

THE USE OF NON-PHARMACOLOGICAL
INTERVENTION IN THE TREATMENT OF
DEPRESSION:

A Literature Review

Ernest Appiah

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<p>Abstract</p> <p>The purpose of this study was to explore the non-pharmacological methods used in the treatment of depression, how people perceive these methods as well as the nurse role in these methods. The aim was to combine these methods from existing literature and can be used by nurses, students and other health care personnel working in mental health care.</p> <p>The review process was done according to predefined plan which consisted of setting the research questions, searching and selecting relevant literature, analyzing and synthesizing the data and making conclusion. Search strategy was both electronic and manual. Eleven articles were finally selected for this review. Eight non-pharmacological methods of treating depression were identified with higher efficacy and no negative side effects. Most of them used therapy.</p> <p>People perception about non-pharmacological methods suggested that these methods were view positively by the participants. It also emerged from the review that nurses play an important role in executing a successful therapy to depressed client.</p> <p>Treatment of depression has higher efficacy when combine pharmacotherapy with psychotherapy. It was clear from the review that psychotherapy is an effective tool in the treatment of depression on the other hand nurses should be able to help clients to determine which method best suit them based on their current condition.</p>		
Keywords psychotherapy,depression,treatment, psychiatric nursing, patients opinion		
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Contents

1 INTRODUCTION	1
2 NON-PHARMACOLOGICAL TREATMENT OF DEPRESSION	3
2.1 Depression	3
2.2 Causes, Prevalence and Risk Factors of Depression	3
2.4 Non-pharmacological treatment of depression	7
3 PURPOSE, AIM AND RESEARCH QUESTIONS.....	9
4 CONDUCTING THE LITERATURE REVIEW.....	10
4.1 Principles of literature review.....	10
4.2 Literature search.....	11
4.3 Article selection	12
4.4 Analysis and synthesis.....	15
5 RESULTS	16
5.1 Characteristics of Non-Pharmacological Methods for the Treatment of Depression.	16
5.2 Perception of People on Non-Pharmacological Intervention in Treatment of Depression.	22
5.3 Nurses role in non-pharmacological intervention.	23
6 DISCUSSION.....	24
6.1 Validity of the review	26
6.2 Conclusion.....	27
REFERENCES.....	28
APPENDICES	38
APPENDIX 1: Table of the articles included in the review	38

1 INTRODUCTION

Non-pharmacological interventions include any treatment that is not a registered drug, such as physical activity and psychosocial interventions (talking therapies). A talking therapy could include meeting with a counselor, alone or in a group. It might involve problem-solving, setting goals and getting feedback about self-management. It might also include sessions on pain management and relaxation; and coping with depression.(Cramp,Hewlett, Almeida, Kirwan, Choy, Chalder, Pollock & Christensen, 2013,1.)

Non-pharmacological therapies, such as reminiscence and life review, are commonly used for older people with depression but inconsistent effectiveness has been reported (Jonsdottir , Jonsdottir , Steingrimsdottir & Tryggvadottir 2001, 26–33;Jones 2003,26–33) and the absence of standard protocols has also been criticized (Woods 2004, 81).

Individuals suffering from depression often report significant problems in multiple areas of their family functioning, suggesting the need for a more family-oriented approach such as family therapy, or combinations of family therapy with individual psychotherapy and pharmacotherapy in the treatment of depression (Keitner 2003, 873–884).

Many depressed patients fail to respond to an adequate treatment with a single or, to several antidepressant trials, constituting what can be generally termed treatment refractory depression (TRD). (Berlim & Turecki 2007,46-54). Several different psychological treatments exist, which are considered to be fairly equivalent in terms of efficacy (Cuijpers, Van Straten, Andersson & van Oppeng 2008, 909-922).

Depression relapsing nature accounts for one of the highest levels of disease burden of any condition (Murray & Lopez 1996).

It has been found that 50% of people who have been prescribed antidepressants in primary care discontinue their treatment in the first month (Cassano & Fava 2002,849-857). Discontinuation syndrome has been reported after cessation of treatment with antidepressants and occurs with many selective serotonin re-uptake inhibitors (SSRIs) (Montgomery & Baldwin 2007,323-329).Therefore, non-pharmacological methods that promote a body and mind interaction without side effects should be tested (Chan, Chan & Mok 2010, 151).

The purpose of this review was to explore the non-pharmacological methods used in the treatment of depression, how people perceive these methods as well as the nurse role in these methods.

2 NON-PHARMACOLOGICAL TREATMENT OF DEPRESSION

2.1 Depression

Depression is defined as a spell of two or more weeks of sadness and four out of eight other conditions. These include loss or gain of appetite, sleeping disorders, fatigue, slowing of body movements or thoughts, feeling worthless, loss of pleasure in something usually enjoyed, difficulty concentrating, and suicidal thoughts, desires, or attempts (Braus 1991,16). In its simplest form depression is a disturbance of mood that causes sadness (National Institute for Clinical Excellence 2004).

Depression affects between 5% and 10% of individuals and is the third most common reason for consultation in general practice primary care (Singleton 2001). The increased economic burden of depression arises due the loss of functioning and productivity and the increased utilization of medical services, and exceeds the resources devoted to treatment (Greenberg & Kessler 2003, 1465-1475). Approximately one in 50 people who develop depression will need to be admitted to hospital (National Institute for Clinical Excellence 2004).

2.2 Causes, Prevalence and Risk Factors of Depression

According to Benson and the Harvard Medical School (2006) there are a wide variety of stressors that can cause depression.

Depression can start at any age and statistically it affects more women than men (Puri & Treasaden 2011,). In western society, the average age of onset is late thirties (Puri et al. 2011,).As echoed by (Stahl 2001), there is general consensus in the literature that people with depression have an imbalance of

chemicals in the brain known as neurotransmitters. The neurotransmitter serotonin produces a calming effect as a result of its anxiolytic properties. Another neurotransmitter, noradrenalin (nor epinephrine), may increase the amount of energy an individual has (Healy 2005). It is thought that people with depression have too little serotonin and noradrenaline activity (Ressler & Nemeroff 2000, 2-19).

Risk factors for depression may include experiences that older people may be more prone to such as poor social integration, loneliness, adverse life events, physical frailty or illness and lack of support (Mayali , Oathamshaw & Lovell 2004,165-171; Dennis, Wakefield , Molloy, Andrews & Friedman 2005, 538-539).

