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# Inovation for Nurses Burnout Intervention: A Systematic Review

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# $A\,B\,S\,T\,R\,A\,C\,T$

Burnout was defined as a critical problem found in nurses which could deliver a though impact on their life quality and decrease of nursing quality that was proven by the existence of economic problem within the healthcare system. However, a variety of nursing interventions which were aimed to reduce this nurse problem varied and aimed to define this issue. This research was aimed to examine and conclude the study and discussion of nurse burnout in order to improve nursing performance output. This research was categorized into a systematic review which exerted Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) guidelines which was aimed to identify the research on intervention taken for nurse burnout case. The researcher has independently searched these following scientific databases: ProQuest, Science Direct, and EBSCO for the preliminary research that have been published between 2015-2020 in order to analyze and evaluate that research which suited to the recent inclusion criteria. Based on the databases search of about 1273 articles, 12 research have met to the criteria and were involved in this review. From the total of 12 research, 8 research have used randomized controlled testing, thus, the result should be deduced with carefully. According to the previous research, the intervention on nurse burnout was conducted to improve the result of nursing performance through different programs as education, mindfulness therapy session, support, and increased involvement, also communication. Based on the selected research in this recent review, it showed that an effective intervention for nurse burnout could be either performed individually or in groups and should consider some possible causes, so it could combine to several therapeutic instruments. This review suggested that the future intervention should concern on a more holistic approach by exerting the broader range of intervention techniques.

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# INTRODUCTION

Burnout is defined as a chronic, prolonged Burnout is explained as a chronic, extensive response to both emotional and social stress at work (Kalani et al., 2018). Schneider & Weigl (2018) have stated in their study that burnout is a vital issue in medical profession, in which the demands and resources are not equal, therefore, it frequently causes to medical personnel burnout or fatigue. Burnout can deliver many negative implications on work performance and social relationship(Schneider & Weigl, 2018). The feelings that may appear from emotional exhaustion are loss of the work value, frustration, and loss of self-confidence in goal achievement. Those conditions cause decreased productivity, decreased

work satisfaction, avoidance of task, absence, sick leave, and job changes(Woo et al., 2020). The burnout is also related to other physical health issues such as muscle ache, headache, disease, insomnia, respiratory and gastrointestinal complaint(Slater & Edwards, 2018).The result of nursing performance refers to a level which the nurses can realize the goals of healthcare organization through their nurse role with the basis of individual professionalism, and this result denotes a real implementation of work relating to all sorts of nursing care activity(Woo et al., 2020). Moreover, a good nursing performance can convince a proper nursing care served to the patients. Consequently, the development of nurse performance will indicate the increase of nursing quality (Kalani et al., 2018; Slater & Edwards, 2018).

A very high number of burnout cases in nurses have been reported, particularly, the number is varied depending on the specialization or workplace (R. Owuor et al., 2018). The prevalence of nurse burnout is estimated to range from 19% -76%(Woo et al., 2020). According to R.W. Owuor, et al. (2020), about 22% of nurses in the United States, 27% of nurses in the United Kingdom, 20% of nurses in Germany, and about 22% - 32% of nurses in Italy have dealt with burnout or fatigue at work.Further, the European Institute for Occupational Safety and Health has assessed that the annual cost connected to work stress as around 20 billion Euros, which this fact refers that burnout or exhaustion is able to cause quality decrease in patient care and a very high economic expense for health system.In the other western countries, similar losses are also occurred(R. Owuor et al., 2018). Next, the prevalence of nurse burnout samples in East Java are taken from nurses in medical-surgical rooms in three governmental general hospitals(Rusca Putra & Setyowati, 2019). The nurses who cope with burnout have complained for emotional exhaustion symptom in approximately 228 evidences (47%), depersonalization symptom in approximately 233 evidences, (48%), and decreased personal achievement symptom in approximately evidences (48.8%)(Rusca Putra & Setyowati, 237 2019).Therefore, this recent research is significant to be conducted, since it puts a concern on nurse burnout and defines a number of interventions and innovations for nurse burnout case.

