Poor quality of referral from mental to somatic hospitals

Lise Sofie Bislev[1], Jytte Mortensen[2], Lea Nørgreen Gustafsson[2], Søren Gregersen[1] & Povl Munk-Jørgensen[2]

ABSTRACT

INTRODUCTION: Concomitant somatic and mental illness is associated with excess mortality compared with the general population. To prevent this, a number of health initiatives relating to somatic illness in psychiatric patients have recently been introduced. One of the means used to screen for and treat somatic disease in psychiatric patients is highly qualified referral for somatic specialist assessment. The aim of this study was to assess the quality of referral of psychiatric patients to specialists in internal medicine.

METHODS: A total of 110 consecutive referrals were collected from August to November in 2012 and 2013. Regional guidelines define the requirement for the satisfactory referral scheme and using these guidelines as a reference, each referral was rated based on indexation and an overall assessment. A report about the 2012 results was presented to the hospital management. The management of the hospital was not informed about the 2013 replication of the study.

RESULTS: Half of the topics assessed were inadequately completed. Information about somatic co-morbidity was missing in 76% of the referrals. Description of relevant tests and physical examinations was missing in 53%. By overall assessment, 40% of the referrals were rated as being insufficient. The resident physicians stand out by producing the most informative referrals. The 2013 results improved compared with 2012.

CONCLUSION: We call for improvement in the quality of the referrals among psychiatric in-patients to somatic specialists. We propose an expansion of the use of standardised schemes and a strengthening of the skills needed to write a good referral.

FUNDING: not relevant.

TRIAL REGISTRATION: not relevant.

The association between mental illness and somatic morbidity and mortality is well documented [1, 2]. A recent extensive register study including 270,770 Danish, Finnish and Swedish patients with severe mental illness demonstrated an alarming excess mortality from physical diseases [3]. The life expectancy for patients with severe mental disorders is approximately 15 years shorter for women and 20 years shorter for men than the corresponding figures for the general population [3, 4]. The mortality rate caused by somatic disease is increased two to three times and is highest in patients with substance use disorders and personality disorders [3]. Compared to Sweden and Finland, Denmark has the highest mortality rate [3].

The reason for the excess mortality rate from physical illnesses in mental patients is multi-factorial. Lack of compliance with treatment and consultations, co-morbidity, lifestyle, side effects from medicine, inheritance and social background may all be contributing factors. It is conceivable that other contributing factors are the organisation of mental health care, low priority and limited awareness among psychiatric health providers with regards to somatic illness [2]. Currently, there is an international focus on this issue.

An intensified effort is required to reduce the excess mortality rate. In Denmark, preventive steps have been taken locally, regionally and nationally [5]. To reduce the excess mortality, enhanced collaboration between psychiatrists and somatic specialists is needed. To ensure adequate quality across departments, a national consultancy organisation has been established. Our study used the present referral guidelines issued by the regional organisation as a reference [6].

The referral document represents the written communication in the consulting service and its contents is of great value for the medical assessment. In general, studies on the quality of referral from the primary to the secondary sector have revealed that referrals lack information of major importance [7-11]. The quality of the referrals among hospital departments in general and from psychiatric departments to somatic specialists in particular is poorly documented.

The overall aim of the present study was to analyse the quality of referrals from the psychiatric hospital to specialists in internal medicine.

The following hypotheses were tested:

1) Referrals from the psychiatric hospital to consultants in internal medicine are characterised by absence of important information
2) Reporting of the referral patterns to the management of the hospital may improve the quality of the referral.

ORIGINAL ARTICLE

1) Department of Endocrinology and Internal Medicine, Aarhus University Hospital
2) Psychiatric Department, Aarhus University Hospital, Risskov, Denmark

Dan Med J 2015;62(6):A5085

FIGURE 1

Number of referrals from a psychiatric hospital to a somatic hospital for outpatient internal medicine assessment and average length of psychiatric hospitalizations.

