



## The influence of case manager to patient satisfaction and service quality

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### ABSTRACT

Patient-Centered Care (PCC) in hospital service is crucial. Case management, administered by a case manager (CM), is one of PCC implementation. CM's objectives are to attain patient satisfaction and provide quality service. However, the concept of CM is still novel in Indonesia, especially among inpatients. The effect of the CM role on patient satisfaction and service quality remains to be determined. This study aims to measure and analyze the influence of CM on patient satisfaction and service quality. We used quantitative method with cross-sectional approach. Questionnaires adapted from Korean-PSCCM, Case Management Quality Questionnaire (CMQQ), and adapted SERVQUAL were used to measure inpatient satisfaction and service quality. Data were analyzed with bivariate statistical analysis using SPSS. Data collecting was done between 1-30 March 2023, with total 42 respondents. The influences of CM to patient satisfaction and service quality were not statistically significant. ( $p = 0,973$  ; and  $p = 0,944$ ). In this study, the function of CM in patient care is not optimal in increasing patient satisfaction and service quality, as CM continues to work multiple shifts in other units and has limitations in addressing patient problems. Considering the increasing complexity of hospital services, future interventions are necessary to optimize clinical management (CM) function further.

#### Kata kunci:

manajer pelayanan pasien  
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### ABSTRAK

Pelayanan berfokus-pada pasien di rumah sakit merupakan hal yang penting. Salah satu implementasi dari hal tersebut adalah manajemen pelayanan pasien oleh MPP, yang bertujuan untuk mencapai kepuasan pasien dan memberikan pelayanan yang berkualitas. Namun, konsep MPP sendiri masih tergolong baru di Indonesia khususnya pada pasien rawat inap. Pengaruh peran MPP terhadap kepuasan pasien dan kualitas pelayanan masih harus dilakukan penelitian. Tujuan penelitian adalah untuk mengukur dan menganalisis pengaruh peran MPP terhadap kepuasan pasien dan kualitas pelayanan. Penelitian ini metode kuantitatif dengan pendekatan potong lintang. Kuesioner yang diadaptasi dari Korean-PSCCM, Case Management Quality Questionnaire (CMQQ), dan SERVQUAL yang diadaptasi untuk mengukur kepuasan rawat inap dan kualitas pelayanan. Data dianalisis dengan statistik bivariat menggunakan SPSS. Pengumpulan data dilakukan pada tanggal 1-30 Maret 2023 dengan jumlah responden sebanyak 42 orang. Pengaruh MPP terhadap kepuasan pasien dan kualitas pelayanan secara statistik tidak signifikan. ( $p = 0,973$ ; dan  $p = 0,944$ ). MPP tidak berpengaruh secara signifikan terhadap kepuasan rawat inap dan kualitas pelayanan. Namun, fungsi MPP tetap diperlukan karena kepuasan pasien dapat berfluktuasi dari waktu ke waktu; oleh karena itu, perlu untuk terus memantau aspek-aspek yang diidentifikasi saat ini tidak relevan dengan kepuasan pasien dan evaluasi kualitas layanan



## INTRODUCTION

Comprehensive health services provided by hospitals must always prioritize quality or service quality improvement. Effective, efficient, accessible, patient-centered, equitable, and secure healthcare services for patients have become the standard for hospitals providing quality care. (World Health Organization, 2006). Patient-centered care is a vital component of the hospital's service quality, as patient satisfaction is strongly correlated with it. (Larson et al., 2019) Case Management is one implementation of patient-centered care in hospitals, and its manager is known as the Case Manager. It is a professional hospital staff (nurse or physician) whose duties are to manage and collaborate with patients outside of clinical services, based on the principles of education, advocacy, communication, and coordination, in order to meet the needs of patients and their families while they are receiving treatment in hospital. (Fraser et al., 2016)

Patients with long hospitalizations, patients with cost issues, patients with complex referral plans, patients who require a great deal of education, and patients with post-hospitalization discharge plans involving multiple parties must all be addressed and resolved by parties other than clinicians or direct care professionals. Without a party to advise, accompany, coordinate, and collaborate on the implementation of these factors, it is difficult to achieve optimal care outcomes. (Campagna et al., 2019) and may disrupt the post-hospitalization transition (Shah et al., 2010), which in turn reduces service quality and patient satisfaction with hospital services.

