

## Global Epidemic in the World is Depression

Muaweah Ahmad Alsaleh<sup>a\*</sup>

<sup>a\*</sup>PhD & MS in Psychological Studies, neuropsychologist, psychotherapist, psychology researcher, behavioural science, practice of psychotherapy and clinical psychopathology, method in psychology statistics, Center for Research on Risks and Vulnerabilities (CERReV), University of Caen Normandy;  
MS in public health-health ethics, INSERM, Training and Health Research Center-University of Caen Normandy, France;  
Faculty of Education-Counseling psychology-University of Aleppo, Syria  
Email: moaouiya87@yahoo.com

### ABSTRACT

Depression is the most common mood and psychiatric disorder in the world, yet is widely undetected, undiagnosed and untreated. It is an important cause of suicide, burden of disability, dissatisfaction, loss of social function, morbidity and mortality worldwide, reduce quality of life, increased mortality and desire for hastened death. It affects the treatment and prognosis of disease among human and their offspring. From a religious, ethical, social, economic, personal and therapeutic perspective, it seems unwise to leave the patients undetected, undiagnosed and untreated for such a long time in War and Peace conditions. PHQ-2 (Patient Health Questionnaire) and BDI-FS (Beck Depression Inventory-Fast Screen) are two scales simpler, faster, reliable, effective and have cross-cultural and international reliability, accuracy and validity. These two scales help practitioners and psychotherapist, and facilitate their screening and diagnosis. Cognitive and physical therapies are a powerful tool in the treatment of depression and others disorders. These therapies improve quality of life of person.

**Key Words:** Depression; screening; diagnosis; psychotherapy.

### INTRODUCTION

Depression is the largest burden of disease in the world, and could reach the second highest in 2030 worldwide, not so much because of an increasing the number of cases of depression or their severity, but because the others causes of morbidity will be better treated. [1-4] Depression is up sharply in the last decade in all world. [1,5-14]

*“Depression is a major human blight”* [4] *“If the extent of human suffering were used to decide which diseases deserve the most medical attention, then depression would be near the top of the list”*. [15] Depression is mental disorder very frequent among people in the world, regardless of gender and age. [1,3,6,7,11,16-41] Depression in the population has negative impacts on the personal, social and professional life of the person, on the evolution of the mental state and leads to the risk of suicidal act. [1,5-7,11,12,18,21,30,37,42] Depression is undetected, undiagnosed and untreated, which may delay or render management inadequate. [1,3,4,15,43] Moreover, depression is often undertreated when correctly diagnosed. [1,3,15,43] Correctly diagnose and effective treatment of depression and therapeutic control of a depressive state can improve personal, social and professional life, reduce mortality, improve the mental and physical health outcome. [1,3,44] For further assessment and treatment of depression, [1,7,12,21,45] developing a universally validated screening tool, and establishing acceptable treatment recommendations (46) for busy clinicians are very important. The question here is: How can we best identify and treat the depression in busy clinical practices and other setting?

Depressive mood and anhedonia are the two main depressive symptoms listed in DSM-V, [1,11,12,47-49] are related with others psychiatric disorders anhedonia. [1,12,18,50-54] Difficulties in detecting and/or diagnosing depressionsymptoms can lead to false

diagnoses of depression. [1,7,11,12,55,56] Brief, valid, reliable tools are needed for correctly detecting and/or diagnosing of depression in mental health services in hospital world, busy clinics, with diseases and/or during wartime. Patient Health Questionnaire-2“PHQ-2” [6,12,48,49,57] assess these two main symptoms. [6,49,58-61] The NICE (UK National Institute for Health and Care Excellence) recommended the use of PHQ-2. [12,58] The BDI-FS (Beck Depression Inventory-Fast Screen) helps practitioners the distinction between the symptoms which are related to depression or physical illness and reduce the number of false positives, [6,11,55] because to not be contaminated by clinical factors. [1,7,11,35,62,63] The results of international and cross-cultural studies support the reliability and validity of the PHQ-2 and BDI-FS are validated on many populations and many cultures and are recommended to screen for depression in chronic diseases, general population, in normal and abnormal conditions. [6,12,38,48,49,55,58,60,61,64-70] These tools are good sensitivity, specificity and a low false-positive rate in world. [1,7,11,12,24,35,62,71,72]

The question, which arises here, is: how should it be treated, taking into account long waiting times in busy clinics, MMHPCHS, and wartime? Psychological intervention is necessary for patients.

