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Depression Literacy among Patients and the Public: *A Literature Review*

Adel Gabriel, FRCPC, MSc, DPIP, DPM, DTM&H, and Claudio Violato, PhD

ABSTRACT

Objective: *To conduct a literature review of patient- and population-based research on depression literacy and determine the implications of the findings for patient psycho-education.*

Method: *The authors searched PubMed for articles published between January 1995 and January 2007; they chose English-language articles of studies based on samples drawn from the general population as well as clinical studies conducted in North America, Australia, and European countries.*

Results: *A total of 48 published papers in referred journals (two review articles and 46 original research papers) met the inclusion criteria. Most studies examined the public's knowledge and attitudes towards treatment of depression. To examine the ability of participants to recognize clinical depressive symptoms and attitudes towards depression and its treatment, researchers commonly used vignettes involving survey methods based on community samples. Depression literacy is generally poor among the general public and patients alike. Public opinion clearly favors the lay support system of all healthcare professionals; family physicians were identified as the preferred point of first contact. The authors found that poor knowledge of and negative attitudes towards depression influence negatively the choice of treatments and help-seeking behavior.*

Conclusion: *There is widespread misunderstanding of the nature of depression and its causes; attitudes towards treatment are negative. More research is needed to investigate those of high-risk patient groups as well as the need for psycho-education campaigns.*

FOCUS POINTS

- Knowledge of depression and its treatment among patients and the public are crucial for help seeking.
- The public tend to attribute depression to weakness of personality, stress, or adverse life circumstances.
- Negative attitudes of the public towards depression as an illness and to antidepressants as effective treatments may lead to reluctance for individuals to seek help from psychiatry professionals.
- There is some evidence that psycho-education may lead to changes in knowledge of and attitudes towards depression over time.

INTRODUCTION

Depression is a major population health problem, associated with high morbidity and significant disability. The World Health Organization has predicted that major depressive disorder (MDD) will be second only to ischemic heart disease as a cause of disability by the year 2020,[1] and is projected to become the foremost contributor to disease in high income countries by 2030.[2] It is also currently a major health problem. In Canada, for example, the short-term disability days due to depression cost an estimated $2.6 billion in 1998.[3] Notwithstanding this enormous public health problem, depression is still not well understood by mental health professionals, patients, and the public in general. There appears to be continued confusion about etiology, signs and symptoms, and treatments of depression. Large proportions of patients with depression may not seek help, may not know where to seek help, may have negative attitudes to treatments, or may be fearful of being stigmatized if they seek help.

Dr. Gabriel is consultant and clinical associate professor of psychiatry and Dr. Violato is professor in the Department Community Health Sciences at the University of Calgary.
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Please direct all correspondence to: Dr. Adel Gabriel, 2000 Pegasus Rd NE, Calgary T2E 8K7; Tel: 403-291-9122; E-mail: gabriel@ucalgary.ca.

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If depression literacy including knowledge of and attitudes towards depression, and seeking help for treatment is to be improved among the public and among patients suffering from depression, then a detailed inquiry about the features and specifications of literacy obstacles is needed.

This article reviews the recently published research on patients' and public levels of depression literacy, and examines how such knowledge and attitudes to depression and its treatment can influence seeking help for treatment.

DEFINITION OF MENTAL HEALTH LITERACY

Jorm and colleagues[4] defined mental health literacy as the knowledge and beliefs about mental disorders that aid their recognition, management, or prevention, and is an important determinant of help seeking. Depression literacy, therefore, may consist of several components, including knowledge about depression (ie, the ability to recognize depression, the beliefs and the perceptions about its causes and its treatments, knowledge and beliefs about self help and professional help interventions, and attitudes to collaborate in treatment).

Psychological barriers to treatment, such as lack of knowledge about the illness, as well as minimization of the need for care, are important obstacles to collaborate in treatment. This triad in the operational definition of literacy, namely the cognitive, attitudinal, and behavioral domains, is consistent with Bloom's[5] description of the three educational domains that are the basis of learning. As a result, if depression is to be recognized early in the community and appropriate intervention is to be sought, the level of mental health literacy needs to be improved.