Schneider & Weigl (2018) have asserted that Masclach Burnout Inventory (MBI) is one of the most frequently used tools that are functioned to measure daily burnout or fatigue. This research found three main mechanisms of burnout that are observed and evaluated through MBI tool on three different aspects. First, the main symptom is fatigue, which is associated with the rise of emotional exhaustion feeling. Second, the depersonalization (cynicism), it refers specifically to the nurse inability to deliver care service at work. Last, decrease of personal achievement, this factor may cause negative attitude towards co-workers or patients. The individual factors have a role in the appearance of burnout. Moreover, the organizational factor often causes to nurse burnout incident. Thus, this condition indicates that burnout or fatigue is categorized into a social phenomenon rather than individual phenomenon(Dempsey et al., 2016). The different workplace or work setting factors can signify the early phases of burnout, whereas individual characteristics and personalities may affect the interpretation of their professions which are more likely to determine different ways to deal with stressor and interaction with work environment (Cougot et al., 2019).

Different interventions have been studied and implemented in a variety of professions including nurse profession and other medical fields; however, the most effective intervention for solving burnout case is still unclear. In fact, the current data about nurse burnout intervention are not enough to recommend specific types of burnout intervention. Hence, in this recent research, the program of intervention on nurse burnout will be explained and discussed. A variety of innovation programs have been conducted and developed in the hospital in order to overcome professional problems, so the hospital can ensure nurse health. This research is aimed to explain and draw a conclusion from previous researches on interventions for nurse burnout, so the result of nursing performance can be improved.

# METHODS

The evaluation of this systematic review has followed the preferred reporting items for the guidelines of Systematic Reviews and Meta-Analysis (PRISMA).

# Database search strategy

This systematic review used several databases from computer-based searches to find out relevant studies on nurse burnout. The databases were acquired from: ProQuest, Science Direct, and EBSCO. The search for articles and journals in those databases were done during August -September 2020. To formulate the research questions, this research used PICOS question + L (P = population, I = intervention, C = comparators, O = outcomes, S = study design, L = language) format (see table 1). The boundaries of research questions were clearly mentioned through the development of both inclusion and exclusion criteria by exerting PICOS format. Moreover, the article and journal search used following keywords ("burnout" OR "nursing burnout") AND ("intervention" OR "innovation") AND ("nursing outcome" OR "nursing performance "). The further details were indicated in the PICOS table as a tracking strategy. The selected articles and journals were screened and excluded according to the title, abstract, or basic data of research. Specifically, the search was intended for journal and articles that have been published in the last five years and written in English.

# Study selection

This review included the articles that have discussed about interventions on nurse burnout. The article and journal search was focused on the interventions to overcome nurse burnout. The exclusion criteria were taken on a mixed sample of all medical workers, in order to measure the intervention and compare among different studies. The criteria for different pathologies, for instance profession stress, worry, and depression were also excluded in this research. This recent review would analyze various studies of an empirical nature.

# Quality assessment and data abstraction

This research assessed bias risk by following the PRISMA guidelines properly for this systematic analysis. The researcher independently chose abstracts and article titles and then analyzed them to meet the inclusion criteria. Next, the researcher took these following data from articles and journals: type of intervention, type of sample, research design, sample size, and research result.

# Systematic review flow

The systematic review flowchart was illustrated in figure 1. The initial search showed as many as 415 non-duplicate articles that have been acquired from ProQuest, Science Direct, and EBSCO databases, the complete information would be available in flowchart below. After the inclusion and exclusion criteria were applied in the articles and journals, then the researcher selected about 195 articles. The further examination on articles resulted about 34 articles. Next, about 22 articles of full text were excluded during the data extraction procedure. Finally, there were only 11 articles that met to the research criteria and were included in this systematic review.

#### Table 1. The PICOS Format of this study

Criteria	Inclusion	Exclusion
Population	Practicing Nurses and Nurse Leader	Nursing students, healthcare providers other than nurses, mixed samples
Issue of Interest	Innovations and Interventions explicitly based on nurses burnout	Interventions without explicit focus on nurses burnout
Comparators	No comparator	
Outcomes	Nursing perfomance outcome, burnout or stress measured using validated self-report questionnaires, pre and post intervention	Self-report questionnaires without validation
Study Design a publication type	nd Randomised controlled trials, non-randomised trials, non-controlled before-after studies	Case-control studies, systematic reviews, meta- analyses, clinical case studies, qualitative studies, editors <sup>7</sup> letters
Publication years	Post-2015	Pre-2015
Language	Fnglish	Other than English

