

# Psychosocial Correlates of Depression among Apprentice Artisans in Nigeria

## ABSTRACT

Depression is a leading cause of disability among the working population. This study assesses self-esteem and depression as psychosocial correlates of depression among Nigerian apprentice artisans. The research method adopted for this quantitative research was a cross-sectional design. A total number of five-hundred and seventeen (N=517) male automobile apprentice artisans were selected using a multistage sampling which included a purposive sampling procedure to select the local Government Area for the study, and simple balloting was adopted to select the six LGAs out of the thirty under the three senatorial districts in Osun state, Nigeria. The instruments adopted for this study are Rosenberg Self Esteem Scale (RSES), Burnout Questionnaire (BQ) and depression scale for apprentice (Apprentice Depression Scale). The hypotheses were formulated using a correlation matrix and hierarchical multiple regression. The hypothesis were tested to find out the significant influence of burnout and self-esteem on depression among apprentice artisans in Osun state. The study established that burnout and self-esteem significantly predict depression among apprentice artisans in Ede, Osun State, Nigeria.

**Keywords:** Psychosocial, Correlates, Depression, Apprenticeship, Artisans, Nigeria

## INTRODUCTION

Psychological disturbances impact awareness, feelings, motivation, thoughts, attitudes, and other cognitive and affective qualities that influence their behaviour. Depression across the globe is one of the most common psychological disturbances, affecting about 300 million individuals each year (World Health Organization, 2017). Depression has been linked to low quality of life (Cho et al., 2019; Shumye et al., 2019; Li et al., 2018; Juárez-Rojop et al., 2018; An, et al., 2018) and has been identified as a risk factor for several chronic health disorders (Cleveland Clinic, 2022; Ma et al., 2021; Li et al., 2018; Juárez-Rojop et al., 2018; Zhang et al., 2018; Ingle et al., 2017; Read et al., 2017).

Depression is characterised by a depressed mood and reluctance to participate in previously pleasurable activities. Also, depression is generally associated with low self-esteem (Nguyen et al., 2019; Choo et al., 2017; Millings et al., 2012), a tendency to be self-critical (Zhang et al., 2019; Straccamore et al., 2019; Manfredi et al., 2016; Dunkley et al., 2009), a perceived poor body image (Czepczor-Bernat et al., 2022; Barnes et al., 2020; Soares Filho et al., 2020), helplessness when dealing with adversity, and interpersonal issues (Nalipay & Ku, 2019; Horwitz et al., 2017). According to a study conducted by the Blackdog Institute in 2012, certain personality types are more prone to depressive moods than others, including the anxious worrying personality, irritable, self-critical, and rejection sensitive personality style, self-focused, perfectionist, socially avoidant, and personally reserved personality styles.

Psychosocial hazards and work-related stress are two of the most challenging aspects of workplace safety and health (EU-OSHA, 2021). Individuals, corporations, and national

economies all suffer as a result of these hazards. According to EU-OSHA (2021), almost half of European workers believe workplace stress to be expected, with stress accounting for around half of all lost working days. Like many other mental health issues, stress is often misunderstood or stigmatised. However, when viewed as an organisational issue rather than an individual fault, psychosocial risks and anxiety can be just as manageable as other workplace safety and health risks (EU-OSHA, 2021).

In recent years, burnout syndrome has been one of the most widely discussed mental health problems in modern societies. Burnout is defined as a state of physical, emotional and mental exhaustion that results from long-term involvement in work situations that are emotionally demanding (Smith et al., 2021; Maslach, & Leiter, 2016; Schaufeli and Greenglass, 2001). The World Health Organisation (2019) described burnout as the result of chronic stress (at the workplace), which has not been successfully dealt with, characterised by feelings of exhaustion, negativism and reduced efficacy on the job. Burnout has become a synonym for psychosomatic, psychological symptoms and social consequences of a long-lasting workload exceeding an individual's capacity (Korczak et al., 2012; Hillert, 2008; Freudenberger, 1974). Some studies report burnout prevalence rates of up between 6% - 32% among General Practitioners across 29 countries (Karuna et al., 2021), 0- 80.5% among physicians (Rotenstein et al., 2018), 87% among nurses in Sub-Saharan Africa (Owuor et al., 2020), 76.9% among surgical specialists in Kuwait (Akl et al., 2022), 44.6% in U.S. vascular surgery trainees (Chia et al., 2022) and 7.3% in first year students (March-Amengua et al., 2022), .

