

Project Title

Implementation of Endoscopy Technician in NTFGH Endoscopy Unit

Project Lead and Members

- Ms Joanna Tan Seo Peng
- Ms Zhang Rong
- Ng Sow Chun

Organisation(s) Involved

Ng Teng Fong General Hospital

Healthcare Family Group(s) Involved in this Project

Nursing

Applicable Specialty or Discipline

Endoscopy Department

Aim(s)

Aim to introduce Endoscopy Technician to replace nurses in endoscope reprocessing task for direct patient care to increase to reduce manpower cost and staff burnout.

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Conclusion

See poster appended/ below

Project Category

Care & Process Redesign

Productivity, Cost Saving

Quality Improvement, Job Effectiveness

Keywords

Endoscopy Technician

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IMPLEMENTATION OF ENDOSCOPY TECHNICIAN IN NTFGH ENDOSCOPY UNIT

MEMBERS:

ZHANG RONG, JOANNA TAN SEO PENG, WANG CAIHONG

- SAFETY
- PRODUCTIVITY
- QUALITY
- COST
- PATIENT EXPERIENCE
- TEAMWORK
- COMMUNICATION

Background and Aim

Background:

The Ng Teng Fong General Hospital (NTFGH) Endoscopy unit is equipped with five procedure rooms and 24 recovery beds, allowing it to perform over 10,000 procedures annually, excluding those performed in the Operating Theatres that are supported by Endoscopy staff. The full operation of Endoscopy Centre requires 43 staff. However, great manpower shortage was experienced since 2019. There were only 27 available staff in April 2020 which included 3 nurses and 1 HCA assigned in endoscope reprocessing. Additionally, nurse recruitment was hindered by the COVID-19 pandemic, creating more challenges in meeting the staffing needs. Inadequate staffing hindered endoscopy daily operation which limited outpatient procedures and delayed inpatient scheduling. The overall patient experience was affected. Staff insufficiency also caused staff burnout due to frequent overtime to complete overrun procedures. This result in high staff absent rate and worsened staff burnout. Staff low morale and decreased job satisfaction were noticed.

Aim:

We aim to introduce Endoscopy Technician to replace nurses in endoscope reprocessing task for direct patient care to increase to reduce manpower cost and staff burnout.

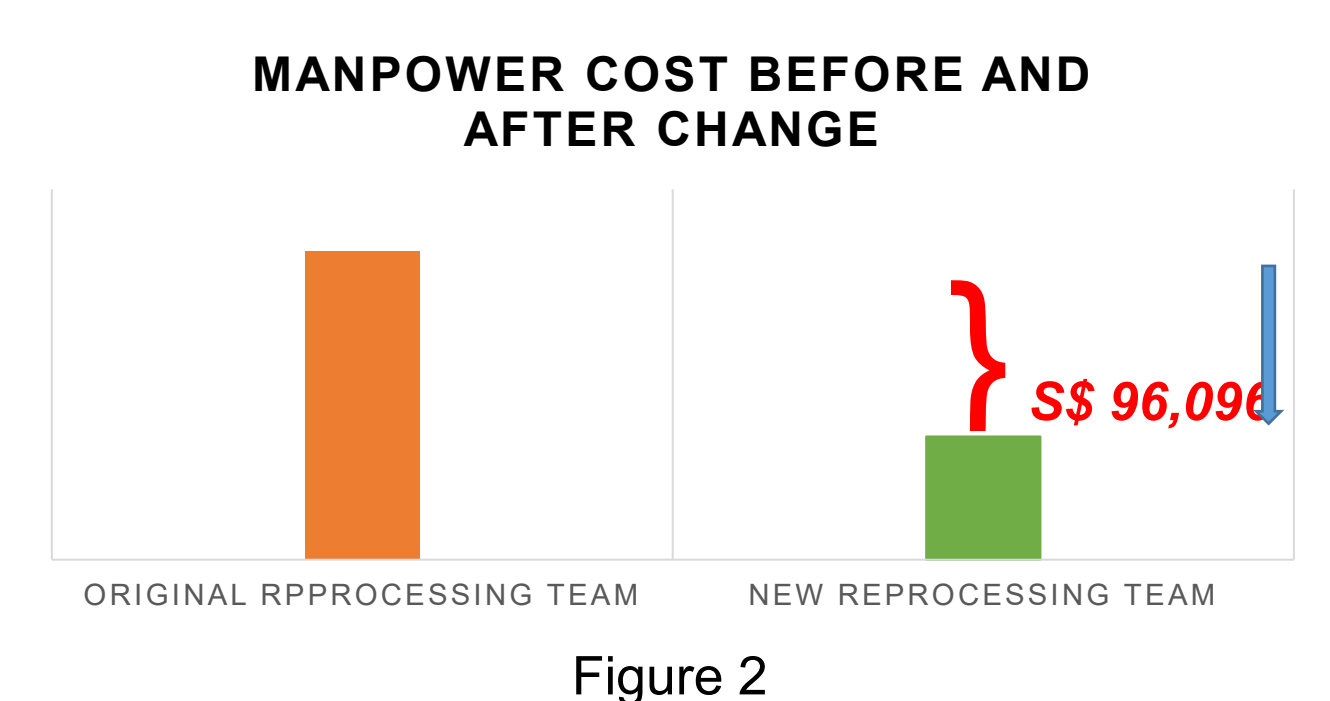
Methodology (continued)

