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# O3. A protectED ROOM:

Design of Responsive and Acuity Adaptable Behavioral Health Room for Emergency Departments

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# ABSTRACT

This article explores how a responsive, acuity adaptable emergency room design can actively contribute to patient well-being along the continuum of care without sacrificing operational efficiencies. Increasing medical knowledge, prevalence, and social awareness of behavioral health issues have made it imperative to design therapeutic spaces that respond to the whole person, in addition to medical treatment needs. The method for conducting this qualitative study included historical review of behavioral health facilities, expert interviews, bedside care-team simulations, and the observational study of existing facilities. The Perkins+Will team met with an ED director, Nurse managers, Behavioral Health Medical Director, a Lean and Six Sigma expert, and conducted observational studies of existing conditions at multiple sites. The result of this study is a protectED room design that includes architectural solutions to address patient medical and behavioral health acuity needs. The design utilizes architecture as a tool to support patients in the same compassionate language as the care teams that treat patients and not simply an apathetic undersigned room to hold them until they can be admitted. It is recognized that staff skill-mismatch, inpatient psychiatric bed availability, and other complex factors will impact patient care and flow through the emergency department.

KEYWORDS: behavioral health, mental health, emergency department (ED), acuity adaptable, headwall, turntime, emergency severity index (ESI)

# 1.0 INTRODUCTION:

Research indicates that better integration of behavioral healthcare services into the broader healthcare continuum can have a positive impact on quality, costs and outcomes of healthcare practices<sup>1</sup>. The 2010 Affordable Care Act (ACA) required insurance plans to offer behavioral health coverage as an "essential health" benefit, thereby expanding paid care options for millions of previously underinsured Americans. This increase in funding has led to increased patient volumes on already overburdened emergency departments and accelerated society's response to how people are treated in primary and emergency care environments. While the ACA's future is unknown, a review of the past research reveales a general trend towards acceptance and integrative mental and physical healthcare. In this article, behavioral health (BH) is defined as mental illness and substance abuse disorders.

A behavioral health patient's symptoms can be intensified in the emergency department by the patient's current mental state, previous traumatic experiences, stigma, mistrust, and loss of control. Thoughtful, empathetic, and informed design that supports and promotes a positive patient experience for this vulnerable group is paramount. The objective of this research was to investigate design of an acuity adaptable room that responds to the continuum of care intensity within the emergency department (ED), giving special attention to the need for therapeutic design. The following guiding principles were used to provide direction for the overall design of the protectED room:

- 1. Create a humane and therapeutic patient room for all
- 2. Maximize flexibility and adaptability of the room for behavioral health and medical emergency patients of differing severities
- 3. Create a supportive environment designed to stabilize the patient, reduce stress, and progress the initial treatment plan
- 4. Create a healing environment that promotes patient well-being and sensitivity in patient care by staff.

### 2.0 METHODOLOGY

Current behavioral health design guidelines reflect the sentiment that creating a physical, interpersonal, and psychologically safe environment that supports the therapeutic milieu is essential to the recovery process<sup>2</sup>. To gain a compassionate understanding of the challenges faced by the behavioral patient, the team listened to staff accounts of patient experiences in the Emergency Department and inpatient behavioral health units. A historical review of the evolution of mental health environments and care concepts from the 1800s to today informed how the current state evolved (Figure 1). The team evaluated existing design guidelines. Observational studies of selected emergency departments, accompanied by interviews with experts, helped identify potential areas for focused study. Interviews with experts ranged from an ED Director, Nurse Manager, Behavioral Health Medical Director, Lean and a Six Sigma expert. Observations and findings from InSytu Advanced Healthcare Simulations with multi-disciplinary, multi-day workflow simulations in a newly built ED and an Inpatient Behavioral Health Unit identified opportunities for improvements related to the space, and this process informed the final design.

### 2.1 Historical Context

Figure 1 below is a summarized illustration depicting some of the milestone events over the last two hundred years that have helped shape our psychiatric care model.

### Timeline of Selected Events: How did we get here?



Figure 1: Historical psychiatric and department crisis management<sup>3, 4, 5, 6, 7, 8, 9, 10</sup>.

# 2.2 Mental Healthcare Today

The Substance Abuse and Mental Health Services Administration (SAMHSA) reports that 18 percent of Americans have some mental illness, including conditions such as depression, bipolar disorder or schizophrenia<sup>11</sup>. With this knowledge, it is no longer appropriate or effective to separate the physical and mental health needs of an emergency patient.