According to Moussavi, Chatterji, Verdes, Tandon, Patel & Ustun (2007, 851-858) people with common, long-term, physical health conditions, such as arthritis, asthma, angina and diabetes, have an increased risk of developing depression . In a survey of 245,000 people in 60 countries, the impact of depression on individuals' quality of life was compared with the quality of life of people with long-term physical health conditions such as cardiovascular disease and diabetes. People with depression appeared to be more likely to experience a reduced quality of life. (World Health Organization 2001,).

Environmental and cognitive risk factors also play a role in depression and include increased family conflict, low socioeconomic status, death of a parent, parental depression or divorce, physical or sexual abuse or neglect, poor peer relationships, loss of significant friendship, feelings of rejection, and perceived failure or lack of confidence (Birmaher & Brent 2007, p. 1503-1526; Zalsman, Brent & Weersing 2006, p. 827-841; Richardson & Katzenellenbogen 2005, 1-24).

Another risk factors for depression are people who are lesbian, gay or bisexual (Chakraborty,McManus, Brugha, Bebbington & King 2011), receiving low incomes (NHS Information Centre for Health and Social Care 2007),who are

single (Wahlbeck & Mäkinen 2008,) with a learning disability(Smiley 2005), and those who are caring for people with long-term illness and disability (Office for National Statistics ONS 2002).

Some types of depression tend to run in families. However, depression can occur in people without family histories of depression too. (Tsuang & Faraone 1990,).

2.3 Pharmacological treatment of depression

Depression often goes undetected by healthcare providers in about 50% of cases because it usually is not looked for and often is ignored or missed. (Brown , Bylund, Kline De La Cruz, Solan, Kelvin & Passik 2009; Sharp, 2005).

First-line treatment for adults with moderate to severe depression is commonly an antidepressant (National Institute for Clinical Excellence 2009).

There are five main types of antidepressants: tricyclic (TCAs) and related antidepressants; monoamine-oxidase inhibitors (MAOIs); selective serotonin re-uptake inhibitors (SSRIs); serotonin and noradrenaline reuptake inhibitors (SNRIs); and noradrenergic and specific serotonin antidepressants (NaSSAs).

SSRIs are safer in terms of overdose than TCAs and tend to be better tolerated than other classes of antidepressants. Hence, SSRIs are the most commonly prescribed antidepressants for treating depression. (Olfson & Marcus 2009,848–856; National Health Service Information Centre 2011.) The advantage of SSRIs in comparison to tricyclic antidepressants (TCAs) and monoamine oxidase inhibitors (MAOIs) is that they have a reduced propensity to cause anticholinergic side effects such as dry mouth and cognitive difficulties, such as difficulties with concentration and problem solving (Stahl2001).

All classes of antidepressants have drug interactions (Taylor, Paton & Kerwin 2007).

Approximately 28 million Americans, or 1 in every 10, had taken one of the selective serotonin re-uptake inhibitors (SSRI) antidepressants. (Glenmullen 2000). A number of approaches have been advocated to improve the quality of care for depression in non specialist settings. One approach involves enhancements in the process of care, such as case management (Von Korff & Goldberg 2001, 948-949).

The effects of drug-to-drug interactions can be fatal. One study reporting on the toxicity of drug overdose found that more deaths occurred when SSRIs were prescribed concomitantly with TCAs than when prescribed alone (Cheeta, Schifano, Oyefeso, Webb & Ghodse 2004. 41-47).

Patients who have not responded or have been unable to tolerate first-line treatment may need to switch to second-line treatment, which tends to be antidepressants that have an effect on serotonin and noradrenalin as well as other monoamines (Taylor, Paton & Kapur 2009; National Institute for Clinical Excellence 2010).

A number of pharmacological strategies, such as changing the dosage, augmentation or switching to a different drug, have been suggested but have shown limited success (Fava & Ruini 2005).

Evidence shows that treatment with medication combined with psychological therapies has the best outcomes, and when maintained is more likely to reduce relapse and recurrence (National Institute for Clinical Excellence 2010). However, 30-40% of patients do not respond sufficiently to an adequately performed first-line drug treatment. (Adli, Bauer & Rush 2006, 1029-38). In addition, two-thirds of people do not respond fully to such pharmacotherapy (Trivedi, Rush, Wisniewski, Nierenberg, Warden, Ritz, Norquist, Howland, Lebowitz, McGrath, Shores-Wilson, Biggs, Balasubramani & Fava. 2006, 28-40).

2.4 Non-pharmacological treatment of depression

Psychodynamic therapies origin back to Freud (Trede 2007, 237-240). In some health-care systems it is currently the most commonly used form of psychotherapy (Kessing, Hansen , Hougaard, Hvenegaard & Albæk 2006).

In patients with major depression, electroconvulsive therapy (ECT) is widely acknowledged as an effective and appropriate acute treatment. Still questions remain regarding whether ECT is associated with a net improvement in function and quality of life in recent guidelines from United Kingdom. (National Institute for Clinical Excellence 2003). Modifications in ECT practice over the last five decades have considerably increased its safety (Sackeim, Devanand & Prudic 1991,p 803-44; Shapira, Calev & Lerer 1991, 935-46). Interpersonal psychotherapy is generally considered as one of the most evidence based therapies for depression (Kessing et al. 2006).

Interpersonal psychotherapy (IPT) originates from classical psychodynamic therapy (Cornes & Frank 1994,9-10). Although interpersonal psychotherapy has integrated elements from other psychotherapies it is generally regarded as a contemporary form of psychodynamic therapy (Cornes et al.1994, 9-10;Weissman, Markowitz & Klerman 2000).

Cognitive behavioral therapy (CBT) is a short-term psychological therapy that is effective in the treatment of depression (National Institute for Clinical Excellence 2009).

There is evidence that CBT is most effective for patients experiencing mild to moderate depression (National Institute for Clinical Excellence 2004b).

Self-help is viewed very positively by the public (Jorm 2000, p. 396-401).

A recent systematic analysis has confirmed the overall effectiveness of CBT self-help and identified that packages are best delivered as guided self-help (GSH), with guidance support from a worker who does not necessarily have

to be clinically qualified (Gellatly, Bower, Hennessy, Richards & Gilbody 2007 1217–1228).