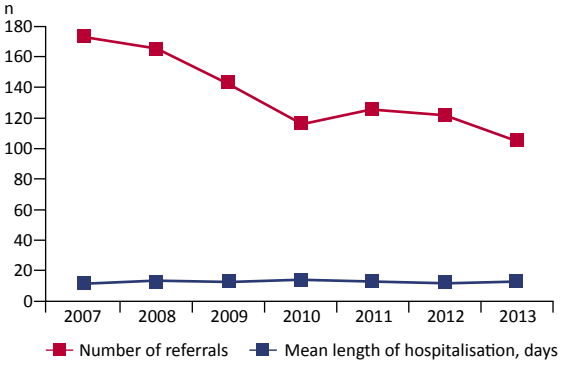
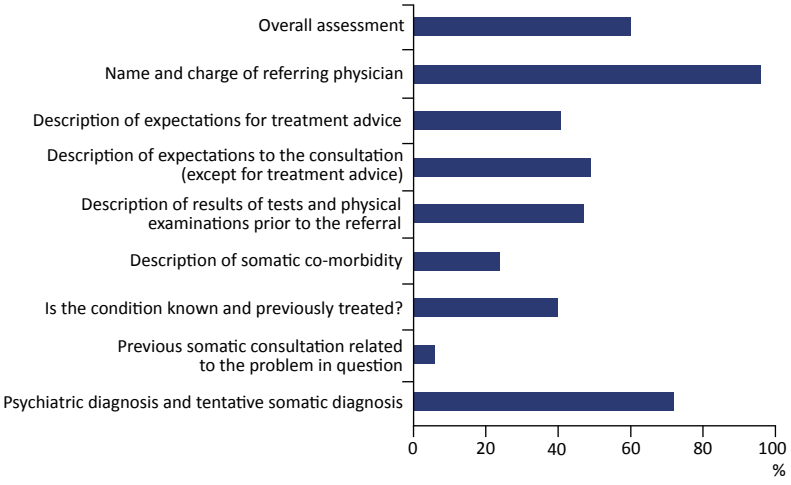


FIGURE 2

Percentage of satisfactorily stated information in all topics assessed.



METHODS

At Aarhus University Hospital, Risskov, Denmark, all psychiatric referrals to elective somatic consultations by specialists in internal medicine were included. The data were collected from August to November 2012 and the data collection procedure was repeated in the August-November period of 2013. In the spring 2013, a progress report informing about the findings from the analysis of the 2012 was sent to the management of the psychiatric hospital.

The management was not informed about the pre-planned follow-up, but was recommended to focus on the referral process. A total of 110 consecutive referrals were sampled (52 in 2012 and 58 in 2013). In accordance with the guideline available to all physicians on the hospital intranet [6], the referrals were rated with regard to the following:

- Ward identification, psychiatric diagnosis and tentative somatic diagnosis
- Sex and age
- Previous somatic consultations related to the problem in question
- Is the condition known and was it previously treated?
- Description of somatic co-morbidity
- Description of relevant tests and physical examinations
- Description of expectations for the consultation (except for treatment advice)
- Description of expectations for treatment advice
- Name and charge of referring physician
- Overall assessment based on the above.

Each item assessed was classified as 0 = unacceptable, 1 = incomplete, 2 = sufficient, 3 = almost perfect and 8 = irrelevant. Subsequently, each item was classified as unsatisfactory (0 and 1) or satisfactory (2 and 3). Non-applicable items were excluded from the statistics. The rating was based solely on the information in the referrals. The ratings were made by a medical physician supervised by the chief physician responsible for the medical consultations. Prior to the rating process, two meetings were held among the somatic and psychiatric collaborators to ascertain the standards of the assessment. Every one-in-six referral was blindly co-rated as to overall assessment by the chief physician (SG) to estimate the inter-observer reproducibility calculated as a kappa coefficient. The overall assessment is based on an overall impression of the quality of the referral. The limits provided by Landis & Koch [12] were used to interpret the correlation coefficient as follows: values between 0 and 0.24 indicate slight agreement; 0.25-0.40 fair agreement, 0.41-0.60 moderate agreement, 0.61-0.80 substantial agreement and 0.81-1 almost perfect agreement.

Information concerning the mean time of hospitalisation and referral patterns was obtained from the Central Denmark Region.

The study required no participant consent because the study formed part of quality assurance efforts based on anonymised data.

Trial registration: not relevant.

