Project Title

HEADSS-Up: To improve the % of HEADSS assessment compliance for Paediatric Inpatient Wards

Project Lead and Members

Project lead: Dr Juliet Tan Sher Kit

Project members: Chu Shan Elaine CHEW, Ragavendra KALYANASUNDARAM, Suan-Lin Amelia KOE, Hui Wen Sarah YAO, Kent Mun LOH, Yuen Shuan Charlene KHO, Nurazila Binte RAHMAT, Soo Ting Joyce LIM, Yong Hong NG, Hwee Teng Jeslyn NEO, Chang Hoe Sam KOH

Organisation(s) Involved

KK Women's and Children Hospital

Healthcare Family Group(s) Involved in this Project

Medical, Healthcare Administration

Applicable Specialty or Discipline

Healthcare Administrators, Paediatrics

Project Period

Start date: July 2021

Completed date: April 2023

Aims

Aim to improve % of Compliance for HEADSS assessment performed by doctors on all eligible paediatric inpatients upon positive screening by nurses from 40% to 70% within 6months in KK Hospital.

Background

A recent Singapore study found one in three adolescents suffering from mental health symptoms with suicide being the major cause of death. Other important morbidities amongst adolescents include drug and alcohol use, mood disorders, eating disorders, sexually transmitted diseases and teenage pregnancies. HEADSS assessment tool is routinely used amongst 12-18 years old admitted to paediatric wards since 2017 to facilitate communication and screen for important psychosocial risk factors. However, in a hospital-wide assessment conducted in April 2021, we found a gap in administration of HEADSS screening amongst hospitalized adolescents.

Methods

See poster appended/below

Results

Data extracted during pre- (July 2021 to October 2022) and post- implementation period (August 2022 to April 2023) were analysed and presented weekly in a run chart. Comparing pre-implementation data with baseline of 37 percent, post implementation results for percentage compliance for HEADSS assessment to be performed on paediatric patients improved to 85 percent. Using chi-square, improvement is statistically significant p-value less than 0.001.

For patients with positive HEADSS assessment, 64 percent were referred to mental health providers (24 percent to medical social workers, 14 percent to dietitians, 12 and 8 percent to psychology and psychiatry respectively, 3 and 1 percent to adolescent nursing, CHAMPS and Art therapy respectively. 36 percent were referred to other medical or surgical sub-specialties. Early intervention was necessary to help these patients improve their mental health.

Conclusion

The referral rate of patients screened positive after HEADSS assessment was performed went up to 142% (referral rate includes mental health providers and other

medical or surgical sub-specialties). Although the team did not analyse this as a balancing measure (limitation of this project), the appropriate referral to mental health providers as early interventions will be able to help these patients improve their mental health.

Project Category

Care & Process Redesign

Quality Improvement, Workflow Redesign

Keywords

Mental Health, HEADSS Screening, Paediatric, Medical Social Workers, Psychology, Psychiatry

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HEADSS-Up: To improve the % of HEADSS assessment compliance for Paediatric Inpatient Wards

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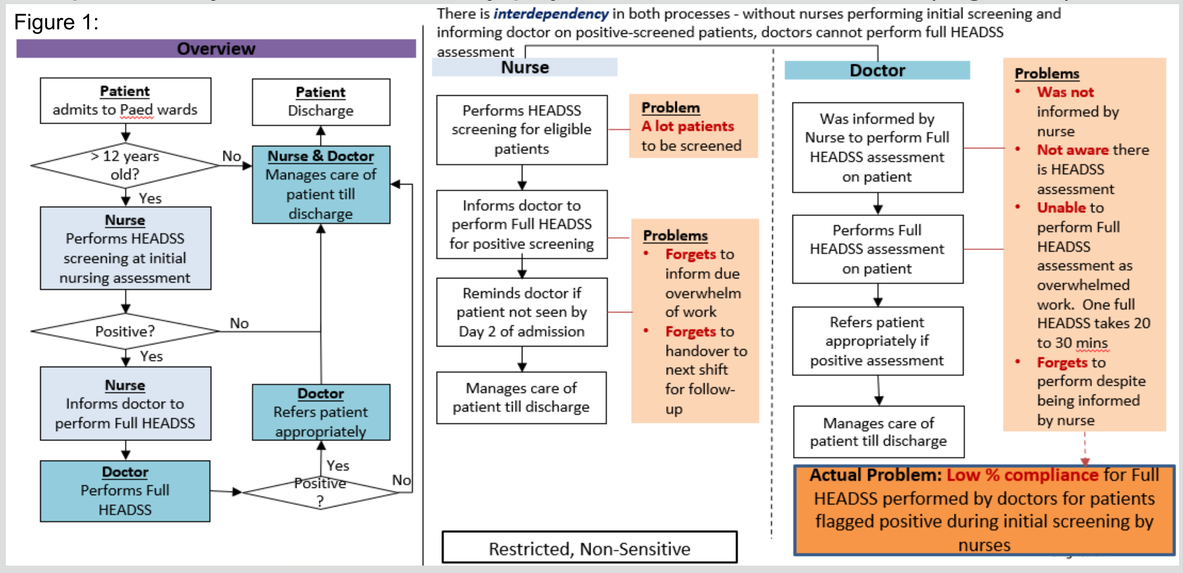
Introduction

