



Original Article

Helping the Helpers: Assessing Effectiveness of PERMA Model for Professional Quality of Life in Nursing Students

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Abstract

This study aimed to explore the effectiveness of Seligman's PERMA Model of Positive Psychology in improving the professional quality of life in helping professionals. The selected sample was practicing nursing students. They were selected through the purposive sampling technique. The study followed an experimental design and involved 27 participants from a Midwifery school in Karachi, Pakistan. The age range of the participants was 18 to 30 years ($M = 20.889$, $SD = 2.562$). With the informed consent of participants, the ProQol scale was administered to measure compassion satisfaction, burnout, and secondary traumatic stress levels before and after the intervention. The result of the research yielded an unexpected outcome demonstrating increased secondary traumatic stress ($t = -4.198$, $p = .000$), and decreased compassion satisfaction ($t = 2.569$, $p = .016$) while depicting no effect on burnout in the participants ($t = .047$, $p = .963$). This result sheds light on future enhancements with the application of the PERMA Model in helping professionals. In the future, it would be beneficial to explore the PERMA model over a longer time to maximize its effectiveness.

Keywords: PERMA, compassion satisfaction, burnout, secondary traumatic stress, nurses

1. INTRODUCTION

The role of helping professionals is vital in assisting those who require it, yet this may eventually bring detrimental consequences to their psychological health (Cummings et al., 2018). During their professional obligation, the population of nurses among helping professionals, consistently observe the agony of their patients and this anguish challenges nurses to provide help effectively as it costs them their well-being (Fernández et al., 2020). The Professional Quality of Life (PRQOL) model comprises compassion fatigue and compassion satisfaction. Compassion fatigue is further segmented into the concepts of burnout and secondary traumatic stress (Copeland, 2020). The degree to which a helping professional feels encouraged by nurturing and assisting other individuals refers to Compassion Satisfaction (Chachula, 2021). Compassion fatigue is a result of distress that helping professionals harbor while providing help, as a result, their concern towards those in need of help at their workplace reduces (Mohammed et al., 2023). The PERMA Model by Seligman entails five components that elevate the goodness and overall well-being in individuals thus the components include Positive emotions, Engagement, Relationships, Meaning, and Achievements (Kovich et al., 2022). The PERMA Model was encouraged to be utilized for the learning of students of nursing so that they can receive resources so that they can flourish in life. This improvement in well-being through the components of the PERMA simultaneously shall improve the professional quality of life in helping professionals (Plunkett et al., 2020). Helping professionals endure a detrimental professional quality of life therefore manifesting diminished levels of compassion satisfaction coupled with increased degrees of compassion fatigue (Chan et al., 2020). Due to their extended exposure to patients' anguish and suffering, nurses extend their empathy and care for long



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durations towards their patients regularly, leading to severe compassion fatigue among them (Kawar et al., 2019). The job requirements of the nursing profession include consistent contact with patients experiencing suffering therefore giving rise to burnout and secondary traumatic stress among nurses (Copeland, 2020). Challenging workplace conditions serve as obstacles for nurses, such as overburdening of tasks, overflow of patients, and workplace conflicts which lead to intensive burnout (Ge et al., 2023). Globally, there is a focus on applying the PERMA model to various professionals, yet for the population of nurses, the application of the model to improve their professional quality of life is still sparse. Nationally, Pakistan is a developing country where mental health stigma persists to this day, thus there is little to no focus towards the particular population of exhausted nurses working earnestly. The researchers of the study intend to condense the research discrepancy by inspecting a sample of 27 practicing nursing students to identify if the application of the PERMA model truly yields beneficence with regard to the professional quality of life of nurses.

Research Hypotheses

- Compassion Satisfaction levels in participants would increase because of the PERMA Model Intervention.
- Secondary Traumatic Stress levels in participants would decrease because of the PERMA Model Intervention.
- Burnout levels in participants would decrease because of the PERMA Model Intervention.

2. LITERATURE REVIEW

The Well-Being Theory of PERMA

Positive feelings are widely considered to be a key sign of well-being. Humans seek well-being yet hurdles including lacking interpersonal connections and stressors hinder them from optimal wellness in life (Kovich et al., 2022). According to Seligman (2011), the PERMA hypothesis states that every component of well-being needs to possess the following three characteristics: It enhances well-being; Individuals do not only pursue it to obtain any of the other characteristics; it is measured and defined separately from the other elements.

