

## The Intervention

The intervention package will consist of three components targeting different levels of the HCO: the individual, the group, and the system. An initial Engagement visit to sites by the PI will involve presentations made to stakeholders and opportunities to discuss the intervention. A study start time will be established for each site in consultation with the Local Champions Group. It is anticipated that this will be within 2 months of the site Engagement visit. The intervention will take place over 12 months.

### Individual-Level Component

Individual interventions must be acceptable, relevant and feasible for a given individual. An ability for participants to choose an intervention most acceptable to them is important.<sup>1</sup> Staff will be offered an opportunity to participate in an individual intervention. (Details and evidence for each are provided in the Individual-Level Interventions section). Participants will choose one of three possible interventions. These are:

- Three Good Things<sup>2-4</sup>
  - Requires daily participation by writing down and considering what is going well in a participants life, and their role in that, for 15 days.
- Mindfulness<sup>5</sup>
  - An online guided MBI for 10 minutes per day for 10 days.
- Looking forward<sup>4</sup>
  - An optimism/hope intervention that requires consideration of hoped-for future goals and experiences. Participants are prompted to engage 7 times over 28 days to consider and write about something they are looking forward to at different future time points.

### Group-Level Component

Local Champions are key to the success of the program. In consultation with their local stakeholders, and mindful of acceptability and achievability, they will decide upon an intervention targeting the group as a whole. (Details and evidence can be found in the Whānau/Group/Culture/Team-Level Interventions section). LCs will choose one from the following:

- Clinical Event Debriefing (CED)<sup>6</sup>
  - Structured debriefing for all team members following important clinical events is challenging in a busy ED environment. Addressing barriers to implementation of usable debriefing tools is required for this to become embedded in ED culture.
- Learning from Excellence<sup>7</sup>
  - A system which can effectively and efficiently capture and feedback to staff episodes of excellent care, as determined by peers, is required.

## System-Level Component

This is aimed at improving the capability for all ED staff to engage in meaningful quality improvement. The Quality Improvement Learning System (QILS) is characterised by the following features:

- consumers and frontline staff highlight issues that affect quality of care.
- triage and prioritisation of those issues.
- allocation resource for work on prioritised improvement initiatives.
- staff participation and leadership in improvement work.
- feedback to staff and consumers.
- improvement training for staff.

While each feature of QILS will be adaptable to each context and informed by our recent research, the important characteristics will be present in all cases.

## Improvement Training and Coaching

Training in Quality Improvement (QI) methods, with an emphasis on the local and ED contextual factors, will be delivered by an expert in QI training. Training will be delivered online. Individual and group coaching will be delivered by trained QI coaches. Monthly meetings of all LCG personnel will be opportunities to share lessons and build camaraderie required for sustainability. Further details of the training and coaching components are found elsewhere.

## Local Champions Group

A Local Champions Group (LCG) will be critical to success at each site. The LCG will have up to 5 personnel and be a diverse composition of the local ED team, including one or more of senior doctors, nurses, other ED team members, consumers, and iwi representatives. The LCG will be in the best position to understand local needs, liaise with local leaders, liaise with the investigators, and oversee many parts of the intervention in their ED. Each member of the LCG will attend the training and coaching program.

## The study website

The study website provides a repository of important information for all those involved in the research. Established in 2020 and hosted by Squarespace, the website can be accessed via QR code or via the web address ([www.woweated.com](http://www.woweated.com)).

Access to open and password protected pages enables different groups access to relevant information. Participant information including about the various individual-level interventions will be available to participants, accessible via a QR code or the web address. Electronic links will allow participants to provide informed consent and access the intervention of their choice. In addition, Local Champions will have access to other information, for example group-level intervention information and links, and requirements for QI training and coaching.

The site will be maintained and modified by the PI, with advice from our University of Auckland IT specialist when required.

1. van Woerkom M, Bakker AB, Leiter MP. Positive psychology interventions in organizations. *Journal of Occupational and Organizational Psychology* 2021;94(2):221-229. DOI: <https://doi.org/10.1111/joop.12350>.
2. Sexton JB, Adair KC. Forty-five good things: a prospective pilot study of the Three Good Things well-being intervention in the USA for healthcare worker emotional exhaustion, depression, work–life balance and happiness. *BMJ Open* 2019;9(3):e022695. DOI: 10.1136/bmjopen-2018-022695.
3. Well-Being Tools. (<https://hsq.dukehealth.org/tools/>).
4. Adair KC, Kennedy LA, Sexton JB. Three Good Tools: Positively reflecting backwards and forwards is associated with robust improvements in well-being across three distinct interventions. *The Journal of Positive Psychology* 2020;15(5):613-622. DOI: 10.1080/17439760.2020.1789707.
5. Spijkerman MPJ, Pots WTM, Bohlmeijer ET. Effectiveness of online mindfulness-based interventions in improving mental health: A review and meta-analysis of randomised controlled trials. *Clinical Psychology Review* 2016;45:102-114. DOI: <https://doi.org/10.1016/j.cpr.2016.03.009>.
6. Petrosoniak A, Gabriel J, Purdy E. Stop asking if it works, start making it happen: exploring barriers to clinical event debriefing in the ED. *Canadian Journal of Emergency Medicine* 2022. DOI: 10.1007/s43678-022-00396-9.
7. Learning from Excellence. (<https://learningfromexcellence.com/>).