machines. Professional companions need to be equipped with the medical knowledge and resources to better serve their patients. In this digital age, escorts provide not only physical accompaniment but also digital support to help seniors adapt to new technologies. In terms of medical companionship needs, companions not only provide solutions to medical problems[6], but also fulfil intergenerational conflicts and the need for companionship. They can offer patients a personalised service that addresses emotional needs and loneliness. This personalised service makes the chaperone a close companion to the patient and not just a medical companion[7].

Therefore, the purpose of this study is to gain an in-depth understanding of the current situation of the emerging profession of escorts, to explore its market demand and potential, and to make recommendations for improvement in order to meet the increasing social demand for escort services. The profession of escort not only has a better market prospect, but also has a high social and economic value, which can provide better medical escort services for the public and make up for the shortcomings of the existing services[8]. Through in-depth study of the field of escorts, we can better understand the needs of this emerging industry and provide strong support and guidance for its development[9-10].

1.2. Research Ideas and Methods

The specific research idea of this paper is shown in Figure 1:

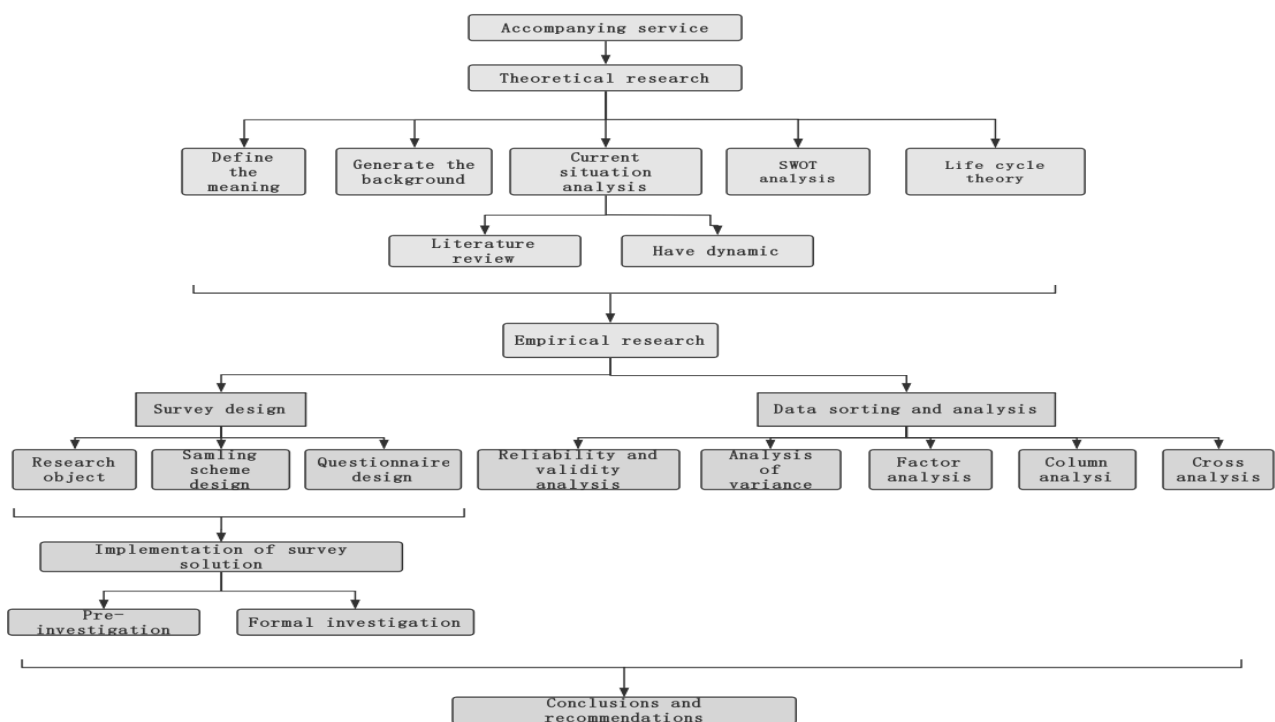


Figure 1. Research idea

This study adopts a combination of theoretical and empirical research. The theoretical study focuses on exploring the market demand, social value and economic value of the escort industry, analysing the existing problems and proposing solutions, as well as focusing on publicizing and popularising the profession of escort. The empirical study includes online data mining, analysing market demand through data crawlers and Bayesian networks, and offline field visits and research to obtain supplementary data. The questionnaire survey covers the experience of medical treatment, the

understanding and acceptance of escort services, etc., in order to gain insights into the social awareness and demand for the escort profession. The questionnaire design is shown in Figure 2:

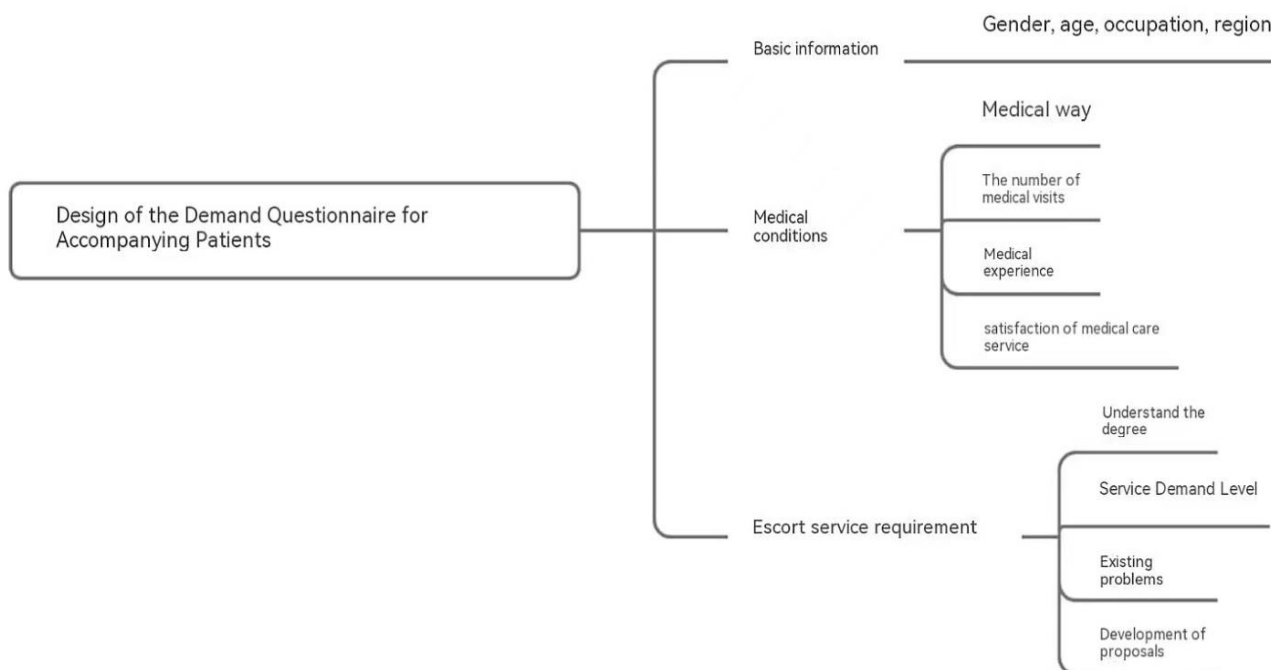


Figure 2. Questionnaire design

2. Survey on Residents' Demand for Escort Services

The purpose of this questionnaire survey is to understand the demand of Chengdu residents for the escort service industry and their perceptions of the current development of the escort industry in Chengdu. By distributing the questionnaire widely, we will explore the public's perception of the escort service industry and the current problems in the industry from the perspective of respondents of different ages, occupations and income levels. This questionnaire will help to provide objective data for future analyses and decision-making.

2.1. Source of questionnaire design

The inspiration for the questionnaire design came mainly from previous studies and related literature. Previous studies have shown that the cumbersome process of seeking medical care, mobility problems, and unaccompanied people plague many people, especially the elderly. Therefore, we decided to use this questionnaire to understand the residents' difficulties in seeking medical treatment, as well as their needs and expectations for escort services. At the same time, questions about the formality, privacy protection, and price fairness of escort services were inspired by previous studies.

2.2. Structure and content of the questionnaire

The questionnaire was designed to include five main sections:

Preface: explaining the purpose of the survey, the principle of confidentiality, and thanking the respondents for their co-operation.

Basic information about the respondents: to collect information about the respondents' age, gender, occupation, area of residence, and monthly income.

Current situation of medical treatment: To understand the frequency of medical treatment, experience of medical treatment, and whether the process of medical treatment is cumbersome, etc. of the interviewees.

Knowledge of escort service: To find out the respondents' knowledge of escort service.

