Frequency of Difficult Patient Encounters in a Japanese University Hospital and Community Hospitals: A Cross-sectional Study

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Abstract:

Objective: Difficult patient encounters (DPEs) are defined as encounters with patients causing strong negative feelings in physicians. In primary care settings, DPEs account for approximately 15% of visits among outpatients. To our knowledge, this is the first epidemiological study of DPEs in Japan.

Methods: We conducted a survey of 8 physicians (5.0±2 years of clinical experience) who examined first-visit patients ≥15 years old with clinical symptoms at the Department of General Medicine in Chiba University Hospital and 4 community hospitals over a 2-month period since December 2015.

Materials: We evaluated 10-Item Difficult Doctor-Patient Relationship Questionnaire (DDPRQ-10) scores (DPE ≥31 points; non-DPE ≤30 points) and patient age, sex, and presence of psychological or social problems.

Results: The valid response rate was 98.9% (94/95) and 98.4% (189/192) in the university and community hospitals, respectively. The percentage of DPEs was 39.8% (37/93) and 15.0% (26/173) in the university and community hospitals, respectively; the percentage of DPEs was significantly higher at the university hospital than at the community hospitals (p<0.001). The proportion of patients with psychosocial problems was significantly higher in the DPE group than in the non-DPE group (93.7% vs. 40.4%, p<0.001).

Conclusion: Our findings were similar to those reported in primary care settings in other countries in community hospital outpatient and general internal medicine departments, where patients are mostly non-referrals, although the values were higher in university hospital general medicine departments, where patients were mostly referrals. Patients involved in DPEs have a high rate of psychological and social problems.

Key words: difficult patient encounters, outpatient, primary care, university hospital

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crease in patients involved with DPEs (7), which can affect the cost of medical care (7). Furthermore, DPEs are associated with diagnostic errors (8-10). Thus, DPEs have a significant detrimental impact on not only physicians but also the patients themselves and healthcare economics (3).

Indeed, previous reports have emphasized that DPEs are not solely the patient’s problem (7), as DPEs involve patient, physician, and situational factors (11). In particular, physician factors include exhaustion owing to excessive workload, lack of sleep, depression, burnout from busy schedules, arrogance or dogmatic temperament, and lack of knowledge about psychiatric care and the patient’s condition (12, 13). The most important factors in managing difficult patients are to recognize situations that are likely to become DPEs and then practice appropriate patient care while building a good patient-physician relationship (2, 3, 6, 11-13). Therefore, it is important to recognize situations that are potential DPEs and practice appropriate patient care while building a good patient-physician relationship (12, 14, 15). In practice, although a physician’s perception of DPEs is subjective, the 10-Item Difficult Doctor-Patient Relationship Questionnaire (DDPRQ-10) is a self-administered tool that has been proven reliable and valid for identifying DPEs (16).

In Japan, patients can visit medical institutions freely under the national health system (17, 18). As a result, many patients visit various medical facilities for the same symptoms (18). The frequency of DPEs in Japan, which has a unique healthcare system that guarantees free access, has not been investigated to date. Therefore, we conducted a survey on the frequency of DPEs in Japan. In particular, the proportion of DPEs in general outpatient settings in university and community hospitals was surveyed. We performed descriptive and bivariate analyses to describe our sample.

Materials and Methods

Study design

We conducted a cross-sectional study.

Participants

Generalist physicians with 3-7 (median 5) years of physician experience who consented to participate in the study were surveyed from December 2015 to January 2016 at a university hospital and 4 community hospitals. The participants were physicians who had completed two years of initial training and were working in the Department of General Medicine at Chiba University Hospital or a community hospital. The Department of General Medicine provides education and training for DPEs.

Measurements

The DDPRQ-10 was used to evaluate DPEs. The DDPRQ-10 is a self-administered DPE evaluation scale consisting of 10 questions with a score of 1 (not at all) to 6 (very much) for each question; a total score of 31 or higher was defined as a DPE (16, 19, 20).

