

Sundowning in Older Persons with a Dementia: Evidence Base, Nursing Assessment and Interventions.

(pre publication version)

(word count 5,000 approx excluding title and references)

Learning Outcomes

This article will provide nurses with the opportunity to:

1. To assess the evidence base on sundowning and its relevance for nursing practice
2. Consider a framework for a nursing assessment of sundowning
3. Reflect on an observation schedule as part of a nursing assessment
4. Review a range of possible nursing interventions

Introduction

This article aims to present an evidence-based discussion on sundowning and on interventions for responding to sundowning. Sundowning is something that many practitioners working with older people, will have encountered in their practice experiences but there is little discussion of it in UK gerontological nursing literature.

A recent literature review (Dewing 2000a) will be drawn on and summarised to expand current understanding of this phenomenon in order that registered nurses working with older persons with a dementia can make informed decisions about therapeutic nursing care and overall management as part of a multi-professional approach.

A Note

Sundowning has been inaccurately labelled as a syndrome and is also associated with delirium (acute confusional state). The majority of papers reviewed seem to interchange Sundowning Syndrome (SDS) and delirium, particularly nocturnal delirium and SDS (*for example*: Meredith 1998; Duckett 1993). Through out this article the term sundowning will be used as the preferred term. Nocturnal Delirium and Sundown Syndrome are used only where they are specifically used by other authors.

What is Sundowning?

Box 1

Example 1:

Mr Lenard has regular respite as part of his care package so that his wife feels she can continue caring for him in their marital home. He has a medical diagnosis of probable Alzheimer's disease.

Mr Lenard puts on his jacket at 4pm every day and starts looking for the way out. He pleasantly asks to be directed. When he is unable to find the exit he begins to become more insistent. He asks to see "the manager" and complains about "unhelpful personnel in the establishment". Listening and taking seriously his complaint does not help and he will again become focused on leaving once he feels he has achieved his aim of complaining about the poor approach. He asks to use a phone to call his

wife to come and collect him (but is unable to work out how to do this and suspects the phone has been deliberately broken). He continues trying to leave or searching for a phone. When he finds the way out he will either stop outside and stand for a while or will attempt to leave the site altogether. During all of this he is insistent that either the children are alone in the house or the house might be on fire with the children in it. This behaviour tends to occur every day until about 6pm. After this time he can be distracted or diverted.

Time out activity 1

Can you make and links between the examples given in box 1 and 2 and examples from your own practice? What sort of things did the older persons you nurse say and do?

Sundowning is a term used to describe the collective effects of cognitive and behavioural changes in persons with dementia that take place, for a variety of reasons, around late afternoon to nightfall. The term Sundown Syndrome (SDS) and sundowning, are fairly recent inventions that have appeared in the United States (US) gerontological literature since about 1973 (Butler and Lewis). There is no widely agreed description, although observed symptoms and patterns of behaviour can often be agreed (Wallace 1994; Exum et al 1993; Rindlisbacher and Hopkins 1991). Behaviours can occur singularly or in a combination according to Bliwise et al (1993). Bliwise describes the manifestation of disruptive and unusual behaviours during the late afternoon or early evening hours. Wallace (1994) found that the behaviours generally took place between 3 – 7pm and were not behaviours observed at other

times of the day or night. Others, like Burney Puckett (1996) say that the behaviours are exaggerated forms of behaviours seen at other times.

Occasional references to behaviours of older people with dementia that seemed worse in the evening or at night than during the day have been made for many years (*for example*: Thewlis 1942; Post 1954; Agate 1972). But it is not until the 1970s that the terms SDS and sundowning starting to be attached to such descriptions. The health related literature shows a huge variation about timing of sundowning. Norton (1991) for example, observed that the behaviours took place at around 3-6pm during the summer months before daylight had been effected. In other words it was not dark or time to retire for the night. Likewise, Evans (1987) noted that sundowning took place in the late afternoon. Some authors say it starts in the afternoon and ends at nightfall, some say it begins at sunset (*for example* Exum et al 1993) whilst others say that it can continue into the night and for all of darkness hours (*for example* Vitiello et al 1992). And a few authors such as Cohen-Mansfield et al (1989) have found that the patterns of behaviours associated with sundowning are more severe in the mornings.

