

Six Years of Complaints Issued by Patients at a Laser Treatment Center in a Plastic Surgery Hospital

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Background: Patient complaints can provide valuable feedback regarding the objective deficiencies of medical services. There are few studies on the complaints of patients receiving photoelectric therapy, so this study aims to understand the expectations and requirements of patients by analyzing the complaints of patients receiving photoelectric therapy.

Methods: The complaints of patients who underwent photoelectric therapy were retrospectively examined. Authors plan to analyze treatment items, complaint contents, appeals, time trend regarding the number of complaints, and economic compensation.

Results: Fifty-four patients were involved in the study in total, and all of them were included. According to the standardized coding classification of complaints by Reader et al., the number of clinical, management and relationship complaints were 36 (59.02%), 14 (22.95%), and 11 (18.03%), respectively. These were divided among the categories of quality (31.15%), safety (27.87%), institutional issues (22.95%), communication (8.20%), and humaneness/caring (9.84%); with the most common subcategories involving treatment (31.15%) and safety incidents (24.59%). The patients' demands involved 20 cases (32.26%) requesting a refund of their medical expenses, 16 (25.81%) issuing a warning, 15 (24.19%) requesting compensation for loss, 10 (16.13%) requiring free repair or consultation, and 1 (1.61%) demanding an apology. Eventually, financial compensation was provided to the patients in eight of the cases. At a significance level of $P = 0.05$, even if the number of annual complaints increased over time, the increasing trend was not significant.

Conclusions: Patient complaints in photoelectric therapy were most commonly clinical in nature. Specifically, quality and safety concerns are the main complaints. (*Plast Reconstr Surg Glob Open* 2023; 11:e5206; doi: 10.1097/GOX.0000000000005206; Published online 17 August 2023.)

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INTRODUCTION

Plastic surgeons whose practice is largely composed of cash-paying aesthetic patients are more likely to receive complaints than surgeons of other subspecialties with different patient demographics.^{1–3} Photoelectric therapy is becoming an increasingly popular branch of plastic surgery causing less trauma and offering the advantage of a shorter recovery period; however, patient complaints are worthy of attention. The high complaint rate of plastic surgery patients may be related to the fact that part of the treatment in plastic surgery is mainly aimed at beauty; thus, patients have low tolerance to the risks and complications that may follow an operation.⁴ Additionally, the high cost of plastic surgery can lead to elevated patient expectations and subsequent dissatisfaction if the results are not as envisioned.¹ Steven et al studied the complications

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of fractional laser therapy in 730 patients, but this study mainly focused on complications, and there were few studies on patients' complaints about various aspects of laser diagnosis and treatment process.⁵ Analyzing patient complaints is an effective way to grasp their needs, identify deficiencies in medical procedures, and improve the quality of medical services. Therefore, this study retrospectively analyzed complaints issued by patients who underwent photoelectric therapy in the Plastic Surgery Hospital of Chinese Academy Medical Sciences and Peking Union Medical College from 2016 to 2021. This is done to understand the causes and appeals of patients' complaints and provide guidance for the improvement of medical services.

DATA AND METHODS

Research Data

A retrospective analysis was conducted on all complaints of patients who underwent photoelectric therapy at the Plastic Surgery Hospital of the Chinese Academy Medical Sciences and Peking Union Medical College from 2016 to 2021. During this period, a total of 222,364 individuals received treatment, with 38,453 being men and 183,911 being women. Multiple complaints originating from the same patient and concerning the same incident were recorded as a single case. The study was approved by the ethics committee and was exempted from informed consent requirements.

Research Methods

All complaints in our hospital were uniformly managed by a doctor–patient relationship department. It is the only department in the hospital to deal with complaints. Patients can choose to complain by letter or visit. Some patients will directly submit their complaints to the superior regulatory departments, which are national-level departments. The superior regulatory departments will uniformly feed back the complaints to the doctor–patient relationship department, and then the doctor–patient relationship department will contact the patients for handling. After collecting the complaint information, the doctor–patient office will make a preliminary classification according to the department, grasp the cause of the complaint by contacting the patient and the doctor, and record the basic information of the patient and the doctor, the cause of the complaint, treatment items, patient appeals, and the final solution. A researcher screened the subjects who were treated in a laser treatment center according to “department name” and “treatment item” among all the complaints in our hospital, and recorded the year in which the complaint occurred, sex and age distribution of patients, treatment items, character of complaints, patient appeals, and whether economic compensation was provided to the complaining patients. The complaints were classified according to the standardized coding classification by Reader et al, which includes three major fields of issues: clinical, management, and relationship complaints. These three fields are further divided

Takeaways

Question: This study aimed to provide important information regarding the objective deficiencies of medical services offered in photoelectric therapy, based on the valuable feedback gathered by patient complaints.