Currently, 1 in 8 emergency department cases are related to mental disorders and/or substance abuse  $^{12}\,\mbox{and}$ 

of those patients who need to be admitted, 21.5 percent are boarded<sup>13</sup> in the ED waiting for an inpatient bed, compared to 11 percent of all ED patients boarded. Regardless of admission status, average length of stay in the emergency department is 4 hours for a Medical Patient versus 18.5 hours for a Behavioral Health patient<sup>14</sup>. Figure 2 illustrates the prevalence of behavioral health diagnosis types.

Regardless of the reason for the ED visit, all patients are entitled to a medical evaluation by the Emergency



Figure 2: Prevalence of the Behavioral Health diagnosis types.

Medical Treatment and Labor Act (EMTLA) law. EMTLA requires a medical evaluation to ensure stability and risk of injury<sup>15</sup>. To complicate matters, many behavioral health (BH) patients present agitation, which makes initial assessments challenging. When this happens, the healthcare team must simultaneously implement de-escalation techniques, and an observational primary

survey to determine risk of injury, possible delirium, or psychiatric causes of symptoms<sup>16</sup>. This practice can happen in the ambulance bay while the patient is still on the EMS gurney, registration area, or preferably in a dedicated triage room that provides a safe and private environment for all involved (Figure 3).



Figure 3: Behavioral Health patient assessment.

# 2.3 Current Behavioral ED Treatment Model

Delirium represents a decompensation of cerebral function in response to one or more pathophysiological stressors and is caused by severe medical illness, metabolic imbalance, medication or poisoning, infection, surgery or withdrawal, which requires a comprehensive medical evaluation and treatment. Whereas cognitive, known psychiatric condition, intoxication or withdrawal, or other causes such as anxiety, depression, or anger require an abbreviated medical exam and specific skills to minimize symptoms<sup>17</sup>.

Included in the risk of injury evaluation is danger to self or others and immediate ability to act on a plan. If the patient is determined to be at risk, a medical hold or restraints maybe needed for safety. This requires careful, thoughtful and compassionate care that fulfills all medical-legal requirements. Ideally, ED treatment plans for the behavioral health patient focus on acute symptom management and expeditious transfer to the inpatient unit. However, the psychiatric inpatient bed supply and demand mismatch requires the ED team to board patients. This mismatch is severe; up to 70 percent of institutions have to board psychiatric patients for more than 24 hours and 10 percent for a week or more<sup>18</sup>.

Globally, mental health advocates agree with the right to the highest attainable standard of physical and mental health<sup>19</sup>. These following aspects are particularly important:

- 1. Access to appropriate services
- 2. The right to individualized treatment
- 3. The right to rehabilitation and treatment promoting autonomy
- 4. The right to community-based services
- 5. The right to the least restrictive services
- 6. Protection of human dignity.

The protectED design specifically responds to goals 2, 5, and 6 with incremental, patient specific features that support medical and behavioral health needs. The right environmental adjustments empower the ED team to tailor interventions beyond patient safety, minimizing restraints application.

Environments should de-stigmatize mental illness by integrating treatments for the whole person's physical and mental health. Focus needs to be on the continuum of care to make sure patients get the right kind of care in the right setting. Providing patients control over environmental lighting and sounds help deescalate feelings of agitation and anxiety and the behaviors that express these feelings.

# 2.4 Current Behavioral Health ED Environment and Expert Observations

Changing care models, decreasing stigmas, and increased accessibility to emergent behavioral healthcare is accelerating change in the architectural design response. Conventional design elements and processes employed to ensure a safe BH patient care environment include removing and securing room items, or sliding and hiding unsafe elements, use of secured cabinets, patient seclusion, and/or use of restraints when all else fails.

The practice of dedicated BH rooms and medical treatment rooms often require reshuffling patients or holding treatment rooms empty while patients are held in the waiting room. Typically, single purpose behavioral health treatment rooms are not well suited for treating patients with medical conditions and often sit unused even in cases when the ED waiting room is full. Some multi-purpose rooms with garage door design create extreme noise conditions for patient care areas and are not aesthetically pleasing or conducive to patient wellbeing.