The idea of sundowning as a syndrome comes from its association with the medical syndrome of Delirium and specifically Nocturnal Delirium (St Pierre 1996). Although sundowning is often referred to as a syndrome it does not actually meet any medically recognised criteria to be listed as such (Burney Pickett 1996), unlike Delirium or acute confusional state, which has established diagnostic criteria, for example DSM 111 and DSM 1V (American Psychiatric Association 1994). To refer to sundowning as a syndrome is not helpful as it serves to further medicalise the collective effects of cognitive and behavioural changes as being exclusively caused by dementia. Such a

limited or fixed understanding then has implications for the way in which assessment and therapeutic care takes place. Gerontological nursing has tended to follow a bio-medical approach, in that the behaviours associated with sundowning have been seen as a set of problem behaviours directly attributable to or caused by cognitive decline.

In the US, research specifically around sundowning can be traced back to the mid 1970's. Most research since then has been carried out in the US with only two published papers from the UK namely Norton (1991) and Drake, Drake and Curwen (1997). This latter one is a small-scale study set in a nursing home that tries to estimate the number of people who had sundowning. However, the researchers do not define sundowning or how they selected subjects for the study.

It is easy to attribute sundowning to dementia. But not everyone with dementia will experience sundowning. So it is likely that there are a range of other influences that lead to sundowning. Rindlishbacher and Hopkins (1991) in a review of US literature, describe eight causal hypotheses put forward to explain sundowning. These are:

- ❑ sleep apnea
- ❑ hallucinations with dreaming
- ❑ circadian rhythm processes (associated with light changes)
- ❑ delirium
- ❑ fatigue
- ❑ institutionally created
- ❑ over-stimulation
- ❑ sensory deprivation (understimulation)

However, the above are only a hypothesis.

Time out activity 2

Recap on what you have just read. How would you describe to a nursing student what the literature says about sundowning and when it occurs?

Behaviours associated with Sundowning

Norton's account of her investigations into sundowning carried out in 1970s showed SDS was the appearance or exacerbation of confused and agitated behaviour, a form of Delirium, in which calling out and wandering with the apparent intent of seeking or 'escaping' as marked features (Norton 1991). Evans (1987) described agitation, restlessness, confusion, wandering and screaming as the main behaviours. Norton's observation on the heightened intent of seeking or escaping seems to be a critical difference with other authors. Because of developing understanding of behaviour in dementia, nurses need to ask if the behaviours they observe are a form of communication about an unmet need that therefore has meaning or significance for the person involved (Stokes 2001).

Box 2

Example 2:

Miss Pollari, usually quiet and gentle in her behaviour, becomes increasingly agitated around late afternoon and early evening on a daily basis. She begins by asking to leave so that she can go home. She then starts demanding to leave and may even resort to shouting to be "freed" and calling for help. She will often say that she has lost her house keys or the house is unlocked and she must get back to check it. She

talks more rapidly than she usually does and attempts various means of getting support from others (anyone she sees) to help her leave the setting. This continues for up to 1 or 2 hours and it is usually impossible to divert her attention or occupy her. At the climax, she will explore as many exits from the setting as she can and has been known to climb through a window, something she would not usually do at other times.

Understanding behaviours

The evidence-based literature on sundowning is helpful in developing knowledge about sundowning. However, it tends to have a bio-medical model basis. The US nursing literature takes a traditional behaviour management and modification approach which does not sit comfortably with the more person-centred approach developing in the four countries of the UK. Nurses practising from a person-centred philosophy will therefore need to critically appraise the evidence base on sundowning.

Time out activity 3

What knowledge would you draw on if you were trying to understand sundowning in an older person such as Miss Pollari (see box 2)?

The foundation of gerontological nursing assessment is centred on the patient as an ageing person, so it must be biographically based and draw on biographical knowledge. This is especially relevant in teams aspiring to deliver person centred dementia care. However, in relation to sundowning, the majority of evidence would point nurses down a non-person centred route looking at behaviours in isolation and as a direct cause of cognitive decline or dementia. This would lead nurses to believe that little of a therapeutic nature could be done for a person with sundowning other

than to control excessive symptoms such as challenging behaviours. The bio-medical explanation means behaviours can be assessed in isolation from life history and personality and the responsibility lies with the person to adapt, cope or allow themselves to be managed by others. Whilst behaviours are observable acts of what people do and say that can be recorded or measured, they are complex and cannot be said to be directly attributable to neuropathology alone. Bio-medical explanations of dementia argue that cognitive changes can explain shouting, wandering, aggression and a range of other behaviours. Other explanations argue that neuropathology is woven into the pattern of life history and personality amongst other things (Bender 2003, Kitwood 1990), so that individuals remain agents both initiating and responding to events (Stokes 2000 p75).