Here, the case manager's role and function include communicating, collaborating, and coordinating with professional healthcare providers such as doctors and nurses, advocating with health insurers, bridging the referral process to other hospitals, providing education, and ensuring the smooth transition of patient care from hospital to home and the continuity of patient care programs. (ACMA, 2022). Case managers focus on patients with multiple objectives, including ensuring patients receive appropriate and safe care, enhancing care outcomes, optimizing patient care transitions after hospitalization, increasing patient and family participation in decision-making, and boosting patient satisfaction. (McLaughlin-Davis, 2019). The concept of case manager is still somewhat new in Indonesia. Case manager implementation began with the 2012 version of the Hospital Accreditation Standard and will continue through the 2022

version of AKP 2.1, AKP 3, AKP 4, and AKP 5 Standards. (Keputusan Menteri Kesehatan Republik Indonesia Nomor HK.01/07/Menkes/1128/2022 Tentang Standar Akreditasi Rumah Sakit, 2022).

Patient satisfaction remains one of the most important and highly regarded indicators of hospital service quality. (McNicholas et al., 2017) By analyzing the role of case manager in patient services, particularly for inpatients, with one of the goals being to increase patient satisfaction, and because further research is still required on the role of case manager because the concept is still relatively new in Indonesia, researchers are interested in conducting a study on this subject. This study aims to measure and analyze the influence of the hospital case manager role on patient satisfaction and service quality in one of Banjarbaru, South Kalimantan's private hospitals.

## METHODS

This is a quantitative study with an analytical observational design, cross-sectional approach, alongside the use of questionnaires to determine the effect of case manager on inpatient satisfaction and service quality. The study was conducted at RSU Syifa Medika Banjarbaru, a private hospital of type C with 124 beds in the South Kalimantan city of Banjarbaru. Inpatients who received case manager services were the subject of the study, while inpatient satisfaction was the research objective. This study's population consists of all March 2023 inpatients, while the sample consists of all patients included on the case manager's screening list based on predetermined criteria (referred to Case Management Society of America – CMSA standards and Case Manager Handbook by the Hospital Accreditation Commission – KARS for criteria). The role of the case manager is the independent variable, while inpatient satisfaction is the dependent variable. The role of case manager services is measured by assigning points for completing Forms A and B. Form A is comprised of four sections (screening, assessment, problem identification, and case manager's planning), whereas Form B is a record of implementation or monitoring of the case manager's implementation of planning. The details about CM services are described in the table below :

**Table 1**  
**Description about CM services (Fraser et al., 2016)**

| No | CM Services            | Details   |
|----|------------------------|---|
| 1  | Patient identification | Advanced age (more than 65 years old)<br>Chronic or terminal conditions<br>History of daily living support (walker, wheelchair, etc)<br>Estimated high cost<br>Complex financial problem<br>Cognitive deficits<br>High complain potential<br>Prolonged care (more than average length of stay)<br>in need for continuity of care<br>Potential for legal risk<br>High activity daily living need |
| 2  | Assessment             | Functional<br>Cognitive<br>Understanding of current   |
|    |                        | Partial<br>Total care<br>cooperative<br>Not cooperative<br>low  |

Documented in  
 CM' s Form A

|          |   |   |                              |
|----------|---|---|------------------------------|
|          | condition                                   | moderate  |                              |
|          | Family support                              | good<br>no support<br>Has support   |                              |
|          | Referral plan                               | To be referred<br>Not to be referred  |                              |
|          | Patient obedience                           | Obey to medical advices<br>Not obey to medical advices  |                              |
|          | Financial assurance                         | BPJS Kesehatan<br>Other insurance<br>Self-financed (out-of-pocket)  |                              |
| <b>3</b> | Problem Identification                      | Has 1-2 problems<br>Has more than 2 problems  |                              |
| <b>4</b> | Development of Case Management Plan of Care | Collaboration with patient and family<br>Promotion about current condition and patient care goals<br>Coordination with other healthcare providers<br>Komunikasi dan koordinasi dengan <i>payer</i> terkait masalah biaya perawatan<br>Education to patient's family |                              |
| <b>5</b> | Monitoring and evaluation                   | Documentation of monitoring and implementation in Form B  | documented<br>Not documented |
|          |   |   | Documented in CM's Form B    |

