Patient-clinician Communication and Needs Identification for Outpatients with Schizophrenia in Hong Kong: Role of the 2-COM Instrument

香港門診精神分裂症患者的醫患溝通和需要認知：2-COM問卷的角色

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Abstract

Objectives: To assess perceived needs of schizophrenic outpatients in Hong Kong, and the effectiveness of clinicians in identifying those needs; and to explore the use of a self-rated instrument to enhance needs identification.
Participants and Methods: The two-way communication checklist was completed by 70 outpatients before consultation. Their clinicians were either given the checklist during the consultation (2-COM group, n = 36), or were unaware of the patients' answers and independently completed the checklist (needs awareness group, n = 34). A standard care group (n = 35) was included for comparison. Consultation time and patient satisfaction were also recorded.
Results: The major concern of patients was information about their illness and treatment (59%). In the needs awareness group, under-recognition of patients' needs by clinicians was observed in various domains. Consultation time (mean, 5.6 minutes) correlated with the number of needs identified by clinicians. The 2-COM group showed a trend towards higher satisfaction compared to the standard care group, although this did not reach statistical significance.
Conclusions: Clinicians may under-identify problems perceived by patients due to time constraints and other factors. The use of a structured questionnaire may facilitate effective needs identification in a busy outpatient clinic.

Key words: *Communication; Needs assessment; Physician-patient relations; Psychotic disorders; Questionnaires*

摘要

目的：檢視香港門診精神分裂症患者的需要，及醫生洞悉病人需要的有效度；並探討使用一種自測的工具是否可以加強醫生對病人需要的認知。
參與者與方法：70位門診病人在會診前填寫「相向溝通清單」問卷，然後把病人分成兩組：「2-COM組」有36位病人，他們的醫生在會診時會收到病人填寫好的問卷；「需要認知組」有34位病人，他們的醫生不會收到病人填寫好的問卷，而醫生亦須個別填寫問卷；另有「對照組」35位病人。此外，亦記錄會診時間及病人滿意度。
結果：病人最關心的是病程及療法（59%）。在不同範疇中都顯示「需要認知組」的醫生對病人的需要認知不足。會診時間（平均為5.6分鐘）與醫生對病人需要的認知相關。「2-COM組」的病人滿意度較「對照組」高，但未達統計顯著性 。
結論：由於時間約束和其他因素的影響，醫生未能完全識別病人的問題。在繁忙的門診環境中，採用結構性問卷有助醫生洞悉病人的需要。

關鍵詞：*溝通、需要認知、醫患關係、思覺失調、問卷*

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Introduction

Schizophrenia may be accompanied by longstanding and pervasive disabilities affecting many different life domains. Adequate communication between patients and professionals is essential for its diagnosis and treatment. Accurate needs assessment is a prerequisite for treatment planning[1] and effective service delivery.[2,3]

Previous studies revealed that patient participation plays an important role in the success of clinical management.[4] However, there are discrepancies between patients' and professionals' perceptions of what constitutes 'needs'.[2,3,5-7] Such discrepancies may impact negatively on patient outcomes and quality of life.[6,8] In particular, empirical studies have suggested that clinicians substantially under-recognise the needs of patients.[9]

In Hong Kong, as in many other parts of Asia, mental health services largely rely on outpatient clinics. The clinician-patient ratio is relatively low, when compared to many western countries. Service is often delivered in consultations that last for only a few minutes and is predominantly focused on medications and related issues.[10] Owing to time constraints, patients may find it difficult to raise broader issues relevant to their health. Professionals may therefore be limited in their capacity to evaluate patient needs comprehensively. This problem may be particularly serious in patients with schizophrenia, who are less capable of presenting their own needs.[11] There have been few reports on the extent and nature of these problems in an Asian context.