Findings: Patient complaints in photoelectric therapy were most commonly clinical in nature. Specifically, quality and safety concerns are the main complaints of patients undergoing photoelectric therapy.

Meaning: Patient complaints are a means of improving medical service quality; few studies have been conducted on plastic surgery patients' complaints, and this is the first study concerning patients of photoelectric therapy.

into quality and safety, for issues concerning the clinical field; time arrangements and access to medical services, for issues of the management field; and communication, humanistic care, and patient rights, for issues in connection with the relationship field. These categories were further subcategorized into 26 subcategories, as seen in Table 1. The same complaint incident could be characterized by issues spanning multiple fields, categories, and subcategories.

Statistical Analysis

Microsoft Excel 2016 (Microsoft Corp, Redmond, Wash.) was used to input and process the data, and a descriptive analysis was conducted on the patient's sex and age distribution, treatment items, complaint content, patient appeal, and whether economic compensation was provided. The Mann-Kendall test was conducted with MATLAB software to evaluate the time trend of complaint frequency over the years and to evaluate the significance of the trend.

RESULTS

Sex and Age Distribution of Patients

A total of 104 complaints regarding photoelectric therapy from 54 patients were issued. The 54 patients included six men and 48 women, with a mean age of 33.70 ± 9.63 (range: 6–65) years. Among them, two were 0–20 years old, 44 were 21–40 years old, seven were 41–60 years old, and one was over 60 years old.

Treatments

Fourteen patients received picosecond laser treatment of freckles, nine received laser treatment for facial scars, seven underwent laser resection of surface tumors (nevi, warts), seven received monopolar radiofrequency treatment (Thermage), five received intense pulsed light therapy, two received laser hair removal, two underwent laser tattoo removal, one received laser treatment for coarse pores, one underwent microwave treatment for bromhidrosis, and eight simply received outpatient consultations regarding laser treatment, but no actual treatment. Two patients underwent simultaneous removal of freckles and

Table 1. Patient Complaint Taxonomy as Adapted from Reader et al⁶

Domains	Categories	Subcategories	Definition of Subcategories				
Clinical 36/61 (59.02)	Quality 19/61 (31.15)	Examination	0/61 (0)	Inadequate patient examination by clinical staff			
		Patient journey	0/61 (0)	Problems in the coordination of treatment in different services by clinical staff			
		Quality of care	0/61 (0)	Substandard clinical/nursing care			
		Treatment	19/61 (31.15)	Poor, or unsuccessful, clinical treatment			
		Safety 17/61 (27.87)	Errors in diagnosis	0/61 (0)	Erroneous, missed, or slow clinical diagnosis		
			Medication errors	0/61 (0)	Errors in prescribing or administering medication		
			Safety incidents	15/61 (24.59)	Events or complications that threatened the safety of patients		
			Skills and conduct	2/61 (3.28)	Deficiencies in the technical and nontechnical skills of staff that compromise safety		
			Management 14/61 (22.95)	Institutional issues 14/61 (22.95)	Bureaucracy	7/61 (11.48)	Problems with administrative policies and procedures
					Environment	0/61 (0)	Poor accommodation, hygiene, or food
Finance and billing	6/61 (9.84)	Healthcare-associated costs, or the billing process					
Service issues	0/61 (0)	Problems with hospital services for supporting patients					
Staffing and resources	1/61 (1.64)	Inadequate hospital staffing and resource levels					
	Timing and access 0/61 (0)	Access and admission	0/61 (0)	Lack of access to services or staff			
		Delays	0/61 (0)	Delays in admissions or access to treatment			
		Discharge	0/61 (0)	Early, late, or unplanned discharge from the hospital			
		Referrals	0/61 (0)	Problems in being referred to a healthcare service			
		Relationships 11/61 (18.03)	Communication 5/61 (8.20)	Communication breakdown	3/61 (4.92)	Inadequate, delayed, or absent communication with patients	
Incorrect information	1/61 (1.64)			Communication of wrong, inadequate, or conflicting information to patients			
Patient-staff dialogue	1/61 (1.64)			Not listening to patients, lack of shared decision-making, and conflict			
Humaneness/ caring 6/61 (9.84)			Respect, dignity, and caring	0/61 (0)	Rude, disrespectful, or insensitive behaviors to patients		
			Staff attitudes	6/61 (9.84)	Poor attitudes toward patients or their families		
			Patient rights 0/61 (0)		Abuse	0/61 (0)	Physical, sexual, or emotional abuse of patients
					Confidentiality	0/61 (0)	Breaches of patient confidentiality
Consent	0/61 (0)	Coercing or failing to obtain patient consent					
		Discrimination	0/61 (0)	Discrimination against patients			