A recent Singapore study found one in three adolescents suffering from mental health symptoms with suicide being the major cause of death. Other important morbidities amongst adolescents include drug and alcohol use, mood disorders, eating disorders, sexually transmitted diseases and teenage pregnancies. HEADSS assessment tool is routinely used amongst 12-18 years old admitted to paediatric wards since 2017 to facilitate communication and screen for important psychosocial risk factors. However, in a hospital-wide assessment conducted in April 2021, we found a gap in administration of HEADSS screening amongst hospitalized adolescents.

Problem and Aim

Adolescents aged 12-18 years old admitted to paediatric general wards that were screened positive through a self-reported HEADSS screening tool were referred to doctors for full HEADSS interview and appropriate interventions or guidance provided to the adolescents and families. While there is good nursing compliance for administering the self-reported HEADSS screening tool, we found poor compliance rate in doctors conducting full HEADSS assessment amongst adolescents who were screened positive. This is of grave concern as these missed positive cases can potentially benefit from early psychosocial interventions (Figure 1).

Figure 1:



A multi-disciplinary workgroup was formed too improve % of Compliance for HEADSS assessment performed by doctors on all eligible paediatric inpatients upon positive screening by nurses from 40% to 70% within 6 months in KK Hospital.

Method

A survey administered to 17 doctors and 234 nurses was conducted in April 2022 to understand the root causes for poor compliance. Results of survey found (1) large numbers of patients screened positive requiring nurses to inform doctors to conduct full HEADSS assessment, thus increasing cognitive loads of both nurses and doctors (2) gap in nurses' communication to doctors in those screened positive (3) gap in doctors' medical record documentation on need for full HEADSS assessment if screened positive (4) Long time (20-30 minutes) taken for doctors to complete HEADSS assessment with competing clinical priorities.

A bundled intervention consisting of: 1) Improving clarity of HEADSS screening questions through co-creation with nurses, doctors and adolescents 2) streamlining cases that require HEADSS screening 3) routine documentation of HEADSS screening in doctors' notes 4) developing a targeted HEADSS assessment for those screened positive to reduce doctors' assessment time 5) Improved communication between nurses and doctors on those screened positive requiring HEADSS assessment (Figure 2).

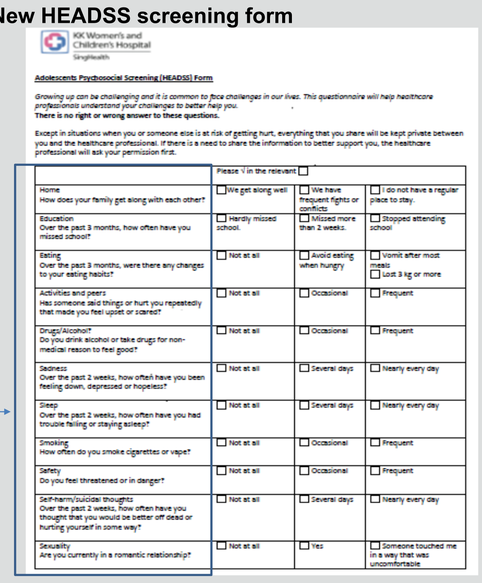
Figure 2 (Snippets of Interventions):

Previous HEADSS screening form for nurses

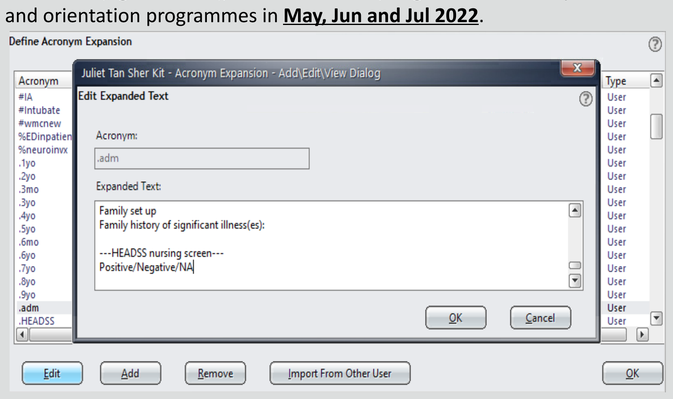
New HEADSS Screening form **co-created** by Nurses, doctors and patients

