Implementation of a Safety Bundle to Improve Effective Maternal Mental Healthcare in an Obstetric Setting

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Background

- Perinatal Mood and Anxiety Disorders (PMAD) occur in up to 20% of women and are the number one complication of childbearing.[1]
- Effects of untreated PMAD can include increased miscarriages and premature births, impaired infant attachment, behavioral dysregulation in older children and marital strain. [2]
- Women with PMAD have a 90% higher healthcare expenditure rate then their unaffected counterparts and the annual economic burden of untreated PMAD in mother's alone is over $5.7 billion in the United States.[3,4]
- Every perinatal setting should have systems in place to screen, refer to treatment and obtain follow up on positive screened women referred to mental healthcare.[5]
- Chart review and a gap analysis revealed only 15% of perinatal patients were screened with a validated tool and none (0%) met criteria for referral to mental healthcare.
- No standardized PMAD practices existed at practice site.
- 5 point Likert- type survey results revealed low (60%) patient and staff PMAD knowledge base.
- A need for improvement was identified to offer evidence-based, PMAD care to perinatal patients.

Aim

The AIM was to improve effective PMAD practices by increasing the amount of eligible perinatal patients receiving screening and appropriate care to 80% in 90 days.

Planned Improvement

- This project utilized a Rapid Cycle Quality Improvement model with four **Plan- Do-Study-Act** (PDSA)Cycles over 90 days.
- Each PDSA cycle utilized small tests of change that were slightly modified with each progressive cycle to achieve the outcome measures.
- Prior to implementation, four mental health therapists specializing in PMAD care agreed to see patients within one week of referral; completing a closed- loop referral network.
- Utilization of an **SBIRT**[6] **(Screening, Brief Intervention, Referral to Treatment/ Follow-up)** model was employed to ensure that components of a **Maternal Mental Health Safety Bundle**[5] were successfully implemented at the site.

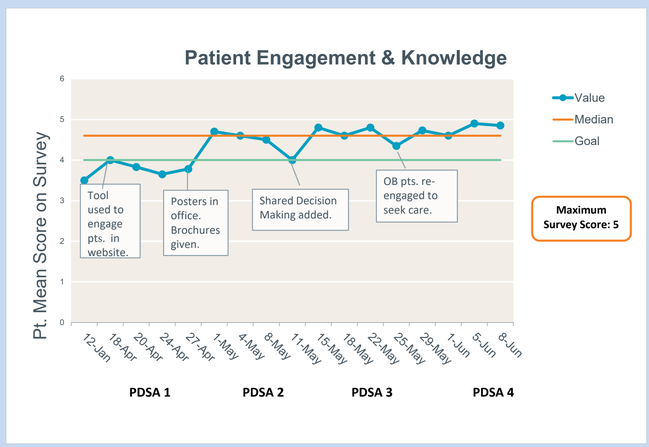
Screening
- Utilization of the Edinburgh Postnatal Depression Scale (EPDS) on all women between 28-32 weeks gestation & 6 weeks postpartum.

Brief Intervention
- Use a Patient Engagement and Teach-back Tool to actively engage perinatal women in PMAD education and identification of self-care/community resources through a Maternal Mental Health website.

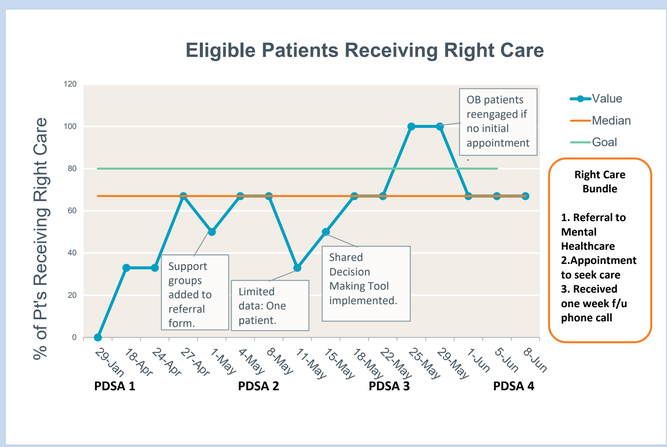
Referral to Treatment & Follow-up
- Employment of a Case Management Log (CML) to track referral and follow up to mental healthcare in positive screened patients.

Team Engagement
- Facilitation of weekly huddles and Lunch & Learn's to improve team capacity and knowledge regarding PMAD's.