Based on a psycho physiological theory synthesized from the literature, sedative music induces a relaxation and distraction response, (Arslan , Ozer & Ozyurt 2008, 46-54.) which reduces activity in the neuroendocrine and sympathetic nervous systems, resulting in decreased pain, (McCaffrey 2008,39-44) stress, (Allen 2007, 671-4.) anxiety, (Arslan et al. 2008; Twiss, Seaver & McCaffrey2006,224-31.) and sleep (Johnson 1991,165-70).

3 PURPOSE, AIM AND RESEARCH QUESTIONS.

The purpose of this study was to explore the non-pharmacological methods used in the treatment of depression, how people perceive these methods as well as the nurse role in these methods. The aim was to combine these methods from existing literature and can be used by nurses, students and other health care personnel working in mental health care.

This study has three research questions:

1. What are the non-pharmacological methods used in treatment of depression?
2. How do people perceive non-pharmacological intervention in treatment of depression?
3. What is the nurses role in non-pharmacological intervention in treatment of depression?

4 CONDUCTING THE LITERATURE REVIEW

4.1 Principles of literature review

A systematic literature review is a summary of the research literature that is focused on a single question. It is conducted in a manner that tries to identify, select, appraise and synthesize all high quality research evidence relevant to that question. High quality research includes those studies with an explicit and rigorous design that allow the finding to be interrogated against clear contexts and research intentions. (Center for Evidence-based Medicine 2009.)

Healthcare decisions for individual patients and for public policy should be informed by the best available research evidence. Practitioners and decision-makers are encouraged to make use of the latest research and information about best practice, and to ensure that decisions are demonstrably rooted in this knowledge (Centre for Review and Dissemination 2008.) Craig and Smyth (2007,185) state: 'Because systematic reviews include a comprehensive search strategy, appraisal and synthesis of research evidence; they can be used as shortcuts in the evidence-based process.

A systematic literature review should also be based on peer review protocol or plan so that it can be easily replicated if necessary. The review itself will include a background or introduction, in which the authors explain the scientific background or context to their study. It also includes the rationale for the systematic review indicating why it is necessary. The specific objectives and a summary of how the reviewer defined the criteria by which to choose the research papers as stated. Once a thorough assessment of the quality of each included research paper or report is carried out, all the individual studies are synthesized in an unbiased way. The findings are then interpreted and presented in an objective and independent summary. (Hemmingway & Brereton, 2009)

Reviewing the literature requires the ability to juggle multiple tasks, from finding and evaluating relevant material to synthesizing information from various sources, from critical thinking to paraphrasing, evaluating, and citation skills (Budgen & Brereton 2006).

The aim of the search is to generate a comprehensive list of primary studies, both published and unpublished, which may be suitable for answering the proposed research question. The validity of the review is directly related to the thoroughness of the research and its ability to identify all the relevant studies. (Center for Reviews and Dissemination (CRD) 2008,).

Petticrew & Reberts (2006), think that conducting a comprehensive literature review search also helps to identify current knowledge with regard to relevant concept and context and what is known and unknown in a particular field.

It is important to search widely and thoroughly because not all search is published in journals. Additionally, not all the search published in journals is indexed in major databases and may not be easily retrievable.(Bruce, Pope & Stanistreet 2008,)

Problems with searching include publication and language bias (Dickersin, Chan, Chalmers, Sacks & Smith 2002, 243-353). Publication bias means that positive results tend to be published more frequently than negative results in journals (Bruce et al. 2008). Language bias refers to the fact that positive results are more likely to be published in English.

4.2 Literature search

The electronic article search was commenced on 3rd of October, 2013. The key words used for the search were psychotherapy AND depression AND treatment AND psychiatric nursing AND patients opinion.

The electronic search was carried out in the Ebsco, Ovid, Science direct and the Cochrane library. These databases were selected because they offer a free access to articles. The search was limited to full text, references available,

abstracts available, in English Language and between 2004 to 2013. The search produced altogether 2522 results. There was duplication of articles as four different databases were searched.

In addition to the electronic search, manual article search was performed in October 2013. The manual search conducted from relevant scientific journals. Contents of the following journals was searched: Depression Research and treatment, Journal of Psychiatric and Mental Health Nursing, Psychiatric Times, Australian Journal of Nursing and BMC Nursing. The manual search identified 45 articles published in English language between 2004 and 2013.

4.3 Article selection

The selection was done thoroughly keeping in mind the predetermined selection criteria so as to filter out any irrelevant articles. The article had to address non-pharmacological intervention as a treatment of depression in a psychiatric setting. The participant should be adult psychiatric patients suffering from long or short term depression. Interventions that focused on adolescent and children were excluded. Intervention that is not supervised by psychiatric professionals were not included. The research method and data analysis were checked by confirming the credibility of the authours.

The inclusive criteria was widen because of paucity of researched material. Articles that address treatment of depression and other comorbid condition were included. The inclusion and exclusion criteria for article are listed in Table 1.

TABLE 1. Inclusion and exclusion criteria for papers

- Scientific articles addressing non-pharmacological intervention that addresses depression.
- Articles published in English between 2004 and 2013.
- The patient should be psychiatric patient suffering from short or long

term depression.

- Interventions that focused on adolescent and children were excluded.
- The articles should be full-text.
- Literature review were excluded.
- Interventions that is not supervised by psychiatric or health professionals were excluded.
- The research method and data analysis should be credible and confirmed.
- Articles that address treatment of depression and other comorbid condition were included.

The process of selecting the inclusion and exclusion articles included 2 parts; the 1st part involved sifting through the titles and abstract of the articles retrieved from the search, screened them systematically and selected those that met the predetermined criteria. At this phase 150 article based on titles with the addition of the 45 manual searched articles making a total of 195 articles. Later 20 articles were selected based on their abstract.

The 2nd part involved reading full-text of the 20 identify article. These were read through to find out if they met the inclusion criteria set. For this phase, standardized criteria were used for the selection. This included the population, intervention or comparative intervention, outcome and also the quality of the article were assessed. The method used in the selected articles and aims were clearly stated and the result easy to understand. The reviewer was able to identify which articles will answer the research question. At this stage 11 articles were selected. 9 articles were excluded based on the fact they did not clearly answer the research questions and also the results were not clearly stated leaving 11 articles for this review.

Figure 1.