Measures to sustain the change:

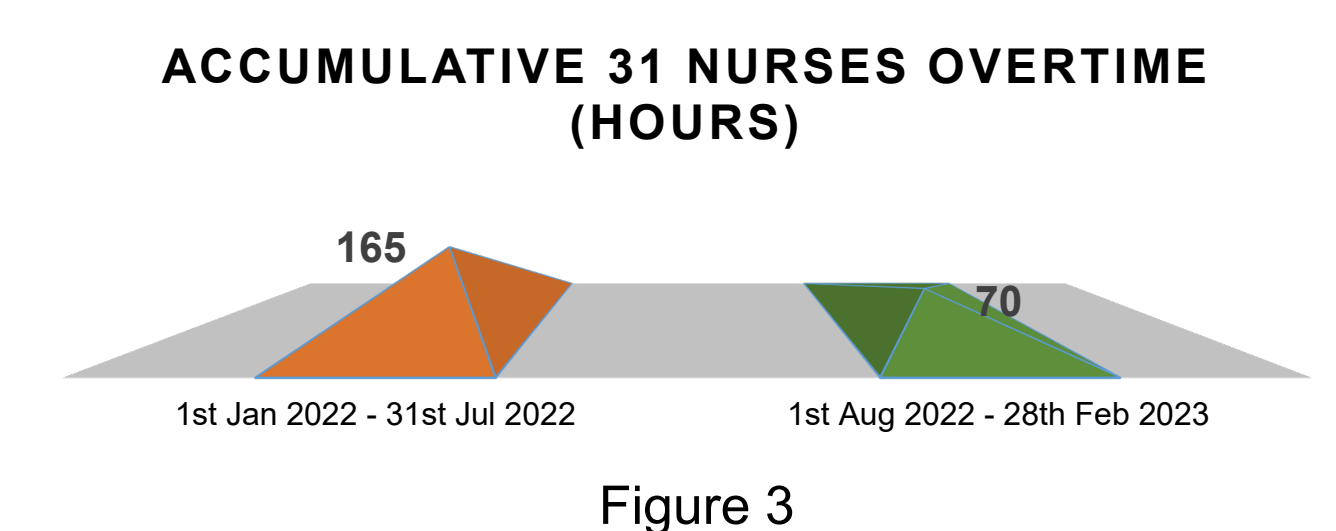
1. Preceptorship: 2.5 month
2. Daily guidance by RN and peers
3. Endoscope reprocessing quality control by endoscope surveillance culture
4. Infection prevention and control audit: monthly and ad-hoc
5. Yearly competency
6. In-services and meeting on new guidelines and updates