Procedure

We conducted a questionnaire survey of 8 physicians who examined first-visit patients ≥15 years old with clinical symptoms at the Department of General Medicine of Chiba University Hospital and 4 community hospitals from December 2015 to January 2016. Chiba University Hospital handles almost all referral patients and various difficult-to-diagnose cases that could not be diagnosed at other institutions. The final diagnosis of patients was made across 16-17 domains in the International Classification of Primary Care, 2nd edition (ICPC-2), with the gastrointestinal 18%, psychological/psychiatric 13%, respiratory 11.9%, musculoskeletal 12%, and neurological 9% domains being the most common. The Herfindahl-Hirschman index (HHI) (21), which ranges from 0-1 (with values closer to 0 indicating that the clinic treats a diverse range of diseases and those closer to 1 indicating that the clinic treats a more limited range of diseases), of the Department of General Medicine at Chiba University Hospital is 0.019. In other words, this department treats an extremely diverse range of diseases. For comparison, internists and family physicians are reported to have an HHI of around 0.12, describing a medium level of disease diversity (21).

We examined physician DDPRQ-10 scores and the patient age, sex, and presence of psychological or social problems. Participants completed the DDPRQ-10 immediately after the first patient visit. Participating physicians were surveyed one day per week for a total of eight weeks to ensure a large sample size of patients. After-hours, emergency, and return patients were excluded. DPEs and non-DPEs were defined as a score of ≥31 (DPE group) and ≤30 (non-DPE group) on the DDPRQ-10, respectively. The presence of psychological or social problems related to the visit was determined based on the physician’s examination.

Data analyses

We performed descriptive and bivariate analyses to describe our sample. The frequencies of DPEs and psychosocial problems in the university and community hospitals were compared using the chi-square test. A power analysis using the G*power computer program (22) indicated that a total sample of 280 patients would be sufficient to detect small effects (f=0.25), with 80% power and alpha set at 0.05.

All statistical analyses were performed using the SPSS software program, version 26.0 (IBM Corp., Armonk, USA).

Ethics approval and consent to participate

This research was performed in accordance with the Declaration of Helsinki and approved by the Ethics Committee/Institutional Review Board of Chiba University Graduate School of Medicine (Chiba, Japan). The researchers explained the parameters of the study to the participants and
Table 1. Frequency of DPEs in University and Community Hospitals.

|                     | DPEs, n (%) | Non-DPEs, n (%) | Total, n (%) |
|---------------------|-------------|-----------------|--------------|
| University hospital | 37 (39.4)   | 57 (60.6)       | 94 (100)     |
| Community hospital  | 28 (14.8)   | 161 (85.2)      | 189 (100)    |
| Total               | 65 (23.0)   | 218 (77.0)      | 283 (100)    |

DPEs: difficult patient encounters

Table 2. Relationship between Frequency of DPEs and Frequency of Psychosocial Problems.

|                     | DPEs, n (%) | Non-DPEs, n (%) | Total, n (%) |
|---------------------|-------------|-----------------|--------------|
| With psychosocial problems* | 60 (92.3) | 84 (38.5)      | 144 (100)    |
| Without psychosocial problems | 5 (7.7)  | 134 (61.5)     | 139 (100)    |
| Total               | 65 (23.0)   | 218 (77.0)      | 283 (100)    |

DPEs: difficult patient encounters

*Psychosocial problems: including depression, anxiety, insomnia, stress, relationships at work, family, peers, school, and so on.

Results

The valid response rate was 98.9% (94/95) in the university hospital and 98.4% (189/192) in the community hospitals. The four excluded patients had incomplete items in the DDPRQ-10. In terms of patient characteristics, the university hospital treated 41 (43.6%) men with a mean age of 50.9 (±19.2) years old, and the community hospitals treated 75 (39.7%) men with a mean age of 55.8 (±19.4) years old, showing no significant differences between the 2 groups (p=0.53, p=0.52, respectively). The university hospital referred 92 patients (97.8%), whereas the community hospitals referred 3 patients (1.6%), showing significantly more referred patients at the university hospital than at the community hospitals (p<0.001).

