

1999

## **General Practitioners and Depression in Older Adult Males : Ageism, Physical Problems and Treatment**

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Running Head: RECOGNITION OF DEPRESSION IN OLDER ADULT MALES

**General Practitioners and Depression in Older Adult Males:  
Ageism, Physical Problems and Treatment**

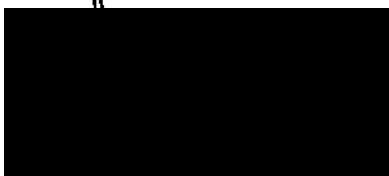
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**A report submitted as a partial requirement for the degree of  
Bachelor of Arts with Honours in Psychology  
at Edith Cowan University.**

**October 1999**

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### Abstract

Depression in older adults can have fatal consequences if undetected and not treated. Comparisons of studies are difficult because of the lack of methodical consistency. The literature is reviewed with regard to the definition, prevalence, consequences, recognition, treatment and prognosis of depression in relation to general practitioners (GPs) and with particular regard to elderly males. The research indicates poor recognition and treatment of depression in older adults, despite the research indicating that older adults have a similar prognosis as younger adults, when the depression is treated. Factors influencing the detection of depression are included.

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## Assessment of Depression in Older Adult Males by General Practitioners:

### Ageism, Physical Problems and Treatment

“Where there is depression hope remains” (Blazer, pp.165, 1989). However, there is an understanding that older people are generally depressed, miserable and tired of life and it is one which still permeates the social sciences, health providers and the general population (Copeland, et al., 1999). As in younger people, depression in the elderly can range from mild to severe and include a broad range of feelings, including anxiety, self accusation, self depreciation, hypochondriacal preoccupations, self obsessive ideation, feelings of depersonalisation, nihilistic delusions, hopelessness and suicidal ruminations. Most elderly depressed patients show some vegetative symptoms such as insomnia and weight loss, as well as abnormalities in the autonomic, metabolic or endocrine systems. There are also associated behavioural disturbances, depression may be manifested by isolation, withdrawal or apathy, or compulsive, agitated or hostile behaviour (Epstein, 1976). Depression can be regarded as the common cold of geriatric mental health because it is the most frequent psychiatric disorder found in older persons, yet studies indicate that it is under diagnosed in older adults. Screening for depression in medically ill elders can be poor to nonexistent, thus leading to a failure to identify and treat depression (Rapp, Parisi, Walsh & Wallace, 1988). Why is recognition of depression so important in the elderly? At one level depression can certainly lead to deterioration in the quality of life for elderly persons, but it can also result in a high degree of refusal of life sustaining treatments by the depressed elderly (Hooper, Vaughan, Tennant & Perz, 1996). Death by suicide for the aged is the most serious consequence of undetected and untreated depression (Carey, Rich, Burke & Fowler, 1994).

This article will review the literature regarding the definition, prevalence, recognition, treatments and prognosis of depression in relation to the elderly by

primary carers, General Practitioners (GPs), particularly with regard to older adult males.

### Defining Depression

There is some difficulty in gaining an accurate figure of the diagnosis, treatment and success rate for depression because of the variation in methods used by researchers and clinicians to classify depression. The threshold used varies considerably across studies. Depression can be construed in different ways. First, depression can be seen as a unitary phenomenon with various manifestations of depression forming a continuum (Blazer, 1989). As a result scales and checklists can be used to distinguish the severity of the depression. The threshold that is set for what is considered as normal or pathological would determine the percentage classified as depression. Second, most researchers choose to use the categorical approach provided by the Diagnostic and Statistical Manual of Mental Disorders (DSM) (American Psychiatric Association, 1994). Disorders are seen as a group of distinct entities with each of the categories mutually exclusive, for which particular therapies can be prescribed. The third approach examines the social functioning of an elderly person and how depression impairs their ability to operate in daily life. Researchers believe that to be effective in the diagnosis and treatment of depression for older adults, a categorical approach with other constructs should be used (Blazer, 1989). However, when examining the research from the categorical approach, there are still differences in the rate of depression because the DSM is a document that has been changed over time.

With the evolution of the Diagnostic and Statistical Manual of Mental Disorders (DSM) the criteria for depression have been changing. For example in the revised third edition of the DSM (APA, 1986) it was suggested that clinicians disregard symptoms judged to be secondary to a concurrent physical illness. However, the fourth edition of the DSM reverted to a more inclusive approach, which allowed all

symptoms to be included without regard to their inferred cause towards the diagnosis of depression. The change occurred because of the difficulty in making the distinction between inferred symptoms in practice (Cohen-Cole & Kaufman, 1993). Furthermore, some studies have gone beyond the definition provided by the DSM and chosen to use a broader definition that covers a range of depressive conditions (Snowdon, 1998).

For the fourth edition of the DSM (DSM-IV), the diagnosis of major depression requires the patient to meet five out of the following criteria (American Psychiatric Association, 1994). First, one of the symptoms must be either a depressed mood or a pervasive loss of interest or pleasure. For a symptom to be counted, it must be present most of the day, nearly every day, for a period of two weeks. Symptoms can include depressed mood, loss of interest in pleasure, weight loss or gain (or appetite loss or gain), sleep difficulty, fatigue, psychomotor retardation or agitation, trouble concentrating or indecisiveness, low self esteem or guilt; to thoughts of death or suicidal ideation. The symptoms should cause significant impairment to social, occupational and other areas of functioning and should not be due to substances or a medical condition. Despite the inclusive approach of the DSM-IV, it is not strictly inclusive because it continues to rely on the clinician to make an etiologic decision as to whether the symptom is "clearly and fully accounted for by the physiological effects" of medical illness" (p 323). Therefore in the opinion of many in the field, the DSM-IV is an imperfect fit to the characteristics of depression in older adults because it does not include age related issues at all (Blazer, 1994; Dick & Gallagher-Thompson, 1996).

Koenig, Pappas, Holsinger & Bachar (1995) compared the reliability of DSM-IV to diagnose depression with five other schemes for 38 hospitalised and medically ill older patients, utilising the Diagnostic Interview Schedule (DIS) of structured interviews with blind raters. The first strategy was a strict inclusive approach counting all symptoms despite their cause; with the second being the standard DSM-IV

inclusive approach in which symptoms were rated from one to four for depression due to physical causes. A score of four meant the symptom was ignored. The third was similar to the inclusive approach, except that fatigue and weight loss were excluded. The fourth was the DSM-IV exclusive approach with the exclusion of fatigue and weight loss. The fifth was the substitutive inclusive approach that was the same as the first approach, the inclusive approach, except that the four somatic symptoms of fatigue, weight loss, psychomotor retardation, impaired concentration were replaced with four cognitive/affective symptoms of irritability, tearfulness, social withdrawal and feeling punished. Finally, in the DSM-IV substitutive approach, diagnosis was made similar to the second approach of the DSM-IV standard approach of using the rating method, with the addition of substitution of the four cognitive/affective symptoms.

The outcome of the study was that the standard DSM-IV approach was only marginally less sensitive in diagnosing depression than the five other approaches (Koenig, Pappas, Holsinger & Bachar, 1995). Although the study used structured psychiatric interviews with trained mental health professionals, a small sample size of 38 patients may hinder the generalisability of the study's findings.

#### Prevalence Rates of Depression for Older Adults

The rates of diagnosable depression among the elderly can also vary greatly depending on the setting as well as the criteria for diagnosing depression. There appears to be a linear increase in the extent of clinically significant depression when comparing community dwelling, outpatient and residential care samples. For community dwelling adults, the prevalence rate for depression for adults over 60 in a study of 1,304 residents interviewed twice 12 months apart, was 0.7%. The study used the Diagnostic Interview Schedule (DIS), which is designed to be used by lay interviewers and can generate computer based diagnoses for certain DSM-III disorders (Robins, Helzer, Croughan & Ratcliff, 1981). The DIS also includes

alcohol, drug, physical illness and other psychiatric diagnoses. The 0.7% level of depression in community dwelling persons over 60 years of age was lower than that found in the younger and middle age adults. However, there was a high refusal rate, 507 persons, which if included may have resulted in a different outcome particularly if they were depressed adults (Blazer, Hughes & George, 1987). The reasons for the high refusals are not mentioned in the study.

By comparison, the rates of depression in elderly community dwelling adults were considerably lower in an Australian study utilising the Canberra Interview for the Elderly (CIE), which was performed by trained professional interviewers (Henderson, et al, 1993). The CIE accesses the criteria of the DSM-III-R and a draft ICD-10 was used for comparison. The CIE was administered to 825 persons over 70 years as well as informants who were familiar with the person. In addition, information was gained regarding the person's daily activities, past and current physical health and previous mental health. A short form of the Eysenck Personality Questionnaire (EPQ-R) was administered and the recent use of services was noted. The rates were lower than for North America for community dwelling adults aged 70 and above, 0.2 % for men and 0.6% for women (Henderson, et al, 1993).

The rates of depression for the Canberra study can be interpreted two ways.

Firstly, the results may be an accurate indication of the rate of depression because of the inclusion of symptoms identified with alcohol, drugs and medical conditions. The results could therefore not be discounted due to susceptibility to a suppression effect.

Secondly, the results could be interpreted as an underestimation of the prevalence rates of depression in persons over 70 in the Canberra community because there was a refusal rate of 31% with 432 persons declining participation in the study.

Unfortunately, reasons for refusal were not explored and it may be that refusals were due to depression.

Older adults who are medically ill or frail in outpatient clinic settings or nursing home facilities are much more likely to be depressed than those in good health, with rates estimated to be between 10%-15% (Rapp, Parisi, Walsh & Wallace, 1988; Parmalee, Katz & Lawton, 1992). According to some studies nursing homes can have levels as high as 25 percent (National Institute of Health Developmental Panel on Depression in Late Life, 1992; Parmalee, Katz, & Lawton, 1992). The significance of depression in older age adults can not be underestimated and depression is the overall leading consequence of suicide not being recognised.

#### Recognition Rates of Depression by GPs

The ability of GPs to recognise depression in older adults varies across studies from 20-80%. In one Australian study, 11 GPs were asked to recruit 10 patients, aged over 70 years of age, a total of 101 patients were used for the study (Bowers, Jorm, Henderson & Harris, 1990). The GPs completed a questionnaire after reading vignettes based on the DSM-III-R criteria for depression and dementia. The GPs were also asked to evaluate their patients for depression and dementia. The researchers had evaluated the cognitive functioning of the 101 patients using the Mini Mental State Examination (MMSE) and the 12 item Information/Orientation Scale from the Clifton Assessment Procedure for the Elderly (CAPE) (Pattie, 1981). All patients completed a General Health Questionnaire (GHQ) in addition to information regarding daily living. Informants closely associated to the patients were also asked about whether the patient had shown depressive symptoms. The researchers assessed depression using the Diagnostic Interview for Depression (Robins, 1988) to cover the DSM-III-R criteria. The vignettes revealed that most of the GPs evaluating depression looked for depressed appearance, sleep disturbances and weight change. Loss of interest and lack of interest were rarely mentioned and only one GP specified suicidal thoughts. The general practitioners had a 20% success rate at diagnosing depression and a 39% success rate for diagnosing dementia in their patients. The study was limited in being



based on only 11 GPs and therefore was not fully representative of GPs. However, the GPs serviced an area that was predominantly elderly and recruited 10 of their own patients for the study, which would suggest that the under recognition of depression and dementia may be fairly general.

In a similar study conducted to detect the ability of Canberra GPs to recognise dementia and depression, 36 GPs were interviewed on what signs and symptoms they looked for when diagnosing patients for dementia and depression (Bowers, Jorm, Henderson & Harris, 1992). The GPs' responses were compared with the criteria of the DSM-III- and scored by a panel who were very liberal in accommodating the GPs' descriptions of the symptoms to each criterion. The GPs were also asked to complete questionnaires regarding diagnosis and case management relating to three vignettes.

One vignette described an elderly woman with Alzheimer's disease, the second described a depressed daughter caring for her dementing mother and the third described an elderly male with a history of depression. The GPs scored poorer in verbal description of the criteria for dementia but were better at recognising dementia from the vignettes. Overall the performance in recognising depression was poor. The method of questioning used to assess the GPs' knowledge of the criteria may have resulted in an underestimation of the GPs' practical knowledge in recognising dementia and depression. Some of the GPs may have had difficulty with the verbal description of the signs they relate to the symptoms of depression or dementia. This was illustrated by a poor performance in describing the criteria for dementia, yet the GPs had a greater success rate at recognising dementia from the vignettes. However, the symptom of memory impairment is usually a good indicator of dementia and was therefore more readily detected from the dementia vignettes. The sample size of 36 was small and may not be representative of the population. Nonetheless, as the recognition rate was still poor for depression despite the limitations discussed, the

study lends support to the likelihood of general under recognition of depression by GPs.

Further evidence for the under recognition of depression by GPs was produced in a study that was conducted with 370 residents over the age of 65 in the North of London. The study involved interviewing residents in their homes using the Short Comprehensive Assessment and Referral Evaluation (Short-CARE) and the London Handicap Scale (Crawford, Prince Menezes & Mann, 1998). The measures use 18 items related to depressive thoughts and somatic symptoms, in addition to items on social and health functioning. The written records of 370 patients of 27 attending GPs were examined for the amount of contact and diagnosis, investigation and management of depression. The study indicated that the GPs recognised depression in 50% of their patients. The patients who were most likely not to be recognised were male, had visual impairment or had lower levels of education. The study did have a large sample and the patients were assessed independently of the doctors' records. However, there was an unspecified time lag between the patient's assessment and the analyses of the GPs patients' records. Furthermore, the mental health condition of some of the patients may have deteriorated from when the doctors had seen them and when the researchers assessed their mental health, therefore they may not have had symptoms of depression when they were examined by the GPs. However, the number should not have been so great as to produce such a high level of under recognition. The study can be considered as supportive of the low recognition of depression by GPs despite the minor limitations discussed.