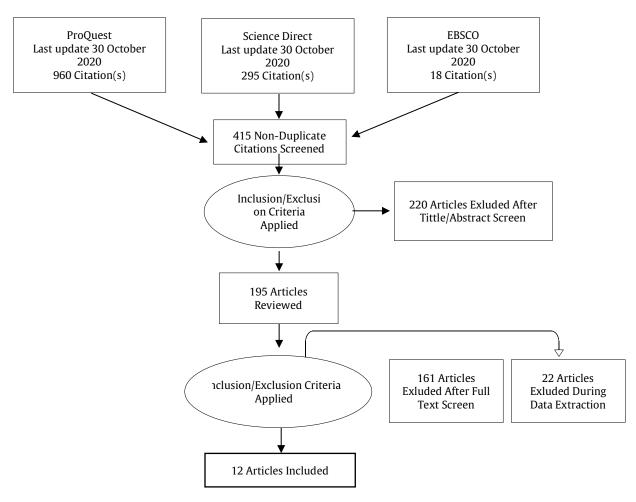


Figure 1. Flow chart of literature search adopted from PRISMA 2009 Flow Diagram

#### **RESULT AND DISCUSSION**

#### **Research Characteristics**

A number of researches have been conducted on workrelated psychological problems, but only a few of them which have explained specifically on interventions for nurse burnout. From the total of 12 articles, the most of them used randomized controlled trial design. The articles were included into broad thematic reviews, and they have argued about intervention programs which were contained of education, mindfulness, increase involvement, support, and communication.

#### Education

The education program for nurse burnout was inserted into targeted workspaces and individual terms set in the Group Education Program. The program covered about various teaching strategies and styles, such as didactic lecture, interactive questioning, reflection session, case discussion, and role play(Slater & Edwards, 2018).The trainings were conducted in an interactive style through visual aids for reflection session, small-group discussion, workbooks, and self-assessment tools. The theory was aimed to construct knowledge and skills over the education program, from novice to expert, it was regarded as responsive to participant experience, since more advanced concepts and skills would be explored progressively in other workspaces. The education on burnout reduction was given by an external senior psychologist and assessed with a onepage survey that would be completed by the participants (Ghazavi et al., 2016).

Ghazavi, et al. (2016) in their study was aimed to find the effects of happiness training program on problems of stress, worry, and depression levels that might lead to burnout of nurses who were caring for cancer patients. This program referred a significant result statistically in the two groups examined in this study. However, the statistical test result still found several differences in stress, worry, and depression values that were decreased after intervention. Ghazavi, et al. (2016) has asserted that the happiness training program was effective and successful to stimulate individual happiness by developing their knowledge and attitudes in work performance as the nurses. Nevertheless, based on the study limitations as a small sample size, limited time, and lack of long-term follow-up program, this study results might not be applied generally to the entire population.

Mohammad, et al (2019) have referred that the score of nurse burnout in intervention group was decreased significantly after participating the class which has been arranged by their own with a new content adjusted to the emotional needs of participants. The nurses have a role and different job in team care and obligation to attend trainings during their career. Then, the burnout could be erased, since the nurse focus should be able to be balanced between care and education. The research finding was recommended for the nursing manager to be exerted in the future nursing program, so the nurses could design their needs of learning by their selves. The self-class program could improve personal relationship, social, intelligential, and emotional skills of nurses in the organization (Mohamadi et al., 2019).

Another research written by Emese Csipeke (2018) has performed training program activity which was aimed to detect the advantage of training whether it could change staff perception positively towards work environment or it could be even destructive through workload increase. The other previous researches have employed a clusterrandomized test of a stepped wedge which involved about 16 wards with an intervention of nurse training that led by a person. The researchers have referred that the staff's selfreport was aimed to measure environmental perception, while the secondary outcome was aimed to measure possible damage to the Work Satisfaction Index (IWS) and Maslach Burnout Inventory (MBI). During the intervention measurement, the nurses continued working and the evaluation was carried out before the training was over or during the nurse activities. All sorts of evaluation were selfreported by the nurses. The intervention was performed for six months and the evaluation was employed repeatedly. The research has found that the training program was not designed to change nurse perception about the environment and significantly affect job satisfaction and burnout incident (Csipke et al., 2019).

