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Outcomes Research Program

In 2006, with support from The Margaret Clark Morgan Foundation (now renamed Peg’s Foundation) and in consultation with Hiram College faculty, Hopewell began a systematic data collection program of outcomes research to guide its efforts to help the seriously mentally ill. As part of this program, Hopewell tracks attendance and participation of each Resident on a daily basis and collects periodic systematic measurements of each Resident's progress. The data recorded includes participation in work crews, therapeutic clinical groups, social activities, and exercise and community meetings.

When Residents are admitted to Hopewell, a baseline of information is collected for assessing outcomes, including: Connectedness to Nature Scale, Quality of Life-Self Assessment, Trauma Symptom Checklist 40, Quick Inventory of Depressive Symptomology (QIDS-SR16), Hopewell Discharge Survey, Beck Hopelessness Scale, Brief Psychiatric Rating Scale (BPRS), Clinical Global Impression Scale (CGI), Overall group surveys individual surveys for each clinical/therapeutic groups, Sheehan Disability Scale, WHODAS 2.0 Disability Scale and Resident Satisfaction Surveys.

Although each Resident’s situation differs, common areas of need upon admission to Hopewell include: understanding and acceptance of their own mental illness; help in developing socially acceptable behavior; support in attending to activities of daily living, including hygiene, interpersonal skills, improving family relationships, emotional regulation, education and vocational goals/needs; experience in participation in the community, peer interactions, creative expression and self-care; and management of psychiatric symptoms and impairment.

Length of Stay and Phase System

Evaluating the appropriate length of stay, in close consultation with the Resident and his/her family, is one of the primary ongoing tasks of the Hopewell staff. Length of stay averages: Autism Spectrum Disorders, 18 months; Mood disorders, 6-9 months; Schizophrenia/schizoaffective disorders, 20 months. Length of stay is sometimes short of optimal because of individual circumstances. Our overall average length of stay is 7 months.

Hopewell’s system for encouraging and rewarding socially positive behaviors is a 4-phase system where new admits start at the Entry Phase, the most restricted in terms of privileges. Starting at the Entry Phase allows the newly admitted to be safe in the community while the staff and other Residents get to know them. Residents earn the right to move into other phases by higher levels of attendance and participation in community activities, and attention to activities of daily living, such as eating, bathing, dressing, toileting, transferring (walking) and continence. Utilization of basic social values and modeling of behaviors for other Residents are needed to move from Entry Phase to Phase 1, 2, 3 and eventually Transitional Phase.
Motivating Aspects of Hopewell’s Program

The primary motivating factors for Residents at Hopewell are the experience of success, self-worth and self-control in a social environment where all these factors are socially respected and publicly recognized. The phase system and programming at Hopewell provide Residents with regular opportunities to engage in these experiences.

Mental Health Outcomes Management/Data

As previously noted, outcomes data are routinely reviewed with the Residents, and their feedback is encouraged concerning improvements in programming. As a result of such feedback, we have implemented a number of suggested changes including the addition of therapeutic groups, changes to the program schedule, posting of menus in the cottages and meal and snack choices.

Outcomes data are shared with Clinical Staff to apprise them of progress that Residents are making and where additional assistance is needed. As noted, outcomes information is regularly shared with individual Residents to assist them in tracking their own progress and goal achievements.

Preliminary Study Implications

The preliminary results indicate that significant measureable improvements are being experienced by most of the Residents at Hopewell. The observed improvements include a general reduction in negative psychiatric symptoms, an improvement in overall social functioning and a greater readiness for community reintegration. Specific examples of these improvements include successful integration of Residents into their homes and families while securing employment, advancing their education and building new social relationships.

With a foundation in nature, the therapeutic farm setting offers a safe, tranquil and work-based environment. Hopewell is able to successfully incorporate concepts of the mind-body-spirit philosophy found in early “moral-based treatment” to provide a modern recovery-based healing model. In conjunction with effective medication, this research supports the conviction that Hopewell and similar therapeutic communities can, in fact, effectively generate measureable and positive recovery results for individuals experiencing serious mental illnesses.

Summary/Findings

The data collected to date document the treatment benefits of Hopewell. Ongoing studies and data collection will continue to explore and refine these impressions, which in turn will drive future modifications to our treatment model. Our conclusion at this point is that, factoring in costs and other issues, Hopewell offers a financially advantageous and powerful alternative for delivering highly effective treatment to those with serious mental illness, and that persons with serious mental illness can optimistically and realistically, with help, look forward to self-satisfying and socially effective lives.