Self-esteem is a complex personal psychological characteristic relating to an individual's self-judgment and acceptance (Hagen et al., 2020; Ouyang et al., 2019; Patel et al., 2018; Shi, 2017; Alesi et al., 2012). Self-esteem implies that an individual has an awareness of personal values and self-worth (Willis, 2019). A high self-esteem indicates a high level of social adjustment (Vanbuskirk, 2019; Afolabi, 2014; Hosogi et al., 2012). Individuals with high self-esteem and those with low self-esteem may respond similarly to positive input, but they could exhibit different responses to negative input. Specifically, people with low self-esteem tend to exhibit negative responses, while those with high self-esteem tend to be less affected, as they are inclined to reject or restrict the scope of negative feedback (Vanbuskirk, 2019). Nevertheless, gaps in this link exist in Nigerian studies, which necessitates this research project. The objective of the study is to examine the psychosocial correlates of depression among apprentice artisans in Ede, Osun State.

The following hypothesis were tested:

- i. There is a significant relationship between self-esteem and depression among apprentice artisans in Osun state
- ii. There is a significant relationship between burnout and depression among apprentice artisans in Osun State

## **METHOD**

The research method adopted for this quantitative research was a cross-sectional design. A total number of five-hundred and seventeen (517) male automobile apprentice artisans were selected using a multistage sampling which included a purposive sampling procedure to select the local

Government Area for the study, and simple balloting was adopted to select the six LGAs out of the thirty under the three senatorial districts in Osun state, Nigeria.

The instruments adopted for this study are Rosenberg Self Esteem Scale (RSES) by Rosenberg (1965), Burnout Questionnaire (BQ) by Freudenberger (1981), **Apprentice Depression Scale (APS)** by Onisile et al. (2022) (The APS has acceptable internal consistency yielding a Cronbach Alpha of 0.88 and its validity .68 when paired with Center for Epidemologic Studies Depression Scale and General Health Questionnaire-12). The hypotheses were formulated using a simple regression analysis to ascertain the predictive influence of self-esteem and burnout on depression on the sample.

### Socio-demographic Characteristics

The participants' social demographic characteristics reveal that 38.1% of the sample were adolescents categorised within the range of 10 to 19 years, while 61.9% were young adults categorised within the range of 20 to 40 years. The religious distribution revealed that 48.7% of the samples were Christians, a similar percentage (48.4%) were Muslims, while just 2.9% were **African traditional religion practioners**. The participants' marital status distribution indicated that 82.8% were single, 17% were married, and 0.2% were separated. The highest educational qualification of the participants was such that 30.8% had just primary school education, 59.4% attained SSCE level, 8.7% had a first degree, while 1.2% had other forms of educational qualification outside the identified ones.

It was also observed that 29% of the sampled participants represented Ede Local Government Area (LGA), 19.7% represented Ife-North, 19.3% were from Ilesha, 13.9% were from Iwo, 2.7% were from Ogbagba, while 15.3% were from Oshogbo. Findings on type of family showed that 63.2% of the participants came from monogamous families, while 36.8% came from polygamous families. Test on participating apprentice artisan's guardian showed that 14.7% did not live with anybody, 55.2% lived with both parents, 6.8% lived with father alone, 10.3% lived with mother alone, while 13% their relatives. Distributions on parents' income showed that 35.4% were low-income earners, 62.5% were average, and just a few (2.1%) were parents with high income. Lastly observed was the family size of the participants. It was indicated that 46% of them had a family size ranging between 1 and 5 persons, 47.8% had family size ranging between 6 and 10, while the least were those with a family size above 10 (6.2%).

