Studies have shown that modifications to the physical environment of psychiatric institutions are associated with positive changes in patient behavior, attitudes and perceptions, but less attention has been paid to the impact of these changes on the nursing staff. The building of two completely new wards at a rural psychiatric hospital provided an opportunity to examine this issue.

The original 1920s long-stay and short-stay wards were free-standing two-story units with living areas on the ground floor and sleeping accommodation above. The old long-stay ward was open and provided care for 31 patients, while the new facility was a 16-bed unit of four self-contained sleeping areas each of four single bedrooms with separate toilet and bathroom facilities and a small sitting area). The old acute ward was a 32-bed unit, while the new acute ward has 28 beds, eight of which are in a secure area. Activities and day areas include a dining room, a sitting/TV room, an activities room, and an external veranda. The sleeping area comprises two single rooms, two double rooms (used for rooming in) and four, four-bed rooms each with en suite bathroom and toilet facilities. The study was comprised of three components: observations, questionnaires, and interviews. Investigators observed staff behavior for six hours per day (at 5-minute intervals), for 10 days approximately six months prior to the move to the new units and then approximately six months after the move. The observed behavior was recorded using predefined categories and then assessed at multiple levels, resulting in 23 possible categories. Four broad behavioral categories were used for analysis: (i) interaction with patients; (ii) interaction with staff; (iii) engaged in solitary task-orientated behavior; and (iv) other duties. In addition, the nature of the interactions with patients was examined (e.g. positive, neutral or negative). Questionnaires...
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included the Maslach Burnout Inventory (MBI); a measure of Job Satisfaction; and demographic information. After the observational and attitudinal data were analyzed, interviews were conducted to assess views of the new wards in order to assist with the interpretation of the data.

Findings

There was a significant behavior interaction between environment and type of ward, with the new ward resulting in more interaction with patients in the acute ward but less interaction with patients in the long-stay ward. There were no significant differences for the behavior interaction with staff. The percentage of positive interactions increased in the new wards (attributable to the change in the acute ward) and neutral interactions decreased in the new wards.

With respect to burnout, there was a significant difference between the old and the new wards for emotional exhaustion and personal accomplishment, with an increase in burnout in the new environment. There was a slight trend towards decreased job satisfaction, although not statistically significant.

Several positive themes emerged from the follow-up interviews: aesthetically pleasant environments; facilities better for patients (increased privacy and personal space); separate accommodations beneficial for very acute individuals; and new wards being good for morale, creating a better therapeutic atmosphere. Identified disadvantages included varied design problems and organizational matters but also two themes specific to the acute ward that were directly related to two of the perceived advantages: the increased space and privacy made it difficult to find staff and patients and made observation of patients difficult and the larger space, together with the separate observation wing, was seen as making staff more isolated.

While the new wards produced some positive results in terms of increased, positive interactions with patients, in both new wards, the measure of emotional exhaustion and personal accomplishment indicated increased levels of burnout. Increased stress was also mentioned in interviews and was attributed to the organizational climate not having accommodated to the new physical environments (e.g. feelings of isolation, client mix). The lack of increase in job satisfaction, despite the more positive evaluations of the wards, could be a result of the offset of increased stresses.

Limitations

The authors did not define any limitations.
Design Implications

The study highlights a dichotomy that can sometimes exist in the outcomes of specific design features. Features considered advantages for the patients were sometimes considered to be disadvantages for the staff. In this study, this included a separate observation wing with the increased space for patients that resulted in feelings of isolation among the staff (although not corroborated by staff–staff interaction observational data). Similarly, more personal and private space was seen as positive for patients, but it conversely created problems for staff in finding and observing patients and finding other staff. Such conflicts need to be addressed by organizational changes in order to maximize the benefit of environmental changes.