Positive Emotions, Engagement, Relationship, Meaning and Accomplishments

The five main components of psychological well-being identified by Seligman (2011) in the PERMA Model are positive emotions such as happiness, joy, pleasure, and satisfaction; engagement in a specific task, activity, or relationship; and relationships with positive connections, associations, or bonds with others. Meaning encompasses a feeling of direction, awareness, importance, and consistency in one's existence. Success is consistently attained through accomplishments. The cornerstone of positive psychology is based upon the idea that positive well-being does not mean a lack of psychological concerns, but rather involves the experience of positive feelings in everyday life.

Professional Quality of Life

Research by Mayo et al. (2019) at a university in Mexico employed the PERMA model to evaluate the happiness of employees hired there. The findings depicted overall low happiness in the workplace, and those reporting less work happiness demonstrated a lack of satisfaction with their overall lives too. The research findings suggest that a work environment without a positive atmosphere can lead to employee discontentment and eventually hinder efficiency. More research appears to be needed to address the "cost of caring" or compassion fatigue, as professionals' physical and mental well-being may affect the standard of care they provide patients. Mathew & Gupta (2023) claim that professional quality of life has to do with comfort and job satisfaction. Two components of professional quality of life are Compassion Satisfaction and Compassion fatigue. Compassion fatigue distinguishes two distinct phases. The first section addresses common burnout symptoms like fatigue, frustration, anger, and depression. Feelings of helplessness and trouble managing work are linked to burnout. The second component, known as secondary trauma stress, is an unpleasant emotion brought on by trauma from one's past at work and dread. In the course of their work, healthcare professionals are frequently exposed to high levels of stress and unpleasant situations. They are more likely to experience compassion fatigue because of the nature of their jobs. It may negatively affect both their personal and professional lives, which will also directly affect patient treatment.

Professional Quality of Life and PERMA Model

Goh et al. (2021) stated that to boost employee well-being, researchers concentrated on eliminating negative elements of work, catering to workplace stressors and burnout. Interventions such as counseling and workshops to balance work stress were used, however evidence indicates that their application is limited. As a result, there is currently a shifting trend towards emphasizing favorable aspects of employment to counteract adverse workplace outcomes. The PERMA model can be utilized to support this shift in the analysis and application of positivity at workplaces for helping professionals. A study by Beacham (2020) conducted a flourishing program for helping professionals based upon the PERMA Model in order to ensure following the emerging shifting trend of targeting the positive rather than the negative factors in the workplace. The intervention-based program yielded enhanced well-being levels in participants.

Following the COVID-19 epidemic, research by Ahmad et al. (2022) examined the mental and physical health of helping professionals using the PERMA Model. Professionals of healthcare, in particular, reported scoring above average in all domains. Meaning and relationships were the highest-scored domains. Even though helping professionals are prone to experiencing high levels of burnout and having a low professional quality of life the results of this study depict how with a tough helping profession during a crisis these relationships and providing meaning to the experiences in life can lift an individual.

Nursing Educator quality of life

Moradi et al. (2014) suggest that the aspects of working circumstances, safety, and compensation affect nurses' quality of life at work. It is mentioned that nurses' health is negatively impacted by bad work-life quality. It does not, however, refer to "professional quality of life." Mathew & Gupta (2023) described the Professional Quality of Life (ProQOL) of Health Care Providers in Manipur, India. National Journal of Community Medicine discusses that professionals' physical and emotional well-being may have an impact on the quality of care they provide patients, further research appears to be necessary to fully understand the "cost of caring" or compassion fatigue. A study by Niu et al. (2022) evaluated the professional quality of life of nurses who were battling with COVID-19 in China through an online survey. Nurses battling with the virus were reported to have high compassion satisfaction while providing services to patients and had moderate burnout levels but their secondary traumatic stress levels were high due to directly witnessing the crucial life concerns of the patients. A busier work schedule paired with lower satisfaction with their salary led to intense levels of burnout. Long periods of work led to higher secondary traumatic stress due to consistent exposure during the tough pandemic. Their overall professional quality of life was linked to their scheduled workload, satisfaction with work, and income satisfaction. It is important to note that, in the course of providing healthcare services, nurses occasionally take on roles that call for significant physical, mental, and emotional exertion Rodrigues et al. (2012). The goal of the current study was to assess the quality of life for professionals engaged in nursing practice.