MATERIAL AND METHODS

The authors conducted a PubMed search covering the period from January 1995 to January 2007 using the following keywords in different combinations: depression, disorder, knowledge, mental, literacy, help seeking, attitudes, behavior, psychiatric, and patient.

Following the electronic search, hand searches of the literature were undertaken. The search strategy yielded 298 research articles, reviews, and commentaries concerning research examining health literacy (knowledge, attitudes, and psycho-education) with regard to different diseases in almost every culture. This output constitutes a gross total; a number of studies appeared more than once (n=48) when the different keyword combinations were used in the search.

Of the 250 references, 48 met the following inclusion criteria for the authors' review: First, articles written in English; second, articles exploring patient and the public knowledge of, and attitudes toward, depression and help-seeking behavior for depression; and third, studies based on samples drawn from the general population or from primary care services. The authors excluded articles (n=26) on research focusing solely on health literacy of the public toward mentally handicapped people, schizophrenia patients, abusers of alcohol or drugs, geriatric patients, and those with other psychiatric disorders. Studies exploring the knowledge of and attitudes toward other acute or chronic medical disorders were also excluded (n=22).

This review was confined to research articles and studies that had been conducted in the United States, Canada, Australia, and Europe. Studies exploring the attitudes and knowledge of specific subgroups (eg, students [including medical students], police officers, nurses and other mental health professionals, such as pharmacists) were excluded (n=16). The authors also excluded (n= 55) service utilization as well as cost/effectiveness studies relating to depression and diagnostic and comorbidity studies of mental illness because they were deemed irrelevant to their objectives. All research published before 1995 was excluded (n= 83) because the purpose of the review was to include only the most recent findings, given that attitudes may change over time.

Of the final 48 that met the inclusion criteria, two major literature reviews and 46 research papers examined patient and public knowledge and attitudes to depression and its treatment. Of the reviews, there was a review on public knowledge and beliefs about mental disorders[6] and a review on public beliefs about and attitudes toward people with mental illness.[7] No reviews, however, were focused exclusively on depression literacy among both patients and the public.

RESULTS OF LITERATURE SEARCH

The final 48 studies that met all inclusion criteria are listed in the Table along with key characteristics of the studies (eg, author, journal, country of research, sampling, and research method).[4,6-52] One review was published in 2000 in the *British Journal of Psychiatry*[6] and the other was published in *Acta Psychiatrica Scandinavica* in 2006.[7] Of the 48 original research papers, 15 were Australian, 10 were German, seven were American, six were British, and five were Swiss. In addition, there was one research paper from each of Belgium, New Zealand, Italy and Norway, and Canada.

Forty-one (85%) of the research papers employed some form of probability sampling (eg, random, quota, cluster) with various survey methods (eg, postal, telephone, interview).

The literacy domains (ie, knowledge, attitudes, and help seeking), were examined singly or in relation to each other. Attitudes to depression and its treatment were the most commonly examined in literature. Thirty-two research articles examined attitudes towards depression and its treatments, either alone or in relation

TABLE

SUMMARY OF THE MAIN CHARACTERISTICS OF THE 48 PUBLISHED ARTICLES OF DEPRESSION LITERACY[4,6-52]