#### Mindfulness session

Previous research articles have discussed that the most nurse intervention was mindfulness mediation therapy. This technique was inherited from Buddhist tradition and gradually used in Western psychology to release many mental and physical disorders (Janssen et al., 2018). The therapy was contained of following topics as awareness of thought and feelings, prejudgment and perceptual filters, concerning to pleasant and unpleasant happenings in life, conflict management, reflection on meaningful experiences in practice, boundariessetting, notice of patient interest, selfcare explore, survival over suffering, and consideration on the care of life end. Those themes were then allocated into some sorts of exercise consisting of several times or sessions.

Caixia (2020) has accomplished a study to find the effects of mindfulness intervention for eight weeks on work burnout in ICU nurses. About 106 nurses in the two selected ICUs who fit to the inclusion criteria were included in the study, which comprised of an educational intervention concerning to burnout issue (n = 53) and mindfulness intervention (n = 53), then the study results were compared. The results indicated that both interventions could affect nurse attention, experiential escape, emotional exhaustion, depersonalization, and loss of personal achievement. The effects could be maintained until the third month of intervention given. The intervention of mindfulness therapy was regarded as more effective in increasing the awareness level and decreasing experiential escape among ICU nurses and reducing exhaustion(Xie et al., 2020).

Another research done by Chen Pan (2019) has tested mindfulness-based intervention by exerting a mixed method. This research was conducted to assess mindfulnessbased interventions for nurses who offer nursing care for PLWHA in China. To collect the data before and after the intervention, this research needed the data of perceived stress scale, maslach burnout inventory, five facets mindfulness questionnaire, state-trait anxiety inventory, and beck depression inventory. Also, as many as 20 nurses have attended in-depth interview in the last week of intervention in order to state the research feedback. The quantitative finding showed a significant effect in the five facets of mindfulness questionnaire. But, no significant difference was found in the measurement of perceived stress scale, maslach burnout inventory, state-trait anxiety inventory, and beck depression inventory from before and after the intervention. The qualitative finding referred a decrease of work pressure and daily life stress, increase of communication with patients, coworkers, and family, also increased emotional control to obtain other people's acceptance and attention after the intervention on nurse burnout (Pan et al., 2019).

# Support and Improved Engagement

The empowerment was the main factor of occupational health and organizational performance in care facilities. Yet, it was a task for managers and scientific works to conduct workforce empowerment. This factor was able to develop both structural and psychological empowerment. Thus, the environment should arrange for human resource, support, opportunity, and information, reversely, the employee could learn and experience autonomy, competence, impact, and meaning. The aim of empowerment was to take on motivation and improve commitment, health, and performance as the consequences. However, these sorts of process required an actual transformation of managerial practices from the top to first-line of management level, so it could reach and improve the employee performance sustainably and accurately.

The empowerment strategy on nurse to heal burnout in work environment should be separated from nursing managerial assistance and technology system development planning team. Cougut, et al. (2019) have said the need of intervention along 12 months through a combination of mentoring for healthcare team, frontline managers, and nursing directors in order to empower first-line professionals. The main research finding was to identify the effects of intervention on structural and psychological empowerment, motivation process, managerial practice, working environment, health, and performance. Moreover, this research has a contribution in the nurse burnout solving, but it still needed a solid methodology to be able to empower the workforces in care facilities and improve the nursing managerial practices (Cougot, et al., 2019). Another research done by Imamura K, et al. (2019) has developed two types of stress management programs by exerting smartphone assistance. This intervention strategy could deliver a significant effect on all hospital nurses including the control group. The electronic-based stress management was able to increase burnout complaints in Vietnamese nurses (Imamura et al., 2019).

