

Psychosocial Correlates and Locus of Control in Depressed Geriatric Inpatients

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Background: Older medical inpatients are 5 to 10 times more likely to suffer from depression than older persons in the community. Individuals may believe their illness is controlled by themselves (internal LOC), powerful others (External LOC), or fate. Individual differences in perception of control over health have been linked to depression.

Aim: To detect the relation between social circumstances, severity of medical illness, locus of control and the presence and severity of depressive disorders in patients suffering from general medical conditions.

Subjects & Methods: 100 elderly Egyptian medical inpatients of both sexes aged +55 years participated in the study. Subjects had no cognitive impairment, and were suffering from a chronic medical illness. Both control (n=50) and depressed groups (n=50) were identified. Diagnostic criteria of the DSM-IV TR were used for the diagnosis of depressive disorders. The depressed group were classified into Major (n=18) and Non-Major Depression subgroups (n=32). The Mini-Mental State Examination (MMSE) was used for the assessment of cognitive functioning (Subjects scoring <24 were excluded). Data on demographic variables, subjective and actual social support (Number of children and siblings seen in the past month, number of current

friends, and presence of family conflicts) were collected. The severity and multiplicity of medical disorders was assessed by the Modified Cumulative Illness Rating Scale (CIRS). Perceived Locus of Control was assessed by Rotter internal/external LOC scale.

Results: Depression in older medical inpatients is associated with divorce and widowhood, subjectively perceived inadequate social support, lower number of children and siblings seen in the last month, past history of depression, and external Locus of Control. Severity of medical illness is similar in patients and controls. Patient characteristics and correlates of depression in major and non-major depression are similar.

Conclusion: Depression in older medical inpatients is particularly associated with inadequate social support whether subjective or actual. It is also associated with the perceived severity of medical illness rather than the actual disease status and related disability. Depression is associated with an external locus of control and a positive past history of depression. Both Major and non-major depression are similar in patient characteristics and social correlates which suggests that both lie on one continuum in elderly patients with chronic medical illness.

Keywords: Elderly, Depression, Medical inpatients locus of control.

Abbreviations:

CIRS: Cumulative illness rating scale

DSM-IV TR: Diagnostic and sanual Disorders Text Revised

GDS: Geriatric Depression Scale

LOC: Locus of control

MDD: Major sSciences version

SMMSE: Standardized mini-mental state examination

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INTRODUCTION

Depression in old age is a pathological process, not a normal reaction to growing older. The majority of people can cope with aging, and feel happy and fulfilled (Alexopoulous, 1992). Depression tends to be denied by the current generation of elderly people, many of whom were raised in an atmosphere where showing feeling is discouraged, and this adds to the diagnostic difficulties. Co-morbid medical conditions, the tendency of patients to somatize their feelings, cognitive deterioration, and multiple life events, often of loss (e.g. bereavement, retirement), are all variables that can further complicate the diagnostic process (Evans, 2002).

Older medical inpatients are five to ten times more likely to have major or minor depression than older persons in the community (Cole, et al. 2006). The reported

prevalence of major depression in elderly medical inpatients varies between 5% and 32%. Sub-syndromal or minor depression (Clinically significant symptoms of depression that do not meet the diagnostic criteria for major depression) is also common in this population. The prevalence of minor depression ranges from 20% to 50% (McCusker, et al. 2005).

The prognosis of major depression in this population appears to be poor. Depressed elderly patients have a higher mortality rate than their age-and sex-matched controls (Mulley, 2001). Depression in the elderly worsens the prognosis of coexisting physical illness (Mulley, 2001), and reduces compliance to medication (Mulley, 2001).

Beliefs about the controllability of health are referred to as health locus of control (LOC). Individuals may believe their illness is controlled by themselves (Internal LOC), powerful others, or fate (External LOC). Individual differences in perception of control over health have been linked to depression. In a meta-analysis, depression was associated with high external LOC and low internal LOC, moreover lower internal LOC has been associated with more depressive symptoms (Voils, et al. 2005).