Therapeutic care means others have a responsibility to adapt to new ways of relating to the person with dementia. Bio-medical evidence is useful. As can be seen from the research on sundowning given above it offers a particular perspective. But it only offers one way of understanding sundowning. It tends not to offer a perspective on the human experience of sundowning. There is no literature on sundowning that has considered the actual experience of sundowning. Thus, we do not have an evidence base that informs us of what it might be like to be in Mr Lenards or Miss Pollari's shoes and to feel how they are feeling when they have a pressing desire to leave to accomplish something they feel is very real.

Nurses can draw on several nursing frameworks that offer an explanation for some of the ways an older person with dementia behaves. By doing this nurses are keeping their focus on the person and their experience. For example, The Need-Driven

Dementia-Compromised Behavioural Model (NDB model) developed by Algase et al (1996) re-frames problem behaviours as either goal driven actions or an expression of unmet needs of the older person with dementia (Kolanowski et al 2002). Unmet needs in this model, may be emotional, social, physical or psychological in nature. The model suggests that the person with dementia may have lost fundamental language skills necessary to communicate needs and resorts to their remaining communication skills. Often this means communicating behaviourally and to excess when under stress. Challenging behaviours such as shouting, wandering and aggression, within this model are said to arise from the interaction between relatively stable and life long individual characteristics in the person with dementia. This includes personality traits, ways of coping and constantly changing environmental or contextual factors (e.g. fluctuations in setting characteristics such as lighting or noise levels, different faces). Thus the behaviours seen in an older person with dementia who has sundowning, may be caused by interdependent influences and more importantly some of these influences may be receptive to therapeutic interventions.

Person centred assessment

Time out activity 4

What needs might an older person you have nursed or Mr Lenard and Miss Pollari (see box 1 and 2) have, that contributed to their behaviours in sundowning? Make some notes on your ideas.

There are many areas of unmet need that could trigger the behaviours seen in sundowning. Feeling lonely, bored, frightened, unloved or devalued can lead to a need

to leave. Feeling over or under cognitively and emotionally stimulated can also lead to a need to leave. All of these examples are in the here and now. Then there are areas of unmet need from the older person's past that come into the here and now and seem very real to the person, that can also trigger the behaviours seen in sundowning. For example feeling separated from a parent or sibling. For many older people with dementia as the day progresses they can become cognitively overloaded if they are in an environment that is very brightly lit and noisy and where demands have been made on them that outstrip their remaining abilities. Alternatively, if the person has been left alone or is under occupied and even sleeping most of the day they are also more likely to show sundowning behaviours.

Sundowning according to the literature, is generally predictable, so it offers nurses the opportunity to assess and try out different interventions until they find the ones that meet most of the persons unmet needs. In some situations where there are very deep unresolved issues from the person's past that result in unmet need and consequent behaviours, where nurses cannot achieve a resolution but only emotionally hold the person through their distress until it passes over. For example, in Mr Lenards case his wife had depended heavily on alcohol and he had concerns about his children's welfare. On one occasion there was a house fire that threatened the lives of his wife and children. In many situations such extracts from an older person's life history may not be known about, lost over time except in the memories of the person. In extreme cases of sundowning, referral to psychology services may lead to specialist advice and interventions that can be useful for the older person and supportive for nurses.

When developing assessment tools for sundowning it is important to bear in mind The National Service Framework for Older People (Department of Health 2000) single assessment process. Summaries of assessments should be shared across health and social care to ensure standardised assessment, increased standards of assessment and integrated assessment across services (p30). Assessment of sundowning can be relatively straight-forward, where the effects of the sundowning are not causing distress to the older person or for those caring for them. However, sundowning often escalates, so specialist assessment may be needed. In which case, the following areas need to be considered as the nursing contribution:

- ❑ persons life history and life patterns at particular periods of their life
- ❑ health status
- ❑ stress threshold in relation to their dementia
- ❑ sleep pattern
- ❑ mobility level
- ❑ medical history and diagnoses including any history of Delirium/ Acute Confusion
- ❑ medicines
- ❑ how sundowning manifests and its course

Most of this information will already have been collected in many care settings. So it is important not to duplicate collection but to progress the level of assessment by using the information to assess and care plan for the effects sundowning has on the older person and their family/carer.