A study was conducted in Italy using 255 patients over 65 years of age, which did indicate a higher success rate for GPs in recognising depression (Turrina et al., 1994). However, the study appears to have primed the 14 GPs to be more alert to detecting depression by giving them a simple schedule to assess whether patients were affected by any type of affective disorder or dementia. The researchers had assessed

the patients prior to the GPs' evaluation, using the Mini Mental State Examination (MMSE) and the General Health Questionnaire (GHQ). The result of priming the GPs to determine if affective disorders or dementia were present also may have lead to patients being overdiagnosed: 28% of the patients were incorrectly diagnosed as depressed. Despite the priming of the GPs, the GPs under recognised depression. The recognition rate was better than previously discussed studies, however there was still a lower recognition of depression for males, 35% undetected, than for females, 25% undetected (Turrina et al, 1994).

Notwithstanding the various study approaches utilised and the different thresholds used to determine depression, the research does indicate that recognition of depression in the elderly by GPs can be inadequate. Failure to recognise depression therefore often complicates effective medical therapies (Rapp, Parisi, Walsh & Wallace, 1988). However, even when depression is diagnosed it is rarely treated in the aged (Beekman et al, 1995; Copeland, Davidson, Dewey, et al, 1992; Kivela, Kongas-Saviaro, Kesti, et al, 1994). Many factors can contribute to GPs not recognising and/or not treating depression in the older adult population.

#### Factors Affecting Recognition and Treatment of Depression by GPs

##### Somatic Problems and Depression

One of the factors that makes the detection of depression difficult for GPs to recognise is the presentation of somatic problems with depression. There is often an overlap of symptoms that makes an accurate diagnosis and classification of depression in medically ill older adults a challenge for GPs because of the difficulty in distinguishing the symptoms of depression from somatic symptoms. Somatic symptoms of depression are often present in persons who are not depressed but are medically ill. Studies have indicated that up to two thirds of medically ill patients without a mood disorder had fatigue, motor retardation and sleep disturbances (Rapp & Vrana, 1989). The difficulty is that not only are somatic symptoms of depression

confusing because of the somatic symptoms of physical illness, but depression can masquerade as physical illness in the form of multiple somatic complaints. Therefore, the difficulty lies in distinguishing the somatic symptoms of depression such as weight loss, fatigue, decreased concentration, psychomotor retardation or agitation and the multiple somatic complaints associated with depression such as headaches, palpitations, constipation, diarrhoea, shortness of breath and dizziness from the symptoms of physical illness and ageing. There has only been one study conducted to clarify the relationship between cognitive, somatic or somatic complaints to major depressive disorder (Koenig, Cohen, Blazer, Krishnan & Sibert, 1993).

Koenig, Cohen, Blazer, Krishnan & Sibert (1993) conducted a study in a hospital using younger and older patients to assess specific symptoms of medical illness and their relationship to major depressive disorder. A master's level social worker evaluated all patients on admission for functional status and depression with the Geriatric Depression Scale (GDS), which is suitable for young and old, and the affective disorders portion of the Diagnostic Interview Schedule (DIS). The 17 item Hamilton Depression Rating Scale (HRSD) was also given, although the HRSD is problematic with older persons because of its somatic items (Hammond, 1996). Nine of the HRSD's 17 items are somatic in nature and a high score on the items can reflect genuine physical changes that are common with ageing and/or reflect health problems of the patient rather than be indicative of depression (Thompson, Futterman & Gallagher, 1988). The result can be an overdiagnosis of depression. However, to discriminate the physical problems and prevent the overdiagnosing of depression the American Society of Anesthesiologists Severity of Illness Scale (ASA, 1963) was administering to rate medical illness. A structured psychiatric interview was conducted by a geropsychiatrist within 24 hours of admission and a second independent assessment was made by another geropsychiatrist based on the data collected. The only possible drawback with the study was that 40% of the younger

patients and 10% of the older patients were taking tricyclic antidepressants, which the authors admit may have been a possible confound. However, they claimed that the dosages were low and that most physical symptoms were not related to the side effects of the drugs. To ensure the drugs were not confounding, a random selection of 15 non drug taking patients from both groups were compared to verify that somatic complaints were common for depression. The total sample comprised 116 young men aged under 40 and 332 older men 70 or older.

For both young and old men two cognitive symptoms of depression were strongly related to depression (Koenig, Cohen, Blazer, Krishnan & Sibert, 1993). The first was the lack of interest in work or usual activities and was the highest ranking cognitive symptom. The second was the thought that life was not worth living or thoughts of suicide. Suicidal ideation was rare without the presence of Major Depressive Disorder for young and old, 4% in nondepressed patients. Interestingly enough, depressed mood was not a good indicator of depression and was present in 56% of nondepressed men.

Among somatic symptoms, middle and late insomnia were important indicators for differentiating between depressed and nondepressed older patients (Koenig, et al., 1993). For both young and old men, sleep disturbance, psychomotor retardation and difficulty concentrating were among the symptoms most able to distinguish the depressed from the nondepressed. Among somatic complaints, hypochondriacal complaints were as serious for both age groups and hypochondriasis was only second in rank to middle and late insomnia for somatic symptoms. However, the pattern of somatic complaints discriminated between the depressed and nondepressed men for both age groups. A dry mouth, palpitations, shortness of breath, burning with urination, stomach cramps and a heavy feeling in the abdomen was the pattern that facilitated the recognition of depression in the elderly (Koenig et al., 1993).

Recognition of depression is further complicated by illnesses with depressive symptoms .

### Medical Illnesses With Depressive Symptoms

#### Alzheimer's Disease

Alzheimer's disease (AD) and depression often coexist together, with 30% of AD patients meeting the criteria for depression (Teri & Wagner, 1992). Depression may add excessive disability to the clinical picture of dementia patients. Patients with coexistent depression and dementia have significantly more dysphoric mood, vegetative signs, social withdrawal, loss of interest, feelings of guilt and suicidal ideations. They are more likely to have delusions and hallucinations: experience greater general behaviour disturbances, have more problems with restlessness, falling, agitation, suspiciousness and incontinence and have increased functional disability. However, effective depression treatment may only improve the patient's depression (Teri & Wagner, 1992).

#### Parkinson's Disease

Depression occurs in 40% of patients with Parkinson's disease (PD) and is distinguished by higher levels of concurrent anxiety and self reproach than depression in-patients without PD (Cumbungi, 1992). About one in five PD patients experiences their first depressive illness before the onset of any neurobiological symptoms, due to lower levels of 5-hydroxyindole acetic acid and the greater involvement of dopaminergic and noradrenergic systems than in depression in other patients. Lower levels of serotonin may predispose PD patients to depression. Therefore more than half of PD patients meet the criteria for a major depressive disorder and antidepressants have been found to be effective for depression in Parkinson's disease.

#### Stroke

Coexisting physical conditions, plus general physical debility in the early stages of post stroke, can share certain symptoms in common with depressive illness. These

include tiredness, lack of energy, poor appetite, weight loss and insomnia, all of which may lead to a false diagnosis of depression. Alternately, these medical conditions may produce symptoms, such as denial or neglect that may result in a failure to diagnose depression. Depression often occurs after a stroke and the estimated prevalence rate is between 30-60% depending on the studies, definitions of a stroke and the definition of depression (Chalmers, 1990; Lipsey, Robinson & Pearlson, 1983; Ng, Chan & Straughan, 1995; Primeau, 1988). Some studies only included hospitalised patients, therefore excluding stroke patients not admitted to hospital (Robinson, Starr & Price, 1984; Starkstein & Robinson, 1989). However, undetected and not treated, depression is one of the greatest impediments to the physical rehabilitation of post stroke patients and increases morbidity (House, Dennis & Molyneux 1988; Primeau, 1988), consequently there is a particular need for assertive treatment in stroke populations.

#### Other Illnesses That can Trigger Depressive Symptoms

Many other health conditions can facilitate depression. Occult carcinoma of the lungs or pancreas, hypercalcaemia, Cushing's disease, hyperthyroidism, hypothyroidism, pernicious anaemia, alcohol dependence, drugs, medications and infections (Kane, Ouslander, Abrass, 1994). However, another factor which can prevent depression from being recognised or treated is ageism.

#### Ageism

Increasing the recognition of depression in the elderly population may not necessarily lead to increased treatment because the elderly patient still may have to contend with ageism. Among health care professionals ageism is a form of prejudice and discrimination (Hillerbrand & Shaw, 1990; James & Haley, 1995; Shmotkin, Eyal & Lamranz, 1992). Society's negative attitudes about age can pervade the healing professions. Ageist attitudes view depression as a natural accompaniment of old age (Blazer & Williams, 1980). Depression has almost been viewed as a characteristic of

old age and so may not result in a diagnosis of depression (National Institute of Health, 1992). Long held beliefs in the health care field about ageing are now being seriously questioned and signs that have been considered as inevitable deterioration due to ageing are now seen as the result of individual behaviour and environmental conditioning (Rowe & Kahn, 1987).

In a study that assessed the age bias of GPs in the diagnosis and treatment of depression, vignettes were presented of older and younger patients with psychological disorders (Kucharski, White & Schratz, 1979). The GPs displayed a bias against referral of elderly patients for psychological assistance, which would contribute to the neglect of psychological problems for the aged. Similarly, older adult patients in a hospital setting were less likely to be referred for psychiatric consultation than younger patients (Hillerbrand & Shaw, 1990). One disturbing factor that arose from Hillerbrand and Shaw's study was the incomplete history evaluations of suicidal ideation and past psychiatric illness for the elderly patients, especially in light of the high suicide rate in the elderly.

In an Australian study, questionnaires were completed by 137 fifth year medical students to assess their attitudes towards geriatric patients in relation to treatment and career prospects (Le Couteur, Bansal & Price, 1997). The students had an average age of 22.8 years and the overall response was pessimistic attitudes to the medical management of the aged. Older patients were more likely to receive electroconvulsive therapy (ECT) and less likely to receive psychosocial therapies (Brodaty et al. 1993). The low referral rate for psychotherapy could indicate a bias on the part of the practitioners in referring the elderly patients or a perceived reluctance on the part of the elderly subjects to participate in psychotherapy. Similar results were found by Rapp and Davis (1989), only 4% GPs reported that they routinely used observation to evaluate depression and only 28% interviewed their patients about depression. None of the resident GPs reported using any form of psychological testing or consultation.



Schoenfeld, Malmrose Blazer, Gold and Seeman (1994) found that the older adults self rating of health was related to mortality; suggesting that GPs did not explore the factors that were causing the patient to rate their health as poor (Brodaty, Andrews & Kehoe, 1982). Lack of investigation with older adults is highlighted when GPs were audiotaped during consultations with young and older adults. GPs raised fewer psychological issues with the older adults and responded less well when such issues were raised by the older adults (Green, Hoffman, Charon & Adelman, 1987).

Similarly, Kendig (1996) highlighted that the biggest threat to the well-being of the aged is the inaccurate and negative stereotypes of the aged by medical practitioners seeing older adults being dependent and a drain on the Australian society. The ageist attitudes are unjustified because normally functioning older adults are at no greater risk of depression than younger adults (Roberts, Kaplan, Shema & Strawbridge, 1997). The Australian Society of Geriatric Medicine (1996) was concerned by research findings regarding the growing number of aged, deficiencies in the treatment of the aged and the inadequacy in the geriatric training of doctors. A position statement was produced highlighting the emphasis that was needed in medical training in the essential areas of knowledge such as the ageing process, atypical presentations of illness because of ageing, special needs and essential skills such as communication, physical assessment and problem solving skills. The statement also highlighted the need for healthy positive attitudes to the aged in terms of positive outcomes and the recognition of the patient's individuality rather than viewing them as a disease. Failure to recognise depression can lead to fatal consequences.

#### Suicide and Older Adults

Suicide is the leading external cause of death in Australia (Australian Bureau of Statistics, 1998). Accounting for 32% of all externally caused deaths. Male suicide rates are four times the rate of females. For males there has been a marked increase in suicides since 1995, from 12 to 367 deaths per annum and for females seven to 260

deaths (Australian Bureau of Statistics, 1998). The Western Australian figures indicate that the highest rate is for the 80-84 year age group with 56.3 suicides per 100,000 and the next highest suicide group being the 20-24 year olds with 46.9 per 100,000 (Health Information Centre, 1998). The incidence of suicide for men over 80 was nine times the rate of women for the same age. Furthermore, epidemiological studies show that younger adults now have generally higher rates of suicide than did their grandparents at the same age (Blazer, Bachar & Manton, 1986; Manton, Blazer & Woodbury, 1987). If this trend continues as young adults progress into late life, their suicide rates are likely to rise above the level of their elderly cohorts. Additionally, older adults compared with their younger cohorts use more lethal means and do not simply attempt suicide.

One example of the higher rate of suicide for men is the review of the suicides of 256 persons, which entailed the collection of data from the medical examiner, toxicology and autopsy findings, data from GPs and other health professionals, families, friends and an assessment of the act including antecedents and circumstances of the suicide (Conwell, Rotenberg, & Caine, 1990). The sample was 69% male and there was a significant increase in the proportion of suicides with age for widowed victims. Increasing age was also associated with violent methods of death such as hanging and firearms. Particularly of concern was that 50% of the suicides were committed by persons over 65 who had seen their GP one week before their death. Overall, 90% had seen a GP during the last three months. Given the violent nature of their deaths, this study would suggest that GPs may need to be more conscious and questioning when attending elderly patients. Very few of the older male victims had used psychiatric services and yet 45% had suffered with DSM-III affective disorders (Conwell et al.).