ED design that supports normalized and patient-centered versus controlled-centered care should be implemented. The design needs to create healing environments that integrate natural lighting, art, colors and reduce barriers between caregivers and patients to provide positive clinical outcomes.

# 2.5 Behavioral Health ED Case Studies

The following three case studies were selected based on their relevance to behavioral health design and unique characteristics that shape the healthcare environment. Qualitative studies of the units through observation, expert interviews with staff and designers, and event simulations helped inform this research.

**Swedish ED Behavioral Health Pod C, Edmonds, WA:** An observational walkthrough of the Edmonds ED behavioral unit (Figure 4) with its four treatment rooms and two separate acuity adaptable rooms helped identify behavioral health design features that work effectively. It is noted that the acuity adaptable rooms sized at 190 square feet (13'-8" x 14'-0") each are underutilized due to lack of direct visibility from the nurse stations. The metal garage doors that conceal the headwall, computer on wheels and all wall-mounted equipment, the hygiene area along with the nurse server are noted as a noise hazard. Staff complained that psychiatric patients bang on the metal doors disturbing other patients in the unit. The nurse servers are two-sided with access from inside and outside the room and accommodates soiled linen, clean linen, and PPE. The flex room has an encased tamper-proof TV. The room doors are four feet wide, with a vision panel and integrated operable shades.



Figure 4: Swedish Edmonds ED Behavioral Health treatment room.

Swedish Behavioral Health Inpatient Unit, Seattle, WA: A walkthrough of the new 22-bed inpatient unit at Swedish Ballard Behavioral health Unit provided the opportunity to study current design trends in behavioral health. Simulation studies in the unit explored the effectiveness of safety procedures during emergencies. The inpatient unit (Figure 5) has single and double patient rooms with reversible-hinged doors and anti-ligature fixtures. The "mini" headwalls conceal power and gases. Patient bathrooms have capped sliding doors with softclosure. The interior palate is composed of cool tones and natural wood accents. Ceiling panels made from compressed wood wool provide a secure, durable, and sound absorptive surface out of reach. The unit has indirect cove lighting throughout. The sections of the multipurpose corridor wall protection doubles as a dry-erase board for daily information. One of the unique spaces in the unit is the patient meditation rooms with customizable lighting color and music that calm the patients.



Figure 5: Swedish Ballard Behavioral Health Inpatient Unit.

**St. Vincent's, Portland, Oregon, WA:** St.Vincent's has an ED behavioral health unit adjacent to a behavioral health inpatient unit. The team investigated the advantages of patient intake and overflow between the two units through expert interviews and walkthroughs. The behavioral ED unit (Figure 6) is a locked unit separate from the main ED with six treatment rooms and two holding rooms, staffed with Psychiatric and ED RNs. Psychiatric patients arrive in an enclosed area near the ambulance bay. Co-operative and acute crisis patients arrive at the ED through separate routes. The pre-hospital transport crew includes EMS staff, police officers, and/or hospital security. Patients are registered as soon as they enter and triage happens in a dedicated room in the unit. Each of the two holding rooms for acute crisis patients contain only a floor-mounted bed. Supervision is from a shared staff area between the rooms. Cooperative patients are directed to the patient treatment room, which has a patient bed, hand wash sink, cabinet and headwall. The patient treatment rooms allow patients to operate a sink. Other special features of the treatment room include seamless floors with no pattern, doors with a vision panel, magnetic locks and piano hinges, and a window with integral blinds. Furniture in the room is tamperproof. Non-ligature fixtures, recessed lighting, security camera, flush mounted digital clock. Staff control lighting and temperature from outside. In the inpatient unit, encouraging patients to explore the wide corridors with calming music and 27000K colored LED promote patient wellness and independence.



Figure 6: St. Vincent's Behavioral Health room.

# 3.0 RECOMMENDATION: DESIGNING AN ADAPTABLE BEHAVIORAL HEALTH ROOM

The protectED flex treatment room is a standardized, flexible room that responds to the continuum of care intensity within the emergency department. It is an adaptable room, which gives special attention to the need for therapeutic design and communicates to patients in the same compassionate language as the care team that treats patients. The article proposes a series of guidelines and design strategies that address safety, dignity, flexibility, acuity adaptable, efficient, positive distraction, acoustics, lighting control, therapeutic interventions, and compassion. All of these aspects strive to create a more therapeutic, holistic design approach while improving outcomes<sup>20</sup>.

