Update on New Mayo Clinic

Q&A With the Medical and Clinical Directors

Brian A. Palmer, M.D., M.P.H., psychiatrist, and Ajeng J. Puspitasari, Ph.D., psychologist, will lead Mayo Clinic’s soon-to-be-open residential psychiatric facility, named John E. Herman Home and Treatment Facility. Dr. Palmer will serve as medical director, and Dr. Puspitasari will be the clinical director for the facility, in collaboration with ClearView Communities, which will be located across from Mayo Clinic Hospital — Rochester, Saint Marys Campus, in Rochester, Minnesota.

At what stage is the new facility’s building project, and when will it open?
Construction started in May 2017, has proceeded as scheduled thus far and is ongoing. Completion of the treatment facility and the north house’s construction is planned for the end of January 2018 and the south house by the end of April 2018, if all goes well. We are targeting a April 2018 opening. The first phase will include eight beds for north house residents. Once the south house is finished, we will take the next eight residents.

What are your expectations for patient outcomes at this home?
Increased employment rate or other community participation — this may involve activities such as volunteering or education.

Increased daily functioning — this includes the ability to maintain habits such as a healthy diet and physical activity, the ability to independently manage medication, and the ability to maintain a living space.

Overall well-being — this will be monitored regularly through patient-reported outcomes.

Symptom reduction — while this is not the only or even main focus of treatment, we predict residents will experience some symptom reduction or stabilization, though we expect the symptom trajectory may fluctuate. We acknowledge there may be some residents whose symptoms remain high despite having made great improvements in well-being and functional and vocational recovery.

Improved social connections — due to the residential nature of treatment, the setting will be ripe with opportunities for residents to build healthy and meaningful social connections. Residents will be encouraged to attend regular community activities, such as weekend outings with other residents or working as a team to maintain the house and prepare meals. We also will provide support for residents’ family members, since they often will be the resident’s primary social support after completing the program.

How will residents successfully transition back into the community after staying at the facility?
Strong discharge planning is key to the program. Our team will work with outpatient providers and other services to ensure residents will have adequate support once discharged. We also will conduct follow-up with patients at regular intervals to assess post-discharge progress and invite them to any resident alumni events.

Previous residents may be given access to our employment specialists or other providers if they need support with re-integrating into the community, though the intensity and
frequency of accessing these services will be lower than for those in residence.

**How will you work with referring physicians?**
We expect to work closely with all referring physicians by providing updates regarding residents’ progress during their stays at the home. Before residents are admitted, we will facilitate a warm handoff from the referring physician and gather relevant information from them on residents’ past histories. When residents have completed their stays at the home, our team will work closely with referring physicians and any future providers to prepare a discharge plan.

**What is the referral and screening process?**
You are welcome to refer a patient to the home by calling the Mayo Clinic Department of Psychiatry and Psychology appointment office at 507-266-5100 or online at http://MayoClinic.org/medicalprofs. We will then conduct further screening with that individual. To date, a number of people have expressed interest to be considered for the facility.

**Here is a summary of our referral and screening process:**
• Physicians, the patient or the patient’s family will call the Department of Psychiatry and Psychology appointment office or submit an online referral.
• The facility’s program manager will conduct a brief initial screening to ensure the patient is appropriate for further screening and discuss programming, billing and insurance.
• If the patient meets initial criteria, the medical or clinical director will speak with the patient, family members or all parties by phone or in person for an additional screening interview to assess eligibility.
• If the patient does not meet inclusion criteria, a referral to other treatment will be provided.
• If the patient meets the criteria, the individual will continue with the admission process.
• If the patient does not fully meet inclusion criteria, we will offer a trial stay, such as living at the home for three days and then completing further assessment.
• If the patient meets admission criteria after assessment by the medical or clinical director, further evaluation will be scheduled with the patient and family members.
• Full admission evaluation will be conducted with the facility’s multidisciplinary team.

**Should referring physicians have patients call their insurance companies prior to referral?**
We will provide pre-certification services to help patients determine the total out-of-pocket cost and any relevant insurance coverage that may be available to them.