Author (Year)	Country	Sampling	Sample size	Interview Method	Stimulus	Knowledge about depression	Attitudes towards depression	Help seeking
Jorm et al[4] (1997)	Australia	Random/Patients Sample/Patients and community	2,031	Postal survey	Vignette	X	X	X
Jorm Br[6] (2000)	Australia	Review paper	NA	NA	NA	X	X	X
Angermeyer MC and Dietrich S[7] (2006)	Scand.	Review paper	NA	NA	NA	X	X	X
Goldney et al[8] (2001)	Australia	Random	3,010	Interview	Vignette	X		X
Fisher[9] (2003)	Australia	Random sample	821	Interview	Vignette	X		
Blumenthal et al[10] (1996)	US	Community sample	101	Interview	Questionnaire			X
Goldney RD et al[11] (2002)	Australia	Random community sample	3,010	Interview	Vignette	X	X	
Henderson et al[12] (1992)	US	Random sample	55	Survey	Structured interview			X
Demyttenaere K et al[13] (2004)	Belgium	Outpatient Sample	272	Structured interviews	Questionnaire		X	
Sirey et al[14] (2001)	US	Two-stage sampling design	134	Interview	Structured interviews			X
Srinivasan et al[15] (2003)	Canada	Quota sample	102	Structured interviews	Questionnaire		X	
Thompson et al[16] (2004)	Australia	Community sample	233	Chart review	Data gathered			X
Roness A et al[17] (2005)	Norway	Community sample	40,173	Survey	Structured interviews			X
Cooper-Patrick et al[18] (1997)	US	Stratified Random	16	focus group discussions	Audio taped interviews			X
Fox et al[19] (1999)	US	Random Sample	646	Screening for mental disorder	Interview (CIDI)		X	
Burns T et al[20] (2003)	UK	Stratified Random	364	Structured interviews	Interviews			X
Wang et al[21] (2005)	US	Random	9,282	Survey	Structured interviews			X
Wright A et al[22] (2005)	Australia	Random community sample	1,207	Structured interviews	Vignette	X	X	X
Highet NJ et al[23] (2002)	Australia	Representative community sample	900	Telephone interview	Vignette	X	X	
Link BG et al[24] (1999)	US	Community sample	1,444	Population Survey	Vignette	X		
Lauber C et al[25] (2003)	Switzerland	Random sample	873	Telephone survey	Vignette	X		
Jorm AF[26] (1997)	Australia	Random sample		Household survey	Vignette	X	X	
Lauber C et al[27] (2005)	Switzerland	Random	1,837	Telephone survey	Vignette	X	X	
Angermeyer et al[28] (1999)	Germany	Random	1,564	Survey	Structured interviews & Vignettes		X	X
Wolff et al[29] (1996)	UK	Quota samples, Community	215	Survey, interviews	Interviews	X		
Wolf et al[30] (1996)	UK	Quota samples, Community	215	Survey, interviews	Interviews		X	
Ng SL[31] (1995)	NZ	Random	300	Structured interviews	CAMI scale and a social distance scale		X	
Addison et al[32] (2004)	UK	Random	169	Semi-structured Questionnaire	Interviews		X	
Buizza et al[33] (2005)	Italy	Random	174	Semi-structured Interviews	Telephone, the CAMI and FABI inventories		X	
Angermeyer et al[34] (2004)	Germany	Random	5,025	Survey	Vignette	X	X	

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to other literacy components (ie, knowledge and help seeking); 15 research articles examined knowledge of depression, alone or in relation to other literacy components; and 13 research articles examined help seeking, on its own or in relation to knowledge and attitudes. Research studies which examined depression literacy predominantly among patients were comparatively few (15/46), comprising ~33% of the total. The findings of the relationship between different literacy domains and its significance, and the comparison between patients' and the public depression literacy, are discussed in this article.

Vignettes were commonly used (in ~50% of the research studies, ie, 24 research papers) to assess recognition of depression, and attitudes to treatment by both patients and the public (Table). An example of a vignette used in research for assessment of mental health literacy was reported by Goldney and colleagues.[8]

TABLE

SUMMARY OF THE MAIN CHARACTERISTICS OF THE 48 PUBLISHED ARTICLES OF DEPRESSION LITERACY (CONT.)[4,6-52]