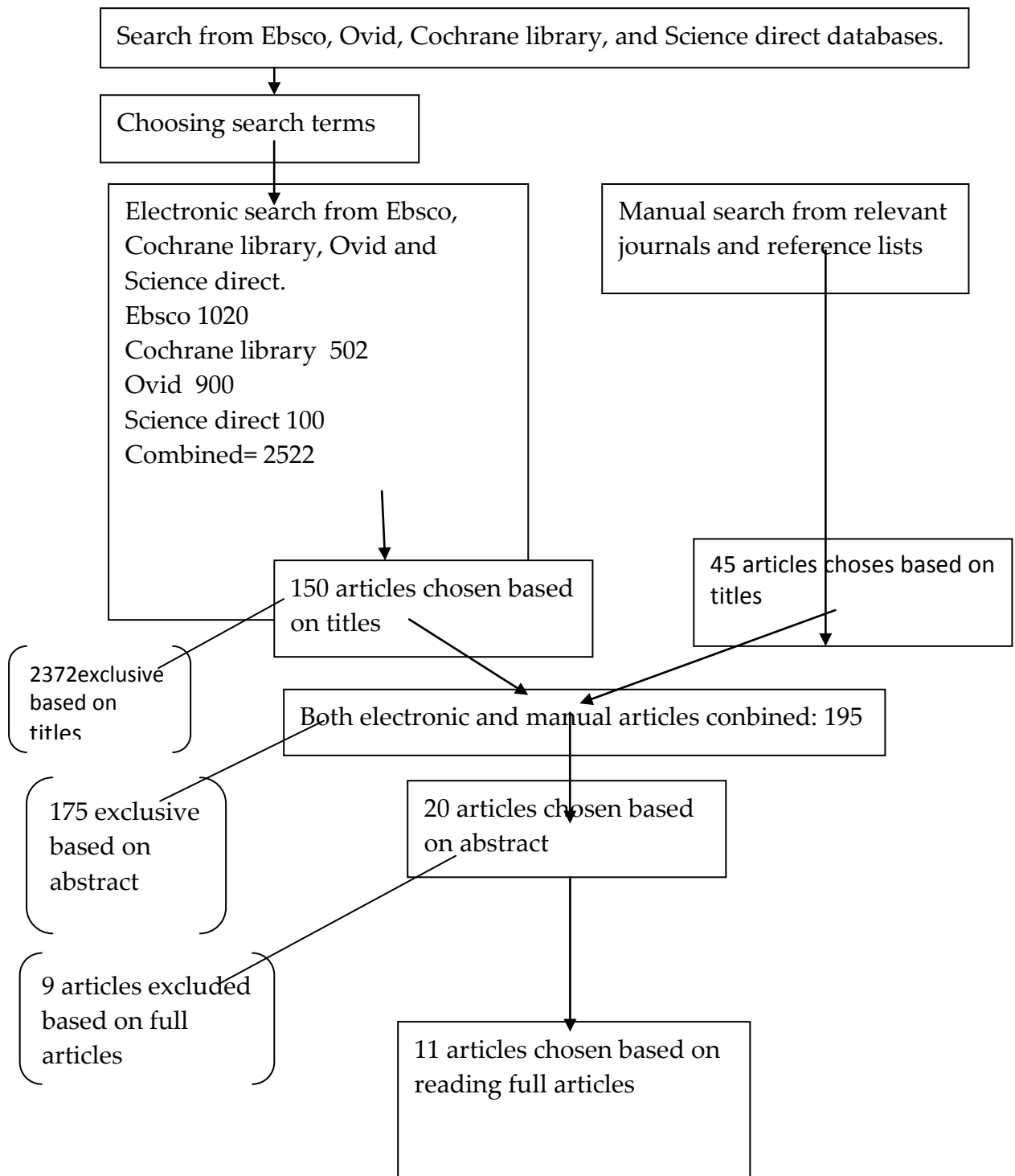


Figure 1 features how the literature search and study selection were carried out.

4.4 Analysis and synthesis

The 11 articles selected were carefully and tabulated in order to constitute a general view of the data and to enable the comparison of articles. The central information regarding the studies included in the review are presented in the table in Appendix 1. The table illustrates the basic information regarding the research articles and the core features of each non-pharmacological intervention for depression and its outcome.

Narrative synthesis is a form of storytelling bringing together evidence in a way that tells a convincing story of why something needs to be done, or needs to be stopped, or why we have no idea whether a long established policy or practice makes a positive difference is one of the ways in which the gap between research, policy and practice can start to be bridged. Telling a trustworthy story is at the heart of narrative synthesis (Popay, Roberts, Sowden, Petticrew, Arai, Rodgers & Britten, 2006).

In this review, narrative synthesis of the literature was made. The data emerging from the articles were categorized and organized in themes and the results described in a narrative way. This included comparing data from the articles finding their similarities and their differences.

5 RESULTS

This review gave information on what non-pharmacological methods are there to treat depression. How people perceive these methods and the nurse role in these methods.

Most of the articles (n=9) in this review provided a clear evidence of successful non-pharmacological interventions in the treatment of depression. Participants self involvement, management and co-operation with care givers resulted in the improved outcomes of depression care.

5.1 Characteristics of Non-Pharmacological Methods for the Treatment of Depression.

The articles included in this review were published between the years 2004 and 2013 in scientific journal in the field of psychiatry , psychiatry nursing and psychology and all researched articles were published in English. The studies discussed in the article were British (n=2), Singaporean (n=1), Taiwanese (n=2), French (n=1) Chinese (n=2), American (n=1), Dutch (n=1) and New Zealander (n=1).

Most of the non-pharmacological methods that were mentioned (n=8) in the studies were administered to adult patients suffering from mild to severe depression.

Two studies used different types of music as a non-pharmacological intervention to treat depression. The results contributed to knowledge about the effectiveness of soft slow music used as a tool to improve sleep quality and relieve depression for elderly people. Whilst there were no statistical differences between groups, there was some indication that music yielded improvement on some of the parameters. (Chan et al. 2010,55.) According to Chan et al.(2010, 157) people's emotional reaction to music may occur because the limbic system is the neurophysiological location of emotional states, feelings and sensations. In the experimental group (n=21) of the study, there were statistically significant reductions in geriatric depression scores and sleep quality at week 4 after participants were exposed to listening to music included meditative, Chinese classical, western classical and western modern jazz. All were slow and flowing pieces, approximately 60-80 beats per min⁻¹, instrumental, and 30 min in length (Nilsson 2008, 780-807).