This study aims at detecting the influence of perceived locus of control (LOC) and availability of social support on depressive disorders in patients suffering from general medical conditions. The study also explores the possible relation between occurrence and severity of depression and the severity and multiplicity of medical illness. It is hypothesized that medical patients who have a predominantly internal locus of control are less liable to suffer from depression, while those with a predominantly external locus of control are more vulnerable to severe depression.

SUBJECTS AND METHOD

This is a case-control study conducted on the general medical wards of Kasr El Ainy hospital. One hundred subjects who stayed for at least one week on a general medical ward were recruited. Patients of both sexes aged 55 years and above were included in the study. Patients with significant cognitive decline (Mini-Mental state less than 24), suffered from manifest delirium, gross neurological disorder and present with psychotic symptoms or substance abuse, and sensory deficits (Significant hearing or visual impairment) are excluded from the study.

Subjects were assigned to one of groups according to the presence or absence of clinically recognizable depression as diagnosed separately by two researchers according to DSM-IV TR. Each group consists of 50 subjects. Written consent was taken from all subjects before participating in the study.

Members of both groups are subjected to the following assessment procedure:

1. **Socio-demographic variables:** including age, sex, marital status, occupation, educational level, and past psychiatric history. Socio-economic status using Fahmy and El-Sherbiny, (1988).
2. **Standardized mini-mental state examination (SMMSE):** (Molloy, et al. 1991) was used to exclude cognitive impairment. Patients scoring less than 24 were excluded.
3. **Semi-structured clinical interview for DSM-IV axis I disorders:** (APA, 2000) The depressed group was classified according to the criteria of the Diagnostic and

Statistical Manual of Mental disorders (DSM-IV) into 2 subgroups:

- Major depression group.
- Non Major depression group (Adjustment disorder with depressed mood, Dysthymic disorder and Minor depressive disorder).

4. **The Geriatric Depression Scale (GDS):** (Yesavage, et al. 1992; Paza, 1997). This Self-rated 30-item scale is used to rate depression in the elderly. The GDS has been also recommended by the Royal College of physicians, British Geriatric society as a suitable method for screening of depression in the geriatric age group and rating of its severity.

5. **Rotter Internal-external Locus of Control Scale: (Kafafi, 2005)**

A 23-item Scale used to determine Perceived Locus of Control (LOC) whether external or internal control. The version used is the colloquial Arabic version. Each item is divided into 2 parts one supports the belief in external control and the other supports the belief in internal control. 6 additional items that are not evaluated are still included in the scale to minimize developing a predictive response. A high score supports the belief in an external locus and a low score supports the belief in an internal locus.

6. **Cumulative Illness Rating Scale (CIRS) (Conwell, et al. 1993):**

The measurement of physical illness has broad applicability to research in geriatric medicine and psychiatry. The Cumulative Illness Rating Scale (CIRS) is an objective measure of physical illness burden in which a cumulative score is derived from ratings of severity of impairment in each of 13 organ systems (Cardiac, vascular, respiratory, ENT, upper GI, lower GI, hepatic, renal, other genitor-urinary, musculo-skeletal, skin system, neurological, endocrine/metabolic, and psychiatric). Each is rated as none, mild, moderate, severe, or extremely severe. The CIRS is one of the few standardized instruments for obtaining physician ratings of health status along a number of different dimensions. In this study, the ratings were made by the resident of internal medicine responsible for the patient, after the consultation of an assistant lecturer of internal medicine during their weekly staff round. Two scores are obtained: First, overall illness severity as represented by the mean of the 13 items (The higher the CIRS overall illness severity score, the greater the severity of the general medical condition). Second, a co-morbidity index was computed by counting the number of items for which moderate to severe pathology was reported (The higher the co-morbidity index, the greater the number of systems with moderate to severe pathology).

Statistical Analysis:

All data from both groups were entered and analyzed with SPSS (Statistical Package for Social Sciences version 13) software. Descriptive statistics was used for illustrating the mean and standard deviation of quantitative data. Statistical tests were used to find out the significant differences between the 2 groups and the 2 subgroups.