# 3.1 Flexibility

Technological advancements have given designers new tools to respond to known design challenges in the emergency department. The conflicting need to balance the one-time capital construction costs have often over-powered the harder to defend and measure, yet equally important building lifetime workflow efficiencies, staff satisfaction and patient outcomes beyond immediate safety. To that matter, typical or current emergency department patient rooms were planned to serve most patients with little variation, a static response. Specialty rooms for extreme care needs are seen in the development of trauma and behavioral health in an attempt to balance cost, need, and efficient turn times. Patient care spaces should perform at a more fluid level of operation, allowing for flexible configurations that can respond to specific patient care needs, thus having the capability of treating medical patients and also adhering to FGI guidelines for behavioral treatment and holding rooms (Figure 7). From a staff point of view, it is important to have adequate area within the room to accommodate necessary equipment, linen, waste, personal protective equipment (PPE), and headwall mounted accessories. By categorizing these into three separate zones, rooms are customized to the individualized needs of the patient and staff (Figure 8). Upon entering the room, located on the left hand side, zones 1 and 2 act as separate alcoves for hygiene/PPE and equipment/linen, and soiled storage, with separate interior ceiling hung, track doors that can be opened/closed by staff. Zone 3 is an adjustable headwall, composed of six panels that independently rotate 180 degrees (Figure 9). Independent panels allow for patient specific care, as more or less of the headwall is reveled. The diagnostic side of each panel contains medical gasses, pumps, power, monitoring, and accessories, while the backside is a section of a custom printed graphic mounted on impact resistant laminate (Figure 10).



Figure 7: Treatment room transformation..



Figure 7: Treatment room transformation.



Figure 8: Treatment room features.



Figure 9: Adaptable headwall.



Figure 10: Headwall functionality.

# 3.2 Acuity Adaptation

The protectED room can incrementally respond to individualized medical patient needs along the Emergency Severity Index (ESI) (Figure 11), a tool used to triage and determine medical acuity level of patients within the emergency department. Figure 11 illustrates the complexity and variability of medical and behavioral health patients in the ED. Each patient is triaged upon arrival for urgency and acuity of care. The blue ESI patient type examples demonstrate the intensity, urgency of care, and number of interventions needed with "V" requiring the least and "I" the most. In addition to medical stability, BH patients require an evaluation to ensure safety in the environment of care. The ED treatment team will implement the least restrictive measures to ensure safety for all. From pink to red BH patients require careful assessment through interview and observations with restraint and seclusion being the most restrictive, applied only when all other interventions have failed. The violet area encloses patients who agree to the treatment plan and the orange area designates patients with a risk assessment that requires involuntary treatment (ITA) or "hold/detention" until evaluation by a County Designated Mental Health Professional (CDMHP) has assessed the patient's need for inpatient care.

Uniquely, the protectED room can respond to the emotional and physical safety of patients and staff as well. The dynamic feature responsible for this is the operable headwall, which allows for multiple configurations in response to the patient's needs. By rotating headwall panels, the treatment space can flex from an ESI V patient in need of a simple prescription refill to an ESI II patient with severe chest pain (Figures 12 to 15). Each headwall panel is designed with care-paired outlets and accessories that locks into place using electro pneumatic brakes, similar to operating room and intensive care booms. This allows for quick turn-times as staff modify the room to match the patient's assessed individual needs without needing to remove any equipment. Current design solutions respond only to physical safety or medical needs, not both. Having flexible emergency rooms would decrease room downtime and ensure that resources are efficiently utilized. Designing rooms with the ability to flex between medical and behavioral health room in the ED will mean that an increased number of patients can be accommodated more efficiently within the same footprint.



Figure 11: Emergency Severity Index (ESI) chart adn Behavioral Health restriction levels.

# A protectED Room



# INDEX

- [1] ESI 5 (Medication refill) or ESI 3-5 Low-risk behavioral health
  [2] ESI 4 Low acuity patient (Fever)
  [3] ESI 3 Medium acuity patient (Abdominal pain)
  [4] ESI 2 High acuity patient (Chest pain & Stroke)
  [5] ESI 2 High risk behavioral health









Figure 12: ESI Scenarios.