Gives the medicaments to cure the diseases, but these medicaments create other diseases. The medicaments (antidepressants) do more harm than good, have negative health effects and increase the risk of relapse into depression. [73,74] Antidepressant therapies have adverse side effects. Unlike medicinal treatments, psychotherapy is no consumption limit or adverse side effects. [21] More attention and studies have been given to the effectiveness of non-pharmacological therapy in depression therapy and other pathology. [1,21,75-78] Psychotherapy as cognitive and behavioral therapy (CBT), cognitive therapy (CT), mindfulness-based cognitive therapy (MBCT), positive psychotherapy (PPT), treatment by repeating phrases of positive

thoughts (TRPPT) is effective in treating depression, [1,21,79-81] and could be used in people who do not want to take antidepressants or who have unacceptable, negative and undesirable effects. [1,21,82]

Depression has the biggest impact on brain, especially the amygdala and the dorsolateral prefrontal cortex. [1,31,76,83-85]

Psychotherapy, cognitive activity (CA) and physical activity (PA) have the impact in right anterior insular cortex, areas of the prefrontal cortex and a brain region that communicates with both the amygdala and the prefrontal cortex, [1,22,31,76,83,84,86,87] as well as relaxation interventions, [88-90] and music interventions. [78,91-95] There is a dose effect: the higher the level of activity, the more brain volumes are increased, less cerebral atrophy and behavioral, neurological, psychiatric and brain disorders. [1,21,22,31,76,83,84,86,87,96]

## DISCUSSION

Depression affects around all world. PHQ-2 and BDI-FS are good tools for assessing the depression. The psychotherapy is very efficacy, and can recommend in the routine administration for depression therapy.

### Conflict of interest

The author declares that there are no conflicts of interest with respect to this study or its publication.

Disclosure of potential conflicts of interest

The author declares that he has no competing interest.

## REFERENCES

1. Alsaleh M. Analyse psychosociale et cognitive de la santé mentale chez les étudiants de première année : Validation du questionnaire des pensées positives et négatives et du questionnaire de la dépression de Beck : Effet des pensées positives et des facteurs psychosociaux [Internet]. Caen; 2016 [cité 13 oct 2017]. Disponible sur: <http://www.theses.fr/2016CAEN1031>
2. Briffault X. La fabrique de la dépression: observer, comprendre, agir. Paris: Armand Colin; 2010. 239 p. (Sociétales).