Measures and Outcome

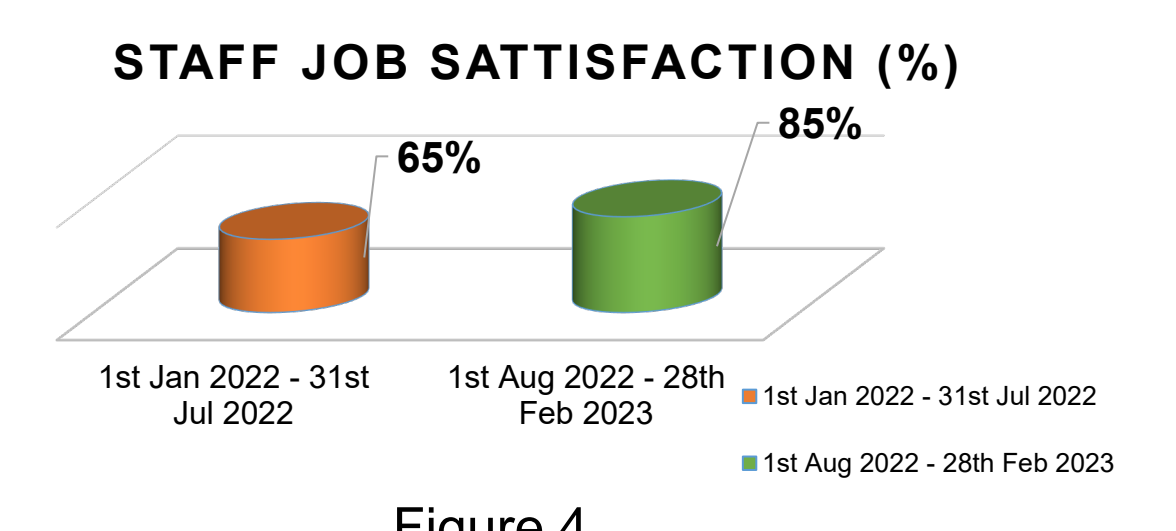
1. Annual manpower cost deduction (Figure 2): (detail calculation could not be displayed)



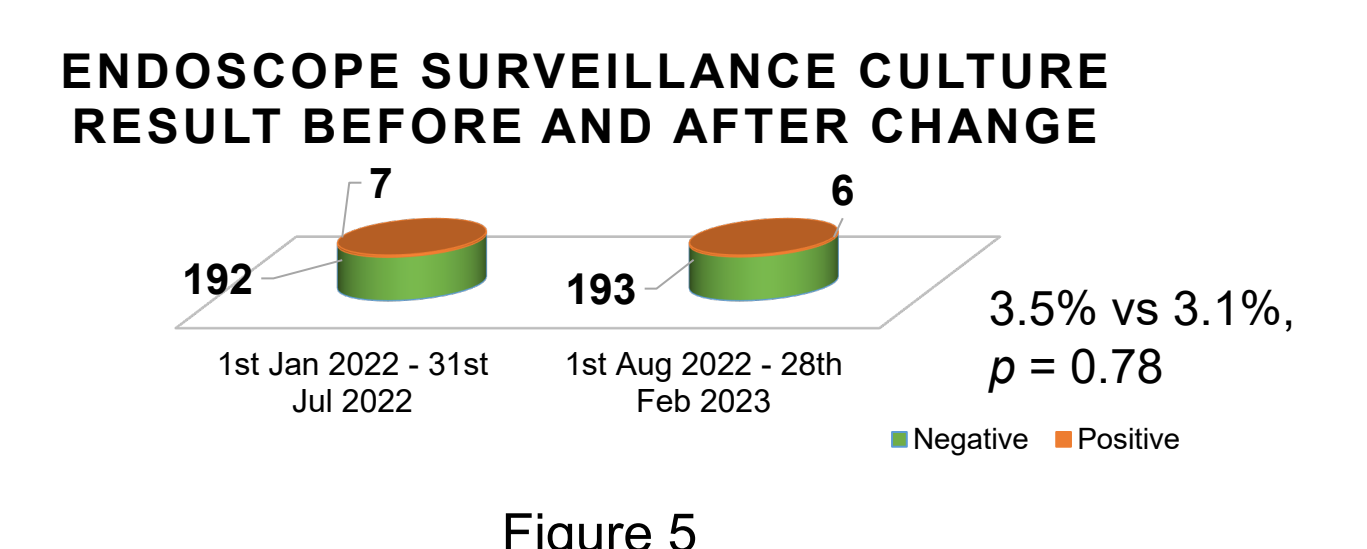
2. Accumulative 31 nurses overtime hours (Figure 3):



