Women's Satisfaction With Residential Drug/Alcohol Treatment Facilities: Interior Design Implications

Joy K. Potthoff
Thomas R. Chibucos
Harold Rosenberg
Bowling Green State University, Bowling Green, Ohio, USA

Introduction

An increasing number of substance-dependent women are being seen in residential treatment programs. Whether privately funded or supported by tax dollars, a substantial amount of money is spent on the structure, furnishings, and maintenance of the physical environment of residential facilities. There is a need to better understand the relationship between patient satisfaction with the interior environment of treatment facilities and patient well-being.

When women addicts seek treatment, either voluntarily or by court order, they are often placed in facilities over which they have no control, and cannot leave except for supervised excursions. Patient behaviour in the environment has to be controlled, and staff need ready access to all spaces, both of which negate privacy. The sense of being jailed is real. Attempts to improve patient well-being, which could increase participation level and decrease patient drop-out rate, should be pursued. Based on the assumption that patient satisfaction with this restricted environment is crucial to patient well-being and receptiveness to treatment, we believe that the empirical assessment of patient satisfaction with treatment environment is important to increase patient participation in therapy and likelihood of completing treatment.

Our assumption is based on relatively recent theoretical developments (Bronfenbrenner's (1979) ecological model and Hoffman's (1981) system theory movement) that clearly articulate the need to learn about physical and contextual variables if researchers are to gain truer understanding of how humans change and develop over time. Secondly, increasing the empirical knowledge base and the theoretical understanding about design variables which can influence treatment effectiveness will contribute to making the context of treatment more humane. Thirdly, resource allocation to support the design of treatment facilities in terms of

spatial-structural arrangements, furnishings, materials, colour, lighting and accessories can be conducted more rationally if empirical knowledge is increased.

Literature Review

Journal review and database searches revealed a number of articles dealing with medical facility design and architecture in relation to patient well-being. In many of these articles the procedures used were not described in sufficient detail to facilitate replication. The problem of the lack of research-based data in health-care facility design was well stated in an article by Schwartz (1996): "...according to an extensive literature review undertaken by the centre for Health Design (CHD) in Martinez, California, there are very few sources of irrefutable information on how the environmental factors contribute to a patient's sense of well-being and aid in the healing process" (p76). In one of the few articles concerning patient satisfaction with the interior environment of drug and alcohol treatment facilities, Potthoff (1991) examined the satisfaction of young adult male patients (18-30 years) with drug and alcohol treatment facilities. Potthoff concluded that satisfaction with the facility's environment declined over the four-week treatment period. The patients were discriminating about their surroundings and made requests for more comfortable furnishings and for space and equipment for sports and exercise activities. Although Potthoff did discuss the study's methodology and data analysis in detail, the survey she used was never tested for validity and the total patient number in the study (n=18) was too low to support robust or definitive conclusions. A study by Duffy et al (1986) is an exception to the general methodological criticisms of studies in this area. Duffy et al examined preferences in nursing home design and compared residents', administrators' and designers' preferences among a series of design alternatives. Following Duffy et al, the study was designed to help rectify the problem of lack of empirical research in the area of medical facility design in relation to patient satisfaction and well-being.

Objectives

The ultimate goal of this line of research is to aid in planning rehabilitation facilities that will more effectively meet patients' needs. An important by-product of the current study was the development of procedures and a measurement tool that can be used to identify problem areas in treatment facilities. This documentation can facilitate the quest for funds to make needed improvements. The study's objectives were to (i) assess female patients' satisfaction with the interior environment during their course of treatment and (ii) compare satisfaction across facilities.

Methods

Sample

Three state drug and alcohol agencies (Kentucky, Michigan, Ohio) were contacted to obtain information about drug/alcohol residential care facilities for women. Administrators from five facilities in these states agreed to participate in the study. The sample for this study consisted of fifty-two female patients receiving treatment in the five designated treatment facilities located in the Midwest, USA. Participation was voluntary.

One of the facilities (D) did not wish to provide patient background information; therefore, demographic data is available for 39 subjects. Fifty-five percent of the patients were receiving treatment for drug and alcohol abuse; 34% for drug abuse; and 11% for alcohol abuse. Fifty-three percent of the patients had never been married, 29% were divorced, 8% were married, 5% were widowed, and 5% were separated. Forty-one percent of the patients were African-American and 59% were Caucasian. Thirty-one percent of the patients were admitted for treatment voluntarily, 24% by court order, and 45% were referred by various state agencies. Five percent of the patients were pregnant. Eleven percent of the patients had children with them in residence. The following shows the mean length of stay for the patients: Facility A--20 days; Facility B--65 days; Facility C--35 days; Facility D--19 days; and Facility E--40 days. The mean age of the patients was 32.7 years old, with the youngest being 21 and the oldest patient being 46 years old.

Procedure

The first author visited each of the five facilities. Photographs were taken to record the colour of walls, upholstery and window treatments, lighting, the style/type of furniture, and the general layout and aesthetic atmosphere of the interior environment. During the site visits, meetings were held to acquaint health-care personnel and administrators with the upcoming survey procedures and to discuss special problems they would like to have addressed in the environmental survey. Also, the first author interviewed health-care personnel and recorded information about the location and the time periods patients spent on daily activities.

From meetings with facility administrators and health-care personnel, and a review of the photographs, an environmental questionnaire was developed for pre-testing. This questionnaire was based on a survey previously developed and administered by Potthoff (1991). Since it was mandatory to maintain confidentiality and to avoid interrupting treatment, questionnaires were chosen as the least obtrusive method of collecting data. Also, the language in the questionnaire was reviewed using computer analysis for appropriateness of reading level to the targeted groups.

Responses to the environmental questionnaire assess pieces of furniture most used in the facility, most liked and disliked places to be, and things the patient most misses from where they were last living. The procedure takes the patient approximately fifteen - twenty minutes to complete (copy of questionnaire is available from first author).

Results

Description of Facility, Furnishings, Finishes, and Layout

- Facility A is located near railroad tracks and was built at the end of the nineteenth century as a hostel for railroad employees. The exterior of the three-story building is attractively renovated with fresh paint and has spacious open porches on both the front and back of the facility. At maximum occupancy the facility accommodates thirty women and fifteen children. Patient stay is approximately two to three months. On the ground floor is the entrance, living room, dining room, kitchen, pantry, and administrative offices with private bathroom. These areas are institutional in character with either light grey or beige painted walls, and white mini-blinds at the windows. The furniture is sparse and a mix-match of

styles. There are a few pictures on the walls and in the living room there is a TV and an upright piano flanked by two vending machines. Also located on the first floor is a handicap-accessible bedroom with a private bathroom. All of the other bedrooms are on the second and third floors. The bedrooms are small with bunk beds for the children and a cot bed for the mother. The bedroom walls are painted dark brown with white door and window trim and white mini-blinds covering the windows. There are TVs in the bedrooms for the children. On each floor there is one communal bathroom painted white with white fixtures and light green counter tops. In the basement are the laundry and child-care areas. The child-care area is spacious and measures approximately 40 x 20 feet. The walls are painted white and are covered with bright primary coloured prints, and the doors are painted bright yellow with bright red trim. The crib area, with the same colour scheme, is in a smaller room adjacent to the child-care space. These spaces are welcoming and playful in character. The building is not air conditioned. The lighting throughout the facility is pendent mounted fluorescent lighting and the ceiling-mounted aluminium heating duct work is exposed. Smoking is only allowed in one hallway by the offices on the ground floor and on the outside porches. At the side of the building is play equipment (slides, swings, etc.) for the children.

- Facility B is comprised of two houses next door to each other on a residential street located near a downtown area. The two-story homes were built as private residences at the beginning of the twentieth century. At maximum occupancy the facility (two houses) accommodates twelve women or a combination of, for example, nine women and three children. Patient stay can be up to a year. The two houses seem cramped for space but very home-like and comfortable with residential furniture and video equipment in the living/group counselling room. The dining and kitchen areas are also located on the ground floors along with the administrative offices. The bedrooms and communal bathrooms are located on the second floors. In the one house, there are single-occupancy bedrooms or shared space for a mother and child. In the second house, the bedrooms are double-occupancy and one bedroom can accommodate four patients. In the one house the laundry area is located in the kitchen; in the other house the laundry area is located in the bathroom which is painted light blue with white fixtures. All the other walls in the two facilities are painted white and window air conditioners are used for cooling. The homes are lit with traditional residential incandescent lighting fixtures. All the windows are covered with white mini-blinds but are made to look residential with attractive fabric valances. There is no special space designated for child-care but the bedrooms that accommodate children are accessorised with bright prints and lots of toys. Smoking is permitted on the porches and in the houses when no children are present.
- Facility C is located behind a parking lot which serves a community hospital in a quiet residential neighbourhood. The brick, single-story ranch style facility was originally built eleven years ago to serve as an intermediate recovery centre. At maximum occupancy the facility accommodates sixteen patients and four infants. Patient stay is approximately two to three months. The air-conditioned facility has a central hallway which provides access to a lounge, group counselling room, education room, kitchen, dining room, administrative offices, examining room, bedrooms, bathrooms, and a laundry room. There is a TV in the