3. Mann JJ. The medical management of depression. *N Engl J Med.* 27 Oct 2005; 353(17):1819-34.
4. Smith K. Mental health: A world of depression. *Nat News.* 13 Nov 2014;515(7526):180.
5. Ali BS, Rahbar MH, Naeem S, Tareen AL, Gul A, Samad L. Prevalence of and factors associated with anxiety and depression among women in a lower middle class semi-urban community of Karachi, Pakistan. *JPMMA J Pak Med Assoc.* Nov 2002; 52(11):513-7.
6. Alsaleh M. Dépression et Sclérose En Plaques Dépistage, diagnostic, échelles d'évaluation et traitement de la dépression dans la SEP [Internet]. 2016 [cité 17 oct 2017]. Disponible sur: <http://nbn-resolving.de/urn:nbn:de:101:1-201610222044>
7. Alsaleh M, Lebreuilly R. Validation de la traduction française d'un questionnaire court de dépression de Beck (BDI-FS-Fr). *Ann Méd-PsycholRevPsychiatr.* 1 sept 2017;175(7):608-16.
8. Bayram N, Bilgel N. The prevalence and socio-demographic correlations of depression, anxiety and stress among a group of university students. *Soc PsychiatryPsychiatrEpidemiol.* août 2008;43(8):667-72.
9. Chan Chee C, Beck F, Sapinho D, Guilbert P. La dépression en France – Enquête Anadep 2005. St- Denis INPES CollÉtudes Santé. 2009;
10. Dyrbye LN, Thomas MR, Shanafelt TD. Systematic review of depression, anxiety, and other indicators of psychological distress among U.S. and Canadian medical students. *Acad Med J Assoc Am Med Coll.* avr 2006;81(4):354-73.
11. Kubitary A, Alomer M, Alsaleh M. Mental Health: Services, Assessment and Perspectives: Validity of the Arabic Version of Beck Depression Inventory-Fast Screen (BDI-FS-Ar) in War Conditions: The Psychometric Properties in Medical and Non-Medical Syrian Populations [Internet]. 2017 [cité 17 oct 2017]. Disponible sur: [https://www.novapublishers.com/catalog/product\\_info.php?products\\_id=6265012](https://www.novapublishers.com/catalog/product_info.php?products_id=6265012).
12. Kubitary A, Alsaleh M. Validity of Arabic version of the two-question Quick Inventory of Depression (QID-2-Ar): Screening for multiple sclerosis in an Arab environment and during the Syrian war. *Revue Neurologique*, In press. 2017;
13. Shamsuddin K, Fadzil F, Ismail WSW, Shah SA, Omar K, Muhammad NA, et al. Correlates of depression, anxiety and stress among Malaysian university students. *Asian J Psychiatry.* août 2013;6(4):318-23.
14. Weinberger AH, Gbedemah M, Martinez AM, Nash D, Galea S, Goodwin RD. Trends in depression prevalence in the USA from 2005 to 2015: widening disparities in vulnerable groups. *Psychol Med.* oct 2017;1-10.
15. Ledford H. Medical research: If depression were cancer. *Nat News.* 13 nov 2014;515(7526):182.
16. Allgaier A-K, Krick K, Opitz A, Saravo B, Romanos M, Schulte-Körne G. Improving early detection of childhood depression in mental health care: the Children's Depression Screener (ChID-S). *Psychiatry Res.* 30 juill 2014;217(3):248-52.
17. Alsaleh M, Lebreuilly J, Defer G. Screening and Evaluation of the frequency of depressive states in the first years of multiple sclerosis: what impact on the treatment of patients? *International Mental Health Congress 'Mental Health for all: Connecting people and Sharing experience.* 2015;
18. Alsaleh M. Dépistage des états dépressifs : cas de la personne âgée et de la sclérose en plaques. 11e Journées Européennes de la Dépression. 2014;
19. Alsaleh M, Lebreuilly R, Lebreuilly J, Tostain M. Erratum à l'article : « The relationship between negative and positive cognition and psychopathological states in adults aged 18 to 20 » [J. Ther. Comport. Cogn. (26) (2016) 79-90]. *J Thérapie Comport Cogn.* 1 sept 2016;26(3):144.
20. Alsaleh M, Lebreuilly R, Lebreuilly J, Tostain M. Cognitive Balance: States-of-Mind Model and Mental Health among French Students. *Best Pract Ment Health.* 1 mars 2015;11(1):42-53.
21. Alsaleh M, Lebreuilly R, Tostain M, Lebreuilly J. La puissance des répétitions des phrases des pensées positives (RPPP) : un outil efficace de traitement contre les troubles psychologiques (dépression, anxiété et stress). Une étude pilote contrôlée

