

Chapter 3

Research Methodology

This research is a mixed method design. The details about the research method as follows:

1. Research design
2. Population and sample size
3. Research instruments
4. Data collection
5. Data analysis

Research Design

The research design was presented as a planning diagram in Figure 3.1.

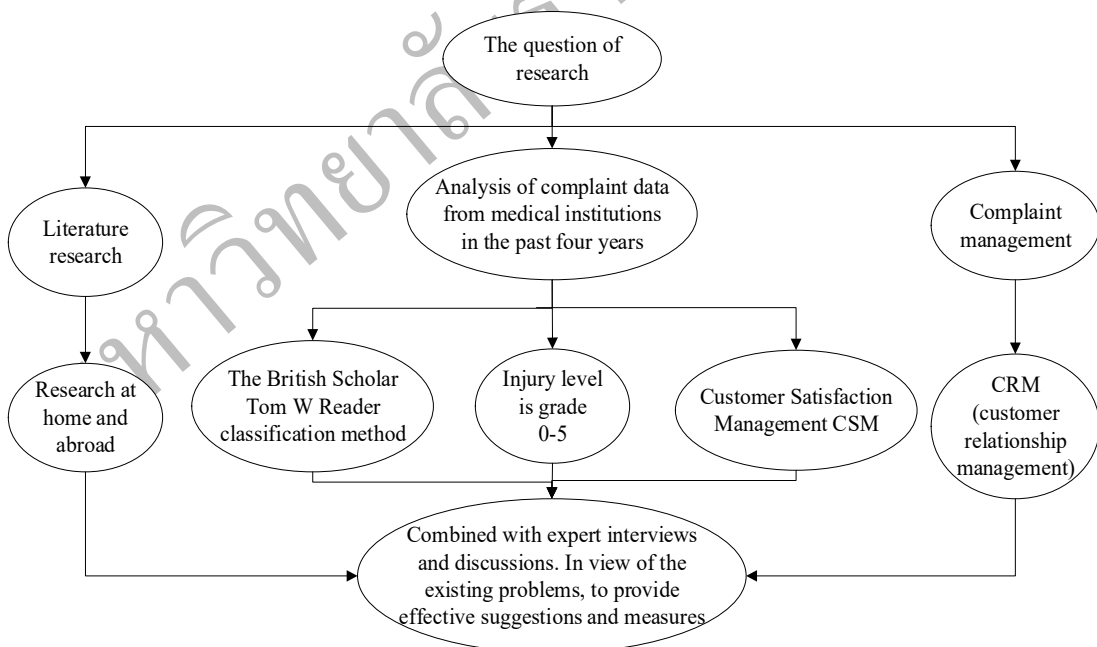


Figure 3.1 Research planning diagram

1. The study employed a mixed method design, involving the retrospective analysis of complaint cases studied in medical institutions from 2019 to 2022. This paper identified the main causes of medical complaints, the departments with more medical complaints, and the main factors that affected the occurrence of medical complaints.

2. This study was based on the theory of customer relationship management and the actual situation of the hospital. It discussed and analyzed the problems in three aspects: medical complaint management organization, medical complaint handling processes, and medical complaint handling execution.

3. The purpose was to provide suggestions for rectifying and improving the problems in the management of medical complaints in the hospital, and to propose improvement suggestions for the main causes of medical complaints.

4. The study supplemented the above-mentioned improvement opinions through patient complaint and result satisfaction statistics and provided opinions and suggestions to enhance the quality of hospital services.

Population and Sample Size

1. Population

The target population of this study was divided into two categories, both of which consisted of individuals who had contact with the hospital. One category was the complainants, for example, patients who visited the hospital, patients' families, and hospital employees from various industries. The other category included the respondents, who were hospital employees and leaders. Due to individuals' privacy concerns, this study only recorded the gender and identity of the people involved, as well as the departments of the hospital employees.

This study utilized a non-random sampling method, and it retrospectively analyzed 440 medical complaints data from the study hospital over a four-year period. This data mainly encompassed information about the complainants, including their gender, consultation department, and identity, as well as basic information about the complaint subjects, such as gender, age, occupation, and the entire process of complaint generation and handling. Each medical complaint record was individually classified and assigned a grade (hazard classification 0-6). The classification method was based on the suggestions of Tom W. Reader (Wang, et al., 2013, pp. 1925-1927), a British scholar, and was adapted to the specific circumstances of medical complaints in this hospital.

To illustrate this, Table 3.1 displays the relevant data that was extracted from the complaint platform for analysis.