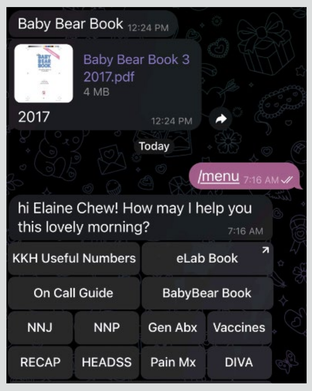
Simplified explanation on each field to provide *clarity* for patients, taking into consideration the *sensitivity* when attempting the questions

New HEADSS screening form



Develop training slides to guide HOs and MOs, that during clerking, team to document HEADSS positive/negative screen in admission document (figure below), and need for full/targeted HEADSS in plans. Slides were communicated to Doctors during department meetings and orientation programmes in **May, Jun and Jul 2022**.





The inclusion of HEADSS assessment in Baby Bear Chat Bot Telegram in **Jul 2022** (picture on left). This is to allow accessibility of information by the doctors if in doubt.

Results

Data extracted during pre- (July 2021 to October 2022) and post-implementation period (August 2022 to April 2023) were analysed and presented weekly in a run chart. Comparing pre-implementation data with baseline of 37 percent, post implementation results for percentage compliance for HEADSS assessment to be performed on paediatric patients improved to 85 percent. Using chi-square, improvement is statistically significant p-value less than 0.001 (Figure 3).

Figure 3:

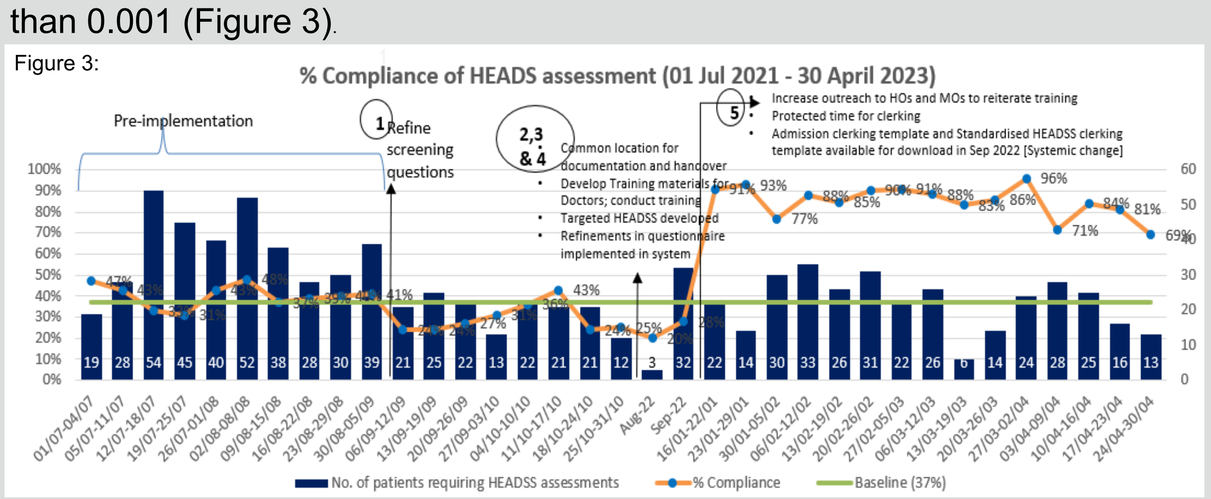


Figure 4:

Duration of data analysed	Average no. of patients referred **weekly** (positive screened after full/ targeted HEADSS performed)	Remarks
Baseline (10 weeks)	6.4 patients	Referral Rate increased to **142%**
Post Baseline (15 weeks)	**15.5** patients	

For patients with positive HEADSS assessment, 64 percent were referred to mental health providers (24 percent to medical social workers, 14 percent to dietitians, 12 and 8 percent to psychology and psychiatry respectively, 3 and 1 percent to adolescent nursing, CHAMPS and Art therapy respectively). 36 percent were referred to other medical or surgical sub-specialties. Early intervention was necessary to help these patients improve their mental health (Figure 4).

Conclusion

The referral rate of patients screened positive after HEADSS assessment was performed went up to 142% (referral rate includes mental health providers and other medical or surgical sub-specialties). Although the team did not analyse this as a balancing measure (limitation of this project), the appropriate referral to mental health providers as early interventions will be able to help these patients improve their mental health.

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