Assessment Information and Sundowning

Life history and life patterns

Previous roles and responsibilities may influence exhibited behaviours associated with sundowning. For example: night working, a routine of collecting children from school or going home at a certain time of the day or walking the dog at a certain time. Or a significant life event from the past may become a recurrent influence and manifest again almost on a daily basis as part of sundowning.

Evans referred to the work of Armstrong-Esther (1978) who argued that there could be a relationship between social cues, roles and biological rhythms. So when older people in institutionalised care are unable to meet their roles or respond to social cues they become more confused than is their norm. Attachments throughout life may also influence behaviours that are about escaping or urgently seeking someone or something as shown in the example with Mr Lenard in box 1.

Health status

Overall health status can have a bearing on how sundowning affects the person. For example, nutritional status. People may be less likely to sleep if they are hungry. Mealtime routines in hospitals or other institutions can mean it is increasingly likely that people go to bed hungry or thirsty. Disruption of sleep can influence sundowning. It is possible that high levels of caffeine can disturb the sleep pattern. Depression, often accompanying dementia, can also alter sleep patterns. Altered sleep pattern, whilst due in part to neurological changes associated with the patho-physiology of dementia may not be the only answer. In the later stages of dementia, older people in institutional care settings are often left alone for 80% of their waking time with little

or no stimulation or social occupation (Perrin 1997) so boredom induced daytime sleep can easily result which contributes to disruption of night time sleep.

Stress threshold

Alterations in cognition can include a disturbance in arousal, attention and orientation (Lyndsay 1997 p529). Older people with dementia often have a heightened sensitivity to the environment for example, to noise and light changes. Institutionalised care seems to be a factor with sundowning. Evans (1987) found those who were disturbed by nursing staff activity in the early evenings showed higher levels of sundowning. But some people with dementia living in their own homes can also experience sundowning. This might be related to the activities of the family/carer. Hall and Buckwalter (1987), suggest that as cognitive decline progresses there is a corresponding and progressive decline in the patient's ability to tolerate stress of different types within a specific time period. For example the person with more severe dementia may experience their stress threshold more easier than the person with milder dementia. Both persons may start the day with a low level of stress in the morning. Stressors (such as noise, being asked to do something that is too complex, feeling lost or angry) begin to accumulate throughout the day until the stress threshold for each person is exceeded. Hall & Buckwalter (1987) suggest exceeding the threshold contributes to extremes in behaviours or challenging behaviours.

Beel-Bates and Rogers (1990) amongst others, suggest that social cues and light illumination are important environmental features that need to be considered in the assessment and management of sundowning. In particular, low levels of lighting during the day may induce sundowning behaviour. Keeping the person awake during

the day, active especially in the mornings (preferably out of doors for a time) and reducing excessive environmental stimulation in the evenings is an intervention that nurses may be able to try. Pincock (2003) suggests that bright light therapy during the winter (but not the summer) can be effective. A change in environment may also be a factor. Lipowski (1983) identified that sundowning behaviour increased when people were transferred or moved around institutional care settings.

Medical history and diagnoses

Most authors now say that sundowning is strongly linked to dementia, especially the Alzheimer's type (Wallace 1994 Evans 1987), but some say that it can develop in any older people with organic brain impairment or functional mental illness. Drake, Drake and Curwen (1997) citing Lipowski (1983), suggest that SDS can appear if the already depleted cerebral reserve is challenged by stress or disrupted. Within those who have dementia sundowning is more often found in those with more advanced dementia. However, not every person with dementia will experience sundowning.

History of Delirium/ Acute Confusion

It is important to establish if the person has had or has an acute confusion or delirium. When assessing for this the nurse should bear in mind that the effects of an acute confusion can continue at a non-acute level for many months after the actual event (Schofield and Dewing 2001). Multiple pathology and medications are two factors associated with the onset of delirium (St Pierre 1996) and are now known to enhance confusion in most people with a pre-existing dementia. Neither is Delirium restricted to acute hospital settings. Writing about the presentation of delirium in nursing homes residents, Mendes (1995) concludes that the incidence is not well

documented even though the experience of nurses working in such settings is that it is a common occurrence.