3. METHODOLOGY

Study Design

This was a repeated measure experimental study with a purposive sampling approach. The Independent Variable was a PERMA-based intervention and the Dependent Variables were Secondary Traumatic Stress, Compassion Satisfaction, and Burnout.

Sample

To recruit participants for the research, the purposive sampling technique was applied. The study group comprised 27 nursing students from a school of midwifery located in Karachi, Pakistan.

Measures

The Professional Quality of Life Scale-5 was adopted for this study (Stamm, 2010). The scale consists of three subscales examining the aspects of compassion restlessness and fulfillment in compassion targeted at individuals working in helping professions. Burnout, secondary traumatic stress, and compassion fulfillment are the three subscales. Additionally, strong alpha reliability for the burnout ($\alpha = .75$), secondary traumatic stress ($\alpha = .81$), and compassion fulfillment ($\alpha = .88$) scales were yielded (Stamm, 2010).

Procedure

The researchers of the present study contacted the in-charge authorities of a midwifery school consisting of practicing nursing students for permission to conduct the research. Upon receiving official permission, the researchers complied with the ethical codes of research by providing informed consent to participants before executing the research. It was a one-day workshop conducted within four hours. The researchers informed the participants that their data would remain confidential, and their personal information was obtained for research purposes. The questionnaires were distributed among the participants before and after the intervention. To analyze the research objectives, the software SPSS Version 25 was used. Paired sample t-tests were executed to find the intervention effects on practicing nurses.

PERMA Model Application

P (Positive Emotions)

In the PERMA model for the letter "P" positive emotions, initially, a compassionate journaling session was conducted for which participants were provided pens and pages. They were instructed that their writing would not be assessed and they could write without hesitation. The concept of journaling was briefed to the participants and later they were instructed to reflect on their experiences of their nursing journey for about 30 minutes. Later, a guided progressive muscle relaxation meditation was provided to the participants, in which participants closed their eyes and were instructed to sit in a comfortable position. Later, all sources of external sounds or lights were closed and one of the researchers provided a guided meditation of 15 minutes. Participants were provided a break of 5 minutes, then they were briefed about the concept of meditation. Meditation and journaling were applied to improve the professional quality of life of nursing professionals in an experimental study by Copeland (2020).

E (Engagement)

The letter "E" stands for engagement; therefore, the participants were provided with activities to foster mindfulness and awareness of their emotions through Mandala coloring in order to help them focus on the present moment. Later, a soulful poetry by Rumi called "The Guest House Poem" on 'welcoming and letting emotions go' was recited and explained by the researchers. This served as a foundation for understanding the concept of acknowledging the heavy tides overwhelming emotions bring. Later rain meditation for emotional regulation was introduced in order to help them regulate their emotions well. The participants discussed the significance of emotional regulation in their challenging workplace. Mindfulness is incorporated in interventions in the engagement component of PERMA in various studies for improving employee well-being (Neumeier et al., 2017).

R (Relationships)

The "R" stands for relationships, for which strategies to improve communication were taught, including active listening. The participants were paired up to let them share their experiences with their partners. Then, they were encouraged to reminisce collectively on their nursing journey. The activities that strengthen communication skills were applied to the relationship factor of PERMA in a study by Zheng et al. (2023) as these skills are essential to developing and maintaining social bonds effectively.

M (Meaning)

The "M" stands for meaning, which can give one's professional life value, thus the participants created a mind map of their entire professional journey. The researchers demonstrated this by creating a sample mind map of a tree beginning from the roots, labeling all the years of their academic journey. Thus, the nursing students yielded various diagrams demonstrating their nursing careers in the form of clocks, bridges, lakes, mountains, and homes. Neumeier et al. (2017) applied this intervention for the meaning component of PERMA to help participants brainstorm significant moments from their work experiences.

A (Achievement)

The "A" in the model stands for achievement, which was fostered through a strength identification activity, in which participants were supposed to share a strength-based story where they felt like they accomplished their goals. This was applied and titled "you at your best" to demonstrate strength identification and to help participants realize their potential in their workplace (Neumeier et al., 2017).

Ethical Considerations

APA ethical guidelines for research were followed. Informed consent procedures were completed before the study was conducted. The anonymity and confidentiality of the participants and their responses were maintained.

4. RESULTS

Table 1.

