

Effectiveness of Hand Massage on Reduction of Stress Level among Nurses Working In Rotational Shifts

Bamila. N¹, Dr. Shashi Joyce Soans², Prof. Dr. T. Johnsy Rani³

¹Research Scholar, Department of Nursing, Srinivas University, Mukka, Mangalore

²Associate Professor, Department of Community Medicine, Srinivas University, Mukka Mangaluru

³Vice Principal Cum Hod, Popular College of Nursing, Varanasi, Uttar Pradesh

Abstract

In the present times, nurses who are operating in the rotational shifts face higher stress levels due to the nature of their profession. This could negatively impact on the physical and mental well-being of an individual that is affecting the professional and personal development of the individual. The following study has helped to explore the effectiveness of hand messages with an intervention of reducing the stress levels of an individual. The findings of this study have helped to improve the psychological and physical stress of an individual to provide benefits to the tangible nurses.

Keywords: Hand Message, Stress Reduction, Occupational Stress, Workplace Wellness, Intervention

Introduction

Hand message is considered as a pharmacological intervention that consists of potential benefits to reduce stress among the nurses. It could be stated that the effectiveness of hand massage helps to reduce the biological stress in patients by the help of providing acute geriatric psychiatry services. In recent times it has become important to consider the effectiveness of hand massages to reduce the stress levels among nurses (Wang *et al.* 2022). It has become plausible that these messages can help in managing the stress levels of an individual. Certain research will be required to perform to understand the effectiveness of this service based on a specific setting. In this study, the effectiveness of hand massages has been discovered to reduce the stress levels of nurses. It will help the nurses to improve their health quality and to provide better service to their patients. It has also become important to consider that factors such as work schedules at the lifestyle patterns could also affect the stress levels among the nurses.

Literature review

Author with year	Country	Aim	Findings	Conclusion
Ali <i>et al.</i> 2020	Pakistan	The aim is to analyse the adverse effect of nurse-led surgical	The anxiety level is significantly reduced among tentative	Surgical education is beneficial in reducing the level of anxiety

		education which reduces anxiety on the patients who are waiting for the heart surgery.	members in post assessment.	among the patients who are waiting for the heart surgery.
Benthien <i>et al.</i> 2023	Malaysia	The aim of these study is to describe the theory and pacify the interference in prescribing DE that helps to reduce neuroleptic in Dementia.	Through the dual focus effect and implication outcome the study is classified as dual hybrid effectiveness implementation pilot study.	The study will deliver a sign of effectiveness in DECADE and a model is further upscaled and evaluated in a controlled manner.
Hassan <i>et al.</i> 2022	Cairo	The article describes the technique of reflexology message, the physiology behind it, and discusses the available evidence for its efficacy in reducing common complications of HD such as cramps and fatigue.	The number of clinical trials indicate Reflexology massage may be successful method in a variety of specialist.	Reflexology massage is a complementary therapy to serve as a treatment for complications that occur due to HD treatment and also it is noninvasive and safe nursing intervention.
Mohd Azmi <i>et al.</i> 2021	Malaysia	The role of the cortisol and its consequences in the blood system.	The modulation of HSD1 11Beta activity in incitive cell provides a healing procedure to the blood diseases.	Cortisol is a key player in the circadian system that significantly regulate the cardiac function.
Naruse <i>et al.</i> 2021	UK	The aim is to explore how	This paper has discussed the	Couples perceived

		stressed couples experienced exchanging massages in detailed manner.	reciprocal utilization of the massage within close interactions.	Positive Massage just as the effective skill care in bestowing the holistic relief related to self-care and promotion associated with relationship.
Nguyen <i>et al.</i> 2023		Understanding the relationship between social stress and the gastrointestinal microbiota.	Social stress has substantial negative impact on various aspects.	The result confirm that micro-biota gut brain axis as demonstrated by increased cholesterol level regulated by HPA axis.
Patonengan <i>et al.</i> 2023	Indonesia	The study aimed to examine the effectiveness of SSBM in reducing blood pressure.	The SSBM therapy in the experimental group was proved to be effective compared to the standard therapy in the controlled group.	SSBM therapy is the effective complementary theory in reducing stress, anxiety and depression in adults.
Popovic <i>et al.</i> 2023	US	The purpose that this particular study has refers to putting ahead a few lessons based on evidence. It may be acknowledged from the process of responding to the pandemic	The negative impact can be noticeable due to pandemic.	Covid 19 has exposed vital disparities into a few populations subsets which manifested with the help of burden of disease as well as worse outcomes.

		related to a behavior.		
Varghese <i>et al.</i> 2021	USA	Decline in the mental health of the nurses across globe due to Covid 19 pandemic.	There were significant risk factors for the mental illness.	Poor mental health outcomes among the nurses warrants the need to implement proactive psychological intervention to deter the collapse of health care system.
Wang <i>et al.</i> 2022	USA	The study highlights the most popular approaches to preoperative anxiety are reviewed focusing on more recent evidence provided by clinical studies.	The review of the literature in the non-pharmacologic interventions for preoperative anxiety showed a wide range of options evaluated for this indication with proper result.	Non-pharmacological interventions are becoming an alternative suggested item.
Wiels <i>et al.</i> 2021	USA	Neuropsychiatric symptoms in mild cognitive impairment and dementia due to AD	Affective and sleep related symptoms are common in MCI and remain prevalence and severity among dementia groups.	Neuropsychiatric symptoms and activity disturbances increases as dementia progresses.