Using questionnaires containing 24 questions with Likert scales ranging from 1 to 5 and ordinal data scales adapted from Korean-PSCCM (Park et al., 2017), Case Management Quality Questionnaire (CMQQ) (Hadjistavropoulos et al., 2003), and 16 questions adapted SERVQUAL (Lee & Yom, 2007; Parasuraman et al., 2013), inpatient satisfaction and service quality with case managers was measured. Before data collection, all questions were evaluated for validity and reliability. The Pearson correlation test is used for the validity test, while Cronbach alpha with a minimum value of 0.6 is used for the reliability test. The validity test yielded all valid questions, and the reliability test yielded all reliable questions with an average Cronbach alpha of 0.90. Bivariate statistical analysis was done using SPSS software.

|                   |           |            |
|-------------------|-----------|------------|
| High school       | 13        | 30,95      |
| Undergraduate     | 2         | 4,76       |
| Graduate          | 20        | 47,62      |
| Postgraduate      | 2         | 4,76       |
| <b>TOTAL</b>      | <b>42</b> | <b>100</b> |
| <b>Occupation</b> |           |            |
| Civil servant     | 5         | 11,9       |
| Teacher           | 4         | 9,5        |
| Private Employees | 2         | 4,8        |
| Self employed     | 7         | 16,7       |
| Housewives        | 15        | 35,7       |
| Pensionary        | 3         | 7,1        |
| Miscellaneous     | 6         | 14,3       |
| <b>TOTAL</b>      | <b>42</b> | <b>100</b> |

## RESULTS AND DISCUSSION

Data collecting was done between 1 and 30 March 2023, with a total of 42 inpatient respondents. Table 1 outlines the characteristics of the respondents. Sixty-six percent of patients were female, with the majority between the ages of 41 and 50 (38.1%), university graduates (47.62%), and housewives (35.9%). The results of these patient surveys indicate that patients are highly educated and still in their prime of productivity.

**Table 2**  
**Overview of Patient Respondent Characteristics**

| Variable               | Frequency | Percentage (%) |
|------------------------|-----------|----------------|
| <b>Gender</b>          |           |                |
| Male                   | 14        | 33,3           |
| Female                 | 28        | 66,7           |
| <b>TOTAL</b>           | <b>42</b> | <b>100</b>     |
| <b>Age</b>             |           |                |
| < 20 years             | 1         | 2,4            |
| 20 – 30 years old      | 7         | 16,7           |
| 31 – 40 years old      | 6         | 14,3           |
| 41 – 50 years old      | 16        | 38,1           |
| 51 – 60 years old      | 9         | 21,4           |
| >60 years old          | 3         | 7,1            |
| <b>TOTAL</b>           | <b>42</b> | <b>100</b>     |
| <b>Education Level</b> |           |                |
| Elementary school      | 3         | 7,14           |
| Middle school          | 2         | 4,76           |

In case manager patient screening, 33 patients (78.6%) met 1-2 criteria and received a score of 1, while 9 patients (21.4%) met more than 2 criteria and received a score of 2. In the patient assessment, 36 (85.7%) patients received a score of 7 (complete), while 6 patients (14.3%) were not completely assessed and received a score of less than 7. Thirty-six patients (85.7%) were assigned a score of 1 because they were identified as having 1-2 problems, while 6 patients (14.3%) were assigned a score of 2 because they were identified as having more than 2 problems. In case manager's planning, it was determined that 35 patients (83.3% of the sample) received a score of less than 4 because they did not plan sufficiently (less than 4 plans). All patients (100%) have been recorded for the case manager's implementation of their service planning. The majority of patients (73.8%) have not received comprehensive case management services. Minimum score for CM service is 15, and maximal score for CM service is 26 (if all points from identification, assessment, problems identification, development of plan of care, and monitoring and evaluation were documented in Form A and Form B). This is evident by the scores for patient identification, assessment, and planning that are below the minimum.

