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The Effectiveness of Psycho-Education Training in The Management of Depression Among Menopausal Rural Farmers in Ibadan Less City, Nigeria

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ABSTRACT

Depression is detrimental to the well-being of human beings. Reports have shown that menopausal rural farmers in Ibadan less city exhibited a bothersome level of depression. Previous scholarly works on depression have centered on their prevalence and causes among women, with little attention and interventions, to using Psycho-education Training (PET). This study, therefore, was designed to determine the effectiveness of PET in the management of depressive symptoms among menopausal rural farmers in Ibadan less city. The moderating effects of self-esteem and life events were also examined. The study adopted the pretest-posttest control group quasi-experimental design. The purposive sampling procedure was adopted. Two local government areas (Ido and Onara) in Ibadan, from the existing six, were randomly selected. Two rural areas (Ajobo and Butubutu) were purposely selected based on the prevalence of menopausal depression. The instruments used were a self-developed Life events scale ($\alpha = .71$), Rosenberg Self-Esteem ($\alpha = .71$) and Beck Depression ($\alpha = .95$) inventories. Participants who scored 10-20 on the Fann Patient Health Questionnaire-9 Depression Screening tool were selected. The participants were randomly assigned to PET (17) and control (15) groups. The intervention lasted 10 weeks. Data were analyzed using the Analysis of covariance and Scheffe posthoc test at 0.05 level of significance. The participants' age was 48.3 ± 3.56 years, and 45% were married. There was a significant main effect of treatment in the management of depressive symptoms in menopausal rural farmers. The participants in PET had the lowest mean score

on depressive symptoms (16.88) followed by those in the control (34.267) groups. Self-esteem had a significant main effect on depressive symptoms. Participants with high self-esteem (25.203) benefited more than did their counterparts with low self-esteem (25.812). There was no significant main effect of life events in the management of depressive symptoms. There was a significant interaction effect of treatment and self-esteem on depressive symptoms. Psycho-education training was effective in managing depression among menopausal rural farmers in Ibadan less city. Developmental, counseling, and clinical psychologists should adopt these interventions for managing depression among menopausal rural farmers.

INTRODUCTION

Peri-menopause is a developmental stage in women around the immediate time around menopause, it is often marked by longer cycles, severe and protracted hemorrhage. Menopausal transition or peri-menopause is the period between the onset of irregular menstrual cycles and the last menstrual period. These menstrual irregularities are caused by a decrease in ovarian follicle function and occur within 12 consecutive months of amenorrhea (lack of menstruation). It is a period that is characterized by dwindling hormones that are responsible for reproduction (Steiner, D'Aloisio, DeRoo, Sandler, and Baird, 2010) resulting in abnormalities in menstruation and massive flow cum series of amenorrhea, fertility impairment, hot flashes, and sleeplessness. These indications may occur four (4) years before menstruation ceases with a peri-menopausal average age of 47.5 years (Joseph, Nagaraj, and Saralaya, 2014). In menopause transition, levels of estrogen decrease with invariable increments in intensities of follicle-stimulating hormone (FSH) and luteinizing hormone (LH). With the tendency of risk of increasing from early to late peri-menopause, and reducing towards post-menopause, peri-menopausal is a stage of life that is prone to a greater susceptibility for depression.

Depression is the most rampant cause of debilitating conditions and a major contributor to the disease burden globally. The worldwide prevalence of depression has been increasing in recent years (GBD 2015). Globally, a greater percentage of women suffer from depression than men (WHO, 2018) Depression is a major predictor of quality of life and survival, accounting for approximately 50% of mental illnesses and 12% of being an inpatient in the hospital (Kuo, Tran, Shah, 2015). Farming is the predominant occupation of rural dwellers, both male, and female predisposes the menopausal farmer to depression as a result of the exposure to a number of work conditions that are generally considered unfavorable. Such conditions include long working hours under harsh conditions, no opportunity for leave or vacation, monotonous tasks, and a low standard of living. All these conditions put together with the bothersome physiological symptoms of peri-menopause may make victims more vulnerable to depression.