Table 1: Review Table

Benefits of Hand message in patients having dementia

At the present time, about 46.8 million people have been diagnosed with dementia and it has been assumed that it will rise to 74.7 million by 2030. Alongside the functional decline, patients who are having dementia might suffer from communication disorders and the psychiatric symptoms. The agitation has been defined consensually as the verbal or physical behaviour that can be considered as the direct result of emotional distress among the nurses. It could be considered as an unpleasant symptom that is strongly related to discomfort (Wiels *et al.* 2021). Agitation can also become the cause of emotional and physical strain

among the caring nurses and with patients having dementia. There are several experts present that have recommended that non-pharmacological interventions will help to decrease the agitation in patients. Several studies agreed that the sensory approaches will help to exhibit the weakness and the requirement for a scientific development.

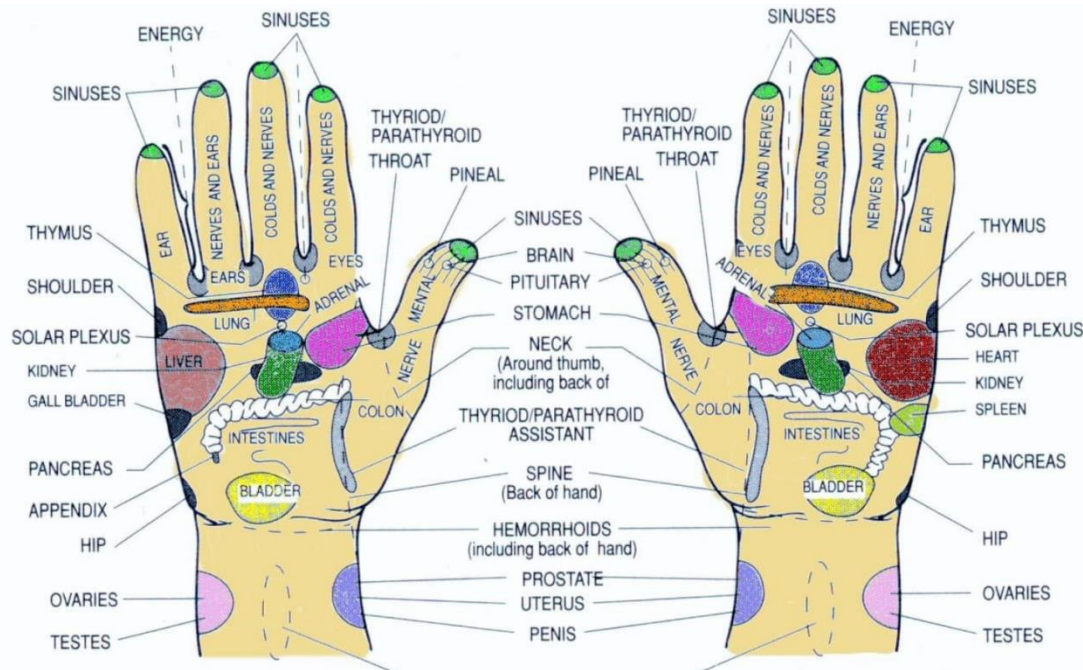


Figure 1: Reflexology hand message
(Source: Mohd Azmi *et al.* 2021)

Psychological studies to determine the Cortisol levels of people receiving hand messages

The psychological studies have indicated that touch will help to induce the emotions in a person without developing practical simulations. Cortisol is the neuroendocrine indicator that is connected with the activity of the sympathetic nervous system (Mohd Azmi *et al.* 2021). SAA can also be considered as an indicator of the autonomic nervous system that helps to maintain the anxiety-related disorders. Based on the acute stresses, sAA increases have become popular to identify the cortisol release by 13.5 min (Nguyen *et al.* 2023). It could be suggested that a reliable connection between sAA and sC could produce a better understanding of the various degrees of psychological stress. The positive effects of messages on the agitated patients can be explained by the help of a stress reduction process that will help to decrease anxiety and the emotional distress.