By comparison, 204 suicide victims ranging in age from 16 to 88 years of age were assessed to compare the differences between age groups in relation to

contributing factors to their suicides (Carney, Rich, Burke & Fowlers, 1994). Mental distress did play a major role in suicide across all age groups; 54% of the sample had depression. However, for the older age group of 60 years and over, health problems were significant at the time of death and interpersonal loss was a stressor for 35% of the older suicide cases. However, being widowed did not appear to have been a factor for the over 60 group, whereas in Conwell et al's. study it was an important factor. Additionally, males and females showed no significant differences in this study (Carney et al, 1994). Whereas, Conwell et al's. showed a significant predominance of males who had committed suicide.

Carney, et al's (1994) data were collected from informants and professionals and the data was reviewed by two independent investigators. However, as the authors themselves emphasised, the study was limited by not having a control group from the general population for a comparison of older and younger age groups. However, by comparing elderly suicides with younger there are difficulties in making allowances for the interactions between age, cohort and period effects on suicide (Murphy, Lindsay & Grundy, 1986; Surtees & Duffy, 1989). This is on the understanding that the rate of suicide for any given age at a given time is a result of risk factors associated with age, period of time and membership of a cohort (Murphy et al; Surtees & Duffy, 1989). The study did discover that a greater number of older victims had perceived themselves to be suffering from illness than had actually sought help (Carney et al., 1994). Furthermore, older victims were less likely to discuss their tendency towards suicide with professionals or social support members than their younger counterparts, which would have made detection of their suicidal tendencies more difficult. Suicidal tendency was a good indicator of depression in men 70 and over as only 4% of nondepressed men were inclined towards suicide out of a sample of 332 (Koenig, Cohen, Blazer, Krishman & Silbert, 1993). As indicated by the studies a key factor for persons who have committed suicide was that they suffered

from depression and many had visited their GP prior to their death. The implications of depression can not be underestimated and can also impact on the acceptance of life saving medical treatment.

#### The Depressed Older Adult's Refusal of Life Sustaining Medical Treatments

Within most states of Australia competent patients have the common law right to refuse medical treatment. In Victoria, South Australia and the Northern Territory the right has received statutory recognition (CCH Australia, 1994). The mental state of an elderly patient can affect their decision to accept life sustaining medical treatments. The role of depression in the refusal of life sustaining medical treatment has been highlighted in several studies. In one such study, 30 referred psychogeriatric patients were assessed over a 12 month period. (Hooper, Vaughan, Tennant & Perz, 1996). The patients were diagnosed with depression by a psychiatrist and a psychiatric registrar according to the DSM-IV criteria and a Mini Mental State Examination (MMSE) to screen for cognitive impairment. The depressed patients were given a hypothetical scenario and asked to imagine that they had developed a sudden life threatening illness with the uncertainty of recovery. The patients were subsequently offered a list of procedures ranging from intravenous fluids to cardiopulmonary resuscitation. They were then asked about the same scenario with a good chance of recovery.

Subsequently, the patients were given a standard pharmacological treatment for depression and six weeks later, 60% of the patients were diagnosed as having recovered from depression. Only the recovered group had an improved desire for life sustaining medical treatment when the uncertain life threatening scenario was represented. The study did have its limitations, which could have affected its generalisability however, despite the lack of a control group, a small sample and unstructured instruments to measure depression, a significant difference in the desire for life sustaining medical treatment after the treatment of depression was found.

Hooper et al.'s study was supported by Lee and Ganzini (1994) who conducted a similar study with an 81% male sample, with similar acceptance levels of life sustaining medical treatment for depression.

Other recent studies have indicated a link between depression and a desire to die. Chochinov et al. (1995) had qualified interviewers use structured instruments on a group of 200 patients to measure the desire for euthanasia. Major depression was evident in 58% of terminally ill cancer patients who had expressed a strong desire to die compared to 7.7% depression for those who did not wish to die. Similarly, oncology patients who considered and prepared for euthanasia were significantly more likely to be depressed (Emanuel, Fairclough & Daniels, 1996). Treatment of depression increases the acceptance of treatments, particularly if the prognosis is good (Hooper, et al., 1996).

#### Depression Can Lead to Deterioration in the Quality of Life for the Aged

Losses are commons among older people. The elderly experience physical losses, which means a reduction in the abilities for self care, often leading to the loss of independence (Kane, Oustlander & Abrass, 1994). Additionally, there can be a marked reduction in sensory capacities, especially hearing and vision, which can lead to isolation and sensory deprivation. Memory loss and loss of other intellectual functions and dementia are frequently associated with the elderly. Furthermore, depression can be precipitated by the losses attributed to life events such as the loss of a job, income, social support, and especially the deaths of family members and friends. Bereavement can in turn lead to isolation and depression. Considering the many factors that can predispose the elderly to depression it is surprising that the prevalence of symptoms and signs of this disorder are not higher.

Depressed elderly persons not only suffer unnecessary emotional distress, but their physical health status may also be compromised as a result of untreated depression (Floyd, 1997; Katon, 1996; Wells & Sherbourne, 1999). Depressed

patients may inaccurately perceive their medical symptoms and cognitive distortions which may result in a reduced level of self efficacy, promoting hopelessness and helplessness about symptom management. Depression increases the perception of poor health, the utilisation of medical services and health care costs (Callahan, Hui, Nienaber, Musik & Tierney, 1994; Koenig & Kuchibhatla, 1998). This is exemplified in an extensive study in The Netherlands of 5,279 residentially living 57 years olds and over (Ormel, Kempen, Deeg, Brilman, van Sonderen, Relyveld, 1998). The sample comprised 56.3% females and 43.8% males. The study enlisted the patients of 27 GPs and the patients were interviewed by trained interviewers. The symptoms were assessed using the depression subscale of the Hospital Anxiety and Depression Scale (HADS), which is less sensitive to confounding by physical illness. A checklist was used covering 19 active chronic medical conditions. The level of sensory impairment was assessed and the Mini Mental State Exam (MMSE) was used to detect cognitive impairment. Daily physical functioning, social role functioning, discretionary activities, level of inactivity, health perception, life satisfaction and subjective well-being were assessed. Four groups were formed: no medical condition and no depression, no medical condition but depression, medical condition but no depression, and medical condition and depression. The group with depressive symptoms and no medical condition were the most significant in the 57 to 64 and the 65 to 74 year old age groups. Increased age was associated with poor functioning. The functioning and well-being of the depressed group without a medical condition was significantly poorer compared to those who had only a medical condition. The depressed were poorer in health perception, role functioning, physical and daily functioning, discretionary activities, life satisfaction and were more inactive (Ormel et al., 1998).

The study may have been limited by the non objective methods of assessment (Ormel et al, 1998). For example the depressed patients may have exaggerated their accounts of their functioning and perceptions of their health. Additionally, subjects

may have been excluded that expressed their depression only as somatic symptoms. Furthermore, there was a high refusal rate of 28% or 3,214 persons. However, the researchers were able to access 55% of the populations' health care computerised records, which indicated that the refusers were either healthy or very sick and possibly suffering from life threatening diseases or depression (Ormel et al, 1998). If the refusers had been included then the prevalence rate may have been much greater.

However, the study did highlight the quality of life experienced by the depressed subjects, which was lower and more debilitating than for the medical subjects suffering with lung disease or persistent back and joint pain (Ormel et al., 1998). The key to improving the quality of life for older adults and preventing suicide is treatment. GPs have several options available, which can be effective for treating older adults with depression.

### Treatments

#### Antidepressants

Medications are metabolised more slowly in older adults, prolonging and enhancing side effects, as well as increasing toxicity due to drug interactions. It is believed that most antidepressants are equally effective, but the varying intensity of side effects makes some antidepressants less useful for older adults (Fawcett & Barkin, 1997). For example, some tricyclic antidepressants (TCAs) have a tendency to induce orthostatic hypertension, which results in dizziness and falls leading to fractures and broken bones. TCAs are class one antiarrhythmics and can lead to fatal consequences (Glassman & Roose, 1994). Because of the unpleasantness of the side effects, which can include a dry mouth, constipation, urinary retention, increased anxiety, confusion and restlessness, the older adult often refrains from taking the antidepressants (Reynolds et al., 1999). Some of the selective serotonin reuptake inhibitors (SSRIs) have fewer side effects however, trials indicate that SSRIs produce

significantly more nausea, anorexia, diarrhoea and insomnia than TCAs (Nelson, 1997; Ware, 1997). A safe and effective alternative is psychotherapy.

### Psychotherapy

Antidepressants are not an option for some older adults because of the side effects or their refusal to take medication. An alternative treatment for depression is psychotherapy, such as cognitive behaviour therapy. Older adults respond successfully to both individual and group therapy for depression (Gallagher-Thompson, Hanley-Peterson, & Thompson, 1990; Bright, Baker & Neimeyer, 1999; Klausner, Clarkin, Spielman, Pupo, Abrahms, & Alexopoulos, 1998; Scogin & McElreath, 1994). Robinson, Berman and Neimeyer (1990) found across studies that antidepressants and psychotherapy were equally effective either in combination or alone. As an example of the effectiveness of psychotherapy for depressed older adults, a trial with 102 adults aged over 60 years compared cognitive behavioural therapy (CBT) alone with the tricyclic antidepressant (TCA) desipramine alone, against a third treatment group using CBT and the TCA (Thompson & Gallagher-Thompson, 1993). The TCA group did the most poorly and the CBT and TCA gained the most improvement for depression. CBT had significant gains over time close to the combined treatments of CBT and TCA for depression in the older adults, indicating that psychotherapy is an effective and safe option for older adults with depression.

### Electroconvulsive Therapy (ECT)

Where antidepressants and psychotherapy have been ineffective and a patient suffers from severe depression that might include a high suicide risk, severe appetite and sleep difficulties, psychomotor disturbances and even psychotic symptoms then ECT is regarded as an appropriate form of therapy (Benbow, 1991; Blazer, 1994; Casey & Davis, 1996; NIH Consensus Conference, 1991, Weiner, 1979). The risks involved with using ECT include confusion and memory loss. However, unilateral ECT to the nondominant hemisphere impairs memory less than bilateral ECT and the



post treatment confusion and memory loss improves as the depression subsides (Devanand, Dwork, Hutchinson, Bolwig & Sackheim, 1994). With the combination of a short acting anaesthetic and a muscle relaxant the patient experiences seizures produced by ECT that are almost imperceptible (Abrahms, Swartz, & Vedak, 1991). The success rate varies depending on the study and sample size, and most studies claim up to 70% recovery from depression (Casey & Davis, 1996; Gormley, Cullen, Walters, Philpot & Lawlor, 1998; Russ, Ackerman, Burton, Shindledecker & Goldberg, 1989;). One of the advantages of ECT is that it is fast working, which is vital for depressed suicidal patients. Whereas antidepressants can take up to six weeks to take effect and the antidepressant prescribed may be ineffective, so in many cases ECT is a safe and effective alternative.

However, some older adults do not respond to ECT particularly if they have not responded to antidepressants. There have been varying results among the studies indicating that patients that had not responded to pharmacological treatment preECT were less likely to respond to ECT and were more likely to relapse after ECT (Prudic, Sackeim & Devanand, 1990). In Prudic et al.'s study the antidepressant resistant group had a 50% success rate compared with a 90% success rate with the non resistant group. In contrast, after ECT only 7% were not successful for 48% of Baldwin and Jolley's (1986) nonresponsive antidepressant patients. However, Magni, Fisman & Helmes (1988) and Morris (1991) found similar results when 27% of their patients that had previously been using tricyclics without improvement, were resistant to bilateral ECT and had gained no significant improvement. Many experts recommend unilateral ECT for the elderly, feeling that it may cause fewer problems with memory and have the same clinical effectiveness (NIH, 1991). Antidepressants are usually prescribed after the ECT or if not tolerated maintenance doses of ECT are given. Overall the prognosis of depression for older adults is similar to younger adults.

### The Prognosis of Depression in the Elderly

With minimal training GPs can increase their recognition rate of depression and consequently treatment for depression in older adults (Koenig, Pappas, Holsinger & Bachar, 1995). In assessing the prognosis for depression in older adults there is some difficulty in making comparisons between studies of depression due to the different diagnostic criteria that have been used. Many of the studies lack manualised, replicable specific treatment programmes, blind evaluators, unbiased random assignment to treatment and control groups. Additionally, the measures of outcome vary from study to study such as the number of episodes over a period of time, the course or pattern of symptoms, attrition rates, the interval between episodes and the social or occupational function (Baldwin, 1991). Even though occupational function may not be applicable, social recovery is an important but neglected area for older depressed people. The setting will also influence outcome. Most studies have been conducted on inpatients, some on the occupants of residential facilities and others on mixtures of inpatients and outpatients, resulting in different outcomes. Despite the shortcomings of the studies, the studies do indicate depression in the elderly can respond positively with treatment

Baldwin and Jolley (1986) found that for an individual episode of depressive illness the recovery rate was good and that 75-80 percent is a reasonable estimate of recovery rate for the elderly. Baldwin and Jolley's study assessed 98 patients with depression, over 65 years of age, who had been referred to a psychogeriatric unit by GPs who had already made an attempt to treat the disorder. Patients were assessed for depression using the Hamilton Rating Scale for Depression (HRSD). The HRSD's tends to over recognise depression because of its inclusion of physical symptoms. However, over identification was overcome by a separate scoring of physical health conditions. The study does not indicate whether two assessors were used, the level of interrater reliability, if the raters were blind and whether a control group was not

used. The study was conducted over a three year period and the treatments received were antidepressants and/or Electro Convulsive Therapy (ECT). ECT was used for severely depressed patients with delusions because antidepressants had not been effective on their own. A one year and a three year followup were conducted and where an active physical problem was present then the prognosis was poorer. Additionally males fared poorer than females due to more physical health problems at the commencement of the study and that had developed since the start of the study. The study did examine difficult cases of depression, which had failed to respond to previous treatment by GPs. After three years 16 percent had not improved, 31 percent had relapses, 25 percent were left with residual features and 28 percent were fully recovered (Baldwin & Jolley, 1986).

Hinrichsen (1992) found a greater success rate of 72 percent from a depressive episode at a one year followup of 127 over 60 year old inpatients. The patients were assessed by a research staff member trained in the administration of the Schedule for Affective Disorders and Schizophrenia (SADS) and a staff member rated the patient's physical health with most patients being in fair to excellent health. Diagnoses and Longitudinal Interval Followup Evaluation (LIFE) ratings were reviewed by the researcher (Hinrichsen, 1992). The study did lack a control group and only patients with involved spouses or family members were included, which guaranteed social support. Electro Convulsive Therapy (ECT) and antidepressants were the treatments used, as was the case in the Baldwin and Jolley's study (1986). Full recovery was experienced by 59 percent of the elderly patients with a further 29 percent who had improved but then relapsed (Hinrichsen, 1992).

Studies have been conducted to compare the difference in prognosis between older and younger groups with depression. In comparing the difference in outcomes between the elderly and younger patients, the elderly group had better outcomes than the younger age group after treatment for depression (Meats, Timol & Jolley, 1991).

Fifty six over 65 year olds were compared with 28 younger patients with a mean age of 51.6 years. They were assessed by one psychiatrist using the Hamilton Rating Scale for Depression (HRSD) and unspecified scales were used for assessing physical, cognitive and social status (Meats et al., 1991). Additionally, subjects with minor personality disorders, alcohol abuse or cognitive impairment were included. Nonstandardised treatments of pharmacotherapy and ECT were used for both groups. Subjects were reinterviewed 12 months after the initial intake to evaluated outcomes. Interestingly enough the elderly, were less likely to receive ECT and more likely to receive pharmacotherapy than the younger subjects, which is the opposite of other studies (Brodaty et al, 1993). The prognosis for the elderly group was better than for the younger group with 50 percent of the elderly classified as very well compared to 37.5 percent of the young subjects. The elderly with early onset did better than the younger patients. However, the elderly subjects did have greater social support than the younger group. The elderly had eight natural deaths and two suicides and the younger group had two suicides. Reynolds et al. (1996) also found further support of positive outcomes for older patients and middle aged patients when treated with antidepressants and psychotherapy.

Reynolds et al. (1996) were able to set symptom thresholds by assessing depression using the Research Diagnostic Criteria, the Hamilton Depression Rating Scale (HDRS) and the Schedule for Affective Disorders and Schizophrenia. Participants were referred patients and responders to advertisements. Two groups were used, one with 214 subjects with the mean age of 38.5 years, SD of 9.7 years and a second group of 148 elderly subjects with the mean age of 67.9 years, SD of 5.7 years. Older subjects were administered plasma stabilised levels of nortriptyline and the younger group, imipramine and desipramine. A treatment outcome threshold was achieved for both groups and continuation therapy was maintained for 16 weeks with the older group and 20 weeks with the younger group. The study did not introduce

randomised, double blind, control conditions until the end of the continuation therapy. The improvement response rate was slightly slower for the older group, however it may have been related to the difference in the treatment medications used. Both groups achieved positive outcomes of 70 percent recovery with pharmacotherapy and biweekly sessions of psychotherapy. However, to assess the longer term benefits of the treatment it would appear worthy of further followup studies.

A good prognosis for the elderly with depression is further supported by Alexopoulos et al. (1996) who also compared 23 younger and 65 older referred patients. All patients were assessed for depression using DSM-III-R criteria plus the Geriatric Depression Scale (GDS), Hamilton Depression Rating Scale (HDRS), Cornell Scale of Depression in Dementia and the knowledge gained from an informant who knew the patient. A Mini Mental State Examination (MMSE) for cognitive impairment, and for medical illness the MAI and the Cumulative Illness Rating Scale-G medical were administered. The outcome of treatment was assessed using the Longitudinal Interval Followup Evaluation (LIFE) which requires weekly retrospective ratings of symptom levels and was performed in the patients' homes. There were no significant differences between the two age groups for severity of depression, cognitive impairment, medical health or social support. The antidepressant dosage was calculated weekly and there were no significant differences in treatment intensity. Both groups recovered at the same rate, with a 60 percent recovery for both groups within 6 months of treatment commencement. There was an additional 20 percent of subjects in both groups that recovered after two years (Alexopoulos et al., 1996). The results were very positive although the samples were small, evaluation was retrospective and the study lacked randomised assignment and control groups.

Brodaty et al. (1993) also investigated the prognosis of depression for the elderly and compared them with the young. The referred subjects were 242 consecutive inpatients and outpatients with a minimum age of 18 years at Sydney's

Prince Henry Hospital. The subjects were divided into three age groups 18 to 39 years, 40 to 59 years and over 60 years. Specific symptom thresholds for depression were established using the DSM-III criteria, Zung Depression Rating Scale, and the Hamilton Rating Scale of Depression (HRSD). Additionally, the General Health Questionnaire (GHQ), the Social Adjustment Scale-Self Report and the CORE rating of psychomotor signs were administered. Blind evaluators rated the outcomes at one year and three point eight years using telephone interviews. The treatment in the first 12 months were categorised as pharmacological, electroconvulsive (ECT), social skills/behavioural psychotherapy or family/individual therapy and were not manualised. At 12 months and three point eight years followups of all age groups had a 45 percent complete recovery rate. The lower rates of success could be attributable to patients having been referred due to their difficulty to treat (Brodaty et al., 1993). Brodaty et al.'s patients in the study were more likely to receive ECT and less likely to receive psychosocial therapies. The lower participation in psychotherapy could indicate a bias on the part of the practitioners in referring the elderly patients or reluctance on the part of the elderly subjects to participate in psychotherapy. However, psychotherapy has been shown to be equally effective for young and older adults (Reynolds et al., 1996).

As illustrated by the studies presented, and considering the various methods used to assess and treat depression, the prognosis of the elderly with depression is good. Therefore, treatment in the elderly can improve their motivation and ability to comply effectively with other medical treatment (Allen, Becker & McVey, 1986).

### Summary and Conclusions

This article has reviewed the literature regarding the definitions, prevalence, recognition, treatments and prognosis of depression by GPs particularly with regard to older adult males. The studies cited demonstrate that there has been inconsistency in the definitions of depression. Various instruments have been used to detect

depression, to ascertain the recognition of depression, to identify the factors that affect recognition, and to determine the efficacy of the treatments. Despite the inconsistencies between the studies, the studies do indicate that depression is under recognised in older adults by GPs and therefore not treated (Bowers, Jorm, Henderson & Harris, 1990; Freeling, Rao, Paykel, Sireling & Burton, 1985; Goldberg, Bridges, Duncan-Jones, & Grayson, 1988; Paykel & Priest, 1992). As stressed earlier, undetected and untreated depression can cause a reduction in the quality of life for older adults that could lead to the refusal of life sustaining medical treatment and suicide.

The interplay of all the factors already discussed underlines the complexity of the diagnostic process for GPs with older adult males with depression. The methodical pitfalls highlighted earlier underscores the necessity for more structured studies with larger samples from all psychosocial classes and clinical situations including inpatient hospital wards, outpatient clinics and communities. However, the research has indicated treatment is successful in 60%-70% of older adult men when recognised and treated. "So where there is depression" there is more than hope (Blazer, pp. 165, 1989).

### References

- Abraham's, R., Swartz, C., & Vedak, C. (1991). Antidepressant effects of high dose right lateral electroconvulsive therapy. Archives of General Psychiatry, 48, 746-748.
- Alexopoulos, G., Meyers, B., Young, R., Kakuma, T., Feder, M., Einhorn, A., Rosendahl, E. (1996). Recovery in geriatric depression. Archives of General Psychiatry, 53, 305-312.
- Allen, C., Becker, P., McVey, L. (1986). S randomised, controlled clinical trail of a geriatric consultation team. Journal of the American Medical Association, 255, 2617-2621.
- American Society of Anesthesiologists (1963). New classification of physical status. Anesthesiology, 24, 191-198.
- Australian Geriatric Society of Medicine. (1996). Australian Geriatric Society of Medicine statement No. 4: Education and training in geriatric medicine for undergraduate medical students. Australian Journal on Ageing, 15, 3, 100-103
- American Psychiatric Association. (1986). Diagnostic and statistical manual of mental disorders. Third Edition (DSM-III). Washington DC: American Psychiatric Association.
- American Psychiatric Association. (1994). Diagnostic and statistical manual of mental disorders. Fourth Edition (DSM-IV). Washington DC: American Psychiatric Association.
- Baldwin, B. (1991). The outcome of depression in old age. International Journal of Geriatric Psychiatry, 6, 395-400.
- Baldwin, R., & Jolley, D. (1986). The prognosis of depression in old age. British Journal of Psychiatry, 149, 574-583.
- Benbow, S. (1989). The role of electroconvulsive therapy in the treatment of depressive illness in old age. British Journal of Psychiatry, 155, 147-152.
- Beekman, A., Deeg, D., Smit, H., van Tilburg, J. (1995). Predicting the course of depression in the older population: Results from a community based study in



- the Netherlands. Journal of Affective Disorders, 34, 41-49.
- Blazer, D. (1989). Depression in the elderly. The New England Journal of Medicine, 320, 164-166.
- Blazer, D. (1989). Affective disorders in late life. In E. W. Busse & D. G. Blazer (Eds.) Geriatric Psychiatry (pp. 369-401). Washington: American Psychiatric Press.
- Benbow, S. (1991). Old age psychiatrists view of the use of ECT. International Journal of Geriatric Psychiatry, 6, 317-322.
- Blazer, D. (1994). Epidemiology of late life depression. In L. Schneider, C.F. Reynolds, B. Lebowitz, & A. Friedhoff (Eds.). Diagnosis and treatment of depression in late life (pp. 9-19). Washington: American Psychiatric Press.
- Blazer, D., Bachar, J., & Manton, K. (1986). Suicide among older people: Projections for the future. Suicide and Life Threatening Behavior, 13, 147.
- Blazer, D., Hughes, D., & George, L. (1987). The epidemiology of depression in an elderly community population. Gerontologist, 27, 281-287.
- Bowers, J., Jorm, A., Henderson, S., & Harris, P. (1990). General practitioners' detection of depression and dementia in elderly patients. Medical Journal of Australia, 153, 192-196.
- Bright, I., Baker, K., & Neirmeyer, R. (1999). Professional and paraprofessional group treatments for depression: A comparison of cognitive behavioural and mutual support interventions. Journal of Consulting and Clinical Psychology, 67, 4, 491-501.
- Brodaty, H., Andrews, G., & Kehoe, L. (1982). Psychiatric illness in general practice: why is it missed? Australian Family Physician, 11, 8, 625-631.
- Brodaty, H., Harris, L., Peters, K., Wilhem, K., Hickie, I., Boyce, P., Mitchell, P., Parker, G., & Evers, K. (1993). Prognosis of depression in the elderly: A comparison with younger patients. British Journal of Psychiatry, 163, 589-596.
- Callahan, C., Hui, S., Nienabar, N., Musik, B., & Tierney, W. (1994). Longitudinal

- study of depression and health services use among elderly primary care patients. Journal of the American Geriatrics Society, 42, 833-838.
- Carney, S., Rich, C., Burke, P., & Fowler, R. (1994). Suicide over 60: The San Diego Study. Journal of the American Geriatric Society, 42, 174-180.
- Casey, D., & Davis, H. (1996). Electroconvulsive therapy in the very old. General Hospital Psychiatry, 18, 436-439
- Cattell, H. (1988). Elderly suicide in London: Analysis of coroner's requests. International Journal of Geriatric Psychiatry, 3, 251-61.
- CCH Australia. (1995). Death with dignity. Australian Health and Medical Law Reporter, paragraph 22-360. Sydney: CCH Australia Ltd.
- Chalmers, G. (1990). Post stroke depression. International Clinical Psychopharmacology, 5, 19-31.
- Chochinov, H., Keith, M., Wilson, G., & Enns, Mowchun, M., Lander, S., Levitt, M., & Clinch, J. (1995). Desire for death in the terminally ill. American Journal of Psychiatry, 152, 1185-1191.
- Cohen-Cole, S., & Kaufman, K. (1993). Major Depression in physical illness: Diagnosis, prevalence and antidepressant treatment: A 10 year review: 1982-1992). Depression, 1, 181-204.
- Conwell, Y., Rotenberg, M., & Caine, E. (1990). Complete suicide at age 50 and over. Journal of the American Geriatrics Society, 38, 640-644.
- Copeland, J., Beekman, A., Dewey, M., Jordan, A., Lawlor, B., Linden, M., Lobo, Magnusson, H., Mann, A., Fichter, M., Princes, M., Saz, P., Turrina, C., & Wilson, K. (1999). Crosscultural comparison of depressive symptoms in Europe does not support stereotypes of ageing. British Journal of Psychiatry, 174, 4, 322-329.
- Copeland, J., Davidson, I., Dewey, M., Gilmore, B., Larkin, C., McWilliam, C., Saunders, P., Scott, A., Sharma, V., & Sullivan, C. (1992). Alzheimer's disease,

- other dementias, depression and pseudodementia: Prevalence, incidence and three year outcome in Liverpool. British Journal of Psychiatry, 161, 230-239.
- Devanand, D., Dwork, A., Hutchinson, E., Bowig, T., & Sackheim, H. (1994). Does ECT alter brain structure. American Journal of Psychiatry, 151, 957-970.
- Epstein, L. (1976). Symposium on age differentiation in depressive illness: Depression in the elderly. Journal of Gerontology, 31, 3, 278-282.
- Emauel, E., Fairclough, D., & Daniels, E. (1996). Euthanasia and physician assisted suicide: Attitudes and experiences of oncology patients, oncologists and the public. Lancet, 347, 1185-1191.
- Fawcett, J., & Barkin, R. (1997). Efficacy issues with antidepressants. Journal of Clinical Psychiatry 58, 32-39.
- Floyd, B. (1997). Problems in accurate medical diagnosis of depression. Social Science Medicine, 44, 3, 403-412.
- Freeling, P., Rao, B., Paykel, E., Sireling, L., & Burton, R. (1985). Unrecognised depression in general practice. British Journal of Geriatrics, 290, 1880-1883.
- Gallagher-Thompson, D., Hanley-Perterson, P & Thompson, L. (1990). Maintenance of gains versus relapse following brief psychotherapy for depression. Journal of Consulting and Clinical Psychology, 58, 371-374.
- Gallo, J., Rabbins, P., Lyketsos, C., Tien, A., & Anthony, J. (1997). Depression without sadness: Functional outcomes of non dysphoric depression in later life. Journal of the American Geriatric Society, 45, 570-578.
- Ganzini, L., Smith, S., Fenn, D., & Lee, M. (1997). Depression and mortality in medically ill older adults. Journal of the American Geriatrics Society, 45, 307-213.
- Glassman A., & Roose, (1994). Risk of antidepressants in the elderly: Tricyclic Antidepressants and arrhythmia reversing risks. Gerontology, 40, 15-10.

- Goldberg, D., Bridges, K., Duncan-Jones, P., & Grayson, D. (1988). Detecting anxiety and depression in general medical settings. British Medical Journal, 297, 897-899.
- Gormley, N., Cullen, C., Walter, L., Philpot, M & Lawlor, B. (1998). The safety and efficacy of electroconvulsive therapy in patients over age 75. International Journal of Geriatric Psychiatry, 13, 871-874.
- Greene, M., Hoffman, S., Charon, R., & Adelman, R. (1987). Psychosocial concerns in the medical encounter: A comparison of the interactions of doctors with their old and young patients. The Gerontologist, 27, 2, 164-168.
- Health Information Centre, Health Department of Western Australia, 1998.
- Hammond, M. (1998). Rating depression severity in the elderly physically ill patient: Reliability and factor structure of the Hamilton and the Montgomery-Ashberg depression rating scales. International Journal of Geriatric Psychiatry, 13, 257-261.
- Harkey, B., & Hyer, L. (1986). Suicide among psychiatric care in the elderly. Psychological Reports, 10, 547-553.
- Henderson, A., Jorm, A., McKinnon, A., Christensen, H., Scott, L., Korten, A., & Doyle, C. (1993). The prevalence of depressive disorders and the distribution of depressive symptoms in later life: Survey using draft ICD-10 and DSM-III-R. Psychological Medicine, 23, 719-729
- Hinrichsen, G. (1992). Recovery and relapse from major depressive disorder in the elderly. American Journal of Psychiatry, 149, 1575-1579.
- Hillerbrand, E., & Shaw, D. (1990). Age bias in a general hospital setting: Is there ageism in psychiatric consultation? Clinical Gerontologist, 2, 2, 3-13.
- Hooper, S., Vaughan, K., Tennant, C., & Perz, J. (1996). Major depression and refusal of life sustaining treatment in the elderly. Medical Journal of America, 165, 416-419.

- House, A., Dennis, M., & Molyneux, A. (1989). Emotionalism after stroke. British Medical Journal, 289, 991-994.
- James, J., & Haley, W. (1995). Age and health bias in practicing clinical psychologists. Psychology and Ageing, 10, 4, 610-616.
- Kane, R., Ouslander, J., & Abrass, I. (1994). Essentials of clinical geriatrics. (3<sup>rd</sup> ed.). New York: McGraw Hill.
- Katon, W. (1996). The impact of major depression on chronic medical illness. General Hospital Psychiatry, 18, 215-219.
- Kendig, H. Working with older people: Thoughts on a career in gerontology. Australian Journal on Ageing, 15, 3, 1996.
- Klausner, E., Clarkin, J., Spielman, L., Pupo, C., Abrams, R., & Alexopoulos, G. (1998). Late life depression and functional disability: The role of goal focused group psychotherapy. International Journal of Geriatric Psychiatry, 13, 707-716.
- Kendrick, T. (1996). Prescribing antidepressants in general practice. British Medical Medical, 313, 829-830
- Kivela, S., Kangas-Saviaro, P., Kesti, E. (1994). Five year prognosis for depression in old age. International Psychogeriatrics, 6, 69-78.
- Keonig, H., & Kuchibhatla, M. (1998). Use of health services by hospitalised medically ill depressed elderly patients. American Journal of Psychiatry, 155, (7), 871-878.
- Koenig, H., Cohen, H., Blazer, D., Krishman, K., Sibert, T. (1993). Profile of depressive symptoms in younger and older medical inpatients with major depression. Journal of the American Geriatric Society, 41, 1169-1176.
- Koenig, H., Pappas, P., Holsinger, T., & Bachar, J. (1995). Assessing diagnostic approaches in medically ill older adults: How reliably can mental health professions make judgements about the cause of symptoms. Journal of the

- American Geriatric Society, 43, 472-478.
- Kucharski, L., White, R., & Schratz, M. (1979). Age bias, referral for psychological assistance and the private physician. Journal of Gerontology, 34, 3, 423-428.
- Le Couteur, D., Bansal, A., & Price, D. (1997). The attitudes of medical students towards carers in geriatric medicine. Australian Journal of Ageing, 16, 4, 255-228.
- Lee, M., & Ganzini, L. (1994). The effect of recovery from depression on life sustaining therapy in older patients. Journal of Gerontology, 49, M15-M21.
- Lipsey, J., Tobinson, R., & Pearlson, G. (1983). Mood change following bilateral hemisphere brain injury. British Journal of Psychiatry, 143, 266-273.
- Lyness, J., Cox, C., Curry, J., Conwell, Y., King, D., Caine, C. (1995). Older age and the underreporting of depressive symptoms. Journal of the American Geriatric Society, 43, 216-221.
- Manton, K., Blazer, D., & Woodbury, M. (1987). Suicide in late life: Review and commentary. Journal of American Geriatric Society, 34, 519.
- Meats, P., Timol, M., & Jolley, D. (1991). Prognosis of depression in the elderly. British Journal of Psychiatry, 159, 659-663.
- McLennan, W. (1998). Mental health and wellbeing: Profile of Adults, Australia, 1997. Australian Bureau of Statistics. Canberra: Commonwealth of Australia
- Morris, P. (1991). Post stroke depression and general hospital psychiatry. Australian New Zealand Journal of Psychiatry, 25, 445-446.
- Murphy, E., Lindesay, J., & Grundy, E. (1986). 60 years of suicide in England and Wales: A cohort study. Archives of General Practice, 43, 969-976.
- National Institute of Health Developmental Panel on Depression in Late Life. (1992). Diagnosis and treatment of depression in late life. Journal of the American Medical Association, 268, 1018-1024.
- National Institutes of Health. (1992). Diagnosis and treatment of depression in late life. Journal of the Medical Association of America, 268, 8, 1018-1024.

- Nelson, C. (1997). Safety and tolerability of the new antidepressants. Journal of Clinical Psychiatry, 58, 6-31.
- Ng, K., Chan, K., & Straugham, P. (1995). A study of post stroke depression in a rehabilitative centre. Acta Psychiatrica Scandinavica, 92, 75-79.
- Parmalee, P., Katz, I., & Lawton, M. (1992). Incidence in depression in long term settings. Journal of Gerontology: Medical Science, 47, M189-M196.
- Pattie, A. (1981). A survey version of the Clifton Assessment Procedures for the Elderly (CAPE). British Journal of Psychiatry, 20, 173-178.
- Paykel, E., & Priest, R. (1992). Recognition and management of depression in general practice: Consensus statement. British Medical Journal, 305, 1198-1202.
- Primeau, F. (1988). Post stroke depression: A critical review of the literature. Canadian Journal of Psychiatry, 33, 757-765.
- Prudic, J., Sackheim, H., & Devanand, D. (1990). Medication resistance and clinical response to eletroconvulsive therapy. Psychiatry Research, 31, 287-296.
- Rapp, S., & Davis, K. (1989). Geriatric Depression: Physicians' knowledge, perception and diagnostic practices. The Gerontologist, 29, 252-257.
- Rapp, S., Parisi, S., Walsh., & Wallace, C. (1988). Detecting Depression in elderly medical inpatients. Journal of Consulting and Clinical Psychology, 56, 509-513.
- Rapp, S., & Vrana, S. (1989). Substituting nonsomatic for somatic symptoms in the diagnosis of depression in elderly male medical patients. American Journal of Psychiatry, 146, 1197-1200.
- Reynolds, C., Perel, J., Frank, E., Cornes, C., Miller, M., Houck, P., Mazumdar, A., Stack, J., Pollock, B., Dew, M., & Kupfer, D. (1999). Three year outcomes of maintenance nortriptyline treatment in late life depression: A study of two fixed plasma levels. American Journal of Psychiatry, 156, 1177-1181.
- Reynolds, C., Frank, E., Kupfer, D., Thase, M., Perel, J., Mazumdar, S., & Houck, P.

- (1996). Treatment outcomes in recurrent major depression: A posthoc comparison of elderly, young old and midlife patients. American Journal of Psychiatry, 153, 1288-1292.
- Roberts, R., Kaplan, G., Shema, S & Strawbridge, W. (1997). Does growing old increase the risk of depression. American Journal of Psychiatry, 154, 10, 1384-1391.
- Robins, L., Wing, J., & Wittchen, H. (1988). The composite international diagnostic interview. General Psychiatry, 45, 1069-1077.
- Robinson, R., Starr, L., & Price, T. (1984). A two year longitudinal study of mood disorders following stroke; prevalence and duration at six months' followup. British Journal of Psychiatry, 144, 256-262.
- Rowe, J., & Kahn, R. (1987). Human Ageing: Usual and successful ageing. Science, 237, 1271-1276.
- Russ, M., Ackerman, S., Burtin, L., Shindedecker, R., & Goldberg, E. (1989). Cognitive effects of ECT in the elderly: Preliminary findings. International Journal of Geriatric Psychiatry, 5, 115-118.
- Ryan, C. (1996). Depression, decisions and the desire to die. Medical Journal of America, 165, 411.
- Schoenfeld, D., Malmrose, L., Blazer, D., Gold, D., & Seeman, T. (1994). Self rated health and mortality in high functioning individuals: MacArthur field study of successful aging. Journal of Gerontology: Medical Sciences, 49, 3, M109-115.
- Scogin, F., & McElreath, L. (1994). Efficacy of psychosocial treatments for geriatric depression: A quantitative review. Journal of Consulting and Clinical Psychology, 62, 69-74.
- Shmotkin, D., Eyal, N., & Lomranz, J. (1992). Motivations and attitudes of clinical psychologists regarding treatment of the elderly. Educational Gerontology, 18, 177-192.
- Small, G. (1991) Recognition and treatment of depression in the elderly. Journal of



Clinical Psychiatry, 52, 6, 11-22.

Snowdon, J. (1994). The epidemiology of affective disorders. In E. Chiu & D. Ames (Eds.), Functional psychiatric disorders of the elderly (pp. 95-110). Cambridge: Cambridge University Press.

Snowdon, J. (1998). Management of late life depression. Australian Journal of Ageing, 17, 2, 57-62.

Starkstein, S., Robinson, R. (1989). Affective disorders and cerebral vascular disease. British Journal of Psychiatry, 154, 170-182.

Surtees, P., & Duffy, J. (1989). Suicide in England and Wales 1946-1985: An age period cohort analysis. Acta Psychiatrica Scandinavica, 79, 460-467,

Thompson, L., Gallagher, D., & Beckenridge, J. (1987). Comparative effectiveness of psychotherapies for depressed elders. Journal of Consulting and Clinical Psychology, 55, 385-390.

Thompson, L., & Gallagher, Thompson, D. (1993). Comparison of desipramine and cognitive/behavioural therapy for the treatment of depression in late life. Psychology and Ageing, 8, 434-441.

Turrina, C., Caruso, R., Este, R., Lucchi, F., Fazzari, G., Dewey, M., & Ermentini, (1994). Affective disorders among elderly general practice patients: A two phase survey in Brescia, Italy. British Journal of Psychiatry, 165, 533-537.

Ware, M. (1997). Fluvoxamine: A review of the controlled trials of depression. Journal of Clinical Psychiatry, 58, 15-23.

Wells, K., & Sherbourne, C. (1999). Functioning and utility for current health of patients with depression or chronic medical conditions in managed, primary care practices. Archives of General Psychiatry, 56, 897-904.

Wiener, R. (1979). The psychiatric use of electronically induced seizure. American Journal of Psychiatry, 136, 1507-1517.

**Running Head: RECOGNITION OF DEPRESSION IN OLDER ADULTS MALES**

**Assessment of Depression in Older Adult Males by General Practitioners:  
Ageism, Physical Problems and Treatment**

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### Abstract

Western Australian General Practitioners (WAGPs) were assessed on their ability to recognise depression in an older adult male with depression. Using 4 vignettes, age and health condition was manipulated to determine if the GPs' recognition, recommendations for treatment and investigations would be affected. The 189 GPs completed questionnaires and were from two Perth metropolitan Divisions of General Practice. The recognition rate of 79% is higher than previous reports. Age and condition were not significant factors for treatment and further investigations. The reasons for the higher recognition rate are discussed. The recommended methods of treatment were antidepressants or antidepressants and counselling by the WAGPs. Only 6% of GPs offered non pharmacological interventions and recommended referring the patient to a psychiatrist or psychologist.