**Table 1 : Correlation Matrix Showing Association among Study Variables**

Variables	1	2	3	4	5	6	7	8	9	10
1. Age	1									
2. Religion	-.06	1								
3. Educational Qualification	.19**	.01	1							
4. Marital Status	.45**	.00	.07	1						
5. Family Size	.03	.12**	-.08	.02	1					
6. Family Type	.00	.20**	-.02	-.02	.40**	1				
7. Parents' income	-.02	.08	.10*	.01	.19**	.08	1			
8. Self-Esteem	.12**	.05	.08	.07	.10*	-.06	.06	1		
9. Burnout	-.11*	.03	-.02	-.05	.19**	-.01	.10*	-.40**	1	
10. Depression	-.20**	.04	-.02	-.06	.14**	.01	.10*	-.49**	.69**	1
Mean	21.04	-	-	-	5.99	-	-	67.15	45.74	34.58
SD	4.77	-	-	-	2.64	-	-	9.70	15.15	14.54

**Note:** \*\*p < .01, \* p < .05, N= 517

The correlation analysis indicated that self-esteem had a significant negative relationship with depression [ $r(515) = -.49, p < .01$ ]. This implied that when apprentice artisan's self-esteem is high, they tend to experience a low level of depression. On the contrary, burnout had a significant positive relationship with depression [ $r(515) = .69, p < .01$ ], and it implied that when apprentice artisan's level of burnout increases, there also tend to be an increase in depression. The relationship between self-esteem and burnout was significant [ $r(515) = -.40, p < .01$ ] in such a way that burnout increases along with a decrease in self-esteem. Among the considered social-demographic factors, age was significantly related to depression among apprentice artisans [ $r(515) = -.20, p < .01$ ] such that apprentice depression level decreases with increasing age. It was also indicated that family size was significantly related with depression [ $r(515) = .14, p < .01$ ]. This implies an increase in depression along with an increase in family size. Also significant was the relationship between parents' income and depression, such that depression tends to increase with higher parental income [ $r(515) = .10, p < .05$ ].

### **Test of hypotheses**

**Table 2:** *Simple Linear Regression Analysis of Depression by Self-Esteem*

<i>Model</i>	<i>Sum of Squares</i>	<i>Df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig</i>
Regression	25918.813	1	25918.813	160.603	.000
Residual	83112.943	515	161.384		
Total	109031.756	516			

  

<i>Model</i>	<i>B</i>	<i>SE.B</i>	<i>Beta</i>	<i>t</i>	<i>p</i>
(Constant)	83.664	3.913		21.381	.000
SELF ESTEEM	-.731	.058	-.488	-12.673	.000

**$\{F(1, 515) = 160.603, p < .001, R^2 = .238\}$**

A simple linear regression was computed to predict depression based on self esteem. The analysis summary in Table 2 shows that a significant regression equation was found  **$\{F(1, 515) = 160.603, p < .001, with a R^2 = .238\}$** . This suggests that self esteem significantly predicts depression among apprentice artisans, with a 23% variation in depression explained by self esteem. This reveals that self esteem will significantly predicts depression among apprentice artisans.