Student T-test was used for quantitative variables e.g. age, socio-economic status score, GDS score, LOC score, and CIRS (Over all illness severity and comorbidity index). Pearson Chi-square test was used for qualitative variables. The correlation coefficient (Pearson r) was calculated for correlation between severity of depression and social support adequacy and LOC score. A 5% probability level (P value <0.05) was considered statistically significant.

RESULTS

This study was conducted on 100 elderly patients suffering from a chronic medical illness that necessitated their admission to the general medical wards of Kasr El-Ainy Hospital. (54% cardiovascular disease, 52% endocrine/metabolic disorder, 37% liver disease, 16% renal disease, 13% chest disease, 10% gastrointestinal disease, 7% hematological disease and 4% musculoskeletal disease).

Subjects recruited to the study were assigned to one of 2 groups based upon the results of clinical psychiatric assessment. **Each group consists of 50 subjects:**

1. Patients with a depressive disorder.
2. Control group.

The depressed group was further subdivided into 2 subgroups:

1. Major depression subgroup (18 patients suffering from Major depression)
2. Non Major depression subgroup (32 patients suffering from non major depression)

The non Major depression subgroup included 20 patients suffering from Adjustment disorder with depressed mood (40%), 7 patients suffering from a Dysthymic disorder (14%) and 5 patients suffering from Minor depressive disorder (10%).

Demographic Characteristics:

In the depressed group, age ranged from 55-70 years with a mean age of 59.9±4.4 years. It included 27 males (54%) and 23 females (46%). In the control group, age ranged from 55-73 years with a mean age of 59.9±5.2 years. It included 31 males (62%) and 19 females (38%). There was no statistically significant difference as regards age and sex in the 2 groups (P>0.05) (Table 1).

Table 1: Age, sex, and educational level of the control and depressed groups:

	Control group N=50	Depressed group N=50	T-test	P-value
			T	P
Age (years)				
Mean±SD	59.9±5.223	59.9±4.435	0.083	>0.05
Sex				
Male	31(62%)	27(54%)	0.657	>0.05
female	19(38%)	23(46%)		
Educational level				
Illiterate	30(60%)	28(56%)	2.794	
Primary school	13(26%)	19(38%)		>0.05
Secondary school	7(14%)	3(6%)		

Tables (1, 2 and 3) illustrate the sample characteristics in relation to education, occupation and marital status. There is no statistically significant difference as regards educational level and occupational status between the 2 groups (P>0.05). There is a significant difference however, in marriage with controls having a much higher proportion of married subjects (P<0.01).

Table 2: Employment status in control and depressed group:

Current occupation	Control group		Depressed group		Total	
	N	%	N	%	N	%
Working	19	38	15	30	34	34
Retired/not working	31	62	35	70	66	66
Total	50	100	50	100	100	100

X²=0.713, df=1, P>0.05= P°=statistically non-significant.

Table 3: Marital status in control and depressed groups:

Marital Status	Control group		Depressed group		Total	
	N	%	N	%	N	%
Single	2	4	2	4	4	4
Married	42	84	29	58	71	71
Divorced	0	0	5	10	5	5
Widowed	6	12	14	28	20	20
Total	50	100	50	100	100	100

X²=10.58, df=3, P<0.01.

In the depressed group, the mean score on scale of socioeconomic class is 10.9±2.5 versus 9.7±2.2 in the control group. Mean scores in the 2 groups were less than 15 which means that both groups belong to the same social class. There is no statistically significant difference on socioeconomic standards between depressed patients and controls

Overall, our findings indicate that both depressed patient and normal control groups are matched on all demographic variables except marital status.

Mini-Mental State Assessment:

Patients with a score less than 24 were excluded from the study. The mean score is 26.1 ± 1.7 in the depressed group versus 26.7 ± 1.4 in the control group. There is no statistically significant difference between both groups ($P > 0.05$).

History Of Depression:

In the depressed group, 15 subjects (30%) had positive past history of depression versus 2 subjects (4%) in the control group. There is a highly significant difference between the 2 groups ($p < 0.01$) (Table 4).