Survey on the demand for escort services: To explore the respondents' demand for the channels provided by escort services, standardised management, privacy protection, price fairness, diversified types of services, after-sale protection, and the quality of escort personnel.

2.3. Data collection

Two main methods were used for data collection:

Paper questionnaire and online questionnaire: the questionnaire was distributed in the form of paper questionnaire and online questionnaire to meet the habits and needs of different respondents. Online questionnaire data was collected through the web-based questionnaire tool.

In-depth interviews: team members conducted field interviews with relevant staff and attendees of some hospitals in Xindu and Longquanyi districts in order to obtain professional and authentic data.

2.4. Data analysis methods

In order to analyse the questionnaire data, a variety of statistical methods were used, including descriptive statistical analysis, frequency analysis, columnar analysis, reliability and validity analysis, KANO analysis, intra-group correlation analysis, structural equation modelling analysis and other methods. These methods help to provide insight into the needs and perceptions of the respondents and provide a basis for future research.

This questionnaire design and data collection will allow you to better understand the needs and perceptions of Chengdu residents about the escort service industry, as well as the current status of the escort industry. The data analysis will help guide the future development and improvement of escort services to meet the needs of society.

3. Analysis of survey statistical results

The basic situation analysis of escort services provides some detailed information on the demand for escort services and related factors. The following is a comprehensive summary of the results of the analysis:

Need for accompaniment to medical appointments: The survey data showed that about 56.34 per cent of the respondents felt that they did not need to be accompanied to medical appointments, while 43.66 per cent felt that they needed to be accompanied. This difference in distribution may be related to the age and income level of the respondents. Younger people and those with higher incomes were more likely to attend appointments on their own, while older people and those with lower incomes were more likely to require an escort for their appointments. Residents who need to be accompanied to medical appointments Who accompanies them: The data shows that the majority of people choose loved ones, particularly parents, to accompany them to medical appointments, while fewer choose friends or professional chaperones. This suggests that people prefer to face medical problems with someone they know well and that awareness of professional chaperone services may be low.

Distribution of departments of residents' medical appointments who needed to be accompanied at the consultation: Most people believed that they needed to be accompanied at medical appointments, while a significant number of people also believed that they needed to be accompanied at surgical appointments and gynaecological appointments. This suggests that people have different needs for different specialities and that chaperones may need to focus more on common specialities such as internal medicine. People in need of escort services: The majority of people felt that older people needed escort services, followed by babies and children. This is in line with society's concern for vulnerable people, and age is closely related to the need for escort services.

Waiting time for consultation: About 46.48% of people can accept waiting time of 15-30 minutes for consultation, but only a few people can accept waiting time of more than 3 hours. The presence of a chaperone can effectively shorten the consultation time and improve patient satisfaction.

In the correlation analysis of the underlying information, the following correlations were highlighted:

Five-level scale correlation: The survey data indicate that the factors related to the satisfaction level of the consultation service include the difficulty of seeing the doctor, the degree of understanding of the escort service, the degree of demand for the escort service, and the standardised requirements of the escort service platform. This suggests that standardised, professional escort.

3.1. Research hypotheses

The study proposes a series of research hypotheses, which include a positive relationship between protection of patients' privacy on diversification of service types, a positive relationship between residents' satisfaction with hospital services on formal business licences, a positive relationship between diversification of service types on formal business licences, a positive relationship between a well-established management system on after-sales protection, a positive relationship between protection of patients' privacy on well-established management system, and a positive relationship between the positive relationship between residents' satisfaction with hospital services on the protection of patient privacy.

3.2. Empirical Analysis

Reliability and validity test: The reliability of the scale was measured by Cronbach's α coefficient, and the results showed that the reliability of the whole questionnaire was high. The validity test includes content validity, convergent validity and discriminant validity. Content validity was supported by literature and research interviews. Convergent validity was verified through exploratory factor analysis, which demonstrated the measurement consistency of the scale. Discriminant validity was also validated by showing that the correlations between the measurement questions reached significance at the probability level. The specific results of the discriminant validity of the scales in this paper are shown in Table 1.

Table 1. Results of Distinguished Validity Test

KMO test and Bartlett's test		
	KMO value	0.869
Bartlett's test of sphericity	approximate chi-square (math.)	675.803
	df	10
	P	0.000***

Note: ***, **, * represent 1 per cent, 5 per cent and 10 per cent significance levels, respectively.