Research Projects – Case Western – Dr. Sana Loue – Summary and Updates

Four research projects that focus on program evaluation, sandplay therapy, and longer-term outcomes have been completed and data collected over the three years from 2015 to 2018.

REACH-Residents’ Evaluation and Assessment of Community Healing - RESULTS

This research involved the conduct of face-to-face or phone interviews with Hopewell’s past and long-term residents to identify the strategies that they are using to cope with and manage their illness symptoms and the strategies that they are utilizing to further their recovery and to learn from them what worked and didn’t work for them at Hopewell. Originally designed as a 2-year study, the study was extended due to difficulties associated with locating past Hopewell residents. The study included residents discharged between 2000 and 2016.
The research (1) identified past and current strategies used by past and current Hopewell residents to cope with the symptoms of their mental illness; (2) identified and assessed the extent to which religious/spiritual beliefs or practices may promote or impede the adoption of healthy behaviors and/or adherence to prescribed regimens; (3) ascertained residents’ definition of successful recovery and the relationship between their coping strategies and self-reported achievement of recovery; and (4) identified domains for which the addition of new or augmentation of existing programs at Hopewell that may be helpful to residents in their efforts to cope with and recover from their mental illness.

Take away points from the results: While the sample size was small with 22 clients, there were some points that stand out: most of the former residents found Hopewell to be beneficial; there was a significant correlation between the recovery strategy of planning and employment; and there was a significant correlation between access to services and living independently.

Many of the interviews suggest that individuals found their experience at Hopewell critical to their ability to move forward. One past resident said, “I am glad that I went there. I was detoxing there, I was not alright in my head, and I was foggy. I needed to be around people.” Another person said, “It [Hopewell] helped me find different coping skills like positive self-talk, and distractions to get through.” A third person said, “It [Hopewell] gave me a sense of community.”

A copy of the full report is available upon request.

Assessment of Acceptability, Feasibility, and Clinical Benefit of Sandplay Therapy RESULTS

This project (1) assessed the acceptability and likely extent of utilization by Hopewell residents of sandplay therapy as an adjunctive therapy and (2) assessed on a preliminary basis the clinical benefit to Hopewell residents of sandplay therapy. A secondary aim was the evaluation of participant progress during the course of the sandplay. The research involved the following components: (1) a short meeting with Hopewell residents to explain what sandplay therapy is, to answer any questions, and to ascertain initial interest in participation/utilization; (2) the provision of a basic training session in sandplay therapy to interested staff; and (3) the provision of sandplay therapy to interested clients over the course of a 9-month period. Sandplay sessions were offered to clients for a maximum of 18 sessions; each session was 45-60 minutes in length.

Conclusions: It appears from the data that sandplay therapy is acceptable, in view of both the proportion of individuals who participated and their comments about their own experiences. Comments from 18 of the 19 residents that participated indicated that they found the sandplay helpful in recalling memories, dealing with symptoms, and with communicating.

A copy of the full report is available upon request.

FUTURES: Follow Up To Understand Resident EvaluationS RESULTS

This project was to:
1. Determine the extent to which clients’ mental health functioning changes from the time of their admission to Hopewell through discharge and one-year post-discharge;
2. Identify factors that promote or impede clients’ recovery from mental illness following their discharge from Hopewell;
3. Identify Hopewell programs and program components that, based on client self-report, were most critical to the improvement of their mental health functioning

Conclusions: The gathered data from discharged Hopewell residents started with an interview at admission in 2016 and 6 month and 12 month interviews that occurred until the fall of 2018. The baseline data suggest that the majority of individuals were quite ill at the time of their initial admission to Hopewell and were experiencing severe difficulties in one or more domains of living. This is evidenced by the fact that more than one-third of the
participants had legal guardians at the time of their admission; their self-ratings for the social functioning and emotional well-being; and their assessments of their levels of difficulty in functioning in relation to themselves and others, their daily living, and their management of feelings of depression and anxiety.

A comparison of the individuals available for follow-up interviews with those who were not available indicates that:

- At the time of the initial interviews, there was no statistically significant difference between the groups with respect to their levels of emotional well-being, social functioning, or their physical functioning (unmatched t-tests);
- There was no statistically significant difference between the two groups with respect to the levels of education (high school, some college, college, graduate school) or the primary psychiatric diagnoses (schizophrenia spectrum, bipolar disorder, major depression, other) in each (chi-square test);
- Having a guardian at baseline is statistically associated with later unavailability for an interview (chi-square test).