RESULTS

From 2007 to 2013, the length of hospitalisations remained stable, but the total number of referrals to specialists in internal medicine decreased by about one third (**Figure 1**). Of the 110 referrals, 28 (25%) were from the Department of Organic Psychiatric Disorders, 22 (20%) from the Department of Psychosis, 26 (24%)

from the Department of Affective Disorders and 16 (15%) from the Department of Forensic Psychiatry. A total of 14 referrals (13%) were from the outpatient clinic's section at the four respective departments. In four (4%) of the referrals, the department was not specified.

In all, 15 (14%) of the referrals were signed by medical students working in resident vacancies, 47 (43%) by specialists in psychiatry, 43 (39%) by residents, and in five referrals (4%) the consigner was not known. In total, the quality of 990 completed topics was assessed (excluding the overall assessment).

Among the whole group of items registered, 50% were assessed as having been satisfactorily described. 36% (n = 352) of the items assessed were classified as unacceptable, 14% (n = 138) as incomplete, 22% (n = 222) as sufficient and 25% (n = 252) as (almost) perfect. A total of 26 topics (3%) were non-applicable. Cohen's kappa correlation coefficient for the overall assessment of our study was 0.54, which is moderate, indicating an acceptable inter-observer reproducibility.

Figure 2 shows the percentage of satisfactory information in all topics assessed. The best described information was "consigner identification" and "psychiatric diagnoses". The poorest completed information was "previous somatic consultations related to the problem in question" and "description of somatic co-morbidity".

Table 1 shows the valid ratings concerning the items of "expectations for the consultation (except for treatment advice)" and "expectations for treatment advice" as well as the overall assessment of the referral by charge of the referring physician. It is notable that the groups of residents stand out by their ability to express their expectations and by the overall assessment of the referral.

As expected, the referrals of the lowest quality originated from the small group of non-identifiable physicians but apart from those, the poorest referrals originated from the psychiatric specialists and the senior consultants. A trend towards a higher quality of the referrals completed by residents is significant for the overall assessment of the referral document.

Based on the ratings of the referrals from 2012, a report was sent to the management of the hospital. The report presented the quality of the topic assessed, and it was made clear that only 54% of the referrals had been assessed as being satisfactory overall. No focused strategies were implemented by the management to improve the quality of the referrals.

As illustrated in **Figure 3**, most of the ratings of the topics assessed in 2012 did improve after the status report was launched, but only the referring diagnosis and expectations for the consultation/treatment improved significantly.

TABLE 1

Quality of referrals concerning "expectations for consultation" and "treatment advice" by the charge of the referring physician.

	Satisfactory referrals, %		
	expectations for the consultation (except for treatment advice)	treatment advice	overall assessment
Medical student	50	48	53
Resident	61	51	79**
Psychiatric specialist/consultant	50	35	47
Consigner not known	0	0	20

**) $p < 0.0015$.

DISCUSSION

Our study supports previous studies [7-10, 13, 14] and it is indisputable that referrals often lack important information.

A standardised referral form has been shown to result in improved quality of referral because less information is missed [9, 15-17], although it may be more time-consuming. Overall, half of the items assessed in the referrals in our study were incompletely described, e.g. information about possible somatic co-morbidity is missing in as many as 74% of the referrals. Objective findings, relevant biochemistry and previous tests of relevance to the referring tentative diagnosis are missing in 53% of the referrals. It is remarkable that about 40% of the referrals are unsatisfactory by an overall assessment.

Several of the items assessed are not clear-cut, e.g. the headline "previous somatic consultations" reflects this problem. It seems of great importance to know if previous consultations on the same health issue have been made, but only 5% of the referrals include this information.