Author (Year)	Country	Sampling	Sample size	Interview Method	Stimulus	Knowledge about depression	Attitudes towards depression	Help seeking
Angermeyer et al[35] (2004)	Germany	Random	5,025	Survey	Vignette Structured interviews		X	
Benkert et al[36] (1997)	Germany	Random	2,176	Survey	Interview		X	X
Riedel-Heller et al[37] (2005)	Germany	Random	5,015	Survey	Vignette		X	X
Lauber et al[38] (2001)	Switzerland	Random	Depressed=837 schizophrenics =864	Survey	Vignette		X	X
Angermeyer et al[39] (2005)	Germany	Random	5,052	Survey	Structured interview Vignettes		X	
Lauber et al[40] (2003)	Switzerland	Random	844	Survey	Vignettes	X		
Wrigley et al[41] (2005)	Australia	Cluster-sampling	143	Postal Survey	Questionnaires		X	X
Jorm et al[42] (2005)	Australia	Random	2031	household survey	Vignettes		X	
Jorm et al[43] (1997)	Australia	Random	GP=872 sychiatrists =1,128, psychologists= 454 and public =2,031	Survey	Vignette		X	
Jorm et al[44] (2000)	Australia	Random community Sample	3,109	Postal survey	Vignette of depression		X	X
Angermeyer et al[45] (2003)	Germany	Random	5,025	Survey	Vignette		X	
Barney LJ et al[46] (2006)	Australia	Random	1,312	Structured interviews	Vignette		X	X
Pfeifer S[47] (1994)	Switzerland	Community sample	343	Structured interviews	Questionnaire		X	
Angermeyer et al[48] (2004)	Germany	Random community	2,118	Survey	Vignette Structured interviews		X	
Angermeyer et al[49] (1996)	Germany	Random	5,052	Survey	Vignettes		X	
Goldney et al[50] (2005)	Australia	Random	3,015	Interviews	Vignette	X	X	
Paykel et al[51] (1998)	UK	Random	2,000	Survey	Structured interviews		X	
Wolf et al[52] (1996)	UK	Quota samples, Community	215	Survey, interviews	Interviews	X	X	X

NA=not applicable; US=United States; UK=United Kingdom; CIDI=Composite International Diagnostic Interview; CAMI=Californian Attitudes Towards Mental Illness scale; FABI=Fear and Behavioral Intentions Inventory; GP=general practitioner.

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John/Mary is 30 years of age. He/she has been feeling unusually sad and miserable for the last few weeks. Even though he/she is tired all the time, he/she has trouble sleeping nearly every night. John/Mary does not feel like eating and has lost weight. He/she cannot keep his/her mind on work and puts off making decisions. Even day-to-day tasks seem too much. This has come to the attention of his/her boss, who is concerned about John's/Mary's lowered productivity.[8]

PATIENTS' KNOWLEDGE AND ATTITUDES TOWARD DEPRESSION, ITS TREATMENTS, AND PROFESSIONAL HELP

Patients' mental health literacy, in terms of recognizing a mental health problem, were closely related to their knowledge of depression as well as their attitudes toward depression as an illness, antidepressant treatment, and mental health professionals.[9-14] Poor knowledge about causes of depression and its biologic aspects were prominent in patients suffering from depression in numerous research studies. Stress and negative life experiences were the most highly endorsed causal items for depression, and medication adherence to antidepressants was associated with lower perceived stigma about the illness.[14,15]

KNOWLEDGE OF DEPRESSION AND ITS CAUSES INFLUENCE TREATMENT CHOICES

Numerous studies showed that lack of understanding of depression and its causes negatively influence the decision to seek help and influence treatment choices. In several studies, the most frequently endorsed reasons for depressed people delaying or not seeking professional help or treatment was related to lack of knowledge about mental illness and the available treatments.[10-12,16]

Patients with depression have many erroneous beliefs about antidepressants.[13] Among those who suffer from depression, only 40% consider antidepressants as helpful.[8] In contrast, medication adherence was found to be associated with lower perceived stigma, higher self-rated severity of illness, people >60 years of age, and an absence of personality pathology.[14]

It has been consistently demonstrated that patients were more likely to seek help for treatment if they had experience with MDD or with the episode being too painful, prolonged, and causing significant disruption in their interpersonal relationship and role functioning.There were significant differ¬ences in terms of knowledge of and attitudes towards depression between those who seek and those who do not seek professional help.[8,10,16] Compared to younger patients, mental health literacy in older depressed patients in terms of recognition of a mental health problem in a vignette was somewhat poorer; fewer recommended treatment from a counselor, telephone service, or psychologist and many thought that a psychiatrist would be harmful.[9]