**Keywords:** recognition, factors, vignettes.

### Assessment of Depression in Older Adult Males by General Practitioners:

#### Ageism, Physical Problems and Treatment

According to the Australian Bureau of Statistics (McLennan, 1998), the highest rate of deaths is caused by suicide and is for males over 84 years with the Western Australian suicide rate at 56.3 per 100,000 (Health Information Centre, 1998). A key element for persons who have committed suicide was that many suffered from depression and many may have had contact with a general practitioner (GP) shortly before their death (Carney, Rich, Burke & Fowler, 1994; Conwell, Rotenberg & Caine, 1990; Lyness, Cox, Curry, Conwell, King, & Caine, 1995). The studies raise the concern that the suicides may have been prevented if the depression had been treated. The prevalence rate for depression ranges from 0.7% for community dwelling older adults to (Henderson, et al, 1993) 25% for institutionalised older adults (National Institute of Health Developmental Panel on Depression in Late Life, 1992; Parmalee, Katz, & Lawton, 1992).

A broader look at the available literature suggests several key elements that relate to GPs treatment of depression. Firstly, depression is often not recognised. The rates of recognition in general practice ranges between 20% and 80% (Bowers, Jorm, Henderson & Harris, 1990; Bowers, Jorm, Henderson & Harris, 1992, Crawford, Prince Menezes & Mann, 1998; Kucharski, White, Schultz, 1979). The low recognition rate for older adult men can be attributed to several factors. Older adult men tend to be less frequent in their attendance to GPs (Jacomb, Jorm, Korten, Rodgers, Henderson & Christensen, 1997), they usually present with somatic problems (Cole & Raju, 1996; Friedhoff, 1992) and have a tendency to be less expressive than younger male patients (Kucharski, White, & Schratz, 1979). The depression may co-occur with medical conditions such as diabetes, pituitary, adrenal, or thyroid disorders; and cardiovascular disease, which can magnify physical symptoms. The emphasis on overlapping medical symptoms makes detection more

difficult (Koenig, Cohen, Blazer, Krishman & Sibert, 1993; Rapp & Vrana, 1989). The recurrent medical conditions and the focus of the consultation often results in the prescription of treatment for the somatic problems and the depression is overlooked or not recognised (Friedhoff, 1992). Secondly, being depressed may cause an individual to be negative about the prospects for recovery, and therefore will not bother to report their depression, which would require greater investigation or probing by the GP (Green, Hoffman, Charon & Adelman, 1987).

Older adults are at less risk for depression than younger adults (McLennan, 1998; Roberts, Kaplan, Shema & Strawbridge, 1997) and respond equally as well as younger adults to treatment with a success rates of 60-70% (Alexopoulos, et al., 1996; Hinrichsen, 1992; Meats, Timol & Jolley, 1991; Reynolds et al., 1996), and ageist attitudes by the GP can impede the recognition and treatment for older adults (Hillerbrand & Shaw, 1990; James & Haley, 1995; Kucharski, White & Schratz, 1979; Rapp and Davis 1989; Shmotkin, Eyal & Lamranz, 1992). Using vignettes, James and Haley (1995) studied ageist attitudes in the treatment of depression. Health bias was expected to create a greater bias than age. James and Haley's (1995) study indicated that older patients were discriminated against and more so if they had poor health, ageism and healthism.

Negative responses for older adults with a poor health condition is of concern and in particular older adult depressed males because they would normally only present with a chronic health condition (Jacomb, Jorm, Korten, Rodgers, Henderson & Christensen, 1997). The consequence of the lack of treatment of depression, as stressed earlier, can be suicide, not to mention a decline in quality of life or the possible refusal of life sustaining medical treatment (Hooper, Vaughan, Tennant & Perz, 1996; Lee & Ganzini, 1994). As GPs are the first contact for older adult males and because of the high suicide rate in older adult males, this study chose to evaluate

the ability of Western Australian General Practitioners' (WAGPs) to recognise depression in older adult males.

The second aim of the study was to determine if ageism is practiced in the diagnosis and treatment of depression. Several studies found age discriminatory practices towards older adult patients compared to younger adults and less inquiry was made about previous psychological history or symptoms for depression for older adults (Hillerbrand & Shaw, 1990). Younger patients were more likely to be treated for depression and/or referred for psychiatric evaluation and care (Brodaty et al., 1993; Hillerbrand & Shaw, 1990; Kucharski, White & Schratz, 1979; Rapp and Davis 1989).

Many older adults have recurrent medical problems, which become the focus of attention by the practitioner and the patient, therefore making the diagnosis of depression difficult (Friedhoff, 1992). As there is very little research into the influence of somatic conditions on the recognition of depression. The third aim of the study was to determine if an older adult male presenting with depression plus a somatic problem would affect the GPs' ability to detect depression. The additional variable of a somatic condition with depression was expected to cloud the recognition of depression and therefore affect the recommended treatment, which would emphasise treatment of the somatic problem to the neglect of the depression. So, in keeping with the previous studies findings, hypothesis one predicted that only 50 percent of the sampled WAGPs would recognise depression in older adult men. The second hypothesis anticipated that lesser numbers of WAGPs would diagnose depression when presented with depression and a physical problem. Hypothesis three predicted that fewer WAGP would investigate and treat depression in older adult males.

## Method

### Participants

The participants were 189 General Practitioners from two Divisions of General Practice in the Perth metropolitan area. From the 189 WAGP who participated in the study, 102 were males (54%) and 87 were females (46%). The mean age group for males was 51-60 years and for females 41-50 years. Males had been in practice for an average of 22.75 years and for female's 15.09 years. The number of years in practice ranged from two to 51 years with a mean of 19.2 years SD = 10.4. Males averaged 22.75 years and females 15.09 experience. The number of years of experience was well distributed over the range with the highest group, 21 WAGPs (11.1%), having 15 or more year's experience.

### Materials

Four identical vignettes of a male called John were created based on the criteria of the DSM-IV (see Appendix A). The vignettes were identical except for two of the descriptions of a male called John being aged 56 and the second two vignettes with John aged 76. Two of John's vignettes only had descriptions of depressive symptoms. The second two vignettes of John were identical except that a sentence had been added, which stated that John did have "a mild congestive heart failure three years ago, but had recovered well and has been positively maintained with regular monitoring on Captopril with no adverse reactions." Captopril was chosen because it is a medication frequently prescribed by practitioners for congestive heart failure. Captopril does not have adverse side affects that create depressive symptoms. The vignette was followed by a questionnaire (see Appendix B).

Some of the questions in the questionnaire have been adapted from Hurst (1997) that had been based on James and Haley (1995) and Baker (1984). The first question asks the GPs to give their impression of John's main problem (see Appendix B). The second question asks a rating of John's prognosis on a Likert scale of 1 – 7. Question



three asks how the practitioner would rate their competency in treating John and to circle a Likert response? What treatment would you recommend for John is question four, a written open ended response. Question six for a yes/no answer as to whether additional investigation would be done. If the response to question five is yes, then the subject is asked to write where or who would they refer John to for additional investigation?

The second part of the questionnaire requests demographic information including a rating of the amount of contact that the subject has had with various age groups in their practice (see Appendix B). This was followed by questions relating to a rating of the percentage of their patients as having mental health problems, the age and sex of the GP and their number of years in practice. Provision was also made at the end of the questionnaire for any additional comments.

Included with the questionnaire was an introductory/consent letter (see Appendix C) and a return self-addressed prepaid postage envelope. A reminder/thank you notice with a return self addressed prepaid postage envelope was also prepared for one week after the initial mail out, to increase the response rate (see Appendix D).

### Procedure

Eight Divisions of General Practice in Western Australia were contacted in February to enlist their assistance. The Divisions were understandably protective of their lists of WAGP. However, most Divisions agreed to put the names and addresses of their Division members' on the envelopes and distribute the questionnaires themselves. The process was to protect the identities of their lists. Distribution would be done for a handling fee of \$10 per 50 envelopes. Prior to mailing in June, the first Division of General Practice recontacted requested a copy of the materials for mailing to be submitted for their approval. A copy of the materials to be sent out was faxed to them. Three GPs in the Division office examined the questionnaire. As a result, the Division declined to participate, explaining that "GPs do not diagnose or give

opinions based on a brief overview and so could not make any management or prognostic views on a vignette." Furthermore, in "section two, the demographics, requested information GPs do not have easily available. As a result answers would be sheer guesses and wildly inaccurate and therefore not worth collecting."

A second Division of General Practice provided a list of 235 WAGP names and addresses. One of the four vignettes was randomly sent directly to each Division member. The process of randomisation involved taking a pretyped address label from one of five and a third label sheets and attaching it to an envelope, which had been taken from a bag well stirred containing the 235 envelopes of the four types of vignettes, already sealed for postage. There were no identifying marks or names on the material to be returned to maintain anonymity and confidentiality. The Division's list made it possible to distribute reminder/thank you cards to the 235 WAGP, one week later. As a consequence, three WAGP rang requesting additional copies of the material, which were mailed for completion and return. The callers claimed to have misplaced or discarded the originals. A third Division of General Practice was recontacted and was not prepared to divulge its list members' names and addresses. However, they were very happy to attach their own address labels to the prepared envelopes and distribute them to 180 of their members at no charge. A total of 418 questionnaires were mailed.

## Results

### Response Rate

The total return was 219 comprising complete and incomplete questionnaires at a rate of 52%. Twenty one questionnaires were returned incomplete. The reasons for the incomplete returned questionnaires were: three WAGP were retired, four were wrong addresses, eight simply did not complete, five refused to complete and one was improper and incomplete. The five refusals would not complete the questionnaires because they claimed that they required more information to make a diagnosis and/or

were critical of the questionnaire, stressing that they would never make a diagnosis based on such a brief description.

However, despite criticisms and indications that they could not make a diagnosis, four out of these five WAGPs still made a diagnosis and gave recommendations for treatment and further investigations in the comments section. However, they did not complete the entire questionnaire, so they were excluded from the analysis. It was possible to use 189 completed questionnaires, 45 % of the 418 mailed. The four types of returns of questionnaires comprised: 45 vignettes of a 56 year old male with depression, 44 vignettes of a 56 year old male with depression and a heart condition, 43 vignettes of a 76 year old male with depression and 57 vignettes of a 76 year old male with depression and a heart condition. After screening the data, the analyses were performed.

#### GP Contact with Age Groups

Contact with the various age groups indicated that the 57% of the GPs saw 76 year olds and over adults daily and a further 27% weekly (Figures can be seen in Appendix F and G for the amount of contact per age group). For 65-75 year olds contact was made daily for 72% and a further 20% saw them weekly. For 40-65 year olds 83% of GPs had contact daily and a further 12% weekly. For 20-39 year olds 81% had contact daily and a further 12% weekly. For 14-19 year olds 55% of GPs had contact daily and a further 33% weekly. Contact with 0-13 years was 63% daily with a further 22% weekly.

The percentage rating of clients with mental health problems had an average of 4.5, SD = 1.78. Rating four represented 15%-20% with mental health problems and five was 20%-30%.

#### Diagnosis

Some of the WAGPs gave several responses to the open ended questions of diagnosis, treatment and further investigations. Only the first response was used in the

analysis. Prior to all analyses, data screening for accurate data entry and evaluation of assumptions was conducted. The expected frequency assumption for the tests of treatment and further investigation was violated within some cells, which had zero or lower than the expected counts for observed frequencies. Therefore some of the categories were collapsed. This was particularly the case for the referral to a psychologist or psychiatrist, with only one response for the 56 year old group. For diagnosis responses, two categories were developed, yes and no. Yes was a diagnosis of depression and no was any response that was not depression, which included depression +/- Alzheimer's disease, Alzheimer's disease, dementia, altered mental state, or organic responses such as tumours, thyroid and blood abnormalities. A two-way chi-square was performed for the diagnosis of depression by age, which revealed a significant relationship between the response to depression and age group,  $X^2 (1, N = 189) = 5.25, p < .05$ . As can be seen from Table 1, 150 WAGPs diagnosed depression and 39 diagnosed some other condition. While there was not a great deal of difference between the percentages of the 'yes' responses for depression for age, 69% of the no responses were for the 76 year old males (see Table 1 in Appendix E and Figure 1 in Appendix F and G).

A two-way chi-square was performed for the diagnosis of depression for the two conditions of depression and depression plus a heart condition. The test for a relationship between response to depression and condition was not significant  $X^2 (1, N = 189) = .01, p < .05$  (see Table 2. in Appendix E).

### Recommended Treatment

Due to insufficient numbers in some response categories for treatment, the seven categories of drugs, drugs plus doctor counselling, doctor counsel, psychotherapy, psychotherapy plus drugs, referral to a psychiatrist, psychologist, or psychogeriatric unit and medical tests were collapsed into four treatment response categories. The category medical tests included treatment responses of CAT scans, blood tests, ECG

and full physical examination. The four treatment categories to allow analysis of treatment responses were developed. A two-way chi square was not significant for a relationship between recommended treatment and age,  $X^2(3, N=189) = 2.26, p < .05$  (Table 4 Appendix E and Figure 2 in Appendix F and G).

A two-way chi square was not significant for a relationship between recommended treatment and health condition,  $X^2(3, N=189) = .83, p < .05$  (see Table 5 in Appendix E and Figure 3 in Appendix F and G).

#### Further Investigations

Insufficient numbers in most of the categories for recommended further investigations violated the minimum cell assumption for a two way chi square analysis, which required the categories to be reduced from five to two categories to perform the analysis. The five recommended further investigation categories consisted of no further treatment, blood tests, referral to a psychiatrist/psychologist, neurological tests that were not specified and a full medical examination that included: CAT scans, blood tests, ECG, and X-rays. The two new further treatment categories formed were blood tests and full medical examination. Full medical examination included all recommendations except blood tests. A two-way chi square test of the recommended further investigations for the two age groups,  $X^2(1, N=189) = .54, p < .05$ , indicated that there was not a significant relationship between further investigations and age (see Table 5 in Appendix E).

A two-way chi square test did not reveal a significant relationship between further investigations and condition,  $X^2(1, N = 189) = .34, p < .05$  (see Table 6 in Appendix E).