Medicines

Multiple pharmacology will increase risks of confusion. Pharmacological treatments have been focused on reducing agitation and wandering and to promote sleep at the proper time in the 24 hour day. Burns et al (2002) summarise the modest efficacy of neuroleptics along side the longer term side effects that often lead to the person becoming increasingly dependent and at risk of developing problems such as falling, pressure ulcers and reducing ability to self-care. Responding to sundowning through medicines alone will not lead to long term benefits for the older person and is likely to result in an increased nursing dependency.

Sleep pattern (including sleep-wake cycle over course of a year)

Norton (1991) speculated circadian rhythms may be effected in people with sundowning. It has been suggested that neurological changes in the parts of the brain that control sleep patterns are altered in people with dementia (*for example* Okawa et al 1991 Vitiello et al 1992). This can be to the point that people with Alzheimer's disease spend nearly 40% of their bed time hours awake and up to 14% of day time hours asleep. (Bliwise et al 1989). More recently Parks-Veal (1998) suggested that there might be a link between Seasonal Affective Disorder (SAD) and Sundowning. Bright light therapy has also been shown to be effective with SAD (Burns et al 2002). This author suggested treatment by phototherapy. Two approaches can be taken with bright light therapy. The first involves natural light therapy. Keeping the person awake all-day and ensuring that they go out of doors encourages a circadian rhythm

(van Someren et al 1997). Secondly, artificial “bright light” therapy can be used. Both approaches are said to readjust circadian rhythm through altering melatonin secretion. Bright light therapy given in the morning has been found to reduce sleep disorders (for example Mishima et al 1994) and in older people with dementia (Pincock 2003).

Time out activity 5

Think about an older person with dementia who has sundowning that you could assess. How helpful would the framework above be? What else would you need to do?

Observation Schedule for Assessing Sundowning

Once a nursing assessment has been started then a specific observation of behaviours thought to be part of sundowning can be observed in more detail. There are multiple purposes in doing this:

1. To gain an in depth understanding of the behaviours as they happen with each older person within their particular context
2. To be able to understand and interpret the behaviours to enable care planning
3. To assess existing unmet needs being communicated through behaviours and ensure these are included in a care plan
4. To contribute to risk assessment, skill mix and dependency level planning

The example below shows both the format of a possible behaviour observation schedule and some entries made by registered nurses during a 48 hour assessment period.

DATE:	NAME: Miss Pollari		
Time	Observed behaviour	Clients level of well being/ill being	Contextual information
12.30	<i>Miss Pollari is sitting down eating lunch. Talking with another client.</i>	<i>Wellbeing</i>	<i>Lunch time in the dining room</i>
13.00	<i>Sitting at table pulling at napkins</i>	<i>Talking to herself – seems in a state of well being</i>	<i>At table in dining room Most clients and staff have left room. –maybe trying to tidy up?</i>
13.30	<i>Walking around dining room. Goes up to door but does not go through on her own but will if accompanied</i>	<i>Level of well being falling. Visibly agitated</i>	<i>Lots of moving around by other people at this time</i>
14.00	<i>Visitors in conversation in lounge area. Sitting holding dog on her lap stroking it</i>	<i>Smiling and relaxed body language</i>	
1430	<i>Walks to door as visitors leave. Asking to go home with them.</i>	<i>Looks tearful and sad.</i>	<i>Other people coming and going at the same time</i>
15.00	<i>Walking up and down corridor</i>	<i>Head down</i>	

	<i>– seems to be looking for someone/ something</i>	<i>shoulders slumped- moving into illbeing</i>	
<i>15.30</i>	<i>Tried to open doors to get into hall and reception. Knocking or banging on door. Asking passers by to take her to her car.</i>	<i>Seems agitated and restless. Not able to divert her. Unable to explain what she's doing.</i>	
<i>16.00</i>	<i>Standing by front door tries to leave when staff are leaving</i>		
<i>!6.30</i>	<i>Walking up and down corridor (Pacing). Sensitive to any noise. Seems distressed. Now calling out Not able to drink tea (as she did at lunchtime).</i>	<i>Illbeing</i>	<i>Did not take part in any group activity</i>
<i>17.00</i>	<i>Making repeated statements that she has to leave and must go immediately as she's left her house unlocked. Pacing. Agitated hand movements – pulling at clothes</i>		<i>Declined to eat supper as said she was leaving</i>

Note: the observation schedule above was carried out over a week and showed similar behaviours at the same times of the day.