Methods and Material

The World Health Organization has stated that 50% of the working nurses remain under stress due to different conditions. 30% of the nurses suffer from marital discord, and 49% suffer from nausea or upset stomach. Furthermore, 71% of the nurses do not feel enough productive and get into depression regularly. UNESCO has specified that 50% of the growing children suffer from stressful conditions worldwide (Varghese *et al.* 2021). Longer hours of the shift duty and working with hazardous chemicals have become difficult for nurses in the present time. In the process of reviewing stress and their consequences, coping strategies will be required to develop such that a method of response can be provided to identify the nature

of stress. In lowering the effects of professional stress, improved team cooperation and social support will be required to protect the nurses against burnout. Healthcare professionals often experience higher levels of stress due to the demanding nature of their work. It has been considered true for the people who are currently working in notational shifts thereby disturbing their sleep patterns and the various aspects of their personal life. There are several experts who have recommended that the non-pharmacological interventions will help to decrease the agitation in patients having dementia.

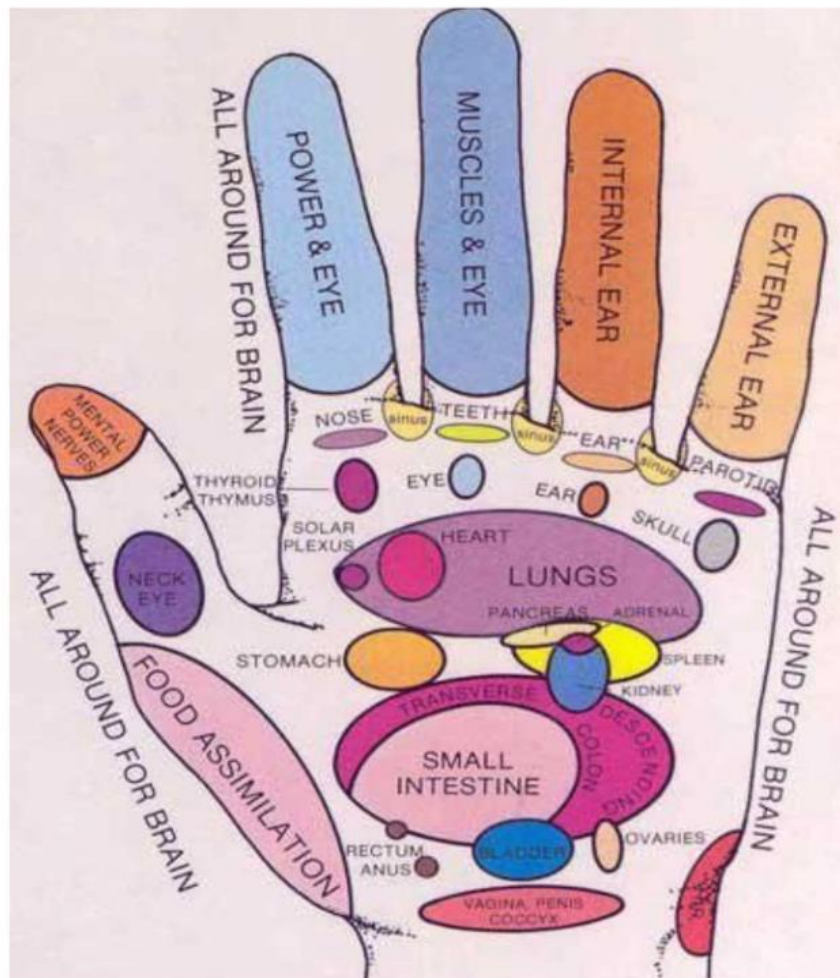


Figure 2: Reflexology hand message chart

(Source: Naruse and Moss, 2021)

Head massage has been considered as one such intervention that consists of potential benefits towards reducing the stress of an individual (Naruse and Moss, 2021). The stimulation of cutaneous mechanoreceptors has provided various stress modulation processes alongside having other benefits. Mechanoreceptors have been considered relevant in the feet and hands of the nurses. An experimental study has developed that hand messages could provide a significant effect on the decrease of salivary cortisol levels. This will help to improve the mood of people having cancer and with moderate cognitive impairment. The impact of massage has produced significant health implications and effects on the biological markers. A present study has shown that the self-critical individual consists of normal cognition and maintains their cortisol level at a normal range. Agitation in the people with dementia has become a significant concern in the recent times since it causes relational disorders among both nurses and patients. The primary objective of this study is to investigate the effect of hand massage towards reducing the

stresses of the nurse based on an acute geriatric service (Patonengan *et al.* 2023). It can be considered from various services that most of the nurses work 2 to 3 shifts per day since they have to monitor the patient's condition regularly. The shift workers have experienced psychological health problems that do not match the rhythm of their bodies based on their daily lives. The health of the nurses has been threatened by the various occupations and excessive workload present. The different harmful environments such as contact with the patients could cause physical and mental health problems. An increasing stress could impact negatively on the life quality of nurses by reducing they are mental and physical performance. This will significantly induce the fatigue and an increasing burnout and turnover rates. It could also be the reason for maladaptation syndrome that involves emotional disorders and the different cardiovascular diseases (Popovic and Lavie, 2023). The psychological and physical pathologies could possess serious effects on the recovery of a specific disease. The higher level of self-efficacy will help to highlight the major problems and the development of a positive performance in their nursing career. The importance of fatigue and stress management will help the nurses to manage their stress effectively based on their busy schedules.