Depression left without intervention, impairs the victim's mental health which in turn reduces productivity on the farm. It also has an adverse effect on victims' interpersonal relationships causing marital distress- a major negative life event in women that can bring about many more complications like poor parenting, brutality, stigmatization,

alcoholism, drug abuse, loneliness, and other psychological and health issues. A high level of depression puts victims at greater cardiovascular risk and poor reasoning ability to degenerate to further health issues. The height of depression is when the victim begins to suffer from hallucinations, hearing strange voices which can lead to insanity or delusion, and finally suicide. This claims about a million people's lives annually (WHO, 2017).

At the cry of the present regime of the Nigerian government for economic diversification from crude oil to Agriculture, the mental well-being of the peri-menopausal farmer must be managed for better production. Very limited research is available on the mental health of female farmers, but there is some evidence to suggest that female farmers experience more psychological distress than their male colleagues, (Kallioniem Simola, Kymalianen, Vesala and Louhelainen, 2009). Mental illness appears to be particularly stigmatizing in farming communities, and farmers seem reluctant to contact the health care system for help for mental health problems (Kallioniem, Simola, Kinnunen, and Kymäläinen, 2011).

Antidepressants that provide temporary relief which alongside has side effects on users are used to treat this illness. These drugs are not readily available to peri-menopausal rural farmers because of their cost. The unavailability of mental health practitioners cum mental health facilities in the rural environment are also of major disadvantages to the peri-menopausal farmer. Hence the need for alternative therapy. Psychotherapy, which has not been commonly used in treating depression amongst women in Nigeria (Okeize, 2003) remains the only potent and cost-efficient therapy available for managing depression in menopausal rural farmers. Various interventions, such as mind-based cognitive

therapy, problem-solving therapy, self-help therapy, interpersonal therapy, and speech therapy have been used to prevent or manage mental issues, however, this current study used Psycho-education training with life events and self-esteem as moderating variables

The main objective of the study is to evaluate the effectiveness of this intervention on the depression of the respondents and determine the main effect of life events and self-esteem in the management of depression among menopausal rural farmers in Ibadan less city, Nigeria.

METHODOLOGY

A total of 32 peri-menopausal farmers was purposively selected from the female farmers' group in two local government area in Ibadan less city, Nigeria. 17 participants from Ajobo community in Ido local government area and 15 from Butubutu settlement from Ona-ara local government area. The inclusion criteria were: a) participants identified as female rural farmers, age range 40-55 years, peri-menopausal i.e. experiencing irregularity in the pattern of their monthly cycle (menstruation) but the seizure of the monthly cycle, was not up to twelve months (12) months at a stretch, the irregularity or seizure of their monthly cycle was not due to surgery, scored within the range of 10-20 on the Patient Health Questionnaire (PHQ-9) and able to respond to Yoruba or English language and showed readiness to participate in the study. Initial assessment included socio-demographic characteristics (age, marital status, educational level, number of children, administration of the Beck Depression Inventory scale (BDI), The Rosenberg self-esteem scale, and the self-developed life-event scale for menopausal farmers with a reliability index of 0.71.

All study variables were entered in a study database. All patients evaluated who met the

inclusion criteria were assigned into a group. The 17 participants in Ajobo were assigned into the experimental group and received ten (10) sessions of training on Psycho-education training as outlined. The time allotted to each session was one (1) hour at most, per week. The 15 participants in Butubutu were assigned to the control group, where they did not receive any type of treatment but were exposed to three (3) sessions of thirty minutes each on Importance of Tree Planting.

This study is a pretest-posttest, control group quasi-experimental design. The Beck Depression Inventory was used to ascertain the depressive symptoms of the participants in the pretest and posttest stages. When administered on student and patients' samples, Beck, Steer, and Brown (1988) confirmed that the scale has sufficient internal consistency. As suggested in the manual published by the developers, a normal score is between 1-10; a "Mild Mood Disturbance" score is 11-16; a "Borderline Clinical Depression" is 17-20; a "Moderate Depression" is between 21-30; a score of 31-40 is named "Severe Depression" while "extreme Depression" represents scores above 40. All participants of this study scored above 21 which indicates that they are at least reasonably depressed prior to the beginning of the treatment program.

In measuring the life events of the menopausal rural farmers, the researcher developed the Life Event Questionnaire (LEQ) with 50 items. The researcher pilot tested the questionnaire on twenty (20) menopausal rural female farmers. The researcher finally came up with 27-items yielding a reliability index of 0.71. On the Life event scale, respondents marked the life events or changes that have occurred during the past years and with the impact of the event on a 5-point scale, ranging from Not applicable, less effect, some effect, moderate effect, and great effect.