In western countries, mental health care is becoming more and more needs-led, with an emphasis on a systematic approach to needs assessment.[12] A number of standardised scales have thus been developed, each with its merits and areas of focus. These include interview-based scales for use by trained investigators, such as the Camberwell Assessment of Need (CAN[13]), MRC Needs for Care Assessment Schedule,[14] the Cardinal Needs Schedule,[15] and the Perceived Need for Care Questionnaire[16]; as well as self-reporting instruments such as the 2-way communication checklist (2-COM[17]) and the Avon Mental Health Measure.[18]

When considering applications to improve clinical service in an outpatient setting, cost-effectiveness is an important factor. The use of self-reporting instruments provides a simple solution to facilitate routine outpatient care,[17] and could potentially become a low-cost, yet effective means of improving patient-clinician communication.[19]

In this study, we aimed to investigate the care needs of schizophrenic outpatients in Hong Kong, and the effectiveness of clinicians in identifying those needs. The use of a self-rated instrument to enhance needs identification was explored in this context. The 2-COM is particularly apt, and was chosen for use in this study because of its self-reporting nature, brevity, and strong psychometric properties.[17]

The 2-COM is a 20-item instrument derived from CAN, a widely used needs assessment measure covering multiple life domains. Patients are asked to complete the questionnaire while waiting to be seen, indicate areas of concern, and whether they wish to communicate these issues to the clinician. The completed questionnaire is then handed to the clinician during the consultation. The 2-COM checklist has established reliability and validity,[17] and was found to be useful in improving the quality of patient-clinician communication and inducing changes in terms of management and interventions.[17,20]

Areas covered in CAN were shown to be valid and reliable across languages and cultures, and the scale has been satisfactorily applied in a Taiwan Chinese population.[21] On the other hand, studies of its successor, the 2-COM checklist, have only been carried out in largely western settings. It is not clear whether the instrument would be effective in the context of an Asian psychiatric outpatient clinic, where typically there are much greater patient volumes and time constraints. We hypothesised that use of the 2-COM checklist could increase awareness of patient needs, but that it might also increase consultation times. In the present study, we set out to (1) evaluate the impact of the 2-COM checklist in terms of consultation time and patient satisfaction, (2) assess the perceived needs of outpatients with schizophrenia in Hong Kong, and (3) evaluate the effectiveness of clinicians in identifying patient's perceived needs.

Methods

Subjects

Patients were recruited from one of the general psychiatric outpatient clinics serving a catchment population of 600,000 (Western Psychiatric Centre). Patients aged 18 to 65 years with a clinical diagnosis of schizophrenia (according to ICD-10 criteria[22]) were approached for participation in the study. All participants gave written informed consent, and the study was approved by the relevant institutional review board.

This study consisted of 2 parts. In part I, the effectiveness of using the 2-COM checklist was assessed by comparing 2 groups of patients: (i) the standard care group, in which patients were assessed in a naturalistic outpatient clinic setting, without using the 2-COM checklist; (ii) the 2-COM group, in which patients filled in the 2-COM checklist before the consultation and then submitted it to the clinician, who made use of such information during the consultation. Service satisfaction and clinic consultation time were measured in addition to the 2-COM checklist, using a patient satisfaction questionnaire and a stopwatch, respectively. In part II, we measured the perceived needs of patients and investigated clinician awareness of those needs in a needs awareness group. In this part, patients and clinicians completed the needs assessment items of the 2-COM checklist independently in the same session.

Assessment Instruments

The 2-COM Checklist

The 2-COM checklist is a self-reported questionnaire,

consisting of 20 items covering commonly encountered areas of perceived needs in patients with mental illness. They include housing, relationships, money, transport, daytime activities, sexuality, psychotic symptoms, psychological distress, treatment, and medication side-effects. There was also an open-ended question for areas not covered in these items. Previous studies have shown that the 2-COM was considered by patients as a useful instrument to facilitate their communication with professionals.[17,20] The 2-COM has been validated in European clinical populations and was shown to have adequate internal consistency (Cronbach's alpha, 0.89).[17] In the present study, a Chinese version of the 2-COM was developed through a process of translation and back-translation. The internal consistency of the Chinese version was high (Cronbach's alpha, 0.88).

