

# Investigation of outpatient's satisfaction of elderly patients with chronic pain:a survey

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## Research article

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# Abstract

## Background

There are more and more elderly patients with chronic pain, and there is a certain particularity in this group. The rapid development of the Internet and smart devices has brought a series of convenience measures for the outpatient in our hospital. But the impact of these new methods on the experience of elderly patients with chronic pain is not known yet.

## Methods

In this study, the outpatient satisfaction questionnaire with six questions was used to investigate the problems in elderly chronic pain outpatient consultation.

## Results

In the survey of 100 patients, the overall satisfaction of the visiting experience was 63.5%, the satisfaction of locating the clinic was only 35%, the satisfaction of getting the examination report was 47%, the satisfaction of outpatient visit time choice was 60%, the satisfaction of the consultation process was 69%, the satisfaction of nursing service was 80%, and the satisfaction of the consultation service was 90%.

## Conclusion

The experience of medical service of elderly outpatients with chronic pain is poor in the background of modern and intelligentized medical practice. To improve the experiences of these patients, it is necessary that the hospital provide additional supports to assist those patients during the outpatient service.

# Background

The rapid development of the Internet and smart devices, such as the new independent registration mode(1, 2), WeChat and Alipay payment method, independent printing reporting system and so on, provides a series of convenient and efficient methods for the outpatients(1, 3).

The incidence of chronic pain in China is about 20% in middle-aged and about 50% in the elderly (an average of 30%), which is higher than malignant tumors, hypertension and diabetes(4). Compared with non-elderly patients, the elderly also got other chronic systemic diseases, such as cognitive function degradation and decreased smart devices ability. Chronic pain has become an important social and medical problem.

However, the elderly patients, especially those who are deeply affected by pain, couldn't adapt to the various processes of the information process, causing a lot of inconvenience. In order to help elderly

patients with chronic pain solving problems and improve the quality of medical services, we used the questionnaire to study the outpatients in the pain clinic, looking for ways to solve these problems.

## Methods

### Respondents

Patients who visited the pain clinic at Shanghai First People's Hospital between May 2018 and October 2018 were involved. Inclusion criteria: age of 65 years old, no mental illness, can and willing to cooperate with the investigation.

### Survey

Due to decreased attention in elderly patients, anxiety caused by chronic pain, the questionnaire is dictated by the patient and recorded by the surveyor. The questionnaire uses a simplified version of the outpatient satisfaction questionnaire, including satisfaction of finding the location of the clinic, getting the examination reports, the visit time choice, the consultation process, nursing services and consultation service. Dissatisfaction requires reasons. The results are expressed in frequency, and satisfaction is expressed in percentages.

## Results

100 patients were surveyed, including 76 females and 34 males. Average age is  $72.6 \pm 5.54$  years old. Overall satisfaction was 63.5%. The satisfaction rate of finding the clinic location was only 35%, the satisfaction of getting the examination report was 47%, the satisfaction of outpatient visit time choice was 60%, the satisfaction of the consultation process was 69%, the satisfaction of nursing service was 80%, and the satisfaction of the consultation service was 90% (Table 1).

Table 1  
Outpatient Experience Satisfaction Questionnaire for Elderly Chronic Pain Patients

	<b>Unsatisfied</b>	<b>Just so so</b>	<b>Satisfaction</b>
Clinic location search	55(55%) ž Terrain Complex (25) ž Unguided (15) ž Crowded (15)	10(10%)	35(35%)
Getting reports	43(43%) ž Long waiting time (13) ž The time and place of the report is unknown (8) ž No machine (10)	10(10%)	47(47%)
Time of outpatient visit choice	26(26%) ž No outpatient clinic in the morning (25) ž Time Unclear (1)	14(14%)	60(60%)
The consultation process	21(21%) ž Process complexity (10) ž Elevator Crowding (8) ž Do not use self-service machine (2) ž More people in the pill window (3)	10(10%)	69(69%)
Nursing services	18(18%) ž Fewer nursing staff (15) ž Environment is too poor (3)	2(2%)	80(80%)
Consultation services	3(3%) ž Waiting too long (3)	7(7%)	90(90%)
<p>The satisfaction questionnaire of outpatient experience for elderly chronic pain patients was the number of frequencies and the satisfaction rate was %. The main causes of dissatisfaction are statistically shown.</p>			