**Table 3 : Simple Linear Regression Analysis of Depression by Burnout**

<i>Model</i>	<i>Sum of Squares</i>	<i>Df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig</i>
Regression	52571.401	1	52571.401	479.527	.000
Residual	56460.355	515	109.632		
Total	109031.756	516			

  

<i>Model</i>	<i>B</i>	<i>SE.B</i>	<i>Beta</i>	<i>t</i>	<i>p</i>
(Constant)	4.114	1.466		2.807	.000
BURNOUT	.666	.030	.694	21.898	.000

**{F(1, 515)=479.527, p<.001, R<sup>2</sup>=.482}**

A simple linear regression was computed to predict depression based on burnout. The analysis summary in Table 2 shows that a significant regression equation was found **{F(1, 515)=479.527, p<.001, with a R<sup>2</sup>=.482}**. This suggests that burnout significantly predicts depression among apprentice artisans, with a 48% variation in depression explained by burnout. This reveals that burnout will significantly predicts depression among apprentice artisans.

## DISCUSSION

The study established that burnout and self-esteem significantly predict depression among apprentice artisans in Ede, Osun State, Nigeria. The correlation analysis indicated that self-esteem had a significant negative relationship with depression [r(515)= -.49, p < .01]. This implied that when apprentice artisan's self-esteem is high, they tend to experience low level of depression. This finding is in line with assertion of Vanbuskirk (2019) which indicates that people with low self-esteem tend to exhibit negative responses, while those with high self-esteem tend to be less affected, as they are inclined to reject or restrict the scope of negative feedback. Also, other studies reveal that low self-esteem is associated with depression (Nguyen et al., 2019; Park & Yang, 2017; Steiger et al., 2014; Orth, & Robins, 2013).

On the one hand, burn out also significantly predicted depression among the apprentice artisans. The correlation analysis indicated that burnout had a significant positive relationship with depression [r(515)= .69, p < .01]. This implied that when apprentice artisan's level of burnout increases, there also tend to be an increase in depression. Many studies have also shown that there is a positive correlation between burnout and depression (Bianchi and Laurent, 2015; Bianchi et al., 2013, 2014). Another study also showed that professionals with increased burnout tend to have an increase in depressive symptoms. (Papathanasiou, 2015). Emotional exhaustion which is the core component of burnout has also been found to be positively correlated with depressive symptoms. (Ahola et al., 2014; Takai et al., 2009). These findings also relates to the findings of the systemic review that was carried out by Bianchi et al. (2015). In a research carried out by Vasconcelos et al., in 2018 among nurses, burnout was presented by 14.29% of the nurses. Out of these numbers, more than 50% had symptoms of depression. There was a significant association between burnout and depressive symptoms. It deduces that the higher the level of emotional exhaustion, depersonalization, and low professional accomplishment the greater the

depressive symptoms. Employees with burnout had the most symptoms, compared with those who experienced only exhaustion, disengagement from work or no burnout, which is corroborated by the research finding that burnout significantly predicts depression.

## CONCLUSION AND RECOMMENDATION

Based on this present study's findings, the authors conclude that there is a high predictive influence of self esteem and burnout on depression among automobile apprentice artisans in Ede, Osun State. Authors recommend routine depression screening for apprentices for those identified to be at risk of depression. Also, psychological management of depression is essential to ensure that apprentice with a risk of depression lead a healthy life. Also, social skills training should be incorporated in the apprenticeship programme and periodic work breaks should be regulated to reduce incidence of burnout.

## ETHICAL CONSIDERATIONS

The Helsinki Declaration was followed in this study because it involved human subjects. The Internal Research Ethic Committee (IREC) of Redeemer's University Nigeria reviewed the research purpose and recommended procedures. Before administering the instruments, participants' informed consent was sought and obtained.

## REFERENCES

Afolabi, O. A. (2014). Do self-esteem and family relations predict prosocial behaviour and social adjustment of fresh students? *Higher Education and Social Science*, 7(1), 26-34. doi:10.3968/5127

Akl, A., Mohiyaldeen, I., Alshatti, R., Alenezi, O., Dougherty, R., Al-Raihan, A., Alotaibi, S., Tadros, N. & Longenecker, J. C. (2022). The prevalence of burnout and its associated factors among surgical specialists in Kuwait Ministry of Health Hospitals. *Frontiers in Public Health*, 10, 679834. doi: 10.3389/fpubh.2022.679834

Alesi, M., Rappo, G., & Pepi, A. (2012). Self-esteem at school and self-handicapping in childhood: comparison of groups with learning disabilities. *Psychological Reports*, 111(3), 952-962.