Patient Satisfaction Questionnaire

A patient satisfaction questionnaire was adopted for use in this study (Appendix). This was a self-administered questionnaire rated on a 5-point Likert scale (1 = very satisfactory to 5 = very unsatisfactory). The questionnaire consisted of 2 parts. Part A had 6 items concerning the perceived attitude of the clinician (subscale score range, 6-30). Part B had 11 items concerning communication with the clinician (subscale score range, 11-55). Data from the 70 patients who completed the questionnaire in this study suggested good internal consistency (Cronbach's alpha, 0.92).

Clinic Consultation Time

The time lapsed between the patients' entrance and exit from the consultation room was measured with a stopwatch.

Procedure

Patients fulfilling the inclusion criteria were randomly assigned to each of the 3 following groups in the outpatient clinic, using block randomisation by clinic session (block size = 1 session).

Standard Care Group

Patients in the standard care group attended their outpatient clinic sessions as usual. At the end of the session, they were asked to complete the patient satisfaction questionnaire.

2-COM Group

Patients in the 2-COM group filled in the 2-COM checklist while waiting for their consultation. Once in the consultation room, patients submitted the completed checklist to the clinician. At the end of the consultation, patients completed the patient satisfaction questionnaire.

Needs Awareness Group

Patients recruited to the needs awareness group filled in the 2-COM checklist while waiting for their consultation, but the completed checklist was not made available to the clinicians. After the consultation, the clinicians were asked to independently fill in a clinician version of the 2-COM, to estimate their patient's areas of needs, and return the form on the same day. Data from the patients and clinicians in this group were directly compared for discrepancies in their perceived areas of needs.

Data Analysis

Data were analysed using the Statistical Package for the Social Sciences (Windows version 13.0). Patient satisfaction and consultation time were compared for the 2-COM and standard care groups, using independent sample *t* tests and the Mann-Whitney *U* test, respectively. Possible correlations between consultation time and the number of needs identified by clinicians were explored using the Pearson correlation coefficient. For the needs awareness group, patients' and clinicians' responses to each 2-COM item were cross-tabulated to calculate the sensitivity and kappa value for agreement. Sensitivity was calculated as true positive / (true positive + false negative), in which true positive is defined as needs identified by both the clinician and the patient, whereas false negative referred to needs perceived by the patient only. The sensitivity test showed the percentage of actual agreement, and the kappa statistics provided extra information on the magnitude of agreement between patients and clinicians when compared to chance alone.

Results

Demographic Characteristics

A total of 105 patients were recruited. Thirty-five patients (20 males and 15 females; mean age ± standard deviation [SD], 45 ± 11 years) were allocated to the standard care group, 36 patients (18 males and 18 females; mean age ± SD, 44 ± 11 years) to the 2-COM group, and 34 patients (20 males and 14 females; mean age ± SD, 49 ± 11 years) were recruited into the needs awareness group. The three groups did not differ in terms of age ($F = 2.08$, $p = 0.13$) or gender ($\chi^2 = 0.63$, $p = 0.73$).

Consultation Time

The mean (± SD) consultation time for the standard care group, the 2-COM group, and the needs awareness group were 5.8 ± 2.3 minutes, 6.1 ± 3.2 minutes, and 4.8 ± 2.5 minutes, respectively. There were no significant differences between consultation times in the standard care and the 2-COM groups.

Consultation times were further explored by pairwise comparisons between the groups using the Mann-Whitney *U* tests. There was a trend towards shorter consultation times in the needs awareness group compared to the standard care group (Mann-Whitney $U = 6.18$, $p = 0.07$, effect size = 0.40). The 2-COM group had longer consultation times compared to the needs awareness group (Mann-Whitney $U = 5.46$, $p = 0.03$, effect size = 0.45).

Patient Satisfaction

Patients in the standard care and 2-COM groups reported similar satisfaction on the clinician attitude subscale. For the communication subscale, the 2-COM group rated

Table 1. Needs reported by patients in the 2-COM and needs awareness groups.