Time out activity 6

How practical would your colleagues feel an observation schedule would be in your practice area? Now, think about how you could provide responses to any negative feelings you might encounter if you suggested using an observation schedule?

Detailed assessment includes observation and interview provide a specific person oriented evidence base and is essential in order not to miss any cues or make unfounded assumptions based on having a knowledge of the general evidence base. Fundamentally, the presence of sundowning informs the registered nurse of three primary concerns for nursing:

1. The person has emotional needs arising from increased agitation and feelings of illbeing
2. There may be immediate behaviours that need a therapeutically response to prevent an unhealthy escalation of the behaviours or there may be immediate behaviours that represent a risk to the person or others that need to be managed.
3. The person probably has deeper unmet psychological and social needs that may need specialist assessment

Behaviour observation schedules attempt to ‘tune-in’ nurses to the usual range and type of behaviours in the person in the care setting they are in and then to collect evidence to see if there is any change in the behaviours, if so what and what might be influencing them. Attaching a label of sundowning is of secondary importance to identifying and planning care for the persons needs. Dewing (2000a) suggests many

agitated behaviours in sundowning can be re conceptualised within alternative methodologies to be 'normal' and meaningful behaviours in the context of knowing the person, the situation they are in and their remaining abilities to cope and respond to the demands of their psycho-social environment. (*for example* Cheston and Bender 1999, Dewing 2000b, 1999, Kitwood 1997).

Approaches to managing sundowning

Traditional interventions

Management has mainly covered three categories; pharmacological, sleep and environmental. Pharmacological interventions have been usually suggested as the first course of action, despite the absence of underlying toxic, infectious or metabolic conditions (Vitiello et al 1992). Pharmacological interventions have been used to manage the effects of extreme behaviours and to attempt to promote sleep.

Environments have often been adapted to make them low risk but as a consequence they can become un-stimulating and older persons have their access severely limited. Environments have also been adapted to make them escape proof. But in doing so access to the outside and natural light is reduced or removed. Developing a care plan that focuses on managing the behaviours by containment or other means such as various forms of restraint will only provide short-term solutions, if at all.

Therapeutic interventions

Developing a care plan that seeks to support the person through the temporary period of distress and seeks to find the best way of improving overall health and wellbeing will contribute to a long term solution. Simple adaptations to the internal environment such as with noise and lighting levels can make a positive difference. Providing safe

access to an outdoor environment can also bring positive difference. Some older persons with dementia may need support and guiding to make use of out door space.

Time out activity 7

Think about all the possible environmental adaptations that could be made in your practice setting. Now identify 3 that you feel are simple and achievable to implement by you and your colleagues. Now identify reasons why this might help a person with sundowning.

One of the benefits of identifying sundowning is it will alert staff to skill mix issues and planning of work between late afternoon and night fall. Should a number of persons develop sundowning then it may be indicative of the need to change both the overall approach to care such as the way in which care is delivered or the way in which the environment is organised or experienced by older persons (see Box 3).

Box 3

Oak House operated a shift system where the morning staff ended their shift at 3pm and the afternoon staff came on at 230pm. Staff used the half hour for a hand over time and catching up with each other. This meant that the residents were unoccupied. During this period several residents would begin to show signs of sundowning.

From the observation schedule above, it can be seen that Miss Pollari's usual level of behaviour is escalating late in the afternoons and that this happens on a daily basis. Certain behaviours escalate as and after visitors leave. The level increases as staff

leave at the end of their shift. Some of these behaviours are exaggerated forms of usual ones and some are not usually seen when she is in her usual state of well being.

A therapeutic plan of care must respond to the person's subjective experience. In Miss Pollari's situation it might be decided that the aim of care is to prevent the increased agitation from building up in the afternoons and prevent her feeling an urgent need to leave. The nursing actions might include:

- ensuring a member of staff eases the anxiety and transition of separation from her family by acknowledging any pain separation causes her and validating her feelings
- involving her in a small group session
- work with friends and family to develop less anxiety inducing ways of saying good bye (reducing her stress level)
- staff leaving work do so quietly and discretely (reducing noise levels)
- staff work to identify a form of social occupation and a level of psychological holding that prevents Miss Pollari from becoming increasingly agitated.
- negotiating and monitoring the effect of different visiting times with her friends and family (adapting to her changing stress threshold)
- natural light and out door time to promote general health, sleep and wellbeing

Many voluntary organisations associated with dementia and Alzheimer's , particularly in the US, have a range of useful information for families and nurses on their web sites about sundowning and helpful interventions that can be useful to support working with family members.