An, J-G., Gao, X-M., Ma, Y-X., & Xiao, S-X. (2015). Relation between depression, anxiety, and quality of life among female nurses in Shaanxi province: a cross-sectional study. *The Lancet*. 386 (S29), 29. DOI:https://doi.org/10.1016/S0140-6736(15)00610-8

Barnes M, Abhyankar P, Dimova E, Best C (2020) Associations between body dissatisfaction and self-reported anxiety and depression in otherwise healthy men: A systematic review and meta-analysis. *PLoS ONE* 15(2): e0229268. https://doi.org/10.1371/journal.pone.0229268

Bianchi, R., and Laurent, E. (2015). Emotional information processing in depression and burnout: an eye-tracking study. *Eur. Arch. Psychiatry Clin. Neurosci.* 265, 27–34.

Bianchi, R., Boffy, C., Hingray, C., Truchot, D., and Laurent, E. (2013). Comparative symptomatology of burnout and depression. *J. Health Psychol.* 18, 782–787.

Black Dog Institute (2012). Causes of depression. [http://www.blackdoginstitute.org.au/public/depression/causes\\_of\\_depression/index.cfm](http://www.blackdoginstitute.org.au/public/depression/causes_of_depression/index.cfm)

Chia, M. C., Hu, Y-Y., Li, R. D., Cheung, E. O., Eng, J. S., Zhan, T., Sheahan, M. G., Bilimoria, K. Y., & Coleman, D. M. (2022). Prevalence and risk factors for burnout in U.S. vascular surgery trainees. *Journal of Vascular Surgery*, 75(1), 308-315.e4. <https://doi.org/10.1016/j.jvs.2021.06.476>.

Cho, Y., Lee, J. K., Kim, D-H., Park, J-H., Choi, M., Kim, H-J., Nam, M-J., Lee, K-U., Han, K., & Park, Y-G. (2019). Factors associated with quality of life in patients with depression: A nationwide population-based study. *PLoS ONE*, 14(7): e0219455. <https://doi.org/10.1371/journal.pone.0219455>

Choo, C. C., Harris, K. M., Chew, P. K. H., & Ho, R. C. (2017). What predicts medical lethality of suicide attempts in Asian youths? *Asian Journal of Psychiatry*, 29, 136–41. doi: 10.1016/j.ajp.2017.05.008

Cleveland Clinic (2022). Chronic Illness and Depression. <https://my.clevelandclinic.org/health/articles/9288-chronic-illness-and-depression>

Czeczpor-Bernat, K., Modrzejewska, A., Modrzejewska, J., & Pękała, M. (2022). A preliminary study of body image and depression among adults during COVID-19: A moderation model. *Archives of Psychiatric Nursing*, 36, 55-61. <https://doi.org/10.1016/j.apnu.2021.11.001>.

Dryden, E. R. (2013). Teen Depression. Medicinenet. [http://www.medicinenet.com/teen\\_depression/article.htm](http://www.medicinenet.com/teen_depression/article.htm)

Dunkley, D. M., Sanislow, C. A., Grilo, C. M., & McGlashan, T. H. (2009). Self-criticism versus neuroticism in predicting depression and psychosocial impairment for 4 years in a clinical sample. *Comprehensive psychiatry*, 50(4), 335–346. <https://doi.org/10.1016/j.comppsy.2008.09.004>

EU-OSHA (2021). European Agency for Safety and Health at Work, ‘Expert forecast on emerging psychosocial risks related to occupational safety and health.’ Luxembourg: Office for Official Publications of the European Communities.

Freudenberger, H. J. (1974). Staff burn-out. *Journal of Social Issues*, 30(1), 159–165.