Caution is critical in drawing conclusions from the findings relating to the individuals with whom follow up was possible due to the small sample size (9/19, 47.4%). The findings suggest, but do not prove, that at least for a period of up to one year post discharge:

- Positive effects from the Hopewell program that may be sustained post-discharge include improved relations with self and others, improved ability to perform daily living functions and manage the symptoms of depression and anxiety, and improved medication adherence;
- A proportion of these for whom positive effects are sustained may be able to return to some form of paid employment on either a part-time or full-time basis; and
- Individuals for who positive effects are sustained may be able to resume independent living or living with families.

There was consensus across the individuals available for follow-up interview with respect to their identification of helpful Hopewell program components and their suggestions for program modification. Their specific focus on EMDR and the attribution of mental illness by 4 of the 19 baseline participants to trauma may suggest a need to place additional emphasis on strategies to address past trauma and abuse. Follow-up participants’ identification of art therapy and meditation as particularly helpful to their recovery may warrant further exploration of the advisability of additional opportunities for expressive therapies and mindfulness approaches.

**ARCH: Assessing Recovery through Community Healing RESULTS**

This research study was a collaborative undertaking between Hopewell and Rose Hill Center in Holly, Michigan. Criteria for the Hopewell and Rose Hill data were admission after January 1, 2010 and discharge prior to January 14, 2015 and receipt of services for more than 90 days. We anticipated that our analyses would provide answers to important research questions, such as the following:

- What percentage of residents/clients demonstrates improvement in functioning after $y$ months (as measured by …)?
- What percentage of residents/clients have improved physical health after $y$ months/on discharge (as measured by …)?
- What percentage of residents/clients have achieved $y\%$ of their goals at discharge?
- What percentage of residents/clients goes to more independent living at discharge?
- What percentage of residents/clients indicates that they will continue with their medications?

Assuming that the analyses show positive results, we would be able to conclude and state that these data indicate that integrated residential communities are effective in helping $x\%$ of clients achieve recovery from admission to discharge. The factors $x, y, z$ are predictive of recovery.

Additionally, the results of this study may support member organizations’ efforts to develop the resources that are necessary to support future research studies, grant proposals, and publications.
Conclusions: Going back to the original questions that were asked we can say the following:

- \( X\% \) of residents/clients demonstrate improvement in functioning after \( y \) months (as measured by…)

More than three-quarters of the residents (80.26\%) demonstrated improvement in functioning between admission and discharge, as measured by GAF. Most but not all demonstrated improvement within the first 20 months of their residence.

- \( X\% \) of residents/clients go to more independent living at discharge

Of 157 individuals included in the study, 45.2\% returned to live with their families, 30.6\% went on to live independently, 8.9\% were able to live in a group home setting, and 15.3\% were discharged to another setting such as a hospital or nursing home.

We do not have adequate data to respond to the following questions that were originally posed.

- \( X\% \) of residents/clients have improved physical health after \( y \) months/on discharge (as measured by…)
- \( X\% \) of residents/clients have achieved \( y\% \) of their goals at discharge
- \( X\% \) of residents/clients indicate that they will continue with their medication

These data indicate that the model of integrated residential community appears to be effective in helping resident to achieve an improved level of functioning, as measured by both GAF score and as evidenced by discharge placement. The treatment model at both Hopewell and Rose Hill is team-based, multidisciplinary, and multi-component; program components present at each site include case management, individualized medication management, cognitive behavioral therapy, work-related activities, various recreational activities, psychoeducation, and family education.

The following factors are statistically associated with an improved outcome: higher level of education (college or above), higher baseline GAF score, and the absence of a history of previous psychiatric hospitalization. Among individuals with a primary diagnosis along the schizophrenia spectrum, a greater change in GAF between admission and discharge is associated with discharge to independent living or a group home situation.

A copy of the full report is available upon request.

**Demographics of Hopewell Populations Served**

The Hopewell Outcomes study data has been collected from June 2006 to December 2018. The graph below shows the frequency of primary diagnoses for the Residents in the Hopewell outcomes study and shows that Bipolar Disorder and Schizophrenia have the majority percentages of primary diagnoses for Residents. These results were compiled by information from Residents’ diagnostic assessments.