Table 3.1 Complaint platform

Complaint time	Complainant Information	Case No.	Title	Concrete content	Handling department	Completion date	Reply to the content

This study adhered to the principle of confidentiality, and all information related to the privacy of medical staff and patients was treated confidentially and anonymously. All data in this paper were used only for this study.

To propose guidelines for optimizing medical service quality in general hospitals by utilizing the concept of customer relationship management to respond to patient complaints, the researcher conducted interviews with experts who had knowledge in service quality and customer relationship management. Five experts in customer relationship management were selected. The data obtained from these interviews were summarized to form guidelines that addressed the research objectives.

Research Instruments

1. Data collection platform.

The research data collection was completed by an acceptance registration service system, with 7x24 hours of artificial service. The platform had 15 acceptance personnel 'online', and the call hotline and hotline platform operated according to the work process. Depending on the different categories of appeals, they were assigned to different departments for processing, and it took an average of 5 to 7 days to provide feedback to the public. The system supported a mobile App function.

First, its service was more convenient. After logging into the mobile App, people could select the required type and fill in the question, and then submit the appeal. After submitting the appeal, they could check the processing progress at any time and evaluate their satisfaction with the appeal processing results according to their own feelings.

Second, it offered full coverage of hot spots, providing solutions to high-frequency hot issues. People could access the corresponding platform according to their needs, meeting the personalized needs of the masses for handling affairs. It also provided recent daily life information to the masses.

Third, the information was more secure. The App accepted and encrypted the transferred work information, enhancing the security of mobile data. It also automatically defended against dangerous websites or information plug-ins. Additionally, during the initial registration, people only needed to fill in the "phone number" and "verification code" without providing more personal information. When filling in the submitted demands, the public could choose whether to keep them confidential. The system program automatically hid personal information according to the selection results, preventing non-case handling personnel from viewing the specific information of public identity and personal privacy information.

Regarding the complaint channel, medical complaint data were analyzed using Excel database software. Since medical complaints were not induced by a single factor, the most important inducing factors were classified when categorizing the complaints. This classification included one case, meaning that one piece of data corresponded to one case. A retrospective analysis method was used to classify and statistically analyze the data based on the distribution of personnel in the complaint department, complaint reasons, solution results, influencing factors, satisfaction, and more. The classification method used was the one proposed by Tom W. Reader (Wang, et al., 2013, pp. 1925-1927), as shown in Table 3.2.

Table 3.2 Tom W Reader classification of complaints

Territory	Classify	Cause	Example
Clinical field	Medical quality	1. Error in the medical examination	Errors in physical examination and pathological examination.
		2. Poor quality of nursing care	Complications and multiple puncture failures were not observed in time.
		3. Poor consultation quality	Missing, failed, clinical diagnosis.

Table 3.2 Tom W Reader classification of complaints (cont.)

Territory	Classify	Cause	Example
	Medical safety	4. Unplanned secondary surgery	Injury to the patient due to the unplanned secondary surgery.
		5. Drug errors	Substantial harm to patients due to errors in prescribing and administration, including drug quality problems.
		6. Potential patient safety events	Complaints due to events where the patient may be injured during the treatment.
	Management system	7. Unreasonable medical treatment process	Complicated medical treatment process or poor coordination between different departments / departments.
		8. Poor medical treatment environment	Hospitalization, hygiene, hospital environment or food.
		9. High medical costs	Medical expenses are too high, opaque, unreasonable, reimbursement or settlement question.
		10. Excessive medical treatment	Excessive diagnosis and treatment, over-examination, more prescription.
Management field	Waiting time and health service accessibility	11. The shortage of health resources is in high demand	Insufficient number of medical staff and medical equipment.
		12. Long waiting time	Diagnosis and treatment are delayed, and the queue time is too long.
		13. Poor labor discipline	Medical staff late and leave early, private stop treatment, working hours play with phone, etc.
		14. Difficulties in referral and hospital transfer	Difficulties occurred in the patient referral and hospital transfer.

Table 3.2 Tom W Reader classification of complaints (cont.)