- et randomisée. *Ann Méd-PsycholRevPsychiatr* [Internet]. 8 juill 2017 [cité 17 oct 2017]; Disponible sur: <http://www.sciencedirect.com/science/article/pii/S000344871730197X>
22. Alsaleh M, Lebreuilly R. Risque dépressif des étudiants : Impacts de la psychologie positive et cognitive par l'apprentissage de la répétition de phrases de pensées positives. *Atelier : Entre humains: identités et altérités (migrants, réfugiés, représentations inter-langues, interculturel). Colloque International Et Pluridisciplinaire: Les Mondes Intermédiaires Représentés Entre Identités Et Altérités : Nouveaux risques et vulnérabilités, médiations et apprentissages.* 19 juin 2017;
  23. Belmaker RH, Agam G. Major depressive disorder. *N Engl J Med.* 3 janv 2008;358(1):55-68.
  24. Benedict RHB, Fishman I, McClellan MM, Bakshi R, Weinstock-Guttman B. Validity of the Beck Depression Inventory-Fast Screen in multiple sclerosis. *MultSclerHoundmills Basingstoke Engl.* août 2003;9(4):393-6.
  25. Chabrol H, Choquet M. Relations entre symptomatologie dépressive, désespoir et idées de suicide chez 1547 lycéens. [/data/revues/00137006/v35i5/S0013700609000049/](http://www.em-consulte.com/en/article/229520) [Internet]. 22 oct 2009 [cité 16 oct 2017]; Disponible sur: <http://www.em-consulte.com/en/article/229520>
  26. Hammami S, Hajem S, Barhoumi A, Koubaa N, Gaha L, Kechrid CL. Dépistage de la dépression chez une population âgée vivant à domicile. Intérêt de la «Mini-GeriatricDepressionScale». [/data/revues/03987620/v60i4/S0398762012000880/](http://www.em-consulte.com/en/article/743406) [Internet]. 9 août 2012 [cité 8 oct 2017]; Disponible sur: <http://www.em-consulte.com/en/article/743406>
  27. Harkin A. Muscling In on Depression. *N Engl J Med.* 11 déc 2014;371(24):2333-4.
  28. Harvey SB, Øverland S, Hatch SL, Wessely S, Mykletun A, Hotopf M. Exercise and the Prevention of Depression: Results of the HUNT Cohort Study. *Am J Psychiatry.* 3 oct 2017;appi.ajp.2017.16111223.
  29. Kalinowska S, Nitsch K, Duda P, Trześniowska-Drukała B, Samochowiec J. [Depression in children and adolescents - symptoms, etiology, therapy]. *Ann Acad Med Stetin.* 2013;59(1):32-6.
  30. Keller MB, McCullough JP, Klein DN, Arnow B, Dunner DL, Gelenberg AJ, et al. A comparison of nefazodone, the cognitive behavioral-analysis system of psychotherapy, and their combination for the treatment of chronic depression. *N Engl J Med.* 18 mai 2000;342(20):1462-70.
  31. Koseki S, Noda T, Yokoyama S, Kunisato Y, Ito D, Suyama H, et al. The relationship between positive and negative automatic thought and activity in the prefrontal and temporal cortices: a multi-channel near-infrared spectroscopy (NIRS) study. *J Affect Disord.* oct 2013;151(1):352-9.
  32. Lyness JM, Noel TK, Cox C, King DA, Conwell Y, Caine ED. Screening for depression in elderly primary care patients. A comparison of the Center for Epidemiologic Studies-Depression Scale and the Geriatric Depression Scale. *Arch Intern Med.* 24 févr 1997;157(4):449-54.
  33. Martínez Hernández F, TovillaZárata CA, LópezNarváez L, JuárezRojop IE, Jiménez Santos MA, González Gutiérrez CP, et al. [Prevalence and gravity of depression and anxiety in patients with obesity and type 2 diabetes: a study in the population of Tabasco, Mexico]. *Gac Med Mex.* déc 2014;150Suppl 1:101-6.
  34. Mojtabai R. Diagnosing Depression in Older Adults in Primary Care. *N Engl J Med.* 27 mars 2014;370(13):1180-2.
  35. Poole H, Bramwell R, Murphy P. The utility of the Beck Depression Inventory Fast Screen (BDI-FS) in a pain clinic population. *Eur J Pain Lond Engl.* sept 2009;13(8):865-9.
  36. Shakeel N, Eberhard-Gran M, Sletner L, Slinning K, Martinsen EW, Holme I, et al. A prospective cohort study of depression in pregnancy, prevalence and risk factors in a multi-ethnic population. *BMC Pregnancy Childbirth.* 24 janv 2015;15:5.
  37. Stewart-Brown S, Evans J, Patterson J, Petersen S, Doll H, Balding J, et al. The health of students in institutes of higher education: an important and neglected public health problem? *J Public Health Med.* déc 2000;22(4):492-9.
  38. Stewart D, Vigod S. Postpartum Depression. *N Engl J Med.* 1 déc 2016;375(22):2177-86.