### 3.3 Efficiency

Design of the protectED room goes one step beyond the "universal treatment" room idea. Care modules should become more efficient, as they are able to easily adapt to the changing needs of increasing patient volumes. As the room is repeated within these modules, its' configuration is designed to be identical and is dimensioned such that columns are easily absorbed (Figure 13). With a headwall that can transform from a behavioral health treatment room to a medical treatment room or both, the ED will rarely have a specialty room sitting empty during peak hours.



Figure 13: Treatment room floor plan.

# 3.4 Positive Distraction

The headwall allows for natural landscape images, rendering an entire scene as the headwall panels are rotated. The selection of natural landscape images is supported by multiple studies that have shown decreased stress responses to views of nature. The environmental features can be in the corridors and nurse stations as well, providing increased satisfaction within the work environment. An encased TV can be programmed to shuffle through patient-informed ambient art or naturescapes, while hidden speakers within the ceiling provide audio. A normalized approach to the care of behavioral health patients in the emergency department is essential. Having a dedicated sitting area for patients with a recliner in base recumbent position would be a great place to start, allowing patients to relax. Making a space as warm and inviting as possible, while taking into consideration the flexibility would be the ideal design goal.

# 3.4 Acoustics

Acoustical treatments that absorb and mitigate sound are applied within the architectural elements, including adjustable non-ligature curtains, furniture, wall surfaces and flooring. Enclosed equipment and hygiene alcoves create secondary sound barriers that help absorb higher noise levels. Ceilings and walls are constructed with additional layers of acoustically enhanced drywall, while the flooring uses an acoustic rubber base to decrease the perceived noise level by 50 percent.

# 3.5 Lighting

Studies have shown that lighting can contribute to health problems, such as depression, agitation, and sleep; all of which influence the mood of both staff and patients<sup>20</sup>. The protectED room incorporates this knowledge and uses technology to provide programmable or patient-informed lighting choices, as well as control of the light temperature or color. A combination of direct and indirect fixtures provide adequate ambient light for patient exams. All lighting is fully recessed in the hard lid ceiling and shielded with tamper proof covers. Additional task lighting is available on rolling stands. Careful attention to the quality of light, safety, noise control and color facilitates greater interaction between caregivers and patients.

### 3.6 Materials

Behavioral health spaces require materials that can withstand heavy use and abuse beyond normal wear and tear. Materials must be easily repairable and survive thrown furniture, kicking, scratching and door impacts, while maintaining an ease of cleanliness and germ resistance. The headwall requires molded urethane edges for a durable and smooth, non-ligature seem between panels. All furniture, door handles, sink fixtures, are anti-ligature and free of sharp edges. The hard lid ceiling was designed with tamper-proof lighting and air supply with all access panels outside of the room.

# 3.7 Furniture

Each room should have a stretcher and/or a comfortable tamperproof recliner, depending on the patient's needs. For medically cleared, behavioral health patients, the stretcher can be removed, decreasing hospital related stressors. A second chair can be brought in for caregivers to have seated talks with the patient.

# 4.0 CONCLUSION

The protectED room begins to establish important design strategies to benefit behavioral patients and shape future architectural responses to patient acuity, behavioral health needs, and comfort in an emergency room. With increasing medical knowledge, prevalence, and significance of social awareness of behavioral health issues, it is imperative to start designing these spaces with a more therapeutic and holistic attitude that responds to the whole person, in addition to medical treatment needs.

Looking ahead, a continuation of this study would dive deeper into more behavioral health literature reviews coupled with visiting higher acuity level emergency departments. Post occupancy evaluations of behavioral health units would help garner quantitative research goals and further develop design strategies.

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# REFERENCES

[1] American Health Association, (2012). "Bringing Behavioral Health Into The Care Continuum: Opportunities to Improve Quality, Costs and Outcomes", Retrieved on 9/2016 from http://www.aha.org/research/reports/ tw/12jan-tw-behavhealth.pdf.

[2] Department of Veterans Affairs, Office of Construction and Facilities Management, (201). "Mental Health Facilities Design Guide", Retrieved from http://www. cfm.va.gov/til/dguide/dgmh.pdf.

[3] Parry, M. S. (2006). "Dorothea Dix (1802–1887)", *American Journal of Public Health*, Vol. 96, No. 46, pp. 624–625.

[4] "Timeline: Treatments for Mental Illness", PBS American Experience, A Brilliant Madness, Retrieved on 9/2016 from http://www.pbs.org/wgbh//amex/nash/ timeline/index.html.