Table 4: History of depression in controls and depressed patients:

Past history of depression	Control group		Depressed group		Total	
	N	%	N	%	N	%
Negative	48	96	35	70	83	83
Positive	2	4	15	30	17	17
Total	50	100	50	100	100	100

$\chi^2 = 11.977$, $df = 1$, $P < 0.01$.

In the Major depression subgroup ($N = 18$), 12 subjects (66.7%) had positive past history of depression versus 3 subjects (9.4%) in the Non Major depression subgroup ($N = 32$). There is a highly statistically significant difference between the 2 subgroups ($\chi^2 = 18$, $p < 0.01$). This suggests that subjects with Major depression

tend to have more recurrent depressive episodes than subjects with Non Major depression.

Locus Of Control (Loc):

High scores on the Rotter Locus of Control Scale indicate an external locus of control. The depressed patient group has an overall higher mean score (11.6 ± 3.9) than controls (8.1 ± 3.8). There is a statistically significant difference between the 2 groups ($p < 0.01$) (Table 5).

Table 5: LOC scores (Mean and SD) in the control and depressed groups:

	Control group N=50	Depressed group N=50	T-test	P-value
	Mean±SD	Mean±SD	t	P
Locus of control score	8.1 ± 3.8	11.6 ± 3.9	-4.555	0.01

Medical Condition:

For the depressed group, the mean of CIRS overall illness severity score was 1.4 ± 0.2 versus 1.45 ± 0.2 in the control group. In the depressed group, the mean of CIRS co-morbidity index was 2 ± 0.9 versus 2.2 ± 0.9 in the control group (Table 6). Comparison between the depressed and control groups reveals no statistically significant difference in both items ($p > 0.05$). This signifies that there is no actual difference in the objective burden of physical illness between the 2 groups.

Table 6: CIRS scores (Mean and SD) in the control and depressed groups:

	Control group N=50	Depressed group N=50	T-test	P-value
	Mean±SD	Mean±SD	t	P
CIRS (Overall illness severity score)	1.45 ± 0.2	1.4 ± 0.2	0.409	> 0.05
CIRS (Comorbidity index)	2.2 ± 0.9	2 ± 0.9	0.646	> 0.05

In the Major depression subgroup ($N = 18$), the mean of CIRS overall illness severity score was 1.4 ± 0.19 versus 1.5 ± 0.18 in the Non Major depression subgroup ($N = 32$). In the Major depression subgroup, the mean of

CIRS co-morbidity index was 1.9 ± 1.08 versus 2.1 ± 0.91 in the Non Major depression subgroup. Comparison between the 2 subgroups revealed no statistically significant difference in both items ($P > 0.05$) (Table 7).

Table 7: CIRS scores (Mean and SD) in Major depression and Non Major depression groups:

	Non-major depression group N=32	Major depression group N=18	T-test	P-value
	Mean±SD	Mean±SD	t	P
CIRS (Overall illness severity score)	1.5 ± 0.178	1.4 ± 0.192	1.665	> 0.05
CIRS (Co-morbidity index)	2.1 ± 0.906	1.9 ± 1.078	0.825	> 0.05

Locus Of Control (Loc):

In the Major depression subgroup ($N = 18$), the mean score 12.4 ± 4.5 versus 11.2 ± 3.6 in the Non Major depression subgroup ($N = 32$). There was no statistically

significant difference between the 2 subgroups ($P > 0.05$) (Table 8)

Table 8: LOC Score (Mean and SD) in Major depression and Non-Major depression groups:

	Non-major depression group N=32	Major depression group N=18	T-test	P-value
	Mean±SD	Mean±SD	t	P
LOC score	11.2±3.6	12.4±4.5	-1.0035	>0.05

Geriatric Depression Scale Score:

The GDS was used to rate the severity of depression in the depressed group subjects. As expected, there is a highly significant difference between the scores of patients with Major depression (25.9 ± 2.2) and the Non-Major depression subgroup (17.4 ± 3.6) as regards the GDS score ($t=10.53, p<0.01$).