Time out activity 8

Reflect on how you would work with a family member to try out a therapeutic intervention with their relative who has sundowning. Make notes on the key points you would need to address.

Conclusion

This article has presented a summary of the bio-medical evidence for explaining sundowning in older persons with a dementia. It has suggested that the primary evidence base is not supportive of nurses carrying out person centred assessment. However, nurses who use a person-centred assessment framework can develop a detailed understanding on how sundowning effects each person differently.

Sundowning requires detailed nursing assessment and the development of a plan of care that is therapeutic in that it is not focused on management by containment but seeks to respond to the person's immediate needs and explores greater understanding of deeper psychological needs.

References

- Agate J (1972) *Geriatrics for Nurses and Social Workers*. Heinemann, London.
- American Psychiatric Association (1994) *Diagnostic and Statistical Manual of Mental Disorders*. Fourth Edition. American Psychiatric Association, Washington DC.
- Algase DL Beck C Kolanowski A Whall A Berent S Richards K & Beattie E (1996) Need-driven dementia compromised behaviour: an alternative view of disruptive behaviour. *American Journal of Alzheimer's Disease* 11(6) 10-19.
- Armstrong-Esther C (1978) In Evans L K (1987) *Sundown Syndrome in institutionalised elderly*. *Journal of the American Geriatric Society* 35 101-108
- Beel-Bates C A and Rogers A E (1990) An exploratory study of sundown syndrome. *Journal of Neuroscience Nursing* 22 (1) 51-53
- Bliwise D L Carroll J S Lee K A nekich J C and Dement W C (1993) Sleep and "sundowning" in nursing home patients with dementia. *Psychiatric research* 48 277-292
- Burney Puckett M (1996) Sundown syndrome: etiology and management. *Journal of Psychiatric Nursing* 34 (5) 40-43
- BurnsA Byrne J Ballard C & Holmes C (2002) Sensory stimulation in dementia. *British Medical Journal* 325; 1312-1313
- Butler R N and Lewis M I(1973) *Ageing and Mental Health: Postive Psycho-social Approaches*. Mosby, London.
- Cheston R and Bender M (1999) *Understanding Dementia: The Man with the Worried Eyes*. Jessica Kingsley, London.

Cohen-Mansfield J Watson V Meade W Gordon M Leatherman J and Emor C (1989) Does sundowning occur in residents of an Alzheimer's unit? *International Journal of Geriatric Psychiatry* 4(5) 293-298

Drake L Drake L and Curwen J (1997) A new account of sundown syndrome. *Nursing Standard* 12 (7) 37-40

Dewing J (2000a) Sundowning Is it A Syndrome or Not? A Literature Review. *Journal of Dementia Care* 8(6) 34-37

Duckett S (1993) Managing the sundowning patient. *Journal of Rehabilitation* 59 (1) 24-29

Evans L K (1987) Sundown Syndrome in institutionalised elderly. *Journal of the American Geriatric Society* 35 101-108

Exum ME Brady J Phelps J Nabers KE Grayson Osborne J (1993) Sundown syndrome: is it reflected in the use of prn medications for nursing home residents? *The Gerontologist* 33 (6) 756-761

Hall G R& Buckwalter K C (1987) Progressively lowered stress threshold; a conceptual model for care of adults with Alzheimer's disease. *Archives of Psychiatric Nursing* 1 399-406

Kitwood T (1990a) The dialectics of dementia: with particular reference to Alzheimer's disease. *Ageing and Society* 10 (2) 177-196

Kitwood (1997) *Dementia Reconsidered: The Person Comes First*. Open University Press, Buckingham.

