How nurses' attire affects elderly psychiatric patients' ability to recognise them

Hugh Joseph McCreedy and Peter William Bentham

The ability of elderly patients to identify a nurse wearing a uniform as opposed to mufti was investigated together with the effect of administrator attire on the Abbreviated Mental Test score (AMT). Thirty-six out of 71 patients identified a nurse wearing mufti increasing to 59/71 when wearing uniform ($P<0.005$). Patients rated by a uniformed nurse had significantly higher mean AMT scores (6.1) than when rated by a nurse in mufti (5.6) ($P<0.01$), and this also had a significant effect on the sensitivity in predicting an organic diagnosis.

Nurses have worn uniforms for over 100 years. However, over the past two decades there has been a major shift in policy in relation to the attire of psychiatric nurses. Rowden (1983) reported great variations in practice and attitudes towards wearing uniforms by psychiatric nurses. Nightingale (1983) suggested that uniforms were authoritarian, sexist and a barrier between the nurse and patient. The transition towards mufti (plain clothes) was largely based on a subjective feeling of what was in the patients' best interest.

Within the National Health Service very few psychiatric nurses now wear a uniform. Today it is unlikely that the shift from mufti to uniform would have occurred without considering the implications in depth and researching the issue. Arguments for moving to mufti may have been valid in general but this may not be the case for important subgroups such as the demented elderly, where reality orientation is an important component of the therapeutic armoury (Holden & Woods, 1988).

Our study aimed to determine whether elderly psychiatric patients could more easily identify a nurse wearing uniform as opposed to mufti and to examine whether nurse attire significantly influenced performance on a simple cognitive assessment.

The study

Subjects were selected from assessment day hospitals and in-patient assessment wards in south Birmingham. All patients were under the care of the Mental Health Services for Older Adults. Patients from continuing care wards were excluded as they would be unlikely to be able to comply with the test procedure. All day and in-patients at the commencement of the study period were assessed. Patients were excluded if they were going to be discharged during the study period, if they refused to consent or were unable to comply due to physical illness, including marked sensory impairment and dysphasia. All patients had their case notes reviewed by one investigator (P. W. B.) and were allocated an ICD–10 diagnosis. Functional patients from one day hospital were excluded to achieve a balance between functional and organic diagnoses.

The Abbreviated Mental Test score (AMT; Hodkinson, 1972) was administered to all subjects by the nurse and rated by one investigator (H. M. C.). The AMT is a 10-item scale used on geriatric wards as a screening test for cognitive impairment. It specifically requires the patient to identify two people and to name the hospital. Subjects were specifically asked to identify a nurse and a patient.

To control for the learning effect of repeated administration of the AMT, subjects were randomly allocated into two groups. Subjects in one group were interviewed first by a nurse in mufti and one to two weeks later by a different nurse dressed in uniform. Subjects in the second group were interviewed in reverse order. The nurses wearing mufti were always from the unit of origin of the subject and in frequent contact with them, they also wore a name badge which gave their job title. Nurse interviewers in uniform were always unknown to the subject to eliminate the possibility of identification because of familiarity. All subjects were interviewed on their unit of origin. All interviews were conducted blind to ICD–10 diagnosis and previous AMT score. However, mufti interviewers were probably aware of the clinical diagnosis. To avoid bias all interviewers were female. The significance of the difference in mean AMT scores between the two groups was

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calculated using paired *t*-tests as distributions met parametric assumptions. The significance of the differences in the distribution of other binary qualitative variables between the groups were calculated using the McNemar test, the exact test for correlated proportions being used if numbers were small. All probabilities are given for two-tailed hypotheses (95% confidence intervals are given for all differences).

Findings

Eighty-six patients were selected for the study, 13 were discharged during the study period and therefore excluded. One patient died and another was excluded because of increasing agitation leaving a total of 71 subjects for study with a mean age of 78 years (range 65–94 years). Fifty-two subjects were female (73%) and 19 male (27%). Forty-one subjects (58%) were day attenders and 30 (42%) were in-patients.

Thirty-three subjects (46%) had an organic and 38 (54%) a functional diagnosis. Nineteen subjects had Alzheimer's disease (27%) and nine had vascular dementia (13%). The remainder of the organic group included two cases of delirium, and single cases of Pick's disease, unspecified dementia and alcoholic dementia. Thirty-two subjects (45%) had mood disorders, two schizophrenia, two persistent delusional disorder and two alcohol dependence syndrome.