The percentage of DPEs was 39.4% (37/94) in the university hospital and 14.8% (23/189) in the community hospitals; the percentage of DPEs was significantly higher at the university hospital than at the community hospitals (p<0.001) (Table 1).

The proportion of patients with psychosocial problems was significantly higher in the DPE group than in the non-DPE group (92.3% vs. 38.5%, p<0.001) (Table 2).

Discussion

This study is the first cross-sectional study to show the frequency of DPEs in university and community hospitals in Japan. The overall rate of DPEs in community hospitals in this study was 14.8%, which is almost the same rate as that in primary care outpatient clinics (approximately 15%) shown in previous studies (3, 4). The Japanese healthcare system has free access (17, 18), differing significantly from Western healthcare systems (3, 4), although there was no significant difference in the percentage of DPEs in primary care settings.

The percentage of DPEs in the university hospital in our study was 39.4%, which was significantly higher than that in the community hospitals. The frequency of DPEs in Swiss University Hospitals was reported to be 29.8% (23). To promote functional differentiation and coordination of outpatient care, a system has been introduced at university and other hospitals with specific functions whereby patients without a letter of referral are required to pay a special fee to visit physicians (24). The university hospital where the study was conducted is a facility that accumulates difficult-to-diagnose cases as the reason for referral. Difficulty in making a diagnosis means that physicians are automatically faced with uncertainty, which may have led to a higher rate of perceived DPEs.

Furthermore, in the current study, patients with psychosocial problems were more frequently involved in DPEs than those without such problems. Psychosocial problems are a contributing factor in complex patients (25) and play a major role in the physician-patient relationship (5, 7). Therefore, in university hospitals, where most patients are referred (97%) the proportion of DPEs is high because of the high rate of complex patients with psychological and social problems.

In the present study, there were no significant differences in age or gender between DPEs and non-DPEs. Previous studies have not established whether age or gender is a risk for DPEs (3, 4, 26). It can be inferred that there are DPEs for each patient age group, since the frequencies of dementia, hearing loss, and multiple morbidities are increased in the elderly, while the frequencies of psychiatric disorders are increased in younger patients.

To manage DPEs more effectively, physicians should...
learn to recognize the many variables associated with these encounters and adapt their approach to the patient, starting by having or developing enhanced communication skills (27). Specifically, regarding patient factors, several studies have identified and evaluated the characteristics of challenging patients (3, 6, 28), with a common factor being their ability to frustrate or trigger an emotional response in the physician (7, 28). Recognizing this characteristic is essential when approaching a potential DPE. Other patient factors contributing to DPEs include common behavioral issues (e.g. non-adherence, manipulative), significant medical issues (e.g. multiple complaints, chronic pain) or health conditions underlying psychiatric diagnoses, and low literacy (29, 30). Some studies have reported the usefulness of training seminars for difficult patient management (31-36). It may be effective for physicians to learn about DPE management.

**Limitations**

Several limitations associated with the present study warrant mention. First, although this was a multicenter evaluation, the patient population varied, and we may not have accurately assessed the confounding factors that contribute to DPEs. Second, we were not able to investigate the final diagnosis or complexity of the patients. Although psychosocial problems were assessed, more relevant information may have been able to be obtained by utilizing complexity-based assessment tools, such as INTERMED (37) or the Complexity PRediction Instrument (COMPRI) (38, 39). Third, the presence of psychological or social problems was determined solely by the physicians in charge of the consultation. Therefore, the validity regarding the assessment of psychosocial or social problems may not be robust.

**Conclusion**

The proportion of DPEs was similar to that reported in primary care settings in other countries in outpatient and general internal medicine departments of community hospitals, where most of the patients were non-referrals, although it was higher in university hospital general medicine departments where most of the patients were referrals. DPEs have a high rate of patients with psychological and social problems.

**The authors state that they have no Conflict of Interest (COI).**

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