Hagen, R., Havnen, A., Hjemdal, O., Kennair, L. E. O., Ryum, T., & Solem, S. (2020). Protective and vulnerability factors in self-esteem: the role of metacognitions, brooding, and resilience. *Frontiers in Psychology*, 11, 1447. doi:10.3389/fpsyg.2020.01447

Hillert, A. (2008). Burnout--a new disease?. *Versicherungsmedizin*, 60(4), 163-169.

- Horwitz, A. G., Berona, J., Czyz, E. K., Yeguez, C. E., King, C. A. (2017). Positive and negative expectations of hopelessness as longitudinal predictors of depression, suicidal ideation, and suicidal behavior in high-risk adolescents. *Suicide and Life-Threatening Behavior*, 47(2), 168–176. <https://doi.org/10.1111/sltb.12273>
- Hosogi, M., Okada, A., Fujii, C., Noguchi, K., & Watanabe, K. (2012). Importance and usefulness of evaluating self-esteem in children. *BioPsychoSocial Medicine*, 6, 9. doi:10.1186/1751-0759-6-9
- Ingle, V. K., Pandey, I., Singh, A. R., Pakhare, A., & Kumar, S. (2017). Screening of patients with chronic medical disorders in the outpatient Department for Depression Using Handheld Computers as Interface and patient health Questionnaire-9 as a tool. *International Journal of Applied Basic Medical Research*, 7(2), 129–33. <https://doi.org/10.4103/2229-516X.205809>.
- Juárez-Rojop, I. E., Fortuny-Falconi, C. M., González-Castro, T. B., Tovilla-Zárate, C. A., Villar-Soto, M., Rodríguez Sanchez, E., Hernández-Díaz, Y., López-Narvaez, M. L., Ble-Castillo, J. L., Pérez-Hernández, N., & Rodríguez-Pérez, J. M. (2018). Association between reduced quality of life and depression in patients with type 2 diabetes mellitus: A cohort study in a Mexican population. *Neuropsychiatric Disorders and Treatment*, 14, 2511-2518. <https://doi.org/10.2147/NDT.S167622>
- Karuna, C., Palmer, V., Scott, A., & Gunn, J. (2021). Prevalence of burnout among general practitioners: A systematic review and meta-analysis. *British Journal of General Practice*. BJGP, 2021, 0441. DOI: <https://doi.org/10.3399/BJGP.2021.0441>
- Korczak, D., Wastian, M., & Schneider, M. (2012). Therapy of the burnout syndrome. *GMS Health Technology Assessment*, 8, Doc05.
- Li, H., Ge, S., Greene, B., & Dunbar-Jacob, J. (2018). Depression in the context of chronic diseases in the United States and China. *International Journal of Nursing Sciences*, 6(1), 117–122. <https://doi.org/10.1016/j.ijnss.2018.11.007>
- Ma, Y., Xiang, Q., Yan, C., Liao, H., & Wang, J. (2021). Relationship between chronic diseases and depression: The mediating effect of pain. *BMC Psychiatry*, 21, 436 (2021). <https://doi.org/10.1186/s12888-021-03428-3>
- Manfredi, C., Caselli, G., Pescini, F., Rossi, M., Rebecchi, D., Ruggiero, G. M., Sassaroli, S. (2016). Parental criticism, self-criticism and their relation to depressive mood: An exploratory study among a non-clinical population. *Research in Psychotherapy: Psychopathology, Process and Outcome*, 19 (1). DOI: 10.4081/ripppo.2016.178
- March-Amengual, J.-M., Cambra Badii, I., Casas-Baroy, J.-C., Altarriba, C., Comella Company, A., Pujol-Farriols, R., Baños, J.-E., Galbany-Estragués, P., & Comella Cayuela, A. P. (2022). Psychological distress, burnout, and academic performance in first year college students. *International Journal of Environmental Research and Public Health*, 19, 3356. <https://doi.org/10.3390/ijerph19063356>