**Table 3**  
**Case Manager Service Assessment**

| Service Points                             | Frequency (patient) | Percentage (%) |
|--|---------------------|----------------|
| Patient Identification (minimum score = 2) |                     |                |
| Rated ≤ 2                                  | 33                  | 78,6           |

|   |    |      |   |    |      |
|---|----|------|---|----|------|
| Rated > 2   | 9  | 21,4 | Rated <4  | 35 | 83,3 |
| Assessment (minimum score = 7)                                  |    |      | Rated ≥ 4   | 7  | 16,7 |
| Rated < 7   | 6  | 14,3 | Monitoring and Evaluation (if documented in Form B= score 1; if not documented in Form B = score 0) | 42 | 100  |
| Rated 7   | 36 | 85,7 |   |    |      |
| Problems identification   |    |      |   |    |      |
| 1-2 issues = rated 1  | 36 | 85,7 |   |    |      |
| > 2 issues = rated 2  | 6  | 14,3 |   |    |      |
| Development of Case Management Plan of Care (minimum score = 4) |    |      |   |    |      |

**Table 4**  
**Case Manager Service Assessment Results**

| Case Manager Service assessment score | Frequency | Percentage (%) | Interpretation                         |
|---------------------------------------|-----------|----------------|--|
| < 15                                  | 31        | 73,8           | Case manager services are not complete |
| ≥ 15                                  | 11        | 26,2           | Complete Case Manager services         |

The patient satisfaction questionnaires for case managers consisted of 24 Likert scale questions. The utmost number of values attainable was determined by multiplying the value 5 by 24 questions, resulting in a maximum total value of 120. Because there were 5 levels of the Likert scale, the interval of each satisfaction level was determined by 100% divided by 5, so that each level was in the range of 20% ("very dissatisfied"

if the satisfaction score was 0 – 19.99%; "not satisfied" if the satisfaction score was 20 – 39.99%; "quite satisfied" if the satisfaction score was 40 – 59.99%; "satisfied" if the satisfaction score was 60 – 79.99%; and "very satisfied" if the satisfaction score was 80 – 100%).

**Table 5**  
**Patient satisfaction with Case Manager**

| Patient Satisfaction Score (%) | Interpretation    | Number of patients (n) | Percentage (%) |
|--------------------------------|-------------------|------------------------|----------------|
| 0 – 19,99                      | Very dissatisfied | 0                      | 0              |
| 20 – 39,99                     | Not satisfied     | 0                      | 0              |
| 40 – 59,99                     | Quite satisfied   | 1                      | 2,4            |
| 60 – 79,99                     | Satisfied         | 8                      | 19,0           |
| 80 - 100                       | Very satisfied    | 33                     | 78,6           |

None of the patients were dissatisfied with case manager services, as shown in the table. The majority of patients (78.6%) were very satisfied, while 19.0% were satisfied. Only one patient (2.4%) was "quite satisfied" with the case manager's services.

Statistical tests conducted using the Spearman correlation were used to determine the influence of case manager services on patient satisfaction. Spearman's test of correlation resulted in a sig value of 0.97 ( $p > 0.05$ ). The influence of case manager services to patient satisfaction was not statistically significant. The correlation coefficient is 0.005, which indicates a weakly positive relationship.

Patient satisfaction with CM service quality was measured using questionnaire adapted from SERVQUAL. The result of subtracting Performance from Expectation is service quality. If Performance minus Expectation was less than 0, the patient was dissatisfied with the quality of CM service. In

contrast, if Performance minus Expectation resulted in 0 or more, the patient was satisfied with the quality of CM service. The outcome is outlined in the table below. It was determined that only 59.9% of patients were satisfied with the quality of CM services, while the remaining 40.5% were not.

**Table 6**  
**Results of Spearman Correlation Analysis of Case Manager Service Score with Patient Satisfaction Score to CM**

| Case Manager Service Score | Patient Satisfaction Score to Case Manager |
|----------------------------|--|
|                            | $r = 0,005$                                |
|                            | $p = 0,973$                                |
|                            | $n = 42$                                   |

**Table 7**  
**Results of Patient Satisfaction with CM Service Quality**

| SERVQUAL Average Value | Interpretation                           | Number of patients | %    |
|------------------------|--|--------------------|------|
| < 0                    | Performance < expectation (dissatisfied) | 17                 | 40,5 |
| > 0                    | Performance ≥ expectation (satisfied)    | 25                 | 59,5 |

The results of the Spearman correlation test were sig = 0.94 ( $> 0.05$ ). These results indicate that the effect of CM services on patient satisfaction with service quality is

insignificant. The correlation coefficient is -0.011, which indicates a very weakly negative relationship.