2-COM checklist items	% of patients reporting needs (n = 70)
1. Do you have difficulties sleeping?	20
2. Do you often forget things?	36
3. Do you often feel tired?	45
4. Are you finding it difficult to 'get going' or be energetic?	30
5. Do you no longer enjoy the things you used to?	30
6. Are you feeling tense?	37
7. Do you feel lonely?	29
8. Are you easily upset?	26
9. Do you have thoughts or experiences that bother you?	34
10. Are you having problems with your medication?	19
11. Aside from medication, are you satisfied with your treatment?	35
12. Are you having problems getting on with your family or other people?	23
13. Do you have enough money for the things that you need?	29
14. Do you feel your life is boring?	19
15. Are you having problems with where you live?	16
16. Do you have problems with finding things to do?	27
17. Is going out or getting about a problem?	20
18. Is the sexual part of your life satisfactory?	25
19. Do you have any other problem?	13
20. Do you want more information about your illness and treatment?	59

greater satisfaction than the standard care group (mean ± SD, 25.96 ± 8.11 vs 28.35 ± 5.01), although the difference did not reach statistical significance (p = 0.48). There was a strong correlation between the attitude and communication subscales (r = 0.86, p = 0.00), but there was no correlation between consultation times and service satisfaction.

Consultation Time and Needs Identified

We explored the correlations between consultation time and the number of needs perceived by patients and those identified by clinicians in the needs awareness group. For perceived needs mentioned by patients, consultation time was unrelated to the total number of needs (r = 0.18, p = 0.19) but was related to the number of needs patients wanted to communicate with their doctor (r = 0.30, p = 0.02). There was a significant positive correlation between the number of needs identified by clinicians and consultation time (r = 0.49, p = 0.007).

Patients' Perceived Needs

Needs reported by patients in the 2-COM and needs awareness groups are shown in Table 1. Among the 11 domains measured in the 2-COM checklist, information about treatment (question 20) was the most frequently reported area of concern (raised by 59%). This was followed by psychotic symptoms (questions 4 and 9; mentioned by 32%), psychological distress (questions 1, 2, 3, 5, 6, and 8; raised by 32%), money (question 13; raised by 29%), intimate relationships (question 7; raised by 29%), treatment and medication side-effects (questions 10 and 11; raised by 27%), sexual expression (question 18; raised by 25%), company (question 12; raised by 23%), daytime activities (questions 14 and 16; raised by 23%), transportation (question 17; raised by 20%), and accommodation (question 15; raised by 16%).

Clinicians' Awareness of Patients' Perceived Needs

Table 2 shows the sensitivity and agreement between needs perceived by patients and those identified by clinicians in the needs awareness group. Clinicians tended to be accurate in identifying patients' problems related to medications and symptoms (questions 1, 3, 7, 8, 10, 11 and 17; $p < 0.05$). Question 10 ("Are you having problems with your medication?") yielded the highest accuracy (kappa = 0.675, $p < 0.001$). The least identified areas were patients' daytime activities, relationships, sexuality and lack of information about illness and treatment (questions 4, 5, 14, 16, 18 and 20).

Discussion

In this study, we assessed the application and effectiveness of the 2-COM checklist in the context of a busy outpatient clinic in Hong Kong. We also explored perceived needs in a sample of outpatients with schizophrenia and how accurately clinicians identified those needs.

Effectiveness of the 2-COM Checklist in Enhancing Communication

Although the difference in patient satisfaction in the communication subscale did not reach statistical significance

Table 2. Sensitivity and agreement between clinicians and patients in perceived areas of needs in the needs awareness group (n = 34).

2-COM checklist items*	Sensitivity	Kappa	p Value
1. Do you have difficulties sleeping?	57%	0.525	0.002
2. Do you often forget things?	23%	0.154	0.278
3. Do you often feel tired?	57%	0.380	0.026
4. Are you finding it difficult to 'get going' or be energetic?	18%	0.009	0.955
5. Do you no longer enjoy the things you used to?	11%	-0.011	0.943
6. Are you feeling tense?	39%	0.206	0.212
7. Do you feel lonely?	30%	0.377	0.005
8. Are you easily upset?	63%	0.452	0.008
9. Do you have thoughts or experiences that bother you?	40.0%	0.248	0.144
10. Are you having problems with your medication?	67%	0.675	< 0.001
11. Aside from medication, are you satisfied with your treatment?	17%	0.206	0.048
12. Are you having problems getting on with your family or other people?	43%	0.231	0.176
13. Do you have enough money for the things that you need?	27%	0.161	0.309
14. Do you feel your life is boring?	13%	0.012	0.941
15. Are you having problems with where you live?	33%	0.301	0.071
16. Do you have problems with finding things to do?	11%	-0.011	0.943
17. Is going out or getting about a problem?	44%	0.472	0.003
18. Is the sexual part of your life satisfactory?	N/A†	-0.057	0.566
20. Do you want more information about your illness and treatment?	N/A†	-0.122	0.110