Demographic Characteristics of Experiment Participants (N=27)

Sample Characteristics	N	%
Gender		
Female	27	100
Current Year of Nursing Education		
First Year	24	88.889
Second Year	2	7.41
Third Year	1	3.70
Ages of Students in Years		
18-23	25	92.592
24-30	2	7.4

The table shows the demographic data of the participants: 27 representing (100%) of the respondents were female, demonstrating the entirety of the sample; 24 (88.889%) of the respondents were first-year students, 2 (7.41%) of the respondents were second-year students and 1 (3.70%) of the respondents was a third-year student; ages of 25 (92.592%) of the students ranged from 18 to 23 years while ages of 2 (7.4%) students ranged from 24 to 30 years old.

Table 2

Descriptive Statistics

Pairs	Mean	N	Std. Deviation	Std. Error Mean
1. PREBO	21.851	27	4.435	.853
1. POSTBO	21.814	27	4.540	.873
2. PRECS	44.074	27	2.813	.541
2. POSTCS	41.888	27	4.509	.867
3. PRESTS	23.296	27	4.093	.787
3. POSTSTS	26.037	27	4.586	.882

After analyzing the results through the Paired Samples t-test, it was found that the mean score for pre-test burnout was 21.851, slightly decreasing to 21.814 in the post-test phase. Conversely, the pre-test score for compassion satisfaction stood at 44.074 which decreased to 41.888 in the post-test assessment. Interestingly, the pre-test score for secondary traumatic stress was 23.296, showing an increase to 26.037 in the post-test evaluation. These findings indicate nuanced shifts in participants' experiences across the dimensions of burnout, compassion satisfaction, and secondary traumatic stress, warranting further exploration into the underlying factors contributing to these changes.

Table 3

Paired Sample Statistics

Variables	T	DF	Sig 2 tailed	Mean Difference	Lower	Upper
BO	.047	26	.963	.037	-1.580	1.655
CS	2.569	26	.016	2.18519	.4364	3.933
STS	-4.198	26	.000	-2.74074	-4.08266	-1.39883
2. POSTCS	41.888	27	4.509	.867		

The result of the research yielded an unexpected outcome demonstrating a significant increase in secondary traumatic stress ($t = -4.198$, $p = .000$), and a significant decrease in compassion satisfaction levels ($t = 2.569$, $p = .016$) while depicting no significant change in burnout in the participants after the intervention ($t = .047$, $p = .963$).

Discussion

The study assessed the efficacy of PERMA Model-based Positive Psychology Interventions on the professional quality of life in nursing students and professionals. The professional quality of life constituted the degree of Burnout, Secondary Traumatic Stress, and Compassion Satisfaction within the assessed helping professionals.

It is demonstrated by the analyzed results that there was no significant reduction in the burnout levels of participants. The scores of compassion satisfaction were reduced after the intervention and secondary traumatic stress was increased. These unexpected outcomes shed light on the factors impacting these results. In a cross-cultural meta-analysis assessing data from over ten years, it was determined that nurses have a strong susceptibility to experiencing burnout and there is a concerning increase in the trend of burnout among nurses (Ge et al., 2023). Thus, existing evidence demonstrates that the manifestation of severe burnout and stress levels in the lives of nurses causes hurdles in the effective application of Positive Psychology activities in their lives (Mughal, 2019). The intensive levels of burnout nurses experience explain the insignificant effect of burnout in the yielded results, demonstrating a need for further scrutiny on the application of positive psychology interventions specifically curated to enhance the positive emotions in nursing professionals.

Findings of a study in which PERMA Model-based interventions were used to help professionals demonstrated an overall improved state of psychological well-being and decreased burnout in the participants (Shaghghi et al., 2019). Similar results were yielded in a study by Neumeier et al. (2017) demonstrating improved professional well-being upon employed activities through the PERMA Model.

Moreover, positive psychology interventions are indicated to be more effective broadly across an extended duration as opposed to being applied in a briefer format, as the extended time allows individuals to foster and put positive behaviors into practice effectively (Tierney and Tierney, 2022). Long-duration mindfulness-based interventions are likely to reduce unpleasant emotions (Kander et al., 2024). Two mindfulness-based guided interventions (i.e. guided meditation and rain meditation) were introduced to the participants in the current implied study to induce positive emotions and engagement entailing the P and E components of PERMA, the effect size is suggested to be stronger upon an extended application and practice to ensure better effectiveness. The intervention dosage is a vital factor that determines the influence of an intervention strongly, therefore allotting the appropriate duration and frequency of the positive psychology interventions is significant in order to receive the required outcomes (Lee et al., 2023). The interventions utilized in the study were executed in a limited span of 4 hours due to time constraints and schedules of the nurses, which may have impacted the effectiveness of the applied positive psychology interventions.