#### Table 2 Results of article analysis

Authors and years	Study design	Participant	Instrument / Intervention	Summary of Results
(Zahra Ghazavi1, et al. 2016)	Randomised controlled trials	36 cancer patients' nurses in the control group and 32 cancer patients' nurses in the intervention group.	Happiness Educational Program	The mean scores for stress, anxiety, and depression were significantly lower in the intervention group than in the control group after 1 month of the intervention.
(Kotaro Imamura, et al. 2019)	Randomised controlled trials	Each of the 360 nurses in the control and intervention groups.	Smartphone- Based Stress Management Programmes	There are significant positive effects of e- stress management programs related to occupational health (eg, job performance and reduced incidence of burnout) among nurses.
(Maryam Mohamadi et.al, 2018)	Randomised controlled trials	68 nurses were divided into the control group and the intervention group.	Self - Designed Class	Self - designed class significantly reduced nurse burnout and workload.
(Baptiste Cougot, et.al, 2019)	Randomised controlled trials	Uses 12 sub-centers (SC) with approximately 20 care units and 1000 nurses each.	Empowerment Among Medical Care Teams	The intervention was successful and has contributed to the prevention of stress and to the development of quality of life in the workplace.
(Chen Pan, et al. 2019)	Mixed Method pilot study	20 caring for people living with human immunodeficiency virus in the First Hospital of Changsha, China.	Mindfulness- Based Intervention	The quantitative results indicate a significant change in Five Facets Mindfulness Questionnaire. There is no significant difference in the measurement of the State-Trait Anxiety Inventory and the Beck Depression Inventory before and after the intervention. The qualitative results show that nurses experience a decrease in work pressure and daily life; improved communication with patients, colleagues and family, with better emotional regulation, and acceptance of others after the intervention.
(Klatt M, et.al, 2015)	Randomised controlled trials	34 nurses in the ICU ward.	Mindfulness in Motion (MIM)	
(Poulin PA, et.al. 2018)	Randomised controlled trials	24 nurses were divided into a control group: 10 nurses and an intervention group of 14 nurses.	Mindfulness Training	There was a significant reduction in emotional fatigue, a significant positive change in job satisfaction, and a significant increase in relaxation in the intervention group.
(Caixia Xiea, et al. 2020)	Quasi randomized controlled study	106 nurses working in the ICU were divided into educational intervention groups related to burnout (53 nurses) and minfulness intervention (53) nurses.	Intervention Versus Mindfulness- Based	Both interventions can increase levels of awareness and decrease experience avoidance among ICU nurses, as well as reduce burnout. The effect can be maintained until after the third month intervention. Mindfulness is more effectively used to treat burnout.

Authors and years	Study design	Participant	Instrument / Intervention	Summary of Results
(Amber Adams, et al. 2019)	Quasi experiment	30 nurses in the emergency department.	Implementation Of A Cultural Change Toolkit	The Cultural Change Toolkit has an effect on reducing overall burnout and turnover.
(Emese Csipke, et al. 2019)	Randomised controlled trials	Nurses in 16 wards (539 nursing staff).	Therapeutic Environment	Staff training interventions did not change nurses' perceptions of the environment, nor did they significantly influence job satisfaction and burnout.
(Minjeong An, et al. 2020)	Cross sectional study	Total sampling on 285 nurses in Gwangju Hospital Korea	Positive Psychological Capital Mediates	The role of positive psychological capital can mediate the relationship between burnout and nurse performance.
(Sylvie Vincent- Hoper, et al. 2020)	Cross sectional study	582 nurses who reported aggression.	The Moderating Role of Follow- Up Counseling	Researchers found that the availability of follow-up counseling within organizations can weaken the relationship between physical and verbal aggression with the three dimensions of burnout. Availability of follow-up counseling moderates the relationship between verbal aggression and depersonalization, the effect of counseling is not significant for burnout (emotional exhaustion and personal achievement).

Amber Adam (2019) has stated in his research that Southeast Texas has developed a Cultural Change Toolkit according to the current recommendation in literature and practiced the toolkit in an emergency department. The toolkit was contained of specific interventions relating to meaningful appreciation, shared decision making, and better leadership involvement and support for the employees. The nurse burnout and turnover anticipation were all measured through Anticipated Turnover Scale and Oldenburg Burnout Inventory from before and after the program. The development and following implementation of the Cultural Change Toolkit finally resulted to a significant effect to decrease the rate of nurse burnout incidents among those emergency nurses (Adams et al., 2019).