Structural equation modelling analysis is shown in figure 3:

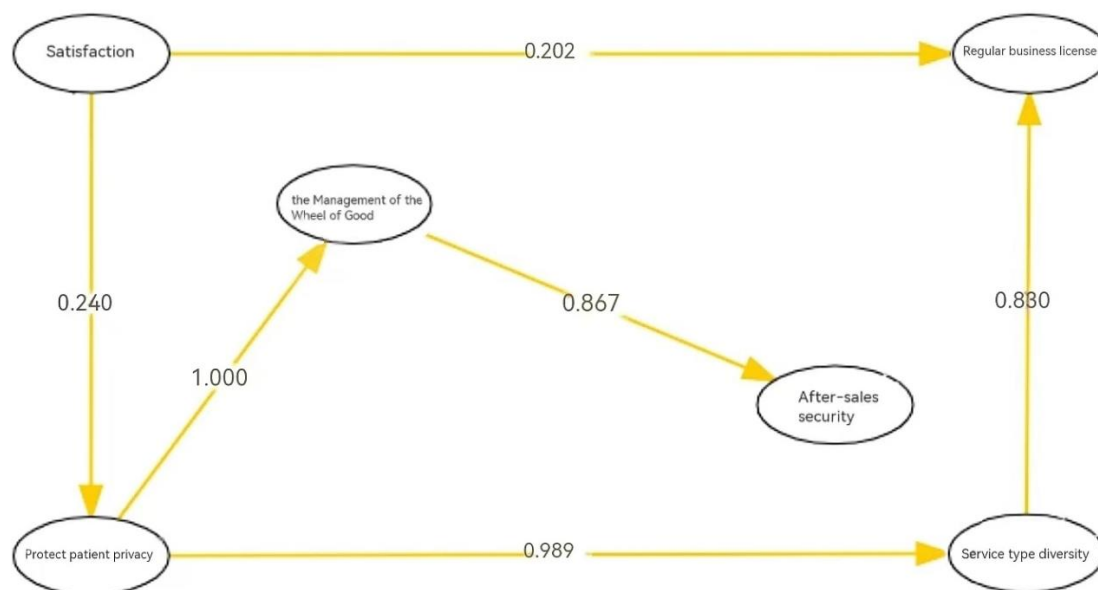


Figure 3. Structural equations

Based on the questionnaire on residents' demand for the escort service industry and the analysis of interviews with existing escort service platforms, the research hypothesised relationships between the five main categories in the framework of demand capacity in the escort service industry are proposed.

H1: Protecting patients' privacy has a significant positive relationship on the diversification of service types

H2: Residents' satisfaction with hospital services has a significant positive relationship with formal business licence

H3: Diversification of service types has a significant positive relationship on formal business licence

H4: There is a significant positive relationship between perfect management system and after-sale protection.

H5: Protecting patients' privacy has a significant positive relationship with perfect management system.

H6: There is a significant positive relationship between residents' satisfaction with hospital services and the protection of patient privacy variable measures

Structural equation modelling was used to test the research hypotheses and data were analysed using SPSS to test the H1, H2, H3, H4, H5 and H6 model path diagrams and standardised fitting parameters as shown in Figure 3, which led to the following conclusions:

Protecting patients' privacy has a positive relationship on diversification of service types.

Residents' satisfaction with hospital services has a positive relationship on formal business licence.

Diversification of service types has a positive relationship on formal business licence.

There is a positive relationship between perfect management system and after-sale guarantee.

There is a positive relationship between the protection of patients' privacy and a sound management system.

Residents' satisfaction with hospital services has a positive relationship on protecting patients' privacy.

3.3. Interpretation of empirical results

Positive relationship of protecting patients' privacy on diversification of service types: The results indicate that customers who are concerned about patients' privacy are more likely to need diversified services. This implies that escort service platforms need to ensure that patients' privacy is protected to meet the needs of more customers.

Positive relationship between a sound management system and after-sale protection: The study found that having a sound management system can help provide good after-sale protection, which helps safeguard the legitimate rights and interests of users and increase their satisfaction, thus promoting the sustainable development of the platform.

Positive relationship between service diversification and formal business licence: Providing diversified services helps to improve the platform's formal business licence. The formal business licence is crucial for the legal compliance of the platform, and therefore customers tend to focus on it.

Positive relationship between protecting patient privacy and having a good management system: The results show that customers who are concerned about patient privacy are often also concerned about whether the platform has a good management system. Such well-developed management systems help provide higher quality services and increase user satisfaction.