PATIENTS' ATTITUDES TOWARD MENTAL HEALTH PROFESSIONALS

Patients' attitude toward professional help appears to vary and to be affected by many variables, including knowledge of and attitudes toward different models of help, social support, cultural factors, and the stigma associated with treatment by mental health professionals.[12,13,15,17-19] Non-psychiatric physicians and friends or personal acquaintances were most frequently cited as the first point of contact for locating treatment.[12] In one study, the general medical practitioner was the first professional contacted in 71% of patients with anxiety or depression.[12,16] In a regression analysis, Burns and colleagues[20] found that the severity of depressive illness with "unfounded self reproach and hopelessness" interacted with social support to predict the best treatment. The perceived doctor-patient relationship seemed to predict a positive attitude to antidepressants.[17] Spiritual, cultural, racial, and stigmatizing depression among patients from different racial backgrounds[18] all seem to have an impact on the attitudes toward psychiatry health professionals. Finally, the most prominent reason endorsed by many depressed patients for not seeking help was "felt there was no need," even among patients who were informed that they needed treatment.[19]

DOES IMPROVED DEPRESSION LITERACY LEAD PATIENTS TO SEEK PROFESSIONAL HELP?

Among those who eventually did seek help, non-psychiatric physicians and friends were most frequently cited as the first point of contact.[12,17] These findings indicate that the majority of people with depression or anxiety do not seek help.

It was reported that 55% of subjects who fulfilled the Research Diagnostic Criteria of Major Depression did not seek help.[10] The non-help seekers did not consider the episode serious or recognize it at as an illness and believed that they could handle the episode themselves. The relationship between depression literacy per se and behavioral change, such as help-seeking, or adherence to antidepressants among patients, was examined in numerous studies.[8-10,14,16] All of these studies support the conclusion that patient lack of knowledge of and negative attitudes toward depression play a

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role in stigmatizing people with depression and influence the choice of treatment modalities, especially medication with antidepressants.

It was noted that the most frequently endorsed reasons for the delay in seeking help was related to the lack of knowledge about mental illness or available treatment.[16]

SOCIO-DEMOGRAPHIC AND CULTURAL FACTORS OF HELP SEEKING AMONG PATIENTS WITH DEPRESSION

Failure to make initial treatment contact and delay in seeking help, in those who eventually make contact, were found to be associated with early age of onset of illness and being in an older cohort, as well as numerous socio-demographic characteristics, including being male, married, or poorly educated, or belonging to a racial/ethnic minority.[17-20]

In the National Comorbidity Survey, it was estimated that the delay among depressed people who eventually make the initial treatment contact ranges from 6–8 years for mood disorders. This was associated with early age of onset of the illness and numerous socio-demographic characteristics (male, married, poorly educated, racial/ethnic minority). These preferential attitudes among the public and patients should be taken seriously in psycho-educational programs for depression.[21] Men were less likely than women to seek help from counselors and other practitioners. People with 12 years of education were less likely than people of lower and higher educational levels to seek help from counselors, and people with higher education levels were less likely to seek help from complementary practitioners.[17]

Cultural factors may also play an important encouraging role in seeking help. For example, in a randomized, psycho-educational intervention follow-up study,[19] only 13.1% of subjects received encouragement from others to seek treatment, and in some cultures and religions, symptoms of psychiatric disorders are attributed to possession by the devil. In addition, black patients raised more concerns than white patients regarding spirituality and stigma.[18]

THE SEVERITY OF DEPRESSION

Past experiences of being depressed and of seeking and receiving treatment for depression was significantly associated with past treatment. In one study,[20] the total number of symptoms and several individual symptoms correlated with treatment, but regression analysis showed that "unfounded self-reproach" and "hopelessness" interacted with social support to predict the best treatment. From both national and international community surveys, there is a strong body of evidence to suggest that those with significant psychopathology, increased illness severity, associated suicidal ideas, or comorbidity, and those with long-term medical conditions are more likely to perceive the need for professional help and use conventional mental health services more frequently.[14,16,17,20]

PATIENTS' PERCEIVED STIGMA AND HELP SEEKING FOR DEPRESSION

Stigma may influence patients' help seeking and adherence to antidepressants.[14] In contrast to the above, lower perceived stigma and biologic, rather than person-based, causal attribution for the illness predicted positive public attitudes toward seeking professional help.[12,19]

Self- and perceived-stigmatizing responses to help seeking for depression are prevalent in the community and are associated with reluctance to seek professional help. Interventions should focus on minimizing expectations of negative responses from others and negative self-responses to help seeking.