To assess the Self-Esteem of the menopausal rural farmers, the self-esteem scale constructed by Rosenberg (1965) was adapted. The scale was pilot tested amongst twenty menopausal rural farmers, among the various others who attended the Agro-farming system workshop in the Forestry Research Institute of Nigeria (FRIN), Jericho, Ibadan. The reliability index is 0.71.

PROCEDURE FOR DATA COLLECTION

The researcher obtained an introduction letter from the department to the local authority to gain approval. Upon receiving ethical approvals from the local heads, the researcher trained research assistants (a number of Masters' degree students of Guidance and Counselling Department, University of Ibadan). The research assistants were briefed about the questionnaire filling procedures that were involved. The screening instrument was administered to the participants with the help of the research assistants, who guided the menopausal rural farmers in filling the screening instrument. Respondents were guided in filling questionnaires before and after the treatment package for depression. Information was given to participants in the language they best understood, which is Yoruba.

Thereafter there was session training respectively with the participants. The study was carried out in four phases: Pre-sessional and orientation stage, Pretest stage, Treatment stage, and Posttest stage. The pre-sessional activities include the screening, recruitment, and assignment of participants to the experimental group and a control group. Also, the researcher intimated the participants with the study. The pretest stage is the stage when the researcher administered the instruments which are the depression scale, self-esteem scale, and life events scale before the treatment. The treatment stage is the stage when the

participants (only those in the experimental group) were exposed to the ten (10) therapeutic sessions (psycho-education training).

The posttest stage is the stage when the participants were exposed to the same instrument that was given at the pretest stage after the successful completion of the therapeutic sessions. Adequate arrangements were made in organizing a suitable venue for the training sessions of the menopausal rural farmers. The researcher made provisions for incentives and remunerations throughout the sessions to motivate the participants and for their consistency and cooperation.

SUMMARY OF TREATMENT PACKAGES

Experimental Group 1: Psycho-Educational Training: The goal of Psycho-Educational Training is to improve knowledge and coping skills in clients, enabling the clients to work more effectively to address the challenges of living with depressive symptoms in the developmental human life-span stage.

Session One: General orientation and administration of instrument to obtain pretest scores

Session Two: Elucidating on the concept, menopause – symptoms, and causes

Session Three: Briefing on the symptoms and causes of depression in menopause

Session Four: Discussion on problem-solving skills training and communication skills training

Session Five: Explanation on self-assertive skills training.

Session Six: Experimentation of the above-listed training in the fourth and fifth sessions.

Session Seven: Discussion on diet and nutrition

Session Eight: Explaining and taking practical classes on physical exercises and relaxation therapy

Session Nine: Roleplay

Session Ten: Revision of all activities in the previous session and administration of instrument for post-treatment measures

Control Group

Session 1: Topic: Administration of Pretest Instrument

Session 2: Topic: Giving a talk on the importance of Tree Planting.

Session 3: Topic: Administration of posttest instrument on the 8th week.

Data were analyzed using Analysis of Covariance (ANCOVA) because of the involvement of Pretest and Posttest. ANCOVA was also used to determine the main effect and interaction effect of the independent and moderating variables on the dependent variable (depression of menopausal rural farmers). Also, descriptive statistics like simple percentage was used to analyze the information that was collected on bio-data.

RESULTS AND DISCUSSION

The result in Table 1 presents the outcomes of research findings on the socio-demographic variables of menopausal rural farmers in the study area. The result shows that 17 of the participants constituting 53.1% representing the treatment group (Psycho-education therapy) are from Ido Local Government Area, while the remaining 15 participants 46.9% representing control groups are from Ona-Ara Local Government Area. Though participants from the Local Government Areas are not the same number, the disparity is minimal. The study shows that

46.9% of the respondents are between the ages of 46-48 followed by 25% between the ages 40-42. Ages 43-45 and 49-50 have the least with 15.6% and 12.5% respectively. The

implication of this study is that ages 46 and 48 years constituted the highest percentage of peri-menopause among female farmers in the area.