Correlation Studies:

Locus of Control measured by Rotter's Internal/External LOC Scale score appears to have a highly statistically significant, positive, and moderate correlation with the severity of depression as measured by the GDS ($r=0.322, p<0.01$). This suggests that the external LOC is significantly correlated to the severity of the depression (Figure 1). Significant correlations are also apparent between severity of depression and both subjective and objective measures of social support (Table 9).

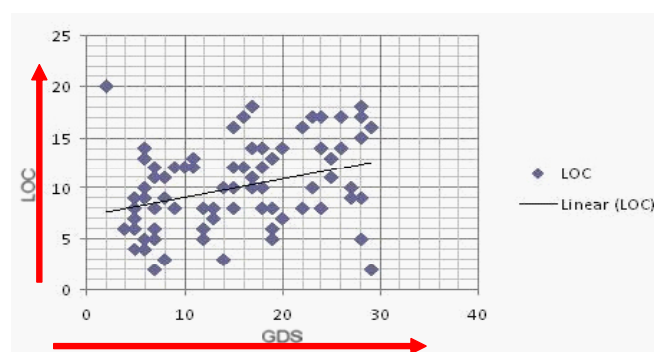


Fig. 1: Scatter Diagram showing correlation between GDS and locus of control.

Table 9: Correlation studies between severity of depression and the adequacy of social support and LOC score:

Correlation Studies	GDS score	GDS score
	R (Correlation coefficient)	P-value
Subjective social support	-0.268	<0.01
No. of children seen in the past month	-0.212	<0.05
No. of siblings seen in the past month	-0.207	<0.05
No. of current friends	-0.395	<0.01
LOC score	0.322	<0.01

DISCUSSION

The sense of being in control of one's life represents an important dimension found to be related to life satisfaction and depression in the elderly population. Locus of control influences well being, health, functional capacity as well as the ability to use social support. Recent research demonstrated that Internal locus of control is related to life satisfaction in both men and women (Berg, et al. 2006).

Our findings support previous studies in this respect. Research has also shown that people with a greater feeling of being in control of their lives, are more satisfied with received social support (Newsom and Schulz, 1996). Previous research suggests that solving a problem without help from others may promote well-being by enhancing feelings of self-worth and personal control. Requesting help, on the other hand, may negatively affect well-being by generating interpersonal conflict if those asked are unwilling or unable to provide assistance. There is evidence that most elderly people value independence and prefer to resolve problems by themselves, rather than depend upon others (Rodin, 1990).

The purpose of this study is to investigate the factors that are related to depression in elderly hospitalized patients with chronic medical illness. Several factors were hypothesized i.e. socio-demographic factors, social factors, factors related to the severity, multiplicity of medical illness and the related disability versus the subjective perception of health status, past history of depression and personal locus of control. Another aim of the study has been to confirm the relationships through studying their correlation with severity of depression.

A recent study, examining the factors associated with life satisfaction in the elderly, demonstrated that being married was significantly associated with better life satisfaction and lower incidence of depressive symptoms, particularly among women (Berg, et al. 2006). In a contradictory finding, a community based study found that marital status had no effect on women mean depression scores, whereas in men, older age and widowed or divorced status were associated with higher scores (Fuhrer, et al. 1992).

In another study, a clinically significant but not statistically significant correlation was found between living alone and both minor and major depression in the elderly (McCusker, et al. 2005).

In this study, a statistically significant difference was found between the depressed and the control groups as regards both marital status ($p < 0.05$) and living arrangements ($p < 0.05$). 84% of the control group was married versus 58% of the depressed group, the rest being single, divorced or widowed. 96% of the control group were living with their families versus 76% of the depressed group, the rest were living alone. This suggests that being married and living with the family members has a protective effect against the occurrence of depression. A finding that is consistent with most prior research found in literature.