* *Item no.19 was an open-ended question and not applicable to the present analysis.*

† *Sensitivity was not calculated because of 0 positive responses by clinicians.*

between the standard care and the 2-COM groups, baseline service satisfaction in the standard care group was quite high, which made it difficult to show any statistical differences. Given the many needs undetected in standard service from the needs awareness group results, this high baseline service satisfaction should be interpreted as a generally low expectation of patients towards local mental health services. However, the present study does not allow us to rule out alternative explanations, including genuine service satisfaction, social desirability bias, and decreased ability to assess their own situation due to the disease.

Effect of the Use of 2-COM Checklist on Consultation Time

The use of the 2-COM checklist did not increase the consultation time compared to the standard care group. This was surprising, as an increase of approximately 13 minutes was reported in European clinics.[17] However, in the setting of Hong Kong, time constraints may well have posed limits on each consultation, such that interactions with patients tend to be highly prioritised and brief.

Our results also show that consultation time is related to needs identified by clinicians or those the patients wish to discuss. This means that in practice, consultation times increase when more needs are perceived by clinicians or expressed by patients; alternatively, short consultations limit the number of needs identified by clinicians.

This illustrates the relationship between consultation time, effective communication, and the number of needs identified, which is not straightforward but two-fold. Thus, consultation time is positively correlated with more identified needs. Thus, the use of a needs identification tool may not necessarily increase consultation times, since the resultant communication may become enhanced and save time. Further investigation using qualitative methods, such as conversational analysis of interviews between clinicians and patients, might provide insight into this complex relationship.

Discrepancies between Patients' Perceived Needs and Clinicians' Identified Needs

We found that in a naturalistic clinic setting, many problems perceived by patients were often unrecognised by clinicians. This is compatible with findings from previous studies.[17,20]

From our data, medication and psychotic symptoms were the predominant focus in a consultation, whereas many important areas such as patients' daytime activities, relationships, sexuality, and information about illness and treatment were under-identified. As discussed above, time constraint is a major contributing factor to this problem, as it is difficult to explore complex daily life issues in a busy clinic. Other possible reasons include the embarrassment talking about certain issues, such as sexual dysfunction. This highlights the potential role of a structured questionnaire in facilitating discussion of a broader range of concerns.

Chinese patients' concepts about medical consultations in general may also be relevant. In non-western societies, patients are inclined to express their concerns primarily in

somatic terms.[23,24] The Chinese culture views 'consulting a doctor' as nothing more than a 'cure for a disease', such that patients do not expect their clinicians to have any interest in their overall quality of life. Chinese patients therefore tend to focus only on the somatic aspects of their illness, instead of the entire spectrum of their psychosocial concerns.[10] Our study also found that patients were less prepared to discuss their concerns about financial problems, daytime activities, and sexuality with their clinicians. Thus, what is actually discussed during the consultation is largely determined by patients' and clinicians' expectations.[25,26] Again, a structured questionnaire may have a role in guiding expectations.

We found that for schizophrenic outpatients in Hong Kong, the present consultation focuses too heavily on somatic symptoms and medications, at the expense of other important needs areas. A more comprehensive management taking into account a wider range of life domains is called for. Clinicians' lack of awareness of many needs as perceived by patients draws attention to the inadequate consultation time, because of service load constraints. An increase in consultation time could improve service quality by bridging the gap between patients' needs and clinicians' awareness of them. Clinical training should target skills and issues to prioritising needs and discussions within the limited time.