[5] Centers for Medicare & Medicaid Services. "The Mental Health Parity and Addiction Equity Act (MH-PAEA)", Retrieved on 9/2016 from https://www.cms.gov/cciio/programs-and-initiatives/other-insurance-protections/mhpaea\_factsheet.html.

[6] U.S. Department of Health & Human Services, (2013). "Affordable Care Act Expands Mental Health and Substance Use Disorder Benefits and Federal Parity Protections for 62 Million Americans", Retrieved on 9/2016 from https://aspe.hhs.gov/report/afford-able-care-act-expands-mental-health-and-substance-use-disorder-benefits-and-federal-parity-protections-62-million-americans.

[7] ACEP Emergency Medicine Practice Committee, (2014). "Care of the Psychiatric Patient in the Emergency Department: A Review of the Literature", Retrieved on 9/2016 from https://www.acep.org/uploadedFiles/ACEP/Clinical\_and\_Practice\_Management/ Resources/Mental\_Health\_and\_Substance\_Abuse/ Psychiatric%20Patient%20Care%20in%20the%20 ED%202014.pdf.

[8] Wilson, C., Pence, D., and Conradi, L., (2013). "Trauma-Informed Care", in *Encyclopedia of Social Work*, National Association of Social Workers Press and Oxford University Press, Retrieved on 9/2016 from http://socialwork.oxfordre.com/view/10.1093/ acrefore/9780199975839.001.0001/acrefore-9780199975839-e-1063. [9] National Coalition for the Homeless, (2009). "Mental Illness and Homelessness", Retrieved on 9/2016 from http://www.nationalhomeless.org/factsheets/Mental\_Illness.pdf.

[10] National Council for Behavioral Health. Community Mental Health Act, Retrieved on 9/2016 from http:// www.thenationalcouncil.org/about/national-mentalhealth-association/overview/community-mental-healthact/.

[11] Substance Abuse and Mental Health Services Administration, (2017). "2014-2015 NSDUH State Estimates of Substance Use and Mental Disorders", Retrieved on 1/2017 from https://www.samhsa.gov/data/population-data-nsduh/reports?tab=38.

[12] Agency for Healthcare Research and Quality, (2010). "Mental Disorders and/or Substance Abuse Related to One of Every Eight Emergency Department Cases", Retrieved on 1/2017 from http://www.ahrq.gov/ news/nn/nn070810.htm.

[13] Nolan, J. M., Fee, C., Cooper, B. A., Rankin, S. H., and Blegen, M. A., (2015). "Psychiatric Boarding Incidence, Duration, and Associated Factors in United States Emergency Departments", *Journal of Emergency Nursing*, Vol. 41, No. 1, pp. 57-64.

[14] National Alliance of Mental Illness, Mental Health Facts in America, Retrieved on 1/2017 from http://www. nami.org/NAMI/media/NAMI-Media/Infographics/GeneralMHFacts.pdf.

[15] American College of Emergency Physicians, Retrieved on 9/2016 from https://www.acep.org/news-media-top-banner/emtala/.

[16] Stowell, K., Florence, P. Harman, H., and Glick, R., (2012). "Psychiatric Evaluation of the Agitated Patient: Consensus Statement of The American Association for Emergency Psychiatry Project Beta Psychiatric Evaluation Workgroup", *The Western Journal of Emergency Medicine*, Vol. 13, No. 1, pp. 11-16.

[17] Maclullich, A., and Hall R., (2011). "Who Understands Delirium?", *Age Ageing*, Vol. 40, pp. 412-414.

[18] Zun, L., (2012). "Pitfalls in the Care of the Psychiatric Patients", *Journal of Emergency Medicine*, Vol. 43, No. 5, pp. 829-835. [19] Caldas de Almeida, J., and Killaspy, H., (2011). Long Term Mental Healthcare for People with Severe Mental Disorders, Report, Retrieved on 1/2017 from http://ec.europa.eu/health//sites/health/files/mental\_ health/docs/healthcare\_mental\_disorders\_en.pdf.

[20] Stroupe, J., (2014). "Behavioral Health Design: Effective Patient Spaces for Treating Mental Illness", *Health Facilities Magazine*, Retrieved on 1/2017 from from http://www.hfmmagazine.com/articles/1370-behavioral-health-design.