Data are presented as the number of complains/total (%).

skin mass. Additionally, among the 46 patients who went through treatment, 42 were treated on facial regions, whereas four were treated on nonfacial regions.

Complaint Content

Complaints were classified according to the standardized coding taxonomy of Reader et al. The number of clinical, management, and relationship complaints were 36 (59.02%), 14 (22.95%), and 11 (18.03%), respectively. These were divided among the categories of quality (31.15%), safety (27.87%), institutional issues (22.95%), communication (8.20%), and humaneness/caring (9.84%), with the most common subcategories involving treatment (31.15%) and safety incidents (24.59%), as demonstrated in Figure 1.

Patient Demands and Cases of Economic Compensation

A total of 54 patients made 62 demands. This discrepancy can be elucidated, as six of the patients having made two or more demands. Patient demands included “refund of medical expenses” in 20 cases (32.26%), “reminding the doctor learn the lesson” in 16 cases (25.81%), “compensation for loss” in 15 cases (24.19%), “free repair or consultation” in 10 cases (16.13%), and “apology” in one case (1.61%). Eight cases (14.81%) were eventually

compensated by the hospital, and the average compensation amount was \$968. Four cases of complaints involved safety incidents, three involved treatment, and one was related to finance and billing.

Time Trend of Complaint Cases

From 2016 to 2021, the numbers of complaints regarding laser therapy each passing year were 3, 6, 5, 4, 20, and 16. At a significance level of $P = 0.05$, even if the number of annual complaints increased annually, the increasing trend was not significant, as seen in Supplemental Digital Content 1. [See figure, Supplemental Digital Content 1, which displays the trend of the number of complaints from 2016 to 2021. UF (forward time series) and UB (backward time series) are statistics. Below a significance level of $P = 0.05$, $UF > 0$, the number of annual complaints increased annually, but the increasing trend was not significant. <http://links.lww.com/PRSGO/C742>.]

DISCUSSION

To our knowledge, this is the first study concerning patient complaints regarding photoelectric therapy. Most of the patients in the study were women, with female