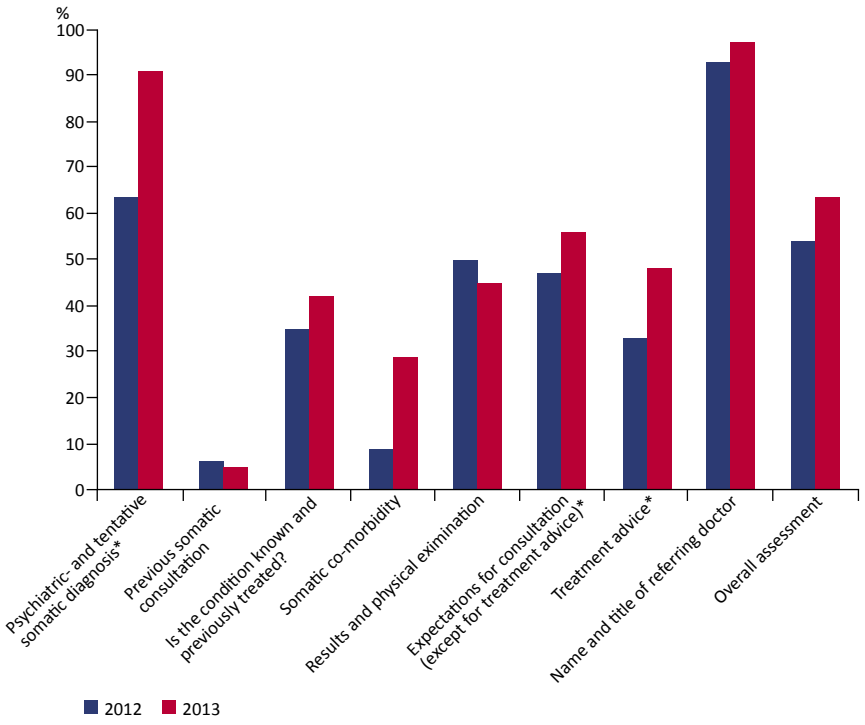
It is conceivable that the referring physician refrains from mentioning relevant information because he or she expects the recipient to read the electronic medical journal for more detailed information. Even so, it is plausible that it would be advantageous that the physician, who knows the patient best, describes his thoughts and expectations in the referral, not least because the electronic psychiatric case reports are extremely extensive, containing large amounts of trivial day-to-day nursing information that makes it very time consuming to identify relevant medical information.

Despite this fact, we find that the items assessed are of importance for the consultant, even though normal findings are given as well.

Interestingly, the referrals issued by residents are distinguished by more applicable information. This may be so because the residents are more familiar with som-

FIGURE 3

Sufficiently described topic of assessment related to the referral before and after launching of the status.
*) Significant improvement, p < 0.05.



atic disease. Moreover, it is reasonable to imagine that the residents devote more effort to writing a comprehensive referral.

Sufficient quality of the referral is important to ensure professional, efficient health care, satisfactory treatment and subsequent control of the medical condition. A study has shown that the main reason for a referral to a specialist is lack of qualifications on the part of the referring physician [18]. In the consulting service, providing a description of expectations for the consultation gives crucial information because it ensures clarity and improves satisfaction for the consulting physician and, not least, for the patient.

Referring a psychiatric patient to a somatic consultation.

A number of studies have investigated the quality of referrals in general practice. In Danish health care, the majority of the referrals are issued from the hospitals. In 2012 and 2013, there were approximately 1,113,000 annual referrals. A total of 20% were referred from general practitioners, 52% from the hospitals and the rest from other practicing specialists or from own departments. This fact emphasises the need to strengthen the focus on referrals concerning in-patients.

Two controlled randomised studies have evaluated the benefits of early detection and treatment of mental illness in somatic inpatients, but so far there is no proof that this improves the outcome for the patient or reduces health-care costs [19, 20]. No similar studies have been performed on the benefits of optimising medical treatment for mental patients. However, we assume that the involvement of somatic expertise in the treatment of psychiatric patients with physical diseases and problems would have a positive influence on somatic morbidity, mortality and quality of life.

Presenting a status report to the hospital management did not improve the overall assessment significantly, even though 64% of the referrals were classified as good in the 2013 assessment compared to 54% of the 2012 assessment. The lack of significance may be due to limited sample size. Likewise, the dataset was too small

to calculate whether the improvements depicted in Figure 2 are associated with the different referral patterns across the departments or if it is owed to the ground swells of the status report.

In addition to a referral guideline, a useful strategy may be to contact the person who wrote the insufficient referral. Hence, an earlier study showed that better results may be achieved by giving the refereeing physician personal feedback [11]. However, this procedure is unduly time-consuming. It is conceivable that comprehensive referrals of high quality may serve as a means of minimising the excess somatic mortality in psychiatric patients. Despite the small number of referrals and the problems associated with objective assessment of quality, our study shows that there is a crucial need to improve the quality of the psychiatric referrals and subsequent specialist consultations.

CONCLUSION

Our results show a remarkably low quality of referrals from psychiatry to internal medicine assessment. Focused strategies are needed. We suggest using standard referral schemes in order to give the consultant the optimal information to contribute to diagnosing and treating somatic disease in psychiatric patients. Preferably, these should be electronic referrals forcing the referring physician to fill in all required information.

CORRESPONDENCE: *Lise Sofie Bislev*, Medicinsk-Endokrinologisk Afdeling, Aarhus Universitetshospital, Tage-Hansens Gade 2, 8000 Aarhus C, Denmark. E-mail: lise.sofie@auh.rm.dk

ACCEPTED: 25 March 2015

CONFLICTS OF INTEREST: Disclosure forms provided by the authors are available with the full text of this article at www.danmedj.dk

LITERATURE

1. Harris EC, Barraclough B. Excess mortality of mental disorder. Br J Psyc 1998;173:11-53.
2. Leucht S, Burkard T, Henderson J et al. Physical illness and schizophrenia: a review of the literature. Acta Psyc Scand 2007;116:317-33.
3. Nordentoft M, Wahlbeck K, Hallgren J et al. Excess mortality, causes of death and life expectancy in 270,770 patients with recent onset of mental disorders in Denmark, Finland and Sweden. PloS One 2013;8:e55176.
4. Wahlbeck K, Westman J, Nordentoft M et al. Outcomes of Nordic mental health systems: life expectancy of patients with mental disorders. Br J Psyc 2011;199:453-8.
5. Region Midtjylland. Psykiatriplan-bedre behandling og længere liv til flere med psykisk sygdom Region Midt, 2013-2016. Region Midtjylland, 2013. www.rm.dk/sundhed/fremtidens-sundhedsvasen/psykiatriplan-2013-16/ (4 Mar 2013).
6. Heide A. 2.4.1. Henvisning, regional retningslinje. Region Midtjylland, 2013. http://e-dok.rm.dk/edok/admin/GUI.nsf/desktop.html?Open (14 Jan 2013).
7. Grupe P, Møldrup M, Høilund-Carlsen P, GP. Kvalitetsforbedring af henvisninger fra praksissektoren. Ugeskr Læger 2006;168:1434-8.
8. Qvist P, Rasmussen L, Lorentzen L. Improving the referral, triage and follow-up of medical outpatients. Ugeskr Læger 2004;166:1775-8.
9. Rubak SLM, Mainz J. Communication between general practitioners and hospitals. Ugeskrift Læger 2000;162:648-53.
10. Christensen KAa, Mainz J, Kristensen E. Communication between general practitioners and the hospital: effect on patient care. Ugeskr Læger 1997; 159:7141-5.
11. Hald M, Christensen B, Lock-Andersen J et al. Referrals for malignant melanoma: opportunities for quality control and development. Ugeskr Læger 2004;166;163-5.
12. Landis JR, Koch GG. The measurement of observer agreement for categorical data. Biometrics 1977;33:159-74.
13. Graham PH. Improving communication with specialists. The case of an oncology clinic. Med J Aus 1994;160:625-7.
14. Long A, Atkins JB. Communications between general practitioners and consultants. Br Med J 1974;4:456-9.
15. Tattersall MH, Butow PN, Brown JE et al. Improving doctors' letters. Med J Aus 2002;177:516-20.
16. Rawal J, Barnett P, Lloyd BW. Use of structured letters to improve communication between hospital doctors and general practitioners. BMJ 1993;307:1044.
17. Ramanayake RP. Structured printed referral letter (form letter); saves time and improves communication. J Fam Med Prim Care 2013;2:145-8.
18. Nielsen JØ, Sørensen HT. Classification of the reasons for referral to specialists and clinics. Ugeskr Læger 1987;149:2104-5.
19. Levenson JL, Hamer RM, Rossiter LF. A randomized controlled study of psychiatric consultation guided by screening in general medical inpatients. Am J Psyc 1992;149:631-7.
20. Gater RA, Goldberg DP, Evanson JM et al. Detection and treatment of psychiatric illness in a general medical ward: a modified cost-benefit analysis. J Psychosom Res 1998;45:437-48.