#### Prognosis and Competency to Treat Ratings

The data for prognosis and competency to treat were examined for the assumptions of Factorial Analysis of Variance (ANOVA). Although normality was violated (as measured by Kolmogorov-Smirnov Lilliefors Significance Correction) for

the variables competency and prognosis due to the constrained data range, ANOVA is not sensitive to this violation when the independent variables have a fixed number of categories (Shavelson, 1988). The Levene's Test of Equality of Error Variances was not significant and despite uneven numbers in each group, the ANOVA was considered robust with high numbers in each group.

A 2 (age) x 2 (condition) Factorial ANOVA was conducted for the prognosis rating of the adult male. The results produced no significant differences between the groups (see Figure 7 in Appendix F and G).

A 2 (age) x 2 (condition) Factorial ANOVA was conducted for the competency rating to treat the adult male. There were no significant results (see Figure 6 in Appendix F and G).

### Discussion

The outcome for each hypothesis will be discussed individually followed by the prognosis, competence and mental health ratings.

#### Hypothesis One

Hypothesis one had predicted that only 50% of WAGPs would diagnose depression in older age men. The 50% recognition rate of depression by GPs was found by Bowers, et al in Canberra (1992), Carney, et al (1994) retrospectively for suicide victims and Crawford, et al in London (1998). The present study had a greater recognition rate than the studies reviewed and found that 150 of 189 WAGP recognised depression, 79%. The results are closer to the general rate for Turrina et al's (1994) study, in which GPs recognised 71.3% of depressed patients. However, the GPs in Turrina et al.'s study had been primed by asking the GPs to look for affective disorders or dementia. However despite priming, the recognition rate for males was 65.2%.

While waiting for the questionnaires to be returned it was brought to the attention of the researchers that a "GP Psychiatry Training Programme" had been

conducted for the past three years. The training was an effort to increase the availability and quality of mental health interventions at a community level. Groups of 25 GPs, of which the majority were from one of the Divisions sampled, had attended the training. The training entailed a weekend course and a hands on 12 week followup training in a psychiatric clinic. Part of the training was to make GPs more aware of the psychiatric services available and lighten the load on the local hospitals psychiatric services. Even though a small proportion of GPs had attended the training, the extra emphasis on mental health may have increased the awareness of GPs. The training may have had a ripple effect.

The majority of WAGPs that did diagnose depression simply wrote the single word depression as their response for diagnosis, whereas, some WAGPs made a number of possible diagnoses or simply an incorrect diagnosis. However, because anonymity and confidentiality had been assured there was no way of determining how many members had responded from the division that had participated in the training. The second division included in the sample has not conducted any mental health presentations. Although, the second division is currently in the process of preparing an interactive CDROM and net site for its Division members with an emphasis on youth suicide and depression. It would appear from the results that the promotion of mental health could be raising the GPs' awareness of mental health problems. Consequently, there was a greater recognition and treatment rate for depression in this study. Future research could compare Divisions, which have had educational courses with divisions who have not. The research could gain a greater insight as to the effectiveness of the training.

The two way chi square analysis did indicate a significant relationship between depression and age (see Table 1 in Appendix). The yes responses were similar for both age groups however, sixty nine percent of the negative responses were for the 76 year old group. There could be several interpretations for the higher negative

responses for the 76 year old group. Firstly, the respondents were not able to recognise depression and may not have been involved in the educational programmes. Secondly, the negative respondents may only have difficulty diagnosing from a vignette and it may not be an accurate assessment of their practical knowledge (Bowers, Jorm, Henderson & Harris, 1992). Thirdly, the 69% of negative responses, which were part of the 76 year old age group, may have been ageist in their assessment of older adults. However, if the 76-year group of negative respondents were ageist in their diagnosis then it would be expected that they would also be discriminating in recommending treatment and further investigations for their older patients. However, there was not a significant relationship between the younger and older age groups for treatment or investigation. So, it could be interpreted that ageism was not the reason for a greater number of negative responses for depression in the older age group. Although, after checking the negative responses from the 56 and 76 year old age groups on the questionnaires, the 76 year old group were more inclined to diagnose Alzheimer's disease indicating a lack of knowledge.

The study assessed WAGP in the metropolitan area and future research could extend the study further by including the country WAGPs to obtain a more inclusive rate. A factor, which may have increased the recognition rate of depression, could be related to the covering letter sent with the questionnaire that indicated that the study was being conducted by members of the Edith Cowan University School of Psychology. Because the research being conducted was related to psychology the WAGP might have been primed to anticipate a mental health disorder, similar to the study by Turon et al. (1994). In future studies it might be better to use letterheads from the Western Australian Divisions of General Practice to prevent a possible confound.



### Hypothesis Two

The second hypothesis anticipated that lesser numbers of WAGP would diagnose depression when presented with depression and a somatic condition. The second hypothesis was not supported. The presence of a physical condition did not have a significant affect on the diagnosis for depression with a somatic condition compared with depression, indicating that WAGP's had the knowledge to make a diagnosis of depression. The results were not consistent with previous studies, which found that the presentation of depression with a somatic condition resulted in a poor rate of recognition of depression (Friedhoff, 1992; James & Haley, 1995). It would appear that the increased awareness of mental health problems is increasing the WAGPs' knowledge and ability therefore enabling the symptoms of depression to be detected.

### Hypothesis Three

Hypothesis three predicted that fewer WAGP would investigate and treat depression in older adult males, which was not supported. This study did not find ageist practices as previous studies had found (Brodaty et al., 1993; Hillerbrand & Shaw, 1990; James & Haley, 1995; Kucharski, White & Schratz, 1979; Rapp and Davis 1989). For recommended treatment, further investigations, the prognosis rating and competence to treat no significant difference was found for age or condition. There was no support for discrimination in terms of mode of treatment or further investigation and referrals for age or health condition. James and Haley's study used women in their vignettes, whether there could have been a different result with a different sex could only be determined by including male and female vignettes in future studies. However, the main emphasis of this study was to see if older adult males experience ageism. The vignettes used in this study are similar to vignettes used in other studies that have detected ageism (Bowers, Jorm, Henderson & Harris, 1992; James & Haley, 1995; Kucharski, White, Schultz, 1979). It is possible that study's

lack of detection of ageism may have been attributed to the 20 years difference in age between the older and younger patients, used in the vignettes. Previous studies have used 30 to 40 years in age difference, which may have accounted for the significant difference (James & Haley, 1995). Alternatively, the responding WAGPs are not ageist in their attitudes and practices.

#### WAGP's Recommended Treatments

The two main forms of treatment recommended by WAGPs were serotonin reuptake inhibitors (SSRIs) antidepressants or a combination of SSRIs and counselling by the GP. There did not appear to be any concern for side effects from the SSRIs and only 6% recommended psychotherapy in the form of referral to a psychiatrist/geropsychiatric unit or a psychologist. This may be reflective of training in the medical model, what the WAGPs have found to be effective and convenient or the lack of knowledge of psychotherapeutic resources available. Why is there such a low referral for psychotherapy? Additionally, what is the success rate for WAGPs using antidepressants considering the adverse side effects and the possible refusal by patients to continue with the antidepressants, because of the side effects? What do WAGPs do when their patients refuse to take antidepressants? All of these questions are worthy of further investigation.

The GPs indicated that they would counsel the patients themselves and most did not indicate by what method or what form the counselling would take. The counselling may simply be related to instructing the patient on how to take the SSRIs and the possible side effects or the counselling may be more comprehensive. One respondent did indicate that the wife in the vignette might have been the source of the patient's problems and recommended counselling the wife. Again the GP would have counselled but did not indicate by what method. Further research can be conducted to assess the level of counselling skills of the WAGPs and the efficacy of their counselling.

### WAGPs Recommended Further Investigations

There was not a significant relationship for age or condition with the recommended further investigations of the depression. There were basically two categories of recommended means of further investigation with the intention of screening for organic causes to the condition: blood tests or a full medical examination. The blood tests included the recommendation of one or several tests such as thyroid function, renal function, vitamin deficiencies, anaemia, diabetes or a full blood picture. The second method was a full medical examination which included blood tests, CAT and/or MRI scans for tumours, chest x-rays, and an ECG.

Some WAGPs indicated that they would not make a diagnosis until a full medical examination had been made. The general message gained from the WAGPs who did make comments about the limitations of the vignette was that they would need to do a full assessment to eliminate organic causes before making their diagnosis. The WAGP who would not make a diagnosis, remarking that the study did not allow the WAGPs to ask questions or physically examine the patient. However, the symptoms described in the vignette would have been very clear if the respondent was knowledgeable of the symptoms of depression. Additionally, the lower rates of recognition of depression have also been in studies that required the GP to physically assess patients (Bowers, Jorm, Henderson & Harris, 1990). The lower rates in practice may be related to other factors, which influence GPs making a diagnosis such as the characteristics of the patient emphasising the somatic symptoms and not being communicative of their mental state (Friedhoff, 1992). GPs have time constraints and maybe under pressure from their workload and therefore may not spend as much time assessing the clients' problem as they may have done in completing the questionnaire. On the other hand this sample did better than the studies mentioned earlier and the rate may be an accurate estimate of the level of recognition of depression by WAGPs. A followup study of other Divisions would be appropriate to support these findings.

Both Divisions indicated high levels of contact with older adult patients with 57.7% of WAGPs having daily contact with patients over 76 years plus a further 27% of WAGP saw them weekly. Similarly, 83% of WAGPs had daily contact with the 40 to 64 year age group. The higher recognition rate of 79% was reflected in the WAGPs competence ratings to treat the patients described in the vignettes, with a rating of 5.8 out of seven. Similarly, the average prognosis for the patients was rated at 5.4 out of seven. Although the sampled WAGPs had a higher recognition rate of depression than previous research and they indicated a high level of competency and were optimistic in the prognosis of the patients, how effective is the treatment of older adults? Do patients return if the antidepressants are not effective or if they can not tolerate the medication? As indicated in their study of suicides Conwell, Rotenberg and Caine (1990) found that 50% of patients had seen a GP a week before their death and 90% had seen a GP three months before their death. A followup study of the Divisions to monitor the effectiveness of antidepressants and the compliance rate of patients is an area worth exploring. This study appears to have found many areas worthy of future research.

### Conclusions

To conclude it would appear that the educational programmes for depression organised by one of the Divisions of General Practice may have contributed to the higher recognition and recommended treatment rates of depression in older adult males in this study. Realising that there may be limitations in using a vignette, future research could incorporate a component requiring GPs to describe what symptoms they look for when diagnosing depression. Additionally, patients could be assessed after attending a GP to determine if depression is being recognised in practice. In relation to the treatments recommended, the results of this study indicate that the educational programmes may have been lacking in encouraging WAGPs to prescribe non pharmacological modes of treatment such as referring patients for safe and

effective psychotherapy. The implications are that depression maybe recognised, however there is a possibility that some patients may be falling through the cracks because of the limited types of treatments recommended. Future research maybe able to shed some light on the area.

### References

- Alexopoulos, G., Meyers, B., Young, R., Kakuma, T., Feder, M., Einhorn, A., Rosendahl, E. (1996). Recovery in geriatric depression. Archives of General Psychiatry, 53, 305-312.
- Baker, R. (1984). Attitudes of health care providers towards elderly patients with normal aging and disease related symptoms. Gerontologist, 24, 543-545.
- Bowers, J., Jorm, A., Henderson, S., & Harris, P. (1990). General practitioners' detection of depression and dementia in elderly patients. Medical Journal of Australia, 153, 192-196.
- Bowers, J., Jorm, A., Henderson, S., & Harris, P. (1992). General practitioners' reported knowledge about depression and dementia in elderly patients. Australian New Zealand Journal of Psychiatry, 26, 168-174.
- Brodaty, H., Harris, L., Peters, K., Wilhem, K., Hickie, I., Boyce, P., Mitchell, P., Parker, G., & Eysers, K. (1993). Prognosis of depression in the elderly: A comparison with younger patients. British Journal of Psychiatry, 163, 589-596.
- Carney, S., Rich, C., Burke, P., & Fowler, R. (1994). Suicide over 60: The San Diego Study. Journal of the American Geriatric Society, 42, 174-180.
- Cole, S., Raju, M. (1996). Making the diagnosis of depression in the primary care setting. The American Journal of Medicine, 101, (6A), 10S-17S.
- Conwell, Y., Rotenberg, M., & Caine, E. (1990). Complete suicide at age 50 and over. Journal of the American Geriatrics Society, 38, 640-644.
- Crawford, M., Prince, M., Menezes, P., & Mann, A. (1998). The recognition and treatment of depression in older people in primary care. International Journal of Geriatric Psychiatry, 13, 172-176.
- Friedhoff, A. (1992). Consensus development conference statement: Diagnosis and treatment of depression in late life. Journal of the American Medical Association, 270, 1819-1825.

- Greene, M., Hoffman, S., Charon, R., & Adelman, R. (1987). Psychosocial concerns in the medical encounter: a comparison of the interactions of doctors with their old and young patients. The Gerontologist, 27, 2, 164-168.
- Health Information Centre, Health Department of Western Australia, 1998.
- Henderson, A., Jorm, A., McKinnon, A., Christensen, H., Scott, L., Korten, A., & Doyle, C. (1993). The prevalence of depressive disorders and the distribution of depressive symptoms in later life: Survey using draft ICD-10 and DSM-III-R. Psychological Medicine, 23, 719-729
- Hillerbrand, E., & Shaw, D. (1990). Age bias in a general hospital setting: Is there ageism in psychiatric consultation? Clinical Gerontologist, 2, 2, 3-13.
- Hinrichsen, G. (1992). Recovery and relapse from major depressive disorder in the elderly. American Journal of Psychiatry, 149, 1575-1579.
- Hooper, S., Vaughan, K., Tennant, C., & Perz, J. (1996). Major depression and refusal of life sustaining treatment in the elderly. Medical Journal of America, 165, 416-419.
- Jacomb, P., Jorm, F., Korten, A., Bryan, R., Henderson, S., & Christensen, H. (1997). GP attendance by elderly Australians: Evidence for unmet need in elderly men. Medical Journal of Australia, 166, 123-126.
- James, J., & Haley, W. (1995). Age and health bias in practicing clinical psychologists. Psychology and Ageing, 10, 4, 610-616.
- Koenig, H., Cohen, H., Blazer, D., Krishman, K., Sibert, T. (1993). Profile of depressive symptoms in younger and older medical inpatients with major depression. Journal of the American Geriatric Society, 41, 1169-1176.
- Kucharski, L., White, R., & Schratz, M. (1979). Age bias, referral for psychological assistance and the private physician. Journal of Gerontology, 34, 3, 423-428.
- Lee, M., & Ganzini, L. (1994). The effect of recovery from depression on life sustaining therapy in older patients. Journal of Gerontology, 49, M15-M21.