Table 1: Frequency of socio-demographic of respondents, study on the effectiveness of Psycho-education training in the Management of Depression among Menopausal Rural Farmers in Ibadan, Nigeria

Local Government (N=32)	N (%)	Educational Qualification (N=32)	N (%)
Ido LGA	17 (53.1)	No Formal Education	14 (43.8)
Ona-Ara LGA	15 (46.9)	Primary	10 (31.2)
Age range (N=32)		Secondary	6 (18.7)
40-42	8 (25)	NCE	2 (6.3)
43-45	5 (15.6)	Marriage Type (N=32)	
46-48	15 (46.9)	No Marriage	5 (15.6)
49-50	4 (12.5)	Monogamy	9 (28.1)
Marital Status (N=32)		Polygamy	18 (56.3)
Single	3 (9.4)	No of Children (N=32)	
Married	17 (53)	1-3	11 (34.4)
Separated	7 (22)	4-6	19 (59.3)
Widow	5 (15.6)	7+	2 (6.3)

Source: Field Study, 2020

The result also showed that 53% of the respondents are married, 22% are separated, 15.6% are widowed and 9.4% are single. The largest percentage are married, this is not surprising because the peri-menopausal age is advanced age, in which a woman must have entered into marriage at one point in time. This is followed by those who are separated from their spouses; this is an indication that a failed marriage or an absentee spouse can be an indicator of depression in women. This is in line with the findings of Williams (2003) that individuals with failed marriages experience an increase in depression. In terms of educational qualification, 43.8% of respondents had no formal education, 31.2% had primary education, 18.7% had secondary education, and the remaining 6.3% respondents are NCE holders. By implication, the majority are non-literates, this shows that farming is a job that

can be practiced easily without formal education.

The result of the socio-demographic variables of the respondents further revealed that the majority of the respondents 56.3% are into polygamy, while. 28.1% are into monogamous marriage. In addition, 15.6% do not have any form of marriage. Therefore, respondents that are into polygamy constituted most of the sample used in the study. As stated above the implication of this study is that the rural farmers' husbands married more than one wife. This may be a life event leading to depression or vice versa. Polygamy itself may have an impact on self-esteem, which has an inverse relationship with depression. In like manner, not having entered into any form of matrimony at the age of 40 can be really bothersome to a rural menopausal farmer leading to depression. This is in line with Whisman (2001) in a cross-sectional study that marital dissatisfaction is

associated with depression. The table showed that 59.3% of the respondents have four to six (4-6) children, while 34.4% have

one to three (1-3) children. The least, 6.3% percentage have seven and above children.

Table 2: Analysis of Covariance (ANCOVA) of Pretest-Posttest Interaction Effects of Management of Menopausal Depression among Participants in the Treatment Groups, Life Event and Self-esteem

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	2780.046 ^a	11	252.731	298.692	.000	.994
Intercept	3.414	1	3.414	4.035	.058	.168
PREDEPRESSION	111.877	1	111.877	132.223	.000	.869
TRTGRP	1229.798	1	1229.798	1453.443	.000	.986
SELTEEM	1.783	2	.891	1.054	.367	.095
LEVENT	.872	1	.872	1.030	.322	.049
TRTGRP * SELTEEM	1.096	2	.548	.647	.534	.061
TRTGRP * LEVENT	.296	1	.296	.350	.561	.017
SELTEEM * LEVENT	3.433	2	1.717	2.029	.158	.169
TRTGRP * SELTEEM * LEVENT	1.222	1	1.222	1.445	.243	.067
Error	16.923	20	.846			
Total	22847.000	32				
Corrected Total	2796.969	31				

a. R Squared = .994 (Adjusted R Squared = .991)

Psycho-education Therapy

Hypothesis One: There is no significant main effect of treatment (Psycho-education Therapy) in the management of depression among menopausal rural farmers in the Ido local government area. To test this hypothesis, Analysis of Covariance (ANCOVA) was adopted to analyze the post-test scores of the participants on their level of depression using the pretest scores as a covariate to ascertain if the post-experimental differences are statistically significant. The summary of the analysis is presented in table 3.