PUBLIC KNOWLEDGE AND ATTITUDES TO DEPRESSION, ITS TREATMENTS, AND PROFESSIONAL HELP

Public Knowledge about the Causes of Depression

Literacy among the public was equally poor. The authors found that many members of the public, including those who had personal experience with depression, cannot recognize depression in vignettes and cannot differentiate depression from normal sadness; their knowledge about its causes is distorted. Significant proportions of respondents were not able to identify depression correctly in community surveys or structured interviews of both young people and adults. Correctly recognizing the diagnosis of the person depicted in the vignette, however, was associated with a positive attitude toward pharmacologic treatment.[22-27]

There are many imprecise beliefs about the causes of depression among both patients and the public, which appear to influence the perceptions of the effective treatment. There is evidence to suggest that, especially among the less educated people, there is an enduring belief system that depression is primarily caused by psychosocial stresses such as occupational and family stressors, or by weakness of character or losing self-control.[23-25] This was more obvious among those who were not able to recognize the illness in vignettes. Poor knowledge of the causes of depression and its biologic aspects was prominent in patients with depression. Social and environmental

factors were often seen as likely causes of depression, and genetic factors attracted more support as a cause of schizophrenia than depression.[24,26]

Attitudes of the Public to Depression and Depressed People

There is strong evidence that negative attitudes to depression and depressed patients are prevalent. This is associated with the lack of knowledge and stigma against depressed people, and that there was a strong correlation between knowledge of depression, higher education, and positive attitudes toward psychopharmacology.[27] Conversely, familiarity with mental illness was less likely associated with perceptions of dangerousness toward people with schizophrenia or depression.[28-34]

Public Knowledge of Depression and its Causes Influence Treatment Choices

It was demonstrated in community surveys[23,28,35-39] that the public considered antidepressants harmful and psychiatrists not very helpful for depressed people. Conversely, correct recognition of depression and attribution to biologic causes was associated with a positive attitude toward psychopharmacology.[4,11,40,41]

Public Attitudes to Biologic and Psychological Modalities of Treatment

Negative attitudes and irrational beliefs about psychotropics, including antidepressants, are widespread among the public, and this influences patient adherence to treatment. Compared with cardiac medications, for example, psychotropics are believed to cause more significant side effects, be addictive, and provoke more fear of losing control.[36] Frequently, participants in a survey considered that antidepressants would be harmful for a person who is depressed and suicidal, and other respondents considered psychotropics and treatment by a psychiatrist to be harmful, especially for cases of depression.[39,42-44]

People who had sought help for depression from professionals were less likely to believe in the helpfulness of lifestyle interventions.[44]

Public's Attitudes to Depression and Professional Help: *An Associated Stigma*

Public opinion appears consistently to favor the lay support system and involving general practitioners only if the former resource is exhausted. Of all healthcare professionals, general practitioners were identified as the preferred point of first contact. Counselors and family or friends were the most commonly cited forms of best help for depression, with the younger age groups preferring family or friends. General practitioners, however, were considered more helpful for depression, whereas psychiatrists and psychologists were considered more helpful for psychosis. In addition, interviewees who perceived mental disorders to be caused by uncontrollable influences such as biologic factors or supernatural influences were more likely to advise professional help and less likely to recommend support by a trusted lay person.[28] Willingness to discuss mental health problems with a general practitioner was predicted by the perceived helpfulness of the general practitioner and by no other variable.[22,27,35] Causal attributions and perceived stigma, rather than participants' levels of knowledge about symptomatology and disability, influence attitudes to help-seeking for mental health problems.[41] In summary, non-psychiatric physicians play a prominent role in locating help for depressed people, which suggests the need to educate primary care physicians (PCPs).