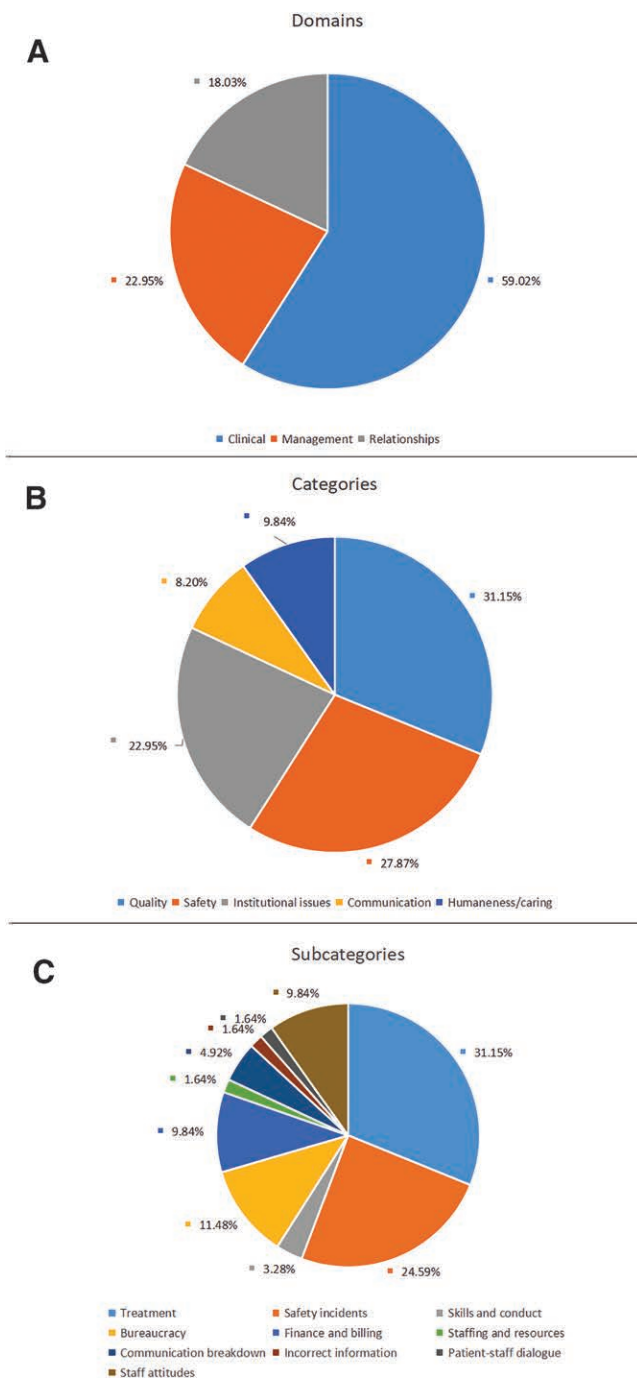


Fig. 1. Patient complaint taxonomy as proposed by Reader et al.⁶ A, Distribution of complaints among the different domains. B, Distribution of complaints among the different categories. C, Distribution of complaints among the different subcategories.

patients accounting for more than 80% of complaints, and patients aged 21–40 years were the most common age group to issue a complaint. This may be related to the fact that the audience of photoelectric therapy consists mostly of young women.

In this study, clinical complaints accounted for nearly 60% of patient complaints. Specifically, they involved quality

(31.15%) and safety (27.87%) concerns. Complaints about quality were linked to the subcategory of treatment, while complaints about safety were mostly attributed to incidents or complications threatening patient safety. Other studies have also found that some complaints are related to incidents that threaten patient safety, such as medical malpractice and complications. The number of complaints may be reduced by improving the safety and efficacy of treatment through technical training and standardized operations as to prevent avoidable errors. In addition, it should be noted that photoelectric therapy often requires multiple sessions to have an observable outcome, and the therapeutic effect varies from person to person. In recent years, the market of photoelectric therapy has developed rapidly. Faced with fierce market competition, manufacturers boldly publicize their own equipment, but some technologies lack reliable evidence of evidence-based medicine. All of the above factors may cause the single treatment effect or immediate effect to be inconsistent with the patient expectations.⁷ This should be comprehensibly communicated to the patients to avoid disappointment and consequent complaints, if the immediate results after a single treatment are underwhelming. Accurate and effective communication of expectations with patients is necessary, and a satisfactory consultation process and appropriate expectation setting often make patients happy.⁷ To this effect, the process of gathering an informed consent before treatment is particularly important. Doctors should explain the possible adverse events and the extent of therapeutic effects to the patients in detail, ensuring that the patients completely understand this information before treatment. Considering that 71% of complaints involve clinicians failing to mention or properly explain the risk of complications,⁴ it is an important issue to overcome. Currently, many medical institutions conduct nonstandard procedures of gathering informed consent, but this is clearly insufficient. Studies have suggested that 57% of medical disputes regarding informed consent are directed at surgeons, and the number of them involving plastic surgeons is more than double when compared with any other professional group.⁴ Although there was no complaint included in our analysis issued due to a lack of informed consent, it may be a potential cause for other complaints and should still be paid full attention to. The deficiencies in proper informed consent gathering could arise as a result of the large number of patients, the relative maturity of the technology, and the ill-equipped staff commonly handling the process. Because the number of patients undergoing photoelectric therapy is quite large and the technology is relatively mature, the treatment process is gradually transformed into a production line mode. This comes in contrast with the proper informed consent gathering process, which takes a long time; therefore, it can be easily ignored or simplified. In our hospital, medical specialists conduct the informed consent process. They provide a comprehensive explanation of the treatment program’s principles, effects, as well as any potential risks or complications that may arise during or after the procedure. However, in some institutions, the process is handled by the nursing staff or junior doctors, who may lack experience and knowledge to properly complete the