**Table 8**  
**Results of Spearman Correlation Analysis of Case Manager Service Score with Patient Satisfaction Score to CM Service Quality**

|                            | Patient Satisfaction Score to CM Service Quality |
|----------------------------|--|
| Case Manager Service Score | r = -0,011<br>p = 0,944<br>n = 42                |

## DISCUSSION

The results of the evaluation of case manager services for inpatients indicate that 73.8% are still incomplete. Several factors can contribute to a case manager's difficulty to conduct thorough screening, evaluation, and planning. First, the RSU Syifa Medika Banjarbaru staff assigned as case managers consisted of four individuals, three of whom had received case manager training. However, the three case managers who have been appointed continue to serve concurrently in their respective installations and are not case managers full-time. One case manager is a senior nurse and operating room coordinator, another is a senior nurse and emergency room director, and the third is a hemodialysis nurse. Every day, only two of the three case managers are actively on duty, namely the first and third case managers. After completing their primary responsibilities in their respective installations, they serve as case managers. This is a barrier to providing comprehensive services because case managers cannot presently work full-time, which can result in missed screening, assessment, or planning.

This is consistent with the results of a research study carried out at the Dr. Hasan Sadikin Bandung Hospital, which found that case managers who hold additional jobs can render their duties ineffective. (Auladi et al., 2022) Second, because case managers at RSU Syifa Medika Banjarbaru are currently on duty at their respective installations, they will conduct screening, identification assessment, and planning only after they have completed their service, although they can respond promptly if the room nurse notifies them of patients who require case manager assistance. Some patients who require a case manager visit on the same day as the discovery of a problem cannot be visited until the following day. As a result, the time required to screen, assess, and plan is extended because the case manager visit is delayed. In order to reduce admissions to the emergency room and rehospitalizations, it is necessary for case manager to intervene intensively in the transition of patients following their discharge from the hospital. (Lovelace et al., 2016)

The majority of patients are satisfied or even highly satisfied with case manager services, despite the fact that the majority of case manager services are deficient. The Spearman correlation test sig value = 0.97 (>0.05) and the correlation coefficient of 0.005 indicate that the variables are weakly positively correlated. The influence of case manager services on patient satisfaction was not statistically significant, and although a positive correlation can be considered to indicate that patient satisfaction should increase as case manager services improve or become more comprehensive, the correlation is very faint. This finding is inconsistent with research conducted at PKU Muhammadiyah Sekapuk Hospital in 2020, which found that case manager services had an influence on patient satisfaction levels, and research on the implementation of case manager at Purwokerto Islamic Hospital with action

research (interviews with 15 patients), which found that patients who were initially dissatisfied became satisfied after receiving case manager services. (Indrian, 2018; Prameswari et al., 2020). However, this study's findings are consistent with a 2018 study conducted at a private hospital in Batu, Malang, which found that the direct effect of the implementation of patient-centered care or PCC on patient satisfaction was not statistically significant, but rather had a significant effect indirectly through the mediation of functional quality through coordination between clinical and non-clinical hospital staff, which is not immediately felt by the patient. The implementation of PCC necessitates effective collaboration and coordination among caregiving professionals, which is not solely the responsibility of the CM, despite the fact that the CM is involved, so that it is the result of inter-professional cooperation. (Pradani et al., 2018). In accordance with the findings of Hoff et al 2021's study, only 41.7% of 24 studies on team-based services with a case manager on the team reported finding a statistically significant relationship or effect on patient satisfaction. (Hoff et al., 2021).

It is conceivable that factors other than CM influence inpatient satisfaction, despite the fact that inpatients are content with CM. Gavurova et al. found that CM services to patients, such as providing information on what to do after hospitalization and educating patients on what to do if they experience complaints again, do not have a significant impact on patient satisfaction. This is because patients with complex medical conditions require different attention, education, and information, in addition to the patient's own understanding, which is cross-disciplinary. (Gavurova et al., 2021). Patients can perceive CM similarly to other hospital personnel (e.g., nurses) who perform their duties with the necessary knowledge and skills, with no significant differences, so that it has no effect on patient satisfaction overall. (Alsaqri, 2016). Syifa Medika General Hospital's inpatient facility has been admitting patients for more than five years. The implementation of CM at Syifa Medika General Hospital occurred less than a year ago. Some inpatient installation nurses have worked longer than two years, while the remainder have worked between one and two years. During the time without CM, inpatient installation nurses may have developed effective communication and interpersonal skills with inpatients. Thus, when CM is implemented, the patient is fulfilled due to a positive interaction with the room nurse, which is considered one of the factors that affect patient satisfaction. (Mariana et al., 2020; Mitropoulos et al., 2018).