![Primary Diagnosis at Admission Chart]

- Anxiety Disorder: 2\%
- Autism Spectrum Disorders: 4\%
- Bipolar: 28\%
- Schizophrenia: 19\%
- Schizoaffective: 24\%
- Depression: 23\%

\( N = 355 \)
Age spread was done in groupings with 21-30 year grouping having the most Residents. The grouping of 61-70 and 70+ had the least amount of Residents in them.

![Age at Admission](image)

Gender Spread by percentages. These results were obtained from information collected from Residents on their diagnostic assessments.

![Gender](image)

**Average Length of Stay at Hopewell**

The graph below examines the length of stay at Hopewell for Residents in our study.

![Length of Stay for Residents Discharged from Hopewell](image)
Hopewell Graph Showing Improvement of Functionality of Residents

This graph shows GAF averages at admission and discharge per diagnosis. The GAF (Global Assessment of Functioning) is a numeric scale used by mental health clinicians and physicians to rate subjectively the social, occupational and psychological functioning of an individual. The Scores range from 100 (extremely high functioning) to 1 (severely impaired). The scale was included in the DSM-IV but was replaced with the WHODAS (WHO Disability Assessment Schedule). Hopewell started using the WHODAS 2.0 Disability scale in 2017 and will continue to collect GAF scores because we find them a valuable measure in our outcomes.

Symptom Reduction for Residents

The BPRS (Brief Psychiatric Rating Scale) is a standardized test that measures and assesses the positive, negative and affective symptoms of residents. The BPRS measures 24 different areas of concern with a Likert scale of 1-7 including 1 = not present, 2 = very mild, 3 = mild, 4 = moderate, 5 = moderately severe, 6 = severe and 7 = extremely severe. This instrument is administered at admission and upon discharge. The instrument is administered by a clinician through an interview with the resident taking into account the clinician’s observations during the interview. The average difference in BPRS Scores is computed by taking the Discharge BPRS Total Score and subtracting the Admissions BPRS Total Scores and then averaging them by diagnosis. According to our graph below, as long as the score is positive this is showing improvement in symptom management.
Where Residents go from Hopewell

This graph represents the Residents who were discharged from June 2006 through December 2018. This graph examines where Residents lived immediately after left Hopewell. There are six categories that describe the living situations for post-discharges.

![Post Hopewell Residence June 2006 to December 2018](chart)

- **Family**: 50%
- **Independent living/apt.**: 20%
- **Group home**: 10%
- **Skilled care facility/assisted living**: 7%
- **Hospital**: 6%
- **Other**: 5%

n = 347

Educational Opportunities at Hopewell

Hopewell offers assistance to residents who are interested in furthering their education by giving them opportunities to receive their high school diploma through our education program. The graph below shows that 14 Residents have received their high school diploma through Hopewell’s education program. One person received his GED with preparation assistance through the program. Four Residents who did not receive their high school diplomas did receive credits toward their diploma. Two Residents attended a local college in an undergraduate program and received assistance from staff. One resident graduated with an associate’s degree and is working toward a bachelor’s degree. One former Resident who went to graduate school began the preparation process with the assistance from staff at Hopewell.

![Educational Achievement During Stay at Hopewell 2006 through 2018](chart)

- **Basic literacy skills**: 5
- **Earned credits toward high school diploma**: 6
- **Received high school diploma**: 14
- **Received GED**: 1
- **Preparation for college**: 10
- **Attended undergraduate school**: 3
- **College graduate**: 1
- **Took online college classes**: 3
- **Preparation for graduate school**: 1
- **Preparation for employment and interviewing skills**: 10
- **Computer skills for older adults**: 1

n = 55
Overall Satisfaction from Residents of Hopewell

The graph below represents the reported overall satisfaction from residents about their experiences at Hopewell through 2018. These results come from the Hopewell Resident Satisfaction Surveys that are administered every 3 months.

Self-Reported Instruments from Hopewell Residents

The scale below is the WHODAS 2.0 Disability Scale, which is a self-rated thirty-six item assessment developed by the World Health Organization for a measure of functional impairment. It measures the following health concepts: cognition, mobility, self-care, getting along, life activities and participation. Hopewell started it in July 2017 and the instrument is given out at admission, quarterly after admit, and at discharge. The results show 67% have decrease in impairment, 2% stayed the same and 31% had an increase in impairment.
Below is the Sheehan Disability Scale, which is three self-rated items designed to measure the extent which his or her 1) work, 2) social or leisure activities, and 3) home life or family responsibilities are impaired by his or her symptoms on a 10 point visual analog scale. This scale was started in October 2017 and given out at admission, quarterly after admit, and at discharge. The results show that 55% of residents have decreased their impairment, 15% stayed the same in their impairment and 30% had an increase in their impairment.