The uniform group had a significantly higher mean AMT score (6.0) than the mufti group (5.6) ($P<0.01$). Separate analyses were then conducted on the functional and organic subgroups. For subjects with an organic diagnosis the uniform group again had a higher mean AMT score (4.1) than the mufti group (3.4) ($P<0.01$). The mean AMT score for the uniform group (7.7), was not significantly higher than for the mufti group (7.5) for subjects with a functional diagnosis (Table 1).

For the total group 36/71 (51%) subjects were able to identify the nurse when she wore mufti increasing to 59/71 (83%) when she wore uniform ($P<0.005$). For the organic group only 6/33 (18%) were able to identify the nurse when she wore mufti increasing to 22/33 (67%) when she wore uniform ($P<0.005$). Thirty (79%) functional subjects were able to identify the nurse wearing mufti increasing to 37/38 (97%) when she wore uniform ($P<0.02$) (Table 2). Considering the in-patient group only 1/10 (10%) organic subjects were able to identify the nurse wearing mufti, increasing to 6/10 when she wore uniform (P=NS).

Comment

The results clearly show that mentally ill elderly day and in-patients were better able to identify an unfamiliar nurse wearing a uniform than a nurse from their own unit wearing mufti. This was particularly evident for organic patients in whom less than one-fifth of patients could identify a nurse in mufti increasing to over two-thirds if a uniform was worn.

There is evidence to suggest that the wearing of mufti leads to behavioural improvements in psychiatric patients in: therapeutic communities (Brown & Goldstein, 1967); admission wards (Walsh & Ashcroft, 1974; Rinn, 1976); medium- to long-stay wards (Newnes, 1981) and rehabilitation units (Lavender, 1987). It is claimed that these behavioural changes result from improvements in relationships and interactions between patients and staff brought about by the change in dress. However, these studies concentrate on younger functional patients and have major design limitations.

Klein (1972) concluded that mode of nurse apparel was unimportant in determining patient behaviour on an acute ward though patients found it harder to identify staff out of uniform. Research on an acute medical ward also suggests that patients have more difficulty identifying nurses in mufti and consequently may not request assistance (Sparrow, 1991).

Reality orientation aims to maintain or retrain awareness of time, place and current events in the cognitively impaired by incorporating this information in staff interactions with the patient (Moffat, 1984). Clearly the nurses' uniform is a useful reality orientation tool as it increases the chance of the patient recognising the nurse which should in turn improve communication.

Table 1. Comparison of Abbreviated Mental Test scores (AMT) between mufti and uniform groups (paired *t*-test)

	Mean AMT uniform	Mean AMT mufti	Difference	*t*	*P*	95% confidence interval
All patients (n=71)	6.0	5.6	0.4	2.73	<0.01	0.12 to 0.76
Organic patients (n=33)	4.1	3.4	0.7	3.54	<0.01	0.3 to 1.09
Functional patients (n=38)	7.7	7.5	0.2	0.87	NS	−0.27 to 0.7

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Table 2. Comparison of proportion of patients correctly identifying nurse in uniform and mufti (McNemar test)

	Proportion identified uniform	Proportion identified mufti	Difference	χ^2	P	95% confidence intervals
All patients (n=71)	0.51	0.83	0.32	21.16	<0.005	0.21 to 0.44
Organic patients (n=33)	0.67	0.18	0.49	16	<0.005	0.31 to 0.66
Functional patients (n=38)	0.97	0.79	0.18	5.444	<0.02	0.04 to 0.32

It is the link between identification and communication that makes the case for wearing a uniform, when caring for the cognitively impaired, most compelling.

Being interviewed by a nurse in uniform produced a small but significant improvement in AMT score. However, reviewing the individual item scores there was no improvement in the patients' ability to correctly name the hospital, suggesting that there was no corresponding improvement in orientation to place.

Though not an original aim of the study, the validity of the AMT (cut-off of 6/7) in predicting an organic clinical ICD–10 diagnosis was determined under both conditions. The sensitivity, specificity and positive predictive values were 82, 71 and 71% for the test administered by a uniformed nurse. When administered by a nurse in mufti sensitivity increased to 94%, with a specificity of 66% and positive predictive value of 70%. The change in sensitivity was significant ($P<0.05$, 95% CI 0.007–0.0257) suggesting that the attire of the test administrator needs to be taken into account when interpreting the score.

It is not clear whether the benefits of nurses routinely wearing mufti outweigh the disadvantages, particularly when dealing with elderly psychiatric patients with cognitive impairment. Further systematic research is required in this area to determine whether the improved recognition of nurses leads to improvements in communication, orientation, emotional state and behaviour.

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