In a related article by Chan, Wong, Onishi & Thayala (2011), looked at the effect of music on depression in older people (n=50). Participants in the experimental group were allowed to chose from four different kinds of music namely Indian, Chinese, and western Malay slow rhythm for 30 minutes in eight weeks. Depression levels reduced weekly in the music group, indicating a cumulative dose effect, and a statistically significant reduction in depression levels was found over time in the music group compared with non-music group after the 8th week.

Two articles also highlighted on group Cognitive Behavioral Treatment (CBT) and Self-Help Cognitive Behavioral Therapy (GH-CBT).

The contents of group CBT manuals for depression focused on helping participants to (i) understand and modify their patterns of automatic thoughts and dysfunctional rules; (ii) gradually build up pleasurable activities; and (iii)

identify negative coping skills and enhance positive ones. Ten sessions 3 hour each group CBT was conducted with experimental group of 163 participants with mean age of 22.72 years. After 10 weeks of treatment, participants in the group CBT programme had significantly fewer symptoms of depression, fewer dysfunctional and perfectionist attitudes, and better quality of life when compared to the participants in the control group.

The Guided-Self help Cognitive Behavioral Therapy (GSH-CBT) was conducted with overall 281 participants for 12 months. At both 4 and 12 months there were significantly higher proportions of participants achieving a 50% reduction in Beck Depression Inventory (BDI)-II score in the GSH-CBT group as compared to treatment as usual (TAU) group. Mean BDI-II scores fell from 29.1 to 22.0 for TAU and from 29.8 to 16.4 for the GSH-CBT. (Williams C., Wilson P., Morrison J., McMahon A., Andrew W., Allan L., McConnachie A., McNeill Y. & Tansey L. 2013,2013,1-7).

In another article 6 participants in the case series underwent 10 sessions of acupuncture to treat their depression. At baseline, one patient had minimal depression (Beck Depression Inventory - 10), for two it was mild to moderate (BDI, 10 to 18), for five it was moderate to severe (BDI, 19 to 29), and for two it was severe (BDI, 30 to 63). The patient with minimal depression at the outset (patient 8) improved her scores slightly over the 10 weeks. The two patients with mild to moderate depression at the outset (patients 1 and 3) experienced a major improvement in symptoms, with a reduction of over 80% in their BDI scores. The remaining three patients (patients 4, 7, and 10) experienced more marginal improvements. The changes to the BDI scores were reflected in equivalent changes in the Hospital Anxiety and Depression Scale (HADS) and Health Status Questionnaire (SF-36) scores (Macpherson , Thorpe , Thomas & Geddes 2004,1083-1091).

Interpersonal Psychotherapy (IPT) provides mental health nurses with an intervention framework for utilizing their interpersonal skills to help

consumers of mental health services recover from depression (Martin 2001, 1233-1236).

Depression associated with role transitions occurs when a person has difficulty coping with life change. Therapy focuses on four tasks: giving up the old role; expressing guilt, anger, and loss; acquiring new skills and developing new attachments and supports; and identifying positive aspects of the new role. (Weissman, Markowitz & Klerman 2001,104,.)

A case study of a 42 year old female 12 IPT sessions for 12 months was assessed by Crowe & Luty (2005,43-54). At the commencement of IPT, the participant rated her depressive symptoms as severe. Symptoms improved at a consistent rate until she rated them as mild at the end of her 12 sessions of IPT.

The improvement in mood that was facilitated by the IPT process had enabled the participant to have a more hopeful view of her future. It had enabled her to make sense of her mood, connect it to her pattern of interpersonal relationships, and change some of her roles and communication styles.

Systematic Activation Method (SAM) was developed as a brief individual course of 7 weeks and consists of six sequential steps. These steps are (a) monitoring of mood, (b) executing pleasant activities from an existing pleasant activity list, (c) designing and executing a personal pleasant activity plan, (d) the use of external resources, (e) setting up an Activity Experiment (AE), and (f) consolidation. The stepwise approach avoids the patients feeling overwhelmed by the need to engage in activities. Such feelings can be responsible for avoidant behavior. A key component of the course is the monitoring of mood. SAM as a nursing intervention that can be added to the usual treatment. SAM was developed for depressed patients with mild to severe depressive symptoms.

In the case report, a 77 years old woman suffering from Major Depressive Disorder (MDD) was indicated for SAM because of her inability to engage in pleasant activities because of her depression.

At the end of SAM the patient increased the level of pleasant activities and her awareness of the positive influence of pleasant activities on her mood. SAM intervened directly in one of the major symptoms of depressive disorder that is lose of interest. (Clignet , Meijel , Straten , Lampe & Cuijpers 2010,25-33).

Self-worth therapy involved teaching strategies to self-manage depressive symptoms and providing dignity therapy. Dignity therapy was divided into four sections: (i) establishing a therapeutic relationship that is understanding participant's physical and emotional needs); (ii) exploring support systems, spiritual needs and relationships (iii) seeking meaning and purpose in life (e.g. exploring participants' roles in the family and society, their hopes and goals in life) and (iv) appreciating or affirming the person's value (e.g. exploring the proudest moment or event in their life. (Tsai, Wong, Tsai & Ku 2008, 490.)

Dignity therapy was based on an approach used with patients having end-of life care (Chochinov, Hack, Hassard, Kristjanson, McClement & Harlos 2005, 5520–5525).

Self-worth therapy was administered to 31 participants in the experimental group for 30 minutes once a week for 4 weeks. Self-worth therapy immediately decreased depressive symptoms relative to baseline, but not relative to control treatment. However, 2 months later, depressive symptoms were statistically significantly reduced relative to control.

Another non-pharmacological method that was identified in one study was the used of interactive computerized psycho-education system (ICPS) as treatment for depression.

ICPS is defined as a specific form of education that involves teaching people's symptoms, treatment, signs of relapse about their illness so that they can promptly seek treatment before any of their difficulty worsens or appears again (Colom & Lam 2005, 359-364). This learning approach is characterized by accommodating the current knowledge level of learners and as a vehicle for providing concrete experiences to enhance flexible learning and the two-way interaction between the learners and the teaching materials (Greenhalgh 2001, 40-45).

ICPS was administered to 32 participants (n=19) and (n=13) in experimental and control group respectively with the aim of evaluating the effectiveness of the ICPS for patients with depression through assessing learning outcomes that investigated aspects of knowledge and medication compliance and to measure depression before and after the application of ICPS.