For component E of PERMA, an active listening activity was introduced in which participants were instructed to listen carefully and share their experiences. As the activity concluded, the nurses shared their challenging experiences and fellow nurses empathized strongly with them. According to a qualitative study by Lyu et al. (2024) it was demonstrated how nurses provide room to their patients for emotional catharsis and listen attentively which fosters trust among patients regarding the treatment procedure, there could be an underlying negative consequence to such keen interactive listening practices too. Secondary Traumatic Stress refers to the distressing unpleasant emotions the witness experiences upon listening to or through direct contact with the individual with trauma (Williamson et al., 2020). Therefore, the nurses listening to the drastically traumatic experiences of fellow nurses during the intervention could explain the increased scores in the Secondary Traumatic Stress subscale.

A study by Ng and Ong (2021) demonstrated that in collectivistic Eastern cultures, there is a strong acceptance of suffering; welcoming of negative feelings, and priority towards overall group emotion is provided while individualistic cultures have more inclinations toward happiness on an individual level. Furthermore, Positive Psychology Interventions which entail the primary objective of increasing pleasant feelings, and activities and reducing unpleasant feelings, might end up providing ineffective results in collectivistic cultures due to the difference in values while in a contradicting manner, positive psychology interventions work well in individualistic societies as the techniques are yielded from Western ideologies usually (Lambert et al., 2023; Ng & Ong, 2021). The relevancy of culture is vital to be considered whilst applying the PERMA model (Farmer & Cotter, 2021). The Pakistani society opposes the idea of individualism (Ali et al., 2018). Therefore, as interventions for the present research were utilized whilst addressing the collectivistic Pakistani nurses, the provided positive psychology interventions did not demonstrate an effect on their professional quality of life. The unexpected outcomes opened

avenues to develop further applications of PERMA-based positive psychology interventions employed particularly on nursing professionals, by providing these helpers with optimal resources in order to help them flourish professionally and individually.

5. CONCLUSION

Even though the outcomes yielded were unexpected by demonstrating an increase in Secondary Traumatic Stress, a decrease in Compassion Satisfaction, and an insignificant change in burnout, it helped the researchers shed light on the possible enhancements to the application of the PERMA Model for the population of nursing students. Nursing professionals have helped individuals for decades thus employing Positive Psychology Interventions on these participants is vital to help improve their professional quality of life.

Limitations and Future Research

Based on the findings of the research, it is suggested to expand the sample size in future studies to make the results valid and more reliable. To increase inclusivity, helping professionals from various backgrounds can be included. This multi-faceted approach will help us understand the experiences of helping professionals collectively.

Language barriers should also be considered while executing the study. While the questions were in English in our study, we should consider using the national language of Pakistan, Urdu. Using their mother tongue language so that participants can feel more comfortable shall help yield more accurate information. The intervention frequency is also a factor to be considered. As initially the intervention was applied for a day for four hours, expanding the intervention dosage and frequency would improve the efficiency of the Positive Psychology Interventions. It might also be helpful to wait a bit after the intervention before doing the post-test, so we can evaluate the impacts of the study over time. By making these adjustments, we can learn more about how the PERMA model affects things like feeling satisfied and avoiding burnout. This would be useful for healthcare professionals and researchers.

Competing Interests

The authors did not declare any competing interest.