A history of depression was found in 30% of the depressed group subjects was found to be a strong risk factor for both Major and Non Major depression ($p < 0.01$). This finding is similar to results of other longitudinal studies showing that individuals who have experienced an episode of depression are at greater risk for recurrence (Koenig and George, 1998). Not only is a history of depression a strong risk factor for depression, but it may also modify the effects of certain other risk factors; specifically, it was found that physical disability was more strongly associated with new-onset than recurrent depression. A previous case-control study found that stressful life events were more strongly associated with new-onset than recurrent depression (Brilman and Ormel, 2001). The small sample size of patients with a history of depression (17 of whom 15 were depressed at the time of the study) limited the ability to explore further differences.

Health Status:

Many studies have investigated the association between medical measures of disease severity and depressed mood. These studies are often based on the assumption that those with more severe illness are more likely to report psychological distress. Despite repeated investigation of this putative relationship, the findings remain contradictory (Groarke, et al. 2004).

In a recent study designed to investigate the relationship of depression to medical disease severity in elderly patients with rheumatoid arthritis, the actual disease status failed to add significant contribution to the explanation of the variability in depressive symptoms. Illness perceptions proved to be the best predictor of depression (Groarke, et al. 2004). The findings of this study support previous research, which has demonstrated a consistent association between illness perceptions and psychological and functional adjustment in a variety of illnesses (Scharloo, et al. 1998). It appears that it is the perception of one's

disease rather than the actual medical disease that explains variability in mood status.

This study did not find any association between the occurrence of depression and the severity (CIRS over all illness severity), multiplicity (CIRS co-morbidity index) of the general medical illness and the related disability ($p > 0.05$). Accordingly, the results of this study are not consistent with previous studies which indicate that depression is associated with illness perception of greater severity rather than the actual disease status.

Most previous studies concluded that there is strong evidence of a tendency for physical disability to co-exist with major and minor depression in the elderly population (Prince and Beekman, 2002). This was found to be particularly true for moderate to severe disability (McCusker, et al. 2005).

Personal Locus Of Control:

In the longitudinal Aging study of Amsterdam, both major and minor depression was predicted by external LOC (Beekman, et al. 2002). Higher levels of mastery were shown to have a direct association with fewer depressive symptoms in older adults, and to buffer the adverse impact of disability (Jang, et al. 2002).

This finding was confirmed by the results of this study that demonstrated a significant correlation between the severity of depression and the external LOC in the population of study ($r = 0.322$, $p < 0.01$). In an attempt to understand this correlation, it was proposed that individuals with external locus believe that their lives are controlled by powerful others or fate. Accordingly, feelings of helplessness and inability to cope render them more vulnerable to depression than those with higher levels of mastery (Internal LOC).

A study investigating the differences between major and minor depression among older adults highlights similarities in characteristics of, and risk factors for, major and minor depression (Horowitz, et al. 2005). Another study designed to detect the prognosis of both major and minor depression in older medical inpatients demonstrated that patients diagnosed with major depression at enrollment were often diagnosed with minor depression and vice versa, at subsequent assessments during a one year follow up period i.e. a sizable proportion of patients seemed to fluctuate between major and minor depression (Cole, et al. 2006). This suggests that both major and minor depression are similar in characteristics and correlates and may overlap in the elderly population. Another recently published study demonstrated that both major depression and sub threshold depression lie on the same continuum. It also showed that a high proportion of subjects diagnosed as having sub threshold depression have 4-6 symptoms of depression (Close to the cutoff

for the diagnosis of MDD according to DSM-IV criteria of MDD) (Zimmerman, et al. 2006).

In this study, no significant differences were found between major depression and non major depression subgroups when they were compared as regards factors related to the development of depression e.g. Socio-demographic data, illness severity and multiplicity and the related disability, and locus of control ($p>0.05$). accordingly, similar patient characteristics were associated with both major and non-major depression, except for, higher educational levels, sexual dysfunction problems, and positive past history of depression that were particularly associated with Major depression while lower number of children and siblings seen was associated with non-major depression.

This supports evidence found in literature confirming that both major and minor depressions in the elderly have common psychosocial etiology and similar presenting characteristics but may differ in the severity of depression (McCusker, et al. 2005).