Participants in the experimental group were asked to describe their learning experiences after using the ICPS. The following impact experiences were noted:

1. Turning a negative attitude into a positive one. Patients took a more active role in their depression management.
2. Improving insights into depression. Participants expressed a better understanding about depression and its complex causality.
3. Improving attitudes towards medication and taking the medication as prescribed. Participants understood the importance of medication-taking and worried less about the potential side effects of medication.
4. Accepting the reality of being depressed. Patients were able to identify the symptoms of depression and became more aware of their responsibility to use health assistance in the management of their depression. (Lin, Moyle, Chang, Chou & Hsu 2008, 672-676).

Table 2

List of Non-pharmacological interventions for depression
1. Interpersonal Psychotherapy (ITP)
2. Cognitive Behavioral Therapy (CBT)
3. Systematic Activation Method (SAM)
4. Music Therapy
5. Self-Worth Therapy
6. Interactive Computerized Psycho-education System (ICPS)
7. Acupuncture
8. Guided Self-Help Cognitive behavioral Therapy (GH-CBT)

5.2 Perception of People on Non-Pharmacological Intervention in Treatment of Depression.

Two articles by Chabrol, Teissedre, Armitage, Danel & Walburg (2004), 5-12 ; Stecker & Alvidrez (2007), 811-820) explored people acceptability and attitude towards psychotherapy as a method to treat depression. Three different therapies were proposed; psychotherapy by consultation, psychotherapy by home visits and antidepressant medication.

Among the 405 participants, the acceptability of psychotherapy by consultation or by home visits was high. The acceptability of antidepressants was significantly lower than either mode of psychotherapy before information was presented about the effects of antidepressants on breast milk and significantly more so again after the information was given to mothers.

The results shows that if participants were to suffer from postnatal depression, 95% of the 405 participants said they would choose

psychotherapy, 2% antidepressants, and 3% would not accept either treatment. (Chabrol et al. 2004,8).

In addition, to assess perceptions of treatments for mental illness, a list of treatments for mental illness was available to participants including medications, individual counseling, group counseling and spiritual advice. Participants were asked to choose which treatments they believe will help them. The Beliefs about Psychotherapy Scale (BAP) and The Stigma Questionnaire (SQ) were used.

Participants reported very positive attitudes towards psychotherapy, with 90% of respondents saying they believed psychotherapy would help treat their symptoms of depression. A smaller but sizable proportion of respondents (76%) reported they believed medications would help. Despite reported positive attitudes about therapy, only 6 of the 29 initiated a session within 3 months.

In general, therapy was reported to offer new perspectives, be effective, prevent suicide, be healthy, help overcome stress, and was not considered a sign of weakness or a waste of money.(Stecker et al.2007, 815 .)

5.3 Nurses role in non-pharmacological intervention.

Two studies included in the review were carried out by the nurse. In the study the nurse played a critical role by educating, guiding, supporting, encouraging and monitoring the progress of the participants (Chan et al. 2011,779; Clignet et al.2010,27).

Nurses play a unique role in supporting patients; by building dialogue with patients, nurses can begin to understand how patients view themselves as individuals, what is important to them, and how their relationship with others may affect their decisions and their ability to live with those decisions during

their treatment and beyond (Ellis, Woodcock Rawlings & Bywater 2006, 457-474).

A relationship of health care providers with patients is based on trust, being open and honest, understanding, being present, respect, setting mutual goals and providing social support (Ritchie 2001, 65-175).

In practicing evidence-based nursing, a nurse has to decide whether the evidence is relevant for the patient. The incorporation of clinical expertise should be balanced with the risk and benefit of alternative treatment for each patient and should take into account the patient unique clinical circumstances including comorbid conditions and preferences. (DiCenso, Cullum, & Ciliska 1998, 38-40)

6 DISCUSSION

This literature review followed the principles of a systematic review and synthesized existing knowledge on non-pharmacological intervention in the treatment of depression. The review shed light on a number of non-pharmacological methods that can be used to treat depression in health care settings. How people perceive non-pharmacological intervention as treatment of depression was also explored. In addition, the nurse role in non-pharmacological intervention was also discussed. The results in this thesis can be used by mental health nurses and students as well as other stakeholders in making decision regarding mental health care.

Effective treatments have been developed for depression, including antidepressant medications and psychotherapies. Many patients prefer counseling or psychotherapy to taking medications, if it is available. (Dwight-Johnson, Sherbourne, Liao & Wells 2000, 527-534.) This was in agreement with Chabrol et al. (2000) 5-12; & Stecker et al. (2007) 811-820, whose work

gave a significant number of people who gave a positive feedback about psychotherapy.

Elements of music such as the melody, pitch and harmony are shown to elicit a wide range of emotional responses in the listener (Murrock & Higgins 2009, 2249–2257). As the elements pass through the auditory cortex of the brain, processing of the music occurs in the limbic system of the brain to elicit emotions (Tramo 2001, 54–56). According to Murrock et al. (2009), music would evoke a psychological response by altering mood and leading to improved health outcomes. This makes music an important tool to in treatment of depression since depression is connected to mood changes.

In a hospital setting, one of the nursing interventions is patient activation of everyday activities of daily living thus encouraging patient to engage in pleasant activities and making them to take full part of the care process. Systematic Activation Method as an activity scheduling method to treat depression is an effective way to increase the pleasant activity level in depressed patients.

The ICPS method empowered participants to take full control of their depression by educating them on etiology, symptoms, treatment and medication compliance. This was in consistent with what was echoed by L'Abate (2000) that multimedia psycho-education programmes have a significant impact on depressed patients.

Nurses play an integral role in non-pharmacological treatment of depression. They build trust with the clients in the care process and offer a holistic care taking into account the client strength and weakness. Teaching, guiding, encouraging and supporting were some of the role nurses play in non-pharmacological methods used to treat depression.

Overcoming Depression: A Five Areas Approach is a structured self-help treatment for depression. It contains stand alone CBT workbooks covering topics such as Practical Problem Solving, Being Assertive, Using

Antidepressants Medication, and Overcoming Sleep Disorders (Williams 2001).

The group CBT programme attempted to facilitate participants to acquire an attitude of letting go of certain things that they could not change and to learn to place realistic demand on self and others (Wong 2008, 705-708). From the results, the group CBT seems to help participants to re-condition their thinking in order to assume a new role in their life. This led the participants to experience a decrease in depression as well as dysfunctional and perfectionist attitude.