Stigma was found to be associated with misinformation regarding mental illness among the public. Stigma influences attitudes toward the preferred treatment modality and negatively influences adherence to antidepressants. In contrast, having known a person with mental illness facilitates a positive relationship and results in less fear and less social distance from people with mental illness.[29-31,34,45,46] In one study, for example, respondents (n=1,312) from an Australian community sample reported that they would feel embarrassed about seeking help from professionals and believed that other people would react negatively to them if they sought such help. Self-stigma varied according to the source of help: greater embarrassment was associated with seeing mental health professionals, especially psychiatrists. Forty-four per cent of respondents said they would feel embarrassed to see a psychiatrist, compared to 29% in seeing a general practitioner. Perceived stigma was clearly evident, as 46% of respondents believed others would think less of them for seeing a psychiatrist, whereas only 14% believed others would think less of them for seeing a psychologist or counselor.[46]

Socio-demographic Factors Related to Attitudes to Depression and its Treatment Among the Public

Little knowledge of mental illness and negative attitudes toward it were associated with older age groups, those of lower social class, those with children, and non-Caucasians.[9,23,36] Medical treatments were proposed by people who were better educated, had a positive attitude toward psychopharmacology, correctly recognized the person depicted in the vignette as being ill, were presented with the schizophrenia vignette (not depression), kept social distance, and had contact with mentally ill people.[34] People <55 years of age and people who had family or personal experience with depression viewed depres-

sion as more disabling than other medical conditions.[32,36] Also, it was demonstrated across three European cultures that the casual attribution of an individual's depression to brain disease was associated with a greater willingness to seek help from medical professionals (eg, a psychiatrist or general practitioner) and a tendency to recommend treatment with psychotropics.[39] In some cultures and religions, the causal attribution of psychiatric symptoms to possession by the devil creates a negative attitude which hampers the acceptance of professional psychiatric treatment.[47]

COMPARING PATIENTS' AND PUBLIC LITERACY

There were comparatively few studies[8-11,13-15,18] that focused principally on patient depression literacy (ie, knowledge of and attitudes toward depression and its treatments). Many studies[12,16,17,19-21] focused on attitudes towards and preferences for seeking help from different mental health professionals. Depression literacy was poor in both patients and public alike. Both patients and public participants in surveys have many misconceptions about the causes of depression, and >50% in most studies were unable to recognize depressed patients portrayed in vignettes.[8,10,16,22-27] For both patients and public, women, younger subjects, and individuals with personal experiences of depression had more substantial knowledge of, had more positive attitudes towards, had key aspects of depression, and were more able to recognize depression in vignettes than older male subjects.[9,21,23,39,41]

Perceived stigma by depressed patients is strongly associated with willingness to seek help from professionals and with maintaining adherence to treatment.[14] In addition, public attitudes characterized by physical distance, fear, and social isolation were quite prominent. Many people reported that they would feel embarrassed about seeking help from professionals. Self-embarrassment and expectations that others would respond negatively predicted the likelihood of help seeking from professional sources. In addition, some expected professionals to respond negatively to them. Responses varied according to the sources of professional help.[29,30,33,46] Unfortunately, these negative attitudes among the public tends to be enduring and difficult to change over time.[48,49]

Both patients and public have negative attitudes toward antidepressants. Psychotropics are believed by the public to cause significant side effects, be addictive, and provoke more fear of losing control. In one study,[8] for example, it was reported that of those with MDD, 40% considered anti-depressants helpful, but 40% also considered they were harmful. In another study, psychopharmacologic treatment and electroconvulsive therapy were only proposed by <25% of the lay interviewees.[38]

Both patients and the public cited non psychiatric care professionals, especially the family physician, as the preferred first contact. The majority of patients and the public attributed depression to stress and negative life experiences, especially difficulties within the family or their partnership.[17,25]

DOES PSYCHO-EDUCATION LEAD TO CHANGES IN KNOWLEDGE AND ATTITUDES?

Although the public's knowledge of and attitudes toward depression and its treatment has been demonstrated to improve over time, and although literacy changes seemed to be associated with increased willingness to accept and recommend psychiatric treatments, public responses to people with depression did not change significantly over time. In particular, the public continued to express fears and to maintain social distance from patients.[37,48-51] For example, in a study[48,49] that examined changes in the acceptance of psychiatric treatment by the public, two surveys were conducted among the adult German population, one in 1990 (n= 5,025) and the other in 2001 (n=2,118), using the same sampling procedure and interview. The willingness to recommend a psychiatrist increased substantially by 14.6%, whereas the probability of recommending a general practitioner or priest for help concerning MDD decreased over the time period under study. In the same survey, however, the respondents' attitudes to people with depression were inconsistent. While there was an increase in the readiness to feel pity (as measured by the desire to help and expression of empathy), the expression of fear, feelings of insecurity, and the desire to maintain social distance from people with MDD remained unchanged. The public attitudes toward psychotropics improved somewhat over time and the public became more ready to acknowledge beneficial effects of drug treatment.49 It was also reported that there was significant improvement in Australian depression literacy during the period from 1998 and 2004.[50]