39. Stewart D. Depression during pregnancy. *Can Fam Physician*. 10 août 2005;51(8): 1061-3.
40. Stewart D. Depression during Pregnancy. *N Engl J Med*. 27 oct 2011;365(17):1605-11.
41. Wang Y-P, Gorenstein C. Assessment of depression in medical patients: a systematic review of the utility of the Beck Depression Inventory-II. *Clin Sao Paulo Braz*. sept 2013;68(9):1274-87.
42. Eisenberg D, Gollust SE, Golberstein E, Hefner JL. Prevalence and correlates of depression, anxiety, and suicidality among university students. *Am J Orthopsychiatry*. oct 2007;77(4):534-42.
43. Lhuillier D. Dépressions sévères et travail. *L'Encéphale*. 1 déc 2009;35(Supplément 7):S291-5.
44. Bui Q-UT, Ostir GV, Kuo Y-F, Freeman J, Goodwin JS. Relationship of depression to patient satisfaction: findings from the barriers to breast cancer study. *Breast Cancer Res Treat*. janv 2005;89(1):23-8.
45. Rabins PV. Depressive Symptoms in Ophthalmology Patients. *JAMA Ophthalmol*. 1 sept 2016;134(9):1015-1015.
46. Dwyer Hollender K. Screening, diagnosis, and treatment of post-stroke depression. *J Neurosci Nurs J Am Assoc Neurosci Nurses*. juin 2014;46(3):135-41.
47. Disorders: Dsm-5. 5th Revised edition. Washington, D.C: American Psychiatric Publishing; 2013. 991 p.
48. Mohr DC, Hart SL, Julian L, Tasch ES. Screening for depression among patients with multiple sclerosis: two questions may be enough. *MultScler Houndmills Basingstoke Engl*. mars 2007;13(2):215-9.
49. Wisner KL, Parry BL, Piontek CM. Postpartum Depression. *N Engl J Med*. 18 juill 2002;347(3):194-9.
50. Mas-Herrero E, Zatorre RJ, Rodriguez-Fornells A, Marco-Pallarés J. Dissociation between Musical and Monetary Reward Responses in Specific Musical Anhedonia. *Curr Biol*. 17 mars 2014;24(6):699-704.
51. Der-Avakian A, Markou A. The neurobiology of anhedonia and other reward-related deficits. *Trends Neurosci*. janv 2012;35(1):68-77.
52. Olivares JM, Berrios GE. The anhedonias: Clinical and neurobiological aspects. *Int J Psychiatry Clin Pract*. 1 Jan 1998;2(3): 157-71.
53. Chapman LJ, Chapman JP, Raulin ML. Scales for physical and social anhedonia. *J Abnorm Psychol*. août 1976;85(4):374-82.
54. Meehl PE. Hedonic capacity: some conjectures. *Bull Menninger Clin*. juill 1975;39(4):295-307.
55. Feinstein A. Multiple sclerosis and depression. *MultScler Houndmills Basingstoke Engl*. nov 2011;17(11): 1276-81.
56. Hackett ML, Jardine MJ. We Need to Talk about Depression and Dialysis: but What Questions Should We Ask, and Does Anyone Know the Answers? *Clin J Am Soc Nephrol CJASN*. 7 févr 2017;12(2): 222-4.
57. Whooley MA, Avins AL, Miranda J, Browner WS. Case-Finding Instruments for Depression. *J Gen Intern Med*. juill 1997;12(7):439-45.
58. Baillon S, Dennis M, Lo N, Lindsay J. Screening for depression in Parkinson's disease: the performance of two screening questions. *Age Ageing*. mars 2014;43(2):200-5.
59. Kroenke K, Spitzer RL, Williams JBW. The Patient Health Questionnaire-2: validity of a two-item depression screener. *Med Care*. nov 2003;41(11):1284-92.
60. Lebrun C, Cohen M. Dépression et sclérose en plaques. *Rev Neurol (Paris)*. 1 mars 2009;165(Supplément 4):S156-62.
61. Spitzer RL, Kroenke K, Williams JB. Validation and utility of a self-report version of PRIME-MD: the PHQ primary care study. *Primary Care Evaluation of Mental Disorders. Patient Health Questionnaire*. *JAMA*. 10 Nov 1999; 282(18):1737-44.
62. Beck A, Steer R, Brown G. BDI-Fast Screen for medical patients: manual. San Antonio, TX: Psychological Corporation. 2000éd. 2000;
63. Neitzer A, Sun S, Doss S, Moran J, Schiller B. Beck Depression Inventory-Fast Screen (BDI-FS): an efficient tool for depression screening in patients with end-stage renal disease. *Hemodial Int Int Symp Home Hemodial*. avr 2012;16(2):207-13.
64. American Psychological Association. Patient Health Questionnaire (PHQ-9 &

