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Nurses experience of aromatherapy use with dementia patients experiencing disturbed sleep patterns. An action research project

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A B S T R A C T

The purpose of this study was to gain an insight into nurses' experiences of incorporating aromatherapy into the care of residents suffering from dementia, anxiety and disturbed sleep patterns. Twenty-four residents and twelve nurses from four nursing homes participated in an action research study. The use of lavender augustofolia essential oil diffused nightly was perceived as an effective care modality reducing insomnia and anxiety in this patient cohort. Nurses experienced some negative attitudes among colleagues because they considered aromatherapy as not evidence based. Nurses require greater access to evidence based use of Aromatherapy. Further research is needed to study how smell can enhance dementia care.

1. Introduction

Nursing home residents with dementia commonly suffer from disturbed sleep patterns, anxiety and restlessness. These symptoms can increase with age and dementia severity. In Norway, as in most Western countries, pharmacological medications are commonly used to ameliorate these symptoms, however these may not have the desired effect or may have side effects [1–3]. Alternatives to drugs are rarely used in the Norwegian health care system, and there is no formal specialization in complementary and alternative medicine (CAM). Although there is increasing evidence of the use of CAM[1] internationally, little is known about the use of CAM and aromatherapy in particular, in residential aged-care facilities [4].

Aromatherapy is the therapeutic use of essential oils [5]. Its main effect is through the skin and via the olfactory system and this mechanism has been previously documented [6,7]. One review of evidence supporting the use of aromatherapy to treat behavioral challenges in dementia patients (BPSD) concluded that aromatherapy could potentially useful however, data supporting efficacy continues to be scarce [5]. The oil *Lavendula augustifolia*, is one of the most commonly used and cited essential oils [8], with a number of studies indicating that lavender can decrease stress and pain intensity [9]; it can also assist by reducing insomnia [10]. It appears that Lavender can increases the percentage of deep or slow-wave sleep in subjects resulting in greater alertness during the day [11]. Studies relating to people with dementia experiencing, sleep problems and anxiety show generally positive, but varying results [5,12–16]. However there continues to be a need for further research. Two studies have indicated a statistical relationship between lavender and calmer behavior [19,20] and in one study, a combination of oils was found to be effective in reducing anxiety [21]. However there continues to be a need for greater detail in terms of specific aromatherapy oil usage.

To date, no studies were found when undertaking a literature search of nurses using aromatherapy in the care of residents with dementia.

1.1. Purpose

The purpose of this study was to gain an insight into the experiences of nurses who chose to incorporate aromatherapy in their care of residents with dementia who suffer from anxiety and disturbed sleep patterns. The research question was: How do nurses experience and perceive lavender augustofolia aromatherapy with dementia patients who experienced anxiety and disturbed sleep patterns?

2. Method and implementation

Considering the purpose of this study and the limited experience in Norwegian nursing homes of using aromatherapy, an action research method was chosen. Action research is a process that generates knowledge within an organization. It requires the

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[1] (http://nifab.no/om_alternativ_behandling/bruk_internasjonalt).

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researcher to make their knowledge available and for participants in their practice to share their understanding of what they are doing available to the researcher. The most important and useful results are action, change, development and liberation [23]. Thus, "Action research is a strategy where we work for change while we use the process to learn and develop new knowledge" [22, p. 156]. The principle aim of the project was to implement the use of aromatherapy, whilst concurrently monitoring and evaluating the change in practice process. Thus evaluation sought to describe and analyze the implementation and contextualize these outcomes within existing knowledge in the field. Action and research occurred simultaneously throughout the entire process. Action research is also characterized by the direct involvement of the researcher to implement and monitor the change process and ultimately, to ensure the participants – in this case the nurses owned the change in nursing practice. This closeness between the researcher and the field can be both a strength and a challenge with positive collegiate collaboration. However, it is also essential for the researcher to ensure that each step of the action research process is monitored and staff encourages done to resolve issues that may arise. Thus the researcher does not provide solutions to problems, but encourages and monitors staff as they implement change [22].

An invitation to participate in the project was sent to the eight nursing homes in the region. Four nursing homes agreed to participate, this included 12 nurses and 24 patients.