The Royal College of Psychiatrists, in the United Kingdom, ran a radio, television, and print media campaign to educate the public about depression and its treatment. Surveys were carried out before (in 1991) and after (in 1995 and 1997) the "Defeat Depression Campaign" was launched. Investigators reported small but significant changes in the percentage of the public who believed that antidepressants are effective and who would be willing to seek professional help. The authors concluded that positive changes were of the order of 5% to 10%.[51]

In an interventional psycho-educational program, one neighborhood received an education campaign, while another acted as a control. The campaign consisted of an educational package with information sheets and video, social events to establish contact with the group house, a formal reception,

and informal discussion sessions. Pre- and post-surveys in the experimental and control neighbourhoods showed only a small effect on public knowledge, but revealed less fear and more social contact with the group house residents in the experimental neighborhood.[29,30,52]

Overall, there is emerging evidence to suggest that mental health literacy can be improved with education. If the public's mental health literacy is not improved, public acceptance of evidence-based mental health care may be hindered. There is still much to be done to provide an empirical basis for evidence-based interventions to reduce misconceptions about mental illness and to improve attitudes toward people with mental illness. Such studies should include the appropriate educational measures to evaluate the effectiveness of psycho-education.

LIMITATIONS OF THE CURRENT LITERATURE

Several limitations of the current review must be mentioned. First, most studies focused mainly on the public literacy. There were few studies which primarily examined patients' knowledge and attitudes. This made it difficult to draw generalized conclusions and comparisons between patients' and the public's depression literacy. Second, knowledge of depression was not examined in most research studies comprehensively to include knowledge about etiology and treatments, especially antidepressants. This may be due to the limited utilization of tools examining these domains, such as vignettes in most research. Third, vignettes were commonly used to assess recognition of depression and attitudes to treatment by both patients and the public. Although vignettes are considered as a short and easy instrument to administer to the public, their content remains limited in testing knowledge of and attitude toward depression and its treatments. Therefore, there is a need to develop comprehensive, reliable, and valid instruments to measure literacy among patients and the public. These instruments can provide valuable information which can be utilized in tailoring the appropriate depression psycho-educational programs and campaigns for patients and public accordingly.

There is significant interaction between knowledge (the cognitive aspects of literacy), attitudes (the affective component), and help seeking (the psychomotor component). Many studies have attempted to examine the relationship between these three aspects of learning. Unlike the cognitive or attitudinal domains, help seeking, which refers to the patients' behavioral change, is neither static nor inert. It is the domain which confirms the "acted upon" by some external influence. This influence could be represented in the first two domains, namely knowledge and attitudes. Moreover, help seeking is a much more complex domain which is also influenced not only by knowledge and attitudes, but also by other variables such as the severity of the illness, depression comorbidities, and cultural and socio-demographic variables.

CONCLUSION

There are widespread low levels of depression literacy among the public, including misconceptions about the biologic nature of depression and negative attitudes toward treatment, with psychiatrists viewed as the least helpful in treating people with depression. Knowledge may improve with education, and there is evidence that attitudes may improve over time. This, in turn, may reverse the stigma associated with depression and positively affect help-seeking behavior and adherence to treatments.

PCPs play a prominent role in locating help for depressed people, which suggests the need to educate PCPs. If quality of care for people with depression is to be improved, then a major targeted initiative to overcome literacy obstacles is needed. PCPs and first-line care providers ideally should be integrated and well linked to the specialized psychiatric services with easy access for consultations, and with provisions for psycho-education campaigns for both patients and the public. Nonetheless, more research is needed to provide empirical support for the use of psycho-education interventions, utilizing reliable tools with demonstrated evidence for validity. ***PP***

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