3. Endoscopy staff job satisfaction survey

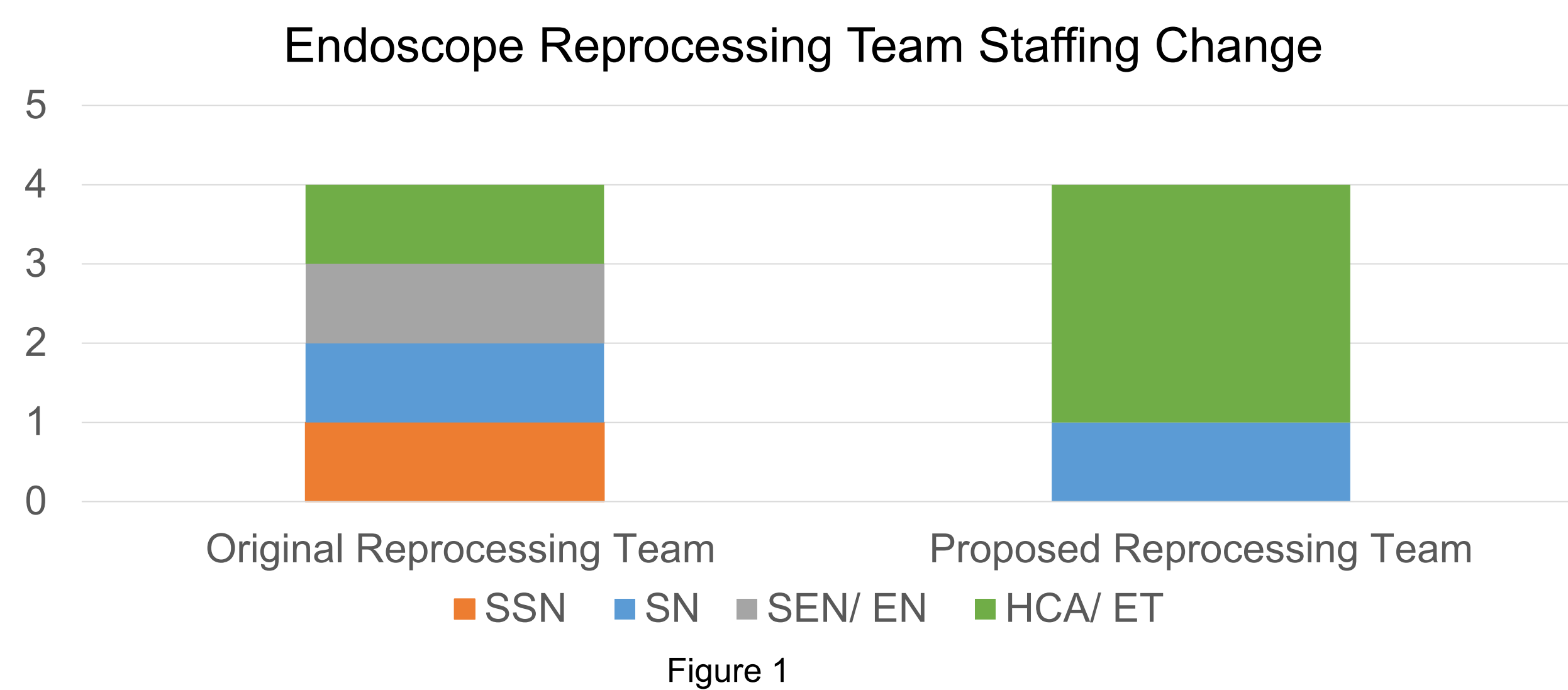


4. Endoscope surveillance culture result



Methodology

Job substitution (Figure 1):



Strategies to change:

- ✓ Basic Onboard Training programme (Table 1):

Endoscopy Training Programme for Endoscopy Technician (ET)			
Content	Training Method	Duration	Assesment (Y/N)
Foundation programme	Classroom	8 hours	N
Endoscopy induction programme for ET	Classroom	4 hours	N
Handling and reprocessing of endoscopes and accessories	Classroom	2 hours	Y
Infection prevention and control practices in Endoscopy	Classroom	2 hours	Y
Management for spillage of Hydrogen Peroxide and Peracetic Acid	Competency checklist	1 hour	Y
Endoscope washing duties	On the Job training	42 hours	N
Reprocessing duties	On the Job training	42 hours	N
Policy sharing	Classroom	4 hours	N
Total:		103 hours	

Table 1

Conclusion

ETs are credible recourses to release nurses from non-nursing tasks to clinical care. The result of change is reliable. Currently, we are able to accommodate more outpatient and inpatient procedures with less staff overtime. This resulted in increased staff job satisfaction. Additionally, manpower cost deduction is significant. Moreover, from this project, we have learned that a structured, comprehensive and certified training programme would optimize the nursing job redesign and paradigm shift.

Acknowledgement:

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