2.1. Ethical considerations

People with dementia are a vulnerable group who were unable to provide informed consent to participate in the project. Any participation requires thorough ethical assessment [24]. The responsible nurses together with the relatives of each resident acted as the resident's advocate and gave consent on their behalf. In some cases, participation was discussed with the doctor. The Regional Ethics Committee ruled that ethical approval was not required for the project because essential oil of lavender was considered a scent associated with well-being, and not medication. The nurses chose freely to join the project and signed an informed consent form to acknowledge they had been made aware of their right to withdraw and remain anonymous.

2.2. Problem identification

The project consisted of following seven steps prescribed by Malterud [22, p. 157]:

1. Problem identification: Nurses report residents with dementia suffering from anxiety and disturbed sleep patterns (walking around at night, frequently calling for staff at night, patients tired and falling asleep during the daytime).
2. Summary of past experience: Nurses experienced and recognized that existing treatments (most commonly drugs) are not working effectively with this client group.
3. Formulate a goal: Conduct and document the use of aromatherapy using Lavender Augustofolia for selected residents experiencing anxiety and disturbed sleep.
4. Project planning: The researcher and staff discussed the procedure and decided to use an aromatherapy fan diffuser[2] with lavender. They made plans for implementation in cooperation with an aromatherapist and selection, criteria and a survey form were developed for residents. Selection criteria included residents who were regularly ambulatory or awake during the night and who slept during daytime despite medication. Twenty-four residents from four nursing homes met the criteria and were selected for participation. Information sheets for employees, relatives and physicians were printed and reporting forms and folders for each resident were prepared by the researcher and participating nurses. Full information was provided and information forms completed and signed where appropriate. Other colleagues were given information about the project both orally and in writing.
5. Procedure: 12–15 drops of essential oil of lavender augustofolia was placed into a fan diffuser at a particular time each evening and diffusers were standardized and monitored to ensure each patients received similar exposure to the essential oil.
6. Implementation: The nurse on night duty was responsible for monitoring fan diffusers and these were commenced 30 min before bedtime. Night staff regularly checked diffusers during the period they were in use and turned them off each morning. A short night report was completed. The procedure was repeated every night over a three month period. Day staff also monitored patients and completed a daily report on each resident, regarding, patient perceived anxiety, alertness and mood.
7. Redefining the problem: The procedure is dependent on the continuity and motivation of nurses involved in the project. The staff involved in the project were monitored by the researcher and any issues associated with use of the specific oils were addressed and discussed. Similarly discussion also focused on the opportunity to reduce individual residents drug regimens.

2.3. Action research

As in any form of research, the research question determines which methods can provide relevant knowledge. In action research, this commonly involves qualitative methods [22].

Data were collected in the form of field notes, reports, logbooks and focus group interviews. Field notes were written during the entire process. Nurses completed daily reports on each resident. Unrest, activity, mood, sleep and drug use were the most important factors recorded and evaluated. The researcher visited each nursing home every 14 days. This resulted in field notes focusing on the experiences of all the nurses. On completion of the implementation, the responsible nurses were interviewed in three focus groups and one individual interview. Focus groups are particularly well suited to learning about the experiences, attitudes or viewpoints in an environment where many people interact [22, p. 133]. The focus group interview is guided by a moderator who ensures that all are heard, maintains the group process and contributes to the conversation to ensure that the actual theme is fully explored [22, p. 134]. The primary theme focused upon experiences of the nurses in using the aromatherapy fan diffuser with specific nursing home residents. It encompassed planning and implementation, use of essential oils, cooperation with colleagues and relatives, support from management/leaders and participating in the project.

Analysis of the resident reports was made by the researcher and the responsible nurses. Reports for each resident were read and discussed among the responsible nurses. They had different experiences, but they agreed on four categories:

1. Residents who had a good effect form experiencing essential oils via the diffuses.
2. Those for whom a moderate effect was experienced.
3. Residents who were not perceived to have changed who had an unclear effect.

[2] The aromatherapy fan diffuser is also called an Aroma-Mouse. It is a portable electric diffuser. A refill tray is pulled out and drops of essential oil is put on a thick paper pad.