The use of a simple self-report instrument can facilitate the needs assessment process and improve communication effectiveness. The 2-COM checklist appears to be a cost-effective tool for achieving these objectives. In clinical settings, these instruments serve as a quick screening method to bring out important issues, which are otherwise overlooked. They are not an easy substitute for in-depth communication to meet patient needs. The balance between comprehensive care and respect for patient privacy and space for areas not directly related to the illness should also be appreciated.

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Appendix. Patient satisfaction questionnaire.

Please rate the psychiatric treatment service you received in the past month. Please read the following sentences and check the box of your answer.

Part A. Attitude of Clinical Staff

1. Empathy towards the feelings of the patient and their family
   ☐ Very satisfactory ☐ Satisfactory ☐ Fair ☐ Unsatisfactory ☐ Very unsatisfactory
2. Care about the patient and their family
   ☐ Very satisfactory ☐ Satisfactory ☐ Fair ☐ Unsatisfactory ☐ Very unsatisfactory
3. Serious work attitude
   ☐ Very satisfactory ☐ Satisfactory ☐ Fair ☐ Unsatisfactory ☐ Very unsatisfactory
4. Friendly and polite
   ☐ Very satisfactory ☐ Satisfactory ☐ Fair ☐ Unsatisfactory ☐ Very unsatisfactory
5. Sense of responsibility
   ☐ Very satisfactory ☐ Satisfactory ☐ Fair ☐ Unsatisfactory ☐ Very unsatisfactory
6. Respect towards patients' rights
   ☐ Very satisfactory ☐ Satisfactory ☐ Fair ☐ Unsatisfactory ☐ Very unsatisfactory

Overall level of satisfaction towards the service attitude of clinical staff
☐ Very satisfactory ☐ Satisfactory ☐ Fair ☐ Unsatisfactory ☐ Very unsatisfactory

Other comments:

Part B. Communication

7. Channels provided by hospital or outpatient clinic (e.g. parental meeting, patient relations officer)
   ☐ Very satisfactory ☐ Satisfactory ☐ Fair ☐ Unsatisfactory ☐ Very unsatisfactory
8. Clinical staff listen and respond to enquiries made by the patients or their family
   ☐ Very satisfactory ☐ Satisfactory ☐ Fair ☐ Unsatisfactory ☐ Very unsatisfactory
9. Clarity of explanations provided by clinical staff on disease condition and progress
   ☐ Very satisfactory ☐ Satisfactory ☐ Fair ☐ Unsatisfactory ☐ Very unsatisfactory
10. Opportunities to make appointment with clinicians
    ☐ Very satisfactory ☐ Satisfactory ☐ Fair ☐ Unsatisfactory ☐ Very unsatisfactory
11. Clarity of clinician's explanation on treatment
    ☐ Very satisfactory ☐ Satisfactory ☐ Fair ☐ Unsatisfactory ☐ Very unsatisfactory
12. Clarity of explanations provided by clinical staff on medication
    ☐ Very satisfactory ☐ Satisfactory ☐ Fair ☐ Unsatisfactory ☐ Very unsatisfactory
13. Clarity of explanations provided by clinical staff on care procedures
    ☐ Very satisfactory ☐ Satisfactory ☐ Fair ☐ Unsatisfactory ☐ Very unsatisfactory
14. Patients' and their family's level of involvement in the treatment
    ☐ Very satisfactory ☐ Satisfactory ☐ Fair ☐ Unsatisfactory ☐ Very unsatisfactory
15. Service information provided by the hospital or outpatient clinic
    ☐ Very satisfactory ☐ Satisfactory ☐ Fair ☐ Unsatisfactory ☐ Very unsatisfactory
16. Thoroughness of disease assessment by clinical staff
    ☐ Very satisfactory ☐ Satisfactory ☐ Fair ☐ Unsatisfactory ☐ Very unsatisfactory
17. Adequacy of time to interact with clinical staff
    ☐ Very satisfactory ☐ Satisfactory ☐ Fair ☐ Unsatisfactory ☐ Very unsatisfactory

Overall level of satisfaction towards communication with our hospital or outpatient clinic
☐ Very satisfactory ☐ Satisfactory ☐ Fair ☐ Unsatisfactory ☐ Very unsatisfactory

Other comments: