Original Article

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Geriatric and Non-Geriatric Psychiatry Consultation in a General Hospital

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Objectives: The aim of this study was to compare clinically significant issues in a psychiatric consultation service for geriatric and non-geriatric inpatients in a general hospital in Taiwan

Methods: Using hospital medical records, we studied psychiatric consultation for inpatients who were aged 65 years or older in comparison with younger patients. The sociodemographics, source of referral, reasons for referral, and psychiatric diagnoses were collected.

Results: A total of 989 patients were recruited. Geriatric patients constituted 43.0% of all psychiatric referrals. Medical Department ranked the first in the number of requests for consultation. Over one-third of patients were referred for disturbing behaviors. Significant difference was found in the reason of disturbing behaviors and past psychiatric history between geriatric and non-geriatric patient. Among psychiatric diagnoses, organic mental disorder and affective disorder were common in both geriatric and non-geriatric patients. There were significant difference in organic mental disorder, psychotic disorder, neurotic disorder, and substance use disorder between the elderly and non-elderly patients.

Conclusions: The most common reason for referral was symptoms related to organic mental disorders in the geriatric group, such as disturbing behaviors. This was compatible with the result that organic mental disorders were the most common psychiatric diagnoses in the geriatric group. Non-geriatric patients suffered more from substance use disorder than geriatric patients, showing that the elder patients may quit substance use due to medical illness or health consideration. Understanding the difference between the two groups can help the clinicians to make accurate diagnosis and treatment for psychiatric problems.

Key words: consultation, geriatric, psychiatry

Introduction

With an aging population and an extended life expectancy, rates of medical hospitalization are increasing, particularly among those older than 65 years.[1,2] Due to an increased risk for developing comorbid medical and psychiatric illnesses,[3] geriatric psychiatry has gained a role of increasing importance in recent years. Such psychiatric co-morbidity has been shown to increase medical morbidity and mortality, the length of hospital stay and health care costs.[4] While psychiatric intervention in medically-hospitalized older adults has been shown to improve medical and

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psychosocial outcomes,[5] there is few medically hospitalized older adults actually receive psychiatric consultation.[6] This may be due to several factors, including the confusing overlap between psychiatric and medical symptoms, the limited availability of psychiatric consultation services,[6] and in Taiwan, the fear of stigmatization by the physician, patient, and family.[7]

Compared with common adult patients in the hospital, many factors complicate the hospitalization of geriatric patients, such as multisystem disease, poor nutritional status, diminished overall strength, and impaired mental functioning.[5] These reasons for prolonged hospitalization and stress of hospitalization may lead to or exacerbate existing psychiatric disorders. Moreover, the psychiatric symptoms in the geriatric patients are often vague and easily misdiagnosed.[8,9] This may contribute to their longer hospital stays, higher mortality, and higher medical costs compared to that of the general adult population. The positive effects of psychiatric referral may help physicians make accurate diagnosis, arrange appropriate treatments, and shorten hospital stays.[10]

To our knowledge, there have been several studies related to the mental illnesses among the elderly populations in the community of Taiwan. However, only a few articles discussed about the geropsychiatric consultation in the past ten years, especially in the comparison of geriatric and non–geriatric referral. The goal of this study was to compare clinically significant issues in a psychiatric consultation service for geriatric and non-geriatric inpatients at a general hospital in Taiwan. Reasons for referral and psychiatric diagnoses were surveyed and comparisons were made between geriatric and non-geriatric patients.

Materials and Methods

A retrospective medical record review was performed on 989 consecutive patients referred for psychiatric consultation between August 2014 and July 2015. Each patient was evaluated by both a third-year resident of psychiatry and an attending psychiatrist in Changhua Christian Hospital in Taiwan. Information was gathered from the patient, family, caregiver, physician and nursing staff. Sociodemographic data, including age, gender, consultation services requested, reasons for consultation, and current psychiatric diagnosis according to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition criteria (based on consensus of two clinicians) were collected from the medical record.

The differences between geriatric and non-geriatric patients including sex, department of referral, reason for consultation, and psychiatric diagnosis, were analyzed and compared. ‘Geriatric’ patients were defined as individuals of age 65 years or over, and ‘non-geriatric’ patients were defined as adults from ages 18 to 65 years. According to previous research[10,11] and discussion with experienced psychiatrists, we classified the departments of referral, the reasons for consultation, and psychiatric diagnoses into different categories. Descriptive statistics, correlation and chi-square test were performed using SPSS 17. An alpha level of 0.05 was used to determine statistical significance.

The study was approved by the Institutional Review Board of the of E-Da Hospital (Approval no. EMRP-108-103).

Results

A total of 989 patients were referred for psychiatric consultation from various departments during the period of study. Of these patients, 293 were females (29.6%) and 696 were males (70.4%). The mean age of the study population was 56.6 years, with a range of 18 to 93 years. In the study population, there were 425 geriatric patients (43.0%) and 564 non-geriatric patient (57.0%) (Table 1.).

Sources of referral

Of all the departments requesting psychiatric consultations (Table 2.), internal medicine department ranked the first (n = 705, 71.3%). There were more geriatric than non-geriatric consultation requests from the internal medicine department ($p < 0.001$). The department of surgery ranked the second (n = 424, 42.9%) without significant difference between the elderly and non-elderly in the number of consultations. Of all the referrals, repeated consultations may be needed for the same patient in different departments for the same or different reasons. Only a small portion of consultation requests was from other departments, including Pediatrics and Obstetrics/Gynaecology.

Table 1. Number and age of recruited patients.

	Geriatric	Non-geriatric	*p*-value
Total	425 (43.0%)	564 (57.0%)	
Average age	75.8 (65-93)	42.1 (18-64)	< 0.05

Table 2. Source of consultation requests.

Depantment	Geriatric	Non-Geriatric	*p*-value
Internal medicine	331 (77.9%)	374 (66.3%)	0.000
Surgery	175 (41.2%)	249 (44.1%)	0.350

Reason for referral

When the reasons for psychiatric referral (Table 3) were analyzed, we found the reasons of psychiatric consultation varied. Over one-third (34.4%) of both groups were evaluated for a question of disturbing behavior. Non-geriatric patients were evaluated for questions of past psychiatric history far more frequently than that in geriatric patients (25.0%, 16.5 respectively). On the other hand, the elderly were consulted for disturbing behavior more frequently than that among the non-elderly (43.1%, 27.9 respectively). In the elderly, the most common reason for referral in the geriatric group was disturbing behavior (43.1%), followed by emotionality (25.9%), and past psychiatric history (16.5%). The most common reason for consultation in the non-geriatric group was disturbing behavior (27.9%),

Table 3. Reasons for consultation among the geriatric and non-geriatric patients.

	Geriatric	Non-geriatric	*p*-value
Differential diagnosis	65 (15.3%)	98 (17.4%)	0.382
Disturbing behavior	183 (43.1%)	157 (27.9%)	0.000
Excessive emotion	110 (25.9%)	117 (20.8%)	0.059
Past psychiatric history	70 (16.5%)	141 (25.0%)	0.001
Suicide	66 (15.5%)	107 (19.0%)	0.158
Insomnia	69 (16.2%)	92 (16.3%)	0.974
Side effect of psychotropic drug	8 (1.9%)	10 (1.8%)	0.899
Pain	4 (0.9%)	2 (0.4%)	0.240
Pre-operation evaluation	3 (0.7%)	6 (1.1%)	0.557
Disposition	0 (0.0%)	3 (0.3%)	0.132

Table 4. Diagnoses of the patients made by psychiatric consultants.

	Geriatric	Non-geriatric	*p*-value
Organic mental disorder	262 (61.6%)	171 (30.4%)	0.00
Adjustment disorder	54 (12.7%)	74 (13.1%)	0.847
Affective disorder	107 (25.2%)	154 (27.3%)	0.452
Psychotic disorder	41 (9.6%)	78 (13.8%)	0.045
Neurotic disorder	33 (7.8%)	66 (11.7%)	0.041
Substance use disorder	5 (1.2%)	85 (15.1%)	0.000
Others	18 (4.2%)	43 (7.6%)	0.028
No diagnosis	0 (0.0%)	8 (1.4%)	0.014

Note: *p*-value less than 0.05 is statistically significant.

followed by past psychiatric history (25.0%), and emotionality (20.8%). There were significant differences in the reasons for consultation due to disturbing behavior ($p < 0.001$) and past psychiatric history($p = 0.001$) between the elderly and non-elderly patients.

Psychiatric diagnosis

There were more patients diagnosed with dementia and delirium in the elderly (61.6%) than that among the non-elderly (30.4%)(Table 4), whereas fewer geriatric patients (1.2%) were diagnosed with substance abuse or dependence disorder than those in the non-geriatric group (15.1%). The prevalence of adjustment disorder (12.7% vs 13.1%) and affective disorder (25.2% vs 27.3%) in the elderly and non-elderly patients did not differ. On the other hand, significant differences in the prevalence of organic mental disorder ($p < 0.001$), psychotic disorder ($p = 0.045$), neurotic disorder ($p = 0.041$), and substance use disorder ($p < 0.001$) between geriatric and non-geriatric patients were found. Among these diagnoses, organic mental disorder (including dementia, delirium and others) and affective disorder were common in both geriatric and non-geriatric patients.

Discussion

Geriatric patients account for an increasing number of hospital admissions, which is likely to further increase[12,13] due to improved life expectancies and the cohort of "Baby Boomers".[14] Similiar to a Taiwanese study a decade ago,[10] this report evaluated the reasons for psychiatric consultations at a large, tertiary care hospital.[10] In contrast to the results of earlier studies, we found that geriatric patients were referred for psychiatric consultation more frequently than those among the general population. It may be due to the expanding geriatric population in Taiwan or an increased awareness among internists and geriatricians of the psychiatric needs of geriatric patients. In Taiwan, stigmatization of patients with psychiatric disorders leads to the concealment of their mental illnesses. Denial of illness also delays psychiatric treatment or consultation.[15] Nevertheless, an increasing number of mental patients and their families began to realize the impact of dementia and seek professional help in recent years. Besides, it is difficult for people with organic mental disorders to conceal their illnesses because of a decline in their cognitive function. All these factors may contribute to an increased geriatric referrals for psychiatric consultations.

When we analyzed the sources of consultation, the result showed that a majority of the patients were referred from the department of medicine. In Taiwan, patients tend to visit internalists for the treatment of their physical symptoms without realizing their possible psychiatric origins. Moreover, the stigma associated with psychiatric consultations is one of the reasons that the patients choose to visit physicians instead of psychiatrists.[16]

In our study, the most common reason for psychiatric referral was symptoms related to organic mental disorders in the geriatric group, such as disturbing behaviors.

Patients with organic brain disorders may also present with agitation and non-compliance to treatment. They may be referred to psychiatrist due to disturbing behavior. This is compatible with the result that organic mental disorders are the most common psychiatric diagnoses in the geriatric group.[17] It may be due to the vulnerability of geriatric patients to neuropsychiatric disturbances with mild medical illness. For example, a mild cognitive impairment in an aged adult with a urinary tract infection (a mild medical co-morbidity) may present with a delirium whereas a younger patient would not.[6] On the other hand, the current study showed that more non-elderly patients were consulted for evaluation about the past psychiatric history. Past psychiatric history is

crucial for psychiatric evaluation, especially for diseases with a high recurrence rate. Both substance use disorder and neurotic disorder had a high relapse rate.[18,19] Consistently, our investigation showed more psychiatric referrals for these diseases among non-geriatric patients. Nevertheless, the present study demonstrated that more non-elderly were referred to psychiatrists with psychotic disorder.

The symptoms of psychotic disorders including hallucination and delusion were more prevalent among young adults in the present study. Although the patients' symptoms were not active then, psychiatrists were consulted due to the patients' past psychiatric records and the need for treatment adjustment.

The current study demonstrated that organic mental disorder was the most prevalent diagnosis in the geriatric cohort and the prevalence showed a significant difference compared with that in the non-geriatric cohort. In the geriatric patients, dementia, depression, and delirium were the most prevalent psychiatric diagnoses, consistent with previous data.[17] However, younger patients were found to be diagnosed more frequently with substance dependence disorder compared to older patients. It may be explained by the previous finding that the elderly would choose to quit substance abuse due to medical illnesses or other health concerns.[20] Besides, a shorter life expectancy from substance abuse may cause less psychiatry referrals in the aged population.[21] We found an increased proportion of neurotic disorders in non-geriatric patients with a significant difference compared to that in the geriatric group. The finding may partly be explained by an increased level of stress in our society.[22] Our result may also be attributed to the previous finding that people with schizophrenia could lose 13 – 15 years of potential life with a life expectancy of about 60 years for men and 68 years for women.[23] Another reason may be more active positive symptoms in young adults with psychotic disorder than those in the elderly whose diseases usually become regressive and stable, thereby reducing the needs for psychiatric referrals.

There were several limitations to this study. First, the results of this study, which was not a multicenter investigation, were derived from a single tertiary referral center with active psychiatric consultation and geriatric medical services. The results may not be extrapolated to other hospitals. Furthermore, the participants were limited to patients receiving formal psychiatric consultations with relatively severe behavioral and emotional disturbances. Lastly, because patients were not followed up after discharge, psychiatric and medical outcomes could not be assessed.

Despite these limitations, this study demonstrated the common psychiatric diagnoses and the causes of referrals for medically hospitalized geriatric and non-geriatric patients. It revealed the differences in psychiatric consultations between the elderly and the non-elderly. In clinical practice, knowing the key differences in psychiatric disease features between geriatric and non-geriatric patients guides clinicians towards accurate diagnosis and treatment. Analysis of the reasons for psychiatric referrals allows early recognition, management and prevention of psychiatric problems taking into account the impact of age. Besides, the investigation suggested that, over the past years, there have been an increase in the frequency of psychiatric referrals in the elderly with medical conditions. Further investigations with longer follow-ups from other medical institutes are needed to support our findings.

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