---

**Deadliness of Attempted Suicide Has Been Dramatically Underestimated**

Over a lifetime, about 1 in 80 Americans will kill themselves. Suicide is the 10th-leading U.S. cause of death, and a history of having made a suicide attempt is considered a robust indicator of future risk of completed suicide. “Yet, only a small portion of attempts come to medical attention,” says J. Michael Bostwick, M.D., a psychiatrist at Mayo Clinic’s Rochester, Minnesota, campus. Moreover, much of what is known about suicide attempts derives from survey data, rather than community studies in which subjects have made medical contact and been followed over time.

**Novel study design and findings**
According to Dr. Bostwick, previous studies of attempted suicide as a risk factor for completed suicide suffer from the following limitations:
• If individuals have killed themselves on first attempts coming to medical attention, they have not been included in the studies.
• Most studies are based on convenience samples, such as patients admitted to the hospital after an attempt or individuals who overdosed. Convinced such studies underestimated suicide risk, Dr. Bostwick and his team set out to prove it with a unique study design. Using the Rochester Epidemiology Project, they identified 1,490 Olmsted County residents making an index attempt — a first attempt coming to medical attention — between 1986 and 2007, with follow-up through 2010. They defined “medical attention” to include deceased individuals whose first stop was the coroner’s slab rather than the emergency department.

The study, published in *The American Journal of Psychiatry* in November 2016, found 81, or 5.4 percent, of the sample killed themselves. Of these, 48, or 59.3 percent, perished on index attempt. Of 33 index attempt survivors, 27, or 81.8 percent, completed suicide within one year. Marked gender differences appeared among...
suicides: males represented 62 of 81 deaths, or 76.5 percent, while females represented 19 of 81 deaths, or 23.5 percent.

**Key physician takeaways**

“My reaction to the findings is they are quite stunning,” Dr. Bostwick says. “This is scary from a population standpoint, because 60 percent die before we ever see them, most with no psychiatric history.”

The following study implications are important for physicians to consider:

- The deadliness of suicide attempts has been dramatically underestimated. The finding of 5.4 percent of individuals who attempt suicide dying by suicide was nearly 60 percent higher than suicide prevalence reported in previous studies. Moreover, by including index attempt deaths, suicide prevalence more than doubled.
- The year after a suicide attempt is crucial for potential recurrence risk. Over 80 percent of subsequent completed suicides occurred within one year of index attempts.
- Completed suicides were disproportionately male. Overall, 1 in 9 men and 1 in 50 women enrolled in the study died by suicide either on index or subsequent attempt.
- Firearms far outstrip all other methods in their lethality. Individuals who attempt suicide using guns had a dramatically disproportionate odds ratio of 140 for succeeding, as compared with all other methods. Of the deceased, 72.9 percent used firearms, including 75 percent of men. Although women used guns less frequently, they were as likely as men to die if they used firearms.
- Scheduling follow-up appointments for individuals who attempt suicide matters. Having follow-up appointments on the books at emergency department or inpatient service discharge — regardless of whether they are kept — significantly reduced the risk of subsequent suicide.

**Practice applications**

This study not only demonstrates that suicide prevention efforts should begin before a first suicide attempt, but also supports prevention as being the responsibility of all medical providers, not just mental health practitioners.

Additionally, the study shows that prevention efforts beginning after index attempt would be too late for the nearly two-thirds dying on first attempt. Given the lack of attempt history for individuals with an index attempt, their suicidality would need to be detected during primary care as well as mental health visits.

Due to the astronomically high odds ratio of death for attempters using firearms, guns are an important focus, states Dr. Bostwick. “We’ve got to do something to prevent people from making a first attempt, particularly with a firearm,” says Dr. Bostwick.

A role physicians can play in gun control, he indicates, is the asking of all patients: Do you have guns? Are they locked up? Are you leaving them where kids can get hold of them?

Mustering preventive resources to thwart repeat — and lethal — attempts is another key clinical application of this study’s findings, notes Dr. Bostwick.