- Maslach, C., & Leiter, M. P. (2016). Understanding the burnout experience: recent research and its implications for psychiatry. *World psychiatry : official journal of the World Psychiatric Association (WPA)*, 15(2), 103–111. <https://doi.org/10.1002/wps.20311>
- Millings, A., Buck, R., Montgomery, A., Spears, M., & Stallard, P. (2012). School connectedness, peer attachment, and self-esteem as predictors of adolescent depression. *Journal of Adolescence*, 35, 1061–7. doi: 10.1016/j.adolescence.2012.02.015
- Nalipay, M. J. N., Ku, L. (2019). Indirect effect of hopelessness on depression symptoms through perceived burdensomeness. *Psychological Reports*, 122(5), 1618–1631. <https://doi.org/10.1177%2F0033294118789044>
- Nguyen, D. T., Wright, E. P., Dedding, C., Pham, T. T. & Bunders, J. (2019). Low self-esteem and its association with anxiety, depression, and suicidal ideation in Vietnamese secondary school students: A cross-sectional study. *Frontiers in Psychiatry*, 10, 698. doi: 10.3389/fpsy.2019.00698
- Nguyen, D. T., Wright, E. P., Dedding, C., Pham, T. T., & Bunders, J. (2019). Low Self-Esteem and Its Association With Anxiety, Depression, and Suicidal Ideation in Vietnamese Secondary School Students: A Cross-Sectional Study. *Frontiers in psychiatry*, 10, 698. <https://doi.org/10.3389/fpsy.2019.00698>
- Onisile, D. F., Akinawo, E. O., Akpunne, B. C. (2022). *Development and validation of Apprentice Depression Scale*. (Unpublished Manuscript). Redeemer's University.
- Orth, U., & Robins R. W. (2013). Understanding the Link between Low Self-Esteem and Depression. *Current Directions in Psychological Science*, 22(6), 455–460.
- Ouyang, Y., Wang, K., Zhang, T., Peng, L., Song, G., & Luo, J. (2019). The influence of sports participation on body image, self-efficacy, and self-esteem in college students. *Frontiers in Psychology*, 10, 3039. doi:10.3389/fpsyg.2019.03039
- Owuor, R. A., Mutungi, K., Anyango, C., Mwita, C. C. (2020). Prevalence of burnout among nurses in Sub-Saharan Africa: A systematic review . *JBI Evid Synth*, 18(6), 1189–1207.
- Papathanasiou, I. V. (2015). Work-related mental consequences: implications of burnout on mental health status among health care providers. *Acta Inform Med*, 23(1), 22-8.
- Park, K., & Yang, T. C. (2017). The Long-term Effects of Self-Esteem on Depression: The Roles of Alcohol and Substance Uses during Young Adulthood. *The Sociological quarterly*, 58(3), 429–446. <https://doi.org/10.1080/00380253.2017.1331718>
- Patel, A. K., Tiwari, S. K., & Singh, L-S-S. (2018). Self-esteem and life satisfaction among university students of Eastern Uttar Pradesh of India: A demographical perspective. *IJPP*, 9(3), 328–386.