The emphasis in IPT is on understanding current disputes, frustrations, anxieties and wishes as defined in the interpersonal context, and the therapy aims to help people to change, rather than to simply understand and accept their current life situation (Weissman et al. 2000, 9). The main focus of IPT was interpersonal issues. It aimed at helping the participant to develop a new interpersonal skills that will allow them to meet new challenge and as well as overcome the old.

In all the non-pharmacological methods identified in this review, there was no report of negative side effect.

6.1 Validity of the review

A systematic literature review uses a rigorous research methodology to try to limit bias in all aspects of the review. In this sense it is close to a primary research study, where the participants are not people but rather the papers in the review. (Khan, Kunz, Kleijnen & Antes 2003, .) The reviewer is inexperienced but he familiarized himself with the principle of literature review. During the literature search, there was a language bias as all the articles used in this review were in English but this can be compensated by the extensive search of relevant article that answered the research question. High quality systematic literature review should have inclusion and exclusion

criteria that are rigorously and transparently reported a priori (Togerson 2003). The inclusion and exclusion criteria was strictly followed in all the phases taking into consideration the participants, intervention, comparative intervention and outcome.

A plan describes in advance the review question and your rationale for the proposed methods you will use. It also includes details of how different types of studies will be located, appraised, and synthesized.(Petticrew et al. 2006.)

The initial plan of this review took into account all the facets of a systematic literature review and this made the finding reliable. Quality of the articles was also assessed thoroughly reading the articles to determine whether they fully met the criteria set.

The fact that this review was done by only one reviewer, may have influenced the reliability of the review. Literature selection and synthesis were all based on reviewer`s own judgment.

6.2 Conclusion

In this review, the results showed that non-pharmacological intervention is a valuable tool to treat depression and preferred by many depressed individual over medication. It was also indicated in the results of this review that not all non-pharmacological methods to treat depression is recommended for every depressed patient since it was noted that SAM was not suitable for patients with severe cognitive impairments of score less than 23 on the Minimal Mental State Examination (MMSE). Therefore mental health practitioners should listen and analyze which method is suitable based on patient circumstances.

Future research could explore whether patient and clinical variable affect treatment choice for depression. That could shed more light on the role patient and nurses play in choosing treatment for depression.

During the searching of research article for this review, it became clear that not much studies been done on non-pharmacological treatment of depression and this might be due to lack of policy to support it.

The authors of most of the studies in the review were researchers in the field of psychology or psychiatry. Nurses and other mental health practitioners should evaluate client's strength and weakness taking into account their present health and physical condition so as to offer the needed guidance concerning mental health.

Policy makers could include non-pharmacological interventions to treat mild and severe depression considering its efficacy and how people perceive it.

Based on the severity of depression and its burden on individual and society as a whole, it's therefore of paramount importance for mental health personnel especially mental health nurses to explore other meaningful and cost effective ways of treating depression.

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APPENDICES

APPENDIX 1: Table of the articles included in the review

Authors, Country, Year, Title	Purpose/ Aim	Methods /Tools	Central outcome about non-pharmacological intervention for depression
Chan, Wong, Onishi & Thayala. Singapore. 2011 Effects of music on depression in older people.	To determine the effect of music on depression levels in older adults.	Music therapy A randomized controlled study. Age 55 or more, population: (24-music group & 26-non music group Singapore Tool: GDS-15	Significant reduction in depression scores for the music group. No significant difference for week 2, 3, and 5 but significant difference in week 4, 6, 7 and 8. In the study, the participants experience lesser depression

			implied that music stimuli had been processed in the mood stirring emotional change.
Williams C., Wilson P., Morrison J., McMahon A., Andrew W., Allan L., McConnachie A., McNeill Y. & Tansey L. 2013 United Kingdom. 2013 Guided self-help cognitive behavioral therapy for depression.	GSH-CBT will improve mood and knowledge of the cause and treatment of depression compared to the control receiving TAU GSH will be accepted to patient and staff.	Guided self-help cognitive behavioral therapy. A randomized control trial. Guided Self-Help CBT vs. control Treatment As Usual (TAU) 141 GSH-CBT and 140 TAU Tool: Beck Depression Inventory (BDI-II) & Improvement in the Clinical Outcomes in Routine Evaluation - Outcome Measure (CORE-OM)	There was significant gains at 4 months in terms of depression for both (BDI-II) and CORE total score. Mean BDI-II scores fell from 29.1 to 22.0 TAU and from 29.8 to 16.4 for the GSH-CBT. CORE total scores were on average 0.26 points lower in the GSH-CBT group at four months. Also there was a fall in scores from both CORE and BDI-II on the 12 month.
Tsai, Wong, Tsai & Ku. Taiwan. 2008 Self-worth therapy for depressive symptoms in older	The effect of self-worth therapy on depressive symptoms of older nursing home residents.	Self-worth therapy. A quasi-experimental design. 63 participants. 31 in experimental group and 32 control group.	The scores reflected a statistically significant decrease in depressive status relative to baseline for both the experimental and control respectively.

nursing home resident.		<p>30mn one-to-one self-worth therapy once a week for four weeks and 2 months later</p> <p>Tools: Geriatric Depression Scale (GDS) Mini Mental State Examination (MMSE) & Barthel Index</p>	<p>After the intervention. a significant decrease in depression and improve in activity of daily functioning.</p> <p>Self-worth therapy immediately decreased depressive symptoms relative to baseline, but not relative to control treatment. However, 2 months later depressive symptoms were statistically significantly reduced relative to control.</p>
<p>Chabrol, Teissedre, Armitage, Danel & Walburg. France, 2004</p> <p>Acceptability of psychotherapy and antidepressants for postnatal depression among newly</p>	<p>To compare the acceptability of psychotherapy by consultation and psychotherapy by home visits for postnatal depression among newly delivered mothers.</p>	<p>Repeated measures design using Visual Analogue Scale (VAS) and Edinburgh Postnatal Depression Scale (EPDS) before and after intervention. Participants were asked to read a brief notice giving information about the current knowledge on antidepressants for</p>	<p>The acceptability of psychotherapy by consultation and home visits was high</p> <p>The acceptability of the antidepressant drugs was significantly lower.</p> <p>The information provided about the antidepressant treatment had little effects on the acceptability of the two psychotherapy</p>

delivered mothers		<p>postnatal depression and breastfeeding.</p> <p>405 participants 245 breastfeeding and 160 No breastfeeding</p>	<p>treatments, respectively, but it significantly reduced the number of participants choosing antidepressant drugs</p>
<p>Stecker & Alvidrez</p> <p>Patient decision-making regarding entry into psychotherapy to treat depression. USA , 2007.</p>	<p>To investigate whether attitudes depression patients towards psychotherapy for depression influence the likelihood that they will initiate psychotherapy.</p>	<p>Pilot study of 29 participants</p> <p>Tools: The Stigma Questionnaire and The Beliefs about Psychotherapy and 3 months follow-up phone call.</p>	<p>Participants reported very positive attitudes towards psychotherapy, with 90% of respondents saying they believed psychotherapy would help treat their symptoms of depression. A smaller but sizable proportion of respondents (76%) reported they believed medications would help. In general, therapy was reported to offer new perspectives, be effective, prevent suicide, be healthy, help overcome stress, and was not considered a sign of weakness or a waste of money.</p>