What has become clear is that minor depression is not a trivial or unimportant mood state. The prevalence of minor depression increases with age in an approximately linear fashion, and it therefore becomes the most common depressive disorder of older people (Baldwin, et al. 2002). An evidence based study recently published stated that one in 10 elderly people with minor depression will develop major depression within a year. (Cuijpers, et al. 2006). One possible explanation for the link between major depression and higher educational levels found in this study is that better education enables the patient to have a realistic appraisal of his medical condition, its prognosis, and liable complications which contributes to his depressed state.

Diagnosis of depression in hospitalized elderly patients can be very difficult in practice. The medical wards are often noisy with little privacy and ward routines making it difficult for the psychiatrist to find a suitable time to see the patient. Patients may be too ill to be moved to another quiet room or private situation. They may be fatigued by their illness or by its investigation, and they may be sedated or confused by their prescribed medication (Evans, 2002). The characteristic features that might be helpful in the diagnosis of depression are less useful (Refer to difficulties met in the materials and methods). In a recent study, it was found that approximately one quarter of the medical inpatients had depressive disorders. However, antidepressants were prescribed for less than half of them (Fraguas, et al. 2006). GPs were aware of the psychological problems in half of the elderly patients with major depression, but do not explicitly distinguish between depressive symptoms from other psychological problems or from social problems. (Volkers, et al. 2004)

A person's sense of control and responsibility (Internal locus of control) can in itself determine a person's health related behaviors. A weak sense of self-responsibility for one's destiny may make patients adapt less effectively to their illness and have lower levels of engagement in beneficial health behaviors and active coping strategies resulting in sever depression

Limitations Of The Study:

- The cross-sectional study design precluded the examination of causality; the characteristics associated with depression may represent causes, or effects of the illness.
- The coverage of a large number of variables related to depression in older medical inpatients precluded the study of some of them in depth such as studying the relation between locus of control and religious make up, and other personality characteristics.

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الملخص العربي

العلاقة بين الجوانب النفسية والاجتماعية ووجهة الضبط الفكري لدى مرضى الإكتئاب المسنين المحجوزين بالأقسام الباطنية

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تمثلت المجموعتين إحصائياً. وقد تم تشخيص مرضى الإكتئاب باستخدام دليل الاضطرابات النفسية الأمريكى الرابع للإحصاء والتشخيص وبحيث قسمت مجموعة الإكتئاب إلى مجموعة إكتئاب أعظم (وتشمل ١٨ مريض)، ومجموعة إكتئاب غير عظيم وتشمل ٣٢ مريض.

الطريقة: وقد تم جمع البيانات الديموجرافية ودراسة المساندة الاجتماعية الفعلية (عدد زيارات الأبناء والأخوة فى الشهر الأخير وعدد الأصدقاء والمشاكل العائلية) والملموسة. وتم تطبيق المقياس التراكمى للمرض لقياس شدة وتعدد الأمراض العضوية، وكذلك تطبيق مقياس وجهة الضبط الداخلى/الخارجى لتحديد جهة الضبط.

تهدف هذه الدراسة إلى التحقق من العلاقة بين الجوانب النفسية والاجتماعية وشدة المرض العضوى واتجاه الضبط الفكري من ناحية وحدوث وشدة الإكتئاب من ناحية أخرى فى المرضى الذين يعانون من مرض عضوى مزمن.

العينة: أجريت هذه الدراسة على ١٠٠ مريض من المرضى المحجوزين بأقسام الأمراض الباطنية بكلية طب القصر العينى، من الذين يعانون من مرض عضوى مزمن ولا يعانون من اي إعاقة معرفية (بعد تقييمهم بمقياس الحالة العقلية الحاضرة وحصولهم على درجة لا تقل عن ٢٤)، وتتكون عينة الدراسة من ٥٠ مريض إلى مجموعتين كل مجموعة يعانون من الإكتئاب ومرضاً عضوياً، بالإضافة الى ٥٠ مريض يعانون من مرض عضوى مزمن ولا يعانون من الإكتئاب كعينة ضابطة، وقد روعى