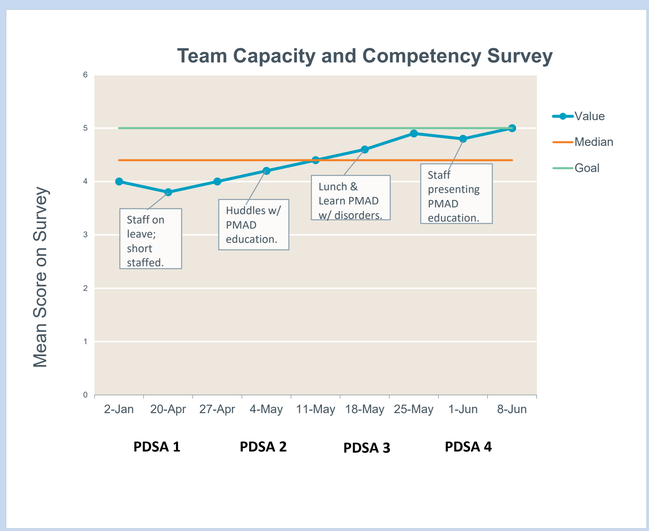
Results



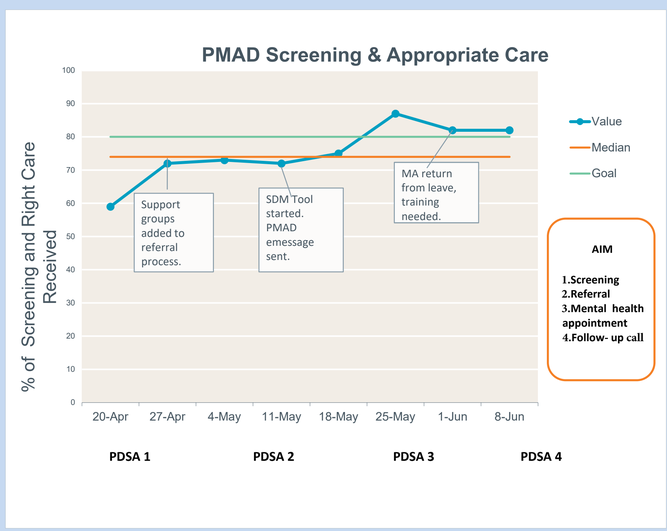
Patient participation in PMAD education, the use of a Shared Decision- Making (SDM) model in positive screened women and re-engagement of positive screened antenatal women with no mental health follow through documentation improved overall PMAD knowledge and awareness of available community resources.



Referral and follow up occurred in 100% of eligible women, compensating for below goal averages for patient follow through with mental health referrals. Six out of fourteen (46%)of positive screened women completed follow through, with a mental health referral and an average of 62% PMAD right care received over the 4 PDSA cycles.



Weekly huddles and Lunch & Learn's engaged the team while helping to improve baseline PMAD knowledge among participants. Despite limited staff, the goal of 5/5 on the Team Capacity and Knowledge survey was achieved by PDSA 4.



Overall, screening and right care increased by 23% over 4 PDSA cycles. The stated aim increased to 82% despite lower than anticipated patient follow through with mental healthcare uptake.

Measures

	Process	Outcome
Screening	# of patients who receive screening/ # of total eligible patients.	# of patients identified as screened positive (>10) / # of patients screened.
Brief Intervention	# of Patient Engagement & Teach-back Tools used/ # of eligible patients.	Mean score of 4/5 Patient Engagement and Knowledge survey.
Referral/ Follow-up	# of eligible patients entered in Case Management Log (>10 on EPDS)/ # of total eligible patients.	Average number of eligible perinatal patients receiving, 1) mental healthcare referral, 2) follow up appointment and 3)follow up phone call.
Team Engagement	# of team members attending huddles/ # of team members present in office.	Mean score of 4/5 on Team Capacity and Competency Survey.
Balancing		
Mean score of 4/5 on Team Capacity and Competency Survey (Question 6 related to workload).		
AIM		
Average # who were: 1. Screened 2. Engaged in education 3. Referred 4. Received Follow-up		

Conclusions

- 77 eligible women were screened for PMAD during the project with a positive PMAD risk ID of 17%.
- The use of a SDM model in positive screened women and a closed loop referral system improved uptake of mental healthcare with 62% overall right care received.
- Use of a maternal mental health website to engage women in PMAD education improved generalized PMAD knowledge and satisfaction with care in eligible perinatal patients.
- Key components of the Maternal Mental Health Safety Bundle were hardwired into patient flow processes and integrated into the electronic health record system to aide in sustainability. Monthly meetings to review gaps should remain a priority at the site.
- Results are generalizable to similar office settings, team matrix and staff capacity.
- Both patients and staff had improved PMAD knowledge and the project had a positive impact on the standardized PMAD practices at the site.
- Women had private health insurance which may be a barrier to generalizability in patients with lower socio-economic status.
- Future iterations should focus on low income and un/ underinsured women in the perinatal period.

Lessons Learned

- Women want to be engaged in their care and the value of utilizing a shared decision making model can not be understated.
- Team meetings over shared meals are an effective way to sustain engagement and empower members to have ownership of Quality Improvement projects.
- More needs to be done to address barriers to seeking PMAD care. Provider, system and community level barriers must be continuously assessed to help identify ways to improve maternal mental health in perinatal patients.
- Closing gaps in Maternal Mental Healthcare is achievable and a willingness to make a change and improve the lives of mothers, their children, families and the communities in which they live is the first step in bridging this divide.

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Acknowledgements

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