Table 2 showed that there was a significant main effect of treatment in the management of depression among menopausal rural farmers in Ido local government area ($F(1, 18) = 1453.443, p < .05, \eta^2 = .986$). This implies that there was a significant impact of the treatment (Psychoeducation therapy) in the groups' posttest scores in the management of depression among menopausal rural farmers in the Ido local government area. Therefore, the null hypothesis which stated that there is no significant main effect of treatment in the management of depression among menopausal rural farmers in the Ido local

government area was rejected; table 3 also shows the contributing effect size of 98.6%. The result of hypothesis 1 confirms that there is a significant main effect of treatment in the depression management of participants. This means that there is a significant difference in the mean scores of depressions among participants that were exposed to Psycho-education Training (PET) when compared to the Control Group. Hence hypothesis one was rejected. It was therefore concluded that there is a significant main effect of treatments in the depression of the participants. This implies that PET is effective in the management of depression of participants.

The result of the hypothesis also gave credence to the research of Mahan, Swan, and Macfie (2018) that administered Psycho-education Training (PET) on an anxious and depressed 22years old woman for 18 sessions. After a 1month follow-up, the evaluation revealed a sustained reduction in anxiety and depression after baseline readings. The implication is that Psycho-education Training (PET) when used alone or in combination with other interventions will reduce depression and other mental health issues in individuals, as it takes care of issues revolving interpersonal life of the depressed individual.

Hypothesis Two: There is no significant main effect of life events in the management of depression among menopausal rural farmers in the Ido local government area.

Table 3 further indicated that there was no significant main effect of life events in the management of depression among menopausal rural farmers in Ido local government area ($F(1, 20) = 1.030, p > .05, \eta^2 = .049$). Hence, the null hypothesis was not rejected. This denotes that there was no significant main effect of life events in the management of depression among menopausal rural farmers in the Ido Local Government area.

The study gives support to a study conducted by Horacek, Rozehnalova, Rosslerova, and Ales (2010) on the influence of stressful life events on the development of depression and treatment response in the population of higher age. $N=3184$, the patients recorded less stressful life events associated with depressive symptoms. However, the findings of this study is contrary to the outcome of Zhou and Chen (2017) which examined the relationship of life events on depression in 301 students for 12-weeks. Adverse life events were found to enhance the development of depressive symptoms, in depression therapy.

Hypothesis Three: There is no significant main effect of self-esteem in the management of depression among menopausal rural farmers in the Ido local government area.

Table1 demonstrated that there was no significant main effect of self-esteem in the management of depression among menopausal rural farmers in Ido local government area ($F(2, 20) = 1.054, p > .05, \eta^2 = .095$). Therefore, the null hypothesis was rejected. The mean score of low self-esteem participants (estimated mean = 25.812), moderate self-esteem participants (estimated mean = 28.722) and high self-esteem participants (estimated mean = 25.203). This implies that participants with high self-esteem benefited most in the psychoeducation therapy compared to other groups, this was followed by participants with low self-esteem and finally followed by participants with moderate self-esteem.

The result of the findings of Martisen, Rasmussen, and Neumer (2021) also buttressed the result of this hypothesis. In the study individuals, with self-reported anxiety and depression were put in treatment and control groups, for 10 weeks using a cluster-randomized design. Individuals who were in the experimental group experienced improved self-esteem and quality of life, then reported lower

depression. The implication is that treatment enhances self-esteem thereby reducing depression. The study result is also in tandem with the study of Hilbert, Goerigk, Padberg, Nadjiri, Ubleis, Jobst, Dewald-Kaufmann, Falkai, Buhner, Naumann, and Sarubin (2019) that treated depression, to improve self-esteem in psychiatric patients. After 5 weeks of therapy, there was a reduction in depressive symptoms, especially in patients with more improved self-esteem. The result of this recent hypothesis is consistent with the stated past findings, reinforcing the fact that boosting self-esteem will bring about a reduction in the depression of victims. Hence attention must be given to enhancing positive self-esteem.

CONCLUSION

The study investigated the effectiveness of PET in reducing depression in menopausal rural farmers in Ibadan less city, Nigeria. Life events and self-esteem were employed as moderating variables. In line with this, the participants were taken through the training programs, relevant data were collected and analyzed using appropriate statistical tools to bring out the results. The findings showed that PET was effective in reducing depression in menopausal rural farmers. As implied from the study. It was also established that depression in menopausal rural farmers does not differ along the line of the participants' life events.