living room and video equipment in the education room. The institutional, hospital character of the facility has been softened by the installation of attractive contemporary, residential-style furniture. Walls are painted white and the lighting is a mixture of traditional incandescent fixtures (table lamps) and strip, pendent fluorescent lighting. Wall hangings and paintings adorn the walls and the many windows are covered with white mini-blinds and simple 'cafe' style drapes and/or valences. Two bedrooms share an adjoining bathroom. Single-occupancy bedrooms are primarily for women with infants. The other bedrooms can accommodate up to three patients. No special area is designated for child care. At the back of the facility is a small patio area where smoking is permitted.

- Facility D is a two-story house built in the early 1930's near a downtown area of a large city. The house is surrounded by vacant lots in a run-down neighbourhood. At maximum occupancy the facility accommodates fifteen women patients. Patient stay is limited to thirty days and no children are in residence. Children are allowed to visit on Sundays for one hour and patients either meet them outside in the fenced backyard or in a waiting area near the facility's entrance. Located on the ground floor is the living room/group room, kitchen, dining room, and administrative offices. The house is not air conditioned. All the walls are painted white and lit with traditional incandescent lighting fixtures. The living room and dining room have residential furniture and are home-like in character with bookcases and TV/video equipment and attractive fabric draperies covering the large windows. The bedrooms and communal bathrooms are located on the second floor. The bedrooms are cramped with bunk beds and single beds to accommodate up to five women in one room. There is little individual personalisation in the bedrooms possibly due to lack of space and short stay. However, local churches and charities have 'adopted a room' and decorated two of the bedrooms by providing attractive drapes, bedcovers, furniture, lamps, and pictures. The laundry room is located in an unfinished basement. Smoking is permitted only outside in the fenced backyard furnished with wooden picnic tables and benches.
- Facility E is connected to a Catholic church located in a crowded ethnic neighbourhood in a large city. The Victorian style building was built at the end of the nineteenth century to house priests affiliated with the church. At maximum occupancy the facility accommodates eighteen patients with no more than three children allowed per patient. Length of stay is typically two to three months but can be six months or longer. The facility is very home-like in character. On the ground floor is the entrance, living/group counselling room, kitchen, dining room and director's office. The counsellors' offices are in the basement. The furniture is a mix-match of older residential furniture. There is a TV and video equipment in the lounge/group counselling room and the walls are painted light beige with lots of attractive stencilling (poems, flowers, bows, etc.). The facility is not air conditioned, but is equipped with a sprinkler system. Lighting emanates from traditional incandescent lamp fixtures. The large windows are covered with white mini-blinds and attractive fabric valances. The bedrooms are located on the second and third floors. Each patient has a private bedroom with an adjoining private bathroom, or shares a bedroom/bathroom with their child(ren). The bedrooms are home-like with many personal items (photographs, comforters, toys). There is a child-care area located in the attic. This space has a large window at one end letting in natural light. The walls in the child-care area are painted white

and adorned with bright primary coloured pictures. There are lots of toys, toy storage and a small desk and file area for the supervising adult. There is an open patio area with wooden tables and benches located at the front entrance of the facility. Smoking is permitted only in this area. At the side of the church is a small walled in 'spiritual' garden with bench seating. This area is very well kept up with attractive bushes and flowers and is used as a peaceful retreat area for the patients.

Location/Time Patients Spent on Daily Activities and Environmental Questionnaire

At each health facility a health-care provider was interviewed and asked: "Approximately how much time each day (hours) do patients spend on the following activities [list given], and where is each activity located?" Overall the responses from the health-care professionals were similar. Group counselling was held in the living/dining areas for facilities B, D, and E; all over the house for facility A; and in the group room for facility C. Time spent in group counselling ranged between two to six hours daily. All the facilities held individual patient counselling in the counsellors' offices for one hour a week. All the patients studied in either their bedrooms or the dining room for one to two hours daily. Patients socialised and relaxed everywhere in the facilities, including the exterior spaces, for between two to six hours daily. For all the facilities, cooking took place in the kitchen. Each day patients spent one to two hours preparing food and spent one to two hours eating their meals in the dining room. Grooming/bathing was reported by all the facilities to take place in the bedroom and bathroom and also in the living room by facility B where patients 'dressed' each other's hair. Time spent on these activities took between one half to two hours daily. Laundry was done in the laundry room and took between one to two hours weekly. All the facilities were cleaned throughout which took patients approximately one hour daily. Child care took place throughout the facilities and also in the child-care areas for facilities A and E. Care was full- time for women with infants, except when being counselled, and between one to four hours a week for patients without children. Patients took field trips and attended Alcoholics Anonymous (AA) meetings outside the facility for approximately ten hours a week.

The items the patients missed most from the places they last lived were consistent for all patients from the five facilities. These items were: radio/stereo (20%); television (16%); bed (15%); mementoes/collectibles (11%); clothes closet, sport/exercise equipment (10%); photos, plants, pet (9%); sofa (7%); easy chair, rocker (4%); children's toys, refrigerator, books/magazines, dining table, desk (3%); make-up mirror, crafts (2%).

What the women liked the most about their bedrooms was similar at each facility: In facility A, private bedroom for women with child(ren); in facility B, privacy of a single bedroom, cleanliness and new dressers, mattresses and box springs; in facility C, cleanliness, home-like surroundings, pictures on cork board, quiet and private; in facility D, attractive colour of linens and curtains, bed, closet space, dresser with mirror, comfortable and clean; and in facility E, attached private bathroom, comfortable, roomy, and home-like.

What the women least liked about their bedrooms was also similar at each facility: At facility A, sharing the bedroom with too many women, dark brown walls, lack of mirrors, drawer and closet space. At facility B, not enough room, lack of privacy, and closet space; at facility C,

Table 1: *Scores for Patient Rating of Bedroom in the Five Facilities*

	Facility A			Facility B			Facility C			Facility D			Facility E		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Bed	7	2.4	0.8	13	4.2	0.6	14	4.0	1.0	13	4.1	0.9	4	3.7	0.9
Chair	7	3.1	0.9	4	3.2	0.5	4	3.7	0.9	5	4.2	1.1	4	3.2	1.2
Desk	3	3.3	0.6	3	3.7	0.6	2	3.5	0.7	5	4.4	0.9	3	4.0	1.0
Bedspread	5	3.2	1.8	13	3.8	1.1	13	3.8	1.2	13	4.4	0.9	4	4.5	0.6
Bed sheets	5	2.8	1.5	12	3.8	0.9	14	4.3	0.8	12	4.3	1.0	4	4.5	0.6
Carpet/rug	8	2.6	0.5	13	3.3	1.2	13	4.2	0.9	13	4.1	1.2	4	4.5	1.0
Wall Colour	7	2.6	1.0	13	2.9	1.2	14	4.0	1.2	13	3.9	1.3	4	3.5	0.6
Lighting	8	3.6	0.7	13	3.2	0.9	13	4.2	0.8	12	4.4	0.9	4	4.0	0.8
View	8	2.5	1.1	13	3.3	0.6	14	3.1	0.8	13	3.8	1.3	4	4.0	0.8
Drapes/blinds	7	3.0	1.3	13	3.0	0.9	14	3.6	1.1	13	3.7	1.3	4	4.2	0.9
Storage/Closet space	8	2.4	1.2	12	2.7	0.9	13	3.9	1.1	12	3.7	1.5	4	4.2	1.5
Pictures	3	2.7	1.1	5	3.8	0.8	10	3.8	0.8	12	3.7	1.1	4	4.0	1.1

Ratings: 5 - Very Good; 4 - Good; 3 - Okay; 2 - Bad; 1 - Very Bad

lack of privacy due to the number of roommates; at facility D, bunk beds, lack of privacy; and at facility E, lack of closet space and draughty and cold rooms.

Table 1 shows patient ratings on their feelings about their bedrooms in all five facilities. Table 2 shows patient ratings on their feelings about specific areas in the five facilities. All (100%) of the patients in facility A requested changes in their bedrooms. Sixty-one percent of the patients in facility B, 36% of the patients in facility C, 46% of the patients in facility D, and 50% of the patients in facility E requested changes in their bedrooms. The items in the bedrooms that the patients would most like to change were different at each facility: In facility A, request for private rooms, change of wall colour, and one patient stated, "Everything, because it is not feminine enough for me and it's just not home"; in facility B, need for a desk, clock radio, closet, fresh paint on walls, new rugs, and one patient stated, "I'd like curtains, and a place to do my make-up and hair. I like to be alone when I'm concentrating on writing or making my own cards, or even reading"; in facility C, add some colour to the walls, more pictures, and one patient stated, "More storage room for personal and clothing items -- example, big closet and individual dressers"; in facility D, requests for removal of the bunk beds, lamps that work, a long mirror in each room, and several patients requested the need for more privacy; and in facility E, fresh paint, and one patient stated, "More closet space, and I would like a desk."

The patients were asked which room or space at the facility made infant(s) feel 'most at home'. For facility A, the day-care area, outside play area, and bedroom; for facility B, the outside and living room; for facility C, the bedroom; for facility D, the living room; and for facility E, the child-care room and living room.

The patients were asked if any areas in the facility were too noisy. All the patients (100%) in facility A reported problems with noise in the living room and dining room. In facility B, 92% of the patients had no noise problems. Eight percent reported noise problems in the staff area. In facility C, 77% of the patients had no noise problems. Twenty-three percent reported noise problems on the patio and in the living room. In facility D, 82% of the patients had no noise problems. Eighteen percent reported noise problems in the living room and dining room. In

Table 2: *Mean Scores for Patient Rating of Spaces in the Five Facilities*

	Facility A			Facility B			Facility C			Facility D			Facility E		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Dining Area	8	3.1	0.8	12	3.7	0.7	12	3.4	1.0	12	4.6	0.5	4	4.2	0.5
Hallways	8	3.4	1.1	12	3.4	0.5	13	4.1	0.9	12	4.2	0.9	4	4.0	0.8
Bathrooms	8	3.2	1.4	12	3.1	1.2	14	4.2	0.9	12	4.0	0.9	4	4.2	0.9
Kitchen	7	3.6	1.0	12	3.0	1.0	14	3.9	0.8	12	4.3	0.8	4	4.2	0.9
Lounges/Living Rooms	8	3.7	0.9	12	3.7	0.8	12	3.2	1.3	12	4.4	1.0	4	4.5	0.6
Reception Area	8	3.9	1.0	10	3.0	0.7	14	4.4	0.8	12	4.3	0.6	4	3.7	0.5
Children's Sleeping Area	6	3.0	1.3	8	3.0	0.5	3	3.7	1.5	5	4.4	0.9	2	4.0	1.4
Children's Play Area	7	4.7	0.7	10	3.1	0.6	2	4.5	0.7	7	4.4	0.8	3	5.0	0.0
Counselling Rooms	8	4.0	1.1	3.5	12	0.8	14	4.5	0.9	12	4.2	0.7	4	4.7	0.5
Laundry Room	8	3.2	1.2	12	3.5	0.5	14	4.0	1.0	12	4.3	0.8	4	3.5	0.6
Exterior Garden/Yard	7	3.8	0.9	12	3.0	1.0	11	3.8	1.2	11	4.0	0.8	4	3.7	1.5
Child Care Area	8	4.5	0.7	7	2.8	0.7	2	5.0	0.0	5	4.6	0.5	3	5.0	0.0

Ratings: 5 - Very Good; 4 - Good; 3 - Okay; 2 - Bad; 1 - Very Bad

facility E, 75% of the patients had no noise problems. Twenty-five percent reported a noise problem in the living room.

Patients were asked if facility temperatures were comfortable, too warm, and/or too cool. The following shows the percentage of patients who felt that the temperatures were comfortable in each facility: Facility A--50%; Facility B--69%; Facility C--50%; Facility D-- 69%; and Facility E--75%.

Patients were asked if they felt crowded. In facility A, 75% stated that they felt crowded and 25% stated that they felt comfortable with the number of people in the facility. In facility B, 9% of the patients felt crowded and 91% felt comfortable and not crowded. In facility C, 21% of the patients felt crowded, 7% stated that there were too few people, and 72% felt comfortable and not crowded. In facilities D and E, all the patients stated being comfortable with the number of people in the facility and not crowded.

Discussion

Each of the five facilities had different strengths and weaknesses reported by their patients. For example, in facility A the child-care and play areas were rated as satisfactory. However, all the patients requested change in their bedrooms relating to the number of roommates, wall colour, lack of mirrors, drawer and closet space. The living room was also a problem area, with noise, crowding, and general lack of comfort cited. Overall, facility B was rated well. However, crowded bedrooms and lack of closet space were cited as problems. In facility C, although sharing the bedroom with too many roommates and lack of storage were cited as problems, overall the bedrooms were viewed as home-like and attractive. However, the living and dining rooms were reported as being crowded and noisy. In facility D, the bedrooms and living areas were all well-rated. Patients did request that the bunk beds be removed, long mirrors installed in each bedroom, and that fewer people share a bedroom. In facility E, the private bed and

bathrooms were rated well and cited as being home-like as was the whole facility. The child-care area was given a top rating.

The information given by the health-care personnel concerning time each day patients spent on activities and where the activities were located clearly showed that all the spaces in the facilities were heavily used. Also, with the patients spending only approximately ten hours a week away from the facilities, the interior spaces have significant impact on the patients. With this in mind, and guided by the study's findings, the authors have the following suggestions regarding the interior design of drug and alcohol treatment facilities for women: Bedroom occupancy should not exceed two women and single-occupancy bedrooms for women with child(ren). The bedroom must have a window (preferably with a view) with enough cover for privacy (light-coloured mini-blinds) and an attractive fabric valance or drapes that colour match/co-ordinate with the bedcover and sheets. Provide enough closet space and drawer space for long-term stay. Also, provide a bedside table for each patient with a small clock and table lamp. There needs to be enough space in the room for easy access to a crib or child's bed and for dressing. Provide a shelf and a wall-mounted cork board so each patient can display personal memorabilia such as family photographs, toys, and birthday cards. Paint the walls a soft off white (white is a very sterile colour) colour; for example, a very light peach or rose colour. Provide a full-length mirror (could be attached to the back of the door). Finally, a small desk with mirror and comfortable chair for studying and/or applying make-up and 'dressing' hair. Make the entry, living, dining room, and kitchen areas as home-like as possible. Choose wood cabinetry for the kitchen and select attractive wood storage units for the television and video equipment. The patients are seated for long periods of time while receiving counselling. Take the time to select seating that will provide support and still be comfortable after the patient has been seated for an hour or longer. Select upholstered furniture in attractive, durable fabrics (not plastic or vinyl) that gives the space a comfortable, 'at-home' look. Accessorise the spaces with framed paintings and/or prints. Treat the windows with light-coloured mini-blinds and fabric that colour-co-ordinates with the furniture upholstery and perhaps a wall border print. In facilities with children, provide a separate sitting room for patients to have quite, reflective time without children. The child-care areas should be safe and bright and colourful spaces with child-size furniture, toys, and colourful prints of familiar children's characters such as Pooh Bear and Donald Duck. Mothers in treatment need to feel their children are being well cared for and in an uplifting, safe, and happy space. Finally, make sure counsellors' offices are sound-proofed so here is no problem with patient confidentiality and private administrative meetings. Also, provide the health-care providers with a snack room where they can be alone, away from the patients, to relax and have a meal.

References

Bronfenbrenner U, 1979, *The Ecology of Human Development* (Cambridge MA: Harvard University Press)

Duffy M, Bailey S, Beck B & Barker D, 1986, "Preferences in Nursing Home Design: A Comparison of Residents, Administrators, and Designers" in *Environment and Behaviour* **18** 246vv

Hoffman L, 1981, *Foundations of Family Therapy* (New York: Basic Books)

Potthoff J, 1991, "Young Adult Male Satisfaction With Drug and Alcohol Rehabilitation Facilities: Interior Design Implications" in *Journal for Alcohol and Drug Education* **37** 38vv

Schwartz B, 1996, "What's Being Done to Bring Well-Being into the Hospital?" in *Metropolis* **16** (3) 74vv