**Next steps**

Dr. Bostwick indicates that further research on this topic should focus on identifying risk factors for populations vulnerable to making first attempts and target risk reduction in those groups.

For more information


---

**Vigorous, Supervised Exercise Enhances Short-Term Smoking Cessation Among Female Smokers With Depression**

Tobacco use is currently the leading cause of death in the United States. Those who smoke tobacco also report higher levels of depression than nonsmokers. For U.S. women, the prevalence of smoking is 14.8 percent, and quit rates are poorer than those of men. Depression also is more common among women who smoke, and those displaying more symptoms of depression don’t fare as well in smoking treatment.

There have been very few studies looking at smokers with depression, and just one of those focused on women. In fact, women with depression who smoke are considered a tobacco use disparity group and a pressing public health issue, according to Christi A. Patten, Ph.D., a tobacco cessation researcher at Mayo Clinic’s campus in Minnesota and study author.
Women with depression, therefore, are in need of smoking interventions. Having looked at smoking and depression for some time, Dr. Patten and colleagues launched a pilot study investigating the effect of vigorous, supervised exercise for smoking cessation in these women, enrolling 30 adult female smokers with moderate to severe depression.

Participants were randomly assigned to 12 weeks of in-person, vigorous, supervised exercise at a local YMCA three times a week for 30- to 40-minute sessions or health education. All of the women underwent nicotine patch therapy as well as behavioral counseling for smoking cessation. The investigators assessed all participants at baseline, at 12 weeks, and then at six months after their target quit dates.

Additionally, as heightened inflammation is associated with elevated distress levels — indicating unregulated emotion — Dr. Patten and colleagues assessed biomarkers of inflammation. Participants provided blood samples at the study’s outset and again at the end of week 12. The research team assessed these samples for potential differences between the two treatment groups, as well as those who did not cease smoking and those who were abstinent by the study’s end.

The study’s design was unique in its use of more-vigorous, intense exercise, which was innovative due to uncertainty about adherence for the exercise regimen due to the participants’ depression.

**Findings**

Happily for the investigators, “the study participants did quite well,” says Dr. Patten. “We had good adherence rates — the women showed up.”

Dr. Patten and team found treatment adherence high for both groups: participants randomized to the exercise regimen attended an average of 72 percent of their sessions, and those randomized to health education attended an average of 66 percent. The exercisers had a higher smoking abstinence rate at week 12 than those given health education, yet there were no significant differences in smoking cessation rates at six-month follow-up.

Laboratory analysis revealed an increase in proinflammatory cytokine interleukin-6 for women who smoked compared with those who were abstinent at week 12.

These findings appeared in the Jan. 1, 2017, issue of *Nicotine and Tobacco Research*.

**Conclusions and implications for practice**

This pilot study indicates that supervised exercise is effective, at least for the short term, for women with depression who smoke, according to Dr. Patten. However, the long-term adherence was limited, as participants dropped off sharply in their attendance at the exercise facility after study’s end: only two of the women returned after week 12.

“They weren’t keeping up as much without a supportive coach,” she says. “We think that people with depression need more support and structure. Actually, smokers in general do. It seems that adding that supervision is the key to exercise adherence.”

Dr. Patten adds that conducting this study in a community setting gives the program additional reach and makes it more replicable. She emphasizes that providing some structure and support for women with depression who smoke to complete an exercise regimen is key. “You can’t just give them a piece of paper with guidelines,” she says.

If patients express willingness to engage in exercise, treating physicians could connect them to a fitness center. Gym trainers or even technology could serve in a supervisory role for smokers with depression to support them in adhering to an exercise regimen, Dr. Patten indicates. Physicians also may play a role in encouraging patients to exercise with a friend or partner and then following up with them to ensure compliance.

**Future study plans**

Dr. Patten and colleagues are planning a more definitive study of exercise for smokers with depression in which they will be looking to enroll racially diverse men and women with a greater range of depressive symptoms.

**For more information**