## Discussion

The location of the hospital's pain clinic is clearly marked, there are indicator signs in the elevator and each floor, and the hospital also provide the augmented reality (AR) navigation, the location of the clinic

can be found directly according to the guide of the smart phone. But surprisingly, the search for pain clinic location was the biggest problem, with the satisfaction only 35% and 55 people saying they were dissatisfied. The main reasons for dissatisfaction include complex terrain (25 people), unguided (15 people) and crowded environments (15 people). None of them used the AR navigation system because they do not know how to operate. And the characteristics of elderly pain patients themselves, slow movement, visual degradation, decreased resolution, pain caused by anxiety or depression, resulting in difficulties in finding the clinic. As a convenient technology, AR navigation did not fully take into account the needs of elderly patients, especially elderly pain patients, so that elderly pain patients in the course of medical treatment is full of frustration, seriously affecting the satisfaction of the visit(5)

The satisfaction of getting examination reports was 47%, with 43 people expressing dissatisfaction. The main reasons for dissatisfaction include long waiting times (13 people), unclear time and location for getting the reports (8 people) and lack of use of machines (10 people). At present, the hospital has taken the examination report to print independently, only one manual window. The patients could get their results by a mobile phone application, WeChat public platform, or a self-service machine which was convenient and quick, reducing the patient waiting time(5, 6). But for elderly patients, they did not know how to use these. Although there are volunteers or medical guides near the autonomous printers, most of the older people are still at a loss.

At present, the hospital pain clinic is from Monday to Friday afternoon, 60% of patients are satisfied, but 26% of patients are dissatisfied, the main reason is the this no morning pain clinic, 25% of patients think that the pain clinic should cover the whole day. All out-patient time and out-patient adjustments will be posted on the official website to facilitate patient enquiries and arrange time for visits. However, most elderly patients are not used to checking the hospital's online home page for outpatient time inquiries. Often because of the fear of missing out the clinic, they came early to the hospital, then waiting in the crowded hospital until the afternoon. That will be more choices for the patients if the pain clinic should cover the whole day, and the doctor could have enough time to treat very patient.

For the pain clinic consultation process, satisfaction is 69%, 21 people expressed dissatisfaction, the main reasons for dissatisfaction is, the consultation process is complex (8people), elevator congestion (8people), will not use self-service machine (2people), medicine- taken window crowd (3people). Our hospital is still registered - consultation - medicine - treatment mode, the clinic is on the 5th floor, and the registered and payment and medicine window are on the 2nd floor, elderly patients with chronic pain also have mobility difficulties, the experience greatly decreased(7). Although there are self-service machines on each floor, patients alone or unaccompanied with the young to use could not able to use the self-service machine, so they could not enjoy the convenience of the self-service machine.

Nearly 18% of patients are dissatisfied with pain outpatient treatment care, but my hospital pain clinic only equipped with a nurse, in assisting doctors to carry out treatment, and study showed additional interactions with the physicians increased the satisfaction of sicker patients(8), So this part is also needed to improve.

The satisfaction of the consultation service is 90%, fully reflects the level of the doctors in our hospital .the main reason for dissatisfaction is that the waiting time is too long, the application of the current online appointment system, can optimize the consultation process, reduce the waiting time(6)

The ability of elderly patients to learn is decreased, the ability to accept new things is poor, the rapid development of intelligent hospital sits not very well to elderly patients with pain. Based on our findings and previous research, we have based on the following coping strategies:1 Hospitals can guide some elderly patients who are willing to try and learn intelligent self-service through intensive consultation and volunteer guidance services. For patients getting used to manual services and with difficulties in learning new skills, guiding them to window services by person to person manner. Set up the elderly pay for medicine window ,"one-stop" service window(9) ,volunteers to help them during the whole time .

## **Conclusion**

The elderly chronic pain patients have their particularity, in the background of the acceleration of the information-based medical experience, but also should take into account more and more elderly patients, focus on human resources, improve this part of the patient's experience.

## **Abbreviations**

AR Augmented Reality

## **Declarations**

### **Ethics approval and consent to participate**

This project was approved by the ethics committee of Shanghai General Hospital

All the patients are verbal agreed to the survey.

### **Consent for publication**

Not applicable

### **Authors' contributions**

HX helped in Provision of study materials or data collection and assembly of data analysis, interpretation manuscript writing and final approval of manuscript and. AG helped in conception and design, administrative support, analyzed data, and wrote and edited the paper. interpretation manuscript writing and final approval of manuscript. FB, ZP, helped in data analysis and interpretation Manuscript writing and Final approval of manuscript. All authors have read and approved the manuscript.

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### **Competing Interests**

All the authors declared no competing interests

### **Availability of data and material**

The questionnaire and the patient data are available

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## Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- [questionnaire.docx](#)