- Read, J. R., Sharpe, L., Modini, M., & Dear, B. F. (2017). Multimorbidity and depression: A systematic review and meta-analysis. *Journal of Affective Disorders*, 221, 36–46. <https://doi.org/10.1016/j.jad.2017.06.009>.
- Rosenberg, M. (1965). Rosenberg self-esteem scale (RSE). *Measures Package*, 61(52), 18.
- Rotenstein, L. S., Torre, M., Ramos, M. A., Rosales, R. C., Guille, C., Sen, S., & Mata, D. A. (2018). Prevalence of burnout among physicians: A systematic review. *JAMA*, 320(11), 1131–1150. doi:10.1001/jama.2018.12777
- Shi, J., Wang, L., Yao, Y., Su, N., Zhao, X., & Zhan, C. (2017). Family function and self-esteem among Chinese university students with and without grandparenting experience: moderating effect of social support. *Frontiers in Psychology*, 8, 886. doi:10.3389/fpsyg.2017.00886.
- Shumye, S., Belayneh, Z. & Mengistu, N. (2019). Health related quality of life and its correlates among people with depression attending outpatient department in Ethiopia: a cross sectional study. *Health Qual Life Outcomes* 17, 169 (2019). <https://doi.org/10.1186/s12955-019-1233-7>
- Smith, M., Segal, J., & Robinson, L. (2021). Burnout Prevention and Treatment. Help Guide. <https://www.helpguide.org/articles/stress/burnout-prevention-and-recovery.htm#:~:text=Burnout%20is%20a%20state%20of,unable%20to%20meet%20constant%20demands>.
- Soares Filho, L. C., Batista, R., Cardoso, V. C., Simões, V., Santos, A. M., Coelho, S., & Silva, A. (2020). Body image dissatisfaction and symptoms of depression disorder in adolescents. *Brazilian Journal of Medical and Biological Research = Revista Brasileira de Pesquisas Medicas e Biologicas*, 54(1), e10397. <https://doi.org/10.1590/1414-431X202010397>
- Steiger, A. E., Allemand, M., Robins, R. W., & Fend, H. A. (2014). Low and decreasing self-esteem during adolescence predict adult depression two decades later. *Journal of Personality and Social Psychology*, 106(2), 325–38.
- Straccamore F, Ruggi S, Lingiardi V, Zanardi R, Vecchi S and Oasi O (2017) Personality Factors and Depressive Configurations. An Exploratory Study in an Italian Clinical Sample. *Front. Psychol.* 8:251. doi: 10.3389/fpsyg.2017.00251
- Takai, M., Takahashi, M., Iwamitsu, Y., Ando, N., Okazaki, S., Nakajima, K., et al. (2009). The experience of burnout among home caregivers of patients with dementia: relations to depression and quality of life. *Arch. Gerontol. Geriatr.* 49, e1–e5.
- Vanbuskirk, S. (2019). Why It's Important to Have High Self-Esteem. Verywell mind. <https://www.verywellmind.com/why-it-s-important-to-have-high-self-esteem-5094127>.

Vasconcelos, E. M., Martino, M., & França, S. (2018). Burnout and depressive symptoms in intensive care nurses: relationship analysis. *Revista brasileira de enfermagem*, 71(1), 135–14

Willis, P. (2019). Why clarifying your values boosts self esteem & confidence, & the Hawaiian concept of Pono. *Unchain your brain*. <https://www.unchainyourbrain.org/2019/11/14/why-clarifying-your-values-boosts-self-esteem-the-hawaiian-concept-of-pono/>

World Health Organization (2017). Occupational Health: Health Workers. *World Health Organization*.

World Health Organization (2019). Burn-Out an “Occupational Phenomenon”: International Classification of Diseases. Burn-Out an “Occupational Phenomenon”: International Classification of Diseases (who.int). <https://www.who.int/news/item/28-05-2019-burn-out-an-occupational-phenomenon-international-classification-of-diseases>

Zhang, H., Watson-Singleton, N. N., Pollard, S. E., Pittman, D. M., Lamis, D. A., Fischer, N. L., Patterson, B., & Kaslow, N. J. (2019). Self-Criticism and depressive symptoms: Mediating role of self-compassion. *OMEGA - Journal of Death and Dying*, 80(2), 202-223. doi:10.1177/0030222817729609

Zhang, Y., Chen, Y., & Ma, L. (2018). Depression and cardiovascular disease in elderly: Current understanding. *Journal of Clinical Neuroscience*, 47, 1–5. <https://doi.org/10.1016/j.jocn.2017.09.022>.