References

- Ahmad, Abid & Din, Zaheer & Mehwish, Mehwish. (2022). Well-Being of Healthcare Professionals: A Post-Pandemic Analysis. *Journal of Managerial Sciences*, 16.
- Ali, R., Khurshid, K., Shahzad, A., Hussain, I., & Bakar, Z. A. (2018). Nature of conceptions of learning in a Collectivistic Society: A Qualitative case study of Pakistan. *Eurasia Journal of Mathematics, Science and Technology Education*, 14(4).
<https://doi.org/10.29333/ejmste/81867>
- Beacham, A. O. (2020). A brief evidence-based intervention to enhance Workplace Well-being and Flourishing in health care professionals: Feasibility and pilot outcomes. *Journal of Wellness*, 2(1), 1–9.
<https://doi.org/10.18297/jwellness/vol2/iss1/7>
- Chachula, K. (2021). Professional Quality of Life Factors and Relationships in Nursing and Psychiatric Nursing Students: an Exploratory study. *SAGE Open Nursing*, 7, 237796082199439.
<https://doi.org/10.1177/2377960821994394>
- Chan, W., Tin, A. F., & Yu, T. K. (2020). Professional quality of life, depression, and meaning in life among helping professionals: The moderating role of self-competence in death work. *Death Studies*, 46(4), 958–968.
<https://doi.org/10.1080/07481187.2020.1793431>
- Copeland, D. (2020). Brief workplace interventions addressing burnout, compassion fatigue, and teamwork: a pilot study. *Western Journal of Nursing Research*, 43(2), 130–137.
<https://doi.org/10.1177/0193945920938048>
- Cummings, C., Singer, J., Hisaka, R., & Benuto, L. T. (2018). Compassion satisfaction to combat Work-Related burnout, vicarious trauma, and secondary traumatic stress. *Journal of Interpersonal Violence*, 36(9–10), NP5304–NP5319.
<https://doi.org/10.1177/0886260518799502>

- De Souza Rodrigues, D. C., De Lima Gouveia, E. M., Da Silva, D. M., De Arruda, A. J. C. G., & Lopes, M. E. L. (2012). Mental health and work: psychosomatic effects under the perspective of nurses. *Journal of Nursing Ufpe Online*, 6(11), 2785–2792.
<https://doi.org/10.5205/1981-8963-v6i11a7648p2785-2792-2012>
- Farmer, N., & Cotter, E. W. (2021). Well-Being and Cooking Behavior: Using the Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment (PERMA) model as a theoretical framework. *Frontiers in Psychology*, 12.
<https://doi.org/10.3389/fpsyg.2021.560578>
- Fernández, M. D. R., Pérez-García, E., & Ortega-Galán, Á. M. (2020). Quality of life in nursing professionals: burnout, fatigue, and compassion satisfaction. *International Journal of Environmental Research and Public Health*, 17(4), 1253.
<https://doi.org/10.3390/ijerph17041253>
- Ge, M., Hu, F., Jia, Y., Tang, W., Zhang, W., & Chen, H. (2023). Global prevalence of nursing burnout syndrome and temporal trends for the last 10 years: A meta-analysis of 94 studies covering over 30 countries. *Journal of Clinical Nursing*, 32(17–18), 5836–5854.
<https://doi.org/10.1111/jocn.16708>
- Goh, P. S., Goh, Y. W., Jeevanandam, L., Nyolczas, Z., Kun, Á., Watanabe, Y., Noro, I., Wang, R., & Jiang, J. (2021). Be happy to be successful: a mediational model of PERMA variables. *Asia Pacific Journal of Human Resources*, 60(3), 632–657.
<https://doi.org/10.1111/1744-7941.12283>
- Kander, T. N., Lawrence, D., Fox, A. M., Houghton, S., & Becerra, R. (2024). Mindfulness-based interventions for preadolescent children: A comprehensive meta-analysis. *Journal of School Psychology*, 102, 101261.
<https://doi.org/10.1016/j.jsp.2023.101261>
- Kawar, L. N., Radovich, P., Valdez, R. M., Zuniga, S., & Rondinelli, J. (2019). Compassion fatigue and compassion satisfaction among multisite multisystem nurses. *Nursing Administration Quarterly*, 43(4), 358–369.
<https://doi.org/10.1097/naq.0000000000000370>
- Kovich, M. K., Simpson, V., Foli, K. J., Hass, Z., & Phillips, R. (2022). Application of the PERMA Model of Well-being in undergraduate students. *International Journal of Community Well-Being*, 6(1), 1–20.
<https://doi.org/10.1007/s42413-022-00184-4>
- Lambert, L., Warren, M.A., Schwam, . et al. Positive psychology interventions in the United Arab Emirates: boosting wellbeing – and changing culture?. *Curr Psychol* 42, 7475–7488 (2023).
<https://doi.org/10.1007/s12144-021-02080-0>
- Lee, A., Datu, J. a. D., Chan, D. K. C., Lau, E. Y. H., Fung, W. K., Cheng, R. W., Cheung, R. Y. M., & Chung, K. K. H. (2023). The effects of a PROSPER-based intervention on well-being among pre-service preschool teachers during the COVID-19 pandemic: a randomized control trial. *Educational Psychology*, 43(2–3), 228–245.
<https://doi.org/10.1080/01443410.2023.2189649>
- Lyu, X., Jiang, H., Lee, L., Yang, C., & Sun, X. (2024). Oncology nurses' experiences of providing emotional support for cancer patients: a qualitative study. *BMC Nursing*, 23(1).
<https://doi.org/10.1186/s12912-024-01718-1>
- Mathew, L., & Gupta, A. (2023). Professional Quality of Life (PProQOL) of health care providers in Manipur, India. *National Journal of Community Medicine*, 14(04), 256–259.
<https://doi.org/10.55489/njcm.140420232654>
- Mayo, A. R. P., Velaz, E. B., Nieto, N. R., & Sánchez, P. G. (2019). Working happiness in the human resource of a university organization based on Seligman's PERMA model. *International Journal of Human Resource Studies*, 9(4), 101.
<https://doi.org/10.5296/ijhrs.v9i4.15718>
- Mohammed, E. a. E., Mourad, G. M., & Ahmed, F. M. (2023). The effect of implementing Work Stress Management Program on compassion fatigue of nurses working at Oncology Department. *Journal of Nursing Science Benha*