Territory	Classify	Cause	Example
The field of doctor-patient relationship	Attitude towards customers	15. Poor service attitude of doctors	Doctors are indifferent to patients and their families, bad attitude, shirking the patient and other conditions.
		16. Nurses have a poor service attitude	Nurses to patients and their families indifferent, bad, shirking patients and other conditions.
		17. Poor service attitude of medical technicians	Medical technicians to the patient and their families attitude is indifferent, bad, shirking the patient and other conditions.
		18. Poor service attitude of other employees	Other employees in the hospital are indifferent and evil towards the patients and their families, Bad, shirk the patient and so on.
	Patient rights	19. Violation of patient privacy	Infringement of patient privacy and patient information leakage.
		20. Inappropriate informed consent and notification	Do not fulfill the obligation of notification or the notification is not timely, not detailed.
		21. Discriminating against the patients	Medical complaints for reasons other than the above.
Other aspects	Other areas	22. Other reasons	Medical complaints for reasons other than the above. (Employee demands and other consulting questions)
		23. The cause of the outbreak	Complaints caused by the epidemic situation (involving nucleic acid testing in hospitals, single mixed testing and other related aspects)

2. Classification of complaints of degree of injury

The complaint was based on the classification of the degree of injury according to the Hong Kong Hospital Authority as shown in Table 3.3

Table 3.3 Classification of complaints of degree of injury

level	Expression
0 No harm	No injury was reported
1 Minor injury	Minimal intervention or treatment required (e.g., abrasions, bruises)
2 Mild injuries	Minor intervention required to mitigate injury (e. g. sprain, anxiety)
3 Moderate injury	Significant intervention is needed to mitigate injury (e. g., Grade 2-3 pressure ulcers, hospital-acquired infection)
4 Heavy injury	Experienced or faced prolonged incapacity (e. g. dislocation, fracture,)
5 Caused for extremely severe injuries	Death or multiple / permanent injury (e. g. surgery at the wrong site)
6 Death	Patient deaths as defined by the medical field

3. Interview guideline

Expert interview questions that could be used to collect data as follow:

(1) Can you provide an overview of your experience and expertise in the field of customer relationship management (CRM) within the healthcare industry?

(2) In your opinion, how important is the concept of customer relationship management to optimize CRM?

(3) What are common challenges or issues faced by general hospitals when it comes to responding to patient complaints?

(4) How can CRM systems and practices help in addressing patient complaints and improving overall medical service quality in general hospitals?

(5) Are there any specific strategies or approaches that hospitals can adopt to effectively utilize CRM in responding to patient complaints?

(6) Have you come across any successful case studies or examples where CRM has been effectively utilized to address patient complaints and enhance medical service quality? If yes, could you please share some details?

(7) Are there any ethical or privacy concerns associated with implementing CRM practices in healthcare settings, particularly when dealing with patient complaints? If so, how can these concerns be addressed?

(8) Based on your expertise, what recommendations would you provide for hospitals looking to implement CRM-driven strategies for responding to patient complaints and improving medical service quality?

Data Collection

1. Complaint data

The data was exported through the computer system to organize the complaint data from the past four years, and the total number of complaint cases was 440, including 80 cases in 2019, 41 cases in 2020, 108 cases in 2021, and 241 cases in 2022.

2. Study of the hospital's complaint management

Through the medical institution's office and doctor-patient office, we collected the organizational structure, process settings, and implementation norms of the medical institution, and combined them with the mature CRM management system to make recommendations.

3. Telephone return visit for satisfaction.

Telephone callback process:

1) Learned about the patient's basic condition and treatment by extracting the patient's information before the callback.

2) Called the patient, made a self-introduction, and explained the purpose of the callback.

3) Sought the complainant's opinions and suggestions on hospital medical treatment, nursing, medical ethics, medical environment, charges, window units, and logistics services.

4) Recorded the complainant's satisfaction evaluation (very satisfied, basically satisfied, unsatisfied, not expressed).

5) Expressed gratitude and good wishes to the patient for accepting the return visit.

6) Detailed records of the return visit, and the reasons when dissatisfied.

Callback personnel requirements: Had rich medical knowledge, good communication skills, strong sense of responsibility, warm and thoughtful, patient and meticulous, standardized language, and were able to answer questions and coordinate the problems proposed by patients.

Return visit time: Generally processed complaints within 7 days after the end of the telephone return visit, trying to avoid meals and rest time during the return visit.

Data Analysis

The data was established using software. In statistical description, count data were described using percentages. The researcher analyzed the content of the complaints, identified the key issues, categorized them, and then performed quantitative analysis using statistical methods, including frequency distribution, one-way ANOVA, and the chi-square test. The incidence of hospital complaints, complaints in different fields, the characteristics of complaints and the respondent, and the analysis of the actual situation of medical institutions, which served as the basis for further cause analysis and improvement countermeasures, were all examined.

According to the feedback of patient satisfaction, an in-depth analysis of the reasons for dissatisfaction was conducted. The data obtained from these interviews were summarized to form guidelines that addressed the research objectives through content analysis.