# Communication

The research resulted empirical evidence on the importance role of psychological aspect, which it has a direct impact on work performance and an indirect impact of mediation between burnout and work performance variables. Although, the nurse could bear moderate to severe levels of burnout, but still the nurse performance tended to increase when the high level of positive psychological capital and communication skill have been embedded in the nurse. Hence, it needed to develop a customized and/or strategies that were concerned on the realization of positive psychological capital and provide several levels of burnout intervention for nurses, so it could maintain and/or improve the nursing performance outcomes(Vincent-Höper et al., 2020).

Int J. Environ (2020) has found the interrelation between nurse burnout and nursing performance outcomes. This research has also examined the mediating effect of positive psychological capital for nurse work performance in tertiary hospitals. The research finding has referred that burnout was related to nursing performance through mediation of positive psychological capital. Moreover, the result has also said that the nurses who have higher level of positive psychological capital would be less affected by burnout

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incident and might perform the better nursing care than other coworkers (An et al., 2020).

Another research done by Sylvie (2020) was intended to obtain comprehension and define the role of follow-up counseling readiness in the organization after certain critical occurrence in order to eliminate opposing relationship between physical and verbal assault and nurse burnout. There were about 582 nurses that stated the experience of getting physical and verbal aggression from patient in the last 12 months and chance to receive follow-up counseling session in the organization. Moreover, the nurses have complained three dimensions of burnout that came in the work environment as emotional exhaustion. depersonalization, and personal achievement. The research has referred that either physical or verbal assault were substantially associated with burnout dimensions. A research done by Vincent-Hoper, et al. (2020) has found that the availability of follow-up counseling program in an organization was able to decline the relationship between physical assault and three burnout dimensions. Furthermore, the results also recommended that the follow-up counseling should be available for the nurses, since it could help reducing negative impacts on nurse mental health from the assault action taken by the patient(Vincent-Höper et al., 2020).

# DISCUSSION

Burnout case led to a wide range of psychological and physiological symptoms that might affect nurse's life quality and arouse productivity decline, deficiency, sick leave, and job turnover, those impacts could consequently affect the quality of nurse care on the patients and a large economic cost on health system(Kalani et al., 2018). The burnout was considered as a social issue related to work overload, time pressure, inadequate control in the workplace, lack of decision making ability, poor quality of communication at work, and unsatisfactory appreciation(R. A. Owuor et al., 2020). However, those factors were hard to be managed,

since they were related to organization and economical availability regarding to the more apolitical level of decision making(Schneider & Weigl, 2018). In fact, the regulation programs for both individual and group and programs that improved nursing quality outcome have already proven efficacy in burnout decrease. Moreover, several programs that marked out to burnout dimensions were linked to therapeutic tools containing of education, awareness development, support and engagement increase, and communication. The idea of therapy tools for burnout determined by nurse reduction was personality characteristics. The personality seemed to be the key factor in burnout, and high-risk personality profiles were categorized by high neuroticism, poor hospitality, introversion, and negative efficacy. The personality attribute of nurses should be useful in the next researches, so the results could focus on individualized intervention and identify the more endurable professionals for fatigue appearance.

The burnout was defined as the response of complex relations between workspace stressor, genetic susceptibility, and coping method. This problem caused emotional exhaustion, depersonalization, and reduction of selfachievement. Based on the research results on education intervention for burnout problem, the value of mental workload of nurses in the intervention group could be significantly reduced after they have been participating the self-designed training, which contained of a new value according to the current emotional needs of participants. Since, the nurses have various roles and jobs in healthcare environment and were demanded to pass many training programs during their profession (Mohamadi et al., 2019). A number of researchers have found positive and significant effects from the program of emotional intelligence education and its elements on humor sense, social support, safety of work situation, and burnout. The recent review has found the effects of happiness training program on stress, worry, and depression of nurse in cancer patients, no statistically significant difference was surveyed between two intervention groups based on personal information of participants. As the result, no significant difference was found in the two groups between before and after the intervention(Ghazavi et al., 2016).