University (Print), 4(1), 996–1010.

<https://doi.org/10.21608/jnsbu.2023.279994>

Moradi, T., Maghaminejad, F., & Azizi-Fini, I. (2014). Quality of Working Life of Nurses and its Related Factors. *Nursing and Midwifery Studies*, 3(2).

<https://doi.org/10.17795/nmsjournal19450>

Mughal, F. B. (2019). Enhancing patient well-being: Apply positive psychology in nursing practice. *Journal of Clinical Review & Case Reports*, 8(4), 1.

Neumeier, L. M., Brook, L., Ditchburn, G., & Sckopke, P. (2017). Delivering your daily dose of well-being to the workplace: a randomized controlled trial of an online well-being programme for employees. *European Journal of Work and Organizational Psychology*, 26(4), 555–573.

<https://doi.org/10.1080/1359432x.2017.1320281>

Ng, W., & Ong, K. R. (2021). Using Positive Psychological Interventions to Improve Well-Being: Are they effective across cultures, for Clinical and Non-Clinical samples? *Journal of Contemporary Psychotherapy*, 52(1), 45–53.

<https://doi.org/10.1007/s10879-021-09513-8>

Niu, A., Li, P., Duan, P., Liu, D., Xu, S., Yang, Y., Guan, X., Shen, M., Jiang, Y., & Luo, Y. (2022). Professional quality of life in nurses on the frontline against COVID-19. *Journal of Nursing Management*, 30(5), 1115–1124.

<https://doi.org/10.1111/jonm.13620>

Plunkett, E., Kerr, J., & Redfern, N. 11.13 Wellbeing. *11 Delivery of services*, 356, 362.

Seligman, M. E. P. (2011). Flourish: a visionary new understanding of happiness and well-being. *Choice/Choice Reviews*, 48(12), 48–7217.

<https://doi.org/10.5860/choice.48-7217>

Shaghghi, F., Abedian, Z., Forouhar, M., Esmaily, H., & Eskandarnia, E. (2019). Effect of positive psychology interventions on psychological well-being of midwives: A randomized clinical trial. *PubMed*, 8, 160.

https://doi.org/10.4103/jehp.jehp_17_19

Stamm, B. (2010). The concise manual for the professional quality of life scale.

Tierney, S., & Tierney, S. (2022). The effectiveness of positive psychology interventions for promoting well-being of adults experiencing depression compared to other active psychological treatments: a systematic review and meta-analysis. *Journal of Happiness Studies*, 24(1), 249–273.

<https://doi.org/10.1007/s10902-022-00598-z>

Williamson, E., Gregory, A., Abrahams, H., Aghtaie, N., Walker, S., & Hester, M. (2020). Secondary trauma: Emotional safety in sensitive research. *Journal of Academic Ethics*, 18(1), 55–70.

<https://doi.org/10.1007/s10805-019-09348-y>

Zheng, Z., Song, R., Zhao, Y., Lv, H., Wang, Y., & Yu, C. (2023). Effects of the PERMA model-based psychological intervention on well-being and post-traumatic growth levels in young and middle-aged stroke patients. *Research Square (Research Square)*.

<https://doi.org/10.21203/rs.3.rs-2453804/v1>