<table>
<thead>
<tr>
<th>Symptoms Increase</th>
<th>Symptoms Decrease</th>
<th>Symptoms Stable</th>
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<tbody>
<tr>
<td>30%</td>
<td>55%</td>
<td>15%</td>
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**Sheehan Disability Scale**

- N=40
- October 2017 to December 2018

**Clinician Rated Instruments**

Below is the CGI (Clinical Global Impression), a clinician-rated scale designed to rate the severity of illness, change over time, and efficacy of medication, taking into account the patient’s clinical condition and the severity of side-effects. This scale has three global subscales: severity of illness, global improvement and efficacy index. The assessment was started in 2017 given out at admit, quarterly, and discharge; in 2019, it was changed to a monthly assessment. The results up until 2019 showed that 56% had a decrease of severity of illness, 27% stayed the same and 17% increased in severity of illness.

<table>
<thead>
<tr>
<th>Symptoms Decrease</th>
<th>Symptoms Increase</th>
<th>Symptoms Stable</th>
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<tbody>
<tr>
<td>56%</td>
<td>17%</td>
<td>27%</td>
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**Clinical Global Impression**

- N=52
- July 2017 to December 2018
Scales for Individual Diagnoses

The MADRS (Montgomery-Asberg Depression Rating Scale) is a ten-item diagnostic questionnaire which is used to measure the severity of depressive episodes with those that are diagnosed with mood disorders. The questionnaire includes questions on the following symptoms: apparent sadness, reported sadness, inner tension, reduced sleep, reduced appetite, concentration difficulties, lassitude, inability to feel, pessimistic thoughts, and suicidal thoughts. The graph below shows percentage of residents and if their depressive symptoms increased, decreased or stayed the same.

![Montgomery and Asberg Depression Rating Scale](image)

Beck Hopelessness Scale, self-reports 20 true and false statements started in 2016 that examines the symptoms of hopelessness. Hopewell collects this data at admission and discharge and we assess whether a resident’s symptoms of hopelessness decreases while at Hopewell. Our results showed that 63% of residents showed a decrease in symptoms of hopelessness during their stay at Hopewell, 17% stayed the same, and 20% increased in symptoms of hopelessness.

![Beck Hopelessness Scale](image)
The HAM-A (Hamilton Anxiety Scale) was one of the first rating scales developed to measure the severity of anxiety symptoms, and is still widely used today in both clinical and research settings. The scale consists of 14 items, each defined by a series of symptoms, and measures both psychic anxiety (mental agitation and psychological distress) and somatic anxiety (physical complaints related to anxiety). Each item is rated on a 5 point scale (from 0 “not present” to 4 “severe”). The final item on the scale is a rating for behavior at interview.

![Hamilton Anxiety Scale](image)

The YMRS (Young Mania Rating Scale) is one of the most frequently used rating scales utilized to assess manic symptoms. The scale has 11 items and is based on the clients’ subjective report of their clinical condition of the last 48 hours. The graph below shows 45% of residents had symptoms decrease, 25% of residents symptoms increased and 30% residents symptoms remained the same.

![Young Mania Rating Scale](image)
Conclusion

Ongoing studies and data collection will continue to explore and refine the impressions of Hopewell’s treatment model and continue to strive for continual performance improvement and measurement. This report included a variety of data: demographics about Hopewell’s populations served, length of stay, where residents go from Hopewell after discharge and overall satisfaction of services while residents are at Hopewell. Data will continue to be collected with the new measurement instruments including: the WHODAS, Sheehan Disability Scale, and CGI (Clinical Global Impression). Data will also continue to be collected from the MADRS (Montgomery-Asberg Depression Rating Scale), Beck Hopeless Scale, HAM-A (Hamilton Anxiety Scale) and the YMRS (Young Mania Rating Scale).

All of the new instruments currently have a small number of residents but this will increase over time. These instruments are difficult to generalize but do show overall improvement with most residents. These instruments measure increases and decreases in symptoms throughout a resident's stay and it is not uncommon for some symptoms to increase at times during a residential treatment stay as residents are learning new coping mechanisms and adjusting to medication changes. Other instruments show the general overall improvement from the time of admission to time of discharge for most residents of Hopewell. The fluctuations in symptoms are looked at on an individual basis and information shared with clinicians to best assist the resident in decreasing symptoms.