The hospital's facilities and environment are a further factor cited as significantly influencing patient satisfaction. Since 2017, Syifa Medika General Hospital has been operating as a class C facility in a brand-new building. Patient-perceived good and satisfactory hospital facilities and environments include clean and spacious rooms, neat and well-maintained patient room furniture, clean and comfortable toilets, safe elevators, and handrails to assist patients when walking around. Patient satisfaction correlates to the quality of hospital facilities and surroundings. (Sitio & Ali, 2019; Sun et al., 2017).

The results revealed that only 59.5% of patients were satisfied with the service quality, while the remaining 40.5% were dissatisfied. The results of the Spearman correlation test were sig = 0.94 (> 0.05). These results indicate that there is no significant relationship between the quality of CM services and patient satisfaction. The correlation coefficient is -0.011, which indicates a very weakly negative relationship. Several factors could explain why patient

satisfaction with the quality of CM services was not excessively high and did not have a significant impact. As previously stated, a CM who is not on duty full-time and who is still prioritizing tasks at the previous installation cannot provide optimal CM services. Patients and their families require a CM who can assist them promptly in the event of treatment problems in the hospital. Meanwhile, MPP at Syifa Medika General Hospital can only meet with patients and their families after completing work from the previous installation, i.e. in the afternoon or evening, so CM has limited opportunity to engage in in-depth communication with patients. Lack of communication hinders CM's ability to perform tasks optimally, thereby impacting the quality of services provided. Due to the lack of communication and the limited time available for CM to conduct screening and assessment, it is also possible for some patients to be unable to comprehend the role of the CM who meets them, as well as the benefits provided by CM or the assistance they have rendered to patients. (Joo & Liu, 2017; Kargar Jahromi & Ramezanli, 2014).

Before being assigned, case managers at Syifa Medika General Hospital have received training in CM. However, only one CM received three days of offline training. The other two CMs received only two days of online training. This relatively brief CM training was conducted so that the hospital could promptly implement case management and achieve hospital accreditation. The short duration of the training made it difficult to explicitly define the CM's scope of work, as it was based solely on the information obtained during the training and the Ministry of Health had not yet issued national guidelines on CM. The majority of CM's online training consisted of theory and explanations regarding CM duties and activities, while only a few instances included practical practices regarding CM activities. Inadequate training can limit a CM's capacity to address patient issues. (Joo & Huber, 2017). Case managers who are committed to providing quality services must demonstrate originality when approaching, negotiating with, and educating patients, rather than simply implementing what they have learned from previous training materials. (Campagna & Yancey, 2019). In addition, CM's own activities (as educator, advocate, negotiator, and patient support) are diverse and quite complex. In addition to understanding the health and psychosocial aspects of patients, CMs must be cordial and warm while conducting assessments and monitoring the development of patients' problems. Due to burden and high job demands, a CM who is still concurrent with other previous jobs will experience fatigue and even burnout. This will impede the CM's ability to care for patients and cause the CM to experience fatigue and even burnout. (Joo & Huber, 2017; Teper et al., 2020)

This study's findings can serve as a foundation for future case manager service enhancement programs. Even though case manager at Syifa Medika General Hospital has only been in implementation for a few months, patients and families are still satisfied despite the fact that there are still inadequacies in MPP services. In the future, patient services will become more complex and will require more support and assistance from various parties, including CM. An increase in communication skills is one of them because communication is linked to patient satisfaction. (Avia et al., 2021). Aside from this, hospital administration must also consider effective CM organization with more mature planning and a performance evaluation system for CM in order to improve CM services. (Safar & Gani, 2022)

## CONCLUSIONS

In this study, the function of CM in patient care is not optimal in terms of increasing patient satisfaction and service quality. As CM continues to operate concurrently in other units, it has limited availability for patients. In addition, CM, which should play the roles of educator, negotiator, advocate, and patient supporter, still has limitations in dealing with patient problems due to the limited training they receive prior to being assigned as CM and the absence of a comprehensive official practice guide from the competent authority regarding CM. With the increasing complexity of services in hospitals that demand higher quality, continuous services, have good communication and coordination with other healthcare professionals, and can improve quality of life and patient satisfaction, additional interventions are required to optimize the role of CM in the future.

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