process. Adding to the complaints relating to the clinical field, there are more involving the category of institutional issues belonging to the management field of complaints. Among these, the most common complaints correlate with the subcategories of bureaucracy and finance. In our study, out of the seven complaints relating to bureaucracy, four were related to the epidemic policies. Complaints regarding finance and billing may be related to the high cost of photoelectric therapy. Especially if the treatment outcome is unsatisfactory, the patients are more likely to lodge a complaint. Our study included a substantial number of complaints relating to the relationship field and more specifically the communication category. This could be illuminated if we consider that surgeons largely have poor communication skills and pay less attention to patients' emotions compared with their peers.^{8,9} In the study conducted by Wofford et al, 36% of complaints issued were in regard to patients feeling disrespected by their doctors.¹⁰ However, similar complaints were not observed in this study.

More than half the patients included in this study lodged financial compensation claims, including refunds for medical expenses and compensation for losses, which may be related to the high cost of photoelectric therapy. However, only eight cases (14.81%) received financial compensation eventually, seven of which were related to safety and treatment concerns. This study found that the number of complaints issued about photoelectric therapy increased from 2016 to 2021, especially in 2020 and 2021. Additionally, four of the eight complaints issued by patients who only received consultation in the outpatient department were related to our epidemic policies. A study of psychological distress among Chinese people during the coronavirus disease 2019 pandemic showed that 35% of subjects experienced psychological distress such as panic, anxiety and depression.¹¹ Therefore, we speculate that unstable psychological states in the context of the epidemic may be related to the increase in complaints. In addition, we can also consider as a contributing factor, the fierce competition taking place in the photoelectric industry.

Patient complaints are a means of improving medical service quality. This study applies a "standardized coding classification of complaints" to classify the character of complaints. This provides a deeper understanding of the ratio of complaint etiology, thus facilitating the clinical development of targeted rectification measures. However, some patients may avoid complaining, either due to the cumbersome process of filing a complaint or in fear of how that could impact subsequent treatment sessions, because it is frequently observed that patients undergoing photoelectric therapy programs require multiple treatments.¹² In addition, studies have shown that most dissatisfied patients will choose to be silent and endure it.^{10,13} To have a more comprehensive understanding of the requirements of patients and the problems we have, we post a piece of paper with the phone number and location of the doctor-patient relationship office to introduce the way to complain, and conduct patient satisfaction surveys after treatment to encourage patients to raise problems in the treatment process. According to the complaints of

patients, we have developed corresponding measures as well. For example, regular training courses are organized, including medical technology and doctor-patient communication. Doctors with repeated patient complaints will be suspended from work and will be trained and assessed before they can return to work. For the complaint involving compensation, the complained against doctor shall bear part of the compensation amount; the specific proportion depends on the degree of negligence of the doctor. For serious complaints, case discussions would be held. Strictly limit the qualification of purchased equipment, with safety and effectiveness as the priority.

In conclusion, in this study, treatment and safety concerns were the main issues reported by the complaints of patients undergoing photoelectric therapy. However, the total number of patient complaints was relatively small, and even if the number of complaints increased annually, this trend was not statistically significant. Therefore, it is necessary to optimize the complaint channels and encourage patients to propose suggestions. We can utilize the information they provide to accumulate more comprehensive feedback on patients' needs, as well as the medical service deficiencies, and facilitate greater improvement of our technique and services. To this effect, further investigations can be carried out.

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DISCLOSURE

The authors have no financial interest to declare in relation to the content of this article.

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