- Lyness, J., Cox, C., Curry, J., Conwell, Y., King, D., Caine, C. (1995). Older age and the underreporting of depressive symptoms. Journal of the American Geriatric Society, 43, 216-221.
- Meats, P., Timol, M., & Jolley, D. (1991). Prognosis of depression in the elderly. British Journal of Psychiatry, 159, 659-663.
- McClennan, W. (1998). 1998 Yearbook: Australia, number 80. Canberra: Australian Bureau of Statistics.
- McLennan, W. (1998). Mental health and wellbeing: Profile of Adults, Australia, 1997. Australian Bureau of Statistics. Canberra: Commonwealth of Australia
- National Institute of Health Developmental Panel on Depression in Late Life. (1992). Diagnosis and treatment of depression in late life. Journal of the American Medical Association, 268, 1018-1024.
- Parmalee, P., Katz, I., & Lawton, M. (1992). Incidence in depression in long term settings. Journal of Gerontology: Medical Science, 47, M189-M196.
- Rapp, S., & Davis, K. (1989). Geriatric Depression: Physicians' knowledge, perception and diagnostic practices. The Gerontologist, 29, 252-257.
- Rapp, S., & Vrana, S. (1989). Substituting nonsomatic for somatic symptoms in the diagnosis of depression in elderly male medical patients. American Journal of Psychiatry, 146, 1197-1200.
- Reynolds, C., Frank, E., Kupfer, D., Thase, M., Perel, J., Mazumdar, S., & Houck, P. (1996). Treatment outcomes in recurrent major depression: A posthoc comparison of elderly, young old and midlife patients. American Journal of Psychiatry, 153, 1288-1292.
- Roberts, R., Kaplan, G., Shema, S & Strawbridge, W. (1997). Does growing old increase the risk of depression. American Journal of Psychiatry, 154, 10, 1384-1391.
- Shavelson, R. (1988). Statistical reasoning for the behavioural sciences. Boston:



Allyn & Bacon.

- Shmotkin, D., Eyal, N., & Lomranz, J. (1992). Motivations and attitudes of clinical psychologists regarding treatment of the elderly. Educational Gerontology, 18, 177-192.
- Turrina, C., Caruso, R., Este, R., Lucchi, F., Fazzari, G., Dewey, M., & Ermentini, (1994). Affective disorders among elderly general practice patients: A two phase survey in Brescia, Italy. British Journal of Psychiatry, 165, 533-537.

## Appendix A1

Vignette OneA 56 Year Old Male With Depression

John is 56 years of age and is accompanied by his wife Mary. Since retiring at 50, John has maintained an active lifestyle by golfing three times a week and has enjoyed weekends with his children and grandchildren. He enjoys the simple life and does not use recreational drugs or drink. John's wife Mary was insistent that he has a checkup because of her concern for the deterioration of his behaviour. For the past month, John finds that he is unable to concentrate or make decisions. He has given up golf and is not interested in spending time with his family. The smallest task such as dressing now requires a great deal of effort. Things have reached the point where he no longer feels of any value. You notice that his speech is slowed and he wrings his hands continuously during the consultation. Mary says that John has lost his appetite and lost weight but he denies losing weight. He complains of waking at night and not going back to sleep. Furthermore, John did have a mild congestive heart failure three years ago and has been positively maintained with regular monitoring on Captopril with no adverse

## Appendix A2

Vignette TwoA 56 Year Old With Depression plus a Heart Condition

John is 56 years of age and is accompanied by his wife Mary. Since retiring at 50, John has maintained an active lifestyle by golfing three times a week and has enjoyed weekends with his children and grandchildren. He enjoys the simple life and does not use recreational drugs or drink. John's wife Mary was insistent that he has a checkup because of her concern for the deterioration of his behaviour. For the past month, John finds that he is unable to concentrate or make decisions. He has given up golf and is not interested in spending time with his family. The smallest task such as dressing now requires a great deal of effort. Things have reached the point where he no longer feels of any value. You notice that his speech is slowed and he wrings his hands continuously during the consultation. Mary says that John has lost his appetite and lost weight but he denies losing weight. He complains of waking at night and not going back to sleep. Furthermore, John did have a mild congestive heart failure three years ago and has been positively maintained with regular monitoring on Captopril with no adverse reactions.

## Appendix A3

Vignette Three76 Year Old With Depression

John is 76 years of age and is accompanied by his wife Mary. Since retiring at 65, John has maintained an active lifestyle by golfing three times a week and has enjoyed weekends with his children and grandchildren. He enjoys the simple life and does not use recreational drugs or drink. John's wife Mary was insistent that he has a checkup because of her concern for the deterioration of his behaviour. For the past month, John finds that he is unable to concentrate or make decisions. He has given up golf and is not interested in spending time with his family. The smallest task such as dressing now requires a great deal of effort. Things have reached the point where he no longer feels of any value. You notice that his speech is slowed and he wrings his hands continuously during the consultation. Mary says that John has lost his appetite and lost weight but he denies losing weight. He complains of waking at night and not going back to sleep.

## Appendix A4

Vignette Four76 Year Old With Depression plus a Heart Condition

John is 76 years of age and is accompanied by his wife Mary. Since retiring at 65, John has maintained an active lifestyle by golfing three times a week and has enjoyed weekends with his children and grandchildren. He enjoys the simple life and does not use recreational drugs or drink. John's wife Mary was insistent that he has a checkup because of her concern for the deterioration of his behaviour. For the past month, John finds that he is unable to concentrate or make decisions. He has given up ~~go~~ and is not interested in spending time with his family. The smallest task such as dressing now requires a great deal of effort. Things have reached the point where he no longer feels of any value. You notice that his speech is slowed and he wrings his hands continuously during the consultation. Mary says that John has lost his appetite and lost weight but he denies losing weight. He complains of waking at night and not going back to sleep.

## Appendix B

QuestionnaireSection One – Relating to Vignette

1. From the description given what is your impression of John's main problem?

\_\_\_\_\_

Please rate question 2 and 3 by circling a number from one to seven on each scale?

2. How would you rate John's prognosis?

Poor 1    2    3    4    5    6    7    Excellent

3. How would you rate your competency in treating John?

Poor 1    2    3    4    5    6    7    Excellent

4. What treatment would you recommend for John?

\_\_\_\_\_

5. Would you do any additional investigation? (circle) Yes      No (go to Q7)

6. If you answered yes to 5. Where/who would you refer John to for additional investigation? \_\_\_\_\_

Section Two – Demographics

7. Please rate the amount of contact that you have with each of the following age groups in your practice by circling the appropriate answer.

(Years)

0-13	Never/Almost never	Yearly	Monthly	Weekly	Daily
14-19	Never/Almost never	Yearly	Monthly	Weekly	Daily
20-39	Never/Almost never	Yearly	Monthly	Weekly	Daily
40-64	Never/Almost never	Yearly	Monthly	Weekly	Daily
65-75	Never/Almost never	Yearly	Monthly	Weekly	Daily
76 plus	Never/Almost never	Yearly	Monthly	Weekly	Daily

8. What percentage of your clients would you rate as having mental health problems? (please circle)
- 0-5%    6-10%    10-15%    15-20%    20-25%    25-30%    35-40%
9. What is your gender?    Female            Male    (please circle)
10. Which age group are you?    (please circle)
- 20-30    31-40    41-50    51-60    61-70    71-80    Over 81
11. How long have you been practicing as a General Practitioner?
- \_\_\_\_\_ Years
- Comments:

Your contribution to this research is greatly appreciated. Could you please place the questionnaire in the envelope provided and mail it at your earliest convenience.

Thank you!!

## Appendix C

### Information and Consent Letter Sent to General Practitioners

Dear Doctor,

I am currently examining the psychological practice patterns of general practitioners in Western Australia as part of my Honours research project in the School of Psychology at Edith Cowan University. The experiment conforms to the guidelines produced by the Edith Cowan University Committee for the Conduct of Ethical Research. The aim of the project is to gain a greater insight into psychological practice patterns of general practitioners in Western Australia and to provide general practitioners with constructive feedback and recommendations via Medical Journals.

Some general practitioners names have been provided by the Divisions of General Practice in Western Australia, however the bulk of practitioners names will be unknown to myself and the relevant material has been forwarded onto you by your Division to maintain your anonymity. So please do not write your name on the questionnaire so that anonymity can be maintained at all times.

I appreciate that that you have a very heavy schedule. However, I do value your response and I trust that you will spare 5-10 minutes to read and complete the questionnaire. The study simply requires you to read a brief vignette of a patient and to answer the questions that follow. The questionnaire can then be returned in the prepaid self addressed envelope. Please return the questionnaire, even if you choose not to answer any of the questions. I feel sure that you understand that a student's schedule is also very tight, so could you please return the questionnaire at your earliest convenience.

If you have any queries or comments about the questionnaire please do not hesitate to ring Associate Professor Ed Helmes or myself. Additionally, the summary of findings will be available in November of 1999. If you would like a summary of the



findings please contact Associate Professor Ed Helmes or myself and leave your name and address.

Thank you for your time and participation!

Yours sincerely

Mr. Gary Duggan

School of Psychology

Edith Cowan University

Ph: 9344 4805 (home)

Associate Professor Ed Helmes

School of Psychology

Edith Cowan University

## Appendix D

### Reminder Notice

#### Survey of Medical Practitioners

Last week a questionnaire seeking your views was sent to assist in developing a greater insight into psychological assessment patterns in General Practice. General Practitioners play a crucial role in helping patients with mental health problems. Questionnaires were sent to 500 General Practitioners seeking their input.

If you have already completed and returned it to us please accept our sincere thanks. If not, we encourage you to do so today. You will be contributing to the formulation of strategies to assist Doctors with mental health patients.

If by coincidence you did not receive a questionnaire, or it became misplaced, please call us now on (08) 9400-5543 and we will send you a copy in today's mail. Your assistance is greatly appreciated.

Yours sincerely,

Associate Professor Ed Helmes,

Project Supervisor.

## Appendix E

Tables

Table 1.

Frequency of Diagnosis of Depression for Ages 56 and 76 Year Males

Depression	Age Group		Total
	56	76	
Yes	77 (51.3%)	73 (48.7%)	150 (100%)
No	12 (30.8%)	27 (69.2%)	39 (100%)

Table 2.

Frequency of Diagnosis of Depression for Health Condition

		Condition		
		Depression	Depression + Heart	Total
Depression				
Yes	70 (46.7%)	80 (53.3%)	150 (100%)	
No	18 (46.2%)	21 (53.8%)	39 (100%)	

Table 3.

Frequency of Recommended Treatment for Ages 56 and 76 years

Treatment	Age		Total
	56	76	
Drugs	30 (40.5%)	44 (59.5%)	74 (100%)
Drugs +Doctor Counsel	38 (52.1%)	35 (47.9%)	73 (100%)
Psychotherapy +/- Drugs	5 (45.5%)	6 (54.5%)	11 (100%)
Medical Tests	16 (51.6%)	15 (48.4%)	31 (100%)

Table 4.

Frequency of Recommended Treatment for the Two Health Conditions Depression and Depression Plus a Heart Condition.

Treatment	Condition				Total
	Depression		Depression/Heart		
Drugs	34	(45.9%)	40	(54.1%)	74 (100%)
Drugs + GP Counsel	32	(43.8%)	41	(56.2%)	73 (100%)
Psychotherapy +/- Drug	6	(54.0%)	5	(45.4%)	11 (100%)
Medical Tests	16	(51.6%)	15	(48.4%)	31 (100%)

Table 5.

Frequency of Recommended Further Investigation for Ages 56 and 76 Years.

Investigation	Age		Total
	56	76	
Blood Tests	31 (43.7%)	44 (59.5%)	74
Full Medical Examination	58 (55.6%)	35 (47.9%)	73

Table 6.

Frequency of Recommended Further Investigations for the Two Health Conditions  
Depression and Depression Plus a Heart Condition.

Investigations	Condition		Total
	Depression	Depression + Heart	
Blood Tests	35 (49.3%)	36 (50.7%)	71
Full Medical Exam	53 (44.9%)	65 (55.1%)	118



## Appendix F

### Figure Captions

Figure 1. Responses to the diagnosis of depression for ages 56 and 76 years old.

Figure 2. Recommended treatment responses for ages 56 and 76 years old.

Figure 3. Recommended treatment responses for the two conditions of depression and depression plus a heart condition

Figure 4. Recommended treatment response for ages 56 and 76 years old.

Figure 5. Recommended treatment response for the two conditions of depression and depression plus a heart condition.

Figure 6. Competency rating to treat the adult male for ages 56 and 76 years and the two conditions of depression and depression plus a heart condition.

Figure 7. Prognosis rating for the adult male for ages 56 and 76 years and the two conditions of depression and depression plus a heart condition.

Figure 8. The amount of contact with 0–13 years olds.

Figure 9. The amount of contact with 14-19 year olds.

Figure 10. The amount of contact with 20-29 year olds.

Figure 11. The amount of contact with 40-64 years olds.

Figure 12. The amount of contact with 65-75 year olds.

Figure 13. The amount of Contact with 76 years olds and over.

Appendix G