Based on the findings of this study, it was concluded that the ultimate goal of reducing depression in female rural farmers at this menopausal transition stage may become impossible if no timely psychological intervention is made available to them. The interventions used in the study have shown efficiency and relevance in the reduction of depression in menopausal rural farmers in Ibadan less city, Nigeria. This, therefore, calls for the establishment of preventive and curative measures of counseling and

psychological services in the city of Ibadan, Nigeria.

RECOMMENDATIONS

It is recommended that

- ❖ Since Psycho-education training (PET) was found to be effective in reducing depressive symptoms of menopausal rural farmers, a concerted effort should be put in place by counseling, developmental psychologists, and other related professionals to adopt the therapy when handling issues related to depression.
- ❖ Standard mental and counseling centers should be established in the rural areas, which will employ the service of professional psychiatrists, counseling, clinical and developmental psychologists.

REFERENCES

- GBD. Disease and Injury Incidence and Prevalence Collaborators. Global, regional, and national incidence, prevalence, and years lived with disability for 310 diseases and injuries, 1990–2015: a systematic analysis for the global burden of disease study 2015. *Lancet* 2016;388:1545602. doi:10.1016/S01406736(16)316786 CrossRefPubMedGoogleScholar
- Hilbert, S., Goerigk, S., Padberg, F., Nadjiri, A., Ubleis, A., Jobst, A., Dewald-Kaufmann, J., Horacek, Rozehnalova, Rosslerova and Ales. The influence of stressful life events on development of depression and treatment; Response in the population of patients in higher age. The analysis of the post-marketing observational study of antidepressant escitalopram. *Psychiatry*, 2010, 106 (5) 311-317.
- Joseph, N.; Nagaraj, K.; Saralaya, V.; Nelliyanil, M. and Jagadish, R. P.

- Assessment of menopausal symptoms among women attending various outreach clinics in South Canara District of India. *J. Midlife Health*. 2014, 5: 84-90.
- Kallioniemi, M. K, Simola, A. J. K, Kymalainen, H. R, Vesala, H. T, and Louhelainen, J. K. Mental symptoms among Finnish farm entrepreneurs. *Ann Agric Environ Med*, 2009; 16:159–168.
- Kallioniemi, M. K, Simola, A., Kinnunen B. and Kymäläinen, H. R. Stress in farm entrepreneurs. In: Langan-Fox J, Cooper CL, eds. Handbook of Stress in the Occupations. Cheltenham, UK: Edward Elgar, 2011:381–402.
- Kuo, D. C., Tran, M.; Shah, A. A. 2015. Depression and the suicidal patient. *Emerg Med Clin North Am*, 2015;33:765-78.doi:10.1016/j.emc.2015.07.005 Google Scholar
- Mahan, R. M.; Swan, S. A. and Macfie, J. Interpersonal Psychotherapy and Mindfulness for treatment of major depression with anxiety distress. *Clinical Case Study*, 2018, 17(2): 104-119 sagepub.com/home/ccs
- Martisen, K. D.; Rasmussen, L. M. P. Neumer, S. Change in quality of life and self-esteem in a randomized controlled CBT study for anxious and sad children: can targeting depressive symptoms improve functional domains in schoolchildren?. *BMC Psychology*, 2021. 9 (8) <https://doi.org/10.1186/s40359-021-00511-y>
- Steiner, A. Z.; D’Aloisio, A. A.; DeRoo, L. A.; Sandler, D. P.; Baird, D. D. Association of intrauterine and early-life exposures with age at menopause in the Sister Study. *Am. J. Epidemiol*, 2010, 172(2):140–148.
- Whisman, M. A. 2001. The association between depression and marital dissatisfaction. In: Beach SRH, editor. Marital and family processes in depression. A scientific foundation for clinical practice. Washington, DC: American psychological association, 2001, pg 3-24 (Google Scholar)
- Williams, K. Has the future of marriage arrived? A Contemporary examination of gender, marriage and psychological well-being. *Journal of health and social behavior*. 2003, 44: 470-487.
- World Health Organization. Depression (Fact sheet), 2018, Retrieved 2018, August 3rd, [omhttp://www.who.int/news-room/fact-sheet/detail/depression](http://www.who.int/news-room/fact-sheet/detail/depression)
- Zhou, L.; Chen, J. Life event and hopelessness depression: The influence of affective experience. *PLUS ONE*, 2017, 12(11): e0187898. doi:10.1371/journal.pone.0187898