<p>Macpherson, Thorpe, Thomas & Geddes.</p> <p>Acupuncture for depression: First step toward a clinical evaluation. UK. 2004.</p>	<p>To explore issues that need to be addressed in the design of a clinical trial of acupuncture for people with depression.</p>	<p>Method: Acupuncture</p> <p>16 participants: 6 for focus group and 10 case series group.</p> <p>Participants in case series receive 10 acupuncture treatments for depression in 10 weeks.</p> <p>Tool: Beck Depression Inventory (BDI).</p> <p>Hospital Anxiety and Depression Scale (HADS).</p> <p>Health sStatus Questionnaire (SF-36)</p>	<p>Significant improvements between before and after were found in their levels of depression</p> <p>The experimental group at baseline, 1 patient had minimal depression (BDI less than 10), for 2 it was mild to moderate (BDI 10 to 18), for 5 it was moderate to severe (BDI, 19 to 29), and for 2 it was severe (BDI, 30 to 63). The patient with minimal depression at the outset (patient 8) improved his scores slightly over the 10 weeks. The 2 patients with mild to moderate depression at the outset (patients 1 and 3) experienced a major improvement in</p>

			symptoms, with a reduction of over 80% in their BDI scores.
Clignet, Meijel, Straten, Lampe & Cuijpers The Systematic Activation Method (SAM) in Depressed Elderly: A Case Report. 2012. Netherlands.	To illustrate the used of SAM as nursing intervention in depressed elderly patients.	Method: Systematic Activation Method Participant: 77 year old woman suffering from Major Depressive Disorder (MDD). In a single case report, the implementation of the intervention was described Tool: SAM course book SAM activities for 7 weeks.	This case report shows that SAM, when adapted into a brief and prescriptive course, can be beneficial for depressed elderly in an inpatient care setting. The course increased the level of pleasant activities and her awareness of the positive influence of pleasant activities on her mood.
Wong. Cognitive and health-related outcomes of group cognitive behavioural treatment for people with depressive	To examine the efficacy of a territory-wide cognitive behavioral group treatment programmed for Chinese people with	Method: Randomized wait-list control study Cognitive Behavioral Therapy. 322 participants, 163 were in the experimental groups and 159 of whom were	When compared with the control group, the experimental group members had a reduction in the severity of depression, had better quality of life, and fewer perfectionist and dysfunctional attitudes.

<p>symptoms. 2007. Hong Kong.</p>	<p>depression.</p>	<p>in the control group. Tool: BDI, C-BDI ,The Almost Perfect Scale Revised Version (APS-R), The Abbreviated Quality of Life Enjoyment and Satisfaction Questionnaire (Q-LES-Q-18) and Dysfunctional Attitude Scale (DAS</p>	<p>Based on the Reliable Change Index (RCI) score for the C-BDI for each participant, approximately 45%, 19.7%, and 7.4% of the participants in the experimental group could be considered as clinically improved, remitted and recovered, respectively.</p>
<p>Lin, Moyle,Chang, Chou & Hsu Effect of an interactive computerized psycho-education system on patients suffering from depression. 2008. Taiwan.</p>	<p>To examine the effect of an Interactive Computerized Psycho-Education System on patients suffering from depression and to compare the use</p>	<p>Participants: 32. ICPSandtheeducational manual belonged to the experimental group(n = 19). Time spent is about 30–180 minutes per session, with an average of 67 minutes. Control group (n =13). were exposed only to the traditional pamphlet education</p>	<p>Participants in the experimental group had a considerably decreased incidence of medication non-compliance compared with participants in the control group. Knowledge scores of the experimental group ranged from 30–100, with an average score of 74.7.</p>

	<p>of an Interactive Computerized Psycho-Education System vs. traditional pamphlet education approach.</p>	<p>approach(consultation from psychiatrists and information sheets) in OPD.</p> <p>Tools: BDI & Compliance Behaviour Assessment Scale (CBAS)</p>	<p>The mean mistaken medication taking scores of the experimental group were lower than the control group. The experimental group had better medication compliance than the control group while the control group had difficulty in taking the medications as prescribed and following the medication plan.</p>
<p>Chan, Chan & Mok.</p> <p>Effects of music on depression and sleep quality in elderly people. 2010 Hong Kong , China.</p>	<p>To determine the effect of music on sleep quality in elderly people. In addition, we aimed to examine if there were effects on vital signs and depression levels.</p>	<p>Music Therapy</p> <p>A randomised controlled trial</p> <p>Participants: 42 The majority were aged 75 or above. Music group (n=21)and control group (n=21)</p> <p>Participants listened to their choice of music for 30 min per week,</p>	<p>The control group showed no statistically significant difference among the four time points for either depression score and sleep quality level .For the experimental group, there was a significant reduction in both psychological outcomes, especially compared</p>

		<p>for 4 weeks.</p> <p>Blood pressure, heart rate, depression levels and sleep quality variables were collected once a week for 4 weeks.</p> <p>Tools. A Digital Monitor, Pittsburgh Sleep Quality Index (PQSI) & Chinese short version Geriatric Depression Score (GDS-15)</p>	<p>with the baseline and week 4, for depression score and sleep quality levels.</p> <p>In the experimental group, there were statistically significant reductions in geriatric depression scores and sleep quality at week 4.</p> <p>In the control group, there were no statistically significant reductions in depression and improvement of sleep quality over the 4 weeks. However, for all the outcome measures, no significant differences were found between groups over the 4 weeks.</p>
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