Kolanowski A N Richards K C & Sullivan S (2002) Derivation of an intervention for need-driven behaviour: activity preferences of persons with dementia. *Journal of Gerontological Nursing* 28 (10) 12-15

Lipowski Z (1983) Transient cognitive disorders (delirium, acute confusional states) in the elderly. *American Journal of Psychiatry* 140 (11) 1426-1435

Mentes J C (1995) A nursing protocol to assess causes of delirium: identifying delirium in nursing home residents. *Journal of Gerontological Nursing* 21(2) 26-30

Meredith R E (1993) Detecting delirium in hospitalised older people. *Professional Nurse* 13 (11) 760 –763

Mishima K Okawa M Hishikawa Y Hozumi S Hori H Takahashi K (1994) Morning bright light therapy for sleep and behaviour disorders in elderly patients with dementia. *Acta Psychiatria Scandinavica* 89 (1) 1-7

Norton D (1991) Investigating the sundown syndrome. *Nursing Standard* 5 947) 26-29

Okawa M, Mishima K, Hishikawa Y, Hozumi S, Hori H and Takahashi K (1991) Circadian rhythm disorders in sleep-waking and body temperature in elderly patients with dementia and their treatment. *Sleep* 14 (6) 478-485

Parks-Veal P M (1998) When the sun shines daily. *Consultant Pharmacist Forum* Nov.1-3.

Perrin T (1997) Occupational need in dementia care; a literature review and implications for practice. *Health Care in Later Life* 2(3) 166-176

Pincock L S (2003) Light boxes can help older people with dementia. *British Medical Journal* 327; 468

Post F (1955) Emergencies in general practice: senile confusion. *British Medical Journal* 2 (2) 315-317

Rindlisbacher P & Hopkins R W (1991) The sundowning syndrome: a conceptual analysis and review. *The American Journal of Alzheimer's Care and Related Disorders and Research* July/August 2-9

Sabat S R (2001)

Schofield I & Dewing J (2001) The nursing contribution to the acute care of older people with a delirium in acute settings. *Journal for Nursing Older People* 13 (1) 21-25

Stokes G (2000) *Challenging Behaviour in Dementia: A Person-Centred Approach*.

Bicester, Winslow.

St Pierre J (1996) Delirium in hospitalised elderly patients: off track. *Critical Care*

Nursing Clinics of North America 8(1) 53-60

Thewlis M (1942) *The Care of the Aged (Geriatrics)* 4th ed. Mosby, St Louis.

Thewlis M (1942) *The Care of the Aged (Geriatrics)* 4th ed. Mosby, St Louis.

Van Someren E J Hagebeuk E E Lijzenga C Scheltens P de Rooij S E Jonker C Pot

AM Mirmiran M Swaab D F (1997) Circadian rest-activity rhythm disturbances in

Alzheimer's disease. *Journal of Geriatric Psychiatry and Neurology* 10 (2) 58-62

Vitiello M V Bliwise D L Prinz P N (1992) Sleep in Alzheimer's disease and the

sundown syndrome. *Neurology* 42 (suppl 6) 83-94

Wallace M (1994) The sundown syndrome. *Geriatric Nursing* 15 (3) 164-167

Dewing J (1999) Person centred dementia care. *Professional Nurse* 14 (9) 585-589

Dewing J (2000) Promoting well being in older people with cognitive impairment. *Elderly Care* 12 (4) 19-24

Exum ME Brady J Phelps J Nabers KE Grayson Osborne J (1993) Sundown syndrome: is it reflected in the use of prn medications for nursing home residents? *The Gerontologist* 33 (6) 756-761

Ginsburg R and Weintraub M (1976) Caffeine in the sundown syndrome: Report of negative results. *Journal of Gerontology* 31 (4) 419-420

Harding N and Palfrey C (1997) *The Social Construction of Dementia*. Jessica Kingsley, London.

Kitwood T (1990a) The dialectics of dementia: with particular reference to Alzheimer's disease. *Aging and Society* 10 (2) 177-196

Lindsay J (1997) Delirium – the psychiatrist's perspective In Jacoby R and Oppenheimer C (eds) *Psychiatry in the Elderly* 2nd Ed. Oxford University Press, Oxford p527-535

Lipowski Z (1980) *Delirium*. C C Thomas, Springfield.

Meredith R E (1993) Detecting delirium in hospitalised older people. *Professional Nurse* 13 (11) 760 –763

Norton D (1991) Investigating the sundown syndrome. *Nursing Standard* 5 947) 26-29

O'Keefe S and Lavin J N (1999) Clinical significance of delirium subtypes in older

Post F (1955) Emergencie sin general practice: senile confusion. *British Medical Journal* 2 (2) 315-317

Rindlisbacher P and Hopkins R W (1991) The sundowning syndrome: a conceptual analysis and review. *The American Journal of Alzheimer's Care and Related Disorders and Research* July/August 2-9

Salcido R (1997) Delirium at sundown. *Topics in Geriatric Rehabilitation* 13 (2) 85-89