- PHQ-2) [Internet]. <http://www.apa.org>. 2017 [cité 21 oct 2017]. Disponible sur: <http://www.apa.org/pi/about/publications/caregivers/practice-settings/assessment/tools/patient-health.aspx>
65. Arroll B, Goodyear-Smith F, Crengle S, Gunn J, Kerse N, Fishman T, et al. Validation of PHQ-2 and PHQ-9 to Screen for Major Depression in the Primary Care Population. *Ann Fam Med*. juill 2010;8(4):348-53.
  66. Gelaye B, Wilson I, Berhane HY, Deyessa N, Bahretibeb Y, Wondimagegn D, et al. Diagnostic validity of the Patient Health Questionnaire-2 (PHQ-2) among Ethiopian adults. *Compr Psychiatry*. oct 2016;70:216-21.
  67. Li C, Friedman B, Conwell Y, Fiscella K. Validity of the Patient Health Questionnaire 2 (PHQ-2) in identifying major depression in older people. *J Am Geriatr Soc*. avr 2007;55(4):596-602.
  68. Löwe B, Kroenke K, Gräfe K. Detecting and monitoring depression with a two-item questionnaire (PHQ-2). *J Psychosom Res*. févr 2005;58(2):163-71.
  69. Maurer DM. Screening for Depression. *Am Fam Physician*. 15 janv 2012;85(2):139-44.
  70. Sheeran T, Reilly CF, Raue PJ, Weinberger MI, Pomerantz J, Bruce ML. The PHQ-2 on OASIS-C. *Home Healthc Nurse*. févr 2010;28(2):92-104.
  71. Kliem S, Möhle T, Zenger M, Brähler E. Reliability and validity of the Beck Depression Inventory-Fast Screen for medical patients in the general German population. *J Affect Disord*. mars 2014;156:236-9.
  72. Kubitary A, Alsaleh M. Validation and Reliability Studies of Instruments: Syria-Arabic Newer Self-Rating Scales for PsyWar Syndrome: QID-2-Ar (Quick Inventory of Depression-Two questions-Arabic), BDI-FS-Ar (Beck Depression Inventory-Fast Screen-Arabic), and MADRS-S-Ar (Montgomery-Asberg Depression Rating Scale Self-assessment-Arabic): Clinical Assessments of Depression and Depressive Symptoms in Syria-War Conditions. *Psychology and Behavioral Science International Journal*.4): 555642 2017;
  73. Andrews PW, Thomson JAJ, Amstadter A, Neale MC. *Primum Non Nocere: An Evolutionary Analysis of Whether Antidepressants Do More Harm than Good*. *Front Psychol* [Internet]. 2012 [cité 28 oct 2017];3. Disponible sur: <https://www.frontiersin.org/articles/10.3389/fpsyg.2012.00117/full>
  74. Quach J, Lee J-A. Do music therapies reduce depressive symptoms and improve QOL in older adults with chronic disease?: *Nursing (Lond)*. juin 2017;47(6):58-63.
  75. Alsaleh M. Therapy mental and psychological troubles (MPSYT) by repeating phrases of positive thoughts (TRPPT) with women. Intercultural comparison: Middle East and Europe, war and peace. A controlled and randomized study-Cognitive therapy & positive psychotherapy. *J Psychol Cogn* [Internet]. 28 oct 2016 [cité 14 oct 2017];1(1). Disponible sur: <http://www.abacademies.org/abstract/therapy-mental-and-psychological-troubles-mpsyt-by-repeating-phrases-of-positive-thoughts-trppt-with-women-intercultural-compariso-6083.html>
  76. Alsaleh M, Kubitary A. Verdicts of Water Drops TRPPT on brain and life *New Frontiers in NeuroCognitive Positive Psychotherapy in War and Peace, Normal-Abnormal-Medical-non-Medical Conditions* [Internet]. 2017 [cité 22 oct 2017]. Disponible sur: <http://nbn-resolving.de/urn:nbn:de:101:1-201702112098>
  77. Baran M, Lehrer N, Duff M, Venkataraman V, Turaga P, Ingalls T, et al. Interdisciplinary concepts for design and implementation of mixed reality interactive neurorehabilitation systems for stroke. *Phys Ther*. mars 2015;95(3):449-60.
  78. Zhang Y, Cai J, Zhang Y, Ren T, Zhao M, Zhao Q. Improvement in Stroke-induced Motor Dysfunction by Music-supported Therapy: A Systematic Review and Meta-analysis. *Sci Rep*. 5 déc 2016;6:srep38521.
  79. Beck AT. *Depression: Clinical, Experimental, and Theoretical Aspects*. University of Pennsylvania Press; 1967.388 p.
  80. Beck AT. *Cognitive therapy and the emotional disorders*. International Universities Press; 1976. 372 p.
  81. Chatillon O. *La Dépression de la clinique au traitement* [Internet]. 2010 [cité 22 oct 2017]. Disponible sur:

- [https://www.unitheque.com/Livre/med\\_com/La\\_Depression\\_de\\_la\\_clinique\\_au\\_traitement-35426.html](https://www.unitheque.com/Livre/med_com/La_Depression_de_la_clinique_au_traitement-35426.html)
82. Maguire MJ, Weston J, Singh J, Marson AG. Antidepressants for people with epilepsy and depression. *Cochrane Database Syst Rev.* 3 déc2014;(12):CD010682.
  83. Anthes E. Depression: A change of mind. *Nat News.* 13 nov 2014;515(7526):185.
  84. Arenaza-Urquijo EM, Flores R de, Gonneaud J, Wirth M, Ourry V, Callewaert W, et al. Distinct effects of late adulthood cognitive and physical activities on gray matter volume. *Brain Imaging Behav.* 1 avr 2017;11(2):346-56.
  85. Siegle GJ, Thompson W, Carter CS, Steinhauer SR, Thase ME. Increased amygdala and decreased dorsolateral prefrontal BOLD responses in unipolar depression: related and independent features. *BiolPsychiatry.* 15 janv 2007;61(2):198-209.
  86. Alsaleh M. Subir le risque : La dépression (approche d'un neuropsychologue). 7 juin 2016;
  87. DeRubeis RJ, Siegle GJ, Hollon SD. Cognitive therapy versus medication for depression: treatment outcomes and neural mechanisms. *Nat Rev Neurosci.* Oct 2008;9(10):788-96.
  88. Good M, Anderson GC, Stanton-Hicks M, Grass JA, Makii M. Relaxation and music reduce pain after gynecologic surgery. *Pain ManagNurs Off J Am Soc Pain Manag Nurses.* juin 2002;3(2):61-70.
  89. Matta C. New to Mindfulness? How to Get Started [Internet]. *World of Psychology.* 2017. Disponible sur: <https://psychcentral.com/blog/archives/2013/06/03/new-to-mindfulness-how-to-get-started/>
  90. Servant D. La relaxation: nouvelles approches, nouvelles pratiques. 2015.
  91. Chu H, Yang C-Y, Lin Y, Ou K-L, Lee T-Y, O'Brien AP, et al. The impact of group music therapy on depression and cognition in elderly persons with dementia: a randomized controlled study. *Biol Res Nurs.* avr 2014;16(2):209-17.
  92. Guetin S, Charras K, Berard A, Arbus C, Berthelon P, Blanc F, et al. An overview of the use of music therapy in the context of Alzheimer's disease: a report of a French expert group. *Dement Lond Engl.* sept 2013;12(5):619-34.
  93. Im ML, Lee JI. Effects of art and music therapy on depression and cognitive function of the elderly. *Technol Health Care Off J Eur Soc Eng Med.* 2014;22(3):453-8.
  94. Thaut MH, Peterson DA, McIntosh GC. Temporal entrainment of cognitive functions: musical mnemonics induce brain plasticity and oscillatory synchrony in neural networks underlying memory. *Ann N Y Acad Sci.* déc 2005;1060:243-54.
  95. Thompson WF, Schlaug G. The Healing Power of Music. *Sci Am Mind.* 2015;26(2):32-41.
  96. Thomas KS, Baier R, Kosar C, Ogarek J, Trepman A, Mor V. Individualized Music Program is Associated with Improved Outcomes for U.S. Nursing Home Residents with Dementia. *Am J Geriatr Psychiatry Off J Am Assoc Geriatr Psychiatry.* sept 2017;25(9):931-8.

How to cite this article: Alsaleh MA. Global epidemic in the world is depression. *Galore International Journal of Health Sciences & Research.* 2018; 3(3): 14-20.

\*\*\*\*\*