Analysis and Discussion

Healthcare professionals specifically the nurses have experienced higher levels of stress based on the demanding nature of their job. This has been considered true for the people working in rotational shifts since the irregularity in their sleep patterns could lead to an increase in their stress levels. In this aspect, hand massages have been considered a non-pharmacological intervention consisting of potential benefits that help to reduce the stress levels. A pilot study has been performed that involves that patients with dementia who have reported a decrease in their agitation process (Benthien *et al.* 2023). The study has also confirmed that there could be several beneficial effects on the hospitalized patients who are suffering from dementia. It has further measured the levels of salivary cortisol which are the primary biological markers of stress. An intervention of this group has exhibited large increases in the sC and sAA aspects thereby providing a significant group effect for the sAA present at weak 2. The primary challenges have been highlighted that are associated with the complex patient populations.



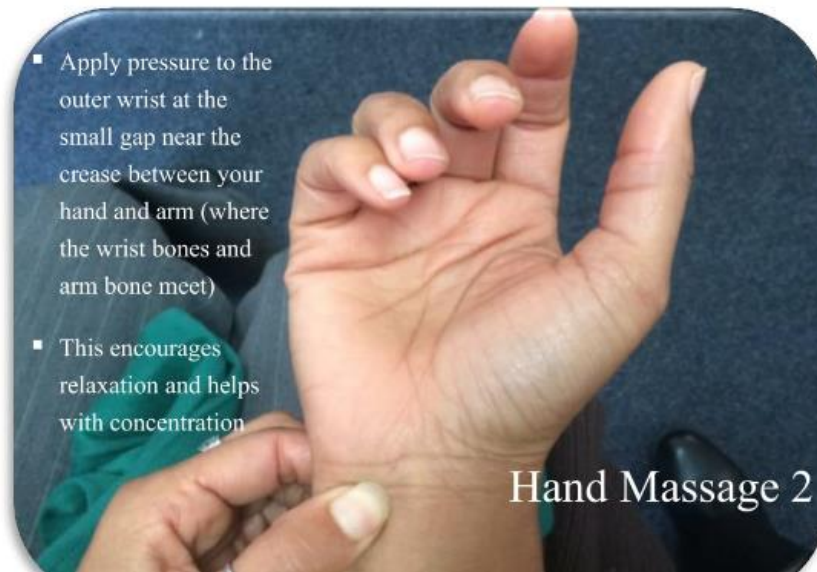


Figure 3: Hand message techniques

(Source: Benthien *et al.* 2023)

A significant research will be required that will help to confirm the findings and the benefits of hand massage as a part of the routine care among the patients having dementia. Hand massage developed promising stress reduction techniques and the establishment of their effectiveness among the nurses who are working in rotational shifts. It has been considered an important area of the study that has helped to provide certain implications to improve the productivity and well-being of the healthcare professionals. It will also become important to consider the development of work schedules and the lifestyle patterns during assessing the stress levels among the nurses present. Reflexology has been performed as the message therapy that focuses mainly on the pressure points and helps to resolve the health issues as per the National Center for Complementary and Integrative Health (Hassan *et al.* 2022). In this process, specific pressure has been applied to the hands that helps to influence the health of corresponding parts of the body. One of the commonly accepted theories is that it helps to calm the central nervous system and reduces the stress levels overall. The possible benefits of this process could be highlighted as reducing mental disorders and to increase the productivity of the nurses. It also helps to reduce anxiety among the patients who are suffering from coronary artery graft surgery (Ali *et al.* 2020). This process has been proven to be beneficial in determining the depression rates and to work with improving them significantly.

Conclusion and Recommendation

This study has suggested that hand messages could provide beneficial effects on the agitation and stress of hospitalized patients who are suffering from dementia. A piece of proper evidence has not been gathered that proves that stress is reduced effectively among the nurses with the help of this method.

Recommendations

- Future research will be required on this topic that will help to determine the effectiveness of hand massage in stress reduction.
- The health care institutions will be required to incorporate based on their routine care for the nurses. This will help to potentially improve the productivity of Healthcare professionals.

- Furthermore, can utilize the findings of the study towards the development of new policies that are related to the Healthcare worker and their well-being. This will help the process of hand massage in providing effective stress reduction techniques as a part of their wellness programs.

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