The burnout was developed as the response of gaps between professionals and their work circumstance in various workspaces. Reversely from the studies on individual variables, the majority of studies on organizational risk factors could regard a significant effect of intervention program on burnout case. First, the aspects of workload and time pressure were associated with emotional exhaustion. The job overload spent worker capacity to fulfill the needs of work, especially in a few time of rest and recovery(An et al., 2020). The lack individual control in the work environment over goal achievement was closely related to emotional exhaustion. In addition, the research found a positive relation between active participation in decision making and low level of exhaustion. The research also indicated an important factor in this program was depended on the quality of social interaction with peers and patients(Csipke et al., 2019). The peer cooperation at workplace could determine burnout and job satisfaction. So, it could alleviate the effects of stress and have a significant effect to avoid nurse burnout. Commonly, the leadership style of supervisor has a role in both contexts of worker's appreciation and group cohesion(Cougot et al., 2019).The nurse burnout was lessened when the supervisor was fair and supportive to the workers. Shortly, the most significant organizational factors which could cause to burnout were comprised of work overload, time pressure, lack of individual control, low level of decision making ability, poor ability of communication at work, and insufficient work rewards. Those research results have established a framework which illustrated that all factors were solely interdependent on each other factors and interrelated with individual personalities.

Many types of stress management strategy were incompletely effective, while other strategies were not even effective (Imamura et al., 2019). Specifically, the researches which put more concerns on communication skill training were failed in burnout decrease (Vincent-Höper et al., 2020). Probably, those kinds of intervention might result a positive effect as long as they were regarded as parts of a more comprehensive treatment set. Further, the relaxation techniques seemed to be successful in emotional exhaustion reduction and might be more effective along the combination with other types of intervention(Janssen et al., 2018). Some approaches that were empirically supported for stress management might be turned into the intervention of burnout case. This statement was based on the evidence which those approaches could help in stress inoculation training. For the crucial and very difficult problems would need more attention to address burnout symptoms through a combination with innovative use of advanced technology interventions. Moreover, based on the result of mindfulness intervention for nurses who cared PLWH patients in China, the integration between MBSR, MAPs and Chinese cultural practices components was valued as an acceptable form of intervention with different benefits for this population, especially in stress management from work setting and daily life issues(Janssen et al., 2018). In addition, the qualitative research results have shown many benefits of this intervention as emotional control, peer acceptance, and attention increase.

According to Xie, et al. (2020), the mindfulness intervention program was aimed to eliminate emotional exhaustion by using the classic method of mindfulnessbased meditation, body scanning, and mindfulness yoga techniques in MBSR and MBCT. The cognitive values within the training were covering to the explanation of automatic navigation, personal introspection, and mindfulness. The results referred that the level of emotional exhaustion was significantly declined after a week of intervention, after a month of follow-up counseling, and after three months of follow-up counseling in MBIB groups and the level was significantly lower than the results in EB group(Pan et al., 2019). This result has suggested that the mindfulness intervention could be used to release emotional exhaustion on ICU nurses and the burnout effects could be maintained until three months of follow-up counseling program. The research showed that the eight week of mindfulness intervention according to the three dimensional theoretical designs of occupational burnout, the exertion of mindfulness theory and methods including to MBSR, MBCT, ACT, and compassion, also the job characteristics of ICU nurses could increase the level of nurse mindfulness and decrease the level of nurse experiential avoidance efficiently, which then it achieved to the purpose of occupational burnout reduction.

# Limitation of The Study

The research result did not highlight on the effects of nurse specialization and personality traits.

#### CONCLUSION AND SUGGESTIONS

Based on the previous studies examined in this recent research, this research stated that to realize an effective intervention for nurse burnout, the intervention should be given individually and in groups and consider various causal factors to combine multiple therapeutic tools. The use of one aspect to reduce stress level would not be enough to alleviate the burnout rate. This recent research has referred an important package of intervention technique that could result a significant effect. This research also studied and analyzed onthe implementations of coping strategies training, interpersonal skills training to develop social support, negative emotion control, communication skills improvement, discussion of specific professional high-stress situations, and use of relaxation techniques. Those therapeutic tools could be managed and combined into a more holistic and personal form of intervention.

This research suggests that the interventions should be always developed in individual and institutional level and put in a balance between work responsibility and personal training. In conclusion, the nurses should have earlier training of individual stress prevention during their career, so they can improve skills and self-confidence system to offer and perform inoculation against the circumstances that may lead them to burnout situations.

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#### **Conflict of Interest Statement**

The authors have no conflict of interests to declare.

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