This study provides useful insights into the relationship between user needs and key competencies in the escort service industry, which can help industry participants better meet customer needs and improve service quality.

4. Demand analysis of escort services

The difficulties encountered by residents in accessing medical services include the following aspects:

(1). The large number of patients and long queuing times make it difficult for patients to receive timely medical treatment. 2. the number of residents who are affected by the presence of a chaperone at the clinic is not sufficiently high.

(2). Residents' access to medical services is limited by the choice of accompanying persons, and the reduction of family companionship has made it more difficult for them to receive medical treatment.

(3). Cumbersome procedures and poor quality of hospital services affect residents' experience.

Residents' needs for accompanying medical platforms include:

(1). The escort platform should have a formal business licence to ensure that it operates legally and is bound by national law.

(2).The escort platform should protect patient privacy and ensure that patients' personal information is not disclosed.

(3).The escorting platform should not have hidden consumption and should provide after-sale guarantee to protect the rights and interests of consumers.

(4). the escort platform should provide diversified services, including accompanying and assisting patients to complete the consultation process and other caring services.

(5). The escort platform shall establish a complete management system to ensure efficient operation of the platform.

(6). The escort platform should be linked with offline hospitals to expand the scope of services and facilitate patients.

(7). The accompanying personnel should be specially trained and certified to enhance the industry norms and professional ethics.

(8). jurors should have expertise and professionalism to provide high quality services.

These needs and perspectives provide some useful information on how to improve the escort service and the healthcare system to meet the needs of the residents and improve the quality and efficiency of healthcare services.

5. Conclusion

This study has produced a series of valuable findings in exploring the needs and recommendations of the escort service sector. With the ageing of Chinese society, the digitalisation of information and the increase in social isolation, the escort service industry has emerged to meet the needs of different groups of residents. Multiple groups such as the elderly, young people living alone, children, and patients travelling from other places for medical treatment have different needs for escort services. In particular, the elderly and the disabled elderly need more care and medical accompaniment.

The findings suggest that escort service platforms need to possess a series of key capabilities, including having a formal business licence, protecting patient privacy, providing after-sales protection, offering diversified services, and establishing a sound management system. These factors are critical to improving satisfaction with escort services. In addition, escort service platforms need to link up with offline hospitals in order to expand their service scope and provide more convenient services.

The study also highlights the diversity of residents' needs for escort services, including companionship, assisting patients through the consultation process and other caring services. In addition, the accompanying staff need to be professionally trained with relevant medical knowledge and professionalism in order to provide quality services. This is essential to improve the standardisation and professional ethics of the escort service industry.

References

- [1] Chen Tengxia, Li Zihui, Li Yun et al. Analysis of the current status and influencing factors of public perception of outpatient escort service[J]. *General Practice Nursing*, 2023, 21(22):3036-3040.
- [2] Deng Yong, Liu Kaiying. Research on the incentive and constraint mechanism of occupational accompaniment to alleviate the problem of difficult access to medical care in public hospitals[J]. *China Hospital*, 2023, 27(07):36-40.
- [3] Lulu Liang. Research on the design of geriatric medical accompaniment service platform [D]. Shandong Academy of Arts and Crafts, 2023.
- [4] Zhou Huanhuan, Ma Guoxiu, Wang Yifan et al. Analysis of children's willingness and demand for accompanying service for the elderly in Changzhou[J]. *Chinese Journal of Preventive Medicine*, 2022, 23(04):286-292.
- [5] Zheng Huan. Elderly people have difficulties in seeking medical treatment alone, and the demand for escort service is great[N]. *Shangrao Daily*, 2021-10-11(003).
- [6] Zheng He. Research on the design of intelligent medicine box service system for the elderly based on service design theory[D]. Tianjin University, 2022.
- [7] Yang Ruiting. Research on the design of health management product service system for community home care [D]. Nanjing University of Technology, 2020.
- [8] Pregnancy care to home: To create a medical-grade postpartum rehabilitation service platform[J]. *Family service*, 2018(01):14.
- [9] The Equuschick Changjuan. Research on health management service design for nursing homes[D]. Jiangnan University, 2018.
- [10] Song Shiyao, Tan Mingying, Zhou Yuping. Survey and analysis of initial and follow-up patients' demand for and satisfaction with outpatient pre-screening and triage services in large general hospitals[